A. INTRODUCTION

This chapter of the EIS describes the transit and pedestrian travel characteristics and potential impacts associated with the security plan, which affects an approximately 7-block area in Lower Manhattan, bounded generally by Worth Street to the north, Centre Street to the west, Frankfort Street to the south, and St. James Place and Pearl Street to the east (see Figure 1-1 in Chapter 1, "Project Description"). As described in detail in earlier chapters of this EIS, the security measures include the installation of attended security checkpoint booths, planters, bollards and hydraulically operated delta barriers to restrict the access of unauthorized vehicles from the roadways situated adjacent to the civic facilities located near One Police Plaza. The transit and pedestrian analysis focuses on the bus and pedestrian diversions related to the street closures. The analyses that follow provide an overview of existing conditions, both before the events of September 11, 2001 and post-September 11, 2001, to establish a baseline condition from which impact significance can be determined. The security zone has been operational for over four years and therefore the transit and pedestrian effects of the action (the With-Action condition) are readily evident and are documented in the field under 2006 conditions.

As the security plan has not affected subway facilities or service, an assessment of subway facilities and services has been screened out and is not included within this chapter.

Following the baseline discussion is an assessment of No-Action conditions (no security plan in 2006) and With-Action conditions (the security plan in place in 2006) for an assessment of potential impacts based on criteria established in the *CEQR Technical Manual*.

B. BASELINE CONDITIONS

Transit

Local Bus Service

The roles of local buses are to serve the immediate Lower Manhattan area and to connect it with various parts of Manhattan to the north and Downtown Brooklyn. Local bus routes are designed to collect and distribute passengers throughout the service area. All local bus routes operate during the weekdays and most provided weekend service. All public local bus routes are operated

by the New York City Transit (NYCT) and provided extensive service throughout Lower Manhattan. Prior to September 11, 2001, NYCT operated 4 local bus routes that traversed Park Row including the M9, M15, M103, and B51. In addition, the M22 operated on Worth Street (westbound) and St. James Place (eastbound).

Since local buses operated with relatively short headways, i.e., the time between bus arrivals, (less than 10 minutes) and made many stops, service was frequent through the study area, particularly during the weekday morning and afternoon peak periods. All local bus routes in the study area started/terminated in Lower Manhattan and connected with destinations in Midtown and Upper Manhattan with the exception of the B51, which operated between Lower Manhattan and Downtown Brooklyn via the Manhattan Bridge. The busiest local route in Lower Manhattan was the M15 (including limited-stop service), which typically served over 65,000 riders on an average weekday. The M15 was also the only bus route with two different terminal points in Lower Manhattan (South Ferry and Park Row/City Hall). The M15 route operated "limited stop" local service that skipped selected bus stops to provide faster service.

Figure 8-1 shows the Lower Manhattan area bus route maps for 2000, 2003 and 2005. As shown in the figure, prior to implementing the security plan in 2001, Park Row hosted the M9, M15, M103 and B51 bus routes. The M9 route operated between Union Square and South End Avenue in Battery Park City, while the M15 (the segment through Park Row) traversed from East 126th Street to City Hall via 1st and 2nd Avenues. The M103 operated between East 125th Street and City Hall via Lexington and 3rd Avenues, while the B51 route traversed from the Fulton Mall in Brooklyn to City Hall (Manhattan) via the Manhattan Bridge. Together these four bus routes provided 25 to 30 buses per hour per direction in the peak commuter periods. Table 8-1 presents the pre-September 11, 2001 data on the average weekday bus ridership for the total length of these routes.

Table 8-1: Pre-September 11, 2001
Average Weekday Local Bus Ridership

Route	Ridership
M9	5,015
M15	65,385
M103	15,402
B51	4,528
Total	**90,330**

Source: Historical data from the MTA *2003 Subway and Bus Ridership Report*

Figure 8-1
Local Bus Routes

Bus Routes
January 2000

Bus Routes
April 2003

Bus Routes
July 2005

Express Bus Service

The role of the express bus service in the area is to serve commuters from communities generally outside of Manhattan, and to transport them to and from Lower Manhattan. Some express routes were operated by NYCT, while other express routes were operated by private companies under contract to the New York City Department of Transportation. A total of 36 express bus routes operated by the NYCT between Lower Manhattan and various parts of New York City (mostly the outer boroughs), and 9 express bus routes were operated by private companies between Lower Manhattan and the Bronx, Queens, and Brooklyn. These express bus routes operate on a limited schedule (usually during the morning and evening peak periods) and are designed to bring commuters from distant locations into Lower Manhattan in a quick and efficient manner.

