5.0 PUBLIC TRANSPORTATION

5.1 Subway Service

The Metropolitan Transportation Authority - New York City Transit (MTA-NYCT) operates within the study area eleven subway lines along four routes and serving eleven subway stations. Table 5-1: "Subway Service" below lists the subway lines and stations. Exhibit 5-1: "Subway Service" shows the subway routes and locations.

Table 5-1: Subway Service

LINES	ROUTES	STATIONS
1 & 9 (Local)	Broadway	• West 116th Street • West 125th Street • West 137th Street/City College
A, B, C & D (Express & Local)	Frederick Douglass Boulevard/St. Nicholas Avenue (6th & 8th Avenues)	• West 116th Street (B & C) • West 125th Street (A, B, C & D) • West 135th Street (B & C)
2 & 3 (Local)	Lenox Avenue (Broadway Express)	• West 116th Street • West 125th Street • West 135th Street
4, 5 & 6 (Express & Local)	Lexington Avenue	• East 116th Street (6) • East 125th Street (4, 5 & 6)

These subway lines connect the study area to the Bronx and to the rest of Manhattan: northern section of Manhattan, Midtown Manhattan, and Lower Manhattan.

Subway Line Description:

- No.1 subway line on Broadway/7th Avenue runs local from 242nd Street (Bronx) to South Ferry (Manhattan). The No. 9 subway line also runs on this route and alternates subway stops (skip-stops) with the No. 1 subway line during rush hours in the peak direction. This line operates at all times.
- No. 2 subway line on 7th Avenue runs express from 241st Street (Bronx) to Flatbush Avenue (Brooklyn). This line operates at all times.
- No. 3 subway line on 7th Avenue goes express from 148th Street (Manhattan) to New Lots Avenue (Brooklyn). This line does not operate overnight.

- No. 4 subway line on Lexington Avenue runs express from Woodlawn (Bronx) to Utica Avenue (Brooklyn). This line operates at all times. Overnight the No. 4 runs local in Manhattan.
- No. 5 subway line on Lexington Avenue goes express from Dyre Avenue or 241st Street (Bronx) to Flatbush Avenue (Brooklyn) during rush hours. During off-peak hours it goes to Bowling Green (Manhattan). Overnight the No. 5 only operates in the Bronx.
- No. 6 Lexington Avenue subway line is local from Pelham Bay Park or Parkchester (Bronx) to Brooklyn Bridge/City Hall (Manhattan). During rush hours in the peak direction some of the trains run express in the Bronx.
- The "A" subway line on 8th Avenue runs express from 207th Street (Manhattan) to Lefferts Boulevard or Far Rockaway (Queens). This line operates at all times. Overnight, the "A" trains replace the "C" trains and operate local in Brooklyn and in Manhattan.
- The "C" subway line on 8th Avenue goes local from 168th Street/Washington Heights (Manhattan) to Euclid Avenue (Brooklyn). This line operates as local at all times, but does not operate overnight (see "A" line service above).
- The "B" subway line on 6th Avenue travels from Bedford Park (Bronx) to Brighton Beach (Brooklyn). This train operates local in the Bronx and upper Manhattan. It runs express in the Bronx (peak direction), in midtown Manhattan and in Brooklyn. The "B" line does not operate late nights or on weekends.
- The "D" subway line on 6th Avenue runs express from 205th Street/Norwood (Bronx) to Coney Island/Stillwell Avenue (Brooklyn). The "D" line operates express in the Bronx (peak direction), in Manhattan and in Brooklyn. This line operates at all times.

Passenger and pedestrian volumes were collected at all subway station fare control areas and at all stairs leading to street level on weekdays from 7:30 to 9:30 AM in the morning, from 11:30 AM to 1:30 PM in the midday and from 4:30 to 6:30 PM in the evening. Saturday volumes were collected between 12:00 and 2:00 PM in the midday.

The subway station analysis was prepared using the design capacities for stairs, escalators, turnstiles, fare control array turnstiles and agent controlled service gates as specified in the

NYCT *Station Planning and Design Guidelines* (January 2001), and according to the procedures set forth in *Pedestrian Planning and Design* by John J. Furin (1971). All analyses reflect peak 15-minute conditions for the weekday during the morning, midday and evening and for Saturday during the midday. The analysis was conducted using the Furin pedestrian level of service methodology, which equates pedestrian flow per minute per foot of stairway width with qualitative measures of pedestrian comfort. Based on calculated values of pedestrian volumes per minute per foot width of stair, Furin defined six levels of service (LOS), designated by the letters A through F. Level of service A represents free flowing conditions without pedestrian conflicts, while LOS F indicates significant capacity limitations and inconvenience (See Table 5-2: "Stairway Level of Service – Definitions").

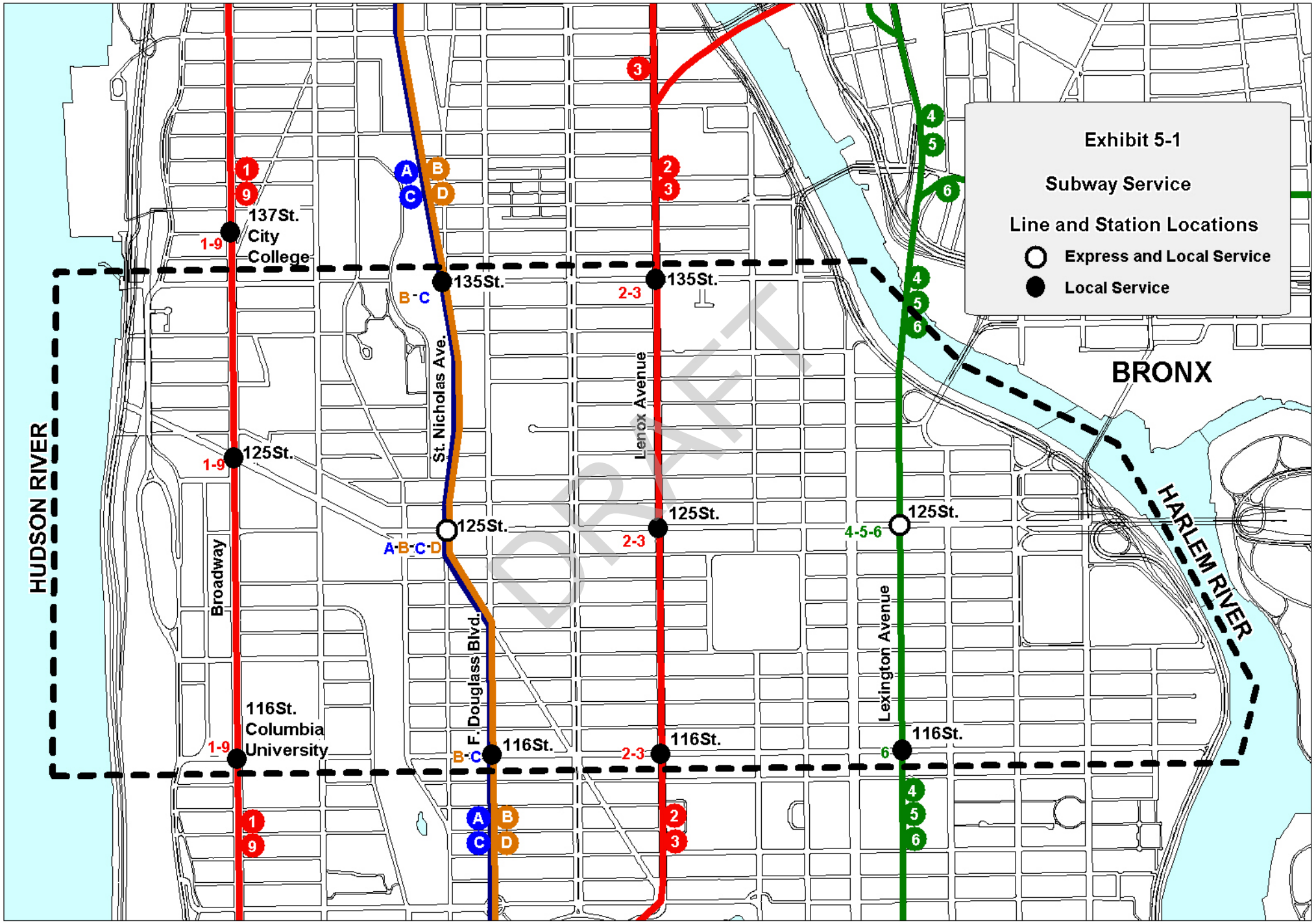
Exhibit 5-1
Subway Service
Line and Station Locations
Express and Local Service
Local Service
HUDSON RIVER
BRONX
HARLEM RIVER
Broadway
St. Nicholas Ave.
Lenox Avenue
Lexington Avenue
F. Douglass Blvd.
137St. City College
135St.
125St.
116St. Columbia University
116St.
1-9
B-C
2-3
A-B-C-D
4-5-6
6
DRAFT

