

Appendix G: Noise

Noise

While traffic along a major arterial such as Manchester Road will naturally create a good deal of road noise, excessive noise levels can discourage pedestrian and bicycle activity as well as outdoor dining along the corridor. The Federal Highway Administration (FHWA) indicates that noise levels of 67 decibels or greater recorded near homes, parks, schools, hospitals and other community destinations have the potential to disturb sleep, disrupt conversation, and interfere with various tasks. Highway officials typically explore the installation of roadway noise barriers for road sections with readings in excess of 67 decibels. In general, higher traffic volumes, higher traffic speeds, and a higher number of trucks and buses along a corridor increase noise levels.

The consultant team recorded noise readings along Manchester Road in October 2009. As outlined in the table below, current readings range from 47 to 86 decibels, with an average reading around 70 decibels. The table also indicates the location from which the team recorded noise levels (generally, within 10 to 15 feet of the roadway). Higher traffic speeds in the Wildwood and Ellisville area (where the speed limit is higher) result in higher “maximum” readings, while the lower overall traffic volumes in this portion of the corridor produce lower “minimum” readings. In the eastern part of the corridor, from Ballwin through the Manchester area, lower speeds combined with higher levels of traffic volume produce less variation between maximum and minimum noise readings.



Manchester Road Corridor Noise Levels (measured in decibels)

Map ID	Maximum	Minimum	Median	Location
1	83.4	58	67	Wildwood: bike path 6 feet from highway, with a park located behind the path
2	79.1	47.4	60	Ellisville: cemetery 30 feet from the edge of road
3	85.1	60.2	70	Ellisville: sidewalk 10 feet from the edge of road
4	85.1	47.4	68	Ellisville: city hall sidewalk located 5 feet from the edge of road
5	84.6	57.12	70	Ballwin: sidewalk/bus stop 8 feet from edge of road
6	84.7	58.9	73	Ballwin: sidewalk 10 feet from edge of road
7	84.4	55.6	72	Ballwin: sidewalk 10 feet from edge of road
8	83.8	59.8	72	Winchester: sidewalk 6 feet from edge of road
9	84.6	50.9	70	Manchester: sidewalk 8 feet from edge of road
10	86.4	60.2	74	Manchester: city hall sidewalk 2 feet from edge of road
11	78.6	65.5	72	Manchester: sidewalk 10 feet from edge of road

Measurements taken Monday, October 5, 2009, 3pm to 6:00 pm, starting at the west end of the study area, measuring for 3 minutes per location.

Source: Design Workshop, Inc.