Prior to September 11, 2001, NYCT operated two express bus routes that traversed Park Row including the X25 and X90 (see Figure 8-2). Both of these bus routes started/terminated in Lower Manhattan and connected with destinations in Midtown and Upper Manhattan

Figure 8-2 shows the Lower Manhattan area bus route maps for 1995 and 2006. As shown in the figure, prior to implementing the security plan in 2001, Park Row hosted the X25 and X90 express bus routes. The X25 route operated between Grand Central and Battery Park via the FDR Drive, while the X90 operated between East 110th Street and Fifth Avenue and the World Financial Center via the FDR Drive. Table 8-2 presents the pre-September 11, 2001 data on the average weekday express bus ridership for the total length of these routes.

Table 8-2: Pre-September 11, 2001
Average Weekday Express Bus Ridership

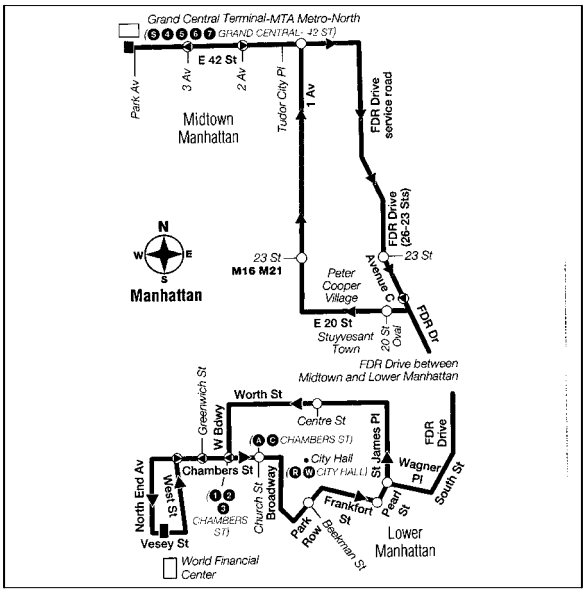
Route	Ridership
X25	132
X90	609
Total	**741**

Source: MTA *Subway & Bus Ridership Data*

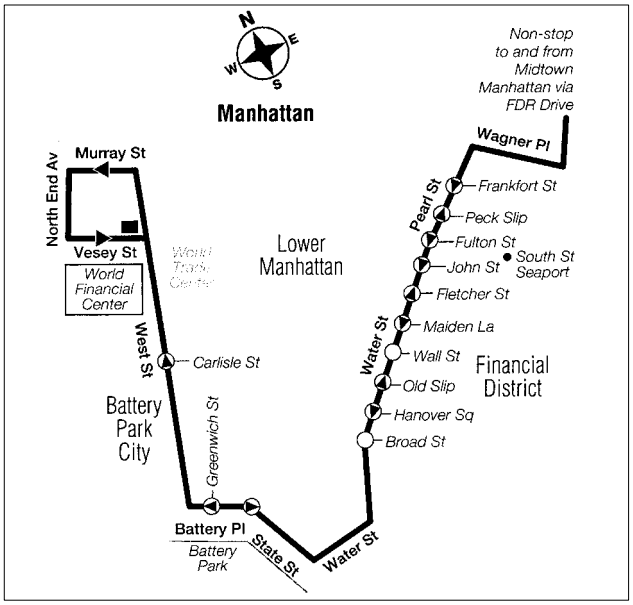
Also prior to September 11, 2001, one private company (Command Bus Company, Inc.) operated four express bus routes that traversed Park Row and Pearl Street, i.e., routes BM1, BM2, BM3, and BM4 (see Figure 8-2). In the morning these four routes all originated in Brooklyn, traveled through the study area, and terminated in Lower Manhattan on Worth Street at Centre Street. During the midday, these four routes originated on Worth Street at Centre Street, but remained on the periphery of the study area (using Lafayette Street, Centre Street, and Park Row to reach Broadway) before returning to Brooklyn. No pre-9/11 data on bus ridership for these four bus routes is available.