Demand levels were estimated for various subway station elements, and passenger volumes were compared with the computed volume that each subway station element is capable of handling. Various capacity reducing factors were applied to these station elements to account for pedestrian flow characteristics, such as friction caused by bi-directional flow, width reductions in stairwells prompted by handrails and peaking characteristics generated by surge periods in the peak hour.

The service volume flow rate at the midpoint of LOS C and LOS D (SVCD), which is the level employed by NYCT, was used to determine the adequacy of various station elements to accommodate demand levels at acceptable LOS. When actual or projected demands are less than the calculated SVCD, the LOS D is considered acceptable.

Table 5-2: Stairway Level of Service – Definitions

LOS	Pedestrian Foot per Minute (PFM)	Description:
A	Up to 7	Free flow conditions
B	7 to10	Minor reverse flow will cause minor conflicts
C	10 to 15	Slight restrictions in speed and difficulties in reverse flow
D	15 to 20	Significant restriction in speed and difficulties in reverse flows
E	20 to 25	Reductions of speeds, serious reverse traffic conflicts and intermittent stoppages
F	More than 25	Complete breakdown in traffic flow
Source: *CEQR Technical Manual*, City of New York (October 2001)		

The following Table 5-3 shows the Volume/SVCD (V/SVCD) ratios with the corresponding LOS. V/SVCD ratios between 0.00 and 0.45 represent LOS A, while V/SVCD ratios between 0.46 and 0.7 describe LOS B. V/SVCD ratio between 0.71 to 1.00 represents LOS C, while LOS D indicates a moderate degree of congestion with V/SVCD ratio ranging between 1.01 to 1.33. The V/SVCD ratio range between 1.34 and 1.67 represent LOS E, this indicates severely restricted walking speeds and congestion. Finally, excessive delays occur at LOS F which is represented by a V/SVCD ratio equal to or greater than 1.68. LOS F indicates that demand exceeds capacity of the element.

Table 5-3: V/SVCD Ratio Definitions

LOS	V/SVCD	Description:
A	< 0.45	Unrestricted
B	0.46 to 0.70	Slightly restricted, on impact on speed
C	0.71 to 1.00	Speeds reduced, difficult to pass
D	1.01 to 1.33	Restricted, reverse flow conflicts
E	1.34 to 1.67	Severely restricted
F	1.68 >	Many stoppages, no discernible flow
Source: *CEQR Technical Manual*, City of New York (October 2001)		

Tables 5-4 through 5-14 present the results of the existing conditions analysis of subway station elements during the four peak hours at the eleven subway stations. According to the results obtained all subway station elements operate at LOS A or B, except for one subway station (125th Street and Lexington Avenue) which has some elements operating at LOS C, due to construction activities that closed one stairway from the street level to the fare control area.

Subway Station Description and Level of Service Analysis:

116th Street and Broadway (1/9)

The station is designed with a mezzanine at the north end of the station with one central fare control area for both the uptown and downtown service. Access to the subway station from street level is possible at the northwest and northeast corners of West 116th Street. Towards the southern end of the uptown platform is a high-wheel turnstile which is the only turnstile that allows passengers to exit the station at the northeast corner of West 115th Street.

After completion of data collection, this station was reconstructed. One new high-wheel exit only turnstile was added at the mezzanine level near the downtown stairs and also near the stairs at the northwest corner.

The existing conditions for pedestrian flow at the fare control area R173 in Table 5-4 were analyzed for this station. All of the station's fare control elements and stairs operate at LOS B or better.

125th Street and Broadway (1/9)

125th Street station is an elevated station with the fare control area in the mezzanine area under the platforms of the station. The station can be accessed from one stairway located at the southeast corner of West 125th Street and from three escalators. The escalator on the east side of Broadway carries subway riders up to the mezzanine; the other two escalators are on the west side of Broadway between West 124th and 125th Streets. These escalators operate in pair: one goes up while the other goes down.

During the collection of data, the subway station was under reconstruction. The fare control area, the stairway and the three escalators were not closed or restricted at the time.

The existing conditions for the pedestrian flow at the fare control area R174, the stairway and the escalators were analyzed for this station in Table 5-5. All of the station's fare control elements, stairs and escalators operate at LOS B or better.

137th Street/City College and Broadway (1/9)

This station has two fare control areas, one for each subway platform: the downtown and uptown platforms. Stairway access to the downtown platform is from the southwest and northwest corners of 137th Street (west side of Broadway). Two stairways from the east side of Broadway between 137th and 138th Streets provide access to the uptown platform and fare control area.

The existing conditions for the pedestrian flow at the fare control areas R175 and R176, and four stairways were analyzed in Table 5-6 for this station. All of the station's fare control elements and stairs operate at LOS B or better.

116th Street/Frederick Douglass Boulevard (B/C)

This station has two fare control areas, one for the downtown and one for the uptown subway platform. Stairway access to the downtown platform is located at the southwest and northwest corners of 116th Street (west side of Frederick Douglass Boulevard). Stairways to the uptown

platform and fare control area are located at the other two corners of 116th Street (east side of Frederick Douglass Boulevard).

The existing conditions for the pedestrian flow at the fare control areas N29 and N30, and four stairways were analyzed for this station in Table 5-7. All of the station's fare control elements and stairs and operate at LOS B or better.

125th Street/St. Nicholas Avenue (A/B/C/D)

This station has two fare control areas to both the downtown and uptown platforms. The first fare control area which is located at West 125th Street has stairway access from each of the four corners of the intersection. At the north end of the station at West 127th Street, there is a second fare control area which is accessible through two stairways located at the southwest and southeast corners. This fare control area is closed overnight.

NYCT is currently installing three elevators to this station making it ADA accessible: one elevator accessible from the street level to the fare control area at West 125th Street and the other two elevators will each provide access to each of the subway's platforms.

