

A. INTRODUCTION

This chapter of the Environmental Assessment evaluates the effects of Alternative B, C, and Preferred Alternative D on vehicular traffic, parking, transit (buses), and pedestrian conditions. It concludes that none of the build alternatives would result in significant adverse impacts on these conditions.

B. EXISTING CONDITIONS**TRAFFIC AND PARKING***THRU STREETS PROGRAM*

The New York City Department of Transportation (NYCDOT) has designated 49th and 50th Streets as “Thru Streets.” The Thru Streets program was implemented in 2002 as part of an initiative to make crosstown travel more reliable by reducing delays and increasing crosstown speeds. The Thru Streets program designates nine crosstown streets between Third and Sixth Avenues as Thru Streets—four east-west pairs and one additional westbound street. The designated streets are 36th and 37th Streets, 45th and 46th Streets, 49th and 50th Streets, 53rd and 54th Streets, and 60th Street. On these streets, regulations prohibit most turns off the streets on weekdays between 10 AM and 6 PM, with a few exceptions. Turns are permitted onto Park Avenue.

Also as part of the Thru Streets program, parking is prohibited along both sides of most non-Thru Streets in Midtown during daytime hours, to create spaces for truck loading and unloading. In addition, on most non-Thru Streets a length of 80 to 100 feet along one side of the street leading up to each intersection is reserved for turning vehicles.

EAST 50TH STREET

East 50th Street between Park and Madison Avenues is an eastbound street, 30 feet wide, with three 10-foot-wide traffic lanes. On the south side of the street, no parking or standing is permitted anytime, with the western end occupied by a bus stop for the crosstown bus (see below under “Transit”). On the eastern third of the north side of the street, no standing is permitted anytime. For the remainder of the north side of the street, regulations are as follows: between the hours of 2 PM and 5 PM, Monday through Friday, no standing is permitted except for commercial vehicles; at all other times, commercial vehicles are permitted to park for a maximum of 3 hours at muni-metered spaces.

The Thru Streets regulations for 50th Street prohibit turns from eastbound 50th Street onto Madison Avenue between 10 AM and 6 PM Monday through Friday; they also prohibit right turns onto the street from Madison Avenue during that time. At Park Avenue, vehicles are permitted to turn both right (southbound) and left (northbound).

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Traffic counts were conducted in fall 2003 on 50th Street between Park and Madison Avenues. Based on those counts, some 500 to 800 vehicles an hour travel along this block during the weekday daytime hours. Table 7-1 shows the results of the vehicle counts conducted on that block (Appendix D-2, "Traffic Data Collection Summaries," in Appendix D, "Traffic and Transportation," provides detailed results).

**Table 7-1
Average Hourly Traffic Volumes on 50th Street**

Hour	Monday and Friday	Tuesday to Thursday	Saturday	Sunday
Midnight-1 AM	316	341	425	409
1-2 AM	187	208	257	284
2-3 AM	115	120	190	225
3-4 AM	86	79	160	169
4-5 AM	97	98	146	166
5-6 AM	154	154	125	114
6-7 AM	285	299	174	140
7-8 AM	488	505	213	207
8-9 AM	587	600	327	295
9-10 AM	611	629	377	382
10-11 AM	677	647	410	442
11 AM-noon	700	734	396	460
Noon-1 PM	728	771	485	461
1-2 PM	702	707	408	430
2-3 PM	754	780	556	480
3-4 PM	745	745	514	544
4-5 PM	658	681	548	519
5-6 PM	589	591	484	470
6-7 PM	588	588	555	580
7-8 PM	589	595	554	446
8-9 PM	587	572	548	390
9-10 PM	507	509	511	401
10-11 PM	531	574	496	341
11 PM-midnight	486	482	582	271
24-hour total	11,768	12,008	9,437	8,619
Source: AKRF, Inc., vehicle counts, November 13-24, 2003.				

While three travel lanes are provided, activities on this block prevent full utilization of these lanes for moving vehicles. Curb lanes are regularly used for truck loading/unloading activities required by the numerous commercial uses on the block. In addition, the main entrance to the New York Palace Hotel is on the north side of the block close to Madison Avenue. In this area, taxis and black cars frequently pick up, drop off, and wait for passengers.

