

Chapter 15 : TRANSPORTATION

A. INTRODUCTION

This chapter assesses the potential effects of the Proposed Action on the City’s transportation system that includes traffic and parking operations, public transportation facilities, pedestrian elements, and the safety of all roadway users (pedestrians, bicyclists and motorists). According to City Environmental Quality Review Technical Manual (“*CEQR Technical Manual*”), projects that increase density require a transportation analysis. The Proposed Action would affect zoning regulations on a citywide basis and would result in changes to the height, bulk, and parking regulations for multi-family residential, inclusionary housing, affordable senior housing and long term care facilities. Consistent with the guidance presented in the *CEQR Technical Manual*, these changes warrant an assessment to determine the likelihood of impacts on the City’s traffic and parking operations, public transportation facilities, pedestrian elements, and transportation related safety.

B. PRINCIPAL CONCLUSIONS

The Proposed Action would not result in a significant adverse impact on transportation. The *CEQR Technical Manual* provides a tiered analysis methodology to determine the potential for significant transportation related impacts. Since the Proposed Action is a “Generic Action” and there are no specific development sites, to produce a reasonable analysis of likely effect of the Proposed Action, 27 representative development prototypes have been identified and used for analysis, as described in Chapter 2, Analytical Framework.

Nine of the 27 prototypes are projected to result in no increases in density and thus do not need to be analyzed for transportation impacts. A total of 12 of the 27 prototypes are projected to result in increases in density but would result in net incremental development levels that are less than the minimum thresholds requiring a transportation assessment as defined in the *CEQR Technical Manual* and therefore do not have the potential to cause significant transportation impacts.

A total of six of the 27 prototypes do not screen out of the potential for traffic and parking impacts based on net incremental development levels described above. Based on the screening procedures analyses presented in the *CEQR Technical Manual*, these prototypes are projected to generate vehicle, pedestrian, and transit trip levels that are below the thresholds that could cause significant transportation impacts. Accordingly, development levels represented by these six remaining prototypes do not have the potential to cause significant transportation impacts.

It is possible that two or more of the prototypes could be developed in close proximity to one another. Based on the development densities and the peak hour trip generation characteristics associated with each of the prototypes, it was determined that none of the 27 prototypes (developed individually, or in reasonable combinations with one another), are expected to result in impacts to the transportation network.

C. ANALYSIS METHODOLOGY

Since the Proposed Action is a “Generic Action” and there are no specific development sites, to produce a reasonable analysis of likely effect of the Proposed Action, 27 representative development prototypes have been identified and used for analysis, as described in Chapter 2, Analysis Framework. The net incremental development levels associated with the 27 prototypes that are described in that chapter were evaluated according to the methodologies presented in the *2014 CEQR Technical Manual*.

First, the prototypes that screen out for impacts based on development densities were identified. For those prototypes that do not screen out of the potential for impacts based on density, a trip generation analysis was conducted to determine the expected volumes of peak-hour pedestrian, vehicular, and transit based trips. Additional

analyses were conducted to evaluate the potential for impacts if two or more prototypes are developed in close proximity with one another.

D. PRELIMINARY SCREENING ANALYSIS

The Proposed Action aim to facilitate the development of projects that include the following land uses:

- General Residential Dwelling Units (G)
- Inclusionary Housing (IH)
- Affordable Inclusionary Residence for Seniors (AIRS)
- Long-Term Care Facility (LTC)

For transportation planning purposes, the first two uses (General Residential Dwelling Units and Inclusionary Housing) are both classified as residential in nature, while the second two uses (Affordable Inclusionary Residences for Seniors and Long-Term Care Facilities) are classified as community facility uses. Although they are classified in zoning as residential uses, Affordable Independent Residences for Seniors are considered community facility uses for reasons described below.

Each of these two broad land use classifications have markedly different peak hour trip generating characteristics. Residential development peak hour trips are made primarily by the persons living in the developments. The community facility uses affected by the Proposed Action (i.e., the AIRS and LTC uses) are also occupied by persons that live at these facilities, but the majority of these occupants do not commute to work. The peak hour trips associated with the AIRS and LTC developments are generally not made by the occupants of the facilities, but rather are primarily made by those that work at the facilities (generally providing services to the facility occupants), and by visitors. While AIRS developments do not typically have more employees associated with them than do general residential buildings (i.e. custodial staff and property manager), and while they do not typically experience visitor patterns different from those at general residential buildings, the low car ownership rates among AIRS residents are more closely aligned with those at Long-Term Care facilities than general residential buildings and, thus, are analyzed in the same category for the purposes of this chapter only.

Were they to be analyzed as residential developments with residential utilization patterns in spite of their lower rates of car ownership, each of the AIRS developments as modelled by the development prototypes in this document would also fall below the preliminary screening threshold for residential use shown in Table 16-1 of the *CEQR Technical Manual*.

According to the thresholds in Table 16-1 of the *CEQR Technical Manual*, a transportation analysis is not required in any area of the City for residential developments of less than 100 incremental units, or for community facility developments of less than 15,000 gross square feet. Developments below these thresholds generate only marginal numbers of new trips, and do not have the potential to result in significant impacts on traffic operations, public transportation facilities, pedestrian elements, the safety of all roadway users (pedestrians, bicyclists and motorists), or on-and off-street parking facilities.

In order to assess the potential for transportation related project impacts, each of the prototypical development scenarios listed in Chapter 2 was first evaluated to determine if they screen out for impacts based on development densities. The net development increments associated with each of the 27 prototype developments are displayed in Table 15-1. For the General Residential and Inclusionary Housing prototypes, the increments are expressed in “net dwelling units”. For the Long Term Care and Affordable Inclusionary Housing for Seniors (community facility) prototypes, the increments are expressed in “net gross square feet” (GSF). As indicated in TABLE 15-1, the development increments associated with each of the new residential and community facility prototypes are expected to be modest, ranging from no incremental development density (Prototypes 1, 2, 3, 4, 5, 12, 13, 17, and 21) to a maximum increment of 32 additional residential dwelling units (Prototype 10) and 70,488 additional GSF of community facility space (Prototype 11).

