A. INTRODUCTION

The assessment of potential transit and pedestrian impacts associated with the proposed actions was prepared for the reasonable worst-case development scenario (RWCDS) and the Inclusionary Housing Alternative, based on the travel demand projections presented in Chapter 16, "Traffic and Parking." As demonstrated below, neither the RWCDS nor the Inclusionary Housing Alternative would generate enough subway, bus, or pedestrian trips to warrant the need for a detailed transit or pedestrian analysis, and as a result, both scenarios would not result in any significant adverse transit and pedestrian impacts.

B. METHODOLOGY

OVERVIEW

Based on the criteria described in the *City Environmental Quality Review (CEQR) Technical Manual*, detailed transit and pedestrian analyses may be required if the proposed actions are expected to generate 200 or more peak hour transit and pedestrian trips. This methodology begins with evaluating the travel demand projections presented in Chapter 16, "Traffic and Parking," and identifying the available transit and pedestrian facilities where these trips would be made. If the projected incremental peak hour trips would not exceed 200 at any subway or pedestrian elements, or on any bus route, no detailed analyses would be required.

TRANSIT AND PEDESTRIAN ANALYSIS SCREENING

A preliminary screening analysis on transit and pedestrians for the Inclusionary Housing Alternative, which would yield a larger amount of incremental development than the RWCDS under the proposed actions, was prepared during the scoping process of this EIS to determine if detailed transit and pedestrian analyses are warranted. The results of this analysis were summarized in a technical memorandum and are presented in Appendix E. The discussions below summarize the estimated peak hour trips allocated to various transit and pedestrian facilities for both the RWCDS under the proposed actions and the Inclusionary Housing Alternative to determine if the proposed rezoning would yield 200 or more peak hour trips at any subway or pedestrian elements, or on any bus route, thereby requiring a quantified analysis of transit and pedestrian operations.

C. SUMMARY OF TRAVEL DEMAND PROJECTIONS

As shown in Table 16-3 in Chapter 16, "Traffic and Parking," the RWCDS under the proposed actions would yield during peak hours up to approximately 1,040 total person trips, 460 subway trips, and 110 bus trips. In comparison, the Inclusionary Housing Alternative would yield during peak hours, as shown in Table 16-5, up to approximately 1,220 total person trips, 540 subway

trips, and 130 bus trips. Because these trips would be dispersed within a large rezoning area and among 12 subway stations, 9 local bus routes, and hundreds of sidewalks, crosswalks, and corner reservoirs, screening analyses comprising allocations of the projected trips would suffice in addressing potential transit and pedestrian impacts.

D. TRANSIT SCREENING

As shown in Figure 17-1, there are 12 subway stations and 9 local bus routes within and surrounding the primary study (rezoning) area. The 12 subway stations are:

- First Avenue Station at East 14th Street – L train;
- Third Avenue Station at East 14th Street – L train;
- Union Square Station at East 14th Street – L/N/Q/R/W/4/5/6 trains;
- Astor Place Station at Lafayette Street – 6 train;
- Bleecker Street Station at Lafayette Street – 6 train;
- Spring Street Station at Lafayette Street – 6 train;
- 8th Street Station at Broadway – N/R/W trains;
- Broadway-Lafayette Station at Houston Street – B/D/F/V trains;
- Grand Street Station at Chrystie Street – B/D trains;
- Second Avenue Station at Houston Street – F/V trains;
- Delancey Street Station at Essex Street – F/J/M/Z trains; and
- Bowery Street Station at Delancey Street – J/M/Z trains.

