The Bus Walking Radius Study

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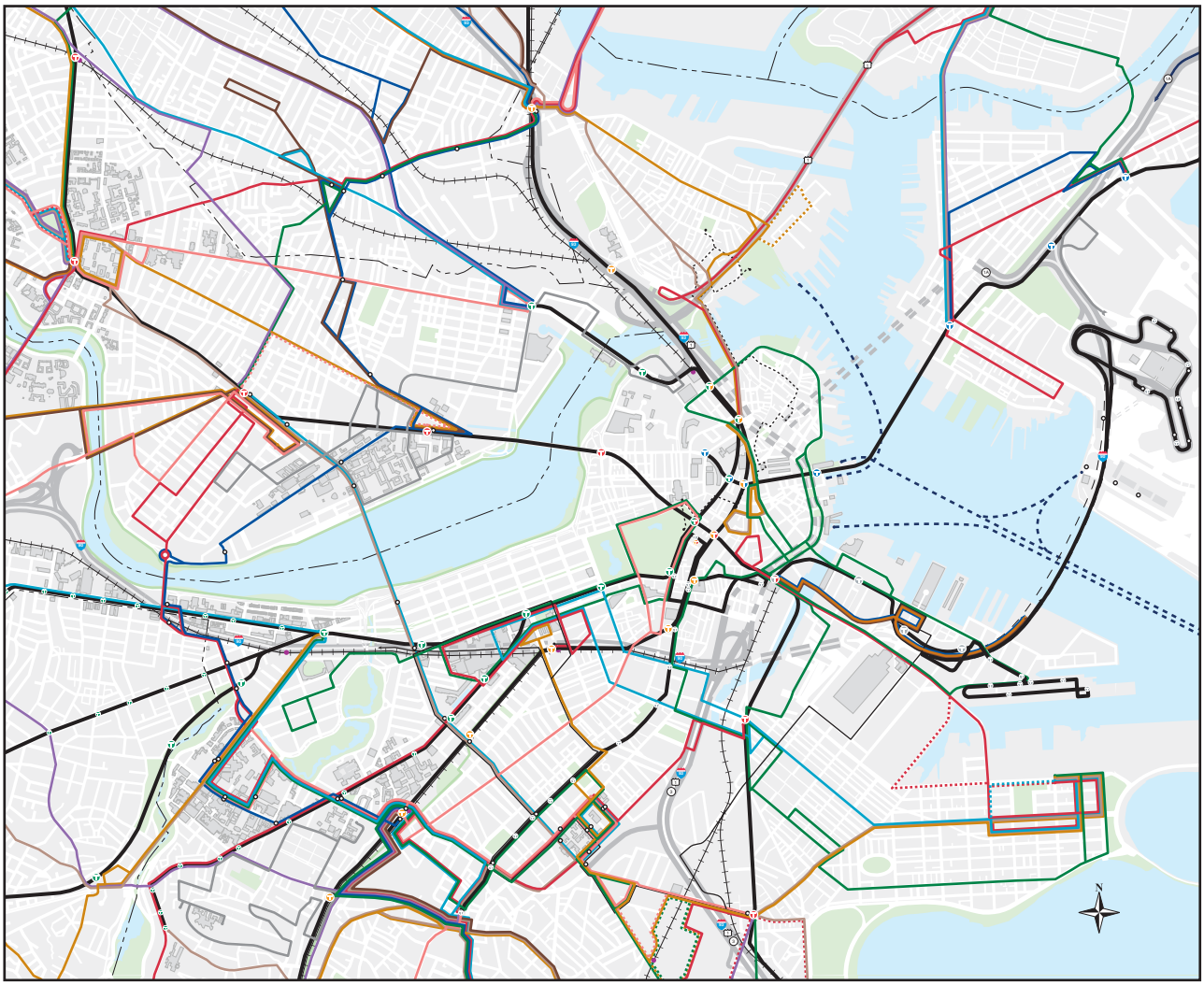

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Abstract

This study analyzes potential route modifications and suggests several possible service plans for local bus system consolidation if the Massachusetts Bay Transportation Authority's (MBTA's) one-quarter-mile coverage standard was relaxed to one-third mile, four-tenths mile, or one-half mile, and the consolidated bus routes operated at greater frequencies. This modeling-based effort built on the MBTA Core Efficiencies Study and will help the MPO and MBTA better understand the implications of eliminating bus routes that perform poorly and increasing service on a number of transit corridors. It considers the best option for providing mobility and access through the bus network. The study also considers the impacts on equity and air quality for each of the potential consolidated systems.

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Keywords

transit
bus
coverage
frequency

Executive Summary

The coverage standard, more than any of the other service standards listed in the Massachusetts Bay Transportation Authority (MBTA) Service Delivery Policy, influences the design of bus routes in terms of where service is provided. It states that, for weekday service, access will be provided within a one-quarter-mile walk to residents in areas served by bus, light rail, and/or heavy rail transit that have a population density greater than 5,000 persons per square mile. According to the analysis undertaken in this study, the current MBTA system covers nearly 80% of the street miles in these areas. If the coverage threshold were increased to one-third mile, four-tenths mile, or one-half mile, this systemwide coverage percentage would increase to 88%, 93%, and 96%, respectively. Greater coverage thresholds would be based on the assumption that riders would be willing to walk greater distances to access transit. If the coverage thresholds were increased, a greater percentage of many routes' individual coverage areas would overlap; correspondingly, a smaller percentage of these route-level coverages would be unique to one particular route.

This study proposed three service plans that apply the one-third-mile, four-tenths-mile, and one-half-mile coverage thresholds, respectively. Under each service plan, where bus routes had a high degree of coverage overlap, one or more routes were eliminated, and the service hours of these eliminated routes were reinvested in the remaining routes in order to improve their frequencies. The service plan associated with the one-third-mile coverage threshold therefore had the smallest number of route eliminations and the smallest increase in average frequencies, while the service plan associated with the one-half-mile coverage threshold had the greatest number of route eliminations and the greatest increase in average frequencies. The

number of routes eliminated and the frequency improvement in the service plan associated with the four-tenths-mile coverage threshold were between those of the other two service plans. The Boston Region Metropolitan Planning Organization's regional travel demand model set was then used to estimate the ridership impacts of each service plan.

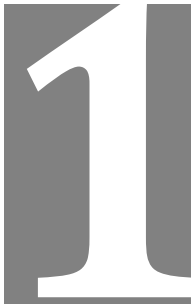
It appears that the service plan associated with the four-tenths-mile coverage threshold attains the appropriate balance, according to the ridership impacts forecast by the regional model set, between the elimination of routes and the reinvestment of those routes' service hours into remaining routes in order to improve their frequency, such that the net ridership change is negligible. Neither the one-third-mile nor one-half-mile coverage thresholds appear to achieve this balance. The frequency improvements associated with the one-third-mile coverage threshold are not significant enough to attract the number of new riders required to replace the riders lost because of the route eliminations. The one-half-mile coverage threshold likely tips the balance too far in the opposite direction, eliminating so many routes that even the new riders that are attracted to the service because of the much-improved frequencies are not enough to replace the riders lost due to the route eliminations.

In addition to estimating the overall ridership impact, the study also considered the distribution of this impact between service corridors and neighborhoods. Undoubtedly, as in any situation where the costs and benefits cannot be evenly distributed, there are winners and losers in terms of the change in daily transit trips associated with each coverage threshold. However, the four-tenths-mile coverage threshold also seems to attain the best balance when comparing the corridor ridership impacts, neither gaining nor losing as many trips in individual neighborhoods as either the one-third-mile or one-half-mile coverage thresholds. When comparing the neighborhood ridership impacts for the one-third-mile coverage threshold, the winners are suburban neighborhoods and the losers are urban neighborhoods. The impacts of the four-tenths-mile and one-half-mile coverage thresholds are distributed more evenly between urban or suburban neighborhoods.

The study also considered the impacts of the three proposed service plans on environmental justice (EJ) communities and air quality. Because the percentage changes for EJ and non-EJ communities are neither large enough nor far enough apart, it is not likely that there would be any systematic negative impact on EJ communities, but the difference in certain metrics warrants concern. For instance, greater percentage increases in the number of transfers for EJ communities with the four-tenths-mile and one-half-mile coverage threshold may

indicate that the cuts affecting the urban core in these service plans are too drastic. In terms of air quality, the largest increase in private-vehicle trips, and corresponding air pollution, of any of the service plans is with the one-half-mile coverage threshold. However, even with this coverage threshold, the greatest percentage increase in any pollutant does not exceed 0.08%.

Although the service plans presented in this study propose specific route eliminations and frequency improvements, they are intended to be conceptual in nature. This study's analysis of these concepts is intended to help the Boston Region MPO better understand the implications of eliminating duplicative services or services that perform poorly and using the resources that become available to increase the service level on a number of remaining transit routes. It appears, from considering the estimates of the regional model set, that further investigation into this trade-off may be warranted. According to this analysis, a service plan that attains an appropriate balance between eliminating service and improving frequency may succeed at attracting new riders to the transit system and maintaining overall ridership levels.



Introduction

Much of the existing MBTA bus system has its origins as streetcar lines built before 1900. Over time, the bus system has grown in response to customer demand and now operates a large number of routes with high-frequency service in dense urban areas and fewer routes with less-frequent service in suburban areas, where auto ownership is greater. Bus routes have also been designed, revised, and eliminated in response to measures of service quality and productivity established by the MBTA Service Delivery Policy. The MBTA currently operates approximately 200 bus routes, with variations totaling over 550 distinct services, and two bus rapid (BRT) transit lines (comprising four branches).

One service characteristic governed by the MBTA Service Delivery Policy concerns coverage—that is, how far a customer has to walk to reach a transit service. The existing MBTA guideline for coverage states that access to transit service will be provided within a one-quarter-mile walk to residents in areas served by bus, light rail, and/or heavy rail transit that have a population density greater than 5,000 persons per square mile. This one-quarter-mile coverage threshold is for weekdays and Saturdays. On Sundays, the allowable walking distance increases to one-half mile. Other service standards in the Service Delivery Policy concern frequency and span of service (how often and in which hours transit operates), vehicle loading (the number of passengers per vehicle), schedule adherence, and net cost per passenger.

More than any other service characteristic, the coverage guideline governs the design of bus routes in terms of where service is provided. However, the coverage level and resulting allocation of service also have implications for how that service is provided given the other service standards. For example, any relaxation of the coverage threshold would require fewer bus routes to be provided; the resultant ridership shifts could cause the remaining bus routes to fail the vehicle-

load and/or schedule-adherence standards if the ridership on those routes increased. This might require an increase in the frequency of service on some of the remaining routes.

The MBTA Core Efficiencies Study proposed several potential concepts for the reallocation of bus service in the MBTA service area. One of the proposed concepts was a reduction in the total number of bus routes, with more frequent service to provide greater capacity on the remaining routes, as well as implementation of more bus priority measures. In essence, the bus system would have fewer routes, but the concept would apply various BRT characteristics to the remaining routes to improve service reliability and attract ridership. This study utilizes this concept, but does not include recommendations for any bus priority measures.

This study performed an analysis of the existing bus, light rail, and heavy rail systems in terms of the existing coverage level with the one-quarter-mile coverage threshold. It also considered how systemwide coverage, and the overlap in route-level coverages, would change with a one-third-mile, four-tenths-mile, or one-half-mile coverage threshold. Based on this analysis, the study proposed three service plans—one for each of the three additional coverage thresholds. In each service plan, bus routes that have a high degree of overlap with other routes in terms of their respective coverages were eliminated. The service hours associated with the eliminated routes were then reinvested into the remaining routes in order to improve their frequencies. The regional travel demand model set was used to model the ridership, transportation equity, and air quality impacts of each of these proposed service plans.

This modeling-based effort is intended to help the Boston Region MPO better understand the implications of eliminating duplicative services or services that perform poorly and using those resources to increase the service level on a number of remaining transit routes. This study is intended to be revenue-neutral; that is, it is not intended to be used as a means to reduce operating costs, as it calls for the reinvestment of all eliminated service hours. However, it does generally promote the transfer of resources to routes that currently have low net costs per passenger. To the extent that improved service levels on these routes could increase their ridership, this strategy could improve the systemwide cost-effectiveness.

The service plans presented in this study, while proposing the elimination of specific routes and specifying the percentage increases in

frequencies, are intended to be conceptual in nature. These concepts are intended to promote discussion of the issues raised in this study. Many of the analyses and tables presented in this report could be used by others for related planning purposes.

2 Coverage Analysis of the Existing System

This chapter begins with a description of the coverage guideline as outlined in the MBTA Service Delivery Policy. It then describes the methodology used to analyze coverage. Finally, it describes the overall systemwide coverage and the extent to which each route's coverage overlaps with the coverages of other routes. This analysis is performed by applying four different coverage thresholds—one-quarter mile, one-third mile, four-tenths mile, and one-half mile. The coverage analysis includes light rail and heavy rail routes in addition to bus routes, since these modes of service are included in the MBTA coverage guideline and must be taken into consideration when analyzing service coverage and overlapping services. However, the proposed service plans do not consider changes to the rail routes because they operate on fixed guideway.

2.1 Description of the Coverage Guideline

The MBTA Service Delivery Policy identifies six service standards or guidelines. These standards or guidelines establish the minimum or maximum acceptable levels of service that the MBTA must provide to achieve its service objectives. They also provide a framework for measuring the performance of MBTA services. The coverage guideline specifies a minimum walking distance to the nearest transit stop for residents of areas served by bus, light rail, and/or heavy rail with a population density of greater than 5,000 persons per square mile. Coverage is expressed as a guideline rather than a standard because uniform geographic coverage cannot always be achieved due to constraints such as topological and street network restrictions. In addition, it may be difficult to increase coverage in some areas without adding new service due to the infeasibility of modifying existing routes without negatively affecting their performance.

The coverage service guidelines (shown in Table 2-1) are established specifically for the service area in which bus, light rail, and heavy rail

operate, as riders most frequently begin their trips on these services by foot. Because commuter rail is usually accessed via the automobile, the coverage guidelines do not apply in areas where commuter rail is the only mode provided by the MBTA.

The MBTA Service Delivery Policy sets the threshold for the minimum coverage guideline at one-quarter mile on weekdays and Saturday and one-half mile on Sunday.

Table 2-1
Coverage Guidelines

Service Days	Minimum Coverage
Weekdays & Saturday	Access to transit service will be provided within a quarter-mile walk to residents of areas served by bus, light rail, and/or heavy rail with a population density of greater than 5,000 persons per square mile.
Sunday	On Sunday, this range increases to a half-mile walk.

2.2 Coverage Analysis Methodology

Given the geographic nature of coverage and the need to measure the distance between points, the first step for analyzing coverage is to create a GIS (geographic information systems) map. This map shows the geographic locations of all bus, light rail, and heavy rail stops and stations,[1] the census tracts with a population density greater than 5,000 persons per square mile (based on the 2010 U.S. census), and the existing street network excluding all highways, on-ramps, and other roads that are not accessible to pedestrians. With these layers, it is possible to use the Network Analyst tool in GIS to calculate a buffered distance from each transit stop or station using the actual walking distance on the refined street network (compared to the "as-the-crow-flies" distance, which is not based on the street network). The resulting buffers for each stop and station are then grouped by route and merged to create route-level coverage layers.

[1] This analysis used the routings over the entire service day to determine the locations of stops and stations. However, the analysis could be refined to only select certain routings depending on the time of day to determine the coverage overlap at certain times of the day.

Using GIS, it is possible to determine the overall percentage (or the percentage for specific neighborhoods or towns[2]) of street miles within census tracts with a population density greater than 5,000 persons per square mile that are covered by these route-level coverage layers. It is also possible to calculate the percentage of each route's coverage that overlaps with another route's coverage and the percentage of each route's coverage that is unique to that route and does not overlap with other routes' coverages.

2.3 Coverage Analysis Results

Table 2-2 shows the number and percentage of street miles out of 3,053 systemwide street miles within census tracts with a population density greater than 5,000 persons per square mile that lie within the existing coverage threshold of one-quarter mile and three other possible thresholds: one-third, four-tenths, and one-half miles. Figures 2-1, 2-2, 2-3, and 2-4 show the geographic extent of coverage at each of these threshold levels, respectively.

Table 2-2
Systemwide Coverage (Street Miles*) by Threshold

Coverage Threshold	Number of Street Miles in Coverage	Percent of Street Miles in Coverage
One-quarter-mile	2,426	79.5%
One-third mile	2,695	88.3%
Four-tenths mile	2,830	92.7%
One-half mile	2,937	96.2%

** Street miles within census tracts with a population density greater than 5,000 persons per square mile.*

As would be expected, both the table and figures demonstrate that a greater number and percentage of street miles fall within the greater coverage thresholds. The greatest gain in covered street miles comes from increasing the threshold from one-quarter mile to one-third mile (2,426 miles to 2,695 miles; an increase of 269 miles, or 11.1%). This increase in the absolute number and percentage of street miles that are covered diminishes with greater coverage thresholds. The four-tenths-mile coverage threshold gains an additional 135 covered street miles (a 5.0% increase) compared to the one-third-mile coverage threshold, and

[2] The neighborhood and town definitions used in this study match those used in the Core Efficiencies Study. See Table A-1 for a full listing.

the one-half-mile coverage threshold gains an additional 107 covered street miles (a 3.8% increase) compared to the four-tenths-mile coverage threshold.

Table 2-3 presents the percentage of neighborhoods by the percentage of street miles covered, for each threshold (walking radius), for neighborhoods that have census tracts with a population density greater than 5,000 persons per square mile. For instance, the percentage of neighborhoods with 100% coverage of their street miles increases from 2.4% with the existing one-quarter-mile coverage threshold to 29.8% with a one-half-mile coverage threshold. Figures 2-5, 2-6, 2-7, and 2-8 show the percentage (within ranges of 10%) into which each neighborhood falls for each of the coverage thresholds. Table A-1 (in the appendix) presents the percentage of street miles covered, for each threshold (walking radius), in each neighborhood that has at least one-half mile of streets within census tracts with a population density greater than 5,000 persons per square mile. As shown in the tables and figures, the percentages of covered street miles increase in virtually all neighborhoods when the coverage threshold is increased.

Table 2-3
Percentage of Neighborhoods by Percentage of Street Miles Covered, by Threshold (Walking Radius)

Percentage of Street Miles Covered*	Percentage of Neighborhoods by Threshold			
	0.25-Mile Radius	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
100%	2.4%	14.3%	17.9%	29.8%
90-99%	27.4%	38.1%	51.2%	58.3%
80-89%	25.0%	23.8%	17.9%	4.8%
70-79%	17.9%	13.1%	7.1%	3.6%
60-69%	10.7%	4.8%	2.4%	1.2%
50-59%	10.7%	2.4%	1.2%	0.0%
40-49%	2.4%	1.2%	1.2%	2.4%
30-39%	1.2%	1.2%	1.2%	0.0%
20-29%	2.4%	1.2%	0.0%	0.0%

** Neighborhoods that have less than one-half mile of streets within census tracts with a population density greater than 5,000 persons per square mile are excluded.*

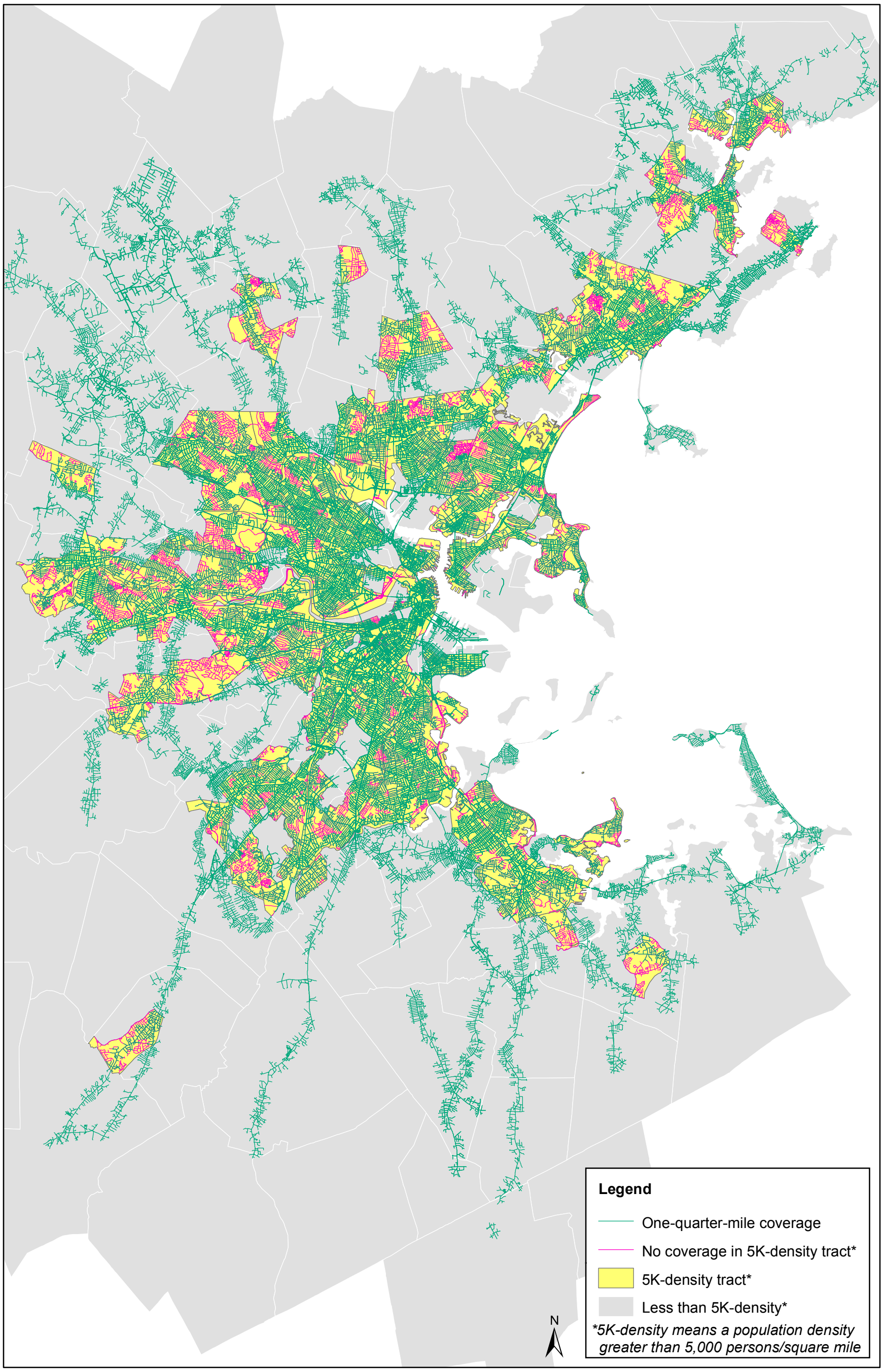


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FIGURE 2-1
One-Quarter-Mile Coverage by Street

Bus Walking Radius Study

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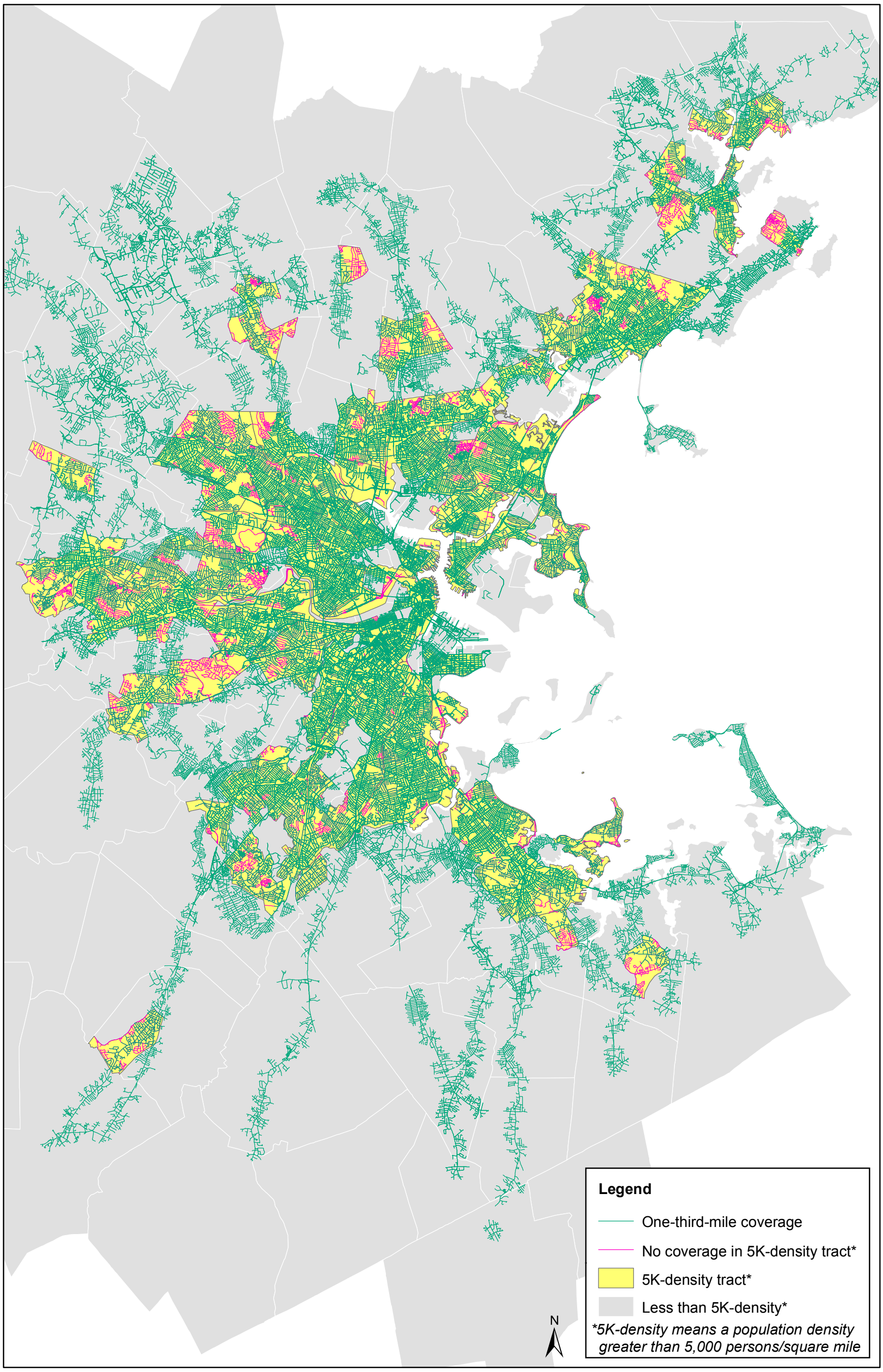

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FIGURE 2-2
One-Third-Mile Coverage by Street

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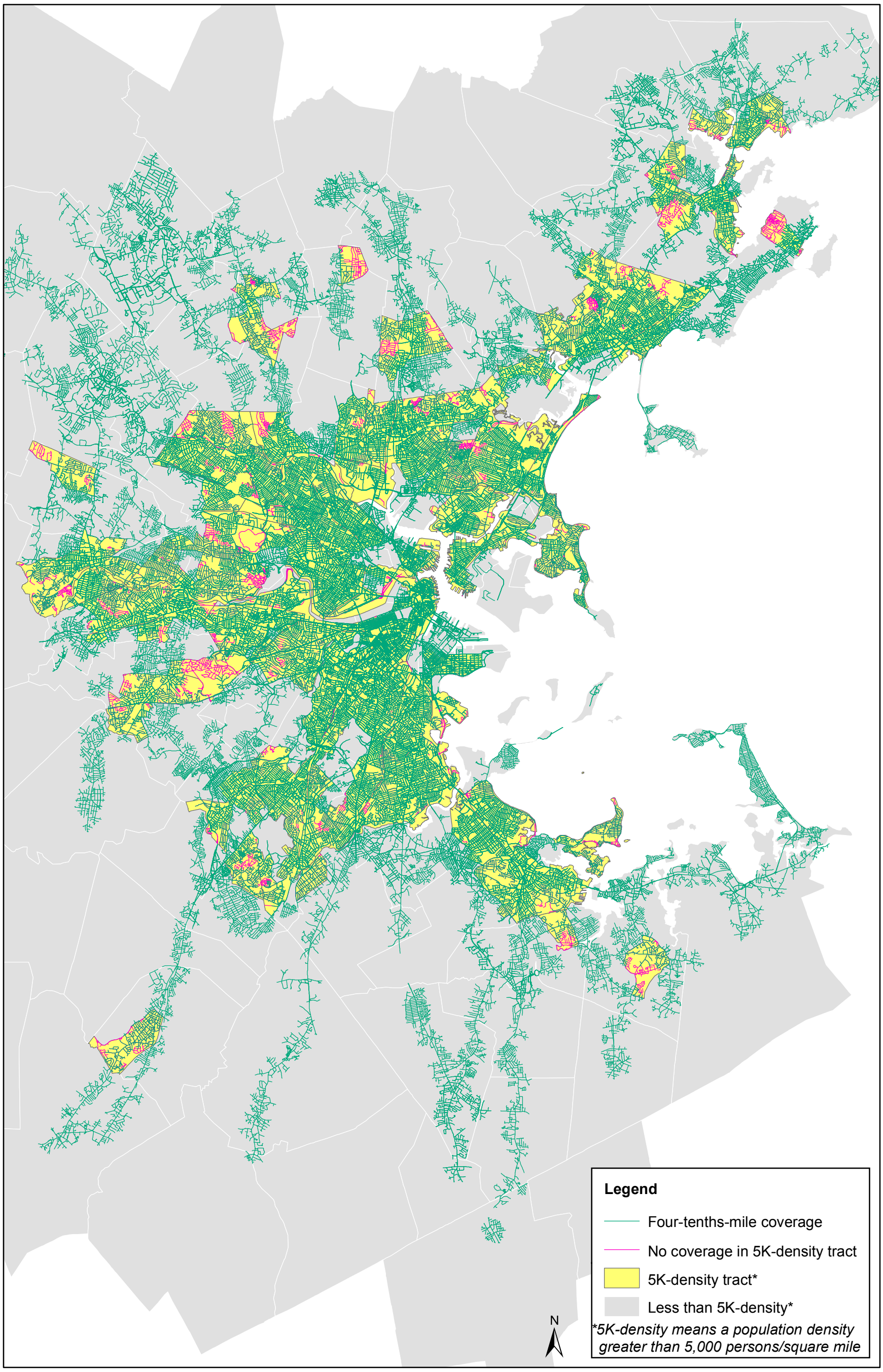

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FIGURE 2-3
Four-Tenths-Mile Coverage by Street

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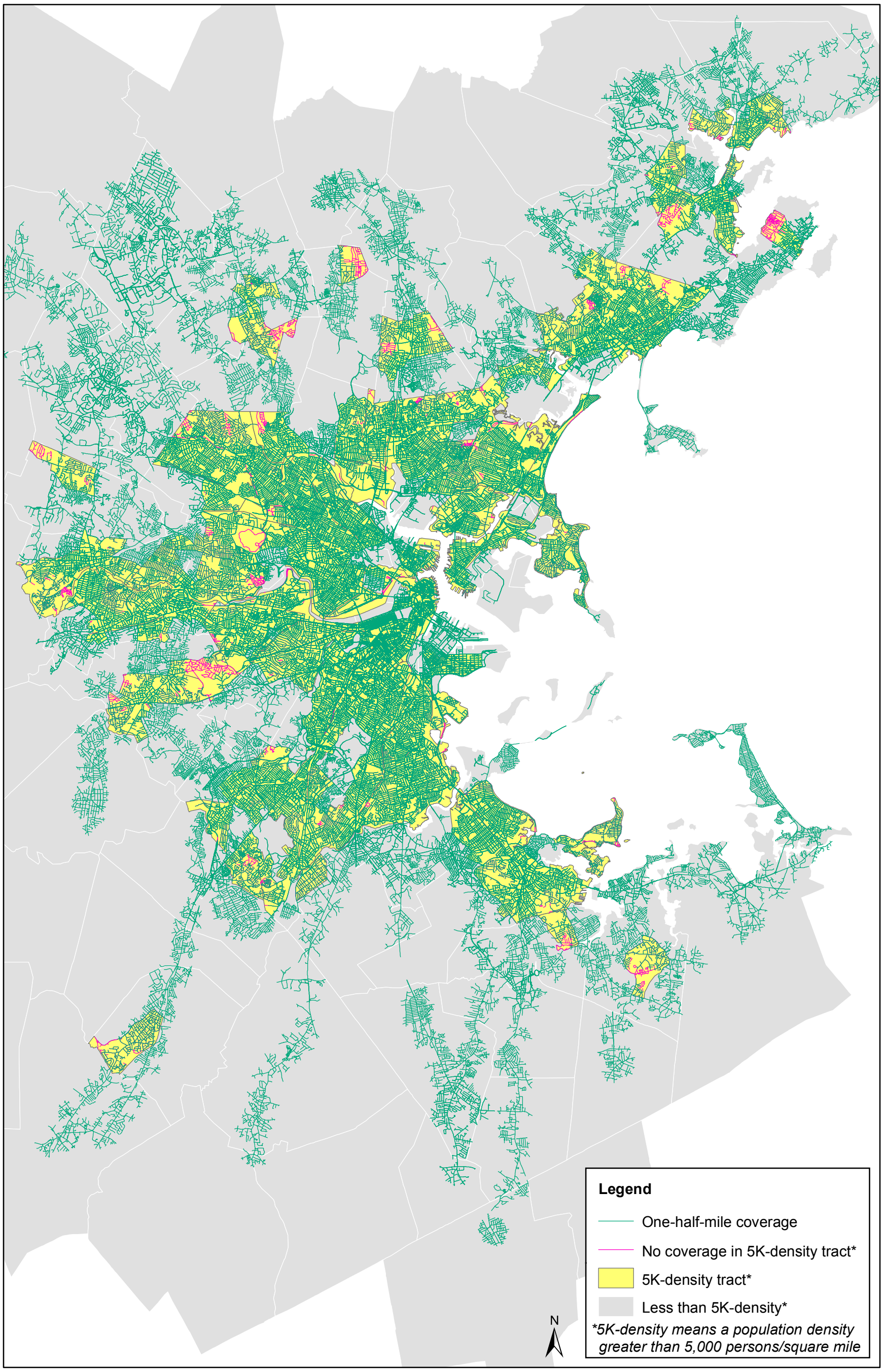

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FIGURE 2-4
One-Half-Mile Coverage by Street

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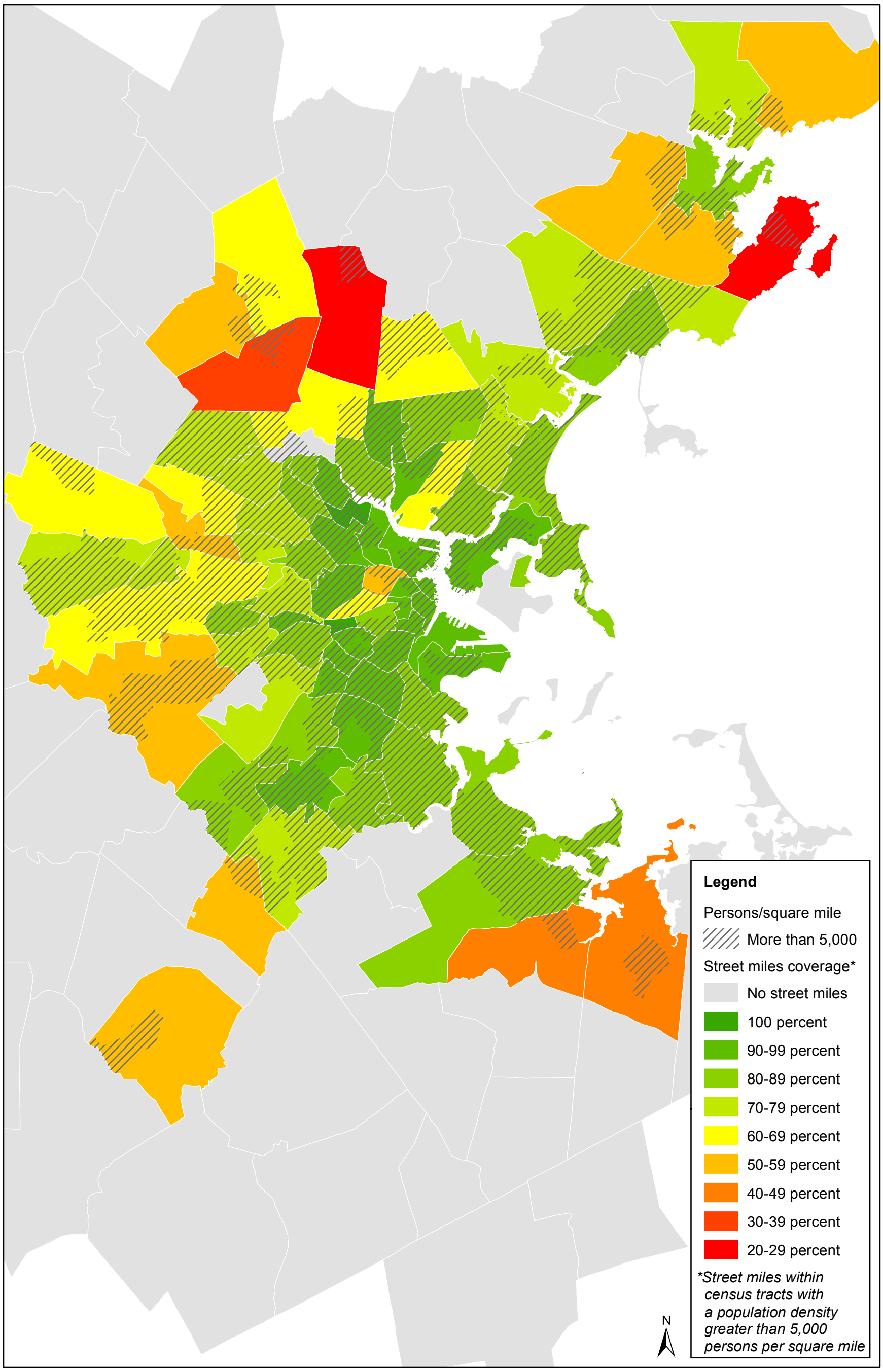

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FIGURE 2-5
One-Quarter-Mile Coverage by Neighborhood or Town