Table 15-1: Development Increments

Prototype	Type	Net Residential Units	Net AIRS Units	Net LTC Beds	Net GSF
1	G	0	--	--	0
2	IH	0	--	--	0
3	IH	0	--	--	0
4	G	0	--	--	0
5	G	0	--	--	0
6	AIRS	--	24	--	8,995
7	AIRS	--	32	--	11,000
8	AIRS	--	29	--	5,010
9	LTC	--	--	24	13,110
10	G	32	--	--	28,837
11	AIRS	--	99	--	70,488
12	G	0	--	--	0
13	IH	0	--	--	0
14	IH	8	--	--	7,250
15	IH	30	--	--	25,674
16	IH	24	--	--	0
17	IH	0	--	--	0
18	IH	3	--	--	3,069
19	IH	8	--	--	7,480
20	AIRS	--	81	--	31,980
21	IH	0	--	--	0
22	AIRS	--	44	--	28,160
23	LTC	--	--	54	27,000
24	AIRS	--	12	--	8,032
25	AIRS	--	5	--	1,536
26	LTC	--	--	50	32,460
27	AIRS	--	51	--	33,110

	: < "100 Residential Unit" Threshold.
	: < "15,000 GSF Community Facility" Threshold.
	: > "15,000 GSF Community Facility" Threshold.

*Note: Trip Generation/Screening Variable in **Bold** ("Net Residential Units" for General and Inclusionary Housing, and "Net GSF" for AIRS and LTC Uses).*

According to the *CEQR Technical Manual* (Table 16-1), even in the most sensitive areas of the City, for development levels that are below 100 residential dwelling units, or below 15,000 square feet of community facility space, there is generally no potential for significant transportation related impacts and further numerical analysis is generally not needed. These minimum development levels were determined by applying typical travel demand factors (i.e., daily person trips, temporal distribution, modal split, vehicle occupancy, etc.) for each of the land uses, up to a development density at which vehicle, transit, and pedestrian trip generation would not likely cause significant

adverse impacts, based on a review of prior Environmental Assessment Statements (EASs) and Environmental Impact Statements (EISs) conducted under the CEQR process. The 100 residential unit and 15,000 gross square feet of community facility development densities generally result in fewer than 50 peak hour vehicle trips, 200 peak hour subway/rail or bus transit riders and 200 peak hour pedestrian trips, and significant adverse impacts are generally considered unlikely.

The information presented in Table 15-1 indicates of the 15 General Residential and Inclusionary Housing prototypes, nine (9) of these (Prototypes 1, 2, 3, 4, 5, 12, 13, 17, and 21) would have no increase in density and therefore do not have the potential to create significant transportation impacts. The remaining six (6) of these (Prototypes 10, 14, 15, 16, 18 and 19) would have increments of less than 100 net units, and based on the *CEQR Technical Manual* Table 16-1 do not have the potential to create significant transportation impacts.

The information presented in Table 15-1 also indicates that the Community Facility Prototypes (Prototypes 6, 7, 8, 9, 24, and 25) would have increments of less than 15,000 GSF, and similarly do not have the potential to create significant impacts based on the *CEQR Technical Manual* Table 16-1.

Based on these density-related screening thresholds, only Community Facility Prototypes 11, 20, 22, 23, 26 and 27 exceed the 15,000 square foot threshold and require additional analysis.

E. LEVEL ONE SCREENING ANALYSIS

Developments that exceed the thresholds identified in Table 16-1 of the *CEQR Technical Manual* warrant a trip generation analysis to determine expected volumes of peak hour pedestrian, vehicular, and transit based trips. Except in unusual circumstances, a further quantified analyses would typically not be needed if a proposed development would result in fewer than the following incremental trips:

- Traffic and Parking: 50 peak hour vehicle trips
- Subway/Rail or Bus: 200 peak hour transit trips, or 50 peak hour bus trips in a single direction on a single route
- Pedestrian Elements: 200 peak hour pedestrian trips.

As discussed above, Prototypes 11, 20, 22, 23, 26 and 27 exceed the 15,000 square foot threshold identified in Table 16-1 of the *CEQR Technical Manual* and require additional analysis. These prototypes, and the NYC boroughs in which each of these could locate, are summarized below:

- Prototypes 11 is an Affordable Independent Residences for Seniors developed in R7A zoning districts. R7A districts are mapped in portions of Brooklyn, Queens, Bronx, and Manhattan.
- Prototypes 20 and 22 are both Affordable Independent Residences for Seniors developed in R8 zoning districts. R8 districts are also mapped in portions of Brooklyn, Queens, Bronx, and Manhattan.
- Prototype 23 is a Long Term Care facility developed in R10 zoning districts. R10 districts are limited to portions of Manhattan.
- Prototypes 26 and 27 are Long Term Care facilities and Affordable Independent Residences for Seniors developed in R4 and R5 zoning districts, respectively. R4 and R5 districts are mapped in portions of Brooklyn, Queens, Bronx, and Staten Island.

For the Affordable Inclusionary Residence for Seniors (AIRS), and for the Long Term Care Facility (LCF) prototypes identified above, a daily weekday and Saturday trip rate of 3.7 person trips per unit has been provided by NYCDOT based on survey data collected at a number of these facilities. The Peak Hour temporal distribution is summarized in Table 15-2.

Table 15-2: AIRS and LTC Peak Hour Temporal Distribution

	Temporal	% In	% Out
AM Peak Hour	0.13	0.74	0.26

MD Peak Hour	0.14	0.38	0.62
PM Peak Hour	0.08	0.25	0.75

The auto use characteristics based on place of residence (“journey-to-work”) and based on workplace location (“reverse-journey-to-work”), along with average auto ownership characteristics for household in each of the five boroughs of New York City, are summarized below in Table 15-3.