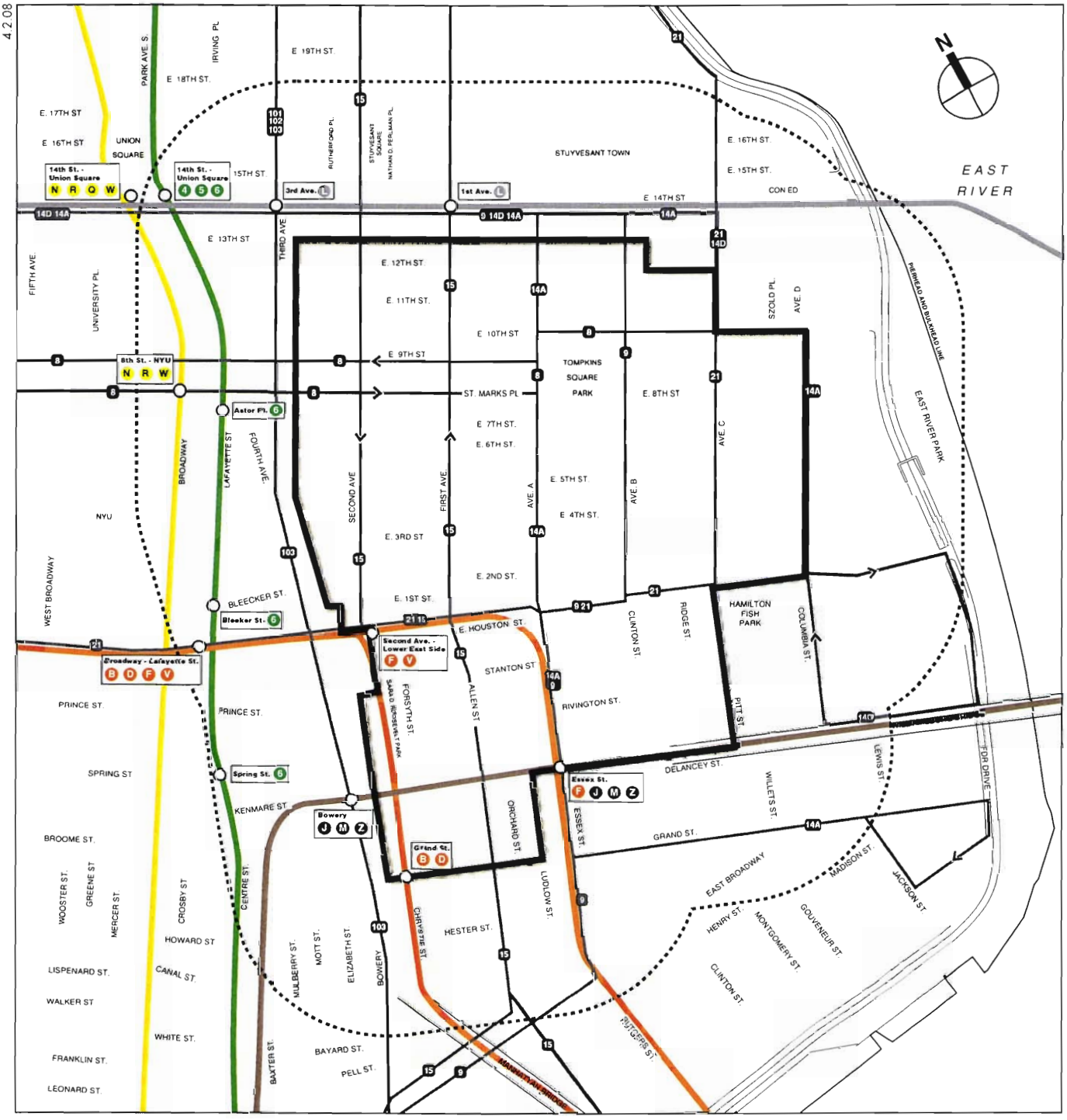
The nine local bus routes are:

- M8 – Crosstown East 8th and East 9th Streets;
- M9 – Avenue B/Essex Street and East 14th Street;
- M14A – Avenue A/Essex Street and East 14th Street;
- M14D – Avenue C/D and East 14th Street;
- M15 – First/Second Avenues and Allen Street;
- M21 – Avenue C and Houston Street;
- M101/102 – Third Avenue; and
- M103 – Third Avenue/Bowery.

The assignments of subway and bus trips were conducted in similar manners as for traffic, following the same allocations to the eight designated zones in the primary study area. To demonstrate a conservative worst-case screening analysis, the PM peak hour transit trips (highest among the AM, midday, and PM peak hours) estimated for the projected increase in residential units, but not the decrease in commercial development, were assigned to the above subway stations and bus routes.

