

APPENDIX D

Noise

| Receptor Site | Location | Date | Time | L _{eq(1)} | L ₁₍₁₎ | L ₁₀₍₁₎ | L ₅₀₍₁₎ | L ₉₀₍₁₎ | L _{min(1)} | L _{max(1)} |
|---------------|---|----------|------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| 1 | University Avenue between West 192nd Street and West Kingsbridge Road | Weekday | Midday | 69.5 | 79.7 | 72.4 | 66.2 | 60.5 | 57.2 | 85.4 |
| | | | PM | 68.6 | 79.4 | 71.0 | 65.1 | 60.0 | 56.6 | 85.1 |
| | | | Late Night | 72.2 | 83.0 | 73.7 | 67.4 | 58.1 | 54.9 | 92.1 |
| | | Saturday | Midday | 65.7 | 72.5 | 68.1 | 64.6 | 60.6 | 58.1 | 75.6 |
| | | | PM | 66.0 | 76.1 | 68.6 | 63.1 | 60.2 | 56.7 | 81.6 |
| 2 | West Kingsbridge Road between Sedgewick and Webb Avenues | Weekday | Midday | 72.6 | 82.1 | 75.9 | 69.7 | 63.5 | 58.7 | 84.3 |
| | | | PM | 69.8 | 79.6 | 72.6 | 67.2 | 60.0 | 56.6 | 82.2 |
| | | | Late Night | 74.1 | 82.7 | 77.7 | 71.8 | 64.7 | 58.2 | 86.2 |
| | | Saturday | Midday | 72.7 | 85.0 | 74.4 | 68.2 | 62.3 | 58.3 | 89.0 |
| | | | PM | 70.4 | 80.9 | 72.9 | 67.5 | 61.1 | 58.8 | 85.3 |
| 3 | West Kingsbridge Road between University and Reservoir Avenues | Weekday | Midday | 71.4 | 81.9 | 73.5 | 67.9 | 63.5 | 60.6 | 89.0 |
| | | | PM | 70.2 | 79.6 | 73.2 | 67.1 | 64.1 | 61.6 | 84.4 |
| | | | Late Night | 70.4 | 81.2 | 73.3 | 65.8 | 61.9 | 59.8 | 89.0 |
| | | Saturday | Midday | 68.7 | 78.0 | 71.6 | 66.1 | 61.2 | 57.0 | 82.0 |
| | | | PM | 72.3 | 82.4 | 73.5 | 67.9 | 64.4 | 59.9 | 91.9 |
| 4 | Reservoir Avenue between West 195th and Strong Streets | Weekday | Midday | 67.6 | 76.7 | 71.1 | 63.9 | 57.1 | 52.0 | 83.7 |
| | | | PM | 63.9 | 73.5 | 67.0 | 60.9 | 55.0 | 51.8 | 79.3 |
| | | | Late Night | 61.1 | 70.8 | 64.8 | 56.9 | 52.5 | 51.0 | 76.8 |
| | | Saturday | Midday | 64.2 | 71.9 | 68.1 | 61.0 | 56.1 | 53.5 | 75.2 |
| | | | PM | 63.5 | 70.5 | 67.2 | 61.3 | 55.6 | 51.2 | 74.3 |
| 5 | Jerome Avenue between West 195th Street and West Kingsbridge Road | Weekday | Midday | 81.2 | 93.3 | 83.7 | 68.2 | 62.6 | 58.9 | 95.3 |
| | | | PM | 78.9 | 91.6 | 81.8 | 67.8 | 63.0 | 59.9 | 94.4 |
| | | | Late Night | 77.4 | 89.6 | 80.1 | 65.9 | 60.1 | 58.0 | 95.1 |
| | | Saturday | Midday | 78.4 | 91.9 | 81.4 | 66.1 | 59.8 | 56.7 | 93.2 |
| | | | PM | 77.2 | 91.3 | 79.0 | 65.0 | 60.2 | 56.9 | 93.6 |
| 6 | East Kingsbridge Road between Morris and Creston Avenues | Weekday | Midday | 67.7 | 76.0 | 70.2 | 66.0 | 60.9 | 58.1 | 81.3 |
| | | | PM | 70.4 | 78.7 | 73.1 | 68.2 | 63.5 | 58.3 | 86.1 |
| | | | Late Night | 70.4 | 81.8 | 72.4 | 66.7 | 62.3 | 57.7 | 88.3 |
