



MARC Northeast Maintenance Facility: Noise and Vibration FAQ

NOISE

How is noise being evaluated for the MARC Northeast Maintenance Facility?

The noise evaluation follows FTA Noise Regulations. The Project Team has identified locations that are typically sensitive to loud noises, (known as "receptors") such as houses, schools, hospitals, historic sites and theatres. Representative receptors were monitored for increased noise levels and all identified locations were evaluated for noise impacts.

How did MTA evaluate the potential noise effects?

Based on the data from noise monitoring sites placed at the identified receptors, a baseline noise level (or current condition) was established. From this baseline, noise levels which may result from the facility were estimated by taking into account the location of the facility and proposed operations at the facility (frequency and time of day/night).

The baseline noise levels are then compared to the predicted total noise exposure levels. Depending on the levels, the receptor is rated as having a severe, moderate, or no impact according to FTA Noise criteria.

Since the MTA is purchasing the only property expected to have a severe noise impact, no noise mitigation measures are to be undertaken.

VIBRATION

How is vibration being evaluated for the MARC Northeast Maintenance Facility?

The Project Team has identified sites where sensitivity to ground vibration may be a concern. Sites of concern might be medical laboratories or buildings with vibration-sensitive equipment. In addition, the team analyzed residential locations to identify the potential for vibration given the geological conditions of the area and the proximity of the facility to the sites of concern.

How did MTA evaluate the potential vibration effects?

A measurement of baseline conditions was performed similar to that for the noise analysis. The potential for vibration during construction and operation of the facility depends on the type of activity and the proximity of the vibration-sensitive receptor.

The baseline vibration levels are then compared to the predicted total vibration level. Depending on the levels, the receptor is rated as having a severe, moderate or no impact.

Public comments are welcomed as part of the NEPA process.



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Common Outdoor and Indoor Noise Levels ¹		
Common Outdoor Noise Levels	Noise Level Decibels	Common Indoor Noise Levels
	110	Rock Band at 16 feet
Jet Fly Over at 1,000 feet	100	Inside Subway Train (NY)
Gas Lawn Mower at 3 feet	95	
	90	Food Blender at 3 feet
Diesel Truck at 50 feet	85	
Noisy Urban Daytime	80	Garbage Disposal at 3 feet
	75	Shouting at 3 feet
Gas Lawn Mower at 100 feet	70	Vacuum Cleaner at 10 feet
Commercial Area	65	Normal Speech at 3 feet
*Average expected noise level at MD 7 during facility operation	58.6	
*Average existing noise level at MD 7	58	
Quiet Urban Daytime	55	Quiet Conversation at 3 feet
	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Small Theater, Large Conference Room (Background)
<i>Adapted from <u>Guide on Evaluation and Attenuation of Traffic Noise</u>, AASHTO-1974.</i>		

* Average calculated using three, 3, noise monitoring and assessment locations along MD 7.

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Common Outdoor and Indoor Noise Levels ¹		
Common Outdoor Noise Levels	Noise Level Decibels	Common Indoor Noise Levels
Quiet Suburban Nighttime	35	Library
	30	Bedroom at Night
Quiet Rural Nighttime	25	Concert Hall (Empty)
Rustling Leaves	20	
	15	Broadcast & Recording Studio
	0	Threshold of Hearing
<i>1. Adapted from <u>Guide on Evaluation and Attenuation of Traffic Noise</u>, AASHTO-1974.</i>		