Table 15-3: NYC Auto Use and Occupancy Rates

	At Home (JTW)		At Workplace (RJTW)		Average Autos/Household
	% Auto	Occupancy	% Auto	Occupancy	
Bronx	28%	1.30	46%	1.27	0.53
Brooklyn	24%	1.32	39%	1.29	0.56
Manhattan	9%	1.53	14%	1.33	0.25
Queens	39%	1.28	53%	1.22	0.92
Staten Island	64%	1.20	74%	1.18	1.48

As noted above, the peak hour trips associated the Affordable Inclusionary Residences for Seniors (AIRS) and the Long-Term Care Facilities (LTC) uses are primarily made by those that work at the facilities. Therefore, the auto use rates for “journey to work at workplace”, or “reverse-journey-to-work” (RJTW) were used to project the auto trips associated with these uses.

In order to account for the possibility that these prototypes may be constructed in different boroughs, and to provide a reasonably conservative projection of new vehicle trips, the borough with the highest auto use rate in which a particular prototype could be located, was used to model the incremental vehicle trips.

Table 15-4 shows the person and auto trip generation estimates for each of the prototypes that do not pass the preliminary screening analysis. As indicated, the prototype with the largest number of vehicle trips is Prototype 11 when located in the borough of Queens, with a maximum of 51 person trips and 22 auto trips per hour.

Table 15-4: Peak Hour Trip Generation

Prototype	Type	Net Net SF	Net Units	BORO	Daily PTR	Highest PK HR %	Highest PK HR PT	Trip Type	% Auto	Persons /Auto	Highest PK HR AT
11	AIRS	70,488	99	QN	3.7	0.14	51	RJTW	53%	1.22	22
20	AIRS	31,980	81	QN	3.7	0.14	42	RJTW	53%	1.22	18
22	AIRS	28,160	44	QN	3.7	0.14	23	RJTW	53%	1.22	10
23	LTC	27,000	54	MN	3.7	0.14	28	RJTW	14%	1.33	3
26	AIRS	32,460	50	SI	3.7	0.14	26	RJTW	74%	1.18	16
27	AIRS	33,110	51	SI	3.7	0.14	26	RJTW	74%	1.18	17

Notes: G: General Residential PTR: Person Trip Rate
 IH: Inclusionary Housing BORO: NYC Borough in which Prototype be can Located
 AIRS: Affordable Inclusionary Housing for Seniors PK HR: Peak Hour
 LTC: Long Term Care Facility PK HR PT:Peak Hour Person Trips
 PK HR AT:Peak Hour Auto Trips

Traffic and Parking

As discussed above, the *CEQR Technical Manual* Level One screening threshold for traffic and parking is 50 incremental vehicles per hour during any peak hour. The information presented in Table 15-4 indicates that each of the prototypes that exceed the Preliminary Screening thresholds (Prototypes 11, 20, 22, 23, 26, and 27) are projected to generate between 3 and 22 vehicle trips in the highest peak hour period. Therefore, based on the criteria published in the *CEQR Technical Manual*, there is no potential for significant traffic or parking impacts and no further analysis is warranted.

Transit and Pedestrians

As discussed above, the *CEQR Technical Manual* Level One screening thresholds for transit (subway and bus service) and pedestrian elements (sidewalks, street corners, and crosswalks) are each 200 trips per hour (or 50 bus trips in one direction). The information presented in Table 15-4 indicates that each of the prototypes that exceed the Preliminary Screening thresholds (Prototypes 11, 20, 22, 23, 26, and 27) are projected to generate between 23 and 51 person trips in the highest peak hour period. Therefore, based on the criteria published in the *CEQR Technical Manual*, there is no potential for significant transit or pedestrian impacts and no further analysis is warranted.

F. CLUSTERS/CUMULATIVE ANALYSIS

Generally, any project induced vehicular, transit, or pedestrian trips are most concentrated adjacent to the project site, and generally disperse into smaller increments as the distance from the project site increases. In order for traffic or pedestrian volumes to superimpose completely, any potential development clustering would have to occur on the same block front, and as the distance between potential developments increases, the cumulative effects of project generated traffic and pedestrian volumes decreases.

Furthermore, the potential for prototype to cluster and create significant project impacts is limited for the following reasons:

- Affordable Inclusionary Residences for Seniors and Long-Term Care Facilities are not likely to locate in close proximity with one another. The development of this type of housing is constrained by regulatory approvals and funding, and development sites are typically limited to publicly owned sites, making the clustering of such development unlikely. Moreover, these facilities would be distributed across areas with existing demands for senior housing and services, and it is not likely that more than two of these facilities would be developed in close proximity to one another.
- The majority of properties that could support the development of the various prototypes identified in this document are already developed, and the Proposed Action (generally providing only modest increases in density) would not result in multiples of these developed properties within close proximity of each other to be assembled, demolished, and redeveloped in response to the Proposed Action.

A quarter-mile radius study area was chosen to evaluate the potential for multiple prototypes to combine and create the potential for project impacts. This is a conservative geography for analysis because each of the prototypes generate relatively small numbers of vehicle trips and the probability that substantial numbers of project generated vehicles associated with prototypes located more than a half mile from each other to overlap, is low. It is important to note that the analysis presented below is also conservative, as it assumes that 100 percent of the traffic associated with each of the prototypes that could locate within a +/- 10-block area, would be added to the same intersection location. In actuality, any potential prototype developments would be dispersed throughout the typical study area, and the traffic generated by each of these would generally disperse in different directions.