| | | Saturday | Midday | 69.5 | 78.4 | 71.9 | 67.7 | 63.0 | 58.2 | 84.1 |
| | | | PM | 67.9 | 75.6 | 70.4 | 66.2 | 62.5 | 59.7 | 83.6 |
| | | | Late Night | 67.9 | 76.3 | 71.1 | 64.9 | 58.8 | 56.1 | 83.3 |

| Receptor Site | Location | Date | Time | Existing Leq (dBA) | | | | No Build Leq (dBA) | | | | Build Leq (dBA) | | | |
|---------------|---|----------|------|-----------------------|------------------|--------------|------------|--------------------|--------------|------------|------------------|------------------|--------------|------------|------------------|
| | | | | Measured Leq(1) (dBA) | TNM Leq(1) (dBA) | Subway Noise | Difference | TNM Leq(1) (dBA) | Subway Noise | Difference | Predicted Leq(1) | TNM Leq(1) (dBA) | Subway Noise | Difference | Predicted Leq(1) |
| 1 | University Avenue between West 192nd Street and West Kingsbridge Road | Weekday | MD | 69.5 | 67.7 | 0 | -1.8 | 67.9 | 0 | 0.2 | 69.7 | <u>69.3</u> | 0 | <u>1.4</u> | <u>71.1</u> |
| | | | PM | 68.6 | 68.5 | 0 | -0.1 | 68.7 | 0 | 0.2 | 68.8 | 69.2 | 0 | 0.5 | 69.3 |
| | | | LN | 72.2 | 72.0 | 0 | -0.2 | 72.2 | 0 | 0.2 | 72.4 | 72.6 | 0 | 0.4 | 72.8 |
| | | Saturday | MD | 65.7 | 67.5 | 0 | 1.8 | 67.7 | 0 | 0.2 | 65.9 | <u>68.5</u> | 0 | <u>0.8</u> | <u>66.7</u> |
| | | | PM | 66.0 | 67.8 | 0 | 1.8 | 68.0 | 0 | 0.2 | 66.2 | <u>68.7</u> | 0 | <u>0.7</u> | <u>66.9</u> |
| | | | LN | 64.9 | 65.7 | 0 | 0.8 | 65.9 | 0 | 0.2 | 65.1 | <u>66.8</u> | 0 | <u>0.9</u> | <u>66.0</u> |
| 2 | West Kingsbridge Road between Sedgewick and Webb Avenues | Weekday | MD | 72.6 | 71.4 | 0 | -1.2 | 71.7 | 0 | 0.3 | 72.9 | <u>72.0</u> | 0 | <u>0.3</u> | <u>73.2</u> |
| | | | PM | 69.8 | 71.0 | 0 | 1.2 | 72.0 | 0 | 1.0 | 70.8 | 72.2 | 0 | 0.2 | 71.0 |
| | | | LN | 74.1 | 74.1 | 0 | 0.0 | 74.3 | 0 | 0.2 | 74.3 | 74.5 | 0 | 0.2 | 74.5 |
| | | Saturday | MD | 72.7 | 72.7 | 0 | 0.0 | 72.9 | 0 | 0.2 | 72.9 | 73.3 | 0 | 0.4 | 73.3 |
| | | | PM | 70.4 | 69.2 | 0 | -1.2 | 69.4 | 0 | 0.2 | 70.6 | <u>69.6</u> | 0 | <u>0.2</u> | <u>70.8</u> |
| | | | LN | 69.5 | 67.1 | 0 | -2.4 | 67.3 | 0 | 0.2 | 69.7 | 67.6 | 0 | 0.3 | 70.0 |
| 3 | West Kingsbridge Road between University and Reservoir Avenues | Weekday | MD | 71.4 | 69.7 | 0 | -1.7 | 70.2 | 0 | 0.5 | 71.9 | <u>71.6</u> | 0 | <u>1.4</u> | <u>73.3</u> |
| | | | PM | 70.2 | 71.2 | 0 | 1.0 | 71.9 | 0 | 0.7 | 70.9 | <u>72.5</u> | 0 | <u>0.6</u> | <u>71.5</u> |
| | | | LN | 70.4 | 69.1 | 0 | -1.3 | 69.7 | 0 | 0.6 | 71.0 | <u>70.3</u> | 0 | <u>0.6</u> | <u>71.6</u> |