Figure 8-2
Express Bus Routes

Express Bus Routes
1995

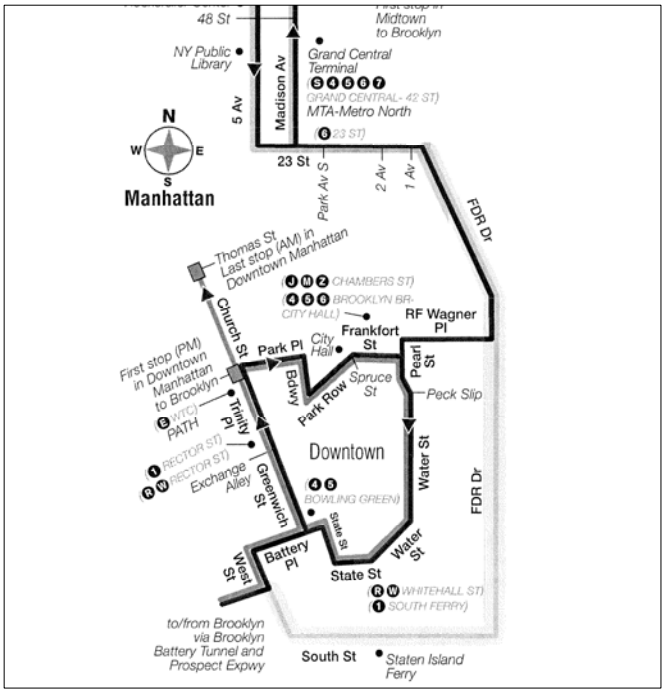


X25 Bus Route
September 2005

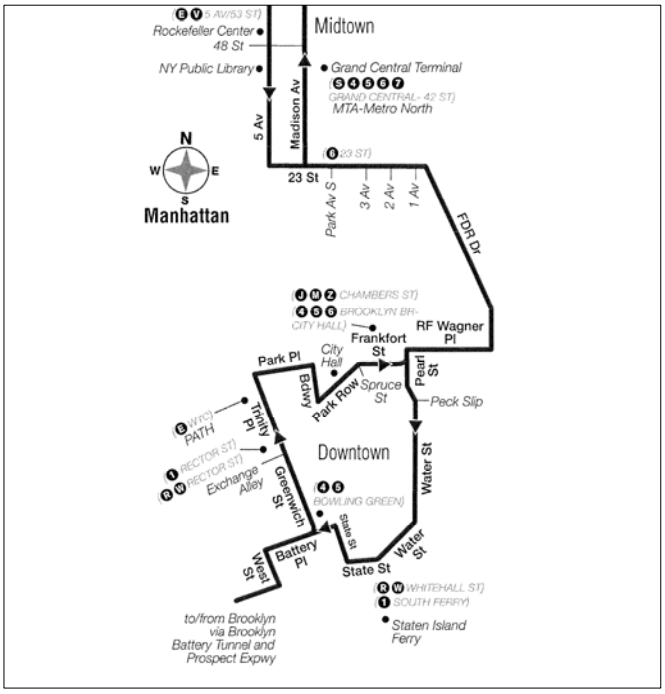


X90 Bus Route
September 2005

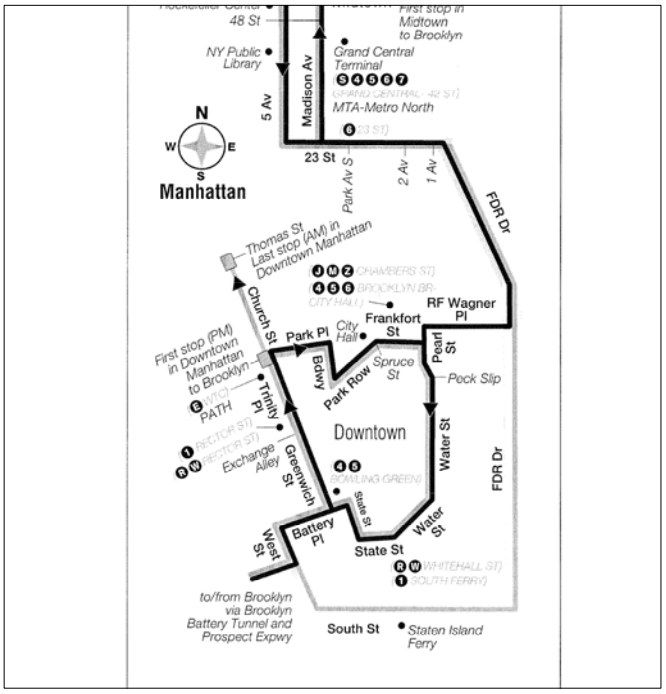
Figure 8-2 (cont'd)
Express Bus Routes



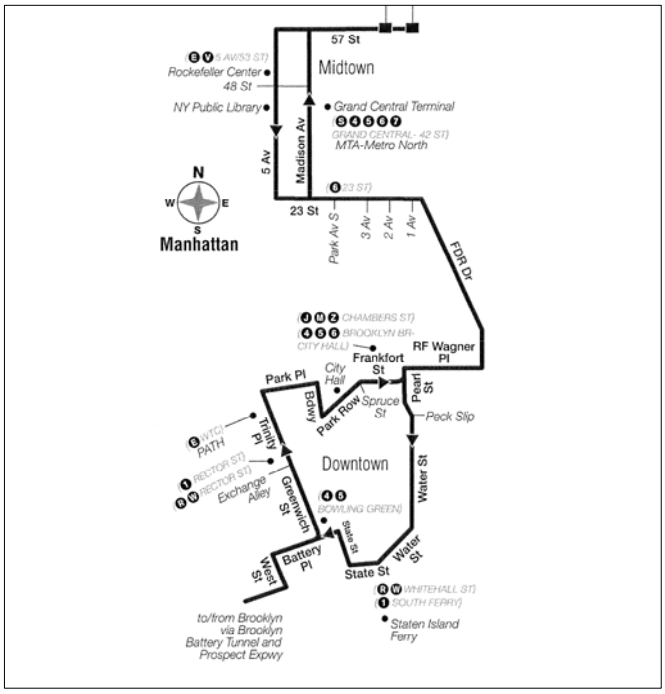
BM1 Route
2006



BM2 Route
2006



BM3 Route
2006



BM4 Route
2006

Pedestrians

All pedestrian corridors within the security zone were unrestricted in the pre-September 11, 2001 baseline condition. The 1999 street closures did not restrict any pedestrian corridors. As the area within the security zone was composed of mainly institutional and residential uses, the courthouses and office buildings drew large volumes of employees to the area throughout the day. The Verizon Building and Murray Bergtraum High School also attracted large numbers of pedestrians to the area. On weekday mornings, many students and employees arrived at the subway station located under the Municipal Building and then walked across Police Plaza and then down the stairs to Madison Street to access the high school and Verizon.

A review of the year 2000 high-accident pedestrian intersections (those with 5 or more pedestrian accidents) was also undertaken. According to the year 2000 data, table 8-3 shows that there were eight such locations in the study area. Of particular note were Catherine Street/East Broadway and Bayard Street/Bowery, both close to Chatham Square. At the north end of the study area, Canal Street had two high-accident locations (at Mott Street and at Elizabeth Street), while Broadway to the west also had two such locations (Chambers Street and Ann Street in 2000).

Table 8-3: Pedestrian High-Accident Locations (year 2000)

Intersection	Number of Pedestrian Accidents
East Broadway/Catherine Street	7
Broadway/Chambers Street	7
Bowery/Bayard Street	6
Broadway/Ann Street	6
East Broadway/Pike Street	6
Canal Street/Mott Street	6
Canal Street/Elizabeth Street	5
Church Street/Chambers Street	5

Source: 2001 *CEQR Technical Manual*

C. 2006 NO-ACTION CONDITION

Transit

Local Buses