The existing conditions for the pedestrian flow at the fare control areas N25 and N26 and six stairways were analyzed for this station in Table 5-8. All of the station's fare control elements and stairs are operating at LOS B or better.

135th Street/St. Nicholas Avenue (B/C)

This subway station has four access locations for the two subway platforms (uptown and downtown platforms). Each platform is accessible through two fare control areas. The main fare control areas are located at West 135th Street while the fare control areas with no staff are located at West 137th Street. Here are more details about the fare control areas:

Downtown platform

- The main fare control area at 135th Street has one stairway.
- The secondary fare control area at 137th Street also has a stairway that provide access to a part-time staffed fare control area (morning rush hours only) and to the high-wheel entrance/exit turnstiles at other times.

Uptown platform

- The main fare control area at 135th Street has three stairways: one at the northeast corner and two at the southeast corner.
- The secondary control area at 137th Street has one stairway (southeast corner) that leads to a fare control area (not staffed) with high-wheel entrance/exit turnstiles.

In the fall of 2003, the part-time staffed fare control area at the downtown platform at West 137th Street was closed and the low turnstiles were replaced with additional high-wheel entrance/exit turnstiles.

The existing conditions for the pedestrian flow at the four fare control areas (N22, N23, N24, and a fare control location without a number) and six stairways were analyzed for this station in Table 5-9. All of the station's fare control elements and stairs operate at LOS A.

116th Street/Lenox Avenue (2/3)

This subway station has two fare control areas, one for each platform: uptown and downtown platforms. Each side has two stairways, from the north and south corners of 116th Street and Lenox Avenue.

The existing conditions for the pedestrian flow at the fare control areas (R302 and R303) and four stairways were analyzed for this station, in Table 5-10. All of the station's fare control elements and stairs operate at LOS A.

125th Street/Lenox Avenue (2/3)

This station has two fare control areas, one for the uptown and the other for the downtown subway platform. Each side has two stairways, from the north and south corners of 125th Street and Lenox Avenue.

The existing conditions for the pedestrian flow at the fare control areas (R304 and R305) and four stairways were analyzed for this station in Table 5-11. All of the station's fare control elements and stairs operate at LOS A.

135th Street/Lenox Avenue (2/3)

This station has two fare control areas, one for each subway platform (uptown and downtown platforms). Each side has two stairways located at the north and south corners of 135th Street and Lenox Avenue.

The existing conditions for the pedestrian flow at the fare control areas (R306 and R307) and four stairways were analyzed for this station in Table 5-12. All of the station's fare control elements and stairs operate at LOS A.

116th Street/Lexington Avenue (6)

This station has two fare control areas, one each for the uptown and another for the downtown subway platform. Each platform has two stairways that are located at the north and south corners of 116th Street and Lexington Avenue.

During the collection of data, the station was under reconstruction. At the time the fare control area and the four stairways were not closed and did not have any restriction in terms of use.

The existing conditions for the pedestrian flow at the fare control areas (R256 and R257) and four stairways were analyzed for this station in Table 5-13. All of the station's fare control elements and stairs operate at LOS B or better.

125th Street/Lexington Avenue (4/5/6)

This station has one central mezzanine area from street level to the fare control area which leads to the bi-level station platforms. Stairways are located at each corner of East 125th Street and Lexington Avenue.

During data collection the subway station was undergoing reconstruction. The fare control area and an array of turnstiles were restricted or closed including the stairway at the northeast corner. In addition the elevator from the street level to the mezzanine fare control area and the elevator to the platforms were also out of service due to the reconstruction of the station.

The existing conditions for the pedestrian flow at the fare control area (R258) and three stairways were analyzed for this station in Table 5-14.
All of the station's fare control elements and stairs operate at LOS C or better.

Table 5-4: 116th Street Subway Station (1 & 9)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: 116th Street and Broadway	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	4.8	3.8	155	70	160	90	0.30	0.14	0.21	0.18	A	A	A	A
S3 (NW)	4.8	3.8	135	50	145	75	0.26	0.10	0.28	0.15	A	A	A	A
S2 (SE)	4.8	3.8	230	135	28	155	0.45	0.26	0.55	0.30	A	A	B	A
S4 (NE)	4.8	3.8	165	75	185	100	0.32	0.15	0.36	0.18	A	A	A	A
Fare Control Area: R173	Number	One/Two Way	In/Out Volumes											
Turnstile	6	2	460	215	555	305	0.18	0.08	0.21	0.12	A	A	A	A
Service Gate	1	2	50	45	40	20	0.07	0.07	0.06	0.03	A	A	A	A
High Wheel	2	1	175	70	175	95	0.22	0.09	0.22	0.12	A	A	A	A
Stair Location: 115th Street and Broadway	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up Volumes											
S5 (NE)	4.8	3.8	80	50	65	45	0.16	0.10	0.13	0.09	A	A	A	A
Exit Only Control Area	Number	One/Two Way	Out Volumes											
High Wheel	1	1	80	50	65	45	0.20	0.12	0.16	0.11	A	A	A	A

Table 5-5: 125th Street Subway Station (1 & 9)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location:	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SE)	4.8	3.8	110	70	125	85	0.21	0.14	0.24	0.17	A	A	A	A
M2 & M3	4.8	3.8	110	70	125	85	0.21	0.14	0.24	0.17	A	A	A	A
E101 (SW-Down)	2.0	2.0	85	30	110	65	0.33	0.12	0.43	0.25	A	A	A	A
E102 (NW-Up)	2.0	2.0	135	90	60	100	0.53	0.35	0.24	0.39	B	A	A	A
E103 (SE-Up)	2.0	2.0	100	45	60	75	0.39	0.18	0.24	0.29	A	A	A	A
Fare Control Area:	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	1	425	235	355	320	0.20	0.11	0.16	0.15	A	A	A	A
Service Gate	1	2	5	0	0	5	0.01	0.00	0.00	0.01	A	A	A	A

Table 5-6: 137th Street/City College Subway Station (1 & 9)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: Downtown 137th St and Broadway	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S2 (SW)	5.5	4.5	300	40	100	200	0.49	0.07	0.16	0.33	B	A	A	A
M2	5.8	4.8	300	40	100	200	0.46	0.06	0.15	0.31	B	A	A	A
S1&M1	5.5	4.5	215	120	140	145	0.35	0.20	0.23	0.24	A	A	A	A
Fare Control Area: R176	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	2	515	145	240	345	0.24	0.07	0.11	0.16	A	A	A	A
Service Gate	1	2	0	5	0	0	0.00	0.01	0.00	0.00	A	A	A	A
Stair Location: Uptown 137th Street and Broadway	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S4&M4 (SE)	5.5	4.5	165	120	225	155	0.27	0.20	0.37	0.26	A	A	A	A
S3 (NE)	5.1	4.1	80	55	150	100	0.14	0.10	0.27	0.18	A	A	A	A
M3	5.3	4.3	80	55	150	100	0.14	0.09	0.26	0.17	A	A	A	A
Fare Control Area: R175	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	2	245	170	315	215	0.11	0.08	0.15	0.10	A	A	A	A
Service Gate	1	2	0	5	60	40	0.00	0.01	0.09	0.06	A	A	A	A