First, each of the potential development sites matching prototypes resulting in more than 10 net units or beds were mapped based on property lot and zoning requirements. A series of quarter-mile (+/- 5-block) radius study areas were chosen for detailed analysis where the potential sites available for clustering are the greatest. While every possible general residential or inclusionary housing prototype resulting in a net addition of at least 10 units was permitted to cluster, only two of the AIRS or LTC prototypes were allowed to be mapped in any single cluster. Based on a review of the potential development sites, the boroughs with the greatest number of such sites are Manhattan and Queens. While there are also prototypical sites in Brooklyn, the Bronx, and Staten Island, these are more dispersed, and there are only limited opportunities for clustering.

It is important to note that the locations where prototypes could be developed were chosen simply based on the zoning and property dimension requirements associated with each of the prototypes. Most if not all of these properties are likely developed with ongoing uses and no regard was given as to the likely redevelopment of any of these properties. They are included here only in order to represent a worst-case scenario to evaluate the potential for prototypes locating in clusters to result in significant transportation impacts.

The worst case clustering of the 27 prototypes in each of the five boroughs of New York City, based on the assumptions presented above, are presented in Exhibits 15-1 through 15-5. The corresponding trip generation estimates are presented in Tables 15-5 through 15-10.

Figure 15-1

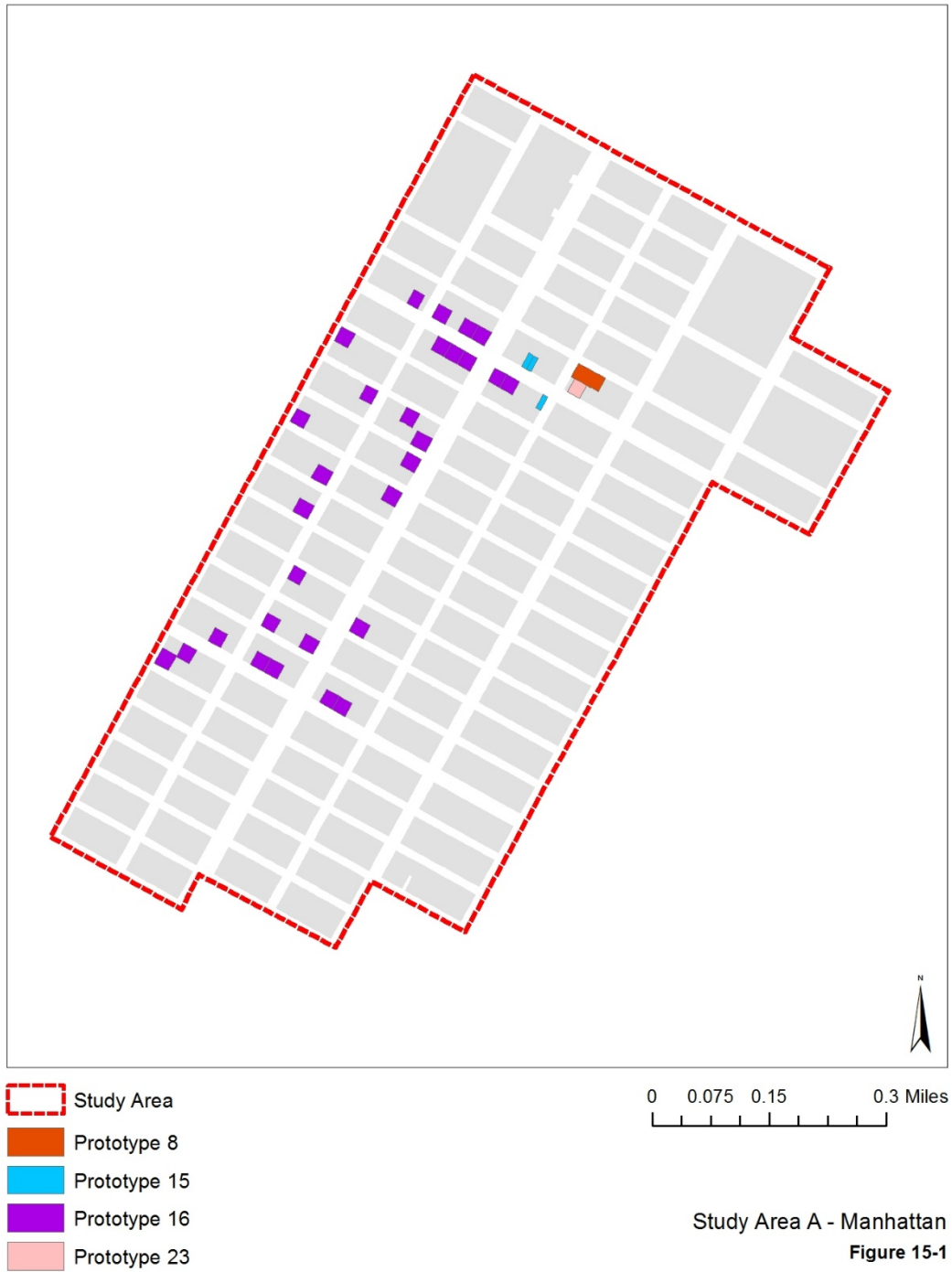


Figure 15-2

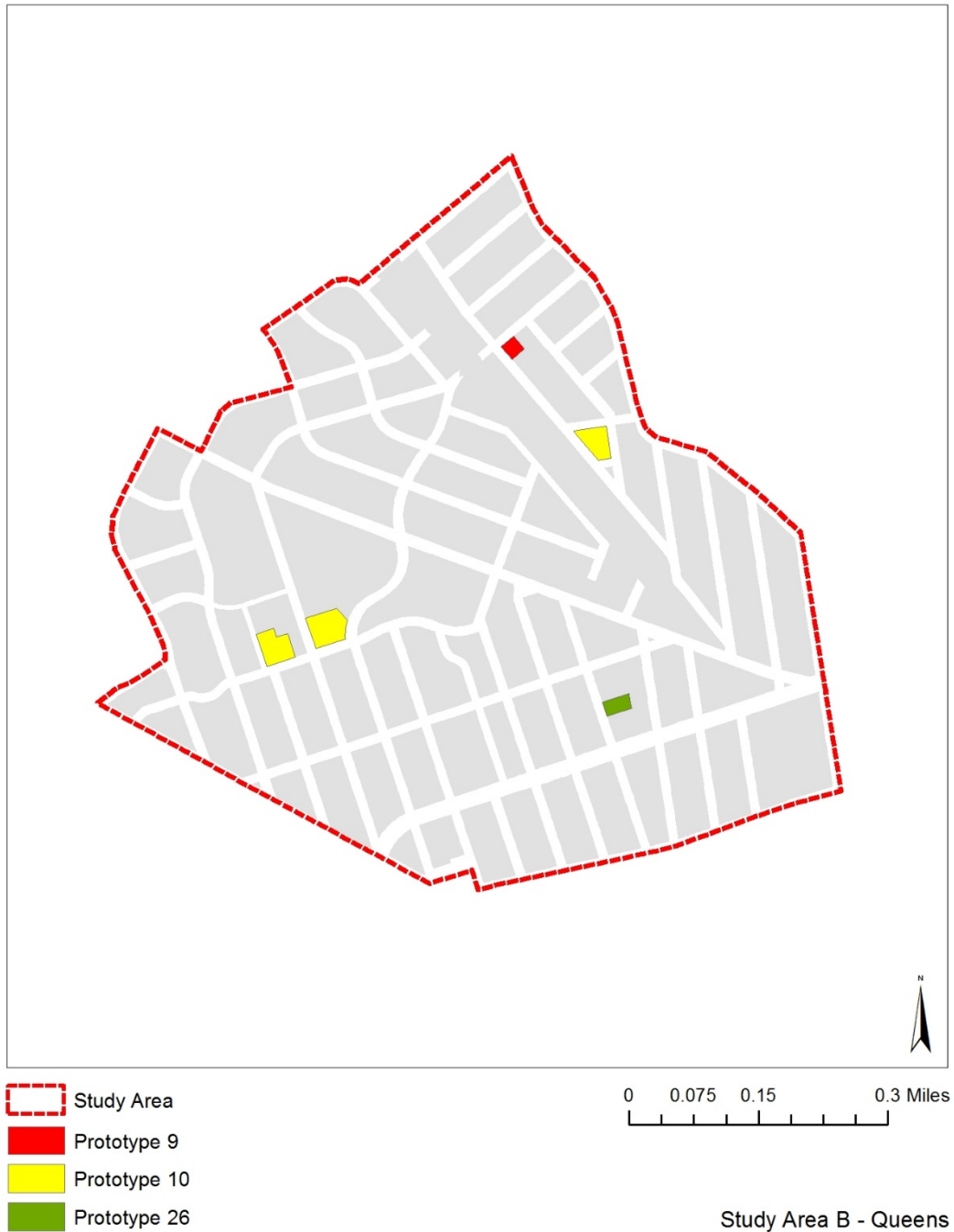
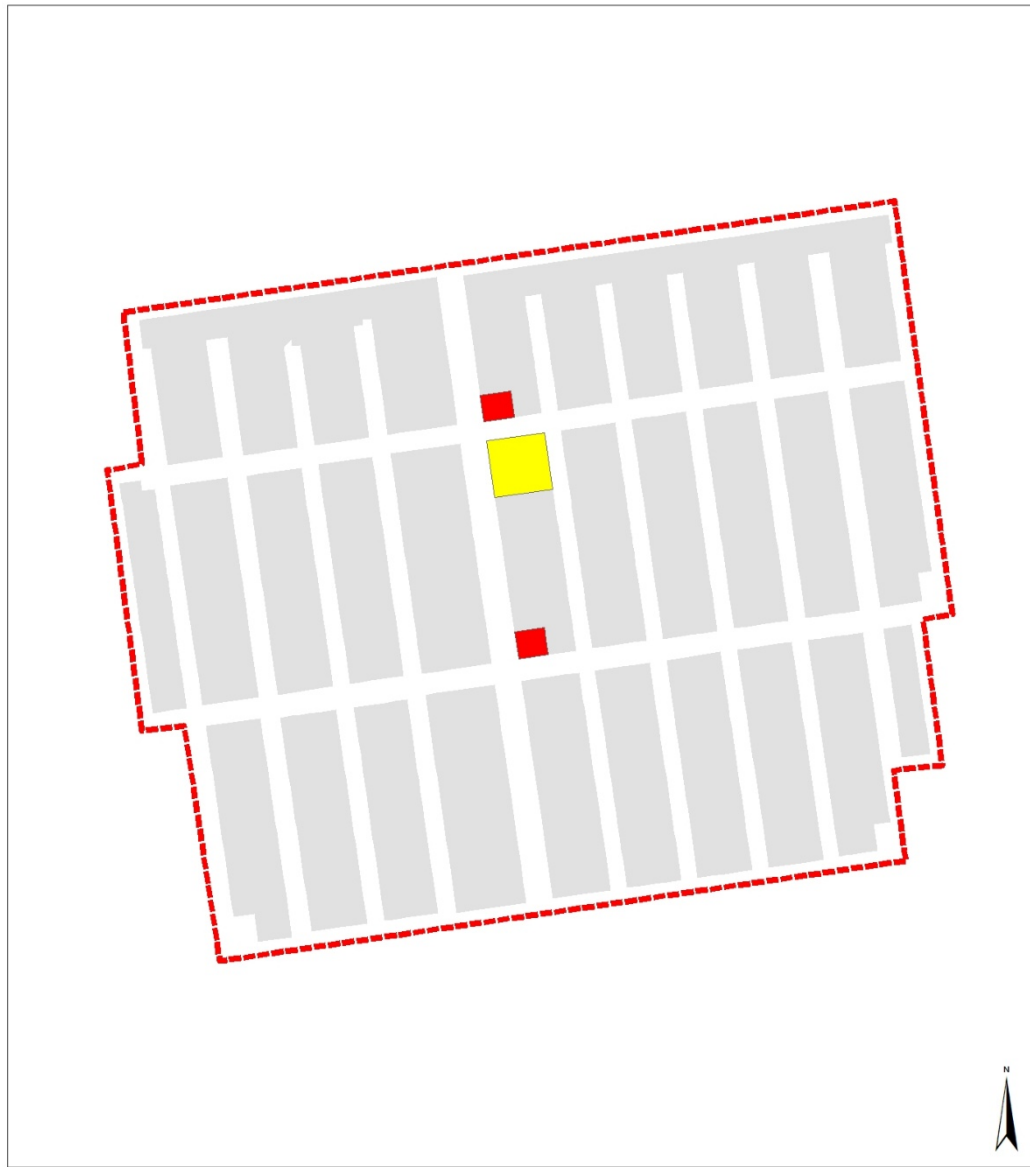