In the 2006 No-Action condition, the local bus system within the study area would remain unchanged from the 2001 baseline condition. As a result of the terrorist attacks on September 11, 2001, 34.5 million square feet of office space in Lower Manhattan was destroyed or damaged. This loss of office space resulted in some loss of ridership on local bus routes (see Table 8-4 below). As discussed above and shown in Figure 8-1, prior to implementing the security plan

in 2001, Park Row hosted the M9, M15, M103, and B51 bus routes. The M9 route operated between Union Square and South End Avenue in Battery Park City, while the M15 (the segment through Park Row) traversed from East 126th Street to City Hall via 1st and 2nd Avenues. The M103 operated between East 125th Street and City Hall via Lexington and 3rd Avenues, while the B51 route traversed from the Fulton Mall in Brooklyn to City Hall (Manhattan) via the Manhattan Bridge. Together these four bus routes provided 25 to 30 buses per hour per direction in the peak commuter periods. The bus routes discussed above would travel along the same route as they did prior to the implementation of the security plan, except the M9 route to/from Battery Park City, which would traverse along Pearl Street around the southern tip of Manhattan. The closure of Vesey Street after September 11, 2001 eliminated the important eastbound portion of this route, necessitating its formal relocation along Pearl Street.

Table 8-4 below shows changes in average weekday bus ridership on all bus routes that travel to Lower Manhattan as well the total for all Manhattan bus routes. As shown in the table, average weekday bus ridership increased between 2000 and 2002 for Lower Manhattan routes and for all Manhattan routes. Between 2002 and 2003, ridership decreased by approximately 5% for both Lower Manhattan bus routes and all Manhattan bus routes. However, between 2003 and 2004 average weekday ridership increased for both Lower Manhattan (1.1%) bus routes and all Manhattan bus routes (0.6%). Between 2004 and 2005 average weekday ridership decreased for both Manhattan bus routes (0.2%) and Lower Manhattan (1.3%).

