

**APPENDIX B**  
**NOISE BACKUP**

**Noise Monitoring Noise levels in dBA - Fordham University Lincoln Center**

10488-0008

5/15/2007, 5/25/07, 1/3/2008

B&K 2260

| Measured Site | Location   | Time        | $L_{eq(t)}$ | $L_{1(t)}$ | $L_{10(t)}$ | $L_{50(t)}$ | $L_{90(t)}$ | $L_{min(t)}$ | $L_{max(t)}$ |
|---------------|--|-------------|-------------|------------|-------------|-------------|-------------|--------------|--------------|
| 1             | West 60th Street between Amsterdam Avenue and Columbus Avenue  | AM          | 65.1        | 73.0       | 67.0        | 62.9        | 61.5        | 60.4         | 82.9         |
|               |  | Midday      | 66.3        | 74.5       | 68.6        | 64.6        | 62.3        | 60.8         | 78.6         |
|               |  | PM          | 67.3        | 76.9       | 70.6        | 63.8        | 60.6        | 59.7         | 78.4         |
|               |  | Pre-Theater | 61.7        | 71.9       | 65.4        | 57.1        | 53.9        | 52.6         | 77.6         |
| 2             | West 62nd Street between Amsterdam Avenue and Columbus Avenue  | AM          | 69.3        | 79.4       | 72.6        | 65.2        | 61.2        | 59.2         | 84.2         |
|               |  | Midday      | 67.4        | 76.7       | 71.3        | 63.3        | 60.2        | 58.3         | 82.5         |
|               |  | PM          | 70.8        | 74.6       | 72.2        | 70.6        | 68.5        | 63.1         | 80.2         |
|               |  | Pre-Theater | 69.6        | 74.0       | 70.9        | 69.2        | 68.5        | 66.2         | 78.0         |
| 3             | Amsterdam Avenue between 60th Street and 61st Street           | AM          | 71.9        | 80.9       | 75.3        | 69.4        | 62.6        | 61.0         | 85.6         |
|               |  | Midday      | 71.5        | 81.3       | 74.9        | 68.4        | 63.5        | 60.8         | 88.9         |
|               |  | PM          | 72.3        | 80.9       | 75.6        | 69.7        | 63.1        | 61.4         | 90.2         |
|               |  | Pre-Theater | 66.2        | 75.1       | 70.0        | 62.3        | 57.2        | 55.5         | 80.6         |
| 4             | Columbus Avenue between 61st Street and 62nd Street            | AM          | 68.4        | 76.2       | 71.4        | 66.2        | 62.9        | 60.7         | 82.0         |
|               |  | Midday      | 68.5        | 74.6       | 71.5        | 66.9        | 64.1        | 62.3         | 80.0         |
|               |  | PM          | 66.3        | 74.6       | 69.5        | 63.6        | 61.2        | 60.0         | 79.5         |
|               |  | Pre-Theater | 65.8        | 74.7       | 68.4        | 63.6        | 58.7        | 55.7         | 81.1         |
| 5             | Alvin Ailey Place between Amsterdam Avenue and Columbus Avenue | AM          | 63.8        | 68.9       | 66.1        | 63.0        | 61.0        | 59.5         | 72.6         |
|               |  | Midday      | 63.6        | 68.9       | 65.8        | 62.8        | 61.0        | 60.1         | 73.4         |
|               |  | PM          | 67.4        | 69.7       | 68.3        | 67.3        | 66.5        | 65.7         | 72.5         |
|               |  | Pre-Theater | 61.3        | 68.9       | 61.1        | 57.0        | 54.6        | 53.4         | 83.9         |
| 6             | Amsterdam Avenue between 61st Street and 62nd Street           | AM          | 71.1        | 78.8       | 74.0        | 68.3        | 63.2        | 60.6         | 88.2         |
|               |  | Midday      | 69.3        | 77.6       | 72.0        | 67.2        | 64.7        | 63.3         | 80.6         |
|               |  | PM          | 72.8        | 79.2       | 73.8        | 70.2        | 67.7        | 65.0         | 94.2         |
|               |  | Pre-Theater | 67.1        | 76.9       | 71.2        | 59.9        | 54.8        | 53.5         | 81.0         |