Table 5-7: 116th Street Subway Station (B & C)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: Downtown 116th St & F.Douglass Blvd	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	5.8	4.8	230	20	45	155	0.35	0.03	0.07	0.24	A	A	A	A
P1 AB	10.0	9.0	230	20	45	155	0.19	0.02	0.04	0.13	A	A	A	A
S2 (NW)	5.8	4.8	85	30	70	50	0.13	0.05	0.11	0.08	A	A	A	A
P2 AB	10.0	9.0	85	30	70	50	0.07	0.02	0.06	0.04	A	A	A	A
Fare Control Area: N30	Number	One/Two Way	In/Out Volumes											
Turnstiles	3	2	315	50	115	205	0.24	0.04	0.09	0.16	A	A	A	A
Service Gate	1	2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
Stair Location: Uptown 116th St & F.Douglass Blvd	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S6 (SE)	5.7	5.6	45	50	80	55	0.07	0.08	0.13	0.09	A	A	A	A
P6 AB	10.0	9.0	45	50	80	55	0.04	0.04	0.07	0.05	A	A	A	A
P7 AB	9.2	8.2	45	50	80	55	0.04	0.05	0.07	0.05	A	A	A	A
S5 (NE)	5.8	4.8	15	15	75	55	0.02	0.02	0.12	0.08	A	A	A	A
P5 AB	10.0	9.0	15	15	75	55	0.01	0.21	0.06	0.05	A	A	A	A
Fare Control Area: N29	Number	One/Two Way	In/Out Volumes											
Turnstiles	3	2	60	65	150	105	0.05	0.05	0.12	0.08	A	A	A	A
Service Gate	1	2	0	0	5	5	0.00	0.00	0.01	0.01	A	A	A	A

Table 5-8: 125th Street Subway Station (A, B, C & D)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: 125th Street and St. Nicolas Avenue	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S9 (SW)	5.8	4.8	215	90	280	210	0.33	0.14	0.43	0.32	A	A	A	A
M10	6.8	5.8	215	90	280	210	0.27	0.11	0.36	0.27	A	A	A	A
S8 (NW)	5.8	4.8	190	95	275	210	0.29	0.15	0.42	0.32	A	A	A	A
M9 AB	10.2	9.2	190	95	275	210	0.15	0.08	0.22	0.17	A	A	A	A
S2 (SE)	5.8	4.8	300	215	295	230	0.46	0.33	0.46	0.35	B	A	B	A
M2	6.9	5.9	300	215	295	230	0.38	0.27	0.37	0.29	A	A	A	A
S3 (NE)	5.8	4.7	125	125	160	115	0.19	0.19	0.25	0.18	A	A	A	A
M2 AB	10.2	9.2	125	125	160	115	0.10	0.10	0.13	0.09	A	A	A	A
Fare Control Area: N26	Number	One/Two Way	In/Out Volumes											
Turnstiles	8	2	760	515	950	715	0.22	0.15	0.27	021	A	A	A	A
Service Gate	1	2	70	10	60	50	0.10	0.01	0.09	0.07	A	A	A	A
Stair Location: 127th Street and St. Nicolas Avenue	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S6 (SW)	5.8	4.8	155	55	135	110	0.24	0.08	0.21	0.17	A	A	A	A
M7	8.6	7.6	155	55	135	110	0.15	0.05	0.13	0.11	A	A	A	A
S5 (SE)	4.9	3.9	95	55	60	65	0.18	0.10	0.11	0.12	A	A	A	A
M6	8.6	7.6	95	55	60	65	0.09	0.05	0.06	0.06	A	A	A	A
Fare Control Area: N25	Number	One/Two Way	In/Out Volumes											
Turnstiles	3	2	235	90	140	165	0.11	0.04	0.06	0.08	A	A	A	A
Service Gate	1	2	5	15	5	0	0.01	0.02	0.01	0.00	A	A	A	A
High Wheel	2	1	10	5	50	10	0.01	0.01	0.06	0.01	A	A	A	A

Table 5-9: 135th Street Subway Station (B & C)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location:	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
Downtown 135th St and St Nicholas Ave				Up/Down Volumes										
S9 (SW)	13.1	12.1	180	45	55	90	0.11	0.03	0.03	0.06	A	A	A	A
Fare Control Area: N24	Number	One/Two Way		In/Out Volumes										
Turnstiles	3	2	180	45	55	90	0.14	0.03	0.04	0.07	A	A	A	A
Service Gate	1	2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
Stair Location:	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
Downtown 137h St. and St. Nicolas Ave.				Up/Down Volumes										
S6 (SW)	13.5	12.5	80	15	20	10	0.05	0.01	0.01	0.01	A	A	A	A
Fare Control Area: N22	Number	One/Two Way		In/Out Volumes										
Turnstiles	3	2	45	0	0	0	0.03	n/a	n/a	n/a	A	n/a	n/a	n/a
Service Gate	1	2	0	0	0	0	0.00	n/a	n/a	n/a	A	n/a	n/a	n/a
High Wheel	2	2	35	15	20	10	0.06	0.03	0.04	0.02	A	A	A	A
Stair Location:	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
Uptown 135th St. and St. Nicolas Ave.				Up/Down Volumes										
S7 (SE/S)	5.9	4.9	15	10	30	10	0.02	0.02	0.05	0.02	A	A	A	A
S6 (SE/E)	5.8	4.8	20	10	35	10	0.03	0.02	0.05	0.02	A	A	A	A
P5 AB	12.0	11.0	35	20	65	20	0.02	0.01	0.04	0.01	A	A	A	A
S5 (NE)	5.9	4.8	50	10	35	25	0.08	0.02	0.05	0.04	A	A	A	A
P4 AB	12.8	11.8	50	10	35	25	0.03	0.01	0.02	0.02	A	A	A	A
Fare Control Area: N23	Number	One/Two Way		In/Out Volumes										
Turnstiles	3	2	85	30	100	45	0.07	0.02	0.08	0.03	A	A	A	A
Service Gate	1	2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
Stair Location:	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
Uptown 137th St. and St. Nicolas Ave.				Up/Down Volumes										
S4 (SE)	7.9	6.9	20	15	40	20	0.02	0.02	0.04	0.02	A	A	A	A
P3	7.7	6.6	20	15	40	20	0.02	0.02	0.04	0.02	A	A	A	A
Fare Control Area	Number	One/Two Way		In/Out Volumes										
High Wheel	1	2	10	0	5	0	0.04	0.00	0.02	0.00	A	A	A	A
High Wheel-Out	2	1	10	15	35	20	0.01	0.02	0.04	0.02	A	A	A	A

Table 5-10: 116th Street Subway Station (2 & 3)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: Downtown 116th St and Lenox Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	5.6	4.6	115	50	60	80	0.19	0.08	0.10	0.13	A	A	A	A
S3 (NW)	5.1	4.1	190	65	95	130	0.34	0.12	0.17	0.23	A	A	A	A
Fare Control Area: R302	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	2	285	95	110	200	0.13	0.04	0.05	0.09	A	A	A	A
Service Gate	1	2	5	5	5	0	0.01	0.01	0.01	0.00	A	A	A	A
High Wheel	3	1	15	15	40	10	0.01	0.01	0.03	0.01	A	A	A	A
Stair Location: Uptown 116th Street and Lenox Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S2 (SE)	5.8	4.8	60	40	115	80	0.09	0.06	0.18	0.12	A	A	A	A
P2 ABC	11.8	10.8	60	40	115	80	0.04	0.03	0.08	0.05	A	A	A	A
S4 (NE)	5.8	4.8	85	15	130	95	0.13	0.07	0.20	0.15	A	A	A	A
P4 ABC	11.6	10.6	85	15	130	95	0.06	0.03	0.09	0.07	A	A	A	A
Fare Control Area: R303	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	2	100	50	140	100	0.08	0.04	0.11	0.08	A	A	A	A
Service Gate	1	2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
High Wheel	3	1	45	35	105	75	0.06	0.04	0.13	0.09	A	A	A	A