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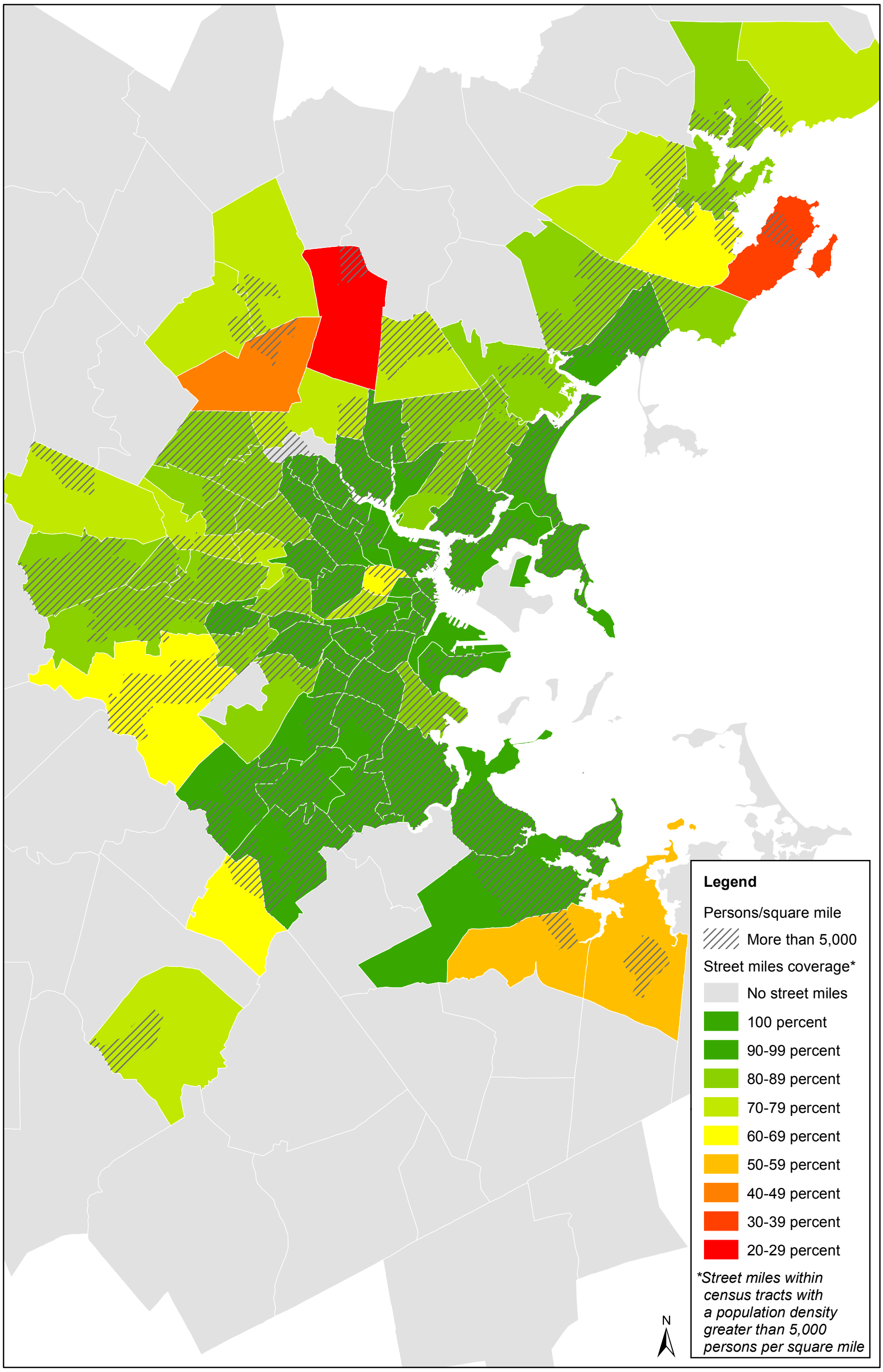

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FIGURE 2-6
One-Third-Mile Coverage by Neighborhood or Town

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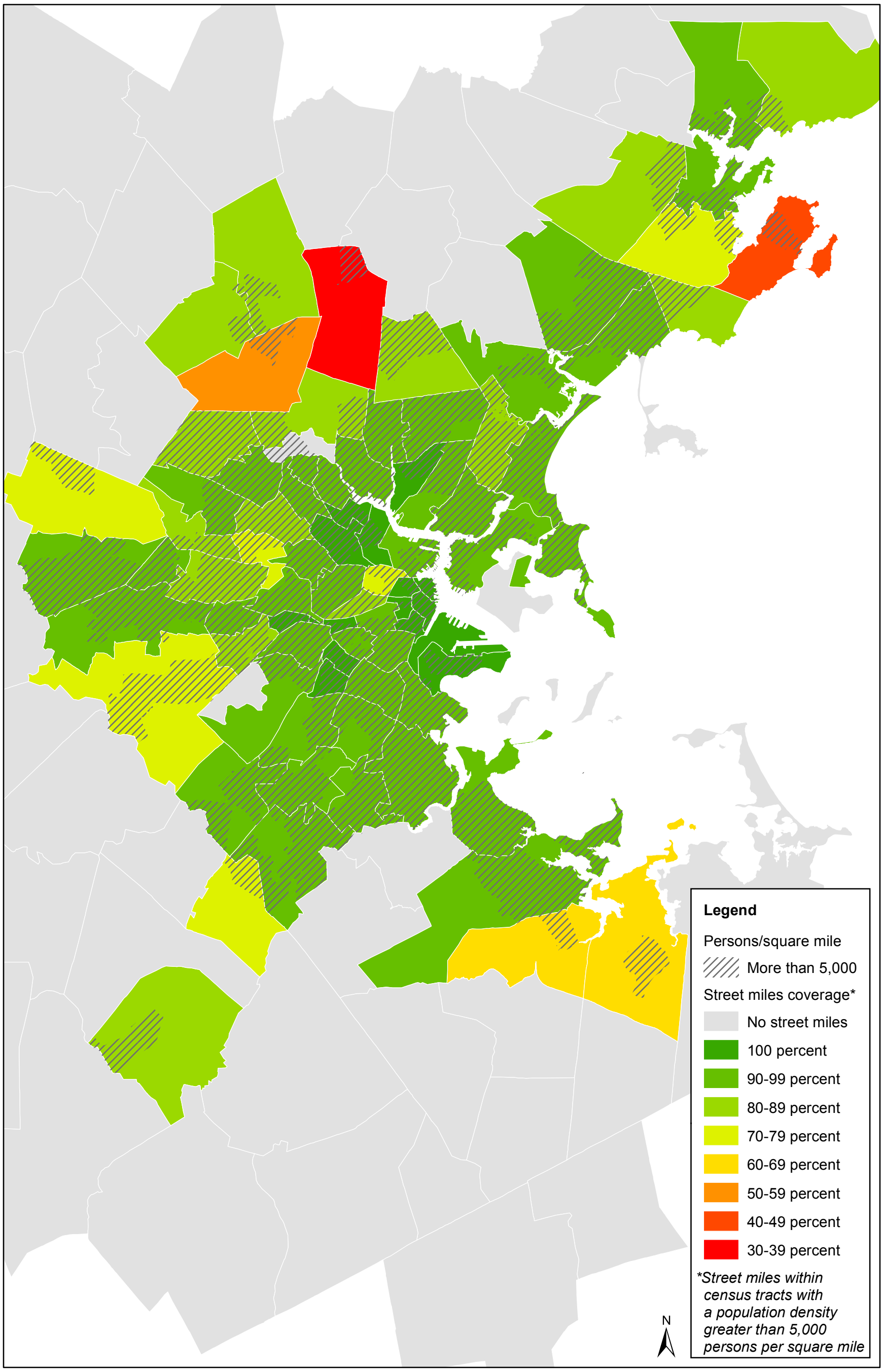

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FIGURE 2-7
Four-Tenths-Mile Coverage by Neighborhood or Town

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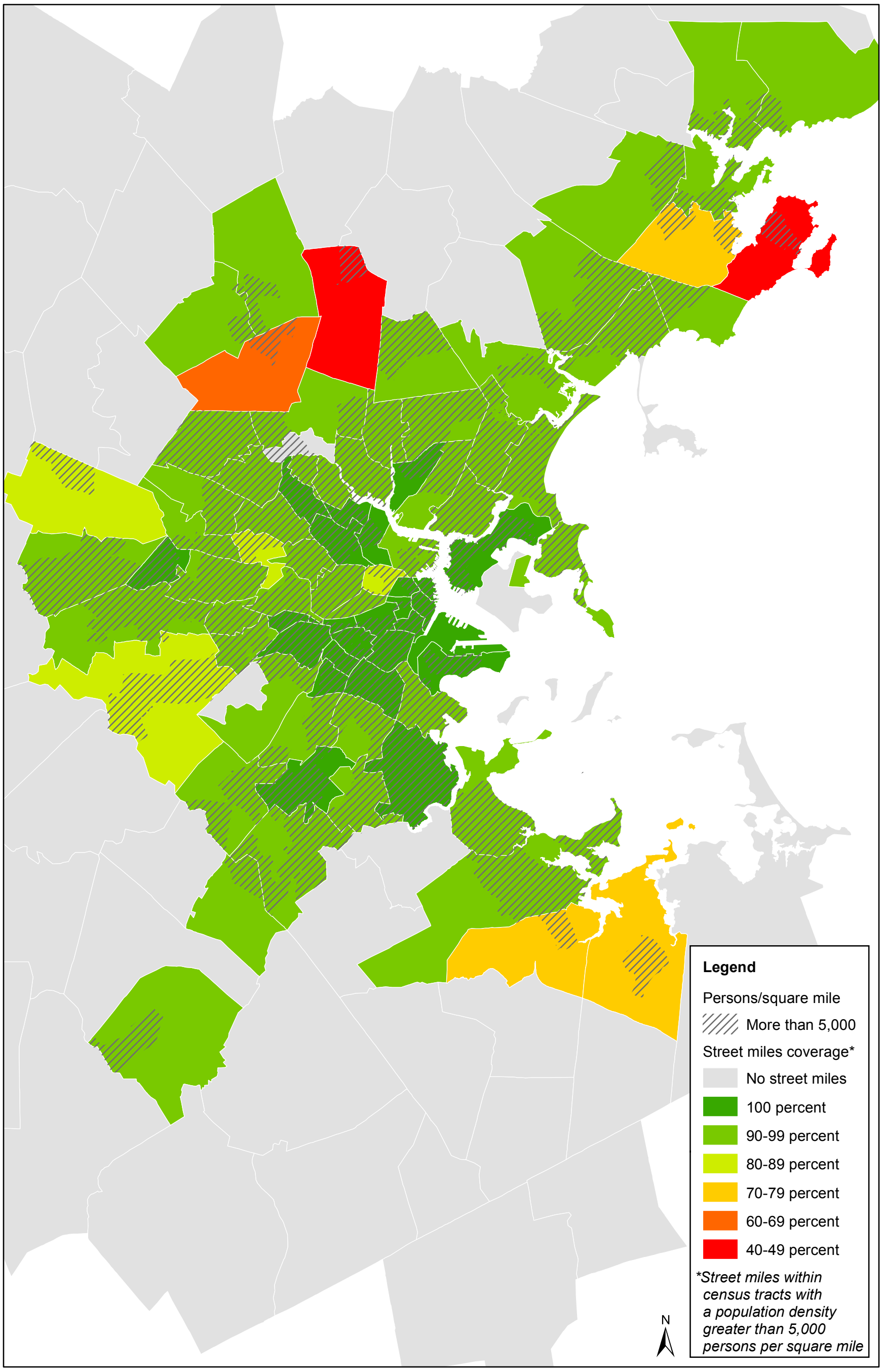

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FIGURE 2-8
One-Half-Mile Coverage
by Neighborhood or Town

Bus Walking
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Neighborhoods in Boston and Somerville generally have the greatest coverage percentages, while suburban neighborhoods have the lowest coverage percentages. The Winter Hill neighborhood in Somerville and the Boston University (BU) neighborhood in Boston are the only two neighborhoods at the one-quarter-mile coverage threshold with 100% coverage, though many other neighborhoods—indeed, the greatest percentage of neighborhoods for each coverage threshold—have coverage percentages of at least 90%. Although most towns and neighborhoods with lower coverage percentages are suburban, there are certain neighborhoods in the urban core that have lower coverage percentages than their surrounding neighborhoods. Across the various thresholds, the urban neighborhoods with the lowest coverage percentages are East Cambridge, Fresh Pond, Kendall/MIT, and East Everett.

An analysis of each MBTA route at each coverage threshold was conducted to determine the percentage of each route's street miles that are in census tracts with a population density greater than 5,000 persons per square mile to determine which routes provide the greatest coverage in the areas analyzed under the coverage threshold. Table A-2 (in the appendix) presents these figures. As would be expected, routes serving more urban areas, where census tracts with greater population densities are primarily located, have greater percentages of their street miles serving these census tracts. Routes serving suburban locations, where there are fewer census tracts that have a population density of more than 5,000 people per square mile, have lower percentages of their street miles serving these census tracts.

It is also possible to compare each transit route's total street miles at each coverage threshold to see how many of those miles are unique to a particular route or are overlapped by one or several other routes. This analysis showed that the routes with the greatest overall overlap percentages (correspondingly, the smallest unique percentages) are primarily located in the urban core, where their coverages overlap with other urban bus routes. Several routes, such as the SL4 and SL5 and Routes 116 and 117, have large overlap percentages because much of their routing is shared. Other routes, such as Routes 8 and 10, have smaller overlap percentages with one single route, while still having low overall unique percentages, because they are crosstown routes that cross several other routes.

The routes with the greatest unique percentages (correspondingly, the smallest overall overlap percentages) all serve more suburban locations. These routes are often the only transit service in these areas. As a result, these routes have small overlap percentages with other

routes. Tables A-3 through A-6 (in the appendix) present, for every MBTA bus, light rail, and heavy rail route and for each coverage threshold, the unique coverage percentage (that is, the coverage does not overlap with those of any other routes) and overlap percentages of the 10 routes with the greatest overlap percentages (that is, the coverage does overlap with another route).

3 Service Plan Proposals

This chapter describes a methodology for developing a service plan for the MBTA that is largely based on the overlap percentages and the unique percentages presented in Table A-3 (in the appendix). It then presents a summary of the proposed service plans for each of the three coverage thresholds (one-third mile, four-tenths mile, and one-half mile). Finally, this chapter describes how each proposed service plan would change the systemwide coverage percentage and the route-level overlap and unique percentages.

3.1 Service Plan Development Methodology

The methodology used to develop revised MBTA service plans for the bus, light rail, and heavy rail systems is primarily based on the percentages determined in the coverage analysis presented in the previous chapter.[3] These percentages indicate the percentage of each transit route's street miles at various coverage thresholds that are unique to that route or overlap with the coverages of other routes. Routes with low unique percentages and high overlap percentages, particularly those with high overlap percentages with one other route, were considered for elimination. No route was automatically eliminated because of a low unique percentage or high overlap percentage. For example, crosstown routes, even though they typically have low unique percentages, overlap with many different routes (as indicated by lower overlap percentages); it may not be advisable to eliminate this type of route because these routes provide a unique service that cannot be replaced by the overlapping routes. A limited-stop route is another

[3] Note that this analysis was performed on the MBTA network prior to the July 1, 2012, service changes. Therefore, the eliminations or modifications that were part of those changes are not reflected in this analysis.

example of a route that would likely be flagged for having a high overlap percentage but may not necessarily be recommended for elimination because it serves a particular service objective.

Therefore, although low unique percentages and high overlap percentages were used to highlight certain routes, the actual recommendations for service eliminations were based not only on these percentages but also on certain objectives related to providing a well-functioning service plan. These objectives included maintaining the following:

- The Key Bus Route network (a network of high-frequency bus routes)
- Routes with low net costs per passenger
- A network of crosstown routes and other opportunities for transfers outside of the downtown neighborhood
- Routes that provide the only service to certain areas

In addition, the selection of one route for elimination affects the overlap percentages of all other routes with overlapping coverages. Therefore, the selection of routes for elimination was done in an iterative fashion: first one route was selected; next, the resulting impact on other routes' overlap percentages was assessed; then, based on this assessment, a second route was selected for elimination, and the iterative process began again. Using this methodology, there were times when the elimination of one particular route led to a series of eliminations that was ultimately determined to be undesirable. In these cases, the methodology required returning to the original elimination and recommencing the iterative process.

Finally, the systemwide coverage percentage was assessed for the current system before the effects of any eliminations or modifications were analyzed by applying the existing one-quarter-mile coverage threshold as well as the three greater coverage thresholds. Applying the one-quarter-mile coverage threshold, the existing coverage percentage was estimated at 79.5 percent. With no changes to the service plan, applying the one-third-mile coverage threshold, the existing coverage percentage would increase to 88.3 percent; applying the four-tenths-mile coverage threshold, the existing coverage percentage would increase to 92.7 percent; and applying the one-half-mile coverage threshold, the existing coverage percentage would increase to 96.2 percent. Another objective of the proposed service plans was to reduce these coverage percentages (through eliminations and route modifications) to be closer to the existing one-quarter-mile coverage percentage.

As the coverage thresholds increased from one-third mile to four-tenths-mile to one-half mile, it became more difficult to adhere to each of these objectives. Given the greater coverages resulting from increasing the coverage thresholds, it became increasingly difficult to eliminate or change services in order to approach the existing coverage percentage without drastically affecting overall service quality. As a result, particularly with the one-half-mile coverage threshold, service quality would be sacrificed to some extent because certain crosstown routes and some routes that provide the only service to certain areas would be eliminated.

While this methodology was primarily concerned with eliminating and modifying routes because of their overlapping coverages, the decision to eliminate or modify certain routes was also influenced by this study's directive to reinvest the service hours of all eliminated service into the remaining system. Therefore, some routes were proposed for elimination under the assumption that nearby remaining routes would receive an increase in frequency. While the service plans for each coverage threshold would reduce the number of routes, this is balanced by the corresponding increase in frequencies for remaining routes.

The potential reinvestment of service hours was performed by assigning each transit route to a particular corridor based on the service characteristics of that route. These corridors (shown in Table 3-1) were determined as part of the Bus Deployment Needs Study, which grouped routes according to both their geographic coverage areas and whether they provided express or local service. When total service hours for each route were calculated using automatic vehicle location (AVL) schedule data for February 2011, 75% of the service hours associated with eliminated routes were reinvested into remaining routes in the same corridor. The other 25% of eliminated service hours were reinvested across the entire remaining system, with the amount weighted in proportion to each route's existing service hours. Therefore, remaining routes with more existing service hours received a proportionally greater share of the reinvested service hours. The same distribution methodology was used for the remaining routes in the corridor of an eliminated route where 75% of the eliminated service hours were reinvested.

3.2 Proposed Service Plans

3.2.1 Eliminations and Modifications

Generally, the service plan associated with the one-third-mile coverage threshold targeted for elimination routes with less than 10% of their coverages as unique to the route and greater than 60% of their coverages as overlapping with another route. With the four-tenths-mile coverage threshold, the unique percentage used to target routes for elimination increased to 25% and the overlap percentage decreased to 50 percent. This resulted in some crosstown routes being targeted for elimination. With the one-half-mile coverage threshold, the unique percentage for several eliminated routes was over 50% and the coverage percentage used to target routes for elimination fell, in several cases, below 50 percent. This reflects the fact that, applying the one-half-mile coverage threshold, the objective of avoiding the elimination of an area's only service was sometimes ignored. Each of the service plans also generally targeted routes with higher net-cost-per-passenger figures. Table 3-1 presents the number of existing routes in each corridor grouping and, for each service plan, the number of routes that were recommended for elimination.

Table 3-1
Route Eliminations by Corridor by Coverage Threshold

Corridor (Existing Routes)	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Downtown Locals (8)	3	4	5
Kenmore Feeders (3)	1	1	2
South Boston Locals (8)	2	2	3
North Shore Routes (15)*	9	10	11
Circumferential Locals (23)	7	9	11
Dorchester Red Line Feeders (9)	4	6	7
Cambridge Red Line Feeders (21)	7	8	10
Suburban Circumferentials (2)	0	0	2
Orange Line North Feeders (18)	8	11	11
Lynn Locals (5)	3	3	4
Blue Line Locals (8)	2	2	3
Lechmere Feeders (4)	0	0	1
Southwest Corridor Feeders (19)	10	10	10
I-93 Express Routes (6)	5	5	6
Orange Line North Suburban (5)	0	1	4
Turnpike Express Routes (11)	9	9	10
South Shore Routes (24)	5	6	15
Suburban Local (13)	1	1	5
Early Morning Routes (5)	0	0	0

* *Since all Salem Local Routes were eliminated in each service plan, they were re-coded as North Shore Routes.*

As the coverage threshold increases, a greater number of street miles fall into each route's coverage area. Even with the proposed eliminations, if the increase in the coverage threshold is of sufficient distance, the net systemwide coverage percentage also increases. This explains the increase in the systemwide coverage percentage from the one-quarter-mile coverage threshold (79.5%) to the one-third-mile coverage threshold (84.0%), and from the one-third-mile coverage threshold to the four-tenths-mile coverage threshold (87.8%). However, by eliminating several suburban routes that provide the only service to certain areas in the one-half-mile coverage threshold, the total number of covered street miles actually falls from the four-tenths-mile coverage threshold to the one-half-mile coverage threshold (85.3%).

Figures 2-9, 2-10, and 2-11 show the geographic extent of the proposed route eliminations for the service plans under each coverage threshold. As shown in the figures, compared to the one-third mile coverage threshold, the number of unique route miles targeted for elimination increases slightly when applying the four-tenths-mile coverage threshold and dramatically when applying the one-half-mile coverage threshold. In all three service plans, route eliminations are distributed

across the entire service area. However, most of the route eliminations in the urban core overlap or are near maintained routes, while many of the route eliminations outside the urban core have unique route miles in those areas. Under both the one-third-mile and four-tenths-mile coverage thresholds, most of the route eliminations are in the urban core. It is apparent from the figures that the route eliminations with the one-half-mile coverage threshold in the suburbs result in the elimination of many more unique route miles.

Table A-7 (in the appendix) presents, for every MBTA bus, light rail, and heavy rail route, the service plan proposal for each route under each coverage threshold. Tables A-8 through A-10 present, for each of the remaining routes for each coverage threshold, the recalculated unique percentages and overlap percentages of the 10 routes that have the greatest overlap percentages.

3.2.2 Service-Hour Reinvestment

As mentioned in the discussion of the methodology, the proposed three service plans, each using a different coverage threshold, were intended to be revenue neutral, meaning that whatever service hours were proposed for elimination should be reinvested into the remaining routes in each service plan. Routes were grouped into several corridors, and 75% of the service hours from any eliminated route were reinvested into that route's same corridor, with the remaining 25% distributed across the entire remaining system. Service hours were distributed to individual routes based on their existing relative total of service hours; that is, routes with greater existing service-hour totals received relatively more of the redistributed service hours. The redistribution of service hours was separated into four separate time periods (morning [AM], midday [MD], evening [PM], and night [NT]), based on the time period definitions used in the regional travel demand model set.

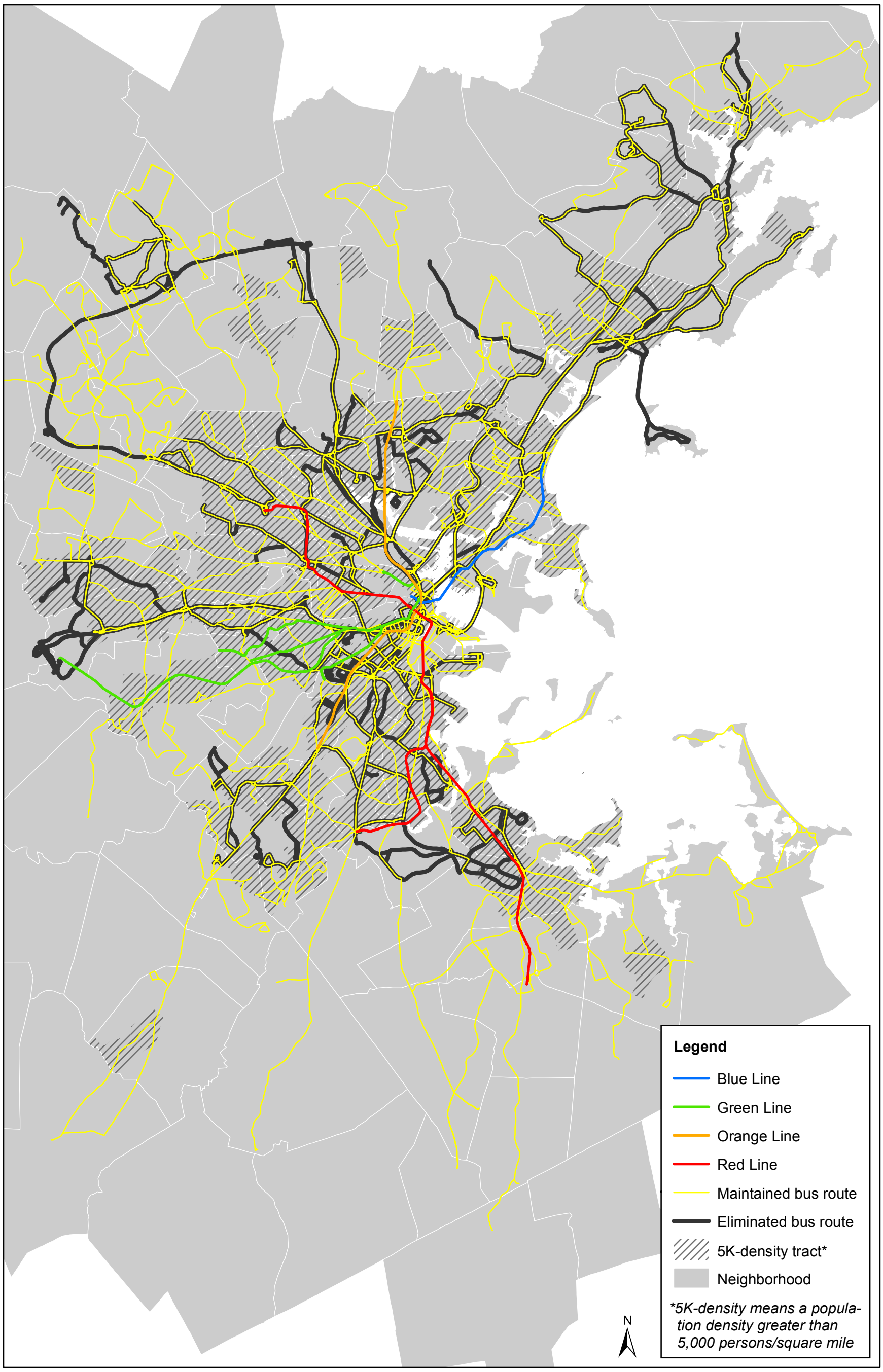
Table 3-2 presents the total number of service hours that were eliminated in the service plans for each coverage threshold and then reinvested into the remaining routes. The one-third-mile coverage threshold resulted in a service plan that eliminated and reinvested 21.8% of the existing number of service hours; this figure was 25.7% for the four-tenths-mile coverage threshold. As the table shows, the amount of elimination and reinvestment is clearly the greatest when applying the one-half-mile coverage threshold. These service hours make up 37.6% of the existing number of service hours.

Table 3-2
Eliminated Service Hours by Time Period by Coverage Threshold

Time Period	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Morning (AM)	378	444	640
Midday (MD)	403	475	705
Evening (PM)	371	436	618
Night (NT)	254	298	454
All Day	1,405	1,654	2,417

Table 3-3 summarizes, for each coverage threshold, the percentage decrease in headway for each corridor grouping across the entire day resulting from the reinvestment of service hours from eliminated routes in that corridor and across the entire system. As shown in the table, the elimination of some routes in each corridor permits some significant improvements in headway. Tables A-11 through A-13 (in the appendix) present the existing and proposed average headways and the resulting percentage improvement for each route by time period for each coverage threshold. Some examples of the routes that have significant improvements in headway are:

- With the one-quarter-mile coverage threshold, the headway on Route 30, which is grouped under the Southwest Corridor Feeders corridor, decreased 34.3%, from 19.7 minutes to 12.6 minutes, in the AM time period.



CTPS

FIGURE 3-1
One-Third-Mile Coverage
Proposed Services

Bus Walking Radius Study

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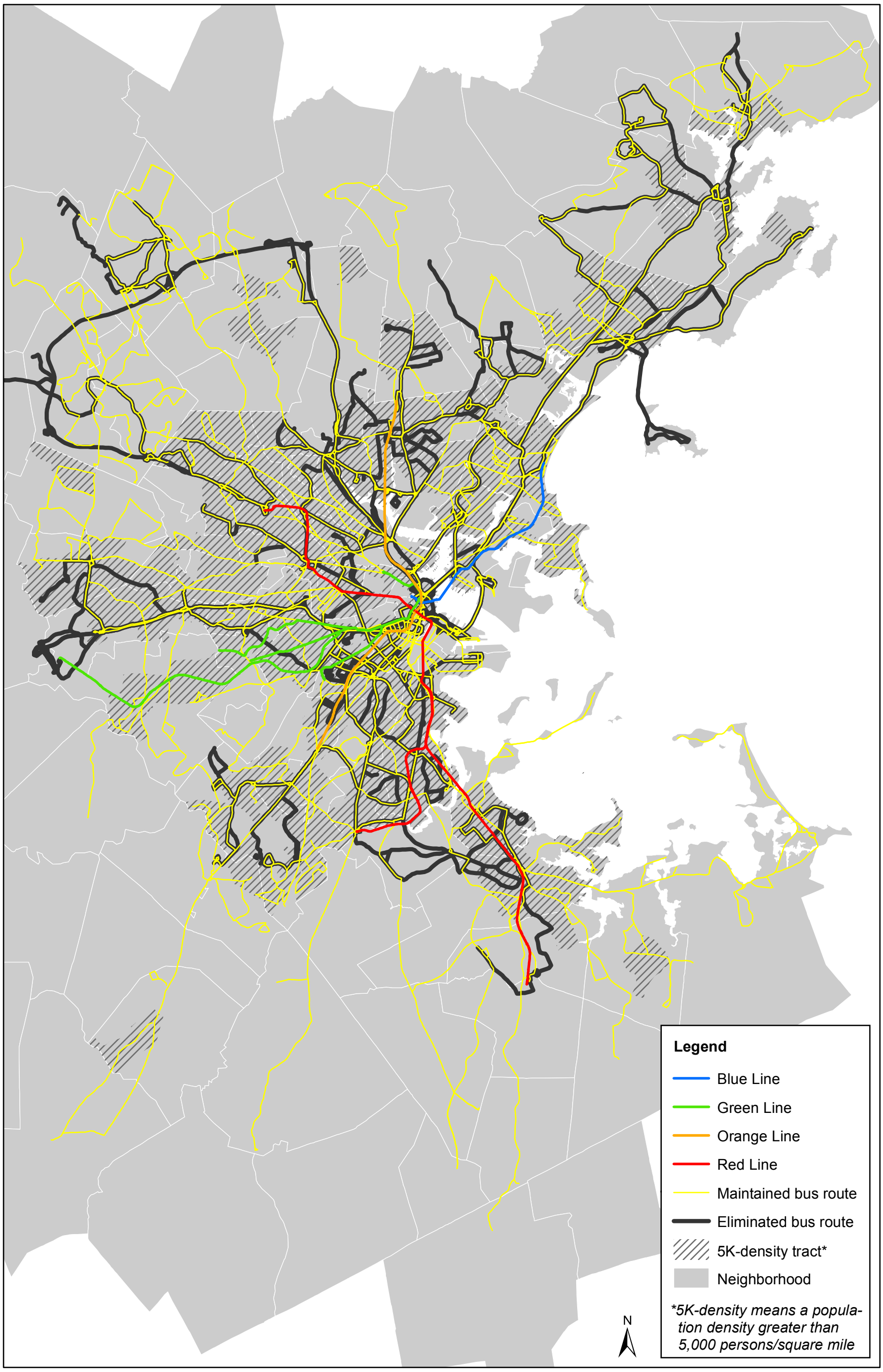

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FIGURE 3-2
Four-Tenths-Mile Coverage
Proposed Services

Bus Walking Radius Study

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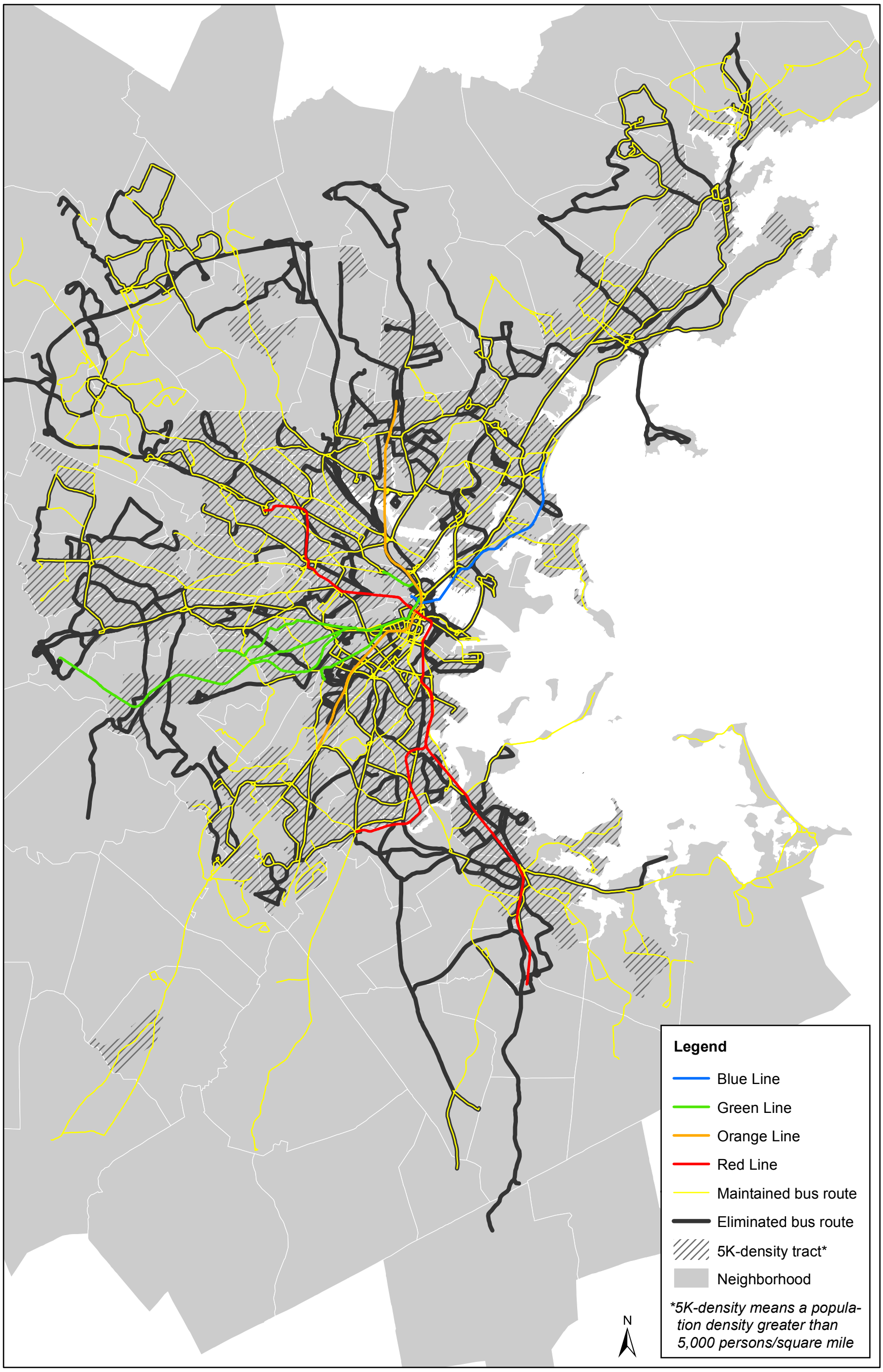

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FIGURE 3-3
One-Half-Mile Coverage
Proposed Services

Bus Walking Radius Study

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- With the one-half-mile coverage threshold, Route 30's headway decreased 39.0%, to 11.6 minutes.

Table 3-3
Average All-Day Percentage Headway Improvement by Corridor by Coverage Threshold

Corridor	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Downtown Locals	-26.9%	-36.5%	-40.1%
Kenmore Feeders	-17.5%	-18.6%	-34.4%
South Boston Locals	-16.3%	-17.5%	-27.6%
North Shore Routes	-26.9%	-29.2%	-42.3%
Circumferential Locals	-12.5%	-15.7%	-23.0%
Dorchester Red Line Feeders	-23.1%	-34.7%	-43.4%
Cambridge Red Line Feeders	-16.3%	-19.6%	-27.4%
Suburban Circumferentials	-5.9%	-7.4%	N/A*
Orange Line North Feeders	-24.0%	-39.9%	-42.0%
Lynn Locals	-17.2%	-18.1%	-37.7%
Blue Line Locals	-10.2%	-11.5%	-23.8%
Lechmere Feeders	-6.3%	-7.7%	-31.3%
Southwest Corridor Feeders	-36.7%	-37.4%	-40.4%
I-93 Express Routes	-50.5%	-50.9%	N/A*
Orange Line North Suburban	-6.1%	-14.7%	-64.8%
Turnpike Express Routes	-60.8%	-60.9%	-71.9%
South Shore Routes	-10.5%	-13.9%	-43.0%

** All Suburban Circumferentials and I-93 Express routes are recommended for elimination using the one-half-mile coverage threshold, which is why no percentage changes are listed for these corridors.*

Note: Suburban local routes were not included in the service-hour reinvestment because their operations are outside the purview of the MBTA. Early-morning routes were not included in the service-hour reinvestment because they serve a different market at a different time period than other routes. In addition, no routes in this corridor were recommended for elimination.

As would be expected, routes with longer existing headways received a greater absolute decrease in headways for a given percentage increase. However, a decrease of around one minute for high-frequency routes such as Route 1 (for which the headway decreased from 9.1 minutes to 7.8 minutes, a percentage decrease of 14.6 percent, with the one-quarter-mile coverage threshold in the AM time period) would also provide a significant improvement in the service level.

In summary, the service plans based on the one-third-mile, four-tenths-mile, and one-half mile coverage thresholds each provide a different

balance. If the one-quarter-mile coverage threshold is understood to represent the existing balance of service frequency with service coverage, the three other coverage thresholds propose devoting a progressively greater share of resources to a smaller number of transit routes in order to increase their frequencies. These proposals are further enabled by assuming that transit riders would be willing to walk greater distances to access transit routes, particularly routes with greater frequencies. The next chapter uses the regional model set to project how transit ridership would actually respond to each of the three service plans.