Table 8-4: Changes in Average Weekday Bus Ridership for Lower Manhattan Bus Routes and all Manhattan Bus Routes (2000-2005)

Year	2000	2001	2002	2003	2004	2005
Average Daily Ridership						
Lower Manhattan	116,980	122,048	123,484	117,540	118,887	117,377
Manhattan	586,010	612,742	625,742	594,607	598,090	596,635

Source: MTA *Subway & Bus Ridership Data*

Express Bus Service

As discussed above, Park Row hosted the X25, X90, BM1, BM2, BM3, and BM4 bus routes. In the No-Action condition, these bus routes would not have been rerouted around Park Row and would continue to run on the pre-September 11, 2001 routes (see Figure 8-2). The ridership for these bus routes, like local bus routes, also decreased as a result of the loss of office space in Lower Manhattan due to the events on September 11, 2001 (see Table 8-8 below).

Pedestrians

In the 2006 No-Action condition, pedestrian corridors within the study area would remain unchanged from the 2001 baseline condition. The 1999 street closures would be in place, but pedestrian access within the security zone would continue to be uninterrupted. As discussed in further detail below, one pedestrian corridor along police headquarters was closed as a result of the security plan. In the 2006 No-Action condition, this corridor would be open. Pedestrian volumes and access routes in the area would be expected to remain the same in the 2006 No-Action condition compared to the 2006 With-Action condition.

Pedestrian accident locations in the study area would likely change somewhat in the northern/eastern portion of the study area with the reconfiguration of Chatham Square into a large pedestrian space in 2004 and the construction of Foley Square Park (bounded by Worth, Centre, Lafayette, and Duane Streets) in 2001. In addition, there was an overall reduction in travel in portions of the study area with the closure of several streets in the study area. While actual No-Action data are not available, the following pedestrian section on With-Action conditions presents some data on expected No-Action conditions.

D. 2006 WITH-ACTION CONDITION

Transit

Local Bus Service

The local bus system has changed in conjunction with both the security plan as well as other Lower Manhattan street closures. Figure 8-1 shows the Lower Manhattan area bus route maps for 2000, 2003 and 2005. As shown in the figure, prior to implementing the security plan in 2001, Park Row hosted the M9, M15, M103 and B51 bus routes. After the security plan was implemented, these routes continued to operate, albeit with some modifications to route and stop locations due to the street closures.

The collective total ridership along the total length of these routes did not change substantially following the implementation of the security plan after September 11, 2001. Specific ridership data for the Lower Manhattan portion of these routes are not available; however, Table 8-5 below presents a comparison of pre- and post- September 11, 2001 average weekday bus ridership for the total length of these routes.

Table 8-5: Pre- and Post-September 11, 2001 Average Weekday Local Bus Ridership

Route	Pre-9/11/2001 *	Post-9/11/2001**	Percent Change
M9	4,528	5,371	19%
M15	62,073	61,430	-1%
M103	14,265	16,766	18%
B51	983	909	8%
Total	**81,849**	**84,476**	**3%**

*Year 2000
** Year 2005
Source: MTA *Subway & Bus Ridership Report*

In May 2005, the M103 bus (up to 6 buses per hour in each direction) returned to its original route via Park Row (see Figure 8-1, 2005 map) as a 90-day trial. Buses traveling through the security zone are subject to inspection. There are no stops within the zone itself, but immediately on either end of the zone. The test was expanded in November 2005 when the M15 and B51 buses also returned to their original routes via Park Row to/from City Hall. The M9 remains on its current diverted route. As discussed in Chapter 11, "Mitigation," the re-introduction of the M15, M103, and B51 buses to Park Row is part of a mitigation plan and is not considered in the With-Action conditions.

Under the With-Action condition, the re-routing of the above mentioned local buses has increased the route lengths. Table 8-6 below summarizes the total bus route lengths before the street closures and after the street closures. The route for the M103 prior to the street closures was approximately 15.3 miles in length (round trip). The re-routing of the M103 after the street closures were put into place increased this distance by 0.4 miles, making the total route length approximately 15.7 miles (round trip). The route for the M9 prior to the street closures was approximately 10 miles (round trip). After the street closures were put into place, the M9 was re-routed to Pearl Street/Water Street increasing the route distance by 2 miles (round trip- see Figure 8-1 for route). The route for the M15 prior to the street closures was approximately 19 miles (round trip- including part-time service along Park Row) and increased by 0.9 miles to 19.9 miles (round trip - including part-time service along Park Row) after the street closures were put into place. The route for the B51 was approximately 7.9 miles (round trip - including part-time service along Park Row). The re-routing of the B51 after the street closures were put into place increased this distance by 0.3 miles, making the total route length 8.2 miles (round trip).

Table 8-6: Local Bus Route Lengths Pre-Security Street Closures and Post-Security Street Closures (in miles)

Route	Pre-Street Closure Length	Post-Street Closure Length	Difference
M103	15.3	15.7	0.4
M9	10	12	2.0
M15	19	19.9	0.9
B51	7.9	8.2	0.3

It should be noted that the re-routing of the M9 local bus to its new route is somewhat independent of the With-Action condition as Vesey Street, which is adjacent to the World Trade Center, has been closed. To be conservative, the rerouting of the M9 is considered part of the With-Action condition.