Table 5-11: 125th Street Subway Station (2 & 3)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: Downtown 125th St and Lenox Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	6.0	5.0	155	70	110	110	0.23	0.10	0.16	0.16	A	A	A	A
S3 (NW)	6.0	5.0	225	125	165	165	0.33	0.19	0.24	0.24	A	A	A	A
Fare Control Area: R304	Number	One/Two Way	In/Out Volumes											
Turnstiles	3	2	265	155	230	190	0.12	0.07	0.11	0.09	A	A	A	A
Service Gate	1	2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
High Wheel	3	1	115	40	45	85	0.09	0.03	0.04	0.07	A	A	A	A
Stair Location: Uptown 125th Street and Lenox Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S2 (SE)	5.8	4.8	105	85	120	80	0.16	0.13	0.19	0.12	A	A	A	A
P2 ABC	11.8	10.8	105	85	120	80	0.07	0.06	0.08	0.05	A	A	A	A
S4 (NE)	6.0	5.0	105	125	190	140	0.16	0.19	0.28	0.21	A	A	A	A
P4 ABC	12.0	11.0	105	125	190	140	0.07	0.08	0.13	0.09	A	A	A	A
Fare Control Area: R305	Number	One/Two Way	In/Out Volumes											
Turnstiles	3	2	125	120	200	145	0.10	0.09	0.15	0.11	A	A	A	A
Service Gate	1	2	0	0	10	5	0.00	0.00	0.01	0.01	A	A	A	A
High Wheel	3	1	85	90	100	70	0.07	0.07	0.08	0.06	A	A	A	A

Table 5-12: 135th Street Subway Station (2 & 3)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: Downtown 135th St and Lenox Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	6.2	5.2	260	40	120	175	0.37	0.06	0.17	0.25	A	A	A	A
S3 (NW)	6.2	5.2	290	130	185	190	0.41	0.19	0.26	0.27	A	A	A	A
Fare Control Area: R306	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	2	460	150	215	305	0.21	0.07	0.10	0.14	A	A	A	A
Service Gate	1	2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
High Wheel	3	1	90	20	90	60	0.07	0.02	0.07	0.05	A	A	A	A
Stair Location: Uptown 135th Street and Lenox Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S2 (SE)	6.0	5.0	75	70	120	80	0.11	0.10	0.18	0.12	A	A	A	A
P1 ABC	14.6	13.6	75	70	120	80	0.04	0.04	0.07	0.04	A	A	A	A
S4 (NE)	6.8	5.8	170	85	155	100	0.22	0.11	0.20	0.13	A	A	A	A
P2 ABC	14.6	13.6	170	85	155	100	0.09	0.05	0.08	0.05	A	A	A	A
Fare Control Area: R307	Number	One/Two Way	In/Out Volumes											
Turnstiles	3	2	115	85	145	95	0.09	0.07	0.11	0.07	A	A	A	A
Service Gate	1	2	0	0	5	0	0.00	0.00	0.01	0.00	A	A	A	A
High Wheel	3	1	130	70	125	85	0.11	0.06	0.10	0.07	A	A	A	A

Table 5-13: 116th Street Subway Station (6)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: Downtown 116th St and Lexington Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	5.3	4.3	395	110	130	295	0.68	0.19	0.22	0.51	B	A	A	B
P1 AB	11.6	10.6	395	110	130	295	0.28	0.08	0.09	0.21	A	A	A	A
S3 (NW)	5.6	4.6	250	80	130	180	0.40	0.13	0.21	0.29	A	A	A	A
P3 AB	11.6	10.6	250	80	130	180	0.17	0.06	0.09	0.13	A	A	A	A
Fare Control Area: R256	Number	One/Two Way	In/Out Volumes											
Turnstiles	4	2	640	175	260	475	0.37	0.10	0.15	0.27	A	A	A	A
Service Gate	1	2	5	15	0	0	0.01	0.02	0.00	0.00	A	A	A	A
Stair Location: Uptown 116th St. and Lexington Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S2 (SE)	5.3	4.3	115	80	160	125	0.20	0.14	0.28	0.22	A	A	A	A
P2 AB	11.3	10.3	115	80	160	125	0.08	0.06	0.12	0.09	A	A	A	A
S4 (NE)	5.3	4.3	105	95	205	145	0.18	0.16	0.35	0.25	A	A	A	A
P4 AB	11.3	10.3	105	95	205	145	0.08	0.07	0.15	0.10	A	A	A	A
Fare Control Area: R257	Number	One/Two Way	In/Out Volumes											
Turnstiles	4	2	220	170	330	245	0.13	0.10	0.19	0.14	A	A	A	A
Service Gate	1	2	0	5	35	25	0.00	0.01	0.05	0.04	A	A	A	A

Table 5-14: 125th Street Subway Station (4, 5 & 6)

SUBWAY STATION ELEMENTS			15- MINUTE PEDESTRIAN VOLUME				V/SCD RATIO				LEVEL OF SERVICE			
Stair Location: 125th Street and Lexington Ave.	Width	Eff. Width	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
			Up/Down Volumes											
S1 (SW)	5.6	4.6	185	220	330	215	0.30	0.32	0.53	0.35	A	A	B	A
M1 AB	10.5	9.5	185	220	330	215	0.14	0.16	0.26	0.17	A	A	A	A
S3 (NW)	5.6	4.6	420	320	485	315	0.68	0.52	0.78	0.51	B	B	C	B
M3 AB	10.5	9.5	420	320	485	315	0.33	0.25	0.38	0.25	A	A	A	A
S2 (SE)	5.7	4.7	570	180	325	210	0.90	0.28	0.51	0.33	C	A	B	A
M2 AB	7.2	6.2	570	180	325	210	0.68	0.22	0.39	0.25	B	A	A	A
S4 (NE)	5.7	4.7	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
M4 AB	7.2	6.2	0	0	0	0	0.00	0.00	0.00	0.00	A	A	A	A
Fare Control Area: R258	Number	One/Two Way	In/Out Volumes											
Turnstiles	5	2	765	535	770	480	0.35	0.25	0.36	0.22	A	A	A	A
Service Gate	1	2	315	155	335	215	0.47	0.23	0.50	0.32	B	A	B	A
High Wheel	1	1	95	10	25	25	0.23	0.02	0.06	0.06	A	A	A	A

Notes: The Capacity for Stairs = 17 persons per minute per foot
The Capacity for Turnstiles = 32 persons per minute per foot
The Capacity for Service Gate = 50 persons per minute per foot
The Capacity for High Entrance/Exit Turnstile = 20 persons per minute per foot
The Capacity for High Exit Turnstile = 30 persons per minute per foot

Source: New York City Transit, Station Operations Planning Division
City Environmental Review Quality Review Technical Manual
Environmental Assessment and Review Division; NYC Department of City Planning, October 2001

5.2 Bus Service

Twenty-two New York City Transit (NYCT) local bus routes provide service within the study area as indicated in Exhibit 5-2: "Local Bus Routes". These bus routes operate on all avenues (north-south direction) as well as on the three major cross-town streets (116th, 125th and 135th Streets). The majority of the bus routes within the study area can be characterized by the loading and unloading activity of many bus riders transferring to and from other routes. Whereas the M35 and M60 are feeder routes (see route description) which have much lower ridership turnover and where most passengers have a common origin or destination.