4 Estimate of Impacts

This chapter analyzes several impacts of the three service plans presented in the previous chapter, each based on a different coverage threshold. The regional travel demand model set was used to perform this analysis. The methodology essentially models each trip individually based on various matrices of modeled costs for different modes and travel pathways; the model set includes calculations of the least "costly" mode and path between each trip's origin and destination. These "costs" include, for the personal automobile mode, the price of gasoline, parking, and tolls. For the transit mode, "costs" include the time needed to walk from the trip origin to transit (the access time), the waiting time, the transit fare, the in-vehicle travel time, the number of transfers, the transfer waiting time, and the time needed to walk from transit to the trip destination (the egress time). Since each of these trip calculations is calculated separately in the regional model set, it is possible to present the model results at the system level and for various route, cost, and geographic categories.

This chapter will therefore include several different levels of summaries of the projected impacts of each proposed service plan. First, it will summarize the projected ridership impacts by mode. Second, it will summarize the impacts on bus riders in terms of the various transit costs. Third, it will consider how these impacts are distributed across different transit routes. Fourth, the chapter will highlight any significant changes in ridership patterns by neighborhood. Fifth, it will summarize the impacts on riders in terms of ridership and the various transit costs by the regional equity classifications of different areas. Finally, the chapter will present estimates from the regional model set of the air quality impacts of each service plan.

4.1 Ridership Impacts by Mode

Table 4-1 presents estimates, produced using the regional model set, of the ridership impacts of each of the three service plans that were based on the one-third-mile, four-tenths-mile, and one-half-mile coverage thresholds. It appears that there is very little difference between the amount of change associated with the one-third-mile and the one-half-mile coverage threshold. This includes significant decreases in bus ridership, smaller decreases in heavy rail ridership, and increases in light rail and commuter rail ridership. For the bus, heavy rail, and commuter rail modes, the amount of these changes is much larger for the one-half-mile coverage threshold than for the one-third-mile coverage threshold. The ridership impacts of the four-tenths-mile coverage threshold appear to follow a slightly different pattern. Bus ridership hardly changes, heavy rail and commuter rail ridership decrease, and light rail ridership increases. Finally, the systemwide ridership total is projected to decrease for all three coverage thresholds, but the four-tenths-mile coverage threshold is projected to result in the smallest decrease.

The changes in private-vehicle (drive-alone and high-occupancy-vehicle) trips for both the one-third-mile and four-tenths-mile coverage thresholds are small, though the change is positive for the former and negative for the latter. The one-half-mile coverage threshold, in comparison, results in a much greater increase in private-vehicle trips. Walk trips are also projected to increase for all three coverage thresholds, and the one-third-mile coverage threshold is projected to result in the greatest increase.

Several conclusions can be drawn from the projections presented in Table 4-1. With regard to the bus mode, it appears that the service plan associated with the four-tenths-mile coverage threshold attains the appropriate balance, according to the regional model set, between the elimination of route miles and the reinvestment of those routes' service hours into remaining routes in order to improve their frequency, resulting in a negligible net ridership change. Neither the one-third-mile nor one-half-mile coverage thresholds appear to achieve this balance. The frequency improvements using the one-third-mile coverage threshold are not significant enough to attract the number of new riders required to replace the riders lost because of the route eliminations. As a result, the net bus ridership change is a loss of more than 10,000 daily trips. The one-half-mile coverage threshold likely tips the balance too far in the opposite direction, eliminating so many routes that even

the new riders that are attracted to the service because of the much improved frequencies are not enough to replace the riders lost due to the route eliminations.

Table 4-1
Estimates of Daily Trip Impacts by Mode by Coverage Threshold

Mode	Change	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Bus	Absolute change	-10,483	-81	-19,609
Bus	Percentage change	-2.6%	-0.02%	-4.8%
Heavy rail	Absolute change	-1,892	-3,726	-4,375
Heavy rail	Percentage change	-0.4%	-0.8%	-1.0%
Light rail	Absolute change	+4,861	+2,145	+4,609
Light rail	Percentage change	+1.7%	+0.8%	+1.6%
Commuter rail	Absolute change	+717	-543	+4,870
Commuter rail	Percentage change	+0.7%	-0.6%	+5.0%
Systemwide transit	Absolute change	-6,977	-2,205	-14,505
Systemwide transit	Percentage change	-0.6%	-0.2%	-1.2%
Private vehicle	Absolute change	+1,096	-1,610	+12,631
Private vehicle	Percentage change	+0.01%	-0.01%	+0.11%
Walk	Absolute change	+2,231	+760	+646
Walk	Percentage change	+0.09%	+0.03%	+0.03%

These varying impacts between coverage thresholds on the bus mode are also the likely causes of differences between the thresholds in terms of the impacts on other modal ridership categories. For the one-third-mile coverage threshold, the increases in light rail and commuter rail trips are likely caused by the shifting of former bus riders whose routes have been eliminated, while the decrease in heavy rail trips is the likely result of fewer bus riders and fewer transfers to heavy rail stations. The changes resulting from the one-half-mile coverage threshold are similar to those of the one-third-mile coverage threshold. The increases in light rail and commuter rail trips are likely caused by the elimination of bus routes. However, the much greater commuter rail increase resulting from applying the one-half-mile coverage threshold

reflects the larger number of suburban routes that are eliminated in the service plan associated with the one-half-mile coverage threshold. Many of the riders on these routes are likely switching to commuter rail. Furthermore, the decrease in heavy rail trips is more than twice that of the one-third-mile coverage threshold. With even fewer bus routes, there are fewer transfer opportunities to rapid transit. In addition, the headways on many bus routes using the one-half-mile coverage threshold would be much more competitive with the rapid transit system, likely attracting some heavy rail riders to the bus mode because of its lower fare.

With the four-tenths-mile coverage threshold, it is apparent that some riders are switching from buses to light rail, though a smaller number than with the other two coverage thresholds. Heavy rail and commuter rail trips decrease with this coverage threshold, likely because of two factors. First, fewer bus routes are serving rail stations, and this reduces the number of transfers to heavy rail and commuter rail stations. Second, the improved frequencies of the remaining bus routes would attract some heavy rail and commuter rail riders.

In terms of the number of people switching to a different travel mode, all three coverage thresholds are projected to increase the number of daily walk trips. This makes sense, as some passengers would replace short-distance transit trips with walk trips. The greatest switch from transit to private-vehicle trips likely occurs with the one-half-mile coverage threshold. The increase in private-vehicle trips with this coverage threshold nearly equals the decrease in systemwide transit trips and likely reflects the decision by some riders to stop using transit altogether because of the route eliminations. Neither the one-third-mile nor the four-tenths-mile coverage thresholds appear to result in much switching from transit to private-vehicle trips. Indeed, the small decrease in private-vehicle trips for the four-tenths-mile coverage threshold indicates that the improved frequencies of the remaining bus routes would attract some current drivers to transit.

4.2 Transit Cost Impacts

As mentioned in the introduction to this chapter, trips are estimated in the regional travel demand model set based on various matrices of modeled costs for pathways of travel. For the transit mode, these costs include the time needed to walk from the trip origin to transit (the access time), the waiting time, the transit fare, the in-vehicle travel time, the number of transfers, the transfer waiting time, and the time needed to

walk from transit to the trip destination (the egress time). Table 4-2 summarizes the absolute and percentage changes in these average transit costs.

Table 4-2
Change in Transit Cost Metrics by Coverage Threshold

	.33-Mile Radius		.40-Mile Radius		.50-Mile Radius	
Transit Cost Metric	**Abs.**	**Per.**	**Abs.**	**Per.**	**Abs.**	**Per.**
Average fare	<-$0.01	-0.3%	<-$0.01	-0.4%	<+$0.01	+0.5%
In-vehicle travel time (min.)	+0.01	+0.1%	<+0.01	<+0.1%	-0.14	-0.8%
Number of transfers	<-0.01	-0.4%	<+0.01	+0.7%	<+0.01	+1.5%
Total waiting time (min.)	-0.10	-1.5%	-0.15	-2.3%	-0.30	-4.6%
Access + egress walk time (min.)	+0.14	+1.0%	+0.02	+0.1%	+0.12	+0.8%

As shown in the table, the modeled changes in transit costs are negligible for average fare, in-vehicle travel time, and the number of transfers. This is not unexpected for the average fare and in-vehicle travel time, given that the changes proposed in each service plan do not directly affect these two costs, although the switching of riders between modes could indirectly change these systemwide average values based on the revised distribution of transit trips between different modes. It is somewhat surprising that the average number of transfers does not have a greater increase, given that there are fewer routes in each service plan. However, the service plan for the one-half-mile coverage threshold, which has the lowest number of routes, has the largest percentage change in transfers.

The progressively larger decreases in total waiting time from the one-third-mile to the one-half-mile coverage threshold reflect the greater frequencies associated with each service plan. It is somewhat surprising that the one-third-mile coverage threshold would have the greatest increase in walk time, since the other two coverage thresholds eliminate a greater number of routes. However, the lower increases for the four-tenths-mile and one-half-mile coverage thresholds may reflect the fact that, because fewer riders are willing to walk longer distances to or from these routes, a greater percentage of remaining and new riders would have origins and destinations nearby their route. This would reduce the average walk time.

4.3 Ridership Impacts by Route

The regional model set was used to project the change in ridership for each bus route in each of the three service plans. These projections are presented in the appendix in Table A-14. Table 4-3 groups the routes

into the corridors presented in the previous chapter and shows the average of their projected percentage changes in ridership, weighted by existing trips. The differences between coverage thresholds become even more apparent when looking at the ridership impacts. The direction of the impacts (positive or negative) for each corridor is generally consistent between the coverage thresholds. However, for the service plan associated with the four-tenths-mile coverage threshold, the decreases in projected ridership for several corridors are less than those associated with the one-third-mile coverage threshold, and the projected increases in ridership for several corridors are greater than those associated with the one-half-mile coverage threshold. For instance, the service plan associated with the four-tenths-mile coverage threshold has the greatest percentage increase in ridership in the Downtown Locals corridor and the smallest percent decrease in ridership in the North Shore Routes corridor.

Table 4-3
Percentage Change in Average Daily Trips
by Corridor by Coverage Threshold

Corridor	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Downtown Locals	+26.2%	+44.7%	+40.6%
Kenmore Feeders	+2.0%	+6.4%	+12.9%
South Boston Locals	+2.1%	+3.1%	+4.2%
North Shore Routes	-15.0%	-8.2%	-21.0%
Circumferential Locals	-2.6%	+3.6%	+6.7%
Dorchester Red Line Feeders	-13.0%	-19.9%	-22.6%
Cambridge Red Line Feeders	+5.0%	+4.4%	+6.4%
Suburban Circumferentials	+6.7%	+8.1%	N/A
Orange Line North Feeders	-5.0%	-8.2%	-9.3%
Lynn Locals	+1.9%	+6.8%	-4.9%
Blue Line Locals	-7.9%	-5.1%	-9.9%
Lechmere Feeders	+7.7%	+7.1%	+3.3%
Southwest Corridor Feeders	-6.6%	-1.6%	-6.1%
I-93 Express Routes	-2.6%	+12.6%	N/A
Orange Line North Suburban	+3.6%	+4.0%	-73.6%
Turnpike Express Routes	-28.2%	-24.7%	-48.8%
South Shore Routes	-1.0%	-0.5%	-5.7%

As hypothesized in the previous section, it appears that the service plan associated with the four-tenths-mile coverage threshold attains the best balance between reduced coverage and better service levels. Undoubtedly, the overall bus mode loses more riders than it gains, and there are some corridors that have much greater ridership losses than others. However, overall, the four-tenths-mile coverage threshold does

a better job than the one-third-mile and one-half-mile coverage thresholds at attracting new riders to the mode to replace those lost because of route eliminations.

4.4 Ridership Impacts by Neighborhood

The geographic model area of the regional travel demand model set is organized by transportation analysis zones (TAZs), which are grouped together to form recognizable neighborhood and town boundaries.[4] For the purpose of this study, all groupings of TAZs, even those with the same boundaries as a town, are referred to as neighborhoods. Since the number of modeled trips is calculated by the regional model set at the TAZ level, these trips can be summed for all TAZs by neighborhood to obtain neighborhood totals.

Table 4-4 presents, for the service plans associated with each coverage threshold compared to the existing system, the neighborhoods with the 10 greatest and smallest estimated absolute changes in daily transit trips compared to the existing system. Table A-15 (in the appendix) presents the estimated absolute and percentage changes in daily transit trips for each service plan for each neighborhood where at least one of the service plans' absolute changes exceeds 50 daily trips. These tables show several patterns between the three coverage threshold standards.

In terms of the greatest increases in daily transit trips, the 10 neighborhoods with the one-third-mile coverage threshold are mostly suburban neighborhoods. Ridership gains in these neighborhoods, where service eliminations were largely avoided using this threshold, are likely a result of the improved headways. The situation is similar when the four-tenths-mile coverage threshold is applied. However, it is apparent from the table that, while several of the same neighborhoods are listed under both the one-third-mile and four-tenths-mile coverage thresholds, the absolute increases for these neighborhoods are generally greater for the four-tenths-mile coverage threshold. It also seems that the four-tenths-mile coverage threshold is more successful at attracting trips to more-urban neighborhoods. Unlike these two coverage thresholds, the neighborhoods with the 10 greatest trip increases when applying the one-half-mile coverage threshold are mostly urban. These are neighborhoods that, under this service plan, maintain some level of service while receiving significant frequency

[4] The neighborhood and town definitions used in this study match those used in the MBTA Core Efficiencies Study.

improvements. However, as seen in the table, the sizes of these increases are much smaller for the one-half-mile coverage threshold than for the other two coverage thresholds.

Table 4-4
Top 10 Absolute Gains and Losses in Transit Trips by Coverage Threshold

	0.33-Mile Radius Neighborhood	Chg.	0.40-Mile Radius Neighborhood	Chg.	0.50-Mile Radius Neighborhood	Chg.
Top 10 Gains						
1	East Woburn	2,792	East Woburn	2,995	South Quincy	363
2	South Newton	1,961	South Newton	2,023	North Allston	248
3	North Newton	975	Stoneham	1,052	South Allston	212
4	Stoneham	972	North Newton	956	North Brookline	184
5	West Everett	935	Needham	952	Harvard Sq.	171
6	Needham	928	West Woburn	905	North Weymouth	162
7	Melrose	867	Winchester	706	South Waltham	141
8	West Woburn	855	Melrose	645	Hyde Park	132
9	West Malden	712	West Roxbury	587	North Braintree	103
10	East Malden	674	Downtown	580	East Watertown	98
Top 10 Losses						
1	Longwood	-1,033	South Quincy	-445	Longwood	-697
2	Fenway	-919	North Weymouth	-162	East Woburn	-580
3	South Quincy	-539	Hingham	-110	East Lynn	-570
4	South Roxbury	-354	South Allston	-95	South Newton	-451
5	North Roxbury	-327	South Danvers	-85	Logan Airport	-378
6	BU	-317	South Weymouth	-80	Needham	-253
7	Harvard Sq.	-270	North Braintree	-70	Fenway	-250
8	Logan Airport	-254	Mattapan	-67	Melrose	-245
9	Chelsea	-247	North Salem	-54	East Malden	-243
10	North Dorchester	-221	Harvard Sq.	-42	Marblehead	-239

Using the one-third-mile coverage threshold, the 10 neighborhoods with the greatest decreases in daily transit trips are mostly urban neighborhoods; these are the neighborhoods where the service eliminations were largely concentrated. While the four-tenths-mile coverage threshold also includes eliminations in several urban neighborhoods, the list of the top 10 trip decreases using this service plan also includes several suburban neighborhoods. The one-half-mile coverage threshold also includes a mix of urban and suburban neighborhoods. However, as seen in the table, the sizes of the decreases are much smaller for the four-tenths-mile coverage threshold

than the other two coverage thresholds.

These results seem to support the hypothesis presented in the previous sections that the service plan associated with the four-tenths-mile coverage threshold attains the best balance between reduced coverage and better service levels. Undoubtedly, when the analysis considers the impact of service eliminations on individual neighborhoods, there are winners and losers. For the one-third-mile coverage threshold, the winners are suburban neighborhoods and the losers are urban neighborhoods. The impacts of the four-tenths-mile and one-half-mile coverage thresholds are not as specific to urban or suburban neighborhoods. However, when considering the sizes of the gains and losses, it is apparent that the four-tenths-mile coverage threshold has the smallest impact of the three, both overall and on many individual neighborhoods.

4.5 Equity Impacts

To assess the equity of the impacts of the changes proposed in the three service plans (based on the three coverage thresholds) on minority or low-income communities, this study included an environmental justice (EJ) impacts analysis. Each TAZ was identified as "EJ" or "non-EJ" based on whether its average household income was at or below 60% of the median household income or its percentage of non-white population was greater than the average, for the MBTA's service area.[5] Any TAZ that qualifies as low-income and/or minority was considered an EJ community.

After identifying the EJ communities, the regional model set was used to calculate a "score" for each TAZ in terms of the various costs presented in section 4.2.[6] Averages across TAZs (for EJ and non-EJ communities) were calculated and each TAZ's score was weighted according to its existing transit trips. Table 4-5 presents a summary of the percentage changes in the EJ and non-EJ average scores for each of the transit costs for each of the coverage thresholds.

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[5] Household income data are from the American Community Survey 2010 5-year summaries. Minority population data are from the 2010 U.S. Census Summary File 1.

[6] Note that these scores are for all trips originating from the TAZs, not trips destined for the TAZs.

Table 4-5
Percentage Change in Transit Cost Equity Metrics
by Coverage Threshold

	.33-Mile Radius		.40-Mile Radius		.50-Mile Radius	
Transit Cost Metric	**Non-EJ**	**EJ**	**Non-EJ**	**EJ**	**Non-EJ**	**EJ**
Average fare	-1.1%	+0.1%	-1.1%	<0.1%	+0.3%	+0.8%
In-vehicle travel time	-0.1%	+0.1%	-0.3%	+0.2%	-1.8%	-0.1%
Number of transfers	-0.2%	-0.4%	+0.4%	+0.8%	+0.4%	+1.9%
Total waiting time	-1.7%	-1.5%	-2.5%	-2.2%	-5.6%	-3.9%
Access + egress walk time	+0.1%	+1.4%	-0.7%	+0.5%	-0.1%	+1.3%

As shown in the table, according to the regional model set, the percentage changes in each cost metric slightly favor non-EJ communities over EJ communities. This difference is of particular concern when considering metrics that are directly related to the different service plans. For instance, greater percentage increases in the number of transfers for EJ communities with the four-tenths-mile and one-half-mile coverage threshold may indicate that the cuts in the urban core are too drastic. It is also interesting to note that non-EJ communities perform better than EJ communities for both the total waiting and walk times with all three coverage thresholds. However, the percentage changes between EJ and non-EJ communities are neither so far apart nor large enough that they would seem to indicate any systematic negative impact on EJ communities.

4.6 Air Quality Impacts

The air quality impacts of the three service plans based on the three coverage thresholds were analyzed using the regional model set's estimate of regional traffic volumes, average highway speeds, and vehicle-miles and vehicle-hours traveled. Air pollutants produced by vehicles generally fall into two groups: gaseous and particulate. Examples of gaseous pollutants include carbon monoxide (CO), volatile organic compounds (VOC, also known as hydrocarbons), nitrogen oxides (NO_x), and carbon dioxide (CO_2). In addition, there are photochemical oxidants (such as ozone) that are not directly emitted from vehicles but are formed when VOC and NO_x chemically react in the presence of sunlight and warm temperatures. Particulate pollutants produced by vehicles are commonly broken into two categories: fine particulates—those with a diameter of 2.5 micrometers or less; and coarse particulates—those with a diameter between 2.5 and 10 micrometers. Table 4-6 presents the estimated air quality impacts.

Table 4-6
Change in Selected Pollutants (Regionwide*)
by Coverage Threshold

	.33-Mile Radius		.40-Mile Radius		.50-Mile Radius	
Pollutant	**Abs.**	**Per.**	**Abs.**	**Per.**	**Abs.**	**Per.**
Carbon monoxide (kg)	+91	<+0.01%	-148	-0.01%	+908	+0.06%
Nitrogen oxides (kg)	-2	>-0.01%	+32	+0.02%	-113	-0.07%
Volatile organic compounds (kg)	+2	<+0.01%	-3	-0.01%	+36	+0.08%
Carbon dioxide (kg)	+178	<+0.01%	+6,774	+0.01%	+7,443	+0.01%
Fine particulates (kg)	+0.4	+0.01%	+0.2	<+0.01%	+2.0	+0.05%
Coarse particulates (kg)	+0.6	+0.01%	+0.4	<+0.01%	-0.1	>-0.01%

** "Regionwide" refers to the entire regional model set area.*

As shown in the table, the air quality impacts of each service plan are negligible. The changes in private-vehicle trips, presented in section 4.1, are the likely causes of what impacts do exist. The largest increase in private-vehicle trips of any of the service plans occurs using the one-half-mile coverage threshold. As shown in the table, this coverage threshold also has the largest increase in air pollution, though the percentage changes in any pollutant do not exceed 0.08%.

5 Conclusion

This analysis of three service plans, each based on a different coverage threshold (one-third mile, four-tenths mile, and one-half mile), indicates that further investigation may be warranted into eliminating duplicative services or services that perform poorly, and using those resources to increase the service level on a number of remaining transit corridors. From the coverage analysis presented in this report, it is apparent that many routes, even those with the current one-quarter-mile coverage threshold, have a significant level of overlap in their coverages. If some of this overlap was reduced by eliminating or restructuring routes, and those eliminated service hours were reinvested into the remaining routes in order to improve their frequencies, it may be possible to retain most existing riders and perhaps attract new riders to the transit system.

Such a trade-off would undoubtedly involve costs and benefits to the riders on different routes, in different service corridors, and in different neighborhoods. Riders on routes that were eliminated would have to walk a greater distance to access transit, while riders on remaining routes would have their route's frequency improved. Within a service corridor, some riders might need to transfer more than before; however, because of improved frequencies, all riders, including those who currently transfer, would need to wait less time for that transfer. Some neighborhoods would lose service, while others would see an increased quality of their service. Indeed, the coverage threshold itself has implications for the balance between the access to service and the quality of that service. Revising service to accommodate an increased coverage threshold, as evaluated for this study, implicitly favors the latter at the expense of the former. Any envisioning of service in this fashion should therefore take into account and analyze these trade-offs.

Appendix: Data Tables

This appendix presents detailed tables that include quantities of data that are too large to present in the body of the report. Some of these tables are not fully accessible. If you would like to obtain this data in an accessible format, please contact CTPS via email at publicinformation@ctps.org.

Table A-1 presents the coverage percentage for each neighborhood that has at least one-half mile of streets within census tracts with a population density greater than 5,000 persons per square mile.

Table A-2 presents, for every MBTA bus, light rail, and heavy rail route[7] and at each coverage threshold,[8] the percentage of each route's total street miles that are in census tracts with a population density greater than 5,000 persons per square mile.

Tables A-3 through A-6 present, for every MBTA bus, light rail, and heavy rail route and for each coverage threshold, the unique coverage percentage (the coverage that does not overlap with the coverage of any other route) and overlap percentages of the 10 routes with the

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[7] Note that this analysis was performed on the MBTA network prior to the July 1, 2012, service changes. Therefore, the eliminations or modifications that were part of those changes are not reflected in this analysis.

[8] Note that the percentage of a route's coverage that is in census tracts with a population density greater than 5,000 persons per square mile does not necessarily increase with greater coverage thresholds, since both the numerator (street miles within these census tracts) and the denominator (total street miles) change as the coverage threshold increases.

greatest overlap percentages (the coverage that does overlap with the coverage of at least one other route).

Tables A-7 presents, for every MBTA bus, light rail, and heavy rail route, the service plan proposal for each route under each coverage threshold.

Tables A-8 through A-10 present, for each of the remaining routes for each coverage threshold, the recalculated unique percentages and overlap percentages of the 10 routes with the greatest overlap percentages.

Tables A-11 through A-13 present the existing and proposed average headways and the resulting percentage improvement for each route by time period for each coverage threshold.

Table A-14 presents the projections from the MPO's regional travel demand model set for the change in ridership for each bus route for each service plan.

Table A-15 presents the estimated absolute and percentage changes in daily transit trips for each service plan for each neighborhood where at least one of the service plan's absolute changes exceeds 50 daily trips.

Table A-1
Coverage Percentage by Neighborhood* by Coverage Threshold

Neighborhood	0.25-Mile Radius	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Winter Hill	100.0%	100.0%	100.0%	100.0%
BU	100.0%	100.0%	100.0%	100.0%
North End	99.9%	100.0%	100.0%	100.0%
South Boston	99.8%	100.0%	100.0%	100.0%
Longwood	99.5%	100.0%	100.0%	100.0%
Downtown	99.5%	100.0%	100.0%	100.0%
South End	98.5%	99.6%	99.9%	100.0%
Spring Hill	98.2%	99.8%	100.0%	100.0%
Chinatown	98.2%	99.4%	100.0%	100.0%
East Somerville	98.0%	99.9%	100.0%	100.0%
West Everett	97.9%	100.0%	100.0%	100.0%
South Allston	97.8%	100.0%	100.0%	100.0%
Mission Hill	97.6%	100.0%	100.0%	100.0%
Waterfront	96.9%	100.0%	100.0%	100.0%
Central Square	96.4%	98.0%	98.0%	98.0%
Fenway	95.8%	98.3%	99.3%	100.0%
West End	95.7%	100.0%	100.0%	100.0%
East Boston	94.9%	98.7%	99.5%	100.0%
North Roxbury	94.6%	99.0%	99.7%	100.0%
South Roxbury	93.7%	98.0%	99.2%	99.4%
West Malden	93.1%	96.4%	98.0%	99.1%
Charlestown	91.8%	96.4%	98.5%	99.7%
Beacon Hill	90.9%	100.0%	100.0%	100.0%
South Medford	90.9%	96.6%	98.0%	98.8%
Roslindale	90.1%	97.7%	99.9%	100.0%
Back Bay	89.6%	96.4%	99.1%	100.0%
Harvard Square	89.5%	95.7%	96.3%	96.3%
East Lynn	89.2%	96.3%	99.1%	99.9%
Chelsea	88.7%	95.0%	97.7%	99.3%
South Dorchester	87.8%	95.5%	98.2%	100.0%
East Medford	86.7%	93.2%	97.3%	99.0%
South Quincy	86.5%	94.4%	96.8%	98.7%
North Brighton	86.3%	94.1%	97.4%	99.3%
North Quincy	86.3%	94.2%	97.1%	99.0%
Jamaica Plain	86.2%	92.5%	95.2%	96.8%
West Medford/Medford Sq.	85.4%	95.8%	97.8%	98.2%
Davis Square	85.3%	96.2%	99.9%	100.0%
Medford Hillside	85.2%	98.3%	99.7%	99.9%
East Revere	84.7%	93.4%	96.6%	98.4%
Winthrop	84.4%	93.9%	97.4%	99.7%
West Roxbury	83.9%	94.5%	97.4%	99.4%
Mattapan	83.4%	92.3%	95.3%	98.6%
North Brookline	82.9%	94.0%	98.2%	100.0%
North Dorchester	80.8%	88.3%	93.1%	97.4%
North Salem	80.2%	89.3%	94.5%	98.6%
East Malden	80.1%	87.7%	92.5%	96.9%
Hyde Park	79.4%	90.3%	94.9%	98.9%
North Allston	78.3%	86.6%	90.6%	94.1%
West Lynn	75.6%	84.1%	90.6%	96.3%
South Brookline	75.4%	86.3%	93.4%	99.4%
West Beverly	75.1%	86.4%	92.9%	96.7%
East Arlington	74.8%	87.4%	94.6%	98.0%
South Saugus	74.5%	88.8%	97.1%	99.8%
West Revere	74.2%	82.2%	88.1%	94.4%
South Waltham	74.0%	86.8%	92.3%	96.0%
North Cambridge	73.2%	83.4%	89.1%	90.9%
Swampscott	73.0%	85.3%	89.0%	93.4%
South Brighton	71.3%	82.5%	88.7%	93.0%
Fresh Pond	71.2%	75.5%	78.4%	81.5%
West Watertown	71.0%	89.9%	98.4%	100.0%
West Arlington	70.6%	81.8%	88.1%	94.2%
North Belmont	69.3%	82.1%	90.9%	96.7%
East Watertown	68.9%	81.1%	87.3%	93.1%
North Newton	68.7%	83.1%	92.2%	98.9%
East Everett	68.4%	81.7%	90.6%	96.3%
North Medford	66.3%	78.0%	83.7%	91.4%
Melrose	66.3%	76.1%	84.4%	92.5%
North Waltham	65.0%	75.0%	79.8%	84.0%
Kendall/MIT	62.2%	77.0%	88.0%	93.3%
East Woburn	61.4%	75.4%	88.2%	97.6%
West Woburn	59.6%	75.0%	85.5%	92.3%
South Peabody	59.0%	76.9%	89.3%	97.6%
South Belmont	59.0%	77.2%	89.2%	99.2%
Norwood	58.7%	74.4%	83.2%	92.7%
South Salem	57.3%	68.1%	71.8%	78.2%
East Beverly	57.1%	72.8%	83.4%	95.2%
East Cambridge	56.9%	64.7%	70.7%	81.3%
East Dedham	54.7%	69.6%	78.9%	90.1%
South Newton	53.0%	64.1%	71.8%	81.1%
North Weymouth	47.5%	57.6%	66.3%	79.7%
North Braintree	41.5%	55.0%	66.3%	79.0%
Winchester	34.1%	44.3%	52.4%	60.1%
Marblehead	28.7%	36.0%	41.3%	48.7%
Stoneham	22.6%	29.4%	36.0%	47.8%

** Neighborhoods with at least one-half mile of streets within census tracts with a population density greater than 5,000 persons per square mile.*

Table A-2
Percentage of Coverage in Census Tracts with a Population Density Greater than 5,000 Persons per Square Mile by Route by Coverage Threshold

		Coverage Threshold			
Rte. #	Route Description	0.25-Mile Radius	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
1	Harvard Square - Dudley Station via Mass. Ave.	97.4%	97.4%	97.5%	97.7%
4	North Station - World Trade Center	63.6%	63.0%	61.7%	60.3%
5	City Point - McCormack Housing	77.5%	75.8%	75.1%	73.5%
7	City Point - Otis & Summer Streets	67.0%	65.0%	62.9%	62.3%
8	Harbor Point /U Mass - Kenmore Station	96.7%	96.3%	95.9%	94.9%
9	City Point - Copley Square via Broadway Station	82.6%	81.4%	81.3%	79.8%
10	City Point - Copley Square Via BU Med Center	89.1%	88.1%	87.5%	86.3%
11	City Point - Downtown	77.1%	73.9%	71.9%	71.0%
14	Roslindale Square - Heath Street Loop	93.8%	92.2%	90.5%	87.8%
15	Kane Square - Ruggles Station	100.0%	100.0%	100.0%	99.9%
16	Forest Hills Station - U Mass.	84.0%	84.7%	84.9%	84.8%
17	Fields Corner Station - Andrew Station	91.4%	91.3%	91.4%	91.8%
18	Ashmont Station - Andrew Station	93.0%	91.9%	91.0%	91.9%
19	Fields Corner Station - Ruggles or Kenmore Station	97.9%	97.7%	97.7%	97.4%
21	Ashmont Station - Forest Hills Station	89.4%	88.3%	86.2%	83.7%
22	Ashmont Station - Ruggles Station Via Talbot Ave	96.6%	96.8%	96.8%	96.5%
23	Ashmont Station - Ruggles Station via Washington Street	100.0%	99.8%	99.7%	99.2%
24	Wakefield Ave. - Mattapan Station or Ashmont	92.9%	89.3%	86.2%	83.5%
26	Ashmont Station - Norfolk & Wash. Belt	100.0%	100.0%	100.0%	100.0%
27	Mattapan Station - Ashmont Station	93.8%	88.9%	86.7%	84.4%
28	Mattapan Station - Ruggles Station	95.1%	94.3%	93.7%	92.4%
29	Mattapan Station - Jackson Sq. Station	94.5%	93.8%	93.1%	91.6%
30	Mattapan Station - Roslindale Square	90.3%	88.6%	88.0%	86.3%
31	Mattapan Station - Forest Hills Station	81.9%	79.8%	76.7%	72.5%
32	Wolcott Square or Cleary Square - Forest Hills Station	90.3%	89.1%	87.5%	85.9%
33	River & Milton Streets - Mattapan Station	88.6%	86.6%	84.3%	81.0%
34	Dedham Line - Forest Hills Station	38.5%	38.9%	39.0%	38.8%
35	Dedham Mall - Forest Hills Station	76.0%	76.9%	77.4%	77.6%
36	VA Hosp. - Forest Hills Station Via Chas. River Loop	95.7%	92.7%	90.8%	87.0%
37	Baker & Vermont Streets - Forest Hills Station	65.2%	66.2%	67.2%	68.0%
38	Wren Street - Forest Hills Station	74.6%	74.1%	73.0%	71.1%
39	Forest Hills Station - Back Bay Station	94.9%	93.5%	92.8%	91.7%
40	Georgetowne - Forest Hills Station	83.4%	83.9%	84.7%	85.3%
41	Centre & Eliot Streets - JFK U Mass Station	98.8%	97.9%	97.6%	96.7%
42	Forest Hills Station - Ruggles Station	99.7%	98.6%	98.1%	97.3%
43	Ruggles Station - Park & Tremont Streets	95.6%	94.5%	93.1%	91.5%
44	Jackson Sq. Station - Ruggles Station	99.1%	99.1%	98.9%	98.5%
45	Franklin Park - Ruggles Station	97.2%	97.2%	97.1%	96.6%
47	Central Square Cambridge. - Broadway Station	92.3%	91.9%	91.9%	92.2%
48	Centre & Eliot Streets - Jamaica Plain Loop	99.1%	98.6%	97.7%	95.5%
50	Cleary Sq. - Forest Hills Station Via Metropolitan	98.0%	97.4%	97.0%	96.3%
51	Cleveland Circle - Forest Hills Station	49.4%	50.1%	51.1%	52.5%
52	Dedham Mall - Watertown Yard	41.4%	41.9%	42.8%	44.6%
55	Queensberry Street - Park & Tremont Streets	90.5%	87.5%	86.2%	86.1%
57	Watertown Yard - Kenmore Station	97.7%	96.7%	95.1%	93.3%
59	Needham Junction - Watertown Square	58.3%	55.8%	54.0%	51.6%
60	Chestnut Hill - Kenmore Station	67.1%	66.4%	66.3%	66.4%
62	Bedford V.A. Hospital - Alewife Station	34.5%	35.2%	36.0%	37.9%
64	Oak Square - University Pk. Cambridge	97.9%	97.1%	96.4%	94.5%
65	Brighton Center - Kenmore Station	95.7%	94.1%	93.1%	92.2%
66	Harvard Square - Dudley Station via Brookline	99.5%	98.9%	98.3%	97.5%
67	Turkey Hill - Alewife Station	98.4%	97.9%	97.3%	96.4%
68	Harvard Square - Kendall MIT Station	97.0%	95.2%	94.1%	92.4%
69	Harvard Square - Lechmere Station	87.8%	86.4%	85.6%	83.9%
70	Cedarwood - Central Square Cambridge	79.0%	77.6%	76.6%	75.6%
71	Watertown Square - Harvard Station	83.5%	82.0%	81.6%	81.8%
72	Aberdeen & Mt. Auburn - Harvard Station	80.4%	80.8%	81.7%	82.8%
73	Waverley Square - Harvard Station	72.6%	71.9%	71.9%	71.0%
74	Belmont Center - Harvard Station via Concord Ave	91.6%	89.2%	87.6%	85.8%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	89.7%	87.0%	85.2%	83.9%
76	Hanscom Air Force Base - Alewife Station	31.9%	32.5%	33.0%	34.5%
77	Arlington Heights - Harvard Station	100.0%	99.9%	99.9%	99.7%
78	Arlmont Village - Harvard Station	93.3%	92.1%	90.9%	89.8%
79	Arlington Heights - Alewife Station	100.0%	100.0%	99.9%	99.6%
80	Arlington Center - Lechmere Station	93.0%	92.6%	92.5%	91.9%
83	Rindge Ave. - Central Square, Cambridge	99.8%	99.5%	99.1%	98.6%
84	Arlmont Loop - Alewife Station	89.8%	89.5%	88.6%	87.9%
85	Spring Hill - Kendall MIT Station	89.5%	87.9%	86.4%	85.6%
86	Sullivan Station - Cleveland Circle	81.6%	81.6%	81.5%	81.9%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	90.6%	90.6%	90.8%	90.7%
88	Clarendon Hill - Lechmere Station via Highland Avenue	89.9%	89.6%	89.7%	89.1%
89	Clarendon Hill or Davis Square - Sullivan Station via Broadway	93.8%	93.2%	92.3%	89.8%
90	Davis Square Station - Wellington Station	81.3%	80.4%	80.2%	79.6%
91	Sullivan Station - Central Square, Cambridge	76.3%	77.9%	79.3%	79.7%
92	Assembly Square Mall - Downtown Via Main Street	68.2%	68.9%	69.8%	70.3%
93	Sullivan Station - Downtown Via Bunker Hill	75.7%	76.7%	76.9%	76.8%
94	Medford Square - Davis Square Station	83.6%	84.6%	85.3%	86.1%
95	West Medford - Sullivan Station	71.1%	71.8%	72.8%	73.7%
96	Medford Sq. - Harvard Station	92.3%	92.2%	92.2%	91.6%
97	Malden Station - Wellington Station	76.1%	77.0%	78.2%	80.5%
99	Boston Reg. Med Center Stoneham - Wellington Station	79.5%	79.9%	80.2%	80.7%
100	Elm Street - Wellington Station	90.7%	89.4%	88.2%	86.2%
101	Malden Station - Sullivan Station Via Medford Square	89.8%	89.2%	88.4%	86.7%
104	Malden Station - Sullivan Station Via Ferry Street	72.9%	73.4%	74.0%	75.4%
105	Malden Station - Sullivan Station Via Main Street	74.4%	73.9%	73.8%	74.5%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	70.2%	70.9%	71.8%	73.7%
108	Linden Square - Wellington Station	97.1%	96.2%	96.0%	95.2%
109	Linden Square - Sullivan Station	55.8%	58.4%	60.7%	64.2%
110	Wonderland Station - Wellington Station	84.3%	82.9%	83.2%	84.8%
111	Woodlawn or Bway & Park - Haymarket Station	99.2%	99.2%	99.3%	99.1%
112	Wellington Station - Wood Island Station	84.6%	81.5%	80.5%	80.9%