**Noise Analysis Results in L10 (2014)**

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 | 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 |
|--|------|------|-----------|--------------|--------------------------------------|-----------------------------------|--------------------------------|--------------|--------------|-----------------------------------|-------------------------------|------------------------|-------------------------------|
| 60th Street between Amsterdam & Columbus Avenues               | 1    | AM   | 1.3       | 67.0         | MARGINALLY ACCEPTABLE                | 68.3                              | MARGINALLY ACCEPTABLE          | 0.2          | 68.3         | 68.5                              | MARGINALLY ACCEPTABLE         | 45                     | 24                            |
|  |      | MD   | 0.9       | 68.6         | MARGINALLY ACCEPTABLE                | 69.5                              | MARGINALLY ACCEPTABLE          | 0.4          | 69.5         | 69.9                              | MARGINALLY ACCEPTABLE         | 45                     | 25                            |
|  |      | PM   | 0.9       | 70.6         | MARGINALLY UNACCEPTABLE              | 71.5                              | MARGINALLY UNACCEPTABLE        | 0.1          | 71.5         | 71.6                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |
|  |      | PT   | 0.7       | 65.4         | MARGINALLY ACCEPTABLE                | 66.1                              | MARGINALLY ACCEPTABLE          | 0.0          | 66.1         | 66.1                              | MARGINALLY ACCEPTABLE         | 45                     | 21                            |
| 62nd Street between Amsterdam & Columbus Avenues               | 2    | AM   | 0.1       | 72.6         | MARGINALLY UNACCEPTABLE              | 72.7                              | MARGINALLY UNACCEPTABLE        | 0.5          | 72.7         | 73.2                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | MD   | 0.2       | 71.3         | MARGINALLY UNACCEPTABLE              | 71.5                              | MARGINALLY UNACCEPTABLE        | 0.6          | 71.5         | 72.1                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |
|  |      | PM   | -0.1      | 72.2         | MARGINALLY UNACCEPTABLE              | 72.1                              | MARGINALLY UNACCEPTABLE        | 0.5          | 72.1         | 72.6                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | PT   | -0.1      | 70.9         | MARGINALLY UNACCEPTABLE              | 70.8                              | MARGINALLY UNACCEPTABLE        | 0.2          | 70.8         | 70.9                              | MARGINALLY UNACCEPTABLE       | 45                     | 26                            |
| Amsterdam Avenue between 60th & 61st Streets                   | 3    | AM   | 1.0       | 75.3         | MARGINALLY UNACCEPTABLE              | 76.3                              | MARGINALLY UNACCEPTABLE        | 0.1          | 76.3         | 76.4                              | MARGINALLY UNACCEPTABLE       | 45                     | 31                            |
|  |      | MD   | 0.9       | 74.9         | MARGINALLY UNACCEPTABLE              | 75.8                              | MARGINALLY UNACCEPTABLE        | 0.1          | 75.8         | 75.9                              | MARGINALLY UNACCEPTABLE       | 45                     | 31                            |
|  |      | PM   | 0.9       | 75.6         | MARGINALLY UNACCEPTABLE              | 76.5                              | MARGINALLY UNACCEPTABLE        | 0.1          | 76.5         | 76.6                              | MARGINALLY UNACCEPTABLE       | 45                     | 32                            |
|  |      | PT   | 0.7       | 70.0         | MARGINALLY ACCEPTABLE                | 70.7                              | MARGINALLY UNACCEPTABLE        | 0.0          | 70.7         | 70.7                              | MARGINALLY UNACCEPTABLE       | 45                     | 26                            |
| Columbus Avenue between 61st & 62nd Streets                    | 4    | AM   | 0.5       | 71.4         | MARGINALLY UNACCEPTABLE              | 71.9                              | MARGINALLY UNACCEPTABLE        | 0.1          | 71.9         | 71.9                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |
|  |      | MD   | 0.5       | 71.5         | MARGINALLY UNACCEPTABLE              | 72.0                              | MARGINALLY UNACCEPTABLE        | 0.1          | 72.0         | 72.1                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |
|  |      | PM   | 0.4       | 69.5         | MARGINALLY ACCEPTABLE                | 69.9                              | MARGINALLY ACCEPTABLE          | 0.1          | 69.9         | 70.0                              | MARGINALLY UNACCEPTABLE       | 45                     | 25                            |
|  |      | PT   | 0.4       | 68.4         | MARGINALLY ACCEPTABLE                | 68.8                              | MARGINALLY ACCEPTABLE          | 0.0          | 68.8         | 68.8                              | MARGINALLY ACCEPTABLE         | 45                     | 24                            |
| Alvin Alley Place between Amsterdam Avenue and Columbus Avenue | 5    | AM   | 0.8       | 66.1         | MARGINALLY ACCEPTABLE                | 66.9                              | MARGINALLY ACCEPTABLE          | 2.2          | 66.9         | 69.1                              | MARGINALLY ACCEPTABLE         | 45                     | 24                            |
|  |      | MD   | 0.1       | 65.8         | MARGINALLY ACCEPTABLE                | 65.9                              | MARGINALLY ACCEPTABLE          | 1.1          | 65.9         | 67.0                              | MARGINALLY ACCEPTABLE         | 45                     | 22                            |
|  |      | PM   | 0.4       | 68.3         | MARGINALLY ACCEPTABLE                | 68.7                              | MARGINALLY ACCEPTABLE          | 2.3          | 68.7         | 71.0                              | MARGINALLY UNACCEPTABLE       | 45                     | 26                            |
|  |      | PT   | 0.2       | 61.1         | ACCEPTABLE                           | 61.3                              | ACCEPTABLE                     | 1.8          | 61.3         | 63.1                              | ACCEPTABLE                    | 45                     | 18                            |
| Amsterdam Avenue between 61st & 62nd Streets                   | 6    | AM   | 0.5       | 74.0         | MARGINALLY UNACCEPTABLE              | 74.5                              | MARGINALLY UNACCEPTABLE        | 0.1          | 74.5         | 74.6                              | MARGINALLY UNACCEPTABLE       | 45                     | 30                            |
|  |      | MD   | 0.6       | 72.0         | MARGINALLY UNACCEPTABLE              | 72.6                              | MARGINALLY UNACCEPTABLE        | 0.1          | 72.6         | 72.7                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | PM   | 0.6       | 73.8         | MARGINALLY UNACCEPTABLE              | 74.4                              | MARGINALLY UNACCEPTABLE        | 0.1          | 74.4         | 74.4                              | MARGINALLY UNACCEPTABLE       | 45                     | 29                            |
|  |      | PT   | 0.4       | 71.2         | MARGINALLY UNACCEPTABLE              | 71.6                              | MARGINALLY UNACCEPTABLE        | 0.0          | 71.6         | 71.7                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |

**Noise Analysis Results in L10 (2032)**

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 | 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 |
|--|------|------|-----------|--------------|--------------------------------------|-----------------------------------|--------------------------------|--------------|--------------|-----------------------------------|-------------------------------|------------------------|-------------------------------|
| 60th Street between Amsterdam & Columbus Avenues               | 1    | AM   | 1.6       | 67.0         | MARGINALLY ACCEPTABLE                | 68.6                              | MARGINALLY ACCEPTABLE          | 0.3          | 68.6         | 68.9                              | MARGINALLY ACCEPTABLE         | 45                     | 24                            |
|  |      | MD   | 1.1       | 68.6         | MARGINALLY ACCEPTABLE                | 69.7                              | MARGINALLY ACCEPTABLE          | 0.4          | 69.7         | 70.1                              | MARGINALLY UNACCEPTABLE       | 45                     | 25                            |
|  |      | PM   | 1.0       | 70.6         | MARGINALLY UNACCEPTABLE              | 71.6                              | MARGINALLY UNACCEPTABLE        | 0.9          | 71.6         | 72.5                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | PT   | 0.8       | 65.4         | MARGINALLY ACCEPTABLE                | 66.2                              | MARGINALLY ACCEPTABLE          | 0.1          | 66.2         | 66.3                              | MARGINALLY ACCEPTABLE         | 45                     | 21                            |
| 62nd Street between Amsterdam & Columbus Avenues               | 2    | AM   | 0.4       | 72.6         | MARGINALLY UNACCEPTABLE              | 73.0                              | MARGINALLY UNACCEPTABLE        | 0.8          | 73.0         | 73.8                              | MARGINALLY UNACCEPTABLE       | 45                     | 29                            |
|  |      | MD   | 0.5       | 71.3         | MARGINALLY UNACCEPTABLE              | 71.8                              | MARGINALLY UNACCEPTABLE        | 1.0          | 71.8         | 72.8                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | PM   | 0.2       | 72.2         | MARGINALLY UNACCEPTABLE              | 72.4                              | MARGINALLY UNACCEPTABLE        | 0.7          | 72.4         | 73.1                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | PT   | 0.2       | 70.9         | MARGINALLY UNACCEPTABLE              | 71.1                              | MARGINALLY UNACCEPTABLE        | 0.2          | 71.1         | 71.3                              | MARGINALLY UNACCEPTABLE       | 45                     | 26                            |
| Amsterdam Avenue between 60th & 61st Streets                   | 3    | AM   | 1.4       | 75.3         | MARGINALLY UNACCEPTABLE              | 76.7                              | MARGINALLY UNACCEPTABLE        | 0.1          | 76.7         | 76.8                              | MARGINALLY UNACCEPTABLE       | 45                     | 32                            |
|  |      | MD   | 1.3       | 74.9         | MARGINALLY UNACCEPTABLE              | 76.2                              | MARGINALLY UNACCEPTABLE        | 0.1          | 76.2         | 76.3                              | MARGINALLY UNACCEPTABLE       | 45                     | 31                            |
|  |      | PM   | 1.3       | 75.6         | MARGINALLY UNACCEPTABLE              | 76.9                              | MARGINALLY UNACCEPTABLE        | 0.2          | 76.9         | 77.0                              | MARGINALLY UNACCEPTABLE       | 45                     | 32                            |