Reviewing the "*Summary of Ridership and Average Passengers per Trip*" data provided by the NYCT for the bus routes that serve the Harlem/Morningside Heights study area, it is evident that the area is well served and has adequate bus service on all the bus routes. The frequency of bus service varies greatly; reflecting different user patterns within the area of study (see Table 5-15 below).

Table 5-15: Average Frequency of NYCT Bus Service (in minutes)

	Weekday					Saturday					Sunday				
Route	AM	Noon	PM	Eve	Night	AM	Noon	PM	Eve	Night	AM	Noon	PM	Eve	Night
M1	8	9	8	10	60	12	9	9	11	60	20	10	9	13	60
M2	Use M2L			9	60	12	Use M2L		12	60	24	Use M2L		15	60
M2L	7	10	6	ns	ns	Ns	10	10	ns	ns	ns	12	12	ns	ns
M3	9	10	8	11	ns	12	9	9	12	ns	20	11	9	13	ns
M4	7	9	8	10	ns	12	9	9	12	ns	17	10	9	13	ns
M5	Use M5L			7	ns	12	10	11	12	ns	17	9	10	13	ns
M5L	7	10	9	ns	ns	No Weekend Service									
M7	9	9	8	9	60	10	8	6	10	60	13	9	7	9	60
M10	9	1	9	9	30	11	8	9	9	ns	15	10	10	11	ns
M11	9	8	10	9	ns	13	10	9	10	ns	15	10	8	9	ns
M15	5	6	6	7	30	8	4	5	7	30	9	5	5	7	30
M15L	4	8	5	8	ns	Ns	10	10	14	ns	ns	10	10	15	ns
M18	20	30	30	ns	ns	30	30	30	ns	ns	30	30	30	ns	ns
M35	11	15	12	12	ns	12	15	15	14	ns	17	15	15	15	ns
M60	9	11	9	9	ns	12	12	10	10	ns	15	10	10	10	ns
M98	8	ns	11	ns	ns	No Weekend Service									
M100	8	9	9	10	ns	10	10	10	10	ns	13	11	11	12	ns
M101	6	6	6	9	60	11	10	10	12	60	10	10	10	12	60
M101L	6	6	6	ns	ns	11	10	10	ns	ns	10	10	10	ns	ns
M102	7	12	10	12	60	15	12	10	12	60	20	12	13	13	60
M103	10	12	10	12	60	15	12	10	13	60	15	11	11	15	60
M104	4	5	5	6	45	11	5	4	5	45	15	6	5	8	45
M116	6	11	10	17	ns	20	15	12	18	ns	20	15	12	18	ns
Bx15	7	8	7	10	60	9	8	9	10	60	10	9	8	11	60
Bx33	12	12	12	15	ns	20	20	20	30	ns	30	20	20	30	Ns

Notes: Time Periods: AM= 7-9 AM, Noon= 11 AM-1 PM, PM= 4-7 PM, Eve= 7-9 PM and Night= Midnight - 4 AM
ns = no service during time period.
Headway in minutes

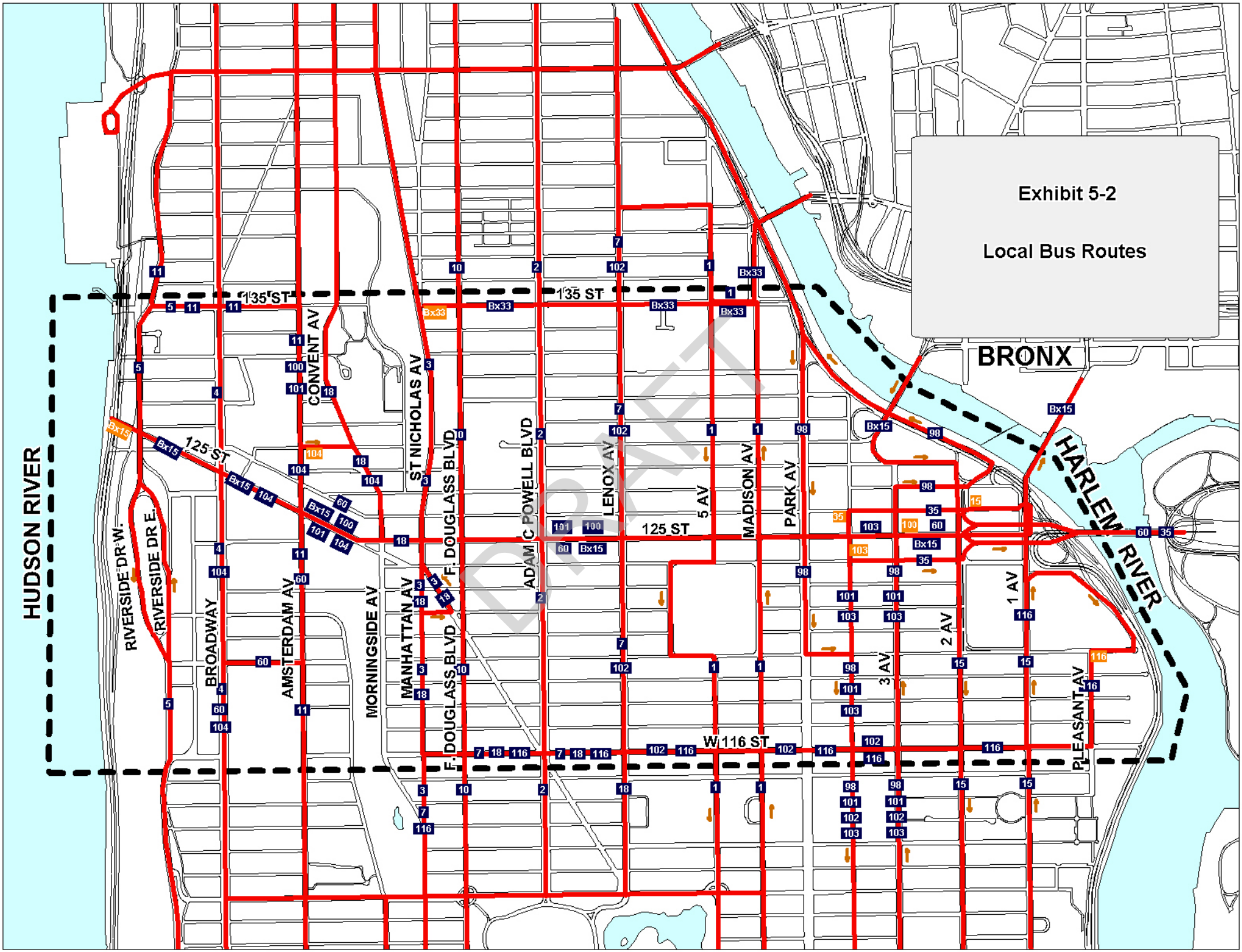
Exhibit 5-2
Local Bus Routes
DRAFT
HUDSON RIVER
HARLEM RIVER
BRONX
135 ST
125 ST
W 116 ST
RIVERSIDE DR W
RIVERSIDE DR E
BROADWAY
AMSTERDAM AV
CONVENT AV
MORNINGSIDE AV
ST NICHOLAS AV
MANHATTAN AV
F DOUGLASS BLVD
ADAM C POWELL BLVD
LENOX AV
5 AV
MADISON AV
PARK AV
3 AV
2 AV
1 AV
PLEASANT AV

A summary of existing conditions for the local bus routes analyzed in this study is provided in Tables 5-16a, 5-16b, 5-17a, and 5-17b. The following is a brief description of each bus route and the frequency of their services within the study area:

M1 Fifth and Madison Avenues

The M1 operates between East 8th Street/Fourth Avenue in the East Village and West 146th Street/Lenox Avenue in Harlem at all times. On weekdays some buses continue downtown to South Ferry and head uptown from South Ferry. The bus service to and from South Ferry is provided from the morning to the evening rush hours. Frequency of this bus service occurs every 8 to 15 minutes.