As detailed in Appendix E and summarized in Table 17-1 below, the 530 total PM peak hour subway trips under the RWCDS are expected to yield a maximum single station increment of 119 trips at the Delancey/Essex Street Station. For the Inclusionary Housing Alternative, there would be 610 total PM peak hour subway trips and a maximum single station increment of 135

4.2.08



Proposed Rezoning Boundary
1/4-Mile Radius
Lexington Ave. Subway Line
Sixth Ave. Subway Line
Nassau St. Subway Line
14th St. Subway Line
Broadway Subway Line
Subway Stop
Bus Route

0 1000 FEET
SCALE

Study Area Subway and Bus Routes

Figure 17-1

trips at the Delancey/Essex Street Station. These increments are below the CEQR threshold for a detailed analysis of subway station elements. Therefore, the proposed rezoning under both the RWCDS and the Inclusionary Housing Alternative would not result in any significant adverse subway station impacts.

Table 17-1
PM Peak Hour Subway Trip Assignments

Subway Station	Zone								Total
	1	2	3	4	5	6	7	8	
Proposed Actions									
First Ave & E.14th St	5	9	2	3	0	0	0	0	**19**
Third Ave & E.14th St	3	10	2	3	0	0	0	0	**18**
Union Square	5	14	7	15	11	7	10	18	**87**
Astor Place	4	9	10	13	0	0	0	0	**36**
Bleecker & Lafayette Sts	0	0	5	9	0	0	0	0	**14**
Spring & Lafayette Sts	0	0	0	0	11	0	0	0	**11**
8th St & Broadway	3	6	7	8	0	0	0	0	**24**
Broadway-Lafayette	0	6	5	9	0	0	0	0	**20**
Grand & Chrystie Sts	0	0	0	0	7	0	39	0	**46**
Second Ave & Houston St	1	6	11	34	26	18	15	0	**111**
Delancey & Essex Sts	0	0	0	0	11	11	21	76	**119**
Bowery & Delancey St	0	3	0	0	7	0	15	0	**25**
Total Riders	**21**	**63**	**49**	**94**	**73**	**36**	**100**	**94**	**530**
Inclusionary Housing Alternative									
First Ave & E.14th St	5	11	3	3	0	0	0	0	**22**
Third Ave & E.14th St	4	11	3	3	0	0	0	0	**21**
Union Square	6	14	8	17	13	8	12	21	**99**
Astor Place	5	11	11	15	0	0	0	0	**42**
Bleecker & Lafayette Sts	0	0	6	11	0	0	0	0	**17**
Spring & Lafayette Sts	0	0	0	0	13	0	0	0	**13**
8th St & Broadway	4	7	8	10	0	0	0	0	**29**
Broadway-Lafayette	0	7	6	11	0	0	0	0	**24**
Grand & Chrystie Sts	0	0	0	0	8	0	46	0	**54**
Second Ave & Houston St	1	7	11	39	29	21	17	0	**125**
Delancey & Essex Sts	0	0	0	0	13	12	23	87	**135**
Bowery & Delancey St	0	4	0	0	8	0	17	0	**29**
Total Riders	**25**	**72**	**56**	**109**	**84**	**41**	**115**	**108**	**610**

Notes: The detailed estimates presented in Appendix E were corrected in the above for rounding.

Also shown in Appendix E are the assignments of PM peak hour bus trips to the nine area bus routes. For the RWCDS, there would be 123 PM peak hour bus only trips, resulting in a maximum single route increment of 33 trips on the M15 route. The corresponding peak hour bus only trips and maximum single route increment (on the M15 route) for the Inclusionary Housing Alternative would be 141 and 38 trips, respectively. To assess bus loading conditions, it is also necessary to consider bus-to-bus and bus-to/from-subway transfers. These transfers are particularly prevalent for areas sparsely served by local bus routes and/or at long walking distances from subway service. Because many of the development sites within the primary study

area have limited nearby subway and local bus service, there is expected to be a fair amount of transfers required for transit users traveling to and from these development sites. Accounting for these transfers, the total projected PM peak hour bus trip increments for the RWCDS and the Inclusionary Housing Alternative were estimated to amount to 363 and 411 trips, respectively, as summarized in Table 17-2. However, spread among the ninr study area bus routes, the maximum PM peak hour single route increments would be 78 and 88 trips on the M14D route for the RWCDS and the Inclusionary Housing Alternative, respectively. Because these increments are below the CEQR threshold for a detailed analysis of bus line-haul conditions, the proposed actions under both the RWCDS and the Inclusionary Housing Alternative are not expected to result in any significant adverse bus impacts.

