Construction Generated Noise

Building Type	Office, Hotel, Hospital, School, Public Works	**Distance (ft)**
Construction Noise at 50 Feet (dBA Leq)		50
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	84	
Excavation	89	
Foundation Construction	78	
Building Construction	87	
Finishing and Site Cleanup	89	
Multifamily Residential Uses North of Project Site		
Maximum Construction Noise (dBA Leq)		5
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	104	
Excavation (Site Preparation)	109	
Foundation Construction	98	
Building Construction	107	
Paving	109	
Average Construction Noise (dBA Leq)		65
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	82	
Excavation (Site Preparation)	87	
Foundation Construction	76	
Building Construction	85	
Paving	87	
Hotel South and East of Project Site		
Maximum Construction Noise (dBA Leq)		5
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	104	
Excavation (Site Preparation)	109	
Foundation Construction	98	
Building Construction	107	
Paving	109	
Average Construction Noise (dBA Leq)		65
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	82	
Excavation (Site Preparation)	87	
Foundation Construction	76	
Building Construction	85	
Paving	87	
Firestation and Commercial Uses West of Project Site Opposite Clementine Street		
Maximum Construction Noise (dBA Leq)		90
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	79	
Excavation (Site Preparation)	84	
Foundation Construction	73	
Building Construction	82	
Paving	84	
Average Construction Noise (dBA Leq)		210
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	72	
Excavation (Site Preparation)	77	
Foundation Construction	66	
Building Construction	75	
Paving	77	

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.

Construction Generated Vibration

Multifamily Residential Uses North of Project Site		Closest Distance (feet):	75
	Approximate RMS a 66	Approximate RMS 73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.040	
Large bulldozer	0.089	0.017	
Small bulldozer	0.003	0.001	
Jackhammer	0.035	0.007	
Loaded trucks	0.076	0.015	
	Criteria	0.500	1700
Hotel South and East of Project Site		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	0.500	
Firestation and Commercial Uses West of Project Site Opposite		Closest Distance (feet):	180
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.011	
Large bulldozer	0.089	0.005	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.002	
Loaded trucks	0.076	0.004	
	Criteria	0.500	

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).