In addition to the curbside activities, several driveways situated along this roadway segment also generate non-through traffic activities. On the north side of the street adjacent to the New York Palace Hotel, a parking garage driveway is used by entering and exiting traffic throughout the day. Farther east, a loading dock provides access for truck deliveries to the office building at 320

Park Avenue. On the south side of the street, there are currently three driveways: an office building loading dock and an off-street black car storage facility at 437 Madison Avenue, immediately west of the project site, and an office building loading dock at 300 Park Avenue, immediately east of the project site.

In spring 2004, observations of the loading and unloading activities at 437 Madison Avenue were made just west and upstream of the project site on one day (from 8 AM to 1 PM). During that 5-hour period, 3 vehicles made curbside deliveries, 17 trucks used the loading dock (remaining at the dock on average 17 minutes), and 4 vehicles used the limousine dock. Most of the truck activity at the 437 Madison Avenue truck dock involves vans. On average, approximately two to three trucks back up into the dock and two to four trucks pull forward away from the dock during the AM and midday peak hours. Trucks require an average of 14 seconds to back into the dock during the AM peak hour and 23 seconds during the midday peak hour; the average time required to pull out when exiting the dock is 9 seconds during the AM peak hour and 20 seconds during the midday peak hour.

Observations were also made of the loading dock activities immediately east and downstream of the project site, at 300 Park Avenue. These observations were made on one day in spring 2004 from 7:30 AM to 12:30 PM. At that location, seven truck trips were observed at the loading dock during the 5-hour period. This dock is typically used by small to mid-size trucks. On average, during both the AM and midday peak hours, approximately three to four trucks back up into the dock and three to four trucks pull forward away from the dock. Backing into the dock typically requires about 31 seconds during the AM peak hour and 46 seconds during the midday peak hour; pulling out requires 20 seconds during the AM peak hour and 22 seconds during the midday peak hour.

The loading and unloading activities at both loading docks coupled with the curbside activities at times impede traffic flow on the 50th Street block. No more than two effective travel lanes were observed to be in use by through traffic at any time. During the AM peak hour, heavy curbside activity limits traffic to one effective moving lane. During the midday peak hour, there is less curbside activity, so traffic can often use two effective moving lanes. Traffic flow on the block can also be affected by conditions at the Park Avenue intersection: at times, southbound Park Avenue traffic blocks the intersection. This mainly occurs during the midday peak hour and is caused by double-parking along southbound Park Avenue, heavy pedestrian traffic across 47th Street that impedes traffic turning right from Park Avenue onto 47th Street, and the curve in Park Avenue at 45th Street that requires traffic to maneuver around the front of the Helmsley Hotel. All of these factors cause traffic back-ups along southbound Park Avenue, which in turn causes the intersection of Park Avenue and 50th Street to be blocked, impeding the flow of eastbound traffic on 50th Street between Park and Madison Avenues.

Traffic conditions on the 50th Street block were modeled with the CORSIM traffic simulation model. To simulate “real world” conditions, the model incorporates the many different factors that can affect traffic flow. The results of the model show that the average travel speed for vehicles on 50th Street between Madison and Park Avenues is 7.9 miles per hour in the AM peak hour and 5.1 miles per hour during the more congested midday period.

EAST 49TH STREET

49th Street is a westbound crosstown street. Like 50th Street, 49th Street is 30 feet wide with three 10-foot-wide traffic lanes wide. The Thru Streets regulations prohibit right turns from

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westbound 49th Street onto Madison Avenue between 10 AM and 6 PM Monday through Friday.

On the north side of the street, no parking or standing is permitted anytime, and the eastern end is occupied by a bus stop for the crosstown bus (see below under “Transit”). On the south side of the street, no standing is permitted between 11 AM and 2 PM, Monday through Friday; at other times, no standing is permitted except for commercial vehicles. During these times, commercial vehicles are also permitted to park for a maximum of 3 hours at metered spaces located on the south side of the street.

Traffic counts were conducted in spring 2004 on 49th Street between Park and Madison Avenues. As shown in Table 7-2, some 500 to 800 vehicles an hour travel along this block during the weekday daytime hours.