Rte. #	Route Description	Coverage Threshold 0.25-Mile Radius	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
114	Bellingham Square or Mystic Mall - Maverick Station	99.1%	99.2%	98.8%	97.7%
116	Wonderland Station - Maverick Station Via Revere	99.6%	99.6%	99.5%	99.2%
117	Wonderland Station - Maverick Station via Beach	99.5%	99.6%	99.4%	98.9%
119	Northgate Shopping Center - Beachmont Station	96.1%	95.3%	94.6%	94.0%
120	Orient Heights Station - Maverick Station	94.3%	91.4%	89.4%	87.0%
121	Wood Island Station - Maverick Station	98.1%	95.9%	93.9%	91.3%
131	Melrose Highlands - Malden Station	68.6%	69.1%	69.7%	70.0%
132	Redstone Shopping Center - Malden Station	49.0%	49.0%	48.6%	48.0%
134	North Woburn - Wellington Station	50.0%	49.6%	49.2%	48.9%
136	Reading Depot - Malden Station Via Lakeside	38.2%	38.9%	40.1%	41.6%
137	Reading Depot - Malden Station Via North Ave	42.3%	42.9%	43.7%	44.9%
170	Oak Park - Dudley Station (Limited Service)	78.8%	76.8%	75.5%	74.3%
201	Fields Corner Station - Fields Corner Station	99.6%	99.4%	99.5%	99.3%
202	Fields Corner Station - Fields Corner Station	99.0%	98.6%	98.6%	98.4%
210	Quincy Center Station - No. Quincy Station or Fields Corner Station	98.2%	97.4%	96.5%	94.5%
211	Quincy Center Station - Squantum	84.4%	84.8%	83.8%	80.6%
212	Quincy Center Station - North Quincy Station	100.0%	99.9%	98.8%	96.9%
214	Quincy Center Station - Germantown	68.9%	68.5%	69.3%	72.7%
215	Quincy Center Station - Ashmont Station	67.4%	69.6%	71.8%	74.3%
216	Quincy Center Station - Houghs Neck	73.2%	73.1%	73.9%	76.7%
217	Wollaston Station - Ashmont Station via Wollaston Beach	76.2%	74.5%	72.6%	71.4%
220	Quincy Center Station - Hingham	33.6%	33.7%	33.8%	34.0%
221	Quincy Center Station - Fort Point	54.6%	55.4%	55.4%	56.3%
222	Quincy Center Station - East Weymouth	45.3%	44.6%	43.7%	43.1%
225	Quincy Center Station - Weymouth Landing	40.4%	41.5%	43.0%	44.9%
230	Quincy Center Station - Montello Station	25.5%	26.0%	26.6%	27.5%
236	Quincy Center Station - South Shore Plaza	38.7%	40.0%	41.9%	43.7%
238	Quincy Center Station - Holbrook/Randolph Comm. Rail St	28.2%	28.7%	29.3%	30.0%
240	Avon Line - Ashmont Station	17.3%	18.6%	20.2%	23.3%
245	Quincy Center Station - Mattapan Station	44.6%	46.5%	47.2%	48.1%
275	Downtown Boston - Long Island Health Campus	75.3%	76.5%	77.4%	77.1%
276	Boston City Hospital - Long Island Health Campus	93.7%	93.9%	94.4%	94.6%
277	L. Shattuck Hospital - Park & Tremont Streets	84.3%	88.9%	89.8%	88.7%
325	Elm Street - Haymarket Station	88.3%	87.3%	86.0%	83.3%
326	West Medford - Haymarket Station	71.3%	74.5%	76.5%	77.6%
350	North Burlington - Alewife Station	38.4%	37.9%	38.5%	39.3%
351	Oak Park - Alewife Station	10.1%	11.5%	12.3%	13.2%
352	Burlington - State Street	34.2%	37.1%	38.0%	40.1%
354	Woburn Line - State Street	27.6%	31.5%	34.8%	38.0%
355	Mishawum Station - State Street	36.0%	39.6%	41.6%	44.7%
411	Malden Station - Revere/Jack Satter House	98.1%	97.5%	97.0%	96.3%
424	Eastern & Essex - Haymarket or Wonderland	94.4%	94.2%	93.8%	93.2%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	85.3%	84.9%	84.3%	84.0%
428	Oaklandvale - Haymarket Station via Granada Highlands	50.5%	50.4%	50.5%	50.8%
429	Northgate Shopping Center - Central Sq. Lynn	71.0%	71.2%	71.0%	70.7%
430	Saugus, Appleton Street - Malden Station	57.5%	58.8%	59.2%	60.0%
431	Neptune Towers - Central Sq. Lynn	87.2%	86.9%	87.0%	86.8%
434	Peabody - Haymarket Station	65.5%	67.6%	68.8%	70.2%
435	Liberty Tree Mall - Central Sq. Lynn	55.6%	54.4%	54.9%	56.1%
436	Danvers Sq. - Central Sq. Lynn	59.2%	59.7%	59.8%	60.0%
439	Bass Point Nahant - Central Sq. Lynn	39.6%	40.3%	40.9%	41.9%
441	Marblehead - Haymarket or Wonderland Station via Paradise Road	58.5%	59.2%	59.8%	60.9%
442	Marblehead - Haymarket or Wonderland Station via Humphrey Street	54.4%	55.7%	56.7%	58.2%
448	Marblehead - Downtown Crossing	52.3%	53.1%	53.7%	54.9%
449	Marblehead - Downtown Crossing	48.3%	49.6%	50.5%	52.2%
450	Salem Depot - Haymarket or Wonderland Station	82.1%	82.3%	82.1%	82.0%
451	North Beverly - Salem Depot	50.8%	52.1%	51.9%	51.1%
455	Salem Depot - Haymarket or Wonderland Station	86.3%	85.4%	84.5%	83.4%
456	Salem Depot - Central Sq. Lynn	82.7%	82.4%	81.5%	80.7%
459	Salem Depot - Downtown Crossing	80.6%	80.0%	78.8%	77.4%
465	Liberty Tree Mall - Salem Depot	43.5%	42.4%	41.7%	41.0%
468	Danvers Square - Salem Depot (Limited Service)	37.3%	38.0%	38.1%	38.6%
500	Riverside Station - Federal & Franklin Streets	90.2%	88.5%	87.6%	84.0%
501	Brighton Center - Federal & Franklin Streets	97.8%	96.5%	94.5%	92.0%
502	Watertown Yard - Copley Square	100.0%	99.0%	96.9%	94.2%
503	Brighton Center - Copley	97.5%	95.9%	93.8%	91.6%
504	Watertown Yard - Federal & Franklin Streets	98.1%	96.8%	94.6%	92.7%
505	Waltham Center - Federal & Franklin Streets	71.8%	70.6%	70.2%	70.1%
505	Waltham Center - Federal & Franklin Streets	71.8%	70.6%	70.2%	70.1%
553	Roberts - Federal & Franklin Streets	95.4%	93.7%	91.6%	87.9%
554	Waverley Square - Federal & Franklin Streets	70.8%	70.5%	70.0%	67.8%
555	Riverside Station - Federal & Franklin Streets Via Newton	86.8%	84.2%	82.1%	79.1%
556	Waltham Highlands - Federal & Franklin Streets	90.0%	91.0%	91.3%	90.3%
558	Auburndale - Federal & Franklin Streets	82.0%	81.9%	82.0%	81.0%
CT1	Central Square Cambridge. - South End Medical Area	95.6%	96.0%	96.2%	96.7%
CT2	Sullivan Station - Kendall MIT Station	97.0%	95.9%	95.1%	94.2%
CT2	Kendall MIT Station - Ruggles Station	71.4%	72.1%	72.0%	71.9%
CT3	Longwood Medical Area - Andrew Station	89.8%	88.9%	89.3%	90.5%
SL1	Logan Airport - South Station	31.2%	35.0%	38.0%	42.9%
SL2	Boston Marine Industrial Park - South Station	27.2%	31.0%	35.4%	42.3%
SL Water	Silver Line Way - South Station	39.3%	40.2%	43.0%	47.6%
SL4	Dudley Station - South Station at Essex Street	98.9%	97.5%	95.7%	93.5%
SL5	Dudley Station - Downtown Crossing at Temple Pl	98.3%	97.6%	96.9%	96.3%
BL	Blue Line	89.2%	88.6%	88.1%	87.0%
GL	Green Line	87.6%	87.1%	85.9%	84.5%
ML	Mattapan Line	57.5%	63.5%	67.0%	70.0%
OL	Orange Line	94.9%	94.1%	93.5%	92.7%
RL	Red Line	81.3%	83.4%	84.5%	85.9%

Table A-3
Unique and Overlap Coverage Percentages by Route for the One-Quarter-Mile Coverage Threshold

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
1	Harvard Square - Dudley Station via Mass. Ave.	6.4%	CT1	56.6%	170	46.2%	47	36.2%	8	29.2%	SL4	22.3%	SL5	22.3%	68	18.2%	64	17.8%	CT3	16.8%	70	16.4%
4	North Station - World Trade Center	13.1%	92	38.1%	93	38.0%	7	35.8%	459	32.3%	448	31.6%	449	31.6%	SL2	30.8%	OL	30.6%	SL1	24.9%	GL	24.2%
5	City Point - McCormack Housing	0.0%	10	88.9%	9	60.4%	11	59.8%	7	34.5%	16	30.4%	RL	17.1%	18	12.6%	17	11.7%	CT3	9.4%	8	6.2%
7	City Point - Otis & Summer Streets	1.9%	11	58.5%	4	48.2%	5	39.5%	9	39.5%	10	39.5%	448	35.5%	449	35.5%	459	35.5%	555	30.5%	504	30.5%
8	Harbor Point /U Mass - Kenmore Station	0.0%	47	53.5%	19	44.7%	CT3	39.7%	170	29.6%	SL4	28.1%	SL5	28.1%	10	27.1%	1	27.0%	16	21.6%	41	20.7%
9	City Point - Copley Square via Broadway Station	3.4%	11	49.4%	10	47.3%	5	34.8%	55	32.0%	39	26.8%	170	26.6%	GL	23.7%	7	19.9%	555	19.3%	504	19.2%
10	City Point - Copley Square Via BU Med Center	0.0%	5	52.1%	9	48.3%	11	35.4%	8	31.4%	170	30.5%	CT3	22.5%	7	20.2%	47	16.4%	SL4	14.0%	SL5	14.0%
11	City Point - Downtown	15.5%	9	54.1%	10	38.0%	5	37.7%	7	32.3%	SL4	24.9%	SL5	19.4%	555	18.5%	504	18.1%	RL	16.9%	11	15.5%
14	Roslindale Square - Heath Street Loop	10.3%	28	46.4%	23	37.3%	19	35.2%	45	32.5%	44	26.2%	29	25.2%	22	24.6%	41	24.4%	30	20.7%	66	12.4%
15	Kane Square - Ruggles Station	0.0%	41	51.0%	17	49.4%	19	42.4%	45	41.6%	23	28.7%	28	26.6%	44	26.5%	8	19.2%	66	18.1%	47	17.4%
16	Forest Hills Station - U Mass.	8.2%	17	33.3%	8	27.7%	41	21.3%	5	19.8%	18	15.5%	15	15.4%	10	15.3%	45	12.8%	21	11.8%	31	11.8%
17	Fields Corner Station - Andrew Station	0.0%	15	72.5%	16	50.6%	18	41.7%	19	30.5%	41	26.3%	RL	20.1%	201	15.5%	202	15.5%	210	15.5%	8	15.0%
18	Ashmont Station - Andrew Station	27.9%	17	35.5%	18	27.9%	RL	25.7%	202	22.8%	201	22.7%	16	20.0%	210	19.1%	15	17.3%	23	14.7%	22	14.7%
19	Fields Corner Station - Ruggles or Kenmore Station	0.5%	23	49.4%	8	46.1%	28	44.0%	47	38.6%	14	38.5%	45	33.6%	15	32.9%	44	27.7%	CT3	24.3%	CT2	19.4%
21	Ashmont Station - Forest Hills Station	0.2%	26	50.9%	31	48.6%	28	20.5%	29	20.4%	16	19.2%	24	18.8%	27	18.8%	240	18.8%	217	18.5%	215	16.3%
22	Ashmont Station - Ruggles Station Via Talbot Ave	6.0%	29	70.1%	23	39.6%	44	38.7%	14	34.5%	28	33.2%	45	24.7%	26	22.7%	41	15.7%	42	13.8%	19	13.7%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	14.7%	19	59.1%	28	58.0%	14	48.9%	45	45.1%	44	38.0%	22	37.0%	15	26.6%	29	19.5%	26	19.2%	66	16.8%
24	Wakefield Ave. - Mattapan Station or Ashmont	29.8%	27	36.5%	33	34.9%	24	29.8%	240	21.1%	217	18.1%	21	11.4%	32	10.6%	215	10.0%	28	9.8%	29	9.6%
26	Ashmont Station - Norfolk & Wash. Belt	22.1%	21	50.2%	22	35.3%	23	32.0%	26	22.1%	215	19.4%	18	18.2%	24	14.4%	27	14.4%	240	14.4%	217	14.2%
27	Mattapan Station - Ashmont Station	0.0%	24	100.0%	240	57.7%	217	49.7%	21	31.3%	215	27.3%	26	24.4%	ML	24.2%	28	16.5%	29	16.5%	31	16.5%
28	Mattapan Station - Ruggles Station	0.0%	29	65.0%	14	54.4%	23	51.9%	19	47.2%	45	46.0%	44	34.0%	31	28.8%	22	27.9%	15	22.1%	66	15.0%
29	Mattapan Station - Jackson Sq. Station	2.0%	28	66.4%	22	60.0%	44	35.5%	14	30.2%	31	29.3%	45	23.5%	23	17.8%	19	14.1%	41	13.9%	42	12.1%
30	Mattapan Station - Roslindale Square	28.7%	14	40.6%	35	32.3%	36	32.3%	37	32.3%	51	32.3%	50	29.4%	34	28.9%	40	28.9%	30	28.7%	31	16.3%
31	Mattapan Station - Forest Hills Station	0.0%	28	65.6%	29	65.5%	21	58.9%	16	23.2%	30	22.2%	24	19.1%	33	17.0%	716	16.8%	245	15.8%	27	11.9%
32	Wolcott Square or Cleary Square - Forest Hills Station	37.4%	32	37.4%	14	24.3%	33	22.5%	50	16.8%	30	16.5%	24	16.5%	16	6.9%	21	6.9%	31	6.9%	34	6.9%
33	River & Milton Streets - Mattapan Station	30.5%	24	45.0%	33	30.5%	32	18.7%	40	12.4%	50	12.0%	30	12.0%	28	11.3%	29	11.0%	31	11.0%	716	10.9%
34	Dedham Line - Forest Hills Station	60.1%	34	60.1%	40	21.6%	35	18.9%	50	12.6%	36	11.2%	37	9.6%	30	9.2%	51	9.2%	14	4.4%	38	3.2%
35	Dedham Mall - Forest Hills Station	16.8%	36	58.6%	37	54.2%	34	42.6%	38	29.0%	51	25.5%	30	23.2%	40	21.6%	50	21.6%	35	16.8%	14	12.3%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	5.9%	35	73.1%	37	67.7%	38	38.7%	34	31.4%	51	31.3%	30	28.9%	40	26.9%	50	26.9%	52	16.8%	14	15.3%
37	Baker & Vermont Streets - Forest Hills Station	11.6%	36	59.9%	35	59.9%	38	53.7%	51	33.3%	30	25.6%	34	23.8%	40	23.8%	50	23.8%	14	13.6%	52	11.8%
38	Wren Street - Forest Hills Station	28.7%	37	44.1%	38	28.7%	36	28.2%	35	26.3%	39	18.6%	51	13.3%	52	9.3%	41	6.8%	48	6.8%	34	6.5%
39	Forest Hills Station - Back Bay Station	2.4%	GL	48.4%	170	29.5%	9	26.9%	55	26.5%	41	22.4%	48	20.8%	38	17.6%	66	15.6%	CT2	12.5%	1	12.4%
40	Georgetowne - Forest Hills Station	7.2%	34	77.0%	50	44.9%	35	34.0%	36	34.0%	37	34.0%	30	32.7%	51	32.7%	33	15.9%	14	15.6%	40	7.2%
41	Centre & Eliot Streets - JFK U Mass Station	1.7%	15	44.4%	14	29.9%	48	28.5%	45	27.9%	8	23.9%	39	22.8%	44	19.7%	16	19.2%	17	15.6%	23	14.8%
42	Forest Hills Station - Ruggles Station	27.2%	44	48.1%	42	27.2%	14	25.2%	29	23.4%	22	22.9%	41	22.7%	48	22.2%	23	21.7%	28	21.7%	19	21.6%
43	Ruggles Station - Park & Tremont Streets	3.2%	170	41.4%	SL5	37.2%	55	36.9%	SL4	33.1%	8	28.0%	9	27.2%	OL	22.4%	1	22.1%	555	21.7%	504	21.1%
44	Jackson Sq. Station - Ruggles Station	8.9%	29	53.5%	23	52.5%	28	52.4%	22	50.0%	14	47.5%	19	45.7%	42	37.4%	45	35.9%	15	34.0%	41	29.1%
45	Franklin Park - Ruggles Station	10.4%	28	68.7%	23	60.3%	14	56.8%	19	53.8%	15	51.6%	41	39.7%	44	34.8%	29	34.3%	22	30.9%	66	22.4%
47	Central Square Cambridge. - Broadway Station	7.8%	8	53.8%	19	37.7%	CT3	35.0%	1	33.8%	CT2	29.2%	CT1	23.8%	170	21.7%	SL4	21.6%	SL5	21.6%	64	20.6%
48	Centre & Eliot Streets - Jamaica Plain Loop	4.4%	41	57.4%	39	42.5%	42	23.6%	OL	22.9%	22	21.9%	29	21.9%	44	21.9%	38	13.1%	14	10.2%	48	4.4%
50	Cleary Sq. - Forest Hills Station Via Metropolitan	34.6%	34	46.1%	40	46.1%	35	35.0%	36	35.0%	37	35.0%	50	34.6%	30	34.2%	51	33.6%	32	18.3%	14	16.8%
51	Cleveland Circle - Forest Hills Station	54.7%	51	54.7%	37	24.5%	35	20.7%	36	20.4%	30	18.9%	34	16.9%	40	16.9%	50	16.9%	38	11.9%	14	10.0%
52	Dedham Mall - Watertown Yard	62.1%	52	62.1%	57	12.5%	502	11.1%	504	11.1%	59	9.3%	36	8.2%	37	6.5%	38	6.2%	553	6.0%	554	6.0%
55	Queensberry Street - Park & Tremont Streets	6.8%	GL	55.8%	9	49.7%	170	42.5%	39	41.0%	43	38.4%	555	36.9%	504	36.4%	1	18.2%	OL	17.4%	CT1	15.9%
57	Watertown Yard - Kenmore Station	2.4%	501	51.5%	503	51.4%	GL	31.5%	64	19.7%	52	18.1%	65	17.2%	502	16.1%	504	16.1%	66	15.1%	86	12.1%
59	Needham Junction - Watertown Square	71.3%	59	71.3%	52	10.2%	556	8.9%	558	5.6%	553	5.6%	554	5.6%	70	5.3%	71	5.3%	555	5.1%	57	4.1%
60	Chestnut Hill - Kenmore Station	44.4%	60	44.4%	65	41.0%	8	26.1%	19	26.1%	GL	25.8%	47	15.2%	66	12.0%	CT2	11.3%	51	8.6%	CT3	8.4%
62	Bedford V.A. Hospital - Alewife Station	29.0%	76	42.3%	78	30.9%	62	29.0%	84	28.9%	67	10.5%	79	7.1%	77	4.9%	351	2.8%	350	2.2%	RL	1.1%
64	Oak Square - University Pk. Cambridge	15.8%	70	26.9%	501	24.2%	503	23.0%	68	22.8%	47	21.6%	57	17.8%	1	17.4%	91	16.0%	64	15.8%	83	15.7%
65	Brighton Center - Kenmore Station	12.4%	GL	44.2%	60	43.9%	8	27.9%	19	27.9%	57	23.7%	66	19.3%	47	16.3%	501	15.3%	503	15.1%	86	13.4%
66	Harvard Square - Dudley Station via Brookline	12.9%	GL	29.7%	86	17.5%	39	14.5%	15	14.4%	23	14.4%	28	14.4%	44	14.4%	45	14.4%	64	14.2%	501	14.0%
67	Turkey Hill - Alewife Station	55.7%	67	55.7%	79	24.0%	62	23.9%	76	23.9%	84	23.9%	77	19.1%	350	15.5%	78	13.4%	80	7.4%	351	6.3%
68	Harvard Square - Kendall MIT Station	0.8%	64	54.7%	69	45.8%	1	42.6%	85	35.4%	CT2	25.6%	RL	24.9%	72	23.9%	83	22.9%	91	22.8%	86	21.6%
69	Harvard Square - Lechmere Station	14.5%	68	39.4%	1	25.9%	86	24.2%	72	21.9%	83	21.4%	91	19.9%	85	19.7%	87	19.3%	80	18.8%	88	18.8%
70	Cedarwood - Central Square Cambridge	39.9%	70	39.9%	170	33.0%	64	14.0%	556	10.5%	553	9.6%	1	8.4%	47	8.1%	CT1	7.5%	86	7.4%	554	4.9%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
71	Watertown Square - Harvard Station	33.6%	73	51.1%	71	33.6%	72	28.8%	75	20.4%	74	18.7%	78	18.7%	77	16.8%	96	16.8%	70	14.0%	86	13.6%
72	Aberdeen & Mt. Auburn - Harvard Station	13.1%	75	62.4%	74	55.8%	78	55.8%	71	41.9%	73	40.2%	86	28.3%	77	26.1%	96	26.1%	69	23.8%	68	22.4%
73	Waverley Square - Harvard Station	41.3%	71	49.7%	73	41.3%	72	26.8%	75	19.1%	74	17.2%	78	17.2%	77	15.4%	96	15.4%	86	12.4%	66	11.4%
74	Belmont Center - Harvard Station via Concord Ave	0.0%	75	88.9%	78	67.9%	72	43.7%	71	21.3%	77	20.5%	96	20.5%	73	20.3%	86	15.4%	66	14.3%	1	9.8%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	2.6%	74	90.8%	78	58.0%	72	50.0%	71	23.9%	73	22.9%	77	20.9%	96	20.9%	86	15.8%	66	14.6%	1	10.0%
76	Hanscom Air Force Base - Alewife Station	18.0%	62	52.0%	84	36.1%	78	31.2%	76	18.0%	67	13.0%	351	3.4%	79	2.6%	350	2.6%	RL	1.4%	83	0.7%
77	Arlington Heights - Harvard Station	5.3%	79	54.2%	96	32.2%	350	28.3%	87	21.5%	83	18.7%	78	18.2%	72	12.0%	74	12.0%	75	12.0%	RL	11.7%
78	Arlmont Village - Harvard Station	9.8%	84	43.2%	74	38.1%	62	36.4%	75	31.8%	76	30.0%	72	24.5%	77	17.3%	71	12.0%	96	11.5%	73	11.4%
79	Arlington Heights - Alewife Station	0.0%	77	95.3%	350	54.4%	67	23.0%	87	19.4%	62	15.4%	80	11.9%	78	10.7%	84	5.7%	76	4.7%	351	4.7%
80	Arlington Center - Lechmere Station	12.3%	101	33.6%	94	29.9%	89	29.3%	88	25.4%	87	20.5%	90	18.1%	96	15.1%	80	12.3%	69	9.0%	86	7.3%
83	Rindge Ave. - Central Square, Cambridge	9.8%	91	35.6%	77	28.1%	87	26.7%	64	24.2%	RL	20.3%	96	17.9%	69	16.1%	68	14.8%	1	14.4%	86	13.5%
84	Arlmont Loop - Alewife Station	0.0%	78	88.2%	76	70.6%	62	69.5%	67	25.4%	351	6.7%	79	6.3%	350	5.2%	RL	2.7%	83	1.4%	77	1.1%
85	Spring Hill - Kendall MIT Station	1.4%	CT2	58.3%	64	34.9%	68	34.9%	91	31.4%	87	30.4%	69	22.5%	88	18.4%	86	17.4%	83	16.5%	90	16.2%
86	Sullivan Station - Cleveland Circle	5.6%	91	24.2%	CT2	19.6%	66	17.4%	70	14.2%	72	12.6%	69	11.7%	501	11.0%	503	11.0%	57	10.9%	87	10.7%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	10.1%	88	52.0%	89	28.8%	80	24.0%	77	24.0%	83	19.9%	96	19.5%	90	18.2%	85	14.8%	RL	13.1%	86	12.4%
88	Clarendon Hill - Lechmere Station via Highland Avenue	0.0%	87	63.6%	90	57.9%	80	36.5%	89	35.4%	96	16.2%	94	14.4%	69	12.9%	85	11.0%	RL	10.1%	86	8.7%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	1.8%	101	47.2%	80	37.4%	90	35.0%	88	31.4%	87	31.3%	94	21.1%	96	21.1%	95	11.4%	92	11.1%	RL	8.9%
90	Davis Square Station - Wellington Station	0.0%	88	57.1%	89	39.0%	80	25.7%	101	25.3%	92	23.3%	87	22.0%	96	15.4%	86	13.7%	94	13.6%	95	13.3%
91	Sullivan Station - Central Square, Cambridge	0.1%	86	50.7%	83	48.0%	CT2	46.4%	64	33.4%	85	27.7%	87	20.4%	69	20.2%	68	19.8%	1	19.8%	90	18.6%
92	Assembly Square Mall - Downtown Via Main Street	0.9%	93	72.1%	OL	34.6%	4	34.2%	90	23.9%	GL	23.2%	111	17.7%	426	15.8%	428	15.8%	BL	15.8%	325	15.2%
93	Sullivan Station - Downtown Via Bunker Hill	8.2%	92	75.7%	4	35.9%	OL	31.8%	GL	24.4%	111	18.6%	426	16.6%	428	16.6%	BL	16.6%	325	15.9%	326	15.9%
94	Medford Square - Davis Square Station	0.1%	101	61.3%	96	51.1%	80	48.0%	95	39.3%	326	39.3%	89	26.4%	134	23.4%	87	16.0%	88	16.0%	90	15.4%
95	West Medford - Sullivan Station	13.0%	101	66.1%	326	45.3%	134	28.8%	94	27.1%	325	16.0%	95	13.0%	96	12.7%	710	11.6%	90	10.3%	92	10.2%
96	Medford Sq. - Harvard Station	0.0%	94	43.6%	77	41.8%	101	32.7%	87	22.7%	RL	22.7%	89	22.6%	80	20.6%	95	15.8%	72	15.6%	74	15.6%
97	Malden Station - Wellington Station	14.5%	99	53.5%	106	51.0%	104	45.3%	105	40.6%	110	34.5%	112	33.1%	109	31.8%	108	17.4%	97	14.5%	101	11.4%
99	Boston Reg. Med Center Stoneham - Wellington Station	16.5%	106	58.9%	105	53.8%	97	35.6%	104	29.0%	101	22.6%	108	20.8%	131	18.5%	136	18.5%	137	18.5%	99	16.5%
100	Elm Street - Wellington Station	14.1%	325	51.6%	710	41.0%	108	32.4%	134	24.8%	101	23.5%	95	14.8%	100	14.1%	90	2.8%	97	2.8%	99	2.8%
101	Malden Station - Sullivan Station Via Medford Square	7.3%	95	39.9%	94	25.4%	89	24.6%	80	22.3%	326	17.7%	96	15.9%	108	13.5%	104	12.5%	105	12.5%	99	12.0%
104	Malden Station - Sullivan Station Via Ferry Street	6.2%	105	64.0%	109	52.8%	97	32.8%	99	31.5%	106	28.4%	101	25.8%	110	20.3%	131	19.5%	136	19.5%	137	19.5%
105	Malden Station - Sullivan Station Via Main Street	12.7%	104	57.2%	106	52.4%	99	52.3%	97	26.3%	109	23.2%	101	23.0%	108	18.3%	411	18.2%	430	18.2%	131	17.4%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	19.5%	99	44.2%	105	40.5%	131	31.9%	108	29.6%	136	29.4%	137	29.4%	411	28.3%	430	28.3%	97	25.5%	104	19.6%
108	Linden Square - Wellington Station	8.2%	411	56.4%	430	44.4%	106	37.8%	101	24.5%	99	19.9%	100	19.1%	105	18.0%	134	17.9%	131	15.4%	136	15.4%
109	Linden Square - Sullivan Station	25.9%	104	55.3%	105	27.2%	109	25.9%	97	24.1%	110	21.5%	112	16.1%	108	14.7%	411	13.4%	119	11.8%	426	11.8%
110	Wonderland Station - Wellington Station	14.3%	112	29.4%	117	29.0%	411	27.6%	111	26.7%	97	21.6%	109	17.7%	104	17.5%	450	17.5%	455	17.5%	426	15.0%
111	Woodlawn or Bway & Park - Haymarket Station	16.5%	112	35.9%	116	31.7%	117	31.4%	110	28.5%	114	24.6%	111	16.5%	92	15.3%	93	15.3%	426	13.7%	428	13.7%
112	Wellington Station - Wood Island Station	21.0%	111	33.6%	110	29.4%	114	25.8%	116	21.5%	117	21.5%	112	21.0%	97	20.7%	109	13.3%	104	13.3%	99	11.7%
114	Bellingham Square or Mystic Mall - Maverick Station	0.0%	116	89.2%	117	89.2%	112	52.1%	111	46.5%	121	38.5%	120	33.8%	BL	12.8%						
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	72.3%	114	42.6%	411	35.4%	111	28.5%	112	20.6%	121	18.4%	119	17.7%	120	16.1%	426	11.4%	450	11.4%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	79.1%	114	46.6%	111	31.0%	110	30.6%	411	28.8%	112	22.6%	121	20.1%	450	18.4%	455	18.4%	120	17.7%
119	Northgate Shopping Center - Beachmont Station	29.6%	411	52.2%	119	29.6%	429	20.5%	116	19.2%	117	17.5%	426	15.4%	110	14.1%	428	11.3%	109	10.2%	108	9.2%
120	Orient Heights Station - Maverick Station	40.4%	121	43.5%	120	40.4%	114	23.6%	116	23.6%	117	23.6%	BL	14.4%	112	14.3%	448	7.5%	449	7.5%	450	7.5%
121	Wood Island Station - Maverick Station	3.9%	120	87.1%	114	53.7%	116	53.7%	117	53.7%	112	30.7%	BL	19.1%	121	3.9%						
131	Melrose Highlands - Malden Station	40.1%	136	56.8%	137	56.8%	131	40.1%	106	38.5%	99	16.7%	104	16.3%	105	16.3%	101	16.2%	108	14.6%	411	14.6%
132	Redstone Shopping Center - Malden Station	68.9%	132	68.9%	99	18.0%	131	18.0%	136	18.0%	137	18.0%	OL	12.0%	101	10.4%	106	9.8%	108	8.5%	104	8.1%
134	North Woburn - Wellington Station	51.8%	134	51.8%	710	21.9%	95	19.9%	326	19.6%	101	13.2%	108	11.3%	94	11.1%	354	9.7%	100	9.2%	96	5.0%
136	Reading Depot - Malden Station Via Lakeside	24.9%	137	75.1%	131	43.5%	106	27.1%	136	24.9%	99	12.8%	104	12.4%	105	12.4%	101	12.4%	108	11.2%	411	11.2%
137	Reading Depot - Malden Station Via North Ave	16.9%	136	83.1%	131	48.1%	106	30.0%	137	16.9%	99	14.2%	104	13.8%	105	13.8%	101	13.7%	108	12.4%	411	12.4%
170	Oak Park - Dudley Station (Limited Service)	2.3%	70	36.1%	553	28.3%	1	25.8%	554	23.2%	CT1	17.8%	8	17.8%	SL4	17.1%	SL5	17.1%	556	16.8%	505	16.2%
201	Fields Corner Station - Fields Corner Station	0.9%	202	99.1%	210	54.7%	18	25.4%	19	15.6%	15	14.8%	17	14.8%	215	13.2%	RL	8.4%	201	0.9%	ML	0.7%
202	Fields Corner Station - Fields Corner Station	0.2%	201	96.0%	210	52.9%	18	24.7%	215	16.5%	19	15.1%	15	14.3%	17	14.3%	RL	8.1%	ML	2.3%	202	0.2%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	10.5%	202	44.3%	201	44.3%	217	41.8%	211	40.7%	212	39.3%	18	17.3%	RL	15.4%	245	13.9%	19	12.7%	15	12.0%
211	Quincy Center Station - Squantum	24.3%	217	72.6%	212	40.9%	210	27.2%	211	24.3%	245	20.1%	215	17.6%	RL	8.2%	214	3.6%	216	3.6%	225	3.6%
212	Quincy Center Station - North Quincy Station	0.0%	211	100.0%	217	97.6%	210	64.3%	245	20.8%	215	17.4%	RL	9.3%	214	8.9%	216	8.9%	225	8.8%	220	8.6%
214	Quincy Center Station - Germantown	22.7%	216	77.3%	220	26.7%	221	26.7%	222	26.7%	214	22.7%	225	18.7%	215	18.1%	230	18.1%	238	18.1%	245	15.9%
215	Quincy Center Station - Ashmont Station	16.5%	217	43.9%	245	30.4%	238	26.1%	230	17.9%	211	16.9%	236	16.6%	215	16.5%	225	13.1%	240	10.5%	26	9.2%
216	Quincy Center Station - Houghs Neck	33.5%	214	66.5%	216	33.5%	220	23.0%	221	23.0%	222	23.0%	225	16.1%	215	15.6%	230	15.6%	238	15.6%	245	13.7%
217	Wollaston Sta. - Ashmont Sta. via Wollaston Beach	10.3%	211	54.3%	245	36.8%	215	34.1%	212	29.8%	210	20.9%	240	12.7%	24	10.8%	27	10.8%	217	10.3%	RL	7.4%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
220	Quincy Center Station - Hingham	42.8%	221	52.6%	222	48.1%	220	42.8%	214	12.5%	216	12.5%	225	11.5%	215	8.7%	230	8.7%	238	8.7%	236	7.5%
221	Quincy Center Station - Fort Point	14.5%	220	85.5%	222	78.1%	214	20.2%	216	20.2%	225	18.7%	221	14.5%	215	14.1%	230	14.1%	238	14.1%	236	12.2%
222	Quincy Center Station - East Weymouth	54.7%	222	54.7%	220	45.3%	221	45.3%	214	11.7%	216	11.7%	225	10.8%	215	8.2%	230	8.2%	238	8.2%	236	7.1%
225	Quincy Center Station - Weymouth Landing	82.8%	225	82.8%	215	14.5%	230	14.5%	238	14.5%	236	13.3%	220	11.0%	221	11.0%	222	11.0%	245	9.3%	214	8.4%
230	Quincy Center Station - Montello Station	69.2%	230	69.2%	236	29.0%	215	19.6%	238	19.0%	225	14.3%	245	10.1%	220	8.3%	221	8.3%	222	8.3%	214	8.0%
236	Quincy Center Station - South Shore Plaza	46.1%	236	46.1%	230	38.9%	238	38.3%	215	24.4%	225	17.6%	245	13.1%	220	9.6%	221	9.6%	222	9.6%	214	9.2%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	45.1%	238	45.1%	240	26.3%	236	22.5%	215	22.5%	230	15.0%	225	11.3%	245	8.0%	220	6.5%	221	6.5%	222	6.5%
240	Avon Line - Ashmont Station	38.5%	240	38.5%	238	29.2%	245	16.6%	217	15.7%	24	15.4%	27	15.4%	215	10.1%	21	8.4%	26	6.5%	ML	6.3%
245	Quincy Center Station - Mattapan Station	36.4%	217	37.8%	245	36.4%	215	24.2%	211	15.5%	240	13.8%	238	7.4%	716	7.4%	230	7.3%	210	7.1%	236	7.1%
275	Downtown Boston - Long Island Health Campus	2.1%	11	57.3%	SL5	55.6%	SL4	55.2%	9	33.2%	555	32.9%	504	32.8%	43	27.5%	8	26.7%	OL	26.2%	47	22.9%
276	Boston City Hospital - Long Island Health Campus	0.0%	SL4	56.3%	7	50.6%	11	50.6%	SL5	50.6%	555	49.5%	504	49.5%	OL	46.1%	1	43.1%	8	43.1%	10	43.1%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0%	43	86.9%	1	55.0%	170	55.0%	CT1	55.0%	SL5	40.1%	GL	36.4%	55	31.9%	RL	31.8%	OL	27.0%	SL4	25.8%
325	Elm Street - Haymarket Station	0.0%	100	58.7%	101	39.6%	95	33.9%	710	28.2%	326	25.4%	4	24.3%	92	24.3%	93	24.3%	OL	21.5%	GL	20.3%
326	West Medford - Haymarket Station	0.0%	95	79.4%	101	51.2%	134	49.7%	94	47.4%	325	21.1%	4	20.1%	92	20.1%	93	20.1%	354	20.0%	355	20.0%
350	North Burlington - Alewife Station	31.3%	350	31.3%	79	26.6%	77	24.3%	352	18.4%	351	13.8%	354	11.4%	87	9.5%	67	7.3%	80	5.9%	62	2.3%
351	Oak Park - Alewife Station	40.2%	350	46.8%	351	40.2%	62	10.1%	67	10.1%	76	10.1%	84	10.1%	79	7.8%	354	6.6%	RL	4.0%	83	2.1%
352	Burlington - State Street	0.0%	350	64.5%	354	35.6%	355	35.5%	BL	34.7%	92	28.4%	93	28.4%	4	26.4%	OL	26.1%	GL	21.9%	325	16.7%
354	Woburn Line - State Street	37.5%	354	37.5%	355	37.0%	134	16.0%	350	16.0%	352	14.3%	BL	13.9%	326	13.1%	92	11.3%	93	11.3%	4	10.6%
355	Mishawum Station - State Street	8.5%	354	91.5%	352	35.1%	BL	34.4%	326	32.5%	92	28.1%	93	28.1%	4	26.2%	OL	25.8%	GL	21.7%	325	19.0%
411	Malden Station - Revere/Jack Satter House	2.9%	108	36.0%	430	32.9%	119	32.5%	426	24.4%	116	23.9%	106	23.0%	110	17.9%	117	17.8%	450	17.5%	455	17.5%
424	Eastern & Essex - Haymarket or Wonderland	0.0%	450	83.7%	434	68.4%	455	60.9%	459	52.2%	426	48.2%	456	39.7%	441	34.1%	442	34.1%	436	27.6%	411	17.8%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	7.0%	455	55.7%	459	46.3%	450	43.4%	428	39.5%	441	35.7%	442	35.7%	424	33.9%	434	31.0%	429	30.9%	411	24.3%
428	Oaklandvale - Haymarket Station via Granada Highlands	23.1%	426	57.2%	429	30.0%	430	28.9%	428	23.1%	411	16.9%	108	12.6%	92	12.0%	93	12.0%	111	12.0%	4	10.6%
429	Northgate Shopping Center - Central Sq. Lynn	33.2%	426	34.1%	429	33.2%	428	22.8%	435	19.0%	430	18.8%	455	17.7%	459	17.6%	436	17.1%	441	16.1%	442	16.1%
430	Saugus, Appleton Street - Malden Station	13.1%	411	47.6%	108	41.0%	106	33.3%	428	29.0%	429	24.8%	105	16.5%	131	14.3%	136	14.3%	137	14.3%	104	14.0%
431	Neptune Towers - Central Sq. Lynn	13.9%	455	77.0%	459	76.6%	441	75.9%	442	75.9%	456	75.4%	429	65.5%	436	65.4%	435	58.1%	426	55.7%	448	42.3%
434	Peabody - Haymarket Station	4.3%	436	52.4%	424	49.9%	450	49.9%	455	36.3%	459	32.6%	426	32.0%	435	29.1%	441	21.8%	442	21.8%	456	12.6%
435	Liberty Tree Mall - Central Sq. Lynn	26.3%	465	36.8%	436	26.4%	435	26.3%	434	24.5%	429	15.0%	456	10.5%	424	10.4%	450	10.4%	468	10.2%	455	9.7%
436	Danvers Sq. - Central Sq. Lynn	13.7%	434	53.9%	455	36.2%	459	36.2%	456	32.6%	435	32.2%	441	28.7%	442	28.7%	426	24.6%	424	20.7%	450	20.7%
439	Bass Point Nahant - Central Sq. Lynn	31.6%	441	52.0%	448	51.9%	442	51.5%	449	51.4%	439	31.6%	455	14.4%	459	14.4%	456	11.8%	436	10.5%	429	9.1%
441	Marblehead – Haymarket/Wonderland Sta. via Paradise	0.0%	442	90.4%	448	79.3%	449	69.7%	455	32.9%	439	29.1%	459	28.0%	426	27.6%	456	21.6%	436	20.9%	424	18.6%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	0.0%	441	90.6%	449	79.2%	448	69.8%	455	30.8%	439	28.8%	426	27.7%	459	25.9%	456	21.7%	436	20.9%	424	18.6%
448	Marblehead - Downtown Crossing	0.0%	449	90.3%	441	79.8%	442	70.1%	459	31.1%	439	29.2%	455	18.5%	426	12.3%	4	11.6%	450	10.9%	411	9.7%
449	Marblehead - Downtown Crossing	0.0%	448	90.5%	442	79.7%	441	70.3%	439	29.0%	459	29.0%	455	16.3%	426	12.3%	4	11.6%	450	10.9%	411	9.7%
450	Salem Depot – Haymarket/Wonderland Station	0.0%	455	57.1%	424	55.5%	459	47.3%	456	47.2%	434	45.4%	426	40.8%	441	22.6%	442	22.6%	436	18.3%	411	16.4%
451	North Beverly - Salem Depot	29.2%	451	29.2%	455	19.8%	459	19.8%	450	14.3%	456	14.3%	465	14.3%	468	14.3%						
455	Salem Depot - Haymarket or Wonderland Station	0.1%	459	91.4%	450	46.1%	426	42.3%	456	37.9%	424	32.6%	441	32.3%	442	30.2%	434	26.6%	436	25.9%	448	18.0%
456	Salem Depot - Central Sq. Lynn	0.5%	450	58.2%	455	57.9%	459	57.9%	436	35.6%	424	32.4%	441	32.4%	442	32.4%	426	26.8%	465	17.8%	429	16.1%
459	Salem Depot - Downtown Crossing	0.1%	455	86.2%	450	36.0%	456	35.7%	426	33.1%	448	28.6%	449	26.6%	424	26.3%	441	25.9%	436	24.4%	442	23.9%
465	Liberty Tree Mall - Salem Depot	8.1%	435	67.3%	468	34.2%	450	24.5%	456	24.5%	451	15.5%	455	15.5%	459	15.5%	436	12.6%	465	8.1%	434	4.3%
468	Danvers Square - Salem Depot (Limited Service)	50.3%	468	50.3%	465	49.7%	435	27.1%	450	22.6%	451	22.6%	455	22.6%	456	22.6%	459	22.6%				
500	Riverside Station - Federal & Franklin Streets	0.0%	555	100.0%	558	100.0%	501	90.2%	504	90.2%	505	90.2%	553	90.2%	554	90.2%	556	90.2%	7	76.4%	448	68.9%
501	Brighton Center - Federal & Franklin Streets	0.0%	503	75.4%	57	67.9%	64	35.3%	504	27.3%	553	27.2%	554	27.2%	555	27.2%	556	27.2%	558	27.2%	500	22.7%
502	Watertown Yard - Copley Square	0.0%	504	100.0%	57	65.5%	52	65.5%	555	65.4%	503	48.9%	170	33.9%	39	33.8%	10	33.2%	9	32.9%	553	30.9%
503	Brighton Center - Copley	0.0%	501	87.1%	57	78.2%	64	38.7%	66	22.9%	86	18.5%	502	18.3%	504	18.3%	555	18.2%	65	16.7%	170	12.7%
504	Watertown Yard - Federal & Franklin Streets	0.0%	555	85.0%	553	43.8%	554	43.8%	556	43.8%	558	43.8%	502	43.5%	55	42.6%	501	36.6%	9	34.9%	GL	33.7%
505	Waltham Center - Federal & Franklin Streets	6.6%	554	68.8%	553	67.3%	558	58.7%	556	49.5%	170	44.3%	555	40.1%	500	24.2%	501	24.2%	504	24.2%	7	20.5%
505	Waltham Center - Federal & Franklin Streets	6.6%	554	68.8%	553	67.3%	558	58.7%	556	49.5%	170	44.3%	555	40.1%	500	24.2%	501	24.2%	504	24.2%	7	20.5%
553	Roberts - Federal & Franklin Streets	15.2%	554	73.7%	556	54.9%	555	44.2%	170	43.5%	558	39.5%	505	37.9%	504	19.7%	501	16.4%	70	16.2%	553	15.2%
554	Waverley Square - Federal & Franklin Streets	33.5%	553	59.9%	556	37.7%	555	35.9%	554	33.5%	558	32.0%	505	31.5%	170	29.0%	504	16.0%	501	13.3%	500	11.1%
555	Riverside Sta. - Federal & Franklin Streets Via Newton	0.0%	553	61.5%	554	61.5%	504	53.1%	556	44.6%	558	37.5%	505	31.4%	55	27.0%	501	22.8%	GL	22.5%	9	21.9%
556	Waltham Highlands - Federal & Franklin Streets	29.7%	553	61.6%	554	52.1%	558	38.7%	555	35.9%	505	31.3%	556	29.7%	170	29.1%	504	22.1%	70	19.9%	501	18.4%
558	Auburndale - Federal & Franklin Streets	33.0%	553	49.0%	554	48.8%	556	42.8%	505	41.0%	555	33.4%	558	33.0%	504	24.4%	501	20.3%	500	18.8%	170	17.0%
CT1	Central Square Cambridge. - South End Medical Area	0.0%	1	94.8%	170	53.6%	47	42.8%	8	30.1%	64	24.8%	70	24.8%	GL	23.9%	CT3	23.0%	SL4	20.2%	SL5	20.2%
CT2	Sullivan Station - Kendall MIT Station	4.2%	47	71.0%	19	46.2%	8	46.1%	GL	45.7%	CT3	40.8%	39	26.9%	60	18.4%	65	18.4%	57	15.9%	64	13.0%
CT2	Kendall MIT Station - Ruggles Station	0.0%	85	65.9%	91	59.4%	86	52.4%	64	28.5%	68	28.5%	87	24.7%	69	18.6%	90	17.8%	80	16.1%	88	14.2%
CT3	Longwood Medical Area - Andrew Station	0.0%	8	89.5%	47	78.5%	19	53.2%	10	43.8%	CT2	37.6%	1	35.2%	170	30.4%	SL5	29.6%	SL4	29.6%	CT1	28.6%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
SL1	Logan Airport - South Station	9.7%	4	81.2%	SL2	79.6%	SLW	79.5%	459	76.8%	448	75.5%	449	75.5%	7	46.7%	11	37.6%	SL4	32.0%	RL	30.4%
SL2	Boston Marine Industrial Park - South Station	10.5%	4	87.4%	SL1	69.2%	SLW	69.1%	459	57.6%	448	56.5%	449	56.5%	7	46.7%	11	32.4%	SL4	27.9%	RL	26.5%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	4	96.9%	459	83.0%	448	81.3%	449	81.3%	7	58.8%	11	46.9%	SL4	40.3%	RL	38.3%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	89.1%	170	57.7%	8	57.0%	47	43.6%	1	42.1%	11	40.8%	43	39.7%	CT3	26.7%	10	24.7%	555	24.1%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	94.8%	170	61.3%	8	60.6%	43	47.4%	47	46.4%	1	44.7%	11	33.8%	CT3	28.4%	10	26.2%	19	24.3%
BL	Blue Line	10.8%	4	33.3%	352	27.5%	354	27.5%	355	27.5%	92	27.2%	93	27.2%	117	26.5%	OL	22.3%	120	21.8%	GL	18.8%
GL	Green Line	20.0%	39	21.9%	GL	20.0%	55	16.3%	66	14.5%	65	14.1%	57	13.9%	170	10.9%	9	10.8%	OL	10.4%	CT2	9.6%
ML	Mattapan Line	30.4%	24	38.2%	27	38.2%	240	37.1%	ML	30.4%	215	23.7%	245	18.5%	28	18.4%	29	18.4%	30	18.4%	31	18.4%
OL	Orange Line	3.3%	92	33.0%	93	28.9%	GL	28.8%	4	26.3%	555	22.4%	504	21.9%	43	19.0%	11	15.6%	SL5	15.0%	55	14.1%
RL	Red Line	10.3%	96	18.9%	18	18.2%	11	16.0%	83	14.6%	1	13.8%	87	12.7%	77	12.7%	47	12.3%	64	12.3%	17	12.1%