|  |      | PT   | 1.0       | 70.0         | MARGINALLY ACCEPTABLE                | 71.0                              | MARGINALLY UNACCEPTABLE        | 0.0          | 71.0         | 71.1                              | MARGINALLY UNACCEPTABLE       | 45                     | 26                            |
| Columbus Avenue between 61st & 62nd Streets                    | 4    | AM   | 0.8       | 71.4         | MARGINALLY UNACCEPTABLE              | 72.2                              | MARGINALLY UNACCEPTABLE        | 0.1          | 72.2         | 72.3                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |
|  |      | MD   | 0.8       | 71.5         | MARGINALLY UNACCEPTABLE              | 72.3                              | MARGINALLY UNACCEPTABLE        | 0.1          | 72.3         | 72.5                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |
|  |      | PM   | 0.8       | 69.5         | MARGINALLY ACCEPTABLE                | 70.3                              | MARGINALLY UNACCEPTABLE        | 0.1          | 70.3         | 70.4                              | MARGINALLY UNACCEPTABLE       | 45                     | 25                            |
|  |      | PT   | 0.8       | 68.4         | MARGINALLY ACCEPTABLE                | 69.2                              | MARGINALLY ACCEPTABLE          | 0.0          | 69.2         | 69.2                              | MARGINALLY ACCEPTABLE         | 45                     | 24                            |
| Alvin Alley Place between Amsterdam Avenue and Columbus Avenue | 5    | AM   | 1.1       | 66.1         | MARGINALLY ACCEPTABLE                | 67.2                              | MARGINALLY ACCEPTABLE          | 2.1          | 67.2         | 69.3                              | MARGINALLY ACCEPTABLE         | 45                     | 24                            |
|  |      | MD   | 0.6       | 65.8         | MARGINALLY ACCEPTABLE                | 66.4                              | MARGINALLY ACCEPTABLE          | 1.0          | 66.4         | 67.3                              | MARGINALLY ACCEPTABLE         | 45                     | 22                            |
|  |      | PM   | 0.8       | 68.3         | MARGINALLY ACCEPTABLE                | 69.1                              | MARGINALLY ACCEPTABLE          | 2.1          | 69.1         | 71.2                              | MARGINALLY UNACCEPTABLE       | 45                     | 26                            |
|  |      | PT   | 0.7       | 61.1         | ACCEPTABLE                           | 61.8                              | ACCEPTABLE                     | 1.6          | 61.8         | 63.4                              | ACCEPTABLE                    | 45                     | 18                            |
| Amsterdam Avenue between 61st & 62nd Streets                   | 6    | AM   | 0.9       | 74.0         | MARGINALLY UNACCEPTABLE              | 74.9                              | MARGINALLY UNACCEPTABLE        | 0.1          | 74.9         | 75.0                              | MARGINALLY UNACCEPTABLE       | 45                     | 30                            |
|  |      | MD   | 0.9       | 72.0         | MARGINALLY UNACCEPTABLE              | 72.9                              | MARGINALLY UNACCEPTABLE        | 0.1          | 72.9         | 73.1                              | MARGINALLY UNACCEPTABLE       | 45                     | 28                            |
|  |      | PM   | 0.9       | 73.8         | MARGINALLY UNACCEPTABLE              | 74.7                              | MARGINALLY UNACCEPTABLE        | 0.1          | 74.7         | 74.8                              | MARGINALLY UNACCEPTABLE       | 45                     | 30                            |
|  |      | PT   | 0.8       | 71.2         | MARGINALLY UNACCEPTABLE              | 72.0                              | MARGINALLY UNACCEPTABLE        | 0.0          | 72.0         | 72.0                              | MARGINALLY UNACCEPTABLE       | 45                     | 27                            |