Table 7-2
Average Hourly Traffic Volumes on 49th Street

Hour	Monday and Friday	Tuesday to Thursday	Saturday	Sunday
Midnight-1 AM	295	315	393	425
1-2 AM	154	149	244	308
2-3 AM	95	93	178	236
3-4 AM	85	75	135	150
4-5 AM	89	89	120	141
5-6 AM	194	196	113	117
6-7 AM	420	432	203	157
7-8 AM	716	741	278	196
8-9 AM	809	810	352	291
9-10 AM	798	778	454	370
10-11 AM	643	631	495	476
11 AM-noon	678	682	548	580
Noon-1 PM	685	699	563	621
1-2 PM	621	630	571	657
2-3 PM	583	599	540	701
3-4 PM	551	561	591	601
4-5 PM	485	492	611	516
5-6 PM	482	490	619	509
6-7 PM	582	598	652	522
7-8 PM	643	672	728	432
8-9 PM	561	582	500	387
9-10 PM	505	502	411	332
10-11 PM	515	527	457	277
11 PM-midnight	486	485	497	258
24-hour total	11,676	11,828	10,253	9,260
Source: AKRF, Inc., vehicle counts, April 19-25, 2004.				

Like 50th Street, this block of 49th Street also experiences some curbside activities from a garage driveway on the north side of the street at 437 Madison Avenue and an office building

loading dock on the south side of the street. Without the taxi/black car drop off and queuing at the New York Palace Hotel and with fewer loading docks, this block has less curbside activity than the East 50th Street block.

TRANSIT

In addition to serving as Thru Streets, 49th and 50th Streets are also routes for the west- and eastbound crosstown bus. The M50 and M27 both travel on this pair of crosstown streets. A bus stop for the eastbound service is located on the south side of 50th Street between Park and Madison Avenues, close to the corner at Madison Avenue. A stop for the westbound service is located on the north side of 49th Street close to Park Avenue. Service on these routes is frequent, with the time between buses ranging from approximately 3 to 10 minutes during weekday daytime hours.

PEDESTRIAN CONDITIONS

Pedestrian conditions along East 50th and East 49th Streets between Madison and Park Avenues are typical of those found throughout Midtown Manhattan. The existing loading dock and driveway activities along these segments of 50th and 49th Streets have no perceptible adverse effects on pedestrian flow, which is relatively light. The existing retail and service uses in the buildings on 50th Street and 49th Street located on the project site contribute to pedestrian trips on both blocks. Pedestrian volumes on the south sidewalk of East 50th Street, in front of the proposed site, were recorded at approximately 800 pedestrians/hour (see Appendix D-5, "Pedestrian Data, February 2005,"), which corresponds to a level of service (LOS) B. Pedestrian volumes on East 49th Street are comparable to those on East 50th Street, based on field observations.

C. ALTERNATIVE A (NO ACTION ALTERNATIVE)

In Alternative A, the no action alternative, it is assumed that existing uses from the potential project site on either 50th or 49th Street would not be removed. No new building or loading dock would be created. This alternative envisioned the use of the existing Depew Place truck dock serving Grand Central Terminal for all new deliveries and trash removal generated by the East Side Access Project. However, the dock, which is presently operating at capacity, could not accommodate the additional demand associated with the East Side Access Project.

Traffic, parking, transit, and pedestrian conditions on both 49th and 50th Streets would remain similar to existing conditions in Alternative A. Both streets would likely see some additional traffic volumes because of general background growth and development projects elsewhere in Manhattan. This general background growth was anticipated in the traffic analysis included in the FEIS. No other major development projects located elsewhere in Manhattan—including the West Midtown rezoning, the redevelopment of Lower Manhattan, and the rezoning of Consolidated Edison First Avenue Properties between East 35th and East 41st Streets—would significantly change traffic conditions in the immediate area of the 50th Street facility. These development projects are located far from the project site and their potential traffic and other environmental impacts would not overlap those of the 50th Street facility.

D. PROBABLE IMPACTS OF BUILD ALTERNATIVES

ALTERNATIVE B (50TH STREET FACILITY WITHOUT THROUGH DRIVE)

TRAFFIC AND PARKING

The 50th Street facility in Alternative B would provide mechanical space and a truck loading dock for the delivery of goods and the removal of trash from the new East Side Access concourse as well as some areas within Grand Central Terminal. The ground-floor loading dock area at the facility, which would be accessible via two curb-cuts along East 50th Street, would include two bays for 30-foot-long trucks and one bay for a dumpster/compactor. While loading and unloading at the dock, delivery trucks would be fully accommodated within the 50th Street facility and would not extend out into the street. However, trash pickups may require the garbage truck to extend out into the sidewalk. Goods delivered by truck would be transported between the loading dock and their destination in the East Side Access terminal or elsewhere in Grand Central Terminal via two freight elevators and an underground freight corridor.