| | | Saturday | MD | 68.7 | 70.1 | 0 | 1.4 | 70.8 | 0 | 0.7 | 69.4 | <u>71.6</u> | 0 | <u>0.8</u> | <u>70.2</u> |
| | | | PM | 72.3 | 70.0 | 0 | -2.3 | 70.6 | 0 | 0.6 | 72.9 | 71.6 | 0 | 1.0 | 73.9 |
| | | | LN | 69.8 | 68.9 | 0 | -0.9 | 69.5 | 0 | 0.6 | 70.4 | <u>70.4</u> | 0 | <u>0.9</u> | <u>71.3</u> |
| 4 | Reservoir Avenue between West 195th and Strong Streets | Weekday | MD | 67.6 | 65.7 | 0 | -1.9 | 65.8 | 0 | 0.1 | 67.7 | <u>66.9</u> | 0 | <u>1.1</u> | <u>68.8</u> |
| | | | PM | 63.9 | 66.8 | 0 | 2.9 | 67.0 | 0 | 0.2 | 64.1 | 67.4 | 0 | 0.4 | 64.5 |
| | | | LN | 61.1 | 61.1 | 0 | 0.0 | 61.4 | 0 | 0.3 | 61.4 | <u>61.7</u> | 0 | <u>0.3</u> | <u>61.7</u> |
| | | Saturday | MD | 64.2 | 64.5 | 0 | 0.3 | 64.7 | 0 | 0.2 | 64.4 | <u>65.8</u> | 0 | <u>1.1</u> | <u>65.5</u> |
| | | | PM | 63.5 | 65.1 | 0 | 1.6 | 65.3 | 0 | 0.2 | 63.7 | <u>66.3</u> | 0 | <u>1.0</u> | <u>64.7</u> |
| | | | LN | 66.3 | 64.1 | 0 | -2.2 | 64.3 | 0 | 0.2 | 66.5 | <u>65.2</u> | 0 | <u>0.9</u> | <u>67.4</u> |
| 5 | Jerome Avenue between West 195th Street and West Kingsbridge Road | Weekday | MD | 81.2 | 68.8 | 80.9 | na | 70.5 | 80.9 | 0.1 | 81.3 | 70.8 | 80.9 | 0.0 | 81.3 |
| | | | PM | 78.9 | 68.4 | 78.5 | na | 70.2 | 78.5 | 0.2 | 79.1 | 70.3 | 78.5 | 0.0 | 79.1 |
| | | | LN | 77.4 | 67.4 | 76.9 | na | 69.1 | 76.9 | 0.2 | 77.6 | 69.2 | 76.9 | 0.0 | 77.6 |
| | | Saturday | MD | 78.4 | 68.5 | 77.9 | na | 70.1 | 77.9 | 0.2 | 78.6 | <u>70.8</u> | 77.9 | <u>0.1</u> | <u>78.7</u> |
| | | | PM | 77.2 | 68.5 | 76.6 | na | 70.0 | 76.6 | 0.2 | 77.4 | 70.6 | 76.6 | 0.1 | 77.5 |
| | | | LN | 75.9 | 68.2 | 75.1 | na | 69.7 | 75.1 | 0.3 | 76.2 | <u>70.3</u> | 75.1 | <u>0.1</u> | <u>76.3</u> |
| 6 | East Kingsbridge Road between Morris and Creston Avenues | Weekday | MD | 67.7 | 70.2 | 0 | 2.5 | 70.3 | 0 | 0.1 | 67.8 | <u>71.2</u> | 0 | <u>0.9</u> | <u>68.7</u> |
| | | | PM | 70.4 | 71.1 | 0 | 0.7 | 71.3 | 0 | 0.2 | 70.6 | 71.8 | 0 | 0.5 | 71.1 |
| | | | LN | 70.4 | 69.4 | 0 | -1.0 | 69.6 | 0 | 0.2 | 70.6 | 70.2 | 0 | 0.6 | 71.2 |
| | | Saturday | MD | 69.5 | 68.9 | 0 | -0.6 | 69.7 | 0 | 0.8 | 70.3 | <u>69.8</u> | 0 | <u>0.1</u> | <u>70.4</u> |
| | | | PM | 67.9 | 69.2 | 0 | 1.3 | 69.5 | 0 | 0.3 | 68.2 | <u>70.1</u> | 0 | <u>0.6</u> | <u>68.8</u> |
| | | | LN | 67.9 | 69.2 | 0 | 1.3 | 69.4 | 0 | 0.2 | 68.1 | <u>70.0</u> | 0 | <u>0.6</u> | <u>68.7</u> |

A difference of 3 dBA or less between the modeled noise levels and measured noise levels indicates that the TNM model can be used with confidence.