Table A-4
Unique and Overlap Coverage Percentages by Route for the One-Third-Mile Coverage Threshold

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
1	Harvard Square - Dudley Station via Mass. Ave.	1.7%	CT1	61.4%	170	49.5%	47	41.8%	8	33.3%	SL4	26.0%	SL5	26.0%	68	24.5%	64	22.2%	CT3	21.1%	GL	20.2%
4	North Station - World Trade Center	6.3%	7	46.9%	92	46.9%	93	46.8%	OL	42.5%	SL2	41.4%	459	41.2%	448	41.0%	449	41.0%	GL	36.7%	SL1	34.3%
5	City Point - McCormack Housing	0.0%	10	90.4%	11	72.4%	9	64.4%	7	35.5%	16	32.9%	RL	23.0%	18	17.4%	17	15.4%	CT3	12.6%	8	9.1%
7	City Point - Otis & Summer Streets	0.3%	11	64.6%	4	54.1%	448	43.0%	449	43.0%	459	43.0%	9	38.4%	5	36.7%	10	36.7%	SL2	34.4%	555	33.9%
8	Harbor Point /U Mass - Kenmore Station	0.0%	47	55.5%	19	46.6%	CT3	45.6%	170	34.2%	SL5	31.4%	SL4	31.4%	1	31.3%	10	28.7%	41	27.3%	16	24.4%
9	City Point - Copley Square via Broadway Station	1.4%	11	57.7%	10	55.7%	55	37.1%	170	36.9%	5	35.5%	39	32.2%	GL	30.9%	43	24.9%	555	23.8%	504	23.7%
10	City Point - Copley Square Via BU Med Center	0.0%	9	55.6%	5	49.8%	11	42.8%	170	35.9%	8	33.4%	CT3	27.6%	SL5	20.0%	SL4	20.0%	43	19.9%	7	19.5%
11	City Point - Downtown	6.1%	9	64.2%	10	47.8%	5	44.5%	7	38.3%	SL4	30.2%	SL5	25.0%	RL	24.7%	555	22.3%	504	22.0%	275	20.3%
14	Roslindale Square - Heath Street Loop	9.2%	28	48.0%	23	40.1%	45	37.6%	19	37.4%	44	32.9%	29	29.5%	22	28.8%	41	26.9%	30	21.7%	66	15.6%
15	Kane Square - Ruggles Station	0.0%	41	52.3%	19	50.4%	17	49.5%	45	45.0%	23	36.6%	28	30.7%	44	29.7%	8	28.5%	47	22.1%	18	21.2%
16	Forest Hills Station - U Mass.	3.6%	17	36.7%	8	31.1%	41	24.5%	5	19.8%	18	19.8%	15	19.4%	10	18.3%	45	16.6%	19	14.9%	14	14.7%
17	Fields Corner Station - Andrew Station	0.0%	15	73.9%	18	55.4%	16	54.4%	19	34.5%	41	28.3%	RL	25.8%	201	19.9%	202	19.9%	210	19.9%	8	18.9%
18	Ashmont Station - Andrew Station	9.6%	17	48.4%	RL	39.3%	201	30.8%	202	30.7%	15	27.7%	16	25.6%	210	24.3%	23	21.3%	19	18.5%	22	18.3%
19	Fields Corner Station - Ruggles or Kenmore Station	0.0%	23	54.2%	28	46.8%	8	46.3%	45	41.0%	14	40.0%	15	39.6%	47	39.5%	44	32.6%	CT3	27.8%	747	21.6%
21	Ashmont Station - Forest Hills Station	0.0%	26	54.3%	31	51.2%	28	23.6%	29	23.6%	24	22.5%	27	22.5%	240	22.0%	217	21.8%	16	20.6%	215	18.8%
22	Ashmont Station - Ruggles Station Via Talbot Ave	3.5%	29	70.3%	23	49.4%	44	43.2%	14	39.2%	28	37.9%	45	29.7%	26	24.5%	19	20.5%	41	18.3%	42	18.1%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	8.1%	19	63.5%	28	59.6%	45	51.8%	14	50.3%	22	45.5%	44	42.2%	15	33.7%	29	25.2%	26	21.2%	66	19.3%
24	Wakefield Ave. - Mattapan Station or Ashmont	25.6%	27	39.6%	33	37.8%	24	25.6%	240	23.5%	217	21.0%	ML	15.0%	21	14.5%	32	14.3%	26	13.3%	215	12.1%
26	Ashmont Station - Norfolk & Wash. Belt	10.8%	21	56.9%	22	41.4%	23	38.9%	215	26.2%	18	23.7%	24	21.6%	27	21.6%	240	21.0%	217	20.8%	26	10.8%
27	Mattapan Station - Ashmont Station	0.0%	24	100.0%	240	59.3%	217	53.1%	ML	37.8%	21	36.7%	26	33.6%	215	30.6%	28	21.1%	29	21.1%	31	21.1%
28	Mattapan Station - Ruggles Station	0.0%	29	67.5%	14	56.2%	23	55.8%	45	52.6%	19	51.3%	44	40.1%	22	32.7%	31	29.3%	15	26.5%	66	18.1%
29	Mattapan Station - Jackson Sq. Station	0.7%	28	69.6%	22	62.4%	44	40.5%	14	35.7%	31	30.2%	45	28.5%	23	24.3%	19	20.5%	41	17.1%	42	16.9%
30	Mattapan Station - Roslindale Square	23.9%	14	43.0%	35	34.4%	36	34.4%	37	34.4%	51	34.4%	50	33.4%	34	31.5%	40	31.5%	30	23.9%	32	22.4%
31	Mattapan Station - Forest Hills Station	0.0%	28	66.4%	29	66.4%	21	61.8%	30	27.5%	16	24.9%	24	21.5%	716	19.5%	33	19.3%	245	18.2%	27	15.6%
32	Wolcott Square or Cleary Square - Forest Hills Station	26.4%	14	29.1%	33	28.2%	32	26.4%	50	24.5%	30	23.2%	24	20.7%	34	9.1%	36	9.1%	16	8.4%	21	8.4%
33	River & Milton Streets - Mattapan Station	21.5%	24	49.2%	32	25.3%	33	21.5%	50	15.8%	30	15.7%	40	13.9%	28	13.7%	29	13.4%	31	13.4%	716	13.3%
34	Dedham Line - Forest Hills Station	58.7%	34	58.7%	40	22.1%	35	21.7%	50	13.9%	36	12.5%	37	10.9%	30	10.1%	51	10.1%	14	5.4%	38	4.1%
35	Dedham Mall - Forest Hills Station	11.2%	36	61.9%	37	57.5%	34	47.9%	38	35.5%	51	30.8%	40	24.4%	30	24.4%	50	23.9%	14	14.0%	35	11.2%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	4.4%	35	75.7%	37	70.8%	38	45.9%	51	36.5%	34	33.6%	30	29.9%	40	29.5%	50	29.2%	52	17.5%	14	17.2%
37	Baker & Vermont Streets - Forest Hills Station	9.1%	36	63.8%	35	63.3%	38	58.2%	51	41.3%	30	26.9%	34	26.5%	40	26.5%	50	26.3%	14	15.5%	52	14.5%
38	Wren Street - Forest Hills Station	21.2%	37	48.8%	36	34.6%	35	32.8%	51	23.7%	38	21.2%	39	20.9%	52	10.6%	48	9.9%	41	9.4%	34	8.4%
39	Forest Hills Station - Back Bay Station	1.1%	GL	53.7%	170	35.0%	55	31.6%	9	29.9%	CT1	24.5%	41	23.4%	48	22.4%	OL	20.2%	38	18.7%	66	17.5%
40	Georgetowne - Forest Hills Station	4.9%	34	78.1%	50	49.0%	35	39.1%	36	38.6%	37	38.6%	30	35.8%	51	35.8%	14	19.2%	33	17.0%	38	9.2%
41	Centre & Eliot Streets - JFK U Mass Station	0.1%	15	47.2%	14	33.0%	48	31.9%	45	31.6%	8	31.1%	44	25.2%	39	24.6%	16	21.9%	23	18.8%	28	18.8%
42	Forest Hills Station - Ruggles Station	12.1%	44	58.2%	14	34.4%	41	32.0%	29	31.1%	48	30.5%	22	29.6%	23	27.8%	28	27.8%	19	27.0%	15	23.1%
43	Ruggles Station - Park & Tremont Streets	0.2%	SL5	51.5%	170	50.8%	SL4	47.5%	55	46.7%	OL	36.7%	8	36.3%	9	34.9%	GL	33.6%	555	31.1%	504	30.8%
44	Jackson Sq. Station - Ruggles Station	1.5%	28	60.2%	23	59.2%	29	59.0%	14	57.9%	22	55.8%	19	53.5%	45	49.1%	42	45.9%	15	38.4%	41	36.2%
45	Franklin Park - Ruggles Station	3.3%	28	76.0%	23	70.0%	19	64.9%	14	63.7%	15	56.0%	44	47.3%	41	43.7%	29	40.0%	22	37.0%	8	28.9%
47	Central Square Cambridge. - Broadway Station	3.6%	8	56.3%	19	40.3%	CT3	40.1%	1	39.9%	CT2	32.3%	CT1	29.5%	SL4	27.6%	SL5	27.6%	170	27.3%	64	22.8%
48	Centre & Eliot Streets - Jamaica Plain Loop	0.4%	41	65.2%	39	48.2%	42	34.3%	OL	31.8%	22	29.8%	29	29.8%	44	29.5%	38	19.2%	14	15.0%	48	0.4%
50	Cleary Sq. - Forest Hills Station Via Metropolitan	25.0%	34	49.4%	40	49.4%	35	38.5%	36	38.5%	37	38.5%	30	38.3%	51	36.1%	32	27.0%	50	25.0%	14	22.1%
51	Cleveland Circle - Forest Hills Station	43.7%	51	43.7%	37	30.6%	35	25.2%	36	24.4%	38	21.0%	30	19.9%	34	18.3%	40	18.3%	50	18.3%	14	11.5%
52	Dedham Mall - Watertown Yard	55.7%	52	55.7%	57	14.2%	502	12.8%	504	12.8%	59	12.3%	36	8.9%	37	8.1%	553	7.2%	554	7.2%	556	7.2%
55	Queensberry Street - Park & Tremont Streets	2.0%	GL	69.9%	9	53.0%	170	50.3%	39	48.6%	43	47.6%	555	41.6%	504	41.5%	OL	26.5%	1	25.0%	CT1	23.1%
57	Watertown Yard - Kenmore Station	0.6%	501	53.7%	503	53.5%	GL	36.7%	64	25.0%	52	20.4%	65	19.5%	502	18.3%	504	18.3%	66	17.7%	86	14.8%
59	Needham Junction - Watertown Square	64.8%	59	64.8%	52	13.3%	556	12.4%	553	9.7%	554	9.7%	555	9.2%	558	7.8%	70	6.3%	71	6.3%	57	6.1%
60	Chestnut Hill - Kenmore Station	36.9%	65	44.3%	GL	38.3%	60	36.9%	8	27.0%	19	27.0%	47	17.0%	66	16.9%	CT2	14.1%	39	12.3%	CT3	10.4%
62	Bedford V.A. Hospital - Alewife Station	25.8%	76	44.3%	78	32.4%	84	31.3%	62	25.8%	67	12.1%	79	8.9%	77	6.5%	351	3.1%	350	2.4%	RL	1.9%
64	Oak Square - University Pk. Cambridge	9.7%	70	30.1%	501	29.7%	503	29.1%	68	27.2%	47	24.6%	57	23.7%	1	22.9%	91	19.3%	83	18.9%	85	18.6%
65	Brighton Center - Kenmore Station	5.4%	GL	59.8%	60	47.3%	8	28.8%	19	28.8%	57	26.1%	66	24.1%	47	18.1%	501	16.2%	503	16.0%	86	15.3%
66	Harvard Square - Dudley Station via Brookline	5.2%	GL	39.8%	86	19.5%	19	17.8%	14	17.4%	44	17.2%	15	17.2%	23	17.2%	28	17.2%	45	17.2%	1	16.7%
67	Turkey Hill - Alewife Station	45.6%	67	45.6%	79	30.5%	62	26.7%	76	26.4%	84	26.4%	77	25.1%	350	20.3%	78	15.1%	80	9.9%	87	8.3%
68	Harvard Square - Kendall MIT Station	0.0%	64	58.9%	69	56.4%	1	54.7%	85	40.3%	RL	35.6%	CT2	33.3%	83	33.1%	91	30.4%	72	27.6%	86	26.2%
69	Harvard Square - Lechmere Station	6.0%	68	50.5%	86	33.9%	1	31.8%	83	29.6%	85	26.4%	91	25.8%	72	25.8%	87	24.3%	CT2	22.1%	80	21.6%
70	Cedarwood - Central Square Cambridge	35.0%	70	35.0%	170	33.7%	64	15.1%	556	11.4%	553	10.6%	47	9.9%	1	9.9%	CT1	8.3%	86	8.0%	71	6.5%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
71	Watertown Square - Harvard Station	25.1%	73	55.6%	72	35.6%	75	25.2%	71	25.1%	74	20.5%	78	20.5%	70	18.5%	77	18.3%	96	18.3%	86	15.1%
72	Aberdeen & Mt. Auburn - Harvard Station	4.9%	75	66.7%	74	58.2%	78	58.2%	71	52.3%	73	51.2%	86	31.1%	77	29.0%	96	29.0%	69	27.9%	68	26.8%
73	Waverley Square - Harvard Station	34.7%	71	53.4%	73	34.7%	72	33.5%	75	24.1%	74	19.1%	78	19.1%	77	17.1%	96	17.1%	86	13.9%	66	13.0%
74	Belmont Center - Harvard Station via Concord Ave	0.0%	75	91.6%	78	68.5%	72	47.0%	71	24.4%	73	23.7%	77	23.4%	96	23.4%	86	17.7%	66	16.6%	1	13.1%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	1.3%	74	90.1%	78	59.1%	72	53.1%	71	29.4%	73	29.4%	77	23.0%	96	23.0%	86	17.4%	66	16.3%	1	12.9%
76	Hanscom Air Force Base - Alewife Station	15.6%	62	54.0%	84	37.3%	78	31.3%	76	15.6%	67	14.5%	351	3.8%	79	3.0%	350	3.0%	RL	2.3%	83	1.3%
77	Arlington Heights - Harvard Station	0.7%	79	55.2%	96	35.1%	87	29.7%	350	28.9%	83	22.4%	78	21.6%	RL	18.1%	67	14.1%	72	13.7%	74	13.6%
78	Arlmont Village - Harvard Station	7.1%	84	44.0%	62	40.7%	74	40.4%	75	35.5%	76	32.3%	72	27.8%	77	21.9%	71	14.4%	73	14.0%	96	13.8%
79	Arlington Heights - Alewife Station	0.0%	77	94.8%	350	54.8%	67	29.4%	87	24.6%	62	19.0%	80	14.4%	78	13.9%	84	8.2%	76	5.2%	351	5.2%
80	Arlington Center - Lechmere Station	5.9%	101	43.6%	89	35.0%	94	32.7%	88	32.5%	87	25.7%	90	24.4%	96	18.0%	69	10.1%	86	9.9%	91	9.9%
83	Rindge Ave. - Central Square, Cambridge	5.9%	91	37.4%	87	33.9%	77	31.6%	RL	29.2%	64	26.4%	96	22.4%	68	21.3%	69	21.3%	85	19.1%	1	19.1%
84	Arlmont Loop - Alewife Station	0.0%	78	86.8%	62	77.6%	76	75.8%	67	29.5%	79	9.6%	351	7.6%	350	6.1%	RL	4.6%	77	3.5%	83	2.6%
85	Spring Hill - Kendall MIT Station	0.0%	CT2	65.4%	64	40.4%	68	40.4%	91	38.8%	87	35.9%	83	29.7%	69	29.5%	88	28.1%	86	23.7%	90	23.7%
86	Sullivan Station - Cleveland Circle	1.2%	91	26.4%	CT2	22.2%	66	19.3%	69	16.3%	70	14.9%	90	14.5%	501	13.9%	503	13.9%	72	13.8%	87	13.4%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	5.9%	88	60.4%	77	31.8%	89	30.2%	80	30.0%	90	27.5%	83	25.8%	96	22.3%	85	17.6%	RL	17.1%	79	15.3%
88	Clarendon Hill - Lechmere Station via Highland Avenue	0.0%	87	72.0%	90	60.4%	80	45.2%	89	42.7%	96	20.8%	94	18.3%	85	16.4%	RL	14.7%	69	14.1%	83	13.8%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	0.4%	101	50.5%	80	46.2%	90	44.1%	88	40.4%	87	34.0%	94	24.6%	96	24.5%	95	18.1%	92	12.9%	RL	11.9%
90	Davis Square Station - Wellington Station	0.0%	88	62.2%	89	48.0%	80	35.1%	87	33.8%	101	28.7%	92	24.6%	86	20.2%	96	20.0%	95	19.8%	91	19.1%
91	Sullivan Station - Central Square, Cambridge	0.0%	CT2	54.8%	86	54.2%	83	51.4%	64	37.1%	85	34.3%	90	28.0%	68	26.9%	1	25.8%	69	25.5%	87	22.7%
92	Assembly Square Mall - Downtown Via Main Street	0.2%	93	76.1%	OL	45.8%	4	37.4%	GL	29.6%	90	26.0%	BL	22.1%	325	21.1%	326	21.1%	111	18.5%	352	18.3%
93	Sullivan Station - Downtown Via Bunker Hill	5.9%	92	83.5%	OL	43.8%	4	41.0%	GL	32.6%	BL	24.2%	325	23.2%	326	23.2%	111	20.4%	352	20.1%	354	20.1%
94	Medford Square - Davis Square Station	0.0%	101	63.9%	96	56.9%	80	51.1%	95	39.8%	326	39.7%	89	29.1%	134	25.5%	88	20.5%	87	19.6%	90	18.9%
95	West Medford - Sullivan Station	5.9%	101	74.4%	326	43.8%	134	31.5%	94	28.2%	325	17.0%	90	15.3%	89	15.2%	710	15.1%	96	14.7%	92	13.1%
96	Medford Sq. - Harvard Station	0.0%	94	50.3%	77	44.5%	101	33.8%	RL	29.6%	87	26.3%	89	25.7%	80	24.9%	88	20.6%	83	20.1%	90	19.3%
97	Malden Station - Wellington Station	3.3%	99	62.7%	106	60.9%	104	60.1%	105	55.1%	110	38.9%	112	35.0%	109	34.8%	108	21.2%	101	16.1%	131	13.6%
99	Boston Reg. Med Center Stoneham - Wellington Station	12.4%	106	61.2%	105	56.9%	97	45.6%	104	35.9%	101	26.4%	108	25.4%	131	22.5%	136	22.5%	137	22.5%	132	18.7%
100	Elm Street - Wellington Station	7.8%	325	55.9%	710	49.1%	108	38.6%	101	29.9%	134	24.4%	95	20.6%	100	7.8%	99	2.8%	97	2.7%	90	2.5%
101	Malden Station - Sullivan Station Via Medford Square	3.0%	95	47.0%	80	30.5%	94	28.6%	89	26.8%	326	19.4%	96	17.1%	108	15.7%	104	14.2%	105	14.2%	134	14.0%
104	Malden Station - Sullivan Station Via Ferry Street	1.7%	105	69.1%	109	55.2%	97	45.9%	99	37.7%	106	36.2%	101	28.8%	110	26.0%	131	21.5%	136	21.5%	137	21.5%
105	Malden Station - Sullivan Station Via Main Street	6.2%	104	64.3%	106	59.2%	99	55.5%	97	39.1%	109	29.6%	101	26.8%	108	24.0%	411	23.9%	430	23.9%	131	20.1%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	16.2%	99	44.2%	105	43.9%	131	36.3%	136	33.4%	137	33.4%	108	32.2%	97	32.0%	411	31.0%	430	31.0%	104	25.0%
108	Linden Square - Wellington Station	2.0%	411	61.2%	430	49.1%	106	42.3%	101	28.9%	99	24.1%	100	23.8%	105	23.4%	131	18.5%	136	18.5%	137	18.5%
109	Linden Square - Sullivan Station	18.8%	104	56.8%	105	32.7%	97	27.4%	110	27.3%	112	18.9%	109	18.8%	108	18.2%	411	16.8%	428	13.0%	119	12.9%
110	Wonderland Station - Wellington Station	10.1%	112	31.0%	117	29.4%	111	29.3%	411	28.4%	97	25.2%	109	22.6%	104	22.2%	119	19.0%	450	18.7%	455	18.7%
111	Woodlawn or Bway & Park - Haymarket Station	9.5%	112	40.2%	116	35.7%	117	35.3%	110	32.2%	114	26.2%	92	16.2%	93	16.2%	4	16.0%	426	15.0%	428	14.8%
112	Wellington Station - Wood Island Station	11.8%	111	38.1%	110	32.3%	114	27.4%	116	25.9%	117	25.9%	97	23.7%	109	16.2%	104	16.2%	99	14.5%	106	14.5%
114	Bellingham Square or Mystic Mall - Maverick Station	0.0%	116	91.0%	117	91.0%	112	55.3%	111	50.2%	121	41.1%	120	37.2%	BL	16.7%						
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	74.8%	114	44.5%	411	36.6%	111	33.4%	112	25.6%	119	21.1%	121	20.1%	120	18.2%	426	15.1%	450	15.1%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	80.8%	114	48.1%	111	35.8%	110	32.6%	411	31.3%	112	27.7%	119	22.9%	121	21.7%	450	20.7%	455	20.7%
119	Northgate Shopping Center - Beachmont Station	21.3%	411	58.0%	429	23.5%	117	22.7%	116	22.5%	426	21.9%	119	21.3%	110	20.9%	111	12.4%	428	12.4%	109	11.8%
120	Orient Heights Station - Maverick Station	29.3%	121	48.8%	120	29.3%	114	28.6%	116	28.6%	117	28.6%	BL	24.3%	112	18.3%	450	10.0%	455	10.0%	459	10.0%
121	Wood Island Station - Maverick Station	0.8%	120	91.2%	114	59.0%	116	59.0%	117	59.0%	112	36.0%	BL	27.9%	426	1.7%	450	1.7%	455	1.7%	459	1.7%
131	Melrose Highlands - Malden Station	33.9%	136	62.5%	137	62.5%	106	45.5%	131	33.9%	132	20.5%	99	20.4%	105	18.6%	101	18.6%	104	18.6%	108	17.7%
132	Redstone Shopping Center - Malden Station	63.2%	132	63.2%	131	25.9%	136	25.9%	137	25.9%	99	21.5%	OL	15.8%	106	14.9%	101	14.0%	108	11.8%	104	11.2%
134	North Woburn - Wellington Station	48.4%	134	48.4%	710	23.0%	95	22.9%	326	21.9%	101	16.2%	94	13.1%	354	12.0%	108	10.5%	100	9.4%	96	6.3%
136	Reading Depot - Malden Station Via Lakeside	22.1%	137	77.9%	131	44.7%	106	30.0%	136	22.1%	132	14.6%	99	14.6%	105	13.3%	101	13.3%	104	13.3%	108	12.7%
137	Reading Depot - Malden Station Via North Ave	14.2%	136	85.8%	131	49.3%	106	33.0%	132	16.1%	99	16.1%	105	14.7%	101	14.7%	104	14.7%	137	14.2%	108	13.9%
170	Oak Park - Dudley Station (Limited Service)	1.8%	70	36.7%	553	29.1%	1	27.9%	554	23.8%	CT1	21.2%	8	20.5%	SL5	19.5%	SL4	19.5%	39	19.4%	9	18.9%
201	Fields Corner Station - Fields Corner Station	0.0%	202	99.9%	210	61.7%	18	35.6%	19	20.8%	15	20.1%	17	20.1%	215	19.3%	RL	14.9%	23	5.6%	ML	3.6%
202	Fields Corner Station - Fields Corner Station	0.0%	201	97.2%	210	60.0%	18	34.6%	215	21.5%	19	20.2%	15	19.6%	17	19.6%	RL	14.5%	23	5.4%	ML	5.2%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	6.1%	201	46.1%	202	46.1%	217	44.3%	211	44.1%	212	42.3%	RL	25.0%	18	21.0%	245	18.8%	19	15.5%	15	15.1%
211	Quincy Center Station - Squantum	22.5%	217	74.1%	212	44.6%	210	33.7%	245	26.8%	211	22.5%	215	22.5%	RL	13.9%	214	6.1%	216	6.1%	225	5.9%
212	Quincy Center Station - North Quincy Station	0.0%	211	100.0%	217	98.4%	210	72.5%	245	29.6%	215	25.3%	RL	17.5%	214	13.7%	216	13.7%	225	13.2%	220	13.0%
214	Quincy Center Station - Germantown	19.1%	216	80.9%	220	32.0%	221	32.0%	222	32.0%	225	25.2%	215	24.7%	230	24.7%	238	24.7%	245	22.3%	236	22.2%
215	Quincy Center Station - Ashmont Station	8.3%	217	49.4%	245	36.6%	238	28.7%	211	19.7%	230	19.2%	236	18.1%	225	14.1%	240	12.9%	26	11.7%	202	11.1%
216	Quincy Center Station - Houghs Neck	31.0%	214	69.0%	216	31.0%	220	27.3%	221	27.3%	222	27.3%	225	21.5%	215	21.0%	230	21.0%	238	21.0%	245	19.0%
217	Wollaston Sta. - Ashmont Sta. via Wollaston Beach	7.2%	211	54.9%	245	42.5%	215	41.7%	212	32.5%	210	25.1%	240	16.3%	24	12.9%	27	12.9%	RL	12.5%	21	8.6%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
220	Quincy Center Station - Hingham	41.5%	221	53.6%	222	49.0%	220	41.5%	225	17.6%	214	14.5%	216	14.5%	215	11.4%	230	11.4%	238	11.4%	236	10.3%
221	Quincy Center Station - Fort Point	11.8%	220	88.2%	222	80.6%	225	29.0%	214	23.8%	216	23.8%	215	18.7%	230	18.7%	238	18.7%	236	17.0%	245	16.6%
222	Quincy Center Station - East Weymouth	53.7%	222	53.7%	220	46.3%	221	46.3%	225	16.6%	214	13.7%	216	13.7%	215	10.7%	230	10.7%	238	10.7%	236	9.8%
225	Quincy Center Station - Weymouth Landing	77.4%	225	77.4%	220	16.8%	221	16.8%	222	16.8%	215	16.2%	230	16.2%	238	16.2%	236	15.5%	245	11.9%	214	10.9%
230	Quincy Center Station - Montello Station	64.9%	230	64.9%	236	33.2%	215	21.5%	238	21.0%	225	15.8%	245	12.8%	220	10.6%	221	10.6%	222	10.6%	214	10.4%
236	Quincy Center Station - South Shore Plaza	39.1%	230	44.7%	238	41.4%	236	39.1%	215	27.2%	225	20.3%	245	16.7%	220	12.9%	221	12.9%	222	12.9%	214	12.6%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	40.2%	238	40.2%	240	28.6%	215	25.9%	236	24.9%	230	16.9%	225	12.8%	245	11.2%	220	8.5%	221	8.5%	222	8.5%
240	Avon Line - Ashmont Station	36.1%	240	36.1%	238	30.4%	217	18.5%	245	18.2%	24	16.3%	27	16.3%	215	12.4%	21	9.8%	ML	9.1%	26	9.0%
245	Quincy Center Station - Mattapan Station	26.3%	217	42.2%	215	30.6%	245	26.3%	211	19.7%	240	15.9%	210	10.5%	238	10.4%	212	9.7%	230	9.6%	236	9.3%
275	Downtown Boston - Long Island Health Campus	0.5%	SL4	67.1%	SL5	65.3%	11	62.8%	9	46.7%	43	46.3%	555	36.1%	504	36.1%	8	33.2%	OL	33.2%	RL	31.7%
276	Boston City Hospital - Long Island Health Campus	0.0%	SL4	74.0%	SL5	68.1%	7	52.7%	11	52.7%	555	52.7%	504	52.3%	OL	48.5%	500	47.8%	501	47.8%	505	47.8%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0%	43	86.9%	SL5	56.5%	1	51.7%	170	51.7%	CT1	51.7%	SL4	45.5%	GL	45.4%	55	38.8%	RL	35.2%	8	33.3%
325	Elm Street - Haymarket Station	0.0%	100	57.9%	101	38.9%	710	36.1%	95	33.3%	326	32.7%	4	30.1%	92	30.1%	93	30.1%	OL	28.5%	GL	27.5%
326	West Medford - Haymarket Station	0.0%	95	73.7%	101	51.8%	134	50.6%	94	47.4%	325	28.2%	354	27.1%	355	27.1%	4	25.9%	92	25.9%	93	25.9%
350	North Burlington - Alewife Station	28.6%	350	28.6%	79	27.4%	77	24.8%	352	19.6%	351	14.7%	354	12.4%	87	12.3%	67	9.8%	80	7.5%	62	2.6%
351	Oak Park - Alewife Station	33.2%	350	51.4%	351	33.2%	62	11.5%	67	11.5%	76	11.5%	84	11.5%	79	9.1%	354	7.3%	RL	7.0%	83	3.9%
352	Burlington - State Street	0.0%	350	59.8%	354	41.3%	355	40.2%	BL	39.8%	92	34.4%	93	34.4%	OL	33.4%	4	33.3%	GL	31.3%	325	24.9%
354	Woburn Line - State Street	30.6%	355	41.9%	354	30.6%	134	18.5%	326	18.2%	352	18.0%	BL	17.4%	350	16.5%	92	15.0%	93	15.0%	OL	14.6%
355	Mishawum Station - State Street	7.4%	354	91.6%	326	39.7%	352	38.3%	BL	38.0%	92	32.8%	93	32.8%	OL	31.9%	4	31.8%	GL	29.9%	325	27.5%
411	Malden Station - Revere/Jack Satter House	0.8%	108	39.9%	119	36.6%	430	35.8%	426	30.0%	106	26.5%	116	24.7%	450	22.2%	455	22.2%	110	19.7%	117	19.6%
424	Eastern & Essex - Haymarket or Wonderland	0.0%	450	84.3%	434	70.8%	455	66.2%	459	55.2%	426	53.2%	456	41.8%	441	39.9%	442	39.9%	436	31.4%	411	22.2%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	4.5%	455	59.3%	459	48.4%	450	47.8%	441	40.2%	442	40.2%	428	38.9%	424	38.9%	429	36.4%	434	35.9%	411	28.1%
428	Oaklandvale - Haymarket Station via Granada Highlands	20.7%	426	58.5%	430	33.2%	429	31.2%	428	20.7%	411	16.6%	108	13.5%	4	13.2%	92	13.2%	93	13.2%	111	13.2%
429	Northgate Shopping Center - Central Sq. Lynn	27.2%	426	41.7%	429	27.2%	428	23.8%	455	22.5%	459	22.4%	435	22.0%	436	21.4%	441	20.6%	442	20.6%	430	19.6%
430	Saugus, Appleton Street - Malden Station	9.8%	411	49.8%	108	44.5%	106	37.0%	428	32.9%	429	25.5%	105	21.2%	131	16.8%	136	16.8%	137	16.8%	104	16.6%
431	Neptune Towers - Central Sq. Lynn	3.8%	441	90.9%	442	90.9%	455	85.8%	459	85.7%	456	85.1%	436	78.1%	426	69.4%	429	67.1%	435	59.5%	448	53.8%
434	Peabody - Haymarket Station	3.6%	424	52.7%	450	52.7%	436	52.0%	455	39.8%	426	36.6%	459	34.3%	435	33.0%	441	26.5%	442	26.5%	456	14.2%
435	Liberty Tree Mall - Central Sq. Lynn	21.5%	465	38.9%	436	29.7%	434	28.4%	435	21.5%	429	16.9%	424	13.6%	450	13.6%	456	12.6%	455	11.3%	459	11.3%
436	Danvers Sq. - Central Sq. Lynn	12.0%	434	54.7%	455	38.5%	459	38.5%	435	36.4%	456	35.4%	441	31.8%	442	31.8%	426	27.1%	424	24.6%	450	24.3%
439	Bass Point Nahant - Central Sq. Lynn	27.2%	441	57.4%	448	57.3%	442	56.3%	449	56.2%	439	27.2%	455	23.2%	459	23.1%	456	17.4%	436	14.8%	429	11.8%
441	Marblehead – Haymarket/Wonderland Sta. via Paradise	0.0%	442	91.4%	448	78.4%	449	69.8%	455	39.7%	459	33.1%	426	31.7%	439	30.0%	456	24.4%	436	23.4%	424	23.0%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	0.0%	441	91.7%	449	78.3%	448	70.1%	455	35.8%	426	31.8%	439	29.6%	459	29.3%	456	24.4%	436	23.5%	424	23.1%
448	Marblehead - Downtown Crossing	0.0%	449	91.3%	441	78.7%	442	70.0%	459	37.4%	439	30.1%	455	24.0%	426	15.1%	4	13.4%	7	12.2%	450	11.9%
449	Marblehead - Downtown Crossing	0.0%	448	91.7%	442	78.6%	441	70.3%	459	33.6%	439	29.6%	455	20.0%	426	15.2%	4	13.4%	7	12.2%	450	12.0%
450	Salem Depot – Haymarket/Wonderland Station	0.0%	455	60.8%	424	58.5%	459	49.8%	434	49.1%	456	48.3%	426	45.4%	441	27.6%	442	27.6%	436	21.5%	411	19.7%
451	North Beverly - Salem Depot	24.2%	451	24.2%	455	22.0%	459	22.0%	450	16.5%	456	16.5%	465	16.5%	468	16.5%						
455	Salem Depot - Haymarket or Wonderland Station	0.0%	459	90.6%	450	49.8%	426	46.1%	456	40.3%	441	39.0%	424	37.6%	442	35.1%	434	30.4%	436	27.9%	448	23.5%
456	Salem Depot - Central Sq. Lynn	0.0%	455	61.1%	459	61.1%	450	60.0%	436	38.9%	441	36.4%	442	36.3%	424	36.0%	426	29.1%	429	20.0%	465	19.0%
459	Salem Depot - Downtown Crossing	0.0%	455	85.4%	450	38.5%	456	38.0%	426	35.5%	448	34.6%	449	30.9%	441	30.8%	424	29.5%	442	27.1%	436	26.3%
465	Liberty Tree Mall - Salem Depot	6.6%	435	68.5%	468	35.0%	450	24.9%	456	24.9%	451	16.3%	455	16.3%	459	16.3%	436	13.2%	434	7.2%	465	6.6%
468	Danvers Square - Salem Depot (Limited Service)	46.9%	465	53.1%	468	46.9%	435	28.4%	450	24.7%	456	24.7%	451	24.7%	455	24.7%	459	24.7%				
500	Riverside Station - Federal & Franklin Streets	0.0%	555	100.0%	558	100.0%	501	89.1%	504	89.1%	505	89.1%	553	89.1%	554	89.1%	556	89.1%	7	82.2%	448	75.0%
501	Brighton Center - Federal & Franklin Streets	0.0%	503	75.6%	57	68.4%	64	40.0%	504	30.3%	553	30.1%	554	30.1%	555	30.1%	556	30.1%	558	30.1%	500	23.4%
502	Watertown Yard - Copley Square	0.0%	504	100.0%	555	71.1%	52	60.5%	57	60.5%	503	57.2%	170	39.2%	39	38.7%	10	38.5%	9	37.4%	55	35.9%
503	Brighton Center - Copley	0.0%	501	83.2%	57	75.0%	64	43.2%	502	24.3%	504	24.3%	555	24.1%	66	22.8%	86	22.0%	GL	19.8%	65	16.8%
504	Watertown Yard - Federal & Franklin Streets	0.0%	555	85.5%	502	50.1%	55	47.8%	553	46.3%	554	46.3%	556	46.3%	558	46.3%	GL	43.7%	OL	41.8%	501	39.3%
505	Waltham Center - Federal & Franklin Streets	4.7%	554	70.7%	553	69.4%	558	64.5%	556	52.4%	170	45.3%	555	41.3%	500	24.8%	501	24.8%	504	24.8%	7	22.9%
505	Waltham Center - Federal & Franklin Streets	4.7%	554	70.7%	553	69.4%	558	64.5%	556	52.4%	170	45.3%	555	41.3%	500	24.8%	501	24.8%	504	24.8%	7	22.9%
553	Roberts - Federal & Franklin Streets	12.8%	554	76.1%	556	58.7%	555	47.8%	558	44.9%	170	43.4%	505	39.7%	504	21.6%	501	18.2%	70	17.2%	500	14.2%
554	Waverley Square - Federal & Franklin Streets	30.8%	553	61.5%	556	41.5%	555	38.6%	558	35.7%	505	32.7%	554	30.8%	170	28.7%	504	17.4%	501	14.7%	500	11.5%
555	Riverside Sta. - Federal & Franklin Streets Via Newton	0.0%	553	63.6%	554	63.6%	504	53.1%	556	46.9%	558	39.0%	505	31.5%	55	29.8%	GL	29.0%	OL	26.2%	9	24.3%
556	Waltham Highlands - Federal & Franklin Streets	24.1%	553	66.9%	554	58.5%	558	45.4%	555	40.2%	505	34.2%	170	30.4%	504	24.6%	556	24.1%	70	21.1%	501	20.8%
558	Auburndale - Federal & Franklin Streets	24.5%	553	54.1%	554	53.4%	556	48.1%	505	44.6%	555	35.4%	504	26.0%	558	24.5%	501	22.0%	170	20.0%	500	19.2%
CT1	Central Square Cambridge. - South End Medical Area	0.0%	1	96.2%	170	59.0%	47	48.5%	8	36.0%	GL	30.0%	CT3	26.3%	SL4	25.7%	SL5	25.7%	64	25.5%	70	25.3%
CT2	Sullivan Station - Kendall MIT Station	3.8%	47	71.6%	GL	51.7%	8	48.9%	19	48.9%	CT3	43.1%	39	30.0%	60	21.8%	65	21.8%	64	18.0%	57	18.0%
CT2	Kendall MIT Station - Ruggles Station	0.0%	85	67.4%	91	64.0%	86	53.2%	64	34.4%	68	34.4%	90	28.7%	87	26.1%	69	25.5%	80	22.5%	88	21.2%
CT3	Longwood Medical Area - Andrew Station	0.0%	8	89.1%	47	77.3%	19	54.6%	10	46.4%	1	38.9%	CT2	37.5%	170	36.4%	SL4	33.9%	SL5	33.9%	CT1	30.9%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
SL1	Logan Airport - South Station	8.9%	SL2	87.2%	SLW	87.2%	4	86.5%	459	78.4%	448	78.1%	449	78.1%	7	66.8%	11	47.6%	SL4	37.2%	RL	36.3%
SL2	Boston Marine Industrial Park - South Station	6.6%	4	92.5%	SL1	77.3%	SLW	77.3%	7	66.6%	459	66.1%	448	65.8%	449	65.8%	11	42.2%	SL4	33.0%	RL	32.2%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	4	98.8%	459	85.4%	448	85.0%	449	85.0%	7	76.7%	11	54.5%	SL4	42.7%	RL	41.6%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	90.6%	170	60.7%	8	58.7%	43	54.2%	47	50.8%	1	45.6%	11	43.5%	CT3	32.4%	10	32.1%	275	31.2%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	95.1%	170	63.8%	43	61.8%	8	61.6%	47	53.3%	1	47.9%	11	37.8%	CT3	34.0%	10	33.7%	275	31.9%
BL	Blue Line	5.7%	4	34.0%	92	31.3%	93	31.3%	352	30.0%	354	30.0%	355	30.0%	OL	28.4%	120	26.7%	GL	26.6%	117	26.6%
GL	Green Line	12.9%	39	23.4%	55	19.8%	65	18.2%	66	18.1%	57	14.9%	170	13.7%	OL	13.6%	GL	12.9%	9	12.5%	60	12.4%
ML	Mattapan Line	19.3%	24	49.6%	27	49.6%	240	43.3%	215	29.7%	217	24.6%	245	23.1%	716	20.6%	28	20.3%	29	20.3%	30	20.3%
OL	Orange Line	1.9%	92	33.7%	GL	32.1%	93	29.4%	43	25.1%	4	25.0%	555	24.6%	504	24.3%	39	20.8%	55	17.8%	SL5	15.6%
RL	Red Line	5.4%	18	21.2%	96	19.1%	83	17.0%	11	16.9%	210	15.7%	77	14.9%	1	14.0%	217	13.8%	68	13.4%	87	13.1%