For the purposes of analyzing potential traffic impacts, the number of trucks that would be generated by the facility was calculated, based on projections of future loading dock requirements for the East Side Access terminal. These future projections were developed using operational data collected by MTA at the Depew Place loading dock, which currently handles all deliveries and trash pickups for Grand Central Terminal. According to these data, the average existing number of trucks per day servicing Grand Central Terminal is approximately 49. The East Side Access Project will increase retail space by 28 percent, terminal area by 62 percent, and train service by 75 percent, over existing conditions at Grand Central Terminal. These increases will raise the existing number of trucks by 35 percent, to a total of approximately 66 per day. The methodology for calculating the increases associated with the East Side Access Project is described in more detail below (see also Appendix D-1, "Loading Dock Requirements Analysis, February 2004," in Appendix D, "Traffic and Transportation").

The number of trucks associated with each existing activity in Grand Central Terminal (e.g., retail, Metro-North storeroom, garbage, etc.) was increased proportionally to account for how that type of space would be increased by the East Side Access Project as follows:

- *Retail space*—Deliveries associated with retail space at Grand Central would increase 28 percent, based on an increase in retail floor area at Grand Central of 28 percent.
- *MTA general storeroom*—Increase of 62 percent, based on an increase in overall floor area at Grand Central of 62 percent.
- *MTA general deliveries*—Increase of 62 percent, based on an increase in overall floor area at Grand Central of 62 percent.
- *MTA garbage*—Increase of 76 percent, based on an increase in train service at Grand Central of 76 percent.
- *MTA other*—Increase of 62 percent, based on an increase in overall floor area at Grand Central of 62 percent.

Finally, an additional 5 percent increase in the number of trucks is expected to result from the relocation to the loading dock of deliveries currently being made to Grand Central Terminal by handcart using street-level passenger entrances. These deliveries, which are made to avoid the congestion that exists currently at the Depew Place loading dock, create potential conflicts and safety hazards with passengers using the same entrances, and should be eliminated. The

inclusion of these deliveries brings the future combined daily number of trucks servicing Grand Central Terminal and the East Side Access terminal to 69. Since there would continue to be four exclusive MTA loading dock bays on Depew Place and there would be two new MTA loading dock bays at the 50th Street facility in Alternative B, the distribution of trucks between the two locations was assumed to be 66 percent at Depew Place and 34 percent at 50th Street. This would result in 23 trucks using the 50th Street loading dock, and 46 trucks continuing to use Depew Place.

The 23 trucks that would travel each day to the 50th Street facility in Alternative B, would result in 46 truck “trips” (23 trucks arriving and 23 trucks departing, for a total of 46 “trips”). Based on existing patterns, the majority of these trips would occur during the main 8-hour delivery period from 6 AM to 2 PM—which is when most deliveries are made to the Depew Place dock—and no more than 15 percent of the daily total would occur during any one peak hour. This translates to seven truck trips or 14 passenger car equivalents during any peak hour.¹

In addition to merchandise delivery and trash removal, the proposed facility would also result in a small number of employee trips, associated with the daily total of seven employees who would work at the facility. Based on journey-to-work characteristics of Midtown Manhattan, these employees are expected to travel to and from the site primarily by public transit, with no more than two passenger car trips generated by these workers during any peak hour.

New York City’s *City Environmental Quality Review (CEQR) Technical Manual* was used to evaluate the potential for significant traffic impacts from the proposed project. The *CEQR Technical Manual* was prepared by New York City specifically to guide environmental analyses for projects proposed in New York City, and therefore accounts for the specific conditions encountered in the city.