Note: This L10 calculation sheet is valid for the following in addition to Residential 7 AM - 10 PM; school, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out patient public health facility, commercial

| Categories | |
|----------------------------|-----------------------|
| L10 < or equal 65 dBA | acceptable |
| 65 < L10 < or equal 70 dBA | marginally acceptable |
| 70 < L10 < or equal 80 dBA | marginally acceptable |
| L10 > 80 dBA | clearly unacceptable |

| Receptor Location | Site | Date | Hour | NB Change | Existing L10 | Category (Existing L10 noise levels) | Existing L10 + NB Change = NB L10 | Category (NB L10 noise levels) | Build Change | No Build L10 | No Build L10 + Build Change = L10 | Category (B L10 noise levels) | CEQR criteria 45 dB(A) | Building Attenuation required |
|---|----------|---------|------|-----------|-------------------------|--------------------------------------|-----------------------------------|--------------------------------|--------------|--------------|-----------------------------------|-------------------------------|------------------------|-------------------------------|
| University Avenue between West 192nd Street and West Kingsbridge Road | 1 | Weekday | MD | 0.2 | 72.4 | MARGINALLY UNACCEPTABLE | 72.6 | MARGINALLY UNACCEPTABLE | 1.4 | 72.6 | 74.0 | MARGINALLY UNACCEPTABLE | 45 | 29 |
| | | | PM | 0.2 | 71.0 | MARGINALLY UNACCEPTABLE | 71.2 | MARGINALLY UNACCEPTABLE | 0.5 | 71.2 | 71.7 | MARGINALLY UNACCEPTABLE | 45 | 27 |
| | | | LN | 0.2 | 73.7 | MARGINALLY UNACCEPTABLE | 73.9 | MARGINALLY UNACCEPTABLE | 0.4 | 73.9 | 74.3 | MARGINALLY UNACCEPTABLE | 45 | 29 |
| | Saturday | MD | 0.2 | 68.1 | MARGINALLY ACCEPTABLE | 68.3 | MARGINALLY ACCEPTABLE | 0.8 | 68.3 | 69.1 | MARGINALLY ACCEPTABLE | 45 | 24 | |
| | | PM | 0.2 | 68.6 | MARGINALLY ACCEPTABLE | 68.8 | MARGINALLY ACCEPTABLE | 0.7 | 68.8 | 69.5 | MARGINALLY ACCEPTABLE | 45 | 25 | |
| | | LN | 0.2 | 67.2 | MARGINALLY ACCEPTABLE | 67.4 | MARGINALLY ACCEPTABLE | 0.9 | 67.4 | 68.3 | MARGINALLY ACCEPTABLE | 45 | 23 | |
| West Kingsbridge Road between Sedgewick and Webb Avenues | 2 | Weekday | MD | 0.3 | 75.9 | MARGINALLY UNACCEPTABLE | 76.2 | MARGINALLY UNACCEPTABLE | 0.3 | 76.2 | 76.5 | MARGINALLY UNACCEPTABLE | 45 | 32 |
| | | | PM | 1.0 | 72.6 | MARGINALLY UNACCEPTABLE | 73.6 | MARGINALLY UNACCEPTABLE | 0.2 | 73.6 | 73.8 | MARGINALLY UNACCEPTABLE | 45 | 29 |