In the study area the M1 operates northbound on Madison Avenue and southbound on Fifth Avenue.

M2 and M2 Limited Fifth and Madison Avenues/Adam C. Powell Boulevard

The M2 operates between East 8th Street/4th Avenue in the East Village and West 168th Street/Broadway in Washington Heights at all times. Limited-stop service is provided during the day and the M2 limited bus service operates south of 110th Street. For local service use other NYCT bus routes.

Within the study area the M2 operates in both directions along Adam Clayton Powell Boulevard.

M3 Fifth and Madison Avenues/St. Nicholas Avenue

The M3 operates between East 8th Street/Fourth Avenue and West 193rd Street/St. Nicholas Avenue. Daily service is provided from early morning through late in the evening, but there is no overnight service.

The M3 travels on Manhattan and St. Nicholas Avenues in both directions within the study area.

M4 Fifth and Madison Avenues/Broadway

The M4 operates between West 32nd Street/Seventh Avenue (Penn Station) and Fort Tryon Park in Washington Heights every day. Limited-stop service is provided during the weekday

rush hours: downtown beginning at West 157th Street and uptown to West 157th Street. No overnight service on this route.

Within the study area the M4 travels in both directions on Broadway.

M5 and M5 Limited Fifth and Sixth Avenues/Riverside Drive

The M5 operates daily between Houston Street/West Broadway in Greenwich Village and West 178th Street/Broadway (George Washington Bus Terminal) in Washington Heights. Limited-stop areas are on Broadway between 157th and 135th Streets and south of 72nd Street. Buses make all stops on Riverside Drive between 135th and 72nd Streets. No overnight service on this route. In the study area the M5 travels on Riverside Drive.

M7 Columbus/Amsterdam/Lenox/Sixth and Seventh Avenues/Broadway

The M7 operates between Union Square and West 147th Street/Adam Clayton Powell Boulevard, every day at all times.

Within the study area the M7 travels on Lenox Avenue and across West 116th Street to Manhattan Avenue.

M10 Central Park West/ Frederick Douglass Boulevard

The M10 operates daily between West 31st Street/Seventh Avenue (Penn Station) and West 159th Street/Frederick Douglass Boulevard. No weekend overnight service provided.

The M10 operates on Frederick Douglass Boulevard within the study area.

M11 Ninth (Columbus) and Tenth (Amsterdam) Avenues

The M11 operates between Bethune/Hudson Streets (Abingdon Square) and West 135th Street/Broadway from about 5 AM to midnight. Service is extended daily to Riverbank State Park at West 145th Street from about 8 AM to 9 PM. No overnight service.

The M11 travels on Amsterdam Avenue in both directions within the study area.

M15 and M15 Limited First and Second Avenues

The M15 operates between Second Avenue/East 126th Street and South Ferry at all times. Some of the buses end at Park Row/City Hall on weekdays only and others end at Houston Street. Limited stop service is provided every day.

In the study area northbound M15 travels on First Avenue and southbound service is on Second Avenue.

The M15 Limited operates in both directions on weekdays. On Saturdays and Sundays limited service is provided from mid-morning through the evening hours.

M18 Convent Avenue

The M18 operates between West 168th Street/Broadway and East 110th Street (Central Park North)/Fifth Avenue every day. No overnight service on this route.

The M18 travels on 116th Street, Manhattan and Convent avenues within the study area.

M35 Randall's and Ward's Islands

The M35 operates daily between East 125th St/Lexington Avenue and Randall's/Ward's Islands. No overnight service on this route.

Within the study area the M35 travels westbound from the Triborough Bridge along West 126th Street to Lexington Avenue and West 124th Street to the bridge. No overnight service is provided.

M60 LaGuardia Airport via 125th Street

The M60 operates daily between West 106th Street/Broadway and LaGuardia Airport. No overnight service.

In the study area the M60 crosses 125th Street from Second Avenue/Triborough Bridge to travel on Amsterdam Avenue, West 120th Street, Broadway to West 106th Street.

M98 Limited Washington Heights/Midtown

Limited-stop service operates between West 193rd Street/Fort Washington Avenue (Fort Tryon Park) and East 34th Street/Lexington Avenue via Fort Washington Avenue, Harlem River Drive, Lexington and Third Avenues on weekdays during rush hours only.

In the southbound direction the M98 travels on Park and Lexington Avenues and in the northbound direction on Third Avenue and Harlem River Drive.

M100 Amsterdam Avenue/Broadway/125th Street

The M100 operates between West 220th Street/Broadway and East 125th Street/ Second Avenue every day. No overnight service provided.

The M100 travels on Amsterdam Avenue and 125th Street within the study area.

M101 and M101 Limited Third/Lexington/Amsterdam Avenues

The M101 operates daily between West 193rd Street/Amsterdam Avenue and East 8th Street via Amsterdam Avenue, 125th Street, Lexington and Third Avenues. The M101 limited-stop service operates between East 116th Street and East 8th Street in both directions.

In the study area the M101 bus route operates on Amsterdam Avenue and 125th Street (both directions), on Lexington Avenue (southbound direction), and on Third Avenue (northbound direction).

M102 Third/Lexington/Lenox Avenues

The M102 operates daily between West 147th Street/Adam Clayton Powell Boulevard and East 8th Street/Third Avenue via Malcolm X Boulevard (Lenox Avenue), 116th Street, Lexington and Third Avenues.

Within the study area the M102 travels on Malcolm X Boulevard (Lenox Avenue) and 116th Street.

M103 Third/Lexington Avenues

The M103 operates between East 125th Street/Lexington Avenue and Park Row/City Hall every day. Within the study area the M103 travels southbound on Lexington Avenue and northbound on Third Avenue.

M104 Broadway/42nd Street

The M104 operates daily between West 129th Street/Amsterdam Avenue and East 42nd Street/First Avenue (United Nations) via Broadway and 42nd Street. The M104 travels on Broadway and a two block section of 125th Street within the study area.

M116 116th Street Crosstown

The M116th Street operates between West 106th Street/Broadway and East 120th Street/Pleasant Avenue everyday. No overnight service.

In the study area the M116 travels on 116th Street (both directions), on First Avenue northbound and on Paladino and Pleasant Avenues.

Bx15 125th Street Crosstown

The Bx15 crosses the Harlem River westbound via the Third Avenue Bridge and eastbound via the Willis Avenue Bridge and also travels along 125th Street to Riverside Drive. Within the study area the Bx15 travels across 125th Street.

Bx33 East 138th/West 135th Streets

The Bx33 operates daily between East 132nd Street/Locust Avenue, Port Morris (Bronx) and St. Nicholas Avenue/West 135th Street (Manhattan). The Bx33 crosses the Harlem River via Madison Avenue Bridge. No overnight bus service on this route.