Combining employee, merchandise delivery, and trash disposal trips, the equivalent of up to 16 passenger car trips (eight arriving and eight departing trips) would be generated by Alternative B during the peak hour. This level of project trip generation is well below the threshold specified in the *CEQR Technical Manual* as warranting detailed analysis to determine if significant traffic impacts might result. The CEQR threshold for detailed analysis is 50 passenger car trips during the peak hour. The *CEQR Technical Manual* notes that “proposed actions affecting congested intersection have at times been found to create significant traffic impacts when their trip generation is fewer than 50 vehicles in the peak hour. This is especially true for proposed actions that generate a significant volume of trucks and/or buses, since trucks and buses are considered to be ‘equivalent’ to more than one car” (see page 30-2 of the manual). Alternative B would result in far fewer than 50 trips in the peak hour, even after converting all truck trips to passenger car equivalents. The number of trips generated by the project through any one intersection (eight trips) in the peak hour is not large enough to cause a noticeable change or a significant impact at the intersection. Therefore, a detailed analysis of intersection LOS was not warranted.

Furthermore, the 50th Street facility would displace active uses in three of the four small buildings that would be demolished on 50th Street for Alternative B (the fourth building is currently vacant). This would remove any trips generated by those uses from the project block. The displaced uses at the existing buildings, which total approximately 10,000 square feet of

¹ The passenger car equivalency measure equates each truck with two cars, as per guidance provided in New York City’s *City Environmental Quality Review (CEQR) Technical Manual*.

restaurant space, 5,000 square feet of retail space, and a small amount of office and residential space, are currently generating delivery and other trips, and the elimination of these trips would partially offset the trips generated by the proposed project, effectively reducing its already insignificant trip generation.

Trucks arriving at the new loading dock would back in to make their deliveries and pull out, front first, to leave. Trucks do the same at the two existing loading docks on the block immediately west and east of the project site. All building-related truck activities would be accommodated off-street within the building’s loading area, so there would be no project-generated curbside truck activity. This would result in a net reduction of curbside activities as compared to existing conditions, in which all deliveries at the four small buildings on the project site take place on-street. Furthermore, loading docks are already in operation within the buildings adjacent to and across the street from the project site. Therefore, the provision of a loading dock within the 50th Street facility is in keeping with existing conditions along this segment of East 50th Street.

Based on the above assessment, no further detailed analysis of the potential traffic impacts of the proposed facility is required, and this alternative is not expected to result in any significant adverse traffic impacts.

Nonetheless, in response to concerns raised by the public about the 50th Street facility’s potential effects on traffic, a simulation model was developed to more amply illustrate the likely traffic effects. This traffic simulation model, developed using the state-of-the-art CORSIM software package, was first calibrated to replicate existing traffic conditions observed in the field, and then used to predict future traffic conditions with the facility. The traffic simulation model results for Alternative B are shown in Table 7-3. Corresponding data for existing conditions are also shown for comparison. Appendix D-3, “CORSIM Traffic Simulation Input and Output Files” provides detailed model results.

**Table 7-3
Alternative B Traffic Simulation Results Along 50th Street
Between Park and Madison Avenues**

Alternative	AM Peak Hour 8 AM-9 AM		Midday Peak Hour 11:30 AM-12:30 PM	
	Average Travel Time (seconds)	Average Travel Speed (mph)	Average Travel Time (seconds)	Average Travel Speed (mph)
Existing conditions	44	7.9	64	5.4
Alternative B	55	6.3	70	5.0

Based on the analysis presented above, Alternative B would not result in a large enough number of trips to create a significant adverse impact on traffic flow on 50th Street. Further, the loading dock activities at the project site also would not result in a significant adverse impact on those traffic conditions. No adverse effect to the city’s Thru Streets program would occur.

In response to concerns raised by the public after the publication of the January 2005 EA, an intersection level of service analysis was conducted for this revised supplemental EA using the *Highway Capacity Manual* (HCM) methodology. The HCM analysis examined the effects of truck trips generated by the 50th Street facility. The analysis was conducted for the four intersections where the truck volumes associated with the proposed 50th Street facility would be highest: the intersections of 49th and 50th Streets with Park and Madison Avenues. The HCM analysis was also conducted for some of the intersections previously analyzed in the FEIS, i.e.,

those that would now also be traversed by trucks generated by the 50th Street facility. This was done to determine if any new significant adverse impacts not identified in the FEIS would result from the addition of the truck trips associated with the 50th Street facility. At these FEIS intersections, the truck trips that would be generated by the 50th Street facility were added to the taxi trips that will be generated by the East Side Access Project (and which were previously analyzed in the FEIS.) The results of the analysis, which are summarized in Table 7-4, demonstrate that the combination of East Side Access taxi trips and truck trips would not result in any significant adverse impacts at the 49th and 50th Street intersections, and would not result