Figure 15-3

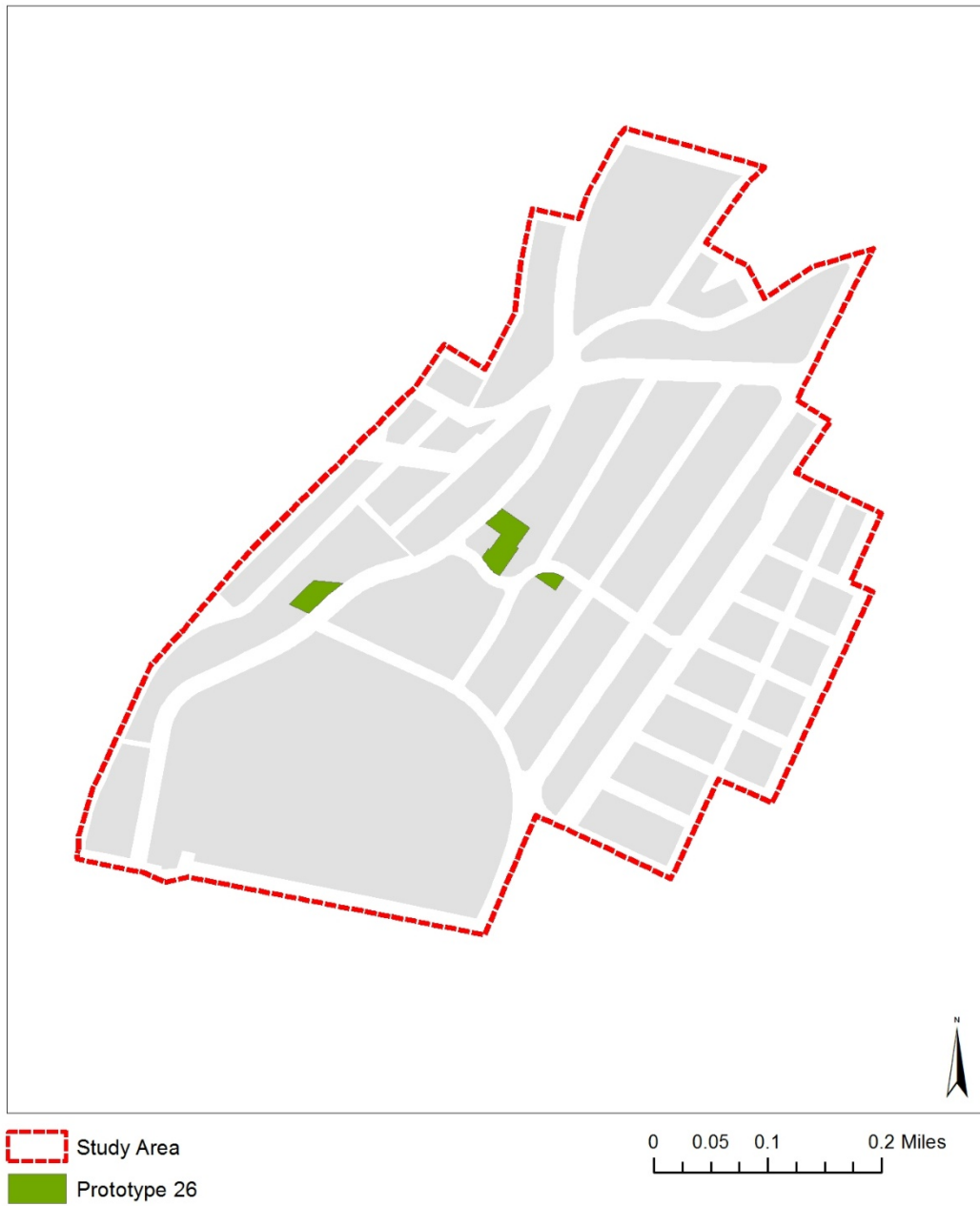


-  Study Area
-  Prototype 9
-  Prototype 10

0 0.05 0.1 0.2 Miles

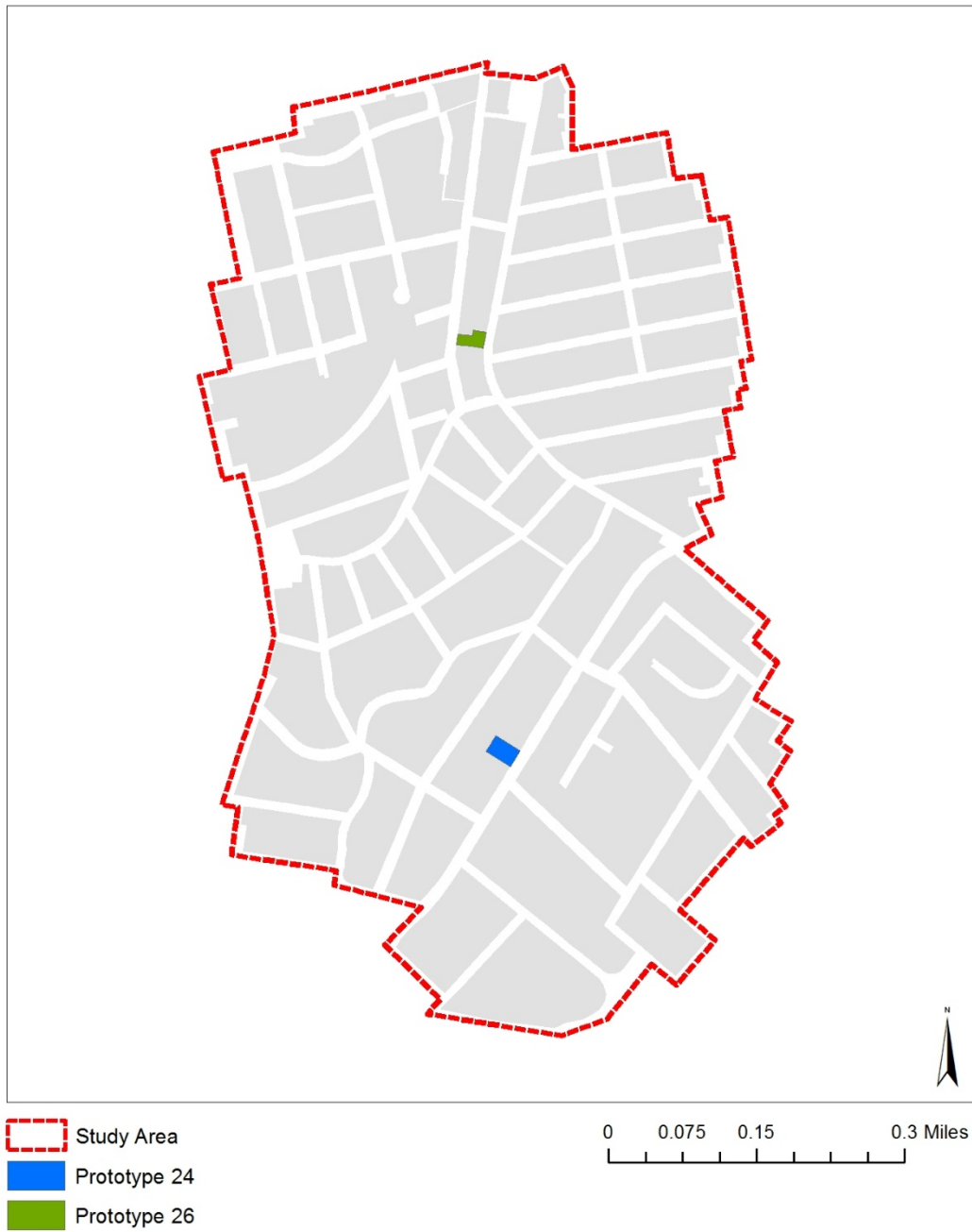
Study Area C - Brooklyn
Figure 15-3

Figure 15-4



Study Area D - Bronx
Figure 15-4

Figure 15-5



Study Area E - Staten Island

Figure 15-5

Table 15-5: Worst Case Manhattan Cluster Scenario Vehicle Trip Generation

Prototype	Type	Cluster	Net	Net	BORO	Daily	Peak	Peak Hour	Trip	%	Persons	Peak Hour
			SQ FT	Units		PTR	Hour %	Person Trips	Type	Auto	/Auto	Auto Trips
8	AIRS	1	5,010	29	MN	3.7	0.14	15	RJTW	14%	1.33	2
15	IH	3	25,674	90	MN	8.075	0.11	80	JTW	9%	1.53	4
16	IH	29	0	696	MN	8.075		618	JTW	9%	1.53	34
23	LTC	1	27,000	54	MN	3.7	0.14	22	RJTW	14%	1.33	3
Total				869				735				43

The Manhattan study area shown in Exhibit 15-1 was chosen based on the presence of multiple opportunities for general residential and inclusionary housing, and the presence of two opportunities for the development of AIRS and/or LTC prototypes. The condition shown in Exhibit 15-1 represents the worst case clustering of potential development sites for the borough of Manhattan. As stated above these locations were chosen simply based on the zoning and property dimension requirements associated with each of the prototypes and no regard was given as to the likely redevelopment of any of these properties. They are included here only in order to represent a worst-case scenario to evaluate the potential for prototypes locating in clusters to result in significant transportation impacts. As indicated in Table 15-5, the total vehicle trips (43 vehicles per hour) are under the 50 vehicle per hour *CEQR Technical Manual* Level One Screen threshold for potential traffic and parking impacts, but the person trips (735 person trips per hour) exceed the *CEQR Technical Manual* Level One Pedestrian/Transit Screening threshold of 200 pedestrian/transit trips per hour. Therefore, in this case it was necessary to proceed to the *CEQR Technical Manual* Level Two screening analysis requiring an assignment of the pedestrian trips to sidewalks, crosswalks, and street corners. As shown in Exhibit 15-1, worst case location for the potential for pedestrian impacts is in the northern section of the clustering example. An analysis of the potential pedestrian trips (walk-only, subway, and bus) is presented below in Table 15-6.