Table A-5
Unique and Overlap Coverage Percentages by Route for the Four-Tenths-Mile Coverage Threshold

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
1	Harvard Square - Dudley Station via Mass. Ave.	0.6%	CT1	64.4%	170	50.3%	47	47.0%	8	37.2%	68	27.9%	SL5	27.8%	SL4	27.8%	CT3	25.4%	64	24.5%	19	23.2%
4	North Station - World Trade Center	3.2%	7	55.4%	92	52.8%	93	52.7%	OL	51.3%	459	47.0%	SL2	47.0%	448	47.0%	449	47.0%	GL	44.6%	SL1	40.2%
5	City Point - McCormack Housing	0.0%	10	90.4%	11	78.4%	9	67.9%	16	36.6%	7	36.4%	RL	28.6%	18	23.3%	17	20.1%	CT3	16.7%	8	13.0%
7	City Point - Otis & Summer Streets	0.1%	11	69.0%	4	58.4%	448	48.7%	449	48.7%	459	48.7%	9	41.6%	SL2	41.1%	SL1	37.6%	SLW	37.6%	5	35.5%
8	Harbor Point /U Mass - Kenmore Station	0.0%	47	58.0%	CT3	49.8%	19	48.8%	170	37.3%	1	35.0%	SL5	33.0%	SL4	33.0%	41	32.5%	10	31.0%	15	28.6%
9	City Point - Copley Square via Broadway Station	0.7%	10	62.4%	11	61.9%	170	42.6%	55	41.6%	GL	36.7%	5	36.1%	39	36.0%	43	30.7%	555	27.8%	504	27.8%
10	City Point - Copley Square Via BU Med Center	0.0%	9	61.6%	11	47.7%	5	47.5%	170	39.3%	8	36.7%	CT3	32.8%	43	24.7%	SL5	24.0%	SL4	24.0%	CT1	21.8%
11	City Point - Downtown	2.0%	9	70.2%	10	54.7%	5	47.3%	7	42.6%	SL4	33.7%	RL	32.2%	SL5	29.4%	275	25.5%	43	25.0%	555	25.0%
14	Roslindale Square - Heath Street Loop	9.1%	28	47.9%	23	41.2%	45	39.6%	19	38.4%	44	36.3%	29	32.0%	22	31.3%	41	29.7%	30	22.1%	66	18.8%
15	Kane Square - Ruggles Station	0.0%	19	57.4%	41	54.0%	17	49.8%	45	47.5%	23	44.3%	8	35.6%	28	35.5%	44	32.9%	18	27.4%	14	26.0%
16	Forest Hills Station - U Mass.	0.8%	17	39.5%	8	32.6%	41	27.1%	15	23.7%	18	23.2%	10	20.5%	5	20.3%	45	20.2%	19	17.6%	14	16.5%
17	Fields Corner Station - Andrew Station	0.0%	15	74.1%	18	64.8%	16	58.4%	19	35.9%	RL	34.1%	41	29.8%	201	22.9%	202	22.9%	210	22.9%	8	21.7%
18	Ashmont Station - Andrew Station	2.5%	17	56.7%	RL	51.2%	15	35.7%	202	35.5%	201	35.3%	16	30.1%	23	27.2%	210	27.2%	22	21.0%	26	21.0%
19	Fields Corner Station - Ruggles or Kenmore Station	0.0%	23	57.7%	28	49.0%	8	47.6%	45	45.4%	15	45.1%	14	41.9%	47	41.5%	44	36.0%	CT3	30.5%	CT2	24.1%
21	Ashmont Station - Forest Hills Station	0.0%	26	55.1%	31	54.1%	24	25.9%	27	25.9%	29	24.9%	28	24.8%	240	23.9%	217	23.7%	16	22.5%	215	20.6%
22	Ashmont Station - Ruggles Station Via Talbot Ave	2.0%	29	70.7%	23	56.0%	44	46.7%	14	43.5%	28	40.9%	45	32.9%	19	25.8%	26	25.5%	42	21.9%	41	21.4%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	3.8%	19	67.4%	28	61.4%	45	56.0%	14	52.6%	22	51.4%	44	45.1%	15	40.6%	29	29.2%	41	23.8%	26	22.5%
24	Wakefield Ave. - Mattapan Station or Ashmont	22.1%	27	42.8%	33	39.5%	240	25.8%	217	23.8%	24	22.1%	ML	21.2%	21	18.1%	26	17.2%	32	16.0%	30	15.3%
26	Ashmont Station - Norfolk & Wash. Belt	3.7%	21	62.6%	22	45.9%	23	44.1%	215	30.8%	18	28.9%	24	28.1%	27	28.1%	240	25.8%	217	25.6%	RL	17.0%
27	Mattapan Station - Ashmont Station	0.0%	24	100.0%	240	60.3%	217	55.6%	ML	49.1%	21	42.2%	26	40.1%	215	33.1%	28	25.2%	29	25.2%	31	25.2%
28	Mattapan Station - Ruggles Station	0.0%	29	69.2%	23	58.4%	14	58.0%	45	56.3%	19	54.4%	44	43.4%	22	35.7%	15	30.9%	31	29.8%	41	22.7%
29	Mattapan Station - Jackson Sq. Station	0.1%	28	71.8%	22	64.1%	44	44.3%	14	40.3%	45	31.7%	31	31.0%	23	28.8%	19	25.4%	42	20.6%	41	20.3%
30	Mattapan Station - Roslindale Square	18.2%	14	44.9%	35	38.3%	36	38.3%	37	38.3%	51	38.3%	50	38.3%	34	35.3%	40	35.3%	32	26.9%	31	25.0%
31	Mattapan Station - Forest Hills Station	0.0%	21	64.6%	28	64.5%	29	64.5%	30	32.2%	16	26.8%	24	23.9%	716	21.1%	33	20.6%	245	19.7%	27	18.5%
32	Wolcott Square or Cleary Square - Forest Hills Station	19.5%	50	34.2%	14	32.5%	33	31.5%	30	27.9%	24	22.1%	32	19.5%	34	12.7%	36	12.7%	16	9.9%	21	9.9%
33	River & Milton Streets - Mattapan Station	14.6%	24	51.1%	32	29.6%	30	19.4%	50	18.6%	28	15.8%	29	15.5%	31	15.5%	716	15.5%	245	15.2%	40	15.2%
34	Dedham Line - Forest Hills Station	57.5%	34	57.5%	35	24.4%	40	23.5%	50	15.3%	36	14.0%	37	12.7%	30	11.8%	51	11.7%	14	6.6%	38	5.7%
35	Dedham Mall - Forest Hills Station	7.1%	36	65.9%	37	61.1%	34	52.1%	38	40.7%	51	37.1%	40	28.4%	30	27.3%	50	26.6%	14	16.4%	52	8.6%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	3.6%	35	78.8%	37	74.1%	38	51.3%	51	42.9%	34	35.8%	30	32.7%	40	32.6%	50	31.8%	14	19.6%	52	18.7%
37	Baker & Vermont Streets - Forest Hills Station	7.9%	36	67.6%	35	66.7%	38	61.9%	51	48.4%	30	29.9%	34	29.8%	40	29.8%	50	29.0%	14	17.9%	52	17.5%
38	Wren Street - Forest Hills Station	16.4%	37	53.4%	36	40.5%	35	38.4%	51	31.4%	39	22.9%	38	16.4%	52	12.8%	48	12.5%	41	12.0%	34	11.5%
39	Forest Hills Station - Back Bay Station	0.3%	GL	57.5%	170	37.1%	55	35.0%	9	32.4%	OL	29.6%	41	25.6%	48	23.7%	38	20.2%	1	20.1%	66	19.5%
40	Georgetowne - Forest Hills Station	2.5%	34	79.9%	50	51.9%	35	45.0%	36	43.3%	37	43.3%	30	40.0%	51	39.8%	14	22.6%	33	17.7%	38	15.2%
41	Centre & Eliot Streets - JFK U Mass Station	0.0%	15	49.4%	14	37.9%	8	37.0%	45	34.8%	48	33.9%	44	30.8%	39	27.0%	16	24.7%	23	23.8%	28	23.8%
42	Forest Hills Station - Ruggles Station	3.0%	44	65.0%	14	42.6%	41	42.2%	29	37.2%	22	35.8%	48	34.9%	23	33.7%	28	33.7%	19	33.0%	OL	29.3%
43	Ruggles Station - Park & Tremont Streets	0.0%	SL5	59.4%	170	56.6%	SL4	55.2%	55	54.2%	GL	46.4%	OL	45.9%	9	42.2%	8	41.3%	555	37.0%	504	37.0%
44	Jackson Sq. Station - Ruggles Station	0.1%	14	64.9%	28	64.1%	23	63.4%	29	63.0%	22	60.3%	19	59.0%	45	55.9%	42	51.2%	41	43.3%	15	42.3%
45	Franklin Park - Ruggles Station	0.5%	28	80.4%	23	76.2%	19	72.0%	14	68.6%	15	59.2%	44	54.1%	41	47.3%	29	43.6%	22	41.1%	8	35.2%
47	Central Square Cambridge. - Broadway Station	1.4%	8	58.9%	1	45.0%	CT3	43.7%	19	43.3%	CT2	36.1%	CT1	35.4%	170	30.4%	SL4	30.3%	SL5	30.3%	GL	26.5%
48	Centre & Eliot Streets - Jamaica Plain Loop	0.0%	41	70.6%	39	52.2%	42	40.8%	OL	39.5%	22	35.1%	29	35.1%	44	34.9%	38	24.1%	14	21.0%	66	1.2%
50	Cleary Sq. - Forest Hills Station Via Metropolitan	17.3%	40	52.5%	34	52.4%	30	43.8%	35	42.6%	36	42.6%	37	42.6%	51	40.2%	32	37.8%	14	27.1%	33	21.8%
51	Cleveland Circle - Forest Hills Station	35.7%	37	36.5%	51	35.7%	35	30.5%	36	29.6%	38	27.5%	30	22.5%	34	20.7%	40	20.7%	50	20.7%	14	13.5%
52	Dedham Mall - Watertown Yard	49.2%	52	49.2%	59	15.5%	57	15.3%	502	13.8%	504	13.8%	37	10.1%	36	9.9%	38	8.6%	GL	8.5%	553	8.4%
55	Queensberry Street - Park & Tremont Streets	0.6%	GL	79.6%	9	57.4%	43	54.3%	170	53.9%	39	53.7%	504	47.0%	555	47.0%	OL	35.4%	1	29.3%	CT1	27.3%
57	Watertown Yard - Kenmore Station	0.0%	501	55.5%	503	55.3%	GL	41.9%	64	28.4%	65	23.3%	52	21.7%	66	20.3%	502	19.6%	504	19.6%	86	16.8%
59	Needham Junction - Watertown Square	59.3%	59	59.3%	52	16.3%	556	15.9%	553	13.9%	554	13.9%	555	13.6%	558	10.8%	70	7.4%	71	7.4%	57	7.4%
60	Chestnut Hill - Kenmore Station	30.3%	GL	48.9%	65	48.3%	60	30.3%	8	28.7%	19	28.7%	66	21.5%	47	19.9%	39	18.3%	CT2	17.1%	55	12.8%
62	Bedford V.A. Hospital - Alewife Station	24.0%	76	46.7%	78	33.9%	84	33.4%	62	24.0%	67	14.1%	79	11.3%	77	8.8%	351	3.3%	350	2.9%	RL	2.3%
64	Oak Square - University Pk. Cambridge	6.1%	70	33.8%	501	33.8%	503	33.4%	68	30.9%	57	27.7%	1	26.2%	47	26.0%	91	23.0%	83	22.6%	85	21.6%
65	Brighton Center - Kenmore Station	3.0%	GL	72.9%	60	50.4%	57	30.0%	8	30.0%	19	30.0%	66	28.1%	47	20.8%	501	18.0%	CT2	17.9%	39	17.9%
66	Harvard Square - Dudley Station via Brookline	1.4%	GL	46.9%	19	22.7%	14	21.6%	86	21.0%	44	20.1%	1	19.9%	15	19.9%	23	19.9%	28	19.9%	45	19.9%
67	Turkey Hill - Alewife Station	35.7%	79	39.0%	67	35.7%	77	33.4%	62	30.2%	76	28.1%	84	28.1%	350	25.2%	78	18.6%	80	12.8%	87	11.0%
68	Harvard Square - Kendall MIT Station	0.0%	64	63.7%	69	62.9%	1	61.3%	RL	45.0%	85	44.9%	83	40.7%	CT2	38.3%	91	36.2%	72	30.6%	86	30.0%
69	Harvard Square - Lechmere Station	2.0%	68	58.3%	86	39.8%	1	37.0%	83	35.4%	85	31.9%	91	31.0%	87	29.8%	72	29.6%	CT2	27.9%	64	24.8%
70	Cedarwood - Central Square Cambridge	28.4%	170	34.2%	70	28.4%	64	16.8%	556	12.4%	553	11.6%	1	11.0%	47	11.0%	CT1	9.4%	71	8.7%	86	8.4%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
71	Watertown Square - Harvard Station	17.2%	73	58.5%	72	40.5%	75	29.7%	70	23.8%	74	22.8%	78	22.8%	77	19.3%	96	19.3%	71	17.2%	86	16.1%
72	Aberdeen & Mt. Auburn - Harvard Station	0.9%	75	70.2%	71	59.4%	74	59.1%	78	59.1%	73	58.8%	86	33.4%	77	31.1%	96	31.1%	69	30.8%	68	29.5%
73	Waverley Square - Harvard Station	29.0%	71	56.7%	72	38.9%	75	29.4%	73	29.0%	74	21.6%	78	21.5%	77	18.1%	96	18.1%	86	15.1%	66	14.2%
74	Belmont Center - Harvard Station via Concord Ave	0.0%	75	94.1%	78	70.9%	72	49.5%	71	28.0%	73	27.3%	77	25.7%	96	25.7%	86	19.8%	66	18.7%	1	15.8%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	0.7%	74	88.6%	78	61.1%	72	55.4%	73	35.0%	71	34.3%	77	24.3%	96	24.2%	86	18.7%	66	17.6%	1	14.9%
76	Hanscom Air Force Base - Alewife Station	14.0%	62	55.3%	84	38.3%	78	32.2%	67	15.5%	76	14.0%	351	3.9%	79	3.5%	350	3.4%	RL	2.7%	83	1.7%
77	Arlington Heights - Harvard Station	0.0%	79	56.3%	96	35.9%	87	35.3%	350	29.7%	78	25.1%	83	24.6%	RL	23.7%	67	18.8%	88	15.2%	72	14.9%
78	Arlmont Village - Harvard Station	5.1%	84	44.7%	62	43.4%	74	42.8%	75	39.2%	76	34.7%	72	29.8%	77	26.5%	71	16.9%	73	16.5%	96	15.5%
79	Arlington Heights - Alewife Station	0.0%	77	94.7%	350	55.3%	67	37.0%	87	29.1%	62	23.1%	78	18.1%	80	17.2%	84	12.1%	76	5.9%	351	5.6%
80	Arlington Center - Lechmere Station	2.9%	101	49.0%	88	39.1%	89	38.9%	94	34.8%	87	32.4%	90	29.5%	96	20.4%	CT2	12.2%	95	12.0%	91	11.6%
83	Rindge Ave. - Central Square, Cambridge	2.7%	91	40.8%	87	40.7%	RL	37.5%	77	34.1%	64	29.7%	68	26.0%	96	26.0%	85	25.5%	69	24.5%	1	24.3%
84	Arlmont Loop - Alewife Station	0.0%	78	86.6%	62	82.9%	76	80.1%	67	32.4%	79	14.8%	77	8.3%	351	8.2%	350	7.2%	RL	5.7%	83	3.5%
85	Spring Hill - Kendall MIT Station	0.0%	CT2	68.6%	91	44.4%	68	44.2%	64	43.9%	87	42.0%	83	39.2%	88	35.9%	69	33.9%	90	29.9%	86	28.8%
86	Sullivan Station - Cleveland Circle	0.2%	91	28.0%	CT2	24.3%	66	20.9%	69	18.8%	90	17.9%	501	16.6%	503	16.5%	87	15.5%	GL	15.5%	70	15.2%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	4.0%	88	64.6%	80	37.7%	77	37.2%	90	32.5%	89	31.3%	83	30.9%	96	24.7%	85	20.7%	RL	20.4%	79	18.2%
88	Clarendon Hill - Lechmere Station via Highland Avenue	0.0%	87	76.2%	90	61.9%	80	53.6%	89	51.1%	96	24.2%	94	22.1%	85	20.9%	83	20.5%	77	18.9%	RL	18.7%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	0.0%	101	53.4%	80	52.7%	90	52.5%	88	50.5%	87	36.5%	94	28.4%	96	27.6%	95	23.2%	77	15.9%	RL	15.5%
90	Davis Square Station - Wellington Station	0.0%	88	65.9%	89	56.6%	80	43.1%	87	40.9%	101	32.9%	92	25.6%	86	25.0%	95	24.4%	91	23.8%	96	23.2%
91	Sullivan Station - Central Square, Cambridge	0.0%	CT2	60.1%	86	55.7%	83	55.4%	64	41.2%	85	39.2%	90	33.9%	68	31.5%	1	30.6%	69	29.0%	70	26.8%
92	Assembly Square Mall - Downtown Via Main Street	0.1%	93	78.2%	OL	54.0%	4	39.3%	GL	33.2%	90	27.9%	BL	26.3%	325	26.1%	326	26.1%	95	22.3%	352	21.9%
93	Sullivan Station - Downtown Via Bunker Hill	4.5%	92	87.9%	OL	54.9%	4	44.1%	GL	37.3%	BL	29.6%	325	29.4%	326	29.4%	352	24.7%	354	24.7%	355	24.7%
94	Medford Square - Davis Square Station	0.0%	101	66.3%	96	61.3%	80	53.8%	95	40.9%	326	40.1%	89	32.4%	134	28.3%	88	24.9%	87	23.6%	90	21.3%
95	West Medford - Sullivan Station	3.1%	101	79.1%	326	42.7%	134	33.8%	94	29.8%	89	19.3%	90	18.8%	325	18.3%	710	17.6%	96	16.7%	92	15.9%
96	Medford Sq. - Harvard Station	0.0%	94	55.8%	77	45.9%	RL	36.1%	101	35.4%	87	29.9%	80	28.8%	89	28.7%	88	24.9%	83	24.0%	90	22.4%
97	Malden Station - Wellington Station	0.5%	104	67.9%	99	67.3%	106	66.1%	105	62.0%	110	41.4%	109	37.6%	112	36.4%	108	25.3%	101	20.6%	131	17.2%
99	Boston Reg. Med Center Stoneham - Wellington Station	9.3%	106	63.1%	105	60.3%	97	51.8%	104	43.5%	101	31.0%	108	29.4%	131	26.8%	136	26.8%	137	26.8%	132	22.2%
100	Elm Street - Wellington Station	3.9%	325	58.8%	710	56.0%	108	42.9%	101	33.3%	134	25.4%	95	24.5%	99	5.4%	97	4.8%	100	3.9%	90	2.8%
101	Malden Station - Sullivan Station Via Medford Square	0.8%	95	51.6%	80	36.1%	94	31.5%	89	29.0%	326	20.8%	96	18.5%	108	17.4%	104	16.7%	105	16.7%	90	16.6%
104	Malden Station - Sullivan Station Via Ferry Street	0.2%	105	74.3%	109	56.9%	97	52.3%	99	43.5%	106	42.2%	101	32.9%	110	28.6%	131	24.2%	136	24.2%	137	24.2%
105	Malden Station - Sullivan Station Via Main Street	2.6%	104	70.5%	106	62.3%	99	57.2%	97	45.3%	109	35.5%	101	31.2%	108	28.2%	411	27.9%	430	27.9%	131	23.4%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	12.7%	105	46.2%	99	44.3%	131	41.2%	136	38.1%	137	38.1%	97	35.8%	108	34.3%	411	33.1%	430	33.1%	104	29.6%
108	Linden Square - Wellington Station	0.4%	411	64.3%	430	52.3%	106	45.5%	101	31.9%	105	27.6%	99	27.4%	100	27.0%	104	21.4%	131	21.3%	136	21.3%
109	Linden Square - Sullivan Station	14.4%	104	57.9%	105	38.1%	110	30.6%	97	29.5%	112	20.7%	411	20.1%	108	20.0%	106	15.1%	109	14.4%	428	13.6%
110	Wonderland Station - Wellington Station	6.2%	111	33.7%	112	32.5%	117	30.3%	411	29.6%	97	27.7%	109	26.1%	104	24.9%	119	23.9%	450	19.5%	455	19.5%
111	Woodlawn or Bway & Park - Haymarket Station	6.0%	112	41.7%	116	38.6%	117	38.1%	110	36.1%	114	27.0%	92	16.9%	93	16.9%	426	16.7%	4	16.6%	428	15.7%
112	Wellington Station - Wood Island Station	6.9%	111	41.6%	110	34.6%	116	30.9%	117	30.9%	114	30.2%	97	26.0%	104	18.8%	109	18.8%	99	17.1%	106	17.1%
114	Bellingham Square or Mystic Mall - Maverick Station	0.0%	116	92.1%	117	92.1%	112	60.0%	111	53.3%	121	41.7%	120	39.6%	BL	19.0%	110	0.1%				
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	77.1%	114	45.7%	111	37.9%	411	37.5%	112	30.4%	119	24.0%	121	20.7%	120	19.6%	426	19.0%	450	19.0%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	82.8%	114	49.1%	111	40.1%	110	34.2%	411	33.0%	112	32.6%	119	27.7%	121	22.2%	450	22.1%	455	22.1%
119	Northgate Shopping Center - Beachmont Station	13.5%	411	63.5%	426	29.2%	117	27.7%	110	27.0%	116	25.8%	429	25.8%	450	17.3%	455	17.2%	111	15.8%	459	15.7%
120	Orient Heights Station - Maverick Station	21.0%	121	52.5%	114	32.9%	116	32.9%	117	32.9%	BL	32.2%	112	22.2%	120	21.0%	450	13.4%	455	13.4%	459	13.4%
121	Wood Island Station - Maverick Station	0.0%	120	94.9%	114	62.7%	116	62.7%	117	62.7%	112	40.9%	BL	35.2%	426	2.9%	450	2.9%	455	2.9%	459	2.9%
131	Melrose Highlands - Malden Station	29.2%	136	66.9%	137	66.9%	106	51.3%	131	29.2%	132	25.2%	99	23.5%	105	21.5%	101	21.2%	104	21.1%	108	20.0%
132	Redstone Shopping Center - Malden Station	60.1%	132	60.1%	131	31.3%	136	31.3%	137	31.3%	99	24.1%	106	19.8%	OL	19.4%	101	17.8%	108	15.3%	104	14.6%
134	North Woburn - Wellington Station	45.3%	134	45.3%	95	25.1%	710	24.0%	326	23.6%	101	18.6%	94	15.3%	354	14.6%	108	10.1%	100	10.0%	96	7.8%
136	Reading Depot - Malden Station Via Lakeside	19.1%	137	80.9%	131	46.6%	106	33.0%	136	19.1%	132	17.6%	99	16.3%	105	15.0%	101	14.7%	104	14.7%	108	13.9%
137	Reading Depot - Malden Station Via North Ave	12.0%	136	88.0%	131	50.7%	106	35.9%	132	19.1%	99	17.8%	105	16.3%	101	16.0%	104	16.0%	108	15.2%	411	15.0%
170	Oak Park - Dudley Station (Limited Service)	1.5%	70	37.6%	553	30.3%	1	29.4%	554	25.1%	CT1	23.4%	8	23.1%	SL5	22.2%	SL4	22.1%	9	22.1%	39	21.4%
201	Fields Corner Station - Fields Corner Station	0.0%	202	100.0%	210	67.0%	18	43.9%	19	25.3%	15	24.9%	17	24.9%	215	24.7%	RL	22.1%	23	15.3%	22	7.9%
202	Fields Corner Station - Fields Corner Station	0.0%	201	97.2%	210	65.1%	18	42.9%	215	26.9%	19	24.6%	15	24.2%	17	24.2%	RL	21.4%	23	15.1%	ML	8.6%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	4.2%	211	46.6%	201	45.9%	202	45.9%	217	45.8%	212	44.8%	RL	33.2%	18	23.1%	245	22.6%	215	18.6%	19	17.3%
211	Quincy Center Station - Squantum	20.9%	217	75.7%	212	48.8%	210	39.8%	245	32.7%	215	27.3%	211	20.9%	RL	19.1%	214	9.1%	216	9.1%	225	8.3%
212	Quincy Center Station - North Quincy Station	0.0%	211	100.0%	217	98.3%	210	78.5%	245	36.8%	215	31.4%	RL	25.6%	214	18.6%	216	18.6%	225	17.0%	220	16.8%
214	Quincy Center Station - Germantown	16.2%	216	83.8%	220	37.8%	221	37.8%	222	37.8%	225	30.6%	215	29.9%	230	29.9%	238	29.9%	245	28.6%	236	28.2%
215	Quincy Center Station - Ashmont Station	4.3%	217	53.3%	245	40.7%	238	30.8%	211	22.2%	230	20.5%	236	19.7%	225	15.3%	240	15.2%	RL	14.2%	26	13.2%
216	Quincy Center Station - Houghs Neck	28.7%	214	71.3%	220	32.2%	221	32.2%	222	32.2%	216	28.7%	225	26.1%	215	25.5%	230	25.5%	238	25.5%	245	24.3%
217	Wollaston Sta. - Ashmont Sta. via Wollaston Beach	4.8%	211	54.7%	245	47.6%	215	47.4%	212	34.7%	210	28.3%	240	19.5%	RL	17.2%	24	14.8%	27	14.8%	21	10.3%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
220	Quincy Center Station - Hingham	40.1%	221	54.7%	222	50.0%	220	40.1%	225	22.2%	214	16.7%	216	16.7%	215	13.4%	230	13.4%	238	13.4%	236	12.7%
221	Quincy Center Station - Fort Point	10.2%	220	89.8%	222	82.1%	225	36.4%	214	27.5%	216	27.5%	215	22.1%	230	22.1%	238	22.1%	236	20.9%	245	20.2%
222	Quincy Center Station - East Weymouth	53.2%	222	53.2%	220	46.8%	221	46.8%	225	20.7%	214	15.6%	216	15.6%	215	12.6%	230	12.6%	238	12.6%	236	11.9%
225	Quincy Center Station - Weymouth Landing	72.4%	225	72.4%	222	21.0%	220	21.0%	221	21.0%	236	18.5%	230	18.3%	215	18.1%	238	18.1%	245	14.3%	214	12.8%
230	Quincy Center Station - Montello Station	61.2%	230	61.2%	236	37.4%	215	23.1%	238	22.5%	225	17.4%	245	15.0%	220	12.1%	221	12.1%	222	12.1%	214	12.0%
236	Quincy Center Station - South Shore Plaza	32.2%	230	50.9%	238	44.0%	236	32.2%	215	30.2%	225	24.1%	245	19.9%	220	15.6%	221	15.6%	222	15.6%	214	15.3%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	35.5%	238	35.5%	240	31.3%	215	29.1%	236	27.1%	230	18.9%	245	15.2%	225	14.5%	220	10.2%	221	10.2%	222	10.2%
240	Avon Line - Ashmont Station	34.1%	240	34.1%	238	31.6%	217	21.0%	245	19.3%	24	17.3%	27	17.3%	215	14.5%	ML	11.6%	21	11.2%	26	10.6%
245	Quincy Center Station - Mattapan Station	19.0%	217	46.1%	215	35.1%	211	22.9%	245	19.0%	240	17.5%	238	13.9%	210	13.5%	212	12.6%	230	11.5%	236	11.2%
275	Downtown Boston - Long Island Health Campus	0.1%	SL4	69.8%	SL5	69.4%	11	67.2%	9	56.2%	43	54.7%	RL	40.7%	OL	39.2%	555	39.1%	504	39.0%	8	37.5%
276	Boston City Hospital - Long Island Health Campus	0.0%	SL4	78.0%	SL5	75.2%	7	50.9%	11	50.9%	504	50.9%	555	50.9%	OL	49.8%	43	49.8%	500	49.6%	501	49.6%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0%	43	86.2%	SL5	64.0%	SL4	54.6%	GL	53.4%	1	50.1%	170	50.1%	CT1	50.1%	55	45.7%	8	38.8%	RL	36.1%
325	Elm Street - Haymarket Station	0.0%	100	56.4%	710	40.3%	326	38.6%	101	37.7%	4	33.8%	92	33.8%	93	33.8%	95	33.4%	OL	32.7%	GL	31.7%
326	West Medford - Haymarket Station	0.0%	95	69.5%	101	51.9%	134	51.5%	94	47.6%	325	34.5%	354	32.9%	355	32.9%	4	30.2%	92	30.2%	93	30.2%
350	North Burlington - Alewife Station	26.5%	79	28.8%	350	26.5%	77	26.1%	352	20.5%	351	15.3%	87	15.2%	67	12.4%	354	12.4%	80	10.0%	62	3.1%
351	Oak Park - Alewife Station	29.5%	350	53.4%	351	29.5%	62	12.3%	67	12.3%	76	12.3%	84	12.3%	79	10.3%	RL	8.6%	354	8.4%	83	5.3%
352	Burlington - State Street	0.0%	350	57.3%	354	44.2%	355	42.7%	BL	42.5%	92	37.3%	93	37.3%	4	36.5%	OL	36.5%	GL	34.6%	325	30.1%
354	Woburn Line - State Street	27.2%	355	44.4%	354	27.2%	326	22.0%	134	21.3%	352	20.1%	BL	19.3%	92	17.0%	93	17.0%	325	16.8%	4	16.6%
355	Mishawum Station - State Street	6.3%	354	91.5%	326	45.3%	352	39.9%	BL	39.8%	92	34.9%	93	34.9%	325	34.6%	4	34.2%	OL	34.1%	GL	32.3%
411	Malden Station - Revere/Jack Satter House	0.2%	108	43.0%	119	40.3%	430	38.2%	426	33.5%	106	29.4%	116	25.6%	450	25.2%	455	25.2%	110	21.2%	117	21.0%
424	Eastern & Essex - Haymarket or Wonderland	0.0%	450	84.7%	434	72.0%	455	70.8%	459	58.1%	426	57.0%	441	45.4%	442	45.1%	456	44.0%	436	35.1%	411	24.2%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	2.6%	455	62.4%	450	52.0%	459	50.4%	441	44.4%	442	44.4%	424	43.7%	434	40.6%	429	40.0%	428	38.9%	411	29.9%
428	Oaklandvale - Haymarket Station via Granada Highlands	18.7%	426	59.1%	430	36.3%	429	31.7%	428	18.7%	411	16.9%	4	14.3%	92	14.3%	93	14.3%	111	14.3%	108	14.2%
429	Northgate Shopping Center - Central Sq. Lynn	22.8%	426	47.1%	455	26.2%	459	26.2%	428	24.6%	436	24.4%	435	24.4%	441	23.7%	442	23.7%	429	22.8%	456	22.7%
430	Saugus, Appleton Street - Malden Station	6.7%	411	51.6%	108	47.3%	106	39.7%	428	36.2%	429	26.7%	105	24.8%	104	19.2%	131	19.1%	136	19.1%	137	19.1%
431	Neptune Towers - Central Sq. Lynn	0.7%	441	95.3%	442	95.3%	455	90.3%	459	90.1%	456	89.4%	436	85.1%	426	75.1%	429	71.5%	435	63.6%	448	63.1%
434	Peabody - Haymarket Station	3.1%	424	54.5%	450	54.5%	436	52.1%	455	42.7%	426	40.1%	459	35.9%	435	34.7%	441	30.6%	442	30.6%	456	16.0%
435	Liberty Tree Mall - Central Sq. Lynn	18.3%	465	40.1%	436	33.0%	434	31.4%	429	18.5%	435	18.3%	424	15.9%	450	15.9%	456	15.3%	455	12.9%	459	12.9%
436	Danvers Sq. - Central Sq. Lynn	9.6%	434	56.9%	455	39.9%	459	39.9%	435	39.9%	456	38.6%	441	33.7%	442	33.7%	424	29.0%	426	28.4%	450	27.2%
439	Bass Point Nahant - Central Sq. Lynn	24.3%	441	61.2%	448	61.1%	442	59.7%	449	59.6%	455	31.8%	459	31.8%	439	24.3%	456	22.8%	436	18.5%	429	14.5%
441	Marblehead – Haymarket/Wonderland Sta. via Paradise	0.0%	442	92.0%	448	78.3%	449	70.3%	455	46.2%	459	38.1%	426	35.5%	439	30.5%	424	27.8%	450	27.4%	456	26.7%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	0.0%	441	92.5%	449	78.2%	448	70.7%	455	41.0%	426	35.7%	459	32.9%	439	29.9%	424	27.8%	450	27.6%	456	26.6%
448	Marblehead - Downtown Crossing	0.0%	449	92.0%	441	78.5%	442	70.4%	459	43.6%	439	30.5%	455	30.3%	426	18.7%	4	14.2%	7	14.0%	450	13.8%
449	Marblehead - Downtown Crossing	0.0%	448	92.5%	442	78.3%	441	70.8%	459	38.5%	439	29.9%	455	25.1%	426	18.8%	4	14.3%	7	14.1%	450	13.9%
450	Salem Depot – Haymarket/Wonderland Station	0.0%	455	64.5%	424	60.7%	459	52.6%	434	51.6%	456	49.5%	426	48.6%	441	32.1%	442	32.1%	436	23.6%	411	21.0%
451	North Beverly - Salem Depot	20.3%	455	24.5%	459	24.5%	451	20.3%	450	19.4%	456	19.4%	465	19.4%	468	19.4%						
455	Salem Depot - Haymarket or Wonderland Station	0.0%	459	89.8%	450	53.7%	426	48.6%	441	44.9%	456	42.6%	424	42.2%	442	39.7%	434	33.7%	448	29.4%	436	28.8%
456	Salem Depot - Central Sq. Lynn	0.0%	455	64.2%	459	64.2%	450	62.1%	436	42.0%	424	39.5%	441	39.1%	442	38.8%	426	30.2%	429	22.6%	435	20.2%
459	Salem Depot - Downtown Crossing	0.0%	455	85.3%	450	41.7%	456	40.5%	448	40.3%	426	37.3%	449	35.3%	441	35.3%	424	33.0%	442	30.3%	436	27.4%
465	Liberty Tree Mall - Salem Depot	5.6%	435	68.5%	468	37.6%	450	25.9%	456	25.9%	451	18.1%	455	18.1%	459	18.1%	436	13.3%	434	9.5%	465	5.6%
468	Danvers Square - Salem Depot (Limited Service)	43.7%	465	56.3%	468	43.7%	435	29.1%	450	27.2%	456	27.2%	451	27.1%	455	27.1%	459	27.1%				
500	Riverside Station - Federal & Franklin Streets	0.0%	555	100.0%	558	100.0%	501	89.6%	504	89.6%	505	89.6%	553	89.6%	554	89.6%	556	89.6%	7	83.6%	OL	79.3%
501	Brighton Center - Federal & Franklin Streets	0.0%	503	75.5%	57	68.4%	64	42.6%	504	32.1%	553	32.0%	554	32.0%	555	32.0%	556	32.0%	558	32.0%	GL	28.1%
502	Watertown Yard - Copley Square	0.0%	504	100.0%	555	76.0%	503	62.9%	52	56.7%	57	56.7%	170	43.3%	39	43.1%	9	42.9%	10	42.2%	55	42.0%
503	Brighton Center - Copley	0.0%	501	80.3%	57	72.5%	64	44.8%	GL	31.0%	502	28.6%	504	28.6%	555	28.5%	86	24.7%	66	23.5%	170	19.7%
504	Watertown Yard - Federal & Franklin Streets	0.0%	555	86.8%	502	55.1%	55	52.6%	GL	49.6%	553	48.5%	554	48.5%	556	48.5%	558	48.5%	OL	48.5%	9	42.8%
505	Waltham Center - Federal & Franklin Streets	3.0%	554	72.9%	553	71.4%	558	68.0%	556	55.3%	170	46.5%	555	42.2%	500	25.4%	501	25.4%	504	25.4%	7	23.7%
505	Waltham Center - Federal & Franklin Streets	3.0%	554	72.9%	553	71.4%	558	68.0%	556	55.3%	170	46.5%	555	42.2%	500	25.4%	501	25.4%	504	25.4%	7	23.7%
553	Roberts - Federal & Franklin Streets	10.6%	554	78.5%	556	62.7%	555	50.9%	558	48.9%	170	43.5%	505	41.4%	504	23.4%	501	19.9%	70	18.4%	500	14.8%
554	Waverley Square - Federal & Franklin Streets	27.5%	553	62.8%	556	44.9%	555	40.7%	558	38.4%	505	33.8%	170	28.8%	554	27.5%	504	18.7%	501	15.9%	500	11.8%
555	Riverside Sta. - Federal & Franklin Streets Via Newton	0.0%	553	65.2%	554	65.2%	504	53.6%	556	49.1%	558	40.4%	GL	32.6%	55	32.5%	505	31.4%	OL	30.0%	170	27.5%
556	Waltham Highlands - Federal & Franklin Streets	19.1%	553	71.4%	554	63.9%	558	52.2%	555	43.6%	505	36.6%	170	31.5%	504	26.7%	501	22.7%	70	22.2%	556	19.1%
558	Auburndale - Federal & Franklin Streets	16.5%	553	57.6%	554	56.5%	556	54.0%	505	46.5%	555	37.2%	504	27.6%	501	23.5%	170	21.8%	500	19.4%	558	16.5%
CT1	Central Square Cambridge. - South End Medical Area	0.0%	1	96.4%	170	59.9%	47	55.5%	8	41.4%	GL	32.5%	CT3	31.1%	10	29.2%	SL5	29.1%	SL4	29.1%	39	27.8%
CT2	Sullivan Station - Kendall MIT Station	2.9%	47	75.2%	GL	55.4%	8	52.3%	19	52.3%	CT3	44.4%	39	31.5%	60	25.4%	65	25.4%	1	23.3%	64	20.9%
CT2	Kendall MIT Station - Ruggles Station	0.0%	85	69.1%	91	68.5%	86	55.1%	68	38.0%	64	37.7%	90	36.5%	87	30.1%	69	29.9%	80	28.9%	88	28.2%
CT3	Longwood Medical Area - Andrew Station	0.0%	8	88.6%	47	76.7%	19	55.7%	10	49.4%	1	42.6%	170	40.7%	CT2	37.3%	SL5	36.9%	SL4	36.9%	CT1	34.9%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
SL1	Logan Airport - South Station	8.2%	SL2	88.4%	SLW	88.4%	4	88.1%	459	80.3%	448	80.1%	449	80.1%	7	78.1%	11	54.0%	SL4	42.4%	RL	41.8%
SL2	Boston Marine Industrial Park - South Station	3.8%	4	95.8%	SL1	82.4%	SLW	82.4%	7	79.5%	459	71.6%	448	71.5%	449	71.5%	11	50.3%	SL4	39.5%	RL	38.9%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	4	99.6%	7	88.3%	459	86.9%	448	86.8%	449	86.8%	11	61.0%	SL4	47.9%	RL	47.2%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	92.1%	170	65.4%	43	61.5%	8	60.6%	47	54.9%	1	48.2%	11	45.7%	CT3	38.1%	10	37.3%	275	35.9%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	95.0%	43	68.3%	170	67.9%	8	62.5%	47	56.7%	1	49.7%	11	41.1%	CT3	39.3%	10	38.5%	275	36.8%
BL	Blue Line	3.1%	4	34.3%	92	32.9%	93	32.9%	352	31.3%	354	31.3%	355	31.3%	OL	30.8%	GL	29.3%	120	28.9%	117	26.9%
GL	Green Line	9.6%	39	24.5%	65	22.4%	55	22.1%	66	21.0%	OL	16.6%	57	16.5%	60	15.7%	170	15.0%	9	14.1%	555	13.1%
ML	Mattapan Line	10.6%	24	57.9%	27	57.5%	240	47.3%	215	34.7%	217	32.2%	245	27.0%	716	23.2%	28	22.2%	29	22.2%	30	22.2%
OL	Orange Line	1.2%	GL	35.2%	92	33.8%	93	30.6%	43	27.0%	39	26.7%	555	25.5%	504	25.5%	4	23.9%	55	20.8%	SL5	17.8%
RL	Red Line	2.8%	18	23.6%	96	19.6%	83	18.8%	210	18.0%	11	17.7%	77	16.4%	217	15.1%	1	14.9%	68	14.4%	17	13.8%