Table 17-2
PM Peak Hour Bus Trip Assignments

Bus Route	Zone								Total
	1	2	3	4	5	6	7	8	
Proposed Action									
M8	6	17	10	25	0	0	0	0	**58**
M9	0	8	0	14	2	8	4	16	**52**
M14A	4	12	8	21	2	7	4	20	**78**
M14D	0	15	0	9	0	0	4	0	**28**
M15	3	6	9	0	6	0	29	8	**61**
M21	0	1	1	25	8	11	0	0	**46**
M101/102	0	1	0	0	0	0	0	0	**1**
M103	1	1	2	0	13	0	22	0	**39**
Total Riders	**14**	**61**	**30**	**94**	**31**	**26**	**63**	**44**	**363**
Inclusionary Housing Alternative									
M8	6	20	11	30	0	0	0	0	**67**
M9	0	9	0	16	2	8	4	18	**57**
M14A	5	13	10	24	2	7	5	22	**88**
M14D	0	16	0	10	0	0	4	0	**30**
M15	5	6	11	0	7	0	32	9	**70**
M21	0	1	1	29	8	12	0	0	**51**
M101/102	1	1	0	0	0	0	0	0	**2**
M103	1	2	3	0	16	0	24	0	**46**
Total Riders	**18**	**68**	**36**	**109**	**35**	**27**	**69**	**49**	**411**

E. PEDESTRIAN SCREENING

A detailed pedestrian analysis would be required if the proposed actions are expected to result in 200 or more peak hour trips at sidewalks, corners, and crosswalks near the project sites. Based on the residential trip generation estimates presented in Chapter 16, "Traffic and Parking," each residential dwelling unit would yield a maximum of approximately 0.9 person trips during a peak hour. Since the incremental auto and taxi trips would mostly originate or terminate proximate to the projected development sites, the net pedestrian trips expected to travel on the general pedestrian network are primarily those made by other modes and would total slightly fewer than 0.90 person trips per dwelling unit (DU) during a peak hour. A review of the

locations and sizes of the specific development sites under the RWCDS and the Inclusionary Housing Alternative revealed the following clusters of projected residential units:

- Avenue D and East 6th Street – approximately 60 DUs under both the RWCDS and the Inclusionary Housing Alternative;
- Avenue D and Houston Street – approximately 120 DUs under both the RWCDS and the Inclusionary Housing Alternative;
- First Avenue and Houston Street – approximately 70 DUs under both the RWCDS and the Inclusionary Housing Alternative;
- Chrystie Street between Stanton and Rivington Streets – approximately 60 DUs under the RWCDS and 110 DUs under the Inclusionary Housing Alternative;
- Chrystie Street between Rivington and Delancey Streets – approximately 40 v under the RWCDS and 70 DUs under the Inclusionary Housing Alternative; and,
- Delancey and Suffolk Streets – approximately 140 DUs under both the RWCDS and the Inclusionary Housing Alternative.

Table 17-3 summarizes the maximum numbers of pedestrian trips expected to be generated by the above clusters (by applying the 0.90 person trips per dwelling unit factor) during a peak hour. Since none of these clusters would result in 200 or more pedestrian trips at nearby sidewalks, corners, and crosswalks, and there would also not be 200 or more pedestrian trips generated at any of the 12 study area subway stations, the projected peak hour pedestrian trips under both the RWCDS and the Inclusionary Housing Alternative would not exceed the CEQR threshold at any pedestrian element. Therefore, a detailed pedestrian analysis is not required and the proposed actions are not expected to result in any significant adverse pedestrian impacts.

Table 17-3
Maximum Peak Hour Pedestrian Trips by Development Cluster

Cluster	Proposed Action		Inclusionary Housing Alt.	
	No. of Dwelling Units	No. of Pedestrian Trips	No. of Dwelling Units	No. of Pedestrian Trips
Avenue D and East 6th Street	60	54	60	54
Avenue D and Houston Street	120	108	120	108
First Avenue and Houston Street	70	63	70	63
Chrystie Sts bet. Stanton & Rivington Sts	60	54	110	99
Chrystie Sts bet. Stanton & Rivington Sts	40	36	70	63
Delancey and Suffolk Streets	140	126	140	126

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