**Table 7-4
2010 Level of Service Summaries, No Action vs. Alternative B**

Intersection	AM Peak Hour		Midday Peak Hour	
	No Action	Alternative B	No Action	Alternative B
Madison Ave. and 49th St.	C	C	B	B
Madison Ave. and 50th St.	C	C	B	B
Park Ave. and 49th St.	C	C	C	C
Park Ave. and 50th St.	C	C	C	C
Madison Ave. and 40th St.	N/A	N/A	C	C
Madison Ave. and 41st St.	N/A	N/A	C	C
Madison Ave. and 42nd St.	N/A	N/A	F	F
Madison Ave. and 43rd St.	N/A	N/A	B	B
Madison Ave. and 44th St.	N/A	N/A	B	B
Madison Ave. and 45th St.	N/A	N/A	C	C
Madison Ave. and 46th St.	N/A	N/A	C	C
Madison Ave. and 47th St.	N/A	N/A	B	B
Madison Ave. and 48th St.	N/A	N/A	B	B
Lexington Ave. and 40th St.	B	B	B	B
Lexington Ave. and 41st St.	C	C	B	B
Lexington Ave. and 42nd St.	F	F	D	D
Lexington Ave. and 43rd St.	F	F	F	F
Lexington Ave. and 44th St.	C	C	F	F
Lexington Ave. and 45th St.	F	F	F	F
Lexington Ave. and 46th St.	B	B	D	D
Lexington Ave. and 47th St.	D	D	D	D
Lexington Ave. and 48th St.	B	B	C	C
Third Ave. and 40th St.	B	B	B	B
Third Ave. and 41st St.	F	F	B	B
Third Ave. and 42nd St.	F	F	F	F
Third Ave. and 43rd St.	F	F	B	B
Third Ave. and 44th St.	B	B	B	B
Third Ave. and 45th St.	B	B	B	B
Third Ave. and 46th St.	F	F	B	B
Third Ave. and 47th St.	B	B	F	F
Third Ave. and 48th St.	F	F	F	F
Notes:				
1. No Action Alternative includes East Side Access taxi trips.				
2. HCS analysis was not conducted for the intersections marked N/A because those intersections would not be traversed by project-generated trips during the AM peak hour. They would only be traversed during the MD peak hour, as a result of turn prohibitions imposed from 10 AM to 6 PM by the Thru Streets program.				

in any additional significant adverse impacts at the other intersections, beyond those already identified in the FEIS. This analysis is available in Appendix D, "Traffic and Transportation," Appendix D-4, "Highway Capacity Software Analysis Input and Output Files, July 2005."

Representatives of the Palace Hotel expressed concern during a public meeting that the 50th Street facility in Alternative B could have a negative effect on the Palace Hotel, as trucks maneuvering at the loading dock would block traffic on the street and impede access to the hotel's entrance. The analysis conducted demonstrates that no significant adverse impact would occur to the Palace Hotel from the traffic associated with Alternative B. Nevertheless, as discussed below, two alternatives (Alternative C and Preferred Alternative D) have been developed that would eliminate even the non-significant effects attributable to truck backing-in maneuvers associated with Alternative B.

TRANSIT

Alternative B would not result in significant adverse impacts to traffic conditions on the project block. Therefore, it also would not adversely affect the operations of the M27 or M50 buses that use 50th Street for their eastbound trips.

PEDESTRIANS

Pedestrians using the sidewalks on either side of 50th Street currently must pass several loading docks or garage entrances, and currently are not adversely affected by these activities. The addition of a new loading dock on 50th Street would be similar to those already present and also would not adversely affect pedestrian activities.