**Noise Levels L<sub>10(1)</sub> on Project Building Facades**

| Proposed Buildings/Spaces                     | Façade | Build L10 | CEQR Criteria | Building Attenuation (dBA) |    |
|---|--------|-----------|---------------|----------------------------|----|
|   |        |           |               |                            |    |
| Site 1 (Dormitory & Academic Building)        | East   | 74.8      | 45            | 29.8                       | 30 |
|   | South  | 74.0      | 45            | 29.0                       | 30 |
|   | West   | 68.0      | 45            | 23.0                       | 25 |
|   | North  | 74.8      | 45            | 29.8                       | 30 |
| Site 2 (Dormitory & Academic Building)        | East   | 75.3      | 45            | 30.3                       | 35 |
|   | South  | 74.8      | 45            | 29.8                       | 30 |
|   | West   | 68.4      | 45            | 23.4                       | 25 |
|   | North  | 74.0      | 45            | 29.0                       | 30 |
| Site 3 (Academic, Dormitory and Residential)  | East   | 67.5      | 45            | 22.5                       | 25 |
|   | South  | 73.5      | 45            | 28.5                       | 30 |
|   | West   | 76.2      | 45            | 31.2                       | 35 |
|   | North  | 69.8      | 45            | 24.8                       | 25 |
| Site 3a (Academic, Dormitory and Residential) | East   | 66.1      | 45            | 21.1                       | 25 |
|   | South  | 69.8      | 45            | 24.8                       | 25 |
|   | West   | 76.6      | 45            | 31.6                       | 35 |
|   | North  | 71.9      | 45            | 26.9                       | 30 |
| Site 4 (Residential)                          | East   | 67.8      | 45            | 22.8                       | 25 |
|   | South  | 71.0      | 45            | 26.0                       | 30 |
|   | West   | 75.8      | 45            | 30.8                       | 35 |
|   | North  | 74.0      | 45            | 29.0                       | 30 |
| Site 5a (Academic Building)                   | East   | 67.8      | 50            | 17.8                       | 20 |
|   | South  | 67.6      | 50            | 17.6                       | 20 |
|   | West   | 69.8      | 50            | 19.8                       | 20 |
|   | North  | 70.2      | 50            | 20.2                       | 25 |
| Site 5 (Dormitory & Academic Building)        | East   | 67.8      | 45            | 22.8                       | 25 |
|   | South  | 67.6      | 45            | 22.6                       | 25 |
|   | West   | 69.8      | 45            | 24.8                       | 25 |
|   | North  | 68.6      | 45            | 23.6                       | 25 |
| Site 6 (Dormitory & Academic Building)        | East   | 71.2      | 45            | 26.2                       | 30 |
|   | South  | 66.1      | 45            | 21.1                       | 25 |
|   | West   | 69.8      | 45            | 24.8                       | 25 |
|   | North  | 69.6      | 45            | 24.6                       | 25 |
| Site 7 (Academic Building)                    | East   | 66.0      | 50            | 16.0                       | 20 |
|   | South  | 66.3      | 50            | 16.3                       | 20 |
|   | West   | 66.3      | 50            | 16.3                       | 20 |
|   | North  | 66.1      | 50            | 16.1                       | 20 |

### TNM Predicted Noise Levels

| Receptor Location         | Site | Hour        | Existing       |           |        | No Build 2014 |          | Build 2014 |          | No Build 2032 |          | Build 2032 |          |
|---------------------------|------|-------------|----------------|-----------|--------|---------------|----------|------------|----------|---------------|----------|------------|----------|
|                           |      |             | Measured Level | TNM Level | Change | TNM Level     | Increase | TNM Level  | Increase | TNM Level     | Increase | TNM Level  | Increase |
| between Amsterdam & Colum | 1    | AM          | 65.1           | 63.0      | 2.1    | 64.3          | 1.3      | 64.5       | 0.2      | 64.6          | 1.6      | 64.9       | 0.3      |
|                           |      | MD          | 66.3           | 64.1      | 2.2    | 65.0          | 0.9      | 65.4       | 0.4      | 65.2          | 1.1      | 65.6       | 0.4      |
|                           |      | PM          | 67.3           | 65.2      | 2.1    | 66.1          | 0.9      | 66.2       | 0.1      | 66.2          | 1.0      | 67.1       | 0.9      |
|                           |      | Pre-Theater | 61.7           | 64.7      | -3.0   | 65.4          | 0.7      | 65.4       | 0.0      | 65.5          | 0.8      | 65.6       | 0.1      |

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.