The relocation of these routes is also affected by changes in travel patterns of overall traffic. As noted in Chapter 7, "Traffic and Parking", there has been increased congestion on both Worth Street and St. James Place, which has also slowed service on the bus routes diverted to these paths, especially in the peak traffic periods. Tables 8-7 show the northbound and southbound pre-9/11 and post-9/11 travel times for the southern portions of the M15 and M103 bus routes.

As shown in Table 8-7, travel times for these legs of the M15 and M103 routes generally have increased by 1 to up to 7 minutes during peak hours. These substantial increases in travel time could result in the potential need to add one or more buses per hour to maintain the No-Action level of service for both operations and ridership. This is especially the case in the AM and midday peak hour and in the southbound direction for the M15 route. Specific data on travel times for the B51 route was not available as the NYCT has not adjusted the B51 schedule since the security plan has been in place, but it should be assumed that the B51 route has experienced similar delays. As noted earlier, the present routing of the M9 is not primarily a result of the security plan but due to the loss of Vesey Street to service the original route. Because the present M9 route is significantly different than its route prior to September 11, 2001, the M9 will continue to remain on this current route and is therefore not included in this discussion of travel times.

Table 8-7: Local Bus Route Travel Times Pre-September 11, 2001 and Post-September 11, 2001 (in minutes)

	8-9 AM			12-1 PM			5-6 PM		
Northbound									
	Pre-9/11	**Post-9/11***	**Diff.**	**Pre-9/11**	**Post-9/11***	**Diff.**	**Pre-9/11**	**Post-9/11***	**Diff.**
M15[1]	16	20	4	16	20	4	16	18	2
M103[2]	20	21	1	20	21	1	18	20	2
B51	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southbound									
	Pre-9/11	**Post-9/11***	**Diff.**	**Pre-9/11**	**Post-9/11***	**Diff.**	**Pre-9/11**	**Post-9/11***	**Diff.**
M15[3]	15	20	5	15	22	7	13	18	5
M103[4]	15	20	5	15	20	5	23	22	-1
B51	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*Year 2003 representing the With-Action Conditions

[1] Partial route starting at Park Row/Beekman St. to 3rd Ave./ St. Marks Pl

[2] Partial route starting at Park Row/Beekman St. to 1st Ave./E. 1st St.

[3] Partial route starting at E. Houston St./2nd Ave. to Park Row/Spruce St.

[4] Partial route starting at 3rd Ave./E.6th St. to Park Row/Beekman St

Source: New York City Transit Authority

Express Bus Service

Table 8-8 presents a comparison of pre- and post-September 11, 2001 average weekday ridership for the NYCT X25, X90, and X92 express bus routes that have been rerouted due to the With-Action condition. Besides being rerouted around Park Row, the route for the X90 bus changed somewhat from the pre-September 11, 2001 route, unrelated to the security plan. The X90 was consolidated with the X92 route after 2002 and now operates between East 92nd Street and York Avenue and the World Financial Center via the FDR Drive and Pearl/Water Street (see Figure 8-2). According to the MTA, the rerouting of the X90 is permanent and would not return to its former route down Park Row. Bus ridership on the X25 bus fell dramatically (approximately 49%) from pre-September 11, 2001 to post-September 11, 2001 conditions. Bus ridership on the X90 rose by approximately 18% between 2000 and 2002 before it was consolidated with the X92 after 2002 (not shown on Table 8-8). Average weekday bus ridership for the X90/X92 was approximately 1,049 in 2005.

Table 8-8: Pre- and Post-September 11, 2001 Average Weekday Express Bus Ridership

Route	2000	2005	Percent Change
X25	132	67	-49%
X90/X92*	609	1,049	47%
Total	**741**	**1,116**	**30%**

***** The X90 and X92 buses were consolidated after September 11, 2001
Source: MTA *Subway & Bus Ridership Data*

The BM1, BM2, BM3, and BM4 bus routes were also rerouted after September 11, 2001. In the AM peak hour, in Lower Manhattan, the these bus routes operates between Brooklyn via the Brooklyn Batter Tunnel and Church Street/Thomas Street via Greenwich Street/Trinity Place/Church Street. In the PM peak hour, in Lower Manhattan, these bus routes operate between Park Place/Church Street and Brooklyn via Frankfort Street, Water Street, and Battery Place (see Figure 8-2). Ridership data for these bus routes is not available.