Within the study area, the Bx33 travels across 135th Street.

Table 5-16a: 2003 Existing Bus Conditions (AM-MD)

Route/Direction		AM					Midday				
		Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity	Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity
M1	SB	8	560	356	45	204	7	490	207	30	283
M1L	SB	7	490	265	52	125	--	--	--	--	--
M1	NB	5	350	154	31	196	7	490	198	28	292
M1L	NB	--	--	--	--	--	--	--	--	--	--
M2	SB	10	700	395	40	305	6	420	148	25	272
M2	NB	7	490	148	21	342	6	420	111	19	309
M3	SB	7	490	336	48	154	7	490	209	30	281
M3	NB	6	420	135	23	285	7	490	181	26	309
M4	SB	13	910	521	40	389	8	560	222	28	338
M4L	SB	5	350	194	39	156	--	--	--	--	--
M4	NB	13	910	366	28	544	8	560	161	20	399
M4L	NB	--	--	--	--	--	--	--	--	--	--
M5	SB	--	--	--	--	--	--	--	--	--	--
M5L	SB	11	770	520	47	250	6	420	138	23	282
M5	NB	--	--	--	--	--	--	--	--	--	--
M5L	NB	4	280	160	40	120	6	420	128	21	292
M7	SB	8	560	367	46	193	6	420	137	23	283
M7	NB	4	280	150	38	130	7	490	202	29	288
M10	SB	8	560	340	43	220	6	420	163	27	257
M10	NB	8	560	124	16	436	6	420	165	28	255
M11	SB	7	490	307	44	183	7	490	166	24	324
M11	NB	9	630	402	45	228	7	490	161	23	329
M15	SB	15	1050	580	34	542	10	700	262	26	438
M15L	SB	21	1470	1055	50	415	10	700	395	40	305

Table 5-16b: 2003 Existing Bus Conditions (AM-MD)

Route/Direction		AM					Midday				
		Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity	Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity
M15	NB	14	980	706	50	274	10	700	299	30	401
M15L	NB	17	1190	733	43	457	10	700	314	31	386
M18	SB	3	210	40	13	170	2	140	11	6	129
M18	NB	2	140	6	3	134	2	140	5	3	135
M60	EB	6	420	307	51	113	6	420	210	25	210
M60	WB	7	490	235	34	255	4	280	107	27	173
M98	SB	7	490	417	60	73	--	--	--	--	--
M98	NB	3	210	62	21	148	--	--	--	--	--
M100	SB	6	420	392	65	28	7	490	196	28	294
M100	NB	7	490	336	48	154	6	420	203	34	217
M101	SB	11	770	522	47	248	11	770	326	30	444
M101	NB	10	700	566	57	134	10	700	268	27	432
M102	SB	6	420	273	46	147	5	350	152	30	198
M102	NB	6	420	212	35	208	5	350	142	28	208
M103	SB	6	420	221	37	199	6	420	151	25	269
M103	NB	6	420	205	34	215	5	350	189	38	161
M104	SB	17	1190	527	31	663	12	840	341	28	499
M104	NB	7	490	217	31	273	12	840	295	25	545
M116	EB	14	980	658	47	322	5	350	113	23	237
M116	WB	6	420	325	54	95	5	350	126	25	224
Bx15	SB	9	630	468	52	162	7	490	284	41	206
Bx15	NB	7	490	397	57	93	7	490	271	39	219
Bx33	EB	4	280	95	24	185	6	420	43	7	377
Bx33	WB	6	420	155	26	265	6	420	56	9	364

Notes: Peak hours; 8-9 AM, 12-1 Midday, 5-6 PM & Hourly capacity guideline of 70 passengers per bus.

Table 5-17a: 2003 Existing Bus Conditions (PM-Sat MD)

Route/Direction		PM					Saturday (Midday)				
		Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity	Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity
M1	SB	6	420	263	44	157	7	490	270	39	220
M1L	SB	--	--	--	--	--	--	--	--	--	--
M1	NB	8	560	324	41	236	6	420	117	20	303
M1L	NB	5	350	173	35	177	--	--	--	--	--
M2	SB	11	770	262	24	508	6	420	135	23	285
M2	NB	8	560	396	50	164	6	420	129	22	291
M3	SB	9	630	310	34	320	7	490	182	26	308
M3	NB	7	490	228	33	262	5	350	145	29	205
M4	SB	7	490	299	43	191	9	630	201	22	429
M4L	SB	--	--	--	--	--	--	--	--	--	--
M4	NB	8	560	335	42	225	8	560	211	26	249
M4L	NB	6	420	237	40	183	--	--	--	--	--
M5	SB	--	--	--	--	--	7	490	181	26	309
M5L	SB	7	490	169	24	321	--	--	--	--	--
M5	NB	--	--	--	--	--	6	420	155	26	265
M5L	NB	6	420	221	37	199	--	--	--	--	--
M7	SB	8	560	255	32	305	8	560	209	26	351
M7	NB	9	630	338	38	292	6	420	207	35	213
M10	SB	7	490	193	28	297	8	560	173	22	387
M10	NB	7	490	272	39	218	8	560	170	21	390
M11	SB	7	490	265	38	225	6	420	144	24	276
M11	NB	7	490	260	37	230	6	420	192	32	228
M15	SB	10	700	462	46	238	12	840	331	28	509
M15L	SB	13	910	517	40	393	6	420	236	39	184

Table 5-17b: 2003 Existing Bus Conditions (PM-Sat MD)

Route/Direction		PM					Saturday (Midday)				
		Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity	Buses per Hour	Hourly Capacity	Hourly Volume	Avg Vol per Bus	Available Capacity
M15	NB	14	980	578	41	402	12	840	228	19	612
M15L	NB	15	1050	519	35	531	5	350	147	29	203
M18	SB	3	210	34	11	176	2	140	10	5	130
M18	NB	2	140	7	4	133	2	140	10	5	130
M60	EB	5	350	270	54	80	5	350	204	41	146
M60	WB	6	420	259	43	161	5	350	137	27	213
M98	SB	2	140	31	16	109	--	--	--	--	--
M98	NB	8	560	336	42	224	--	--	--	--	--
M100	SB	8	560	207	26	353	6	420	155	26	264
M100	NB	6	420	333	56	87	6	420	164	27	256
M101	SB	12	840	459	38	381	7	490	255	36	235
M101	NB	12	840	591	49	249	6	420	208	35	212
M102	SB	7	490	185	26	305	7	490	145	21	345
M102	NB	6	420	289	48	131	7	490	183	26	307
M103	SB	7	490	163	23	324	7	420	116	17	374
M103	NB	7	490	308	44	182	6	420	178	30	242
M104	SB	12	840	392	33	448	15	1050	453	30	597
M104	NB	14	980	553	40	427	13	910	413	32	497
M116	EB	6	420	257	43	163	4	280	105	26	175
M116	WB	6	420	305	51	115	4	280	96	24	184
Bx15	SB	7	490	296	42	194	7	490	278	40	212
Bx15	NB	7	490	392	56	98	8	560	250	31	310
Bx33	EB	4	280	123	31	157	3	210	57	19	153
Bx33	WB	6	420	83	14	337	3	210	48	16	162

Notes: Peak hours' 5-6 PM and 1-2 PM Saturday & Hourly capacity guideline of 70 passengers per bus.