| | | | LN | 0.2 | 77.7 | MARGINALLY UNACCEPTABLE | 77.9 | MARGINALLY UNACCEPTABLE | 0.2 | 77.9 | 78.1 | MARGINALLY UNACCEPTABLE | 45 | 33 |
| | Saturday | MD | 0.2 | 74.4 | MARGINALLY UNACCEPTABLE | 74.6 | MARGINALLY UNACCEPTABLE | 0.4 | 74.6 | 75.0 | MARGINALLY UNACCEPTABLE | 45 | 30 | |
| | | PM | 0.2 | 72.9 | MARGINALLY UNACCEPTABLE | 73.1 | MARGINALLY UNACCEPTABLE | 0.2 | 73.1 | 73.3 | MARGINALLY UNACCEPTABLE | 45 | 28 | |
| | | LN | 0.2 | 72.5 | MARGINALLY UNACCEPTABLE | 72.7 | MARGINALLY UNACCEPTABLE | 0.3 | 72.7 | 73.0 | MARGINALLY UNACCEPTABLE | 45 | 28 | |
| West Kingsbridge Road between University and Reservoir Avenues | 3 | Weekday | MD | 0.5 | 73.5 | MARGINALLY UNACCEPTABLE | 74.0 | MARGINALLY UNACCEPTABLE | 1.4 | 74.0 | 75.4 | MARGINALLY UNACCEPTABLE | 45 | 30 |
| | | | PM | 0.7 | 73.2 | MARGINALLY UNACCEPTABLE | 73.9 | MARGINALLY UNACCEPTABLE | 0.6 | 73.9 | 74.5 | MARGINALLY UNACCEPTABLE | 45 | 30 |
| | | | LN | 0.6 | 73.3 | MARGINALLY UNACCEPTABLE | 73.9 | MARGINALLY UNACCEPTABLE | 0.6 | 73.9 | 74.5 | MARGINALLY UNACCEPTABLE | 45 | 30 |
| | Saturday | MD | 0.7 | 71.6 | MARGINALLY UNACCEPTABLE | 72.3 | MARGINALLY UNACCEPTABLE | 0.8 | 72.3 | 73.1 | MARGINALLY UNACCEPTABLE | 45 | 28 | |
| | | PM | 0.6 | 73.5 | MARGINALLY UNACCEPTABLE | 74.1 | MARGINALLY UNACCEPTABLE | 1.0 | 74.1 | 75.1 | MARGINALLY UNACCEPTABLE | 45 | 30 | |
| | | LN | 0.6 | 72.2 | MARGINALLY UNACCEPTABLE | 72.8 | MARGINALLY UNACCEPTABLE | 0.9 | 72.8 | 73.7 | MARGINALLY UNACCEPTABLE | 45 | 29 | |
| Reservoir Avenue between West 195th and Strong Streets | 4 | Weekday | MD | 0.1 | 71.1 | MARGINALLY UNACCEPTABLE | 71.2 | MARGINALLY UNACCEPTABLE | 1.1 | 71.2 | 72.3 | MARGINALLY UNACCEPTABLE | 45 | 27 |
| | | | PM | 0.2 | 67.0 | MARGINALLY ACCEPTABLE | 67.2 | MARGINALLY ACCEPTABLE | 0.4 | 67.2 | 67.6 | MARGINALLY ACCEPTABLE | 45 | 23 |
| | | | LN | 0.3 | 64.8 | ACCEPTABLE | 65.1 | MARGINALLY ACCEPTABLE | 0.3 | 65.1 | 65.4 | MARGINALLY ACCEPTABLE | 45 | 20 |
| | Saturday | MD | 0.2 | 68.1 | MARGINALLY ACCEPTABLE | 68.3 | MARGINALLY ACCEPTABLE | 1.1 | 68.3 | 69.4 | MARGINALLY ACCEPTABLE | 45 | 24 | |
| | | PM | 0.2 | 67.2 | MARGINALLY ACCEPTABLE | 67.4 | MARGINALLY ACCEPTABLE | 1.0 | 67.4 | 68.4 | MARGINALLY ACCEPTABLE | 45 | 23 | |
| | | LN | 0.2 | 68.6 | MARGINALLY ACCEPTABLE | 68.8 | MARGINALLY ACCEPTABLE | 0.9 | 68.8 | 69.7 | MARGINALLY ACCEPTABLE | 45 | 25 | |