As discussed above, as a result of the terrorist attacks on September 11, 2001, 34.5 million square feet of office space in Lower Manhattan was destroyed or damaged The loss of ridership on the express bus routes is attributed to the loss of office space that occurred and not to the rerouting of the bus routes. As shown in Figure 8-2, the rerouting of the X25 around the security plan street closures did not change drastically from its previous route. As such, the drop in ridership between pre- and post-September 11, 2001 is most likely not attributable to the rerouting of the bus route.

Tour Bus Operations

There are two types of tours that operate within the vicinity of the study area; regionally-based tours that bring people to the area from outside of New York City and locally-based tour bus operations. According to the *Chinatown Access and Circulation Study* prepared by the Lower Manhattan Development Corporation (LMDC) in 2004, both tour types have their own unique issues with respect to pedestrian and vehicular traffic flows and parking within the vicinity of the study area.

Regional Tour Buses

Regional tour buses are not regulated by the City and there are no designated drop-off points and no specific layover locations are provided. These regionally-based tours typically drop off a bus load of tourists, relocate to a site that is on the fringes of the community where the bus lays over for a period of time, and then the tour bus returns to a designated pick-up location to continue the tour.

Since there are specific drop-off and pick-up areas for these tours, they create a concentrated crowd of people unfamiliar with the neighborhood. This process can cause vehicular congestion when the buses are idling to drop their passengers, especially if the locations are on a particularly congested street such as Canal Street. This can also be problematic for local pedestrian movements. During layover periods, regional tour buses tend to congregate in single locations along South Street and Pike Street under and near the Manhattan Bridge. This is problematic as these buses tend to form a wall along this area, blocking both visual and physical access to the waterfront, and creating air and noise pollution.

Local Tours Buses

Local tours run a prescribed route with designated stop locations. The primary local tour operator in the City (Gray Line) runs bus tours on a twenty minute headway south down Broadway. The bus then loops around Battery Park and continues north back through Chinatown along Allen Street. There are three designated stops within the study area:

- Chinatown/Little Italy - Broadway between Walker and Lispenard Streets
- City Hall/Brooklyn Bridge - Park Row at City Hall Park
- South Street Seaport - South Street between Fulton and John Streets

According to the LMDC study, the local tour bus stop for Chinatown/Little Italy is far from the tourist cores of these areas. The primary advertised Chinatown stop is on Broadway, two blocks west of the historic Chinatown core. The key issue is the economic impact of not having a stop located closer to the focus of tourist activity in Chinatown and Little Italy, particularly on the northbound part of the tour loop.

Although tour bus operations have affected street conditions and mobility within the study area, these problems do not appear to be a result of the action. The street closures have not limited access and circulation for local tour bus routes within the vicinity of the study area. In addition, the action has not affected regional tour bus operations as the problems with the regional tour buses discussed above are not a result of the street closures.

Pedestrians

According to the *CEQR Technical Manual*, a pedestrian analysis is appropriate when a proposed action would result in 200 or more pedestrian trips per hour at any pedestrian element. As the action has not or would not result in additional pedestrian trips in the area, a pedestrian analysis is not warranted. However, as the action has limited pedestrian accessibility in certain areas of the security zone, a brief discussion of this pedestrian detour is discussed below.

With the exception of one corridor, the streets that are closed to vehicular traffic as a result of the security plan are open to pedestrian activity. The pedestrian corridor running between Police Headquarters to the intersection of Madison Street and Pearl Street was closed as part of the security plan. This corridor connects the plaza in front of Police Headquarters to the intersection of Madison and Pearl Streets. The distance through this corridor from the edge of the plaza to the intersection is approximately 540'. There is a staircase along this corridor and, it is therefore not a handicapped route. With this route closed, pedestrians must travel along the south side of the headquarters building along Avenue of the Finest and Madison Street. The distance for this alternate route from the edge of the plaza to the intersection of Madison and Pearl Streets is approximately 780'. There is a staircase along this route as well. The increase in walking distance for pedestrians equals 240' or about one average city block. Based on field observations, there does not appear to be any congested pedestrian sidewalks resulting from the closed path adjacent to police headquarters. This change would not constitute a significant adverse impact.

Pedestrian Safety

As discussed in Chapter 7, "Traffic and Parking," the With-Action security measures have restricted unauthorized vehicular access within the security zone boundary. Much of the traffic that would otherwise use these street segments are diverted to the Worth Street, St.James/Pearl Street, Frankfort Street, and Centre Street corridors. As a consequence of these diversions, there have been changes in the numbers of vehicles turning across various crosswalks within the security zone and within the immediate vicinity of the security zone (see Figures 7-7a through 7-7c in Chapter 7, "Traffic and Parking"). For example, the numbers of turning vehicles traversing crosswalks on Park Row have decreased substantially, while the number of vehicles turning across the west crosswalk at Worth Street at Chatham Square has increased.