Table 15-6: Worst Case Manhattan Cluster Scenario Pedestrian Trip Generation

Prototype	Type	Cluster	Net	Net	BORO	Daily	Peak	Peak Hour	Trip	%	Persons	Peak Hour
			SQ FT	Units		PTR	Hour %	Person Trips	Type	Auto	/Auto	Auto Trips
8	AIRS	1	5,010	29	MN	3.7	0.14	15	RJTW	14%	1.33	2
15	IH	2	25,674	60	MN	8.075	0.11	53	JTW	9%	1.53	3
16	IH	4	0	96	MN	8.075	0.11	85	JTW	9%	1.53	5
23	LTC	1	27,000	54	MN	3.7	0.14	22	RJTW	14%	1.33	3
Total				239				175				13

The information presented in Table 15-6 indicates that even if 100 percent of the pedestrian trips on the north side of the northernmost block were to be assigned to the same pedestrian and/or transit element, the total number of

pedestrian and/or transit trips at that test location would be below 200, indicating that there is no potential for impacts related to the pedestrian/transit environment.

Table 15-7: Worst Case Queens Cluster Scenario Trip Generation

Prototype	Type	Cluster	Net SQ FT	Net Units	BORO	Daily PTR	Peak Hour %	Peak Hour Person Trips	Trip Type	% Auto	Persons /Auto	Peak Hour Auto Trips
9	LTC	2	18,990	68	QN	3.7	0.14	25	RJTW	53%	1.22	11
10	G	3	28,837	96	QN	8.075	0.11	85	JTW	39%	1.28	26
Total				164				110				37

In contrast with Manhattan, which contains numerous properties located near to one another matching the criteria for residential and inclusionary housing prototypes, these opportunities are more limited in Queens. The conditions shown in Exhibit 15-2 represent worst case clustering of potential development sites throughout the borough of Queens. The worst case cluster includes three opportunities for General Residential Prototype 10 development and two long term care facility (Prototypes 9 and 26) developments. As indicated in Table 15-7, the worst case cluster would generate 37 peak vehicles per hour, which is under the 50 vehicle trip per hour threshold for traffic and parking impacts. The peak hour person trips (110 per peak hour) are also under the 200 trip per hour thresholds for potential pedestrian and transit system impacts.

Table 15-8: Worst Case Staten Island Cluster Scenario Trip Generation

Prototype	Type	Cluster	Net SQ FT	Net Units	BORO	Daily PTR	Peak Hour %	Peak Hour Person Trips	Trip Type	% Auto	Persons /Auto	Peak Hour Auto Trips
24	AIRS	1	8,032	12	SI	3.7	0.14	6	RJTW	74%	1.18	4
26	LTC	1	32,460	65	SI	3.7	0.14	26	RJTW	74%	1.18	16
Total				77				32				20

Table 15-9: Worst Case Bronx Cluster Scenario Trip Generation

Prototype	Type	Cluster	Net SQ FT	Net Units	BORO	Daily PTR	Peak Hour %	Peak Hour Person Trips	Trip Type	% Auto	Persons /Auto	Peak Hour Auto Trips
26	LTC	2	32,460	130	BX	3.7	0.11	52	RJTW	46%	1.27	19
Total				130				52				19

The Staten Island study area shown in Exhibit 15-3 and the Bronx study area shown in Exhibit 15-4 were chosen based on the presence opportunities for general residential and inclusionary housing, and the presence of two opportunities for the development of AIRS and/or LTC prototypes. There are few properties in Staten Island and the

Bronx located near to one another matching the criteria for residential and inclusionary housing prototypes, and therefore the reasonable worst case clustering study areas for both boroughs depict two AIRS and/or LTC developments. As indicated in Tables 15-8 and 15-9, the number of vehicle trips corresponding to both the Staten Island and Bronx worst case study areas is under the 50 vehicle trip per hour threshold for the potential for traffic and parking impacts, and the person trips are less than the 200 trip per hour thresholds for potential pedestrian and transit system impacts.

Table 15-10: Worst Case Brooklyn Cluster Scenario Trip Generation

Prototype	Type	Cluster	Net SQ FT	Net Units	BORO	Daily PTR	Peak Hour %	Peak Hour Person Trips	Trip Type	% Auto	Persons /Auto	Peak Hour Auto Trips
9	LTC	2	18,990	68	BK	3.7	0.11	28	RJTW	39%	1.29	8
10	G	1	28,837	32	BK	8.075	0.14	36	JTW	24%	1.32	7
Total				100				64				15

The Brooklyn study area shown in Exhibit 15-5 was chosen based on the presence of multiple opportunities for general residential and inclusionary housing, and the presence of two opportunities for the development of AIRS and/or LTC prototypes. Similar to Staten Island and the Bronx, opportunities for residential and inclusionary housing prototypes to cluster with each other are limited. The conditions shown in Exhibit 15-2 represent reasonable worst case clustering of potential development sites throughout the borough of Brooklyn. The worst case cluster includes one general residential (Prototype 10) and two long term care facility (Prototype 9) developments. As indicated in Table 15-10, the corresponding number of vehicle trips is under the 50 vehicle trip per hour threshold, and the person trips are less than the 200 trip per hour thresholds for potential pedestrian and transit system impacts.

The total number of vehicle trips associated with each of the typical worst case cluster identified in Exhibits 15-1 through 15-4 are summarized below in Table 15-11.

Table 15-11: Potential Clustering Peak Hour Vehicle Trips

Location	Peak Hour Vehicle Trips	Peak Hour Person Trips
Manhattan	12	175 (1)
Queens	34	110
Bronx	19	52
Staten Island	21	32
Brooklyn	15	64

Note (1): Worst Case Maximum Peak Hour Person Trips on any Pedestrian or Transit Element.

The information presented in Table 15-11 indicates that each of the prototype clusters are projected to generate less than 50 incremental vehicles per hour during any peak hour, and less than 200 pedestrian/transit trips per hour (since the total person trips are less than 200 per hour) at any single location. These are each below the screening thresholds presented in the CEQR Technical Manual. Therefore, the proposed actions do not have the potential to create significant transportation systems impacts and no further analysis is warranted.