Table A-6
Unique and Overlap Coverage Percentages by Route for the One-Half-Mile Coverage Threshold

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
1	Harvard Square - Dudley Station via Mass. Ave.	0.2%	CT1	67.4%	47	53.7%	170	51.1%	8	43.3%	68	32.1%	SL5	31.6%	SL4	31.6%	CT3	29.3%	19	29.2%	RL	27.7%
4	North Station - World Trade Center	0.7%	7	62.5%	92	59.0%	93	58.9%	OL	58.7%	GL	56.0%	459	54.6%	448	54.5%	449	54.5%	SL2	53.6%	SL1	48.5%
5	City Point - McCormack Housing	0.0%	10	89.2%	11	80.3%	9	70.4%	16	43.2%	RL	38.3%	7	37.8%	18	30.6%	17	27.5%	CT3	23.3%	8	20.9%
7	City Point - Otis & Summer Streets	0.0%	11	75.4%	4	61.6%	448	54.0%	449	54.0%	459	54.0%	9	48.3%	SL2	48.1%	SL1	45.8%	SLW	45.8%	504	36.9%
8	Harbor Point /U Mass - Kenmore Station	0.0%	47	61.3%	CT3	52.9%	19	51.2%	170	41.9%	1	40.7%	41	39.5%	15	36.5%	10	36.1%	SL5	35.3%	SL4	35.3%
9	City Point - Copley Square via Broadway Station	0.2%	10	68.4%	11	65.0%	170	46.6%	55	45.8%	GL	43.4%	39	40.0%	43	37.2%	5	36.7%	555	32.3%	504	32.2%
10	City Point - Copley Square Via BU Med Center	0.0%	9	65.1%	11	51.8%	8	44.4%	5	44.2%	170	43.5%	CT3	39.7%	43	32.2%	SL5	31.0%	SL4	30.8%	1	29.6%
11	City Point - Downtown	0.5%	9	74.1%	10	62.1%	7	48.7%	5	47.7%	RL	42.8%	SL4	39.6%	SL5	34.7%	275	32.0%	43	31.9%	OL	29.9%
14	Roslindale Square - Heath Street Loop	8.3%	28	47.3%	23	41.6%	45	41.1%	19	39.5%	44	39.3%	29	36.0%	22	34.8%	41	32.2%	42	22.8%	66	22.6%
15	Kane Square - Ruggles Station	0.0%	19	66.3%	41	57.1%	45	53.5%	23	53.3%	17	50.2%	8	46.3%	28	41.9%	44	37.4%	47	33.0%	14	32.5%
16	Forest Hills Station - U Mass.	0.4%	17	42.6%	8	34.4%	41	30.9%	15	28.7%	18	27.5%	45	25.4%	10	23.2%	19	21.3%	5	21.1%	23	19.0%
17	Fields Corner Station - Andrew Station	0.0%	15	74.1%	18	71.6%	16	65.6%	RL	44.8%	19	38.7%	41	35.1%	8	28.4%	201	26.1%	202	26.1%	210	26.1%
18	Ashmont Station - Andrew Station	0.1%	RL	62.3%	17	61.7%	15	40.3%	202	39.8%	201	39.6%	16	36.5%	23	34.1%	210	30.5%	22	25.5%	26	25.3%
19	Fields Corner Station - Ruggles or Kenmore Station	0.0%	23	61.5%	28	51.5%	15	51.3%	8	50.3%	45	50.0%	47	45.3%	14	44.8%	44	40.2%	CT3	32.8%	GL	29.2%
21	Ashmont Station - Forest Hills Station	0.0%	31	56.7%	26	55.5%	24	31.0%	27	31.0%	240	28.1%	217	27.2%	29	25.3%	16	25.0%	28	24.7%	215	24.2%
22	Ashmont Station - Ruggles Station Via Talbot Ave	0.4%	29	71.6%	23	63.9%	44	50.5%	14	49.1%	28	46.3%	45	37.8%	19	33.8%	OL	28.0%	26	27.5%	42	26.7%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	0.6%	19	71.0%	28	63.3%	22	59.3%	45	59.3%	14	54.4%	44	48.6%	15	47.6%	29	36.6%	41	28.3%	8	26.2%
24	Wakefield Ave. - Mattapan Station or Ashmont	16.5%	27	46.8%	33	42.7%	ML	29.4%	240	29.1%	217	27.0%	21	23.3%	26	22.3%	30	19.7%	716	18.7%	32	18.5%
26	Ashmont Station - Norfolk & Wash. Belt	0.3%	21	68.4%	22	51.8%	23	49.5%	24	36.7%	27	36.7%	215	36.2%	18	36.1%	240	33.1%	217	32.0%	RL	24.4%
27	Mattapan Station - Ashmont Station	0.0%	24	100.0%	240	62.1%	ML	61.5%	217	57.6%	21	49.7%	26	47.7%	215	38.6%	28	27.9%	29	27.9%	31	27.9%
28	Mattapan Station - Ruggles Station	0.0%	29	74.1%	23	60.7%	45	59.7%	14	59.4%	19	57.1%	44	47.0%	22	41.3%	15	35.9%	31	30.6%	41	27.2%
29	Mattapan Station - Jackson Sq. Station	0.0%	28	76.4%	22	65.8%	44	49.0%	14	46.7%	45	37.3%	23	36.3%	19	32.9%	31	31.6%	42	26.0%	OL	25.7%
30	Mattapan Station - Roslindale Square	10.9%	14	46.2%	50	43.1%	35	41.7%	36	41.7%	37	41.7%	51	41.7%	34	39.4%	40	39.4%	31	31.9%	32	31.9%
31	Mattapan Station - Forest Hills Station	0.0%	21	66.9%	28	61.9%	29	61.9%	30	39.3%	16	29.5%	24	26.3%	716	23.8%	33	23.7%	245	22.6%	27	20.6%
32	Wolcott Square or Cleary Square - Forest Hills Station	12.0%	50	44.3%	33	37.1%	14	35.5%	30	33.3%	24	24.6%	34	17.3%	36	17.0%	40	16.1%	35	14.8%	37	14.8%
33	River & Milton Streets - Mattapan Station	8.7%	24	54.0%	32	35.2%	30	24.5%	50	21.5%	28	19.4%	29	19.0%	31	19.0%	716	18.9%	245	18.5%	40	15.5%
34	Dedham Line - Forest Hills Station	56.3%	34	56.3%	35	27.8%	40	25.8%	50	17.1%	36	16.2%	37	15.4%	30	13.9%	51	13.8%	38	9.5%	14	8.1%
35	Dedham Mall - Forest Hills Station	3.0%	36	69.3%	37	63.8%	34	57.8%	38	47.2%	51	44.1%	40	35.4%	30	30.5%	50	30.1%	14	18.4%	52	13.7%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	2.5%	35	81.7%	37	77.1%	38	57.5%	51	50.2%	34	39.8%	40	38.0%	30	36.0%	50	35.5%	52	23.3%	14	21.7%
37	Baker & Vermont Streets - Forest Hills Station	5.9%	36	72.7%	35	71.0%	38	67.3%	51	57.7%	34	35.6%	40	35.6%	30	34.0%	50	33.5%	52	20.7%	14	20.5%
38	Wren Street - Forest Hills Station	10.5%	37	59.1%	36	47.6%	35	46.1%	51	40.6%	39	25.6%	34	19.3%	40	17.8%	OL	16.1%	52	16.1%	48	15.2%
39	Forest Hills Station - Back Bay Station	0.0%	GL	61.7%	OL	43.2%	170	37.8%	55	36.5%	9	33.8%	43	25.9%	48	25.8%	1	23.6%	66	22.7%	19	22.1%
40	Georgetowne - Forest Hills Station	0.5%	34	82.1%	50	56.3%	35	54.1%	36	49.3%	37	49.0%	30	44.2%	51	43.8%	38	27.8%	14	25.7%	33	17.5%
41	Centre & Eliot Streets - JFK U Mass Station	0.0%	15	51.8%	8	45.4%	14	42.8%	45	38.6%	44	36.8%	48	35.8%	42	31.9%	39	31.1%	16	29.3%	23	28.8%
42	Forest Hills Station - Ruggles Station	0.0%	44	68.4%	41	53.6%	14	51.1%	OL	45.6%	29	44.8%	22	42.4%	48	40.9%	23	39.9%	28	39.9%	19	38.5%
43	Ruggles Station - Park & Tremont Streets	0.0%	SL5	66.8%	GL	62.9%	SL4	62.6%	170	60.5%	55	60.4%	OL	56.3%	8	47.0%	9	46.9%	555	44.4%	504	44.2%
44	Jackson Sq. Station - Ruggles Station	0.0%	14	73.2%	29	70.4%	28	69.7%	23	69.2%	22	66.7%	19	66.0%	45	64.2%	42	56.9%	41	51.6%	15	47.5%
45	Franklin Park - Ruggles Station	0.0%	28	84.2%	23	80.3%	19	78.2%	14	72.9%	15	64.7%	44	61.1%	41	51.4%	29	50.9%	22	47.4%	8	44.8%
47	Central Square Cambridge. - Broadway Station	0.4%	8	62.5%	1	51.5%	19	47.1%	CT3	45.6%	CT1	42.0%	CT2	39.8%	170	34.8%	SL4	34.0%	SL5	33.8%	GL	33.2%
48	Centre & Eliot Streets - Jamaica Plain Loop	0.0%	41	76.7%	39	58.3%	OL	53.9%	42	52.0%	22	42.6%	29	42.6%	44	42.4%	38	29.4%	14	29.2%	66	5.1%
50	Cleary Sq. - Forest Hills Station Via Metropolitan	9.9%	40	58.3%	34	56.4%	30	50.0%	32	49.2%	35	47.7%	36	47.7%	37	47.7%	51	45.1%	14	31.9%	33	25.1%
51	Cleveland Circle - Forest Hills Station	27.3%	37	43.1%	35	36.7%	36	35.4%	38	34.6%	51	27.3%	30	25.4%	34	23.8%	40	23.8%	50	23.7%	14	15.3%
52	Dedham Mall - Watertown Yard	39.0%	52	39.0%	59	21.3%	57	16.4%	502	14.9%	504	14.9%	36	12.5%	37	11.8%	GL	11.1%	38	10.4%	558	9.9%
55	Queensberry Street - Park & Tremont Streets	0.0%	GL	90.0%	43	62.6%	9	59.8%	39	56.5%	170	54.7%	504	52.7%	555	52.7%	OL	45.1%	SL5	36.8%	1	34.6%
57	Watertown Yard - Kenmore Station	0.0%	501	57.8%	503	57.6%	GL	48.3%	64	33.9%	65	29.7%	66	23.6%	52	23.3%	502	21.2%	504	21.2%	86	20.3%
59	Needham Junction - Watertown Square	52.9%	59	52.9%	52	22.3%	556	19.3%	553	17.0%	554	17.0%	555	16.7%	558	13.3%	70	9.2%	71	9.2%	57	9.2%
60	Chestnut Hill - Kenmore Station	21.4%	GL	60.0%	65	51.2%	8	31.5%	19	31.5%	39	26.9%	66	26.5%	47	24.7%	CT2	22.4%	60	21.4%	55	15.9%
62	Bedford V.A. Hospital - Alewife Station	22.0%	76	50.2%	78	36.6%	84	36.2%	62	22.0%	67	17.5%	79	16.5%	77	14.4%	350	4.0%	351	3.6%	RL	2.7%
64	Oak Square - University Pk. Cambridge	2.5%	70	40.1%	501	38.7%	503	38.3%	68	35.0%	57	33.3%	1	29.4%	91	26.6%	47	26.4%	83	26.3%	RL	25.3%
65	Brighton Center - Kenmore Station	0.5%	GL	85.9%	60	52.2%	66	36.4%	57	36.4%	8	32.0%	19	32.0%	39	25.2%	47	25.1%	CT2	22.8%	501	22.0%
66	Harvard Square - Dudley Station via Brookline	0.0%	GL	53.2%	19	27.6%	14	26.8%	65	25.8%	47	25.7%	8	25.5%	1	24.7%	86	24.0%	44	23.8%	15	23.1%
67	Turkey Hill - Alewife Station	25.2%	79	50.8%	77	46.3%	62	35.9%	350	30.8%	76	30.3%	84	30.3%	78	25.6%	67	25.2%	80	16.4%	87	14.2%
68	Harvard Square - Kendall MIT Station	0.0%	69	70.0%	64	69.0%	1	68.8%	RL	58.7%	83	50.0%	85	48.9%	91	44.7%	CT2	44.0%	86	38.5%	72	34.2%
69	Harvard Square - Lechmere Station	0.1%	68	67.1%	86	48.3%	1	44.7%	83	43.1%	87	40.3%	91	40.2%	85	39.4%	64	37.4%	CT2	36.1%	72	34.0%
70	Cedarwood - Central Square Cambridge	17.7%	170	35.1%	64	20.5%	70	17.7%	556	14.7%	553	13.8%	554	13.0%	558	12.9%	1	12.6%	47	12.0%	71	12.0%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
71	Watertown Square - Harvard Station	8.1%	73	62.3%	72	45.9%	75	36.6%	70	31.1%	74	26.8%	78	26.8%	77	21.5%	96	21.5%	86	18.4%	66	16.9%
72	Aberdeen & Mt. Auburn - Harvard Station	0.0%	75	73.3%	71	66.8%	73	66.3%	74	59.9%	78	59.8%	86	36.9%	77	36.5%	96	36.1%	69	34.7%	68	33.5%
73	Waverley Square - Harvard Station	21.4%	71	59.7%	72	43.7%	75	38.0%	74	26.5%	78	25.2%	73	21.4%	77	20.0%	96	20.0%	86	17.1%	66	15.7%
74	Belmont Center - Harvard Station via Concord Ave	0.0%	75	96.3%	78	74.7%	72	51.3%	73	34.4%	71	33.4%	77	30.6%	96	30.2%	86	22.9%	66	21.1%	69	19.4%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	0.0%	74	86.5%	78	63.7%	72	56.3%	73	44.3%	71	40.9%	77	27.5%	96	27.1%	86	20.6%	66	19.0%	69	17.5%
76	Hanscom Air Force Base - Alewife Station	13.0%	62	58.5%	84	40.1%	78	34.3%	67	17.2%	76	13.0%	79	6.6%	350	4.7%	351	4.1%	77	4.0%	RL	3.1%
77	Arlington Heights - Harvard Station	0.0%	79	58.1%	87	41.6%	96	37.0%	78	31.8%	350	31.2%	RL	29.8%	83	27.0%	67	26.1%	88	21.2%	89	18.5%
78	Arlmont Village - Harvard Station	1.8%	62	47.4%	74	46.6%	84	46.3%	75	44.3%	76	38.2%	77	35.7%	72	32.0%	71	20.9%	73	20.4%	96	18.9%
79	Arlington Heights - Alewife Station	0.0%	77	95.9%	350	55.7%	67	47.1%	87	34.6%	62	31.5%	78	25.7%	84	21.3%	80	20.4%	76	10.7%	88	8.4%
80	Arlington Center - Lechmere Station	0.4%	101	53.1%	88	47.1%	87	43.6%	89	42.2%	94	37.2%	90	34.9%	96	23.4%	95	22.7%	CT2	16.9%	85	15.7%
83	Rindge Ave. - Central Square, Cambridge	0.9%	87	49.0%	RL	47.7%	91	44.9%	77	37.2%	64	33.4%	88	33.3%	85	33.0%	68	32.1%	96	30.2%	1	30.1%
84	Arlmont Loop - Alewife Station	0.0%	62	88.8%	78	87.7%	76	84.5%	67	36.3%	79	27.5%	77	22.1%	350	9.8%	351	8.7%	RL	6.5%	83	5.1%
85	Spring Hill - Kendall MIT Station	0.0%	CT2	71.4%	87	52.3%	91	51.1%	83	50.3%	68	47.8%	88	47.5%	64	46.8%	69	40.2%	90	36.9%	80	36.0%
86	Sullivan Station - Cleveland Circle	0.0%	91	30.3%	CT2	26.7%	66	23.8%	69	22.4%	64	22.1%	501	21.3%	503	21.1%	90	20.9%	GL	18.6%	87	18.3%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	1.1%	88	68.6%	80	49.9%	77	43.7%	83	37.3%	90	37.1%	89	34.8%	96	28.4%	85	26.2%	RL	23.9%	94	22.7%
88	Clarendon Hill - Lechmere Station via Highland Avenue	0.0%	87	80.1%	90	63.1%	80	62.9%	89	58.7%	83	29.6%	96	29.1%	85	27.7%	94	26.8%	77	26.0%	RL	23.1%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	0.0%	88	60.9%	90	60.9%	80	58.5%	101	57.4%	87	42.1%	94	33.4%	96	32.3%	95	30.8%	77	23.5%	RL	19.5%
90	Davis Square Station - Wellington Station	0.0%	88	70.5%	89	65.6%	80	52.2%	87	48.4%	101	39.5%	86	30.0%	83	29.0%	95	28.7%	91	28.2%	96	27.8%
91	Sullivan Station - Central Square, Cambridge	0.0%	CT2	65.7%	83	60.0%	86	58.5%	64	45.1%	85	44.8%	68	38.4%	90	37.9%	1	36.0%	69	36.0%	70	30.9%
92	Assembly Square Mall - Downtown Via Main Street	0.0%	93	80.1%	OL	62.8%	4	41.2%	GL	38.2%	BL	31.2%	325	30.5%	326	30.5%	90	30.3%	95	27.2%	352	26.9%
93	Sullivan Station - Downtown Via Bunker Hill	2.4%	92	92.6%	OL	67.9%	4	47.5%	GL	44.0%	BL	36.1%	325	35.2%	326	35.2%	352	31.1%	354	31.1%	355	31.1%
94	Medford Square - Davis Square Station	0.0%	101	69.9%	96	66.8%	80	56.4%	95	46.3%	326	42.5%	89	36.5%	134	32.6%	88	30.4%	87	30.1%	90	24.4%
95	West Medford - Sullivan Station	1.2%	101	84.6%	326	43.0%	134	37.1%	94	35.0%	80	26.1%	89	25.5%	710	22.5%	90	22.1%	325	20.6%	96	20.4%
96	Medford Sq. - Harvard Station	0.0%	94	62.6%	77	48.2%	RL	42.6%	101	39.3%	87	35.3%	80	33.2%	89	33.1%	88	31.0%	83	28.6%	90	26.5%
97	Malden Station - Wellington Station	0.0%	104	76.7%	99	71.7%	106	70.5%	105	68.6%	110	44.2%	109	42.2%	112	37.7%	108	32.1%	101	26.9%	131	23.0%
99	Boston Reg. Med Center Stoneham - Wellington Station	5.0%	106	66.2%	105	63.6%	97	57.7%	104	54.0%	101	36.6%	108	36.2%	131	32.1%	136	32.1%	137	32.1%	132	26.5%
100	Elm Street - Wellington Station	0.6%	710	64.1%	325	62.5%	108	46.9%	101	41.3%	134	32.1%	95	31.4%	99	13.5%	97	11.3%	106	5.1%	OL	4.9%
101	Malden Station - Sullivan Station Via Medford Square	0.0%	95	56.9%	80	41.0%	94	35.5%	89	32.0%	326	23.1%	96	21.3%	90	20.4%	104	20.1%	105	20.1%	108	20.1%
104	Malden Station - Sullivan Station Via Ferry Street	0.0%	105	81.2%	109	59.4%	97	57.8%	106	50.7%	99	50.6%	101	37.7%	110	31.2%	108	27.2%	411	26.8%	430	26.8%
105	Malden Station - Sullivan Station Via Main Street	0.3%	104	79.7%	106	64.9%	99	58.5%	97	50.8%	109	45.6%	101	37.0%	108	33.5%	411	32.8%	430	32.8%	131	26.8%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	8.2%	131	48.8%	105	47.5%	136	45.4%	137	45.4%	99	44.5%	97	38.2%	108	37.4%	104	36.4%	411	35.8%	430	35.8%
108	Linden Square - Wellington Station	0.1%	411	67.2%	430	56.6%	106	50.1%	101	36.2%	105	32.8%	99	32.5%	100	29.3%	104	26.1%	131	26.1%	136	26.1%
109	Linden Square - Sullivan Station	7.2%	104	60.5%	105	47.3%	110	36.5%	97	32.4%	112	23.2%	411	22.4%	106	22.3%	108	22.0%	99	16.4%	92	15.0%
110	Wonderland Station - Wellington Station	1.7%	111	41.7%	112	33.8%	109	32.6%	411	32.2%	117	32.0%	97	30.4%	119	30.1%	104	28.4%	450	21.6%	455	21.6%
111	Woodlawn or Bway & Park - Haymarket Station	2.2%	116	42.8%	110	41.9%	117	41.7%	112	40.6%	114	26.3%	426	21.8%	450	19.5%	455	19.5%	424	19.1%	434	19.1%
112	Wellington Station - Wood Island Station	3.9%	111	44.7%	110	37.4%	116	36.8%	117	36.8%	114	35.3%	97	28.7%	104	22.9%	109	22.9%	99	20.3%	106	20.3%
114	Bellingham Square or Mystic Mall - Maverick Station	0.0%	116	92.9%	117	92.9%	112	67.4%	111	55.3%	121	42.3%	120	41.9%	BL	23.0%	110	2.0%				
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	79.4%	114	46.7%	111	45.2%	411	40.1%	112	35.3%	119	29.5%	426	24.9%	450	24.9%	455	24.9%	424	22.1%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	85.9%	114	50.5%	111	47.6%	112	38.2%	110	36.8%	411	35.4%	119	32.9%	450	24.9%	455	24.9%	BL	23.6%
119	Northgate Shopping Center - Beachmont Station	5.7%	411	70.6%	426	41.4%	110	34.9%	117	33.2%	116	32.2%	429	29.0%	450	28.7%	455	28.3%	459	25.7%	424	22.5%
120	Orient Heights Station - Maverick Station	10.9%	121	57.3%	BL	45.7%	114	38.8%	116	38.8%	117	38.8%	112	27.4%	450	20.4%	455	20.4%	459	20.4%	448	18.3%
121	Wood Island Station - Maverick Station	0.0%	120	98.2%	114	67.3%	116	67.3%	117	67.3%	BL	49.4%	112	47.2%	450	6.0%	455	6.0%	459	6.0%	426	4.1%
131	Melrose Highlands - Malden Station	23.6%	136	72.2%	137	72.2%	106	60.5%	132	31.3%	99	26.7%	105	24.3%	108	24.2%	101	24.0%	411	23.9%	430	23.9%
132	Redstone Shopping Center - Malden Station	54.4%	132	54.4%	131	37.4%	136	37.4%	137	37.4%	106	26.8%	99	26.4%	OL	23.6%	101	21.0%	108	19.5%	104	17.5%
134	North Woburn - Wellington Station	40.9%	134	40.9%	95	28.2%	326	25.6%	710	25.3%	101	22.2%	354	19.2%	94	18.7%	100	12.5%	96	10.6%	108	10.1%
136	Reading Depot - Malden Station Via Lakeside	15.7%	137	84.3%	131	49.4%	106	38.5%	132	21.4%	99	18.3%	105	16.7%	108	16.6%	101	16.4%	411	16.3%	430	16.3%
137	Reading Depot - Malden Station Via North Ave	9.0%	136	91.0%	131	53.3%	106	41.6%	132	23.1%	99	19.8%	105	18.0%	108	17.9%	101	17.7%	411	17.6%	430	17.6%
170	Oak Park - Dudley Station (Limited Service)	1.2%	70	38.8%	553	32.5%	1	31.2%	554	27.7%	8	27.3%	SL5	25.9%	SL4	25.7%	CT1	25.1%	43	24.2%	9	23.5%
201	Fields Corner Station - Fields Corner Station	0.0%	202	100.0%	210	73.3%	18	53.1%	RL	33.5%	19	30.6%	215	30.4%	15	30.2%	17	30.2%	23	28.1%	22	16.5%
202	Fields Corner Station - Fields Corner Station	0.0%	201	96.1%	210	70.4%	18	51.3%	215	33.1%	RL	32.5%	19	29.4%	15	29.0%	17	29.0%	23	27.4%	22	16.2%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	1.9%	211	49.1%	217	48.0%	212	47.1%	201	45.0%	202	45.0%	RL	44.3%	245	26.6%	215	26.4%	18	25.1%	19	18.8%
211	Quincy Center Station - Squantum	19.1%	217	77.2%	212	54.0%	210	48.0%	245	40.4%	215	35.6%	RL	28.3%	211	19.1%	214	13.4%	216	13.4%	225	11.2%
212	Quincy Center Station - North Quincy Station	0.0%	211	100.0%	217	97.9%	210	85.3%	245	45.1%	215	39.9%	RL	38.6%	214	24.9%	216	24.9%	225	20.7%	220	20.5%
214	Quincy Center Station - Germantown	13.4%	216	86.6%	220	45.2%	221	45.2%	222	45.2%	245	38.6%	225	38.2%	215	36.7%	230	36.7%	238	36.7%	236	35.6%
215	Quincy Center Station - Ashmont Station	1.3%	217	58.5%	245	45.8%	238	32.5%	211	26.3%	230	22.2%	236	21.7%	RL	20.8%	240	19.7%	210	19.0%	225	17.4%
216	Quincy Center Station - Houghs Neck	26.1%	214	73.9%	220	38.6%	221	38.6%	222	38.6%	245	32.9%	225	32.6%	215	31.4%	230	31.4%	238	31.4%	236	30.4%
217	Wollaston Sta. - Ashmont Sta. via Wollaston Beach	2.5%	215	56.0%	211	54.5%	245	52.9%	212	37.3%	210	33.1%	RL	25.8%	240	24.7%	24	17.7%	27	17.7%	21	13.4%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
220	Quincy Center Station - Hingham	38.4%	221	55.1%	222	51.2%	220	38.4%	225	27.4%	214	19.7%	216	19.7%	215	16.4%	230	16.4%	238	16.4%	236	15.9%
221	Quincy Center Station - Fort Point	8.9%	220	91.1%	222	84.6%	225	45.3%	214	32.7%	216	32.7%	215	27.1%	230	27.1%	238	27.1%	236	26.4%	245	25.3%
222	Quincy Center Station - East Weymouth	52.5%	222	52.5%	220	47.2%	221	47.2%	225	25.6%	214	18.2%	216	18.2%	215	15.1%	230	15.1%	238	15.1%	236	14.7%
225	Quincy Center Station - Weymouth Landing	66.0%	225	66.0%	222	25.4%	220	25.1%	221	25.1%	236	23.1%	230	21.6%	215	21.3%	238	21.2%	245	17.4%	214	15.3%
230	Quincy Center Station - Montello Station	56.0%	230	56.0%	236	43.0%	215	25.1%	238	24.9%	225	20.0%	245	17.7%	220	13.9%	221	13.9%	222	13.9%	214	13.6%
236	Quincy Center Station - South Shore Plaza	23.7%	230	59.1%	238	47.7%	215	33.7%	225	29.3%	245	23.8%	236	23.7%	220	18.5%	221	18.5%	222	18.5%	214	18.1%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	29.7%	240	35.6%	215	32.5%	236	30.7%	238	29.7%	230	22.0%	245	19.6%	225	17.3%	220	12.2%	221	12.2%	222	12.2%
240	Avon Line - Ashmont Station	31.0%	238	33.7%	240	31.0%	217	24.5%	245	22.1%	24	18.9%	27	18.9%	215	18.7%	ML	14.9%	21	13.7%	26	13.1%
245	Quincy Center Station - Mattapan Station	11.6%	217	49.9%	215	41.3%	211	26.9%	240	21.0%	238	17.6%	210	17.3%	212	16.2%	RL	14.5%	230	14.0%	236	13.8%
275	Downtown Boston - Long Island Health Campus	0.0%	11	71.7%	SL4	70.5%	SL5	70.4%	43	62.7%	9	61.1%	RL	50.4%	OL	48.0%	555	45.0%	504	44.5%	8	42.6%
276	Boston City Hospital - Long Island Health Campus	0.0%	SL4	82.4%	SL5	80.9%	43	63.9%	11	49.2%	47	48.7%	10	48.7%	1	48.6%	8	48.6%	CT1	48.6%	CT3	48.6%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0%	43	86.6%	SL5	71.8%	SL4	64.3%	GL	63.8%	55	56.8%	170	48.9%	1	47.7%	CT1	47.7%	OL	47.7%	8	40.1%
325	Elm Street - Haymarket Station	0.0%	100	55.5%	326	45.5%	710	44.3%	101	39.7%	354	37.9%	355	37.9%	4	36.3%	92	36.3%	93	36.3%	OL	36.0%
326	West Medford - Haymarket Station	0.0%	95	67.0%	101	53.5%	134	52.4%	94	50.1%	325	41.1%	354	40.4%	355	40.4%	4	32.8%	92	32.8%	93	32.8%
350	North Burlington - Alewife Station	25.2%	79	31.1%	77	28.8%	350	25.2%	352	20.8%	87	19.3%	67	16.0%	354	13.5%	80	12.3%	88	4.7%	89	4.7%
351	Oak Park - Alewife Station	25.7%	350	55.5%	351	25.7%	62	13.2%	67	13.2%	76	13.2%	84	13.2%	354	12.0%	79	11.8%	RL	9.9%	352	7.9%
352	Burlington - State Street	0.0%	350	53.3%	354	49.2%	355	46.7%	BL	46.4%	92	41.8%	93	41.8%	GL	41.4%	OL	41.3%	4	41.2%	325	36.4%
354	Woburn Line - State Street	20.3%	355	48.3%	326	26.6%	134	26.0%	325	22.6%	352	22.5%	BL	21.2%	354	20.3%	92	19.1%	93	19.1%	GL	18.9%
355	Mishawum Station - State Street	6.2%	354	91.3%	326	50.3%	325	42.6%	352	40.2%	BL	40.0%	92	36.0%	93	36.0%	GL	35.7%	OL	35.6%	4	35.6%
411	Malden Station - Revere/Jack Satter House	0.2%	108	46.8%	119	44.7%	430	41.9%	426	37.0%	106	33.3%	116	27.7%	450	27.7%	455	27.7%	424	23.7%	110	23.6%
424	Eastern & Essex - Haymarket or Wonderland	0.0%	450	86.0%	455	77.1%	434	73.7%	459	64.8%	426	61.3%	441	53.2%	442	52.1%	456	47.2%	436	39.3%	435	25.6%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	1.2%	455	65.7%	450	57.1%	459	54.2%	424	48.8%	441	48.2%	442	48.2%	434	45.7%	429	44.5%	428	39.0%	411	31.1%
428	Oaklandvale - Haymarket Station via Granada Highlands	15.6%	426	60.9%	430	40.4%	429	34.3%	411	17.9%	4	16.6%	92	16.6%	93	16.6%	111	16.6%	OL	16.4%	GL	16.3%
429	Northgate Shopping Center - Central Sq. Lynn	17.0%	426	53.0%	455	31.1%	459	31.1%	436	29.0%	435	27.2%	441	27.1%	442	27.1%	456	26.5%	428	26.2%	430	23.6%
430	Saugus, Appleton Street - Malden Station	4.1%	411	53.7%	108	50.5%	106	42.6%	428	39.5%	429	30.3%	105	28.6%	104	22.9%	131	22.9%	136	22.9%	137	22.9%
431	Neptune Towers - Central Sq. Lynn	0.0%	441	95.9%	442	95.9%	455	92.9%	459	92.7%	456	91.9%	436	91.9%	429	79.7%	426	77.5%	448	71.3%	449	71.3%
434	Peabody - Haymarket Station	2.4%	424	55.8%	450	55.8%	436	53.0%	455	46.5%	426	43.5%	459	39.6%	435	38.5%	441	34.7%	442	34.7%	456	19.0%
435	Liberty Tree Mall - Central Sq. Lynn	13.2%	465	40.7%	436	40.0%	434	37.4%	429	21.1%	456	19.4%	424	18.8%	450	18.8%	455	16.0%	459	16.0%	441	14.7%
436	Danvers Sq. - Central Sq. Lynn	7.9%	434	60.4%	435	47.0%	456	41.9%	455	41.1%	459	41.1%	441	34.8%	442	34.8%	424	34.0%	450	30.5%	426	29.1%
439	Bass Point Nahant - Central Sq. Lynn	21.5%	441	65.9%	448	65.8%	442	63.7%	449	63.6%	455	41.2%	459	41.2%	456	30.1%	436	23.0%	439	21.5%	429	18.0%
441	Marblehead – Haymarket/Wonderland Sta. via Paradise	0.0%	442	92.8%	448	79.8%	449	72.6%	455	54.2%	459	45.5%	426	40.3%	424	35.4%	450	33.4%	439	31.2%	434	30.5%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	0.0%	441	93.8%	449	79.6%	448	73.4%	455	48.8%	426	40.7%	459	40.1%	424	35.1%	450	33.7%	434	30.8%	439	30.5%
448	Marblehead - Downtown Crossing	0.0%	449	93.0%	441	78.5%	442	71.4%	459	52.4%	455	39.9%	439	30.7%	426	24.9%	450	19.9%	456	16.1%	424	15.7%
449	Marblehead - Downtown Crossing	0.0%	448	93.9%	442	78.2%	441	72.1%	459	47.1%	455	34.5%	439	30.0%	426	25.1%	450	20.1%	456	15.6%	7	15.6%
450	Salem Depot – Haymarket/Wonderland Station	0.0%	455	70.3%	424	62.7%	459	59.1%	434	53.7%	426	52.3%	456	51.1%	441	36.5%	442	36.5%	436	25.7%	448	22.2%
451	North Beverly - Salem Depot	15.9%	455	27.8%	459	27.8%	450	23.4%	456	23.4%	465	23.4%	468	23.4%	451	15.9%						
455	Salem Depot - Haymarket or Wonderland Station	0.0%	459	90.2%	450	60.1%	426	51.4%	441	50.7%	424	48.0%	442	45.2%	456	44.4%	434	38.2%	448	38.0%	449	32.5%
456	Salem Depot - Central Sq. Lynn	0.0%	455	68.0%	459	68.0%	450	66.8%	436	46.3%	424	45.0%	441	42.1%	442	41.1%	426	30.9%	429	26.7%	435	25.2%
459	Salem Depot - Downtown Crossing	0.0%	455	86.3%	450	48.3%	448	47.7%	456	42.5%	449	42.5%	441	40.8%	426	40.6%	424	38.6%	442	35.5%	434	31.2%
465	Liberty Tree Mall - Salem Depot	3.4%	435	68.4%	468	43.6%	450	27.8%	456	27.8%	451	20.7%	455	20.7%	459	20.7%	436	13.8%	434	12.5%	465	3.4%
468	Danvers Square - Salem Depot (Limited Service)	36.6%	465	63.4%	468	36.6%	435	32.0%	450	30.7%	456	30.7%	451	30.1%	455	30.1%	459	30.1%	434	0.4%	436	0.0%
500	Riverside Station - Federal & Franklin Streets	0.0%	555	100.0%	558	100.0%	501	88.5%	504	88.5%	505	88.5%	553	88.5%	554	88.5%	556	88.5%	7	84.8%	OL	83.4%
501	Brighton Center - Federal & Franklin Streets	0.0%	503	76.2%	57	68.7%	64	47.0%	GL	41.9%	504	33.5%	553	33.5%	554	33.5%	555	33.5%	556	33.5%	558	33.5%
502	Watertown Yard - Copley Square	0.0%	504	100.0%	555	77.8%	503	68.4%	52	53.6%	57	53.6%	9	46.4%	170	46.4%	39	46.4%	10	45.8%	55	45.6%
503	Brighton Center - Copley	0.0%	501	77.7%	57	69.9%	64	47.3%	GL	44.4%	502	32.9%	504	32.9%	555	32.9%	86	29.7%	66	26.0%	9	22.3%
504	Watertown Yard - Federal & Franklin Streets	0.0%	555	86.4%	502	61.1%	GL	58.0%	55	56.8%	OL	51.8%	558	49.9%	43	49.4%	553	49.1%	554	49.1%	556	49.1%
505	Waltham Center - Federal & Franklin Streets	0.9%	554	76.5%	553	75.5%	558	72.3%	556	58.6%	170	50.7%	555	43.5%	500	25.3%	501	25.3%	504	25.3%	7	24.3%
505	Waltham Center - Federal & Franklin Streets	0.9%	554	76.5%	553	75.5%	558	72.3%	556	58.6%	170	50.7%	555	43.5%	500	25.3%	501	25.3%	504	25.3%	7	24.3%
553	Roberts - Federal & Franklin Streets	9.0%	554	80.9%	556	67.5%	558	53.6%	555	52.8%	170	45.3%	505	44.6%	504	24.5%	501	21.7%	70	21.2%	59	17.8%
554	Waverley Square - Federal & Franklin Streets	21.7%	553	64.1%	556	48.5%	555	41.8%	558	41.4%	505	35.8%	170	30.5%	554	21.7%	504	19.4%	501	17.2%	70	15.8%
555	Riverside Sta. - Federal & Franklin Streets Via Newton	0.0%	553	65.8%	554	65.8%	504	53.8%	556	50.4%	558	42.9%	GL	38.0%	55	35.3%	OL	32.4%	505	32.0%	170	31.7%
556	Waltham Highlands - Federal & Franklin Streets	11.4%	553	77.7%	554	70.4%	558	60.6%	555	46.6%	505	39.8%	170	35.0%	504	28.2%	70	26.0%	501	24.9%	59	23.2%
558	Auburndale - Federal & Franklin Streets	9.1%	553	61.1%	556	60.0%	554	59.6%	505	48.6%	555	39.2%	504	28.4%	170	25.4%	501	24.7%	70	22.6%	500	19.3%
CT1	Central Square Cambridge. - South End Medical Area	0.0%	1	97.6%	47	63.5%	170	59.4%	8	47.9%	10	36.7%	CT3	36.0%	GL	35.6%	43	33.1%	SL5	32.8%	SL4	32.8%
CT2	Sullivan Station - Kendall MIT Station	1.4%	47	76.5%	GL	60.0%	19	54.1%	8	53.9%	CT3	43.5%	39	34.2%	1	33.3%	60	31.0%	65	31.0%	66	27.6%
CT2	Kendall MIT Station - Ruggles Station	0.0%	91	74.9%	85	71.4%	86	58.7%	68	43.1%	64	42.2%	90	41.4%	80	38.6%	87	38.3%	69	36.9%	88	36.9%
CT3	Longwood Medical Area - Andrew Station	0.0%	8	89.9%	47	76.0%	19	56.8%	10	54.8%	1	46.8%	170	43.6%	15	40.3%	CT1	39.7%	SL5	39.6%	SL4	39.6%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
SL1	Logan Airport - South Station	6.5%	SL2	90.1%	SLW	90.1%	4	89.8%	459	86.5%	448	86.4%	449	86.4%	7	86.3%	11	60.8%	RL	51.1%	SL4	50.9%
SL2	Boston Marine Industrial Park - South Station	1.8%	4	97.9%	7	89.4%	SL1	88.9%	SLW	88.9%	459	82.2%	448	82.1%	449	82.1%	11	60.2%	RL	50.4%	SL4	50.3%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	4	99.7%	7	95.7%	459	92.5%	448	92.3%	449	92.3%	11	67.5%	RL	56.7%	SL4	56.5%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	92.6%	170	70.6%	43	68.8%	8	63.1%	47	59.6%	1	53.1%	11	48.1%	OL	45.7%	10	44.7%	CT3	41.6%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	95.2%	43	75.4%	170	73.0%	8	64.9%	47	60.9%	1	54.5%	OL	48.0%	10	46.3%	11	43.2%	CT3	42.8%
BL	Blue Line	1.9%	92	34.1%	93	34.1%	4	34.0%	450	33.7%	455	33.7%	GL	32.8%	OL	32.8%	352	32.6%	354	32.6%	355	32.6%
GL	Green Line	7.4%	65	27.2%	39	26.0%	55	24.5%	66	23.8%	OL	20.9%	60	19.4%	57	18.8%	43	17.7%	170	15.9%	8	15.8%
ML	Mattapan Line	4.3%	24	68.5%	27	67.0%	240	53.5%	217	40.2%	215	39.5%	245	31.6%	21	29.2%	26	27.9%	716	26.3%	202	25.2%
OL	Orange Line	0.7%	GL	38.5%	39	33.4%	92	32.8%	93	30.6%	43	29.2%	555	24.2%	504	24.1%	55	22.6%	SL5	22.1%	SL4	21.6%
RL	Red Line	1.1%	18	24.7%	210	21.3%	83	20.8%	96	19.6%	11	18.5%	217	17.9%	77	17.9%	1	16.6%	68	16.4%	17	15.3%