Table 8-9 shows 2005 pedestrian high accident locations in the study area compared to the high-accident locations in the year 2000.

Table 8-9: Pedestrian High Accident Locations (2000 vs. 2005)

Intersection	Number of Pedestrian Accidents	
	2000*	2005**
East Broadway/Catherine Street	7	0
Broadway/Chambers Street	7	3
Bowery/Bayard Street	6	1
Broadway/Ann Street	6	0
East Broadway/Pike Street	6	1
Canal Street/Mott Street	6	2
Canal Street/Elizabeth Street	5	3
Church Street/Chambers Street	5	2

Source: *2001 *CEQR Technical Manual*
** NYC Department of Transportation

As shown in Table 8-9, the number of pedestrian accidents at high accident locations in the study area have significantly decreased from 2000 to 2005. As such, the traffic diversions due to the security plan have not increased the number of pedestrian accidents at any previous high accident location within the study area. However, as the security plan has increased traffic on the principle diversion routes of Worth Street and St. James Place/Pearl Street, an examination of pedestrian accidents along these diversion routes is warranted.

According to the 2001 *CEQR Technical Manual,* in 2000, any intersection in the City with 4 or more pedestrian accidents was considered a high pedestrian accident location. As shown in Table 8-9, no intersections along Worth Street or St. James Place/Pearl Street were considered high pedestrian accident locations in 2000. However, as shown in Table 8-10, certain intersections along Worth Street within the vicinity of the study area have had four or more pedestrian accidents between 2003 and 2005, particularly at Worth Street and Broadway. In 2003, there were four pedestrian accidents at Worth Street and Broadway and 5 pedestrian accidents at both Worth Street and Centre and Lafayette Streets. In 2004, there were 4 pedestrian accidents at Worth Street and Broadway, 2 at Worth Street and Centre Street, and none at the remaining intersections. In 2005, there were 5 pedestrian accidents at Worth Street and Broadway, 1 accident at both Worth Street and Centre and Baxter Streets, and none at the remaining intersections.

Table 8-10: Pedestrian Accidents Along Worth Street Corridor (2003-2005)

Intersection	Number of Pedestrian Accidents		
	2003	2004	2005
Worth Street/Centre Street	5	2	1
Worth Street/Lafayette Street	5	0	0
Worth Street/Bowery	n/a	0	0
Worth Street/Broadway	4	4	5
Worth Street/Chatham Sq.	0	0	0
Worth Street/Baxter Street	0	0	1

Source: NYC Department of Transportation

As shown in Table 8-11, there have been few pedestrian accidents along the St. James Place/Pearl Street corridor between 2003 and 2005. Most intersections had one or no accidents in this time period, with the exception of the 2 pedestrian accidents at St. James Place at James Street in 2003.

Table 8-11: Pedestrian Accidents Along St. James Place/Pearl Street Corridor (2003-2005)

Intersection	Number of Pedestrian Accidents		
	2003	2004	2005
St. James Pl./James Street	2	0	0
St. James Pl./Madison	1	0	0
St. James Pl./Pearl Street	1	0	0
St. James Pl./Park Row	0	0	0
Pearl Street/RF Wagner Place	1	0	0
Pearl Street/Ave. Of the Finest	0	1	0

Source: NYC Department of Transportation

In summary, the security plan has not generated any new pedestrian trips nor will it generate any pedestrian congestion on sidewalks. Pedestrian activity continues uninterrupted, except as described above. Traffic diversions associated with these vehicular restrictions have resulted in an increase in the numbers of vehicle turning movements at some crosswalks, while decreasing or eliminating all such movements at other crosswalks within the security zone. The results of the analysis of high accident locations indicate that the action may have created a high pedestrian accident location at the intersection of Worth Street and Broadway that was not such a location in the year 2000.

E. CONCLUSION

This chapter analyzes the effects of the security plan on bus services and pedestrian activity. The security plan has not generated additional demand for bus service or additional pedestrian activity. As discussed above, the bus routes in the vicinity of the security zone were rerouted

after the security zone was put into place. There have been substantial increases in overall travel time for these bus routes, and these increases have resulted in significant adverse impacts on bus operations for the M15 and M103 routes, especially in the AM peak hour and in the southbound direction for all peak hours.

As discussed above, the security plan appears to have resulted in a significant adverse safety impact on pedestrian conditions at the Broadway/Worth Street intersection. The security plan has not generated any new pedestrian trips nor has it interrupted existing pedestrian activity and no significant adverse impacts on pedestrian flow conditions have occurred or are anticipated as a result of the action.

Chapter 11, "Mitigation," provides mitigation measures to address the bus transit and pedestrian safety impacts identified in this chapter.