| Jerome Avenue between West 195th Street and West Kingsbridge Road | 5 | Weekday | MD | 0.1 | 83.7 | CLEARLY UNACCEPTABLE | 83.8 | CLEARLY UNACCEPTABLE | 0.0 | 83.8 | 83.8 | CLEARLY UNACCEPTABLE | 50 | 34 |
| | | | PM | 0.2 | 81.8 | CLEARLY UNACCEPTABLE | 82.0 | CLEARLY UNACCEPTABLE | 0.0 | 82.0 | 82.0 | CLEARLY UNACCEPTABLE | 50 | 32 |
| | | | LN | 0.2 | 80.1 | CLEARLY UNACCEPTABLE | 80.3 | CLEARLY UNACCEPTABLE | 0.0 | 80.3 | 80.3 | CLEARLY UNACCEPTABLE | 50 | 30 |
| | Saturday | MD | 0.2 | 81.4 | CLEARLY UNACCEPTABLE | 81.6 | CLEARLY UNACCEPTABLE | 0.1 | 81.6 | 81.7 | CLEARLY UNACCEPTABLE | 50 | 32 | |
| | | PM | 0.2 | 79.0 | MARGINALLY UNACCEPTABLE | 79.2 | MARGINALLY UNACCEPTABLE | 0.1 | 79.2 | 79.3 | MARGINALLY UNACCEPTABLE | 50 | 29 | |
| | | LN | 0.3 | 78.1 | MARGINALLY UNACCEPTABLE | 78.4 | MARGINALLY UNACCEPTABLE | 0.1 | 78.4 | 78.5 | MARGINALLY UNACCEPTABLE | 50 | 29 | |
| East Kingsbridge Road between Morris and Creston Avenues | 6 | Weekday | MD | 0.1 | 70.2 | MARGINALLY UNACCEPTABLE | 70.3 | MARGINALLY UNACCEPTABLE | 0.9 | 70.3 | 71.2 | MARGINALLY UNACCEPTABLE | 45 | 26 |
| | | | PM | 0.2 | 73.1 | MARGINALLY UNACCEPTABLE | 73.3 | MARGINALLY UNACCEPTABLE | 0.5 | 73.3 | 73.8 | MARGINALLY UNACCEPTABLE | 45 | 29 |
| | | | LN | 0.2 | 72.4 | MARGINALLY UNACCEPTABLE | 72.6 | MARGINALLY UNACCEPTABLE | 0.6 | 72.6 | 73.2 | MARGINALLY UNACCEPTABLE | 45 | 28 |
| | Saturday | MD | 0.8 | 71.9 | MARGINALLY UNACCEPTABLE | 72.7 | MARGINALLY UNACCEPTABLE | 0.1 | 72.7 | 72.8 | MARGINALLY UNACCEPTABLE | 45 | 28 | |
| | | PM | 0.3 | 70.4 | MARGINALLY UNACCEPTABLE | 70.7 | MARGINALLY UNACCEPTABLE | 0.6 | 70.7 | 71.3 | MARGINALLY UNACCEPTABLE | 45 | 26 | |
| | | LN | 0.2 | 71.1 | MARGINALLY UNACCEPTABLE | 71.3 | MARGINALLY UNACCEPTABLE | 0.6 | 71.3 | 71.9 | MARGINALLY UNACCEPTABLE | 45 | 27 | |

| Proposed Building Façades | Receptor Site | CEQR Limit | Build L10 | Building Attenuation |
|--------------------------------------|-----------------|------------|-----------|----------------------|
| Jerome Avenue | 5 (Maximum L10) | 50 | 83.8 | 33.8 |
| W. Kingsbridge Rd & W. 195th Street* | 5 (Minimum L10) | 50 | 79.3 | 29.3 |
| Reservoir Avenue | 4 (Maximum L10) | 50 | 72.3 | 22.3 |

* To be conservative, the minimum L10 value at site 5 was applied on façades facing W. Kingsbridge and W. 195th Street.