ALTERNATIVE C (50TH STREET FACILITY WITH THROUGH DRIVE)

During public meetings on Alternative B, described above, concerns were raised about the potential for the new building to result in significant delays to traffic flows on 50th Street, and the possibility that these delays could adversely affect deliveries and drop-offs at the nearby Palace Hotel. Further, the New York City Department of Transportation raised concerns that a loading dock that requires trucks to back in and out of the truck bays might affect traffic flows. As a result of these concerns, the East Side Access engineering team, building on a suggestion made by an adjoining land owner, developed a new project alternative that would not require trucks to back in to the loading dock. Instead, access to the loading dock would be via a new driveway from 49th Street. Trucks would pull into the site on 49th Street and exit on 50th Street.

Alternative C (with drive-through access) would improve traffic flows on the block compared to Alternative B. It would also provide more space within the 50th Street facility building for truck loading, adding flexibility to the loading and unloading operations.

The elimination of backing-in movements would provide benefits to traffic flow on East 50th Street. In addition, the total of 16 passenger car equivalent trips during the peak hour arriving at and departing from the facility would be distributed to both 49th and 50th Streets, with eight trips arriving on 49th Street and eight departing on 50th Street during the peak hour. The daily trips would similarly be distributed to both streets.

The 50th Street facility in Alternative C would provide space for up to five additional trucks to be stored within the driveway, for rare occasions when this may be required. Another advantage of Alternative C is that trucks could be unloaded from the front while parked in the alley, which is more suitable for certain kinds of deliveries than unloading from the back at a standard

loading dock. Finally, under this alternative garbage trucks would be fully accommodated within the structure when picking up trash, and would not extend out into the sidewalk.

Like Alternative B, Alternative C would not result in any significant adverse traffic impacts or adverse effects to the city's Thru Streets program.

As described above, a traffic simulation model was developed to more fully illustrate future traffic conditions with the 50th Street facility. The traffic simulation model results for Alternative C are shown in Tables 7-5 and 7-6. Corresponding data for existing conditions are also shown for comparison.

**Table 7-5
Alternative C Traffic Simulation Results Along 50th Street
Between Park and Madison Avenues**

Alternative	AM Peak Hour 8 AM-9 AM		Midday Peak Hour 11:30 AM-12:30 PM	
	Average Travel Time (seconds)	Average Travel Speed (mph)	Average Travel Time (seconds)	Average Travel Speed (mph)
Existing conditions	44	7.9	64	5.4
Alternative C	48	7.2	67	5.2

**Table 7-6
Alternative C Traffic Simulation Results Along 49th Street
Between Park and Madison Avenues**

Alternative	AM Peak Hour 8 AM-9 AM		Midday Peak Hour 11:30 AM-12:30 PM	
	Average Travel Time (seconds)	Average Travel Speed (mph)	Average Travel Time (seconds)	Average Travel Speed (mph)
Existing conditions	40.4	8.6	32.2	10.8
Alternative C	40.4	8.6	33.1	10.5

An intersection level of service analysis was conducted using the HCM methodology to analyze the combined effect of trucks generated by Alternative C and other trips generated by the East Side Access Project that were analyzed in the FEIS. The results of the analysis, which are summarized in Table 7-7, demonstrate that the combination of East Side Access taxi trips and truck trips would not result in any significant adverse impacts at the new 49th and 50th Street intersections, and would not result in any additional significant adverse impacts at the other intersections that were not already identified in the FEIS.

As with Alternative B, Alternative C would not result in significant adverse impacts to transit service (the M27 and M50 bus). The addition of a new driveway adjacent to an existing garage entrance on 49th Street would not adversely affect pedestrian activities on the block either. Overall, no significant adverse impacts to traffic, transit, or pedestrian conditions would result.

Overall, the traffic associated with Alternative C would not result in significant adverse impacts to traffic conditions. It would also represent an improvement to conditions on 50th Street compared to the Alternative B.

Table 7-7

2010 Level of Service Summaries, No Action vs. Alternative C

Intersection	AM Peak Hour		Midday Peak Hour	
	No Action	Alternative C	No Action	Alternative C
Madison Ave. and 49th St.	C	C	B	B
Madison Ave. and 50th St.	C	C	B	B
Park Ave. and 49th St.	C	C	C	C
Park Ave. and 50th St.	C	C	C	C
Madison Ave. and 40th St.	N/A	N/A	C	C
Madison Ave. and 41st St.	N/A	N/A	C	C
Madison Ave. and 42nd St.	N/A	N/A	F	F
Madison Ave. and 43rd St.	N/A	N/A	B	B
Madison Ave. and 44th St.	N/A	N/A	B	B
Madison Ave. and 45th St.	N/A	N/A	C	C
Madison Ave. and 46th St.	N/A	N/A	C	C
Madison Ave. and 47th St.	N/A	N/A	B	B
Madison Ave. and 48th St.	N/A	N/A	B	B
Lexington Ave. and 40th St.	B	B	B	B
Lexington Ave. and 41st St.	C	C	B	B
Lexington Ave. and 42nd St.	F	F	D	D
Lexington Ave. and 43rd St.	F	F	F	F
Lexington Ave. and 44th St.	C	C	F	F
Lexington Ave. and 45th St.	F	F	F	F
Lexington Ave. and 46th St.	B	B	D	D
Lexington Ave. and 47th St.	D	D	D	D
Lexington Ave. and 48th St.	B	B	C	C
Third Ave. and 40th St.	B	B	B	B
Third Ave. and 41st St.	F	F	B	B
Third Ave. and 42nd St.	F	F	F	F
Third Ave. and 43rd St.	F	F	B	B
Third Ave. and 44th St.	B	B	B	B
Third Ave. and 45th St.	B	B	B	B
Third Ave. and 46th St.	F	F	B	B
Third Ave. and 47th St.	B	B	F	F
Third Ave. and 48th St.	F	F	F	F

Notes:

- No Action Alternative includes East Side Access taxi trips.
- HCS analysis was not conducted for the intersections marked N/A because those intersections would not be traversed by project-generated trips during the AM peak hour. They would only be traversed during the MD peak hour, as a result of turn prohibitions imposed from 10AM to 6 PM by the Thru Streets program.

PREFERRED ALTERNATIVE D (50TH STREET FACILITY WITH THROUGH DRIVE AND PUBLIC OPEN SPACE)

Preferred Alternative D would have the same traffic operating characteristics as Alternative C, including: improved traffic flows on the block compared to Alternative B; increased truck storage space within the driveway; improved flexibility for loading and unloading operations; and distribution of the trips generated by the 50th Street facility to both 49th and 50th Streets, with trips arriving on 49th Street and departing on 50th Street. As with Alternatives B and C, Preferred Alternative D would not result in any significant adverse traffic impacts or adverse effects to the city’s Thru Streets program.

The traffic simulation model and HCM analysis results for Preferred Alternative D are the same as those presented above for Alternative C. Overall, the traffic associated with the Preferred Alternative D would not result in significant adverse impacts to traffic conditions, and would represent an improvement to conditions on 50th Street, compared with Alternative B.

As with the other two build alternatives analyzed, Preferred Alternative D would not result in significant adverse impacts to transit service (the M27 and M50 bus). The addition of a new driveway adjacent to an existing garage entrance on 49th Street would not adversely affect pedestrian activities on the block either. Overall, no significant adverse impacts to traffic, transit, or pedestrian conditions would result.

CONCLUSIONS

The 50th Street facility under any of the build alternatives would bring an estimated 23 trucks per day (23 trucks arriving and 23 trucks departing, for a total of 46 “trips”). In the peak hour, this translates to approximately seven truck trips, too few to be expected to adversely affect traffic conditions at nearby intersections. The combination of taxi trips from the full East Side Access Project and truck trips related to the 50th Street facility would not result in any significant adverse impacts beyond those already identified in the FEIS, for any of the alternatives. Alternative C and Preferred Alternative D would provide some benefits to traffic flow on East 50th Street, relative to Alternative B, by providing a through drive that would eliminate truck backing-in movements at the loading dock. Alternative C and Preferred Alternative D would also provide increased truck storage space within the proposed driveway, improved flexibility for loading and unloading operations, and distribution of the trips generated by the 50th Street facility to both 49th and 50th Streets, with trips arriving on 49th Street and departing on 50th Street. Under all alternatives, no adverse effect to the city’s Thru Streets program would occur.

Since none of the alternatives would result in significant adverse impacts to traffic conditions on 50th Street, they also would not result in significant adverse impacts to transit service (the M27 and M50 bus). Pedestrians using the sidewalks on either side of 50th Street currently must pass several loading docks or garage entrances, and currently are not adversely affected by these activities. The addition of a new loading dock on 50th Street would be similar to those already present and also would not adversely affect pedestrian activities.

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