Table A-7
Service Plan Proposal by Route by Coverage Threshold

Rte. #	Route Description	Coverage Threshold		
		0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
1	Harvard Square - Dudley Station via Mass. Ave.			
4	North Station - World Trade Center		Eliminate	Eliminate
5	City Point - McCormack Housing	Eliminate	Eliminate	Eliminate
7	City Point - Otis & Summer Streets			
8	Harbor Point /U Mass - Kenmore Station	Eliminate	Eliminate	Eliminate
9	City Point - Copley Square via Broadway Station			Change routing[9]
10	City Point - Copley Square Via BU Med Center	Eliminate	Eliminate	Eliminate
11	City Point - Downtown			Eliminate
14	Roslindale Square - Heath Street Loop			Eliminate
15	Kane Square - Ruggles Station	Change routing[10]	Change routing[11]	Change routing[11]
16	Forest Hills Station - U Mass.			
17	Fields Corner Station - Andrew Station	Eliminate	Eliminate	Eliminate
18	Ashmont Station - Andrew Station		Eliminate	Eliminate
19	Fields Corner Station - Ruggles or Kenmore Station	Eliminate	Eliminate	Eliminate
21	Ashmont Station - Forest Hills Station			
22	Ashmont Station - Ruggles Station Via Talbot Ave			
23	Ashmont Station - Ruggles Station via Washington Street			
24	Wakefield Ave. - Mattapan Station or Ashmont			
26	Ashmont Station - Norfolk & Wash. Belt		Eliminate	Eliminate
27	Mattapan Station - Ashmont Station	Eliminate	Eliminate	Eliminate
28	Mattapan Station - Ruggles Station			
29	Mattapan Station - Jackson Sq. Station	Eliminate	Eliminate	Eliminate
30	Mattapan Station - Roslindale Square			
31	Mattapan Station - Forest Hills Station	Eliminate	Eliminate	Eliminate
32	Wolcott Square or Cleary Square - Forest Hills Station			
33	River & Milton Streets - Mattapan Station			Eliminate
34	Dedham Line - Forest Hills Station			
35	Dedham Mall - Forest Hills Station	Eliminate	Eliminate	Eliminate
36	VA Hosp. - Forest Hills Station Via Chas. River Loop			
37	Baker & Vermont Streets - Forest Hills Station	Eliminate	Eliminate	Eliminate
38	Wren Street - Forest Hills Station			
39	Forest Hills Station - Back Bay Station			
40	Georgetowne - Forest Hills Station	Eliminate	Eliminate	Change routing[11]
41	Centre & Eliot Streets - JFK U Mass Station			Eliminate
42	Forest Hills Station - Ruggles Station			
43	Ruggles Station - Park & Tremont Streets	Eliminate	Eliminate	Eliminate
44	Jackson Sq. Station - Ruggles Station	Eliminate	Eliminate	Eliminate
45	Franklin Park - Ruggles Station	Eliminate	Eliminate	Eliminate
47	Central Square Cambridge. - Broadway Station			
48	Centre & Eliot Streets - Jamaica Plain Loop	Eliminate	Eliminate	Eliminate
50	Cleary Sq. - Forest Hills Station Via Metropolitan	Eliminate	Eliminate	Eliminate
51	Cleveland Circle - Forest Hills Station			
52	Dedham Mall - Watertown Yard			Eliminate
55	Queensberry Street - Park & Tremont Streets	Eliminate	Eliminate	Eliminate
57	Watertown Yard - Kenmore Station			
59	Needham Junction - Watertown Square			Eliminate
60	Chestnut Hill - Kenmore Station			Eliminate
62	Bedford V.A. Hospital - Alewife Station			
64	Oak Square - University Pk. Cambridge			Eliminate
65	Brighton Center - Kenmore Station	Eliminate	Eliminate	Eliminate
66	Harvard Square - Dudley Station via Brookline			
67	Turkey Hill - Alewife Station			Eliminate
68	Harvard Square - Kendall MIT Station	Eliminate	Eliminate	Eliminate
69	Harvard Square - Lechmere Station			
70	Cedarwood - Central Square Cambridge			
71	Watertown Square - Harvard Station			
72	Aberdeen & Mt. Auburn - Harvard Station	Eliminate	Eliminate	Eliminate
73	Waverley Square - Harvard Station			
74	Belmont Center - Harvard Station via Concord Ave	Eliminate	Eliminate	Eliminate
75	Belmont Center - Harvard Station via Fresh Pond Pkwy			
76	Hanscom Air Force Base - Alewife Station		Eliminate	Eliminate
77	Arlington Heights - Harvard Station			
78	Arlmont Village - Harvard Station	Change routing[12]	Change routing[13]	Change routing[13]
79	Arlington Heights - Alewife Station	Eliminate	Eliminate	Eliminate
80	Arlington Center - Lechmere Station			
83	Rindge Ave. - Central Square, Cambridge			
84	Arlmont Loop - Alewife Station	Eliminate	Eliminate	Eliminate
85	Spring Hill - Kendall MIT Station	Eliminate	Eliminate	Eliminate
86	Sullivan Station - Cleveland Circle			
87	Clarendon Hill - Lechmere Station via Somerville Avenue			Eliminate
88	Clarendon Hill - Lechmere Station via Highland Avenue			
89	Clarendon Hill or Davis Square - Sullivan Station via Broadway			
90	Davis Square Station - Wellington Station	Eliminate	Eliminate	Eliminate
91	Sullivan Station - Central Square, Cambridge	Eliminate	Eliminate	Eliminate
92	Assembly Square Mall - Downtown Via Main Street	Eliminate	Eliminate	Eliminate
93	Sullivan Station - Downtown Via Bunker Hill		Change routing[13]	Change routing[14]
94	Medford Square - Davis Square Station			
95	West Medford - Sullivan Station	Eliminate	Eliminate	Eliminate
96	Medford Sq. - Harvard Station	Eliminate	Eliminate	Eliminate
97	Malden Station - Wellington Station	Eliminate	Eliminate	Eliminate
99	Boston Reg. Med Center Stoneham - Wellington Station		Eliminate	Eliminate
100	Elm Street - Wellington Station			
101	Malden Station - Sullivan Station Via Medford Square			
104	Malden Station - Sullivan Station Via Ferry Street		Eliminate	Eliminate
105	Malden Station - Sullivan Station Via Main Street	Eliminate	Eliminate	Eliminate
106	Franklin Sq. or Lebanon Street Loop - Wellington Station			

[9] Change Route 9's routing in South Boston: Outbound, L Street to 7th Street to E. 8th Street and follow Route 11 routing to City Point; Inbound, Route 11 routing from City Point to 7th Street to L Street.

[10] Change Route 15's routing by extending all service to Field's Corner Station.

[11] Change Route 40's routing by extending to Cleary Square.

[12] Change Route 78's routing by extending all service to Arlmont Village.

[13] Change Route 93's routing by eliminating all service after Haymarket Station to downtown Boston.

Rte. #	Route Description	Coverage Threshold		
		0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
108	Linden Square - Wellington Station	Eliminate	Eliminate	Eliminate
109	Linden Square - Sullivan Station			
110	Wonderland Station - Wellington Station			
111	Woodlawn or Bway & Park - Haymarket Station			
112	Wellington Station - Wood Island Station			Eliminate
114	Bellingham Square or Mystic Mall - Maverick Station	Eliminate	Eliminate	Eliminate
116	Wonderland Station - Maverick Station Via Revere			
117	Wonderland Station - Maverick Station via Beach			
119	Northgate Shopping Center - Beachmont Station			Eliminate
120	Orient Heights Station - Maverick Station			
121	Wood Island Station - Maverick Station	Eliminate	Eliminate	Eliminate
131	Melrose Highlands - Malden Station		Eliminate	Eliminate
132	Redstone Shopping Center - Malden Station			Eliminate
134	North Woburn - Wellington Station			Change routing[14]
136	Reading Depot - Malden Station Via Lakeside			Eliminate
137	Reading Depot - Malden Station Via North Ave			Eliminate
170	Oak Park - Dudley Station (Limited Service)			Eliminate
201	Fields Corner Station - Fields Corner Station	Eliminate	Eliminate	Eliminate
202	Fields Corner Station - Fields Corner Station	Eliminate	Eliminate	Eliminate
210	Quincy Center Station - No. Quincy Station or Fields Corner Station			Eliminate
211	Quincy Center Station - Squantum			Eliminate
212	Quincy Center Station - North Quincy Station	Eliminate	Eliminate	Eliminate
214	Quincy Center Station - Germantown			
215	Quincy Center Station - Ashmont Station			
216	Quincy Center Station - Houghs Neck			
217	Wollaston Station - Ashmont Station via Wollaston Beach	Eliminate	Eliminate	Eliminate
220	Quincy Center Station - Hingham			
221	Quincy Center Station - Fort Point			Eliminate
222	Quincy Center Station - East Weymouth			
225	Quincy Center Station - Weymouth Landing			
230	Quincy Center Station - Montello Station			Eliminate
236	Quincy Center Station - South Shore Plaza		Eliminate	Eliminate
238	Quincy Center Station - Holbrook/Randolph Comm. Rail St			Change routing[15]
240	Avon Line - Ashmont Station			Eliminate
245	Quincy Center Station - Mattapan Station	Eliminate	Eliminate	Eliminate
275	Downtown Boston - Long Island Health Campus			Eliminate
276	Boston City Hospital - Long Island Health Campus			Eliminate
277	L. Shattuck Hospital - Park & Tremont Streets			Eliminate
325	Elm Street - Haymarket Station	Eliminate	Eliminate	Eliminate
326	West Medford - Haymarket Station	Eliminate	Eliminate	Eliminate
350	North Burlington - Alewife Station			
351	Oak Park - Alewife Station	Eliminate	Eliminate	Eliminate
352	Burlington - State Street	Eliminate	Eliminate	Eliminate
354	Woburn Line - State Street			Eliminate
355	Mishawum Station - State Street	Eliminate	Eliminate	Eliminate
411	Malden Station - Revere/Jack Satter House			
424	Eastern & Essex - Haymarket or Wonderland	Eliminate	Eliminate	Eliminate
426	Central Sq. Lynn - Haymarket or Wonderland Station Via			Eliminate
428	Oaklandvale - Haymarket Station via Granada Highlands	Eliminate	Eliminate	Eliminate
429	Northgate Shopping Center - Central Sq. Lynn			
430	Saugus, Appleton Street - Malden Station		Eliminate	Eliminate
431	Neptune Towers - Central Sq. Lynn	Eliminate	Eliminate	Eliminate
434	Peabody - Haymarket Station	Eliminate	Eliminate	Eliminate
435	Liberty Tree Mall - Central Sq. Lynn			
436	Danvers Sq. - Central Sq. Lynn			Eliminate
439	Bass Point Nahant - Central Sq. Lynn	Eliminate	Eliminate	Eliminate
441	Marblehead - Haymarket or Wonderland Station via Paradise Road	Eliminate	Eliminate	Eliminate
442	Marblehead - Haymarket or Wonderland Station via Humphrey Street			
448	Marblehead - Downtown Crossing		Eliminate	Eliminate
449	Marblehead - Downtown Crossing	Eliminate	Eliminate	Eliminate
450	Salem Depot - Haymarket or Wonderland Station			
451	North Beverly - Salem Depot	Eliminate	Eliminate	Eliminate
455	Salem Depot - Haymarket or Wonderland Station			
456	Salem Depot - Central Sq. Lynn	Eliminate	Eliminate	Eliminate
459	Salem Depot - Downtown Crossing	Eliminate	Eliminate	Eliminate
465	Liberty Tree Mall - Salem Depot	Eliminate	Eliminate	Eliminate
468	Danvers Square - Salem Depot (Limited Service)	Eliminate	Eliminate	Eliminate
500	Riverside Station - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
501	Brighton Center - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
502	Watertown Yard - Copley Square	Eliminate	Eliminate	Eliminate
503	Brighton Center - Copley	Eliminate	Eliminate	Eliminate
504	Watertown Yard - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
505	Waltham Center - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
505	Waltham Center - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
553	Roberts - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
554	Waverley Square - Federal & Franklin Streets			Eliminate
555	Riverside Station - Federal & Franklin Streets Via Newton	Eliminate	Eliminate	Eliminate
556	Waltham Highlands - Federal & Franklin Streets			
558	Auburndale - Federal & Franklin Streets	Eliminate	Eliminate	Eliminate
CT1	Central Square Cambridge. - South End Medical Area	Eliminate	Eliminate	Eliminate
CT2	Sullivan Station - Kendall MIT Station		Eliminate	Eliminate
CT2	Kendall MIT Station - Ruggles Station		Eliminate	Eliminate
CT3	Longwood Medical Area - Andrew Station	Double trips[16]	Double trips[17]	Double trips[17]
SL1	Logan Airport - South Station			
SL2	Boston Marine Industrial Park - South Station			
SL Water	Silver Line Way - South Station			
SL4	Dudley Station - South Station at Essex Street			
SL5	Dudley Station - Downtown Crossing at Temple Pl			
BL	Blue Line			
GL	Green Line			
ML	Mattapan Line			
OL	Orange Line			
RL	Red Line			

[14] Change Route 134's routing by eliminating all service north of West Medford.

[15] Change Route 238's routing to include North Randolph to I-93.

[16] Double the number of trips on the CT3 to compensate for the elimination of Routes 8 and 10.

Table A-8
Revised Unique and Overlap Coverage Percentages by Route for the One-Third-Mile Coverage Threshold

Rte. #	Route Description	Unique		1st Overlap		2nd Overlap		3rd Overlap		4th Overlap		5th Overlap		6th Overlap		7th Overlap		8th Overlap		9th Overlap		10th Overlap	
		%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%
1	Harvard Square - Dudley Station via Mass. Ave.	4.1%	170	49.5%	47	41.8%	SL5	26.0%	SL4	26.0%	64	22.2%	CT3	21.1%	GL	20.2%	70	19.1%	66	17.2%	39	16.8%
4	North Station - World Trade Center	6.3%	7	46.9%	93	46.8%	OL	42.5%	SL2	41.4%	448	41.0%	GL	36.7%	SL1	34.3%	SLW	34.2%	BL	30.1%	111	22.9%
7	City Point - Otis & Summer Streets	0.3%	11	64.6%	4	54.1%	448	43.0%	9	38.4%	SL2	34.4%	554	32.1%	556	32.1%	SL1	30.6%	SLW	30.6%	OL	27.8%
9	City Point - Copley Square via Broadway Station	3.8%	11	57.7%	170	36.9%	39	32.2%	GL	30.9%	7	20.5%	SL5	17.3%	SL4	16.9%	275	13.6%	1	12.9%	OL	12.9%
11	City Point - Downtown	8.0%	9	64.2%	7	38.3%	SL4	30.2%	SL5	25.0%	RL	24.7%	275	20.3%	448	18.1%	OL	17.9%	4	15.1%	554	15.1%
14	Roslindale Square - Heath Street Loop	9.9%	28	48.0%	23	40.1%	22	28.8%	41	26.9%	30	21.7%	66	15.6%	42	15.4%	15	15.3%	32	14.2%	16	10.7%
15	Kane Square - Ruggles Station	7.5%	41	52.3%	23	36.6%	28	30.7%	47	22.1%	18	21.2%	66	21.0%	14	20.8%	16	19.3%	CT3	15.6%	1	15.5%
16	Forest Hills Station - U Mass.	18.1%	41	24.5%	18	19.8%	15	19.4%	16	18.1%	14	14.7%	28	14.7%	RL	14.1%	23	13.6%	22	12.9%	21	12.9%
18	Ashmont Station - Andrew Station	13.5%	RL	39.3%	15	27.7%	16	25.6%	210	24.3%	23	21.3%	22	18.3%	26	18.3%	41	15.6%	215	15.3%	18	13.5%
21	Ashmont Station - Forest Hills Station	7.1%	26	54.3%	28	23.6%	24	22.5%	240	22.0%	16	20.6%	215	18.8%	38	11.2%	22	10.8%	18	10.8%	23	10.8%
22	Ashmont Station - Ruggles Station Via Talbot Ave	8.5%	23	49.4%	14	39.2%	28	37.9%	26	24.5%	41	18.3%	42	18.1%	OL	16.6%	15	14.4%	18	14.0%	16	12.8%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	8.2%	28	59.6%	14	50.3%	22	45.5%	15	33.7%	26	21.2%	66	19.3%	41	19.2%	47	18.0%	42	15.6%	18	15.0%
24	Wakefield Ave. - Mattapan Station or Ashmont	32.7%	33	37.8%	24	32.7%	240	23.5%	ML	15.0%	21	14.5%	32	14.3%	26	13.3%	215	12.1%	30	12.1%	28	11.7%
26	Ashmont Station - Norfolk & Wash. Belt	12.6%	21	56.9%	22	41.4%	23	38.9%	215	26.2%	18	23.7%	24	21.6%	240	21.0%	26	12.6%	RL	10.8%	28	8.4%
28	Mattapan Station - Ruggles Station	9.4%	14	56.2%	23	55.8%	22	32.7%	15	26.5%	66	18.1%	41	17.9%	47	16.9%	42	14.6%	21	12.6%	16	12.5%
30	Mattapan Station - Roslindale Square	23.9%	14	43.0%	36	34.4%	51	34.4%	34	31.5%	30	23.9%	32	22.4%	24	16.9%	33	16.8%	28	15.8%	716	14.0%
32	Wolcott Square or Cleary Square - Forest Hills Station	28.8%	14	29.1%	32	28.8%	33	28.2%	30	23.2%	24	20.7%	34	9.1%	36	9.1%	16	8.4%	21	8.4%	38	8.4%
33	River & Milton Streets - Mattapan Station	36.5%	24	49.2%	33	36.5%	32	25.3%	30	15.7%	28	13.7%	716	13.3%	ML	8.0%	2792	2.8%				
34	Dedham Line - Forest Hills Station	76.2%	34	76.2%	36	12.5%	30	10.1%	51	10.1%	14	5.4%	38	4.1%	16	3.0%	21	3.0%	39	3.0%	32	2.8%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	11.5%	38	45.9%	51	36.5%	34	33.6%	30	29.9%	52	17.5%	14	17.2%	36	11.5%	16	8.2%	21	8.2%	39	8.0%
38	Wren Street - Forest Hills Station	26.1%	36	34.6%	38	26.1%	51	23.7%	39	20.9%	52	10.6%	41	9.4%	34	8.4%	OL	7.6%	42	7.5%	16	6.6%
39	Forest Hills Station - Back Bay Station	1.4%	GL	53.7%	170	35.0%	9	29.9%	41	23.4%	OL	20.2%	38	18.7%	66	17.5%	1	17.1%	CT2	14.5%	47	13.0%
41	Centre & Eliot Streets - JFK U Mass Station	0.5%	15	47.2%	14	33.0%	39	24.6%	16	21.9%	23	18.8%	28	18.8%	42	17.6%	22	16.5%	66	16.5%	1	12.4%
42	Forest Hills Station - Ruggles Station	20.1%	14	34.4%	41	32.0%	22	29.6%	23	27.8%	28	27.8%	15	23.1%	66	22.0%	42	20.1%	OL	19.5%	1	17.4%
47	Central Square Cambridge. - Broadway Station	4.1%	CT3	40.1%	1	39.9%	CT2	32.3%	SL5	27.6%	SL4	27.6%	170	27.3%	64	22.8%	GL	22.2%	70	18.2%	15	17.7%
51	Cleveland Circle - Forest Hills Station	47.2%	51	47.2%	36	24.4%	38	21.0%	30	19.9%	34	18.3%	14	11.5%	86	9.0%	GL	7.4%	60	6.9%	39	4.2%
52	Dedham Mall - Watertown Yard	56.7%	52	56.7%	57	14.2%	59	12.3%	36	8.9%	554	7.2%	556	7.2%	38	7.1%	GL	6.7%	70	4.1%	71	4.1%
57	Watertown Yard - Kenmore Station	8.6%	GL	36.7%	64	25.0%	52	20.4%	66	17.7%	86	14.8%	554	9.6%	556	9.6%	47	9.4%	CT2	9.3%	57	8.6%
59	Needham Junction - Watertown Square	70.3%	59	70.3%	52	13.3%	556	12.4%	554	9.7%	70	6.3%	71	6.3%	57	6.1%	GL	5.0%				
60	Chestnut Hill - Kenmore Station	39.8%	60	39.8%	GL	38.3%	47	17.0%	66	16.9%	CT2	14.1%	39	12.3%	CT3	10.4%	51	9.5%	57	9.2%	1	3.3%
62	Bedford V.A. Hospital - Alewife Station	25.8%	76	44.3%	78	32.4%	62	25.8%	67	12.1%	77	6.5%	350	2.4%	RL	1.9%	83	1.0%				
64	Oak Square - University Pk. Cambridge	10.6%	70	30.1%	47	24.6%	57	23.7%	1	22.9%	83	18.9%	66	15.6%	CT2	15.4%	RL	15.0%	64	10.6%	86	10.3%
66	Harvard Square - Dudley Station via Brookline	7.7%	GL	39.8%	86	19.5%	14	17.4%	15	17.2%	23	17.2%	28	17.2%	1	16.7%	39	16.7%	57	15.8%	41	15.0%
67	Turkey Hill - Alewife Station	45.6%	67	45.6%	62	26.7%	76	26.4%	77	25.1%	350	20.3%	78	15.1%	80	9.9%	87	8.3%	RL	4.1%	83	2.3%
69	Harvard Square - Lechmere Station	6.8%	86	33.9%	1	31.8%	83	29.6%	87	24.3%	CT2	22.1%	80	21.6%	88	21.6%	66	16.1%	77	15.0%	71	14.9%
70	Cedarwood - Central Square Cambridge	36.8%	70	36.8%	170	33.7%	64	15.1%	556	11.4%	47	9.9%	1	9.9%	86	8.0%	71	6.5%	554	6.0%	83	5.7%
71	Watertown Square - Harvard Station	25.1%	73	55.6%	75	25.2%	71	25.1%	78	20.5%	70	18.5%	77	18.3%	86	15.1%	66	14.1%	59	11.4%	1	11.0%
73	Waverley Square - Harvard Station	34.7%	71	53.4%	73	34.7%	75	24.1%	78	19.1%	77	17.1%	86	13.9%	66	13.0%	554	11.2%	1	10.3%	69	10.3%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	34.5%	78	59.1%	75	34.5%	71	29.4%	73	29.4%	77	23.0%	86	17.4%	66	16.3%	1	12.9%	69	12.8%	RL	10.9%
76	Hanscom Air Force Base - Alewife Station	15.6%	62	54.0%	78	31.3%	76	15.6%	67	14.5%	350	3.0%	RL	2.3%	83	1.3%						
77	Arlington Heights - Harvard Station	16.1%	87	29.7%	350	28.9%	83	22.4%	78	21.6%	RL	18.1%	77	16.1%	67	14.1%	75	13.6%	71	12.7%	73	12.3%
78	Arlmont Village - Harvard Station	15.9%	62	40.7%	75	35.5%	76	32.3%	77	21.9%	78	15.9%	71	14.4%	73	14.0%	86	10.4%	66	9.8%	67	8.6%
80	Arlington Center - Lechmere Station	6.1%	101	43.6%	89	35.0%	94	32.7%	88	32.5%	87	25.7%	69	10.1%	86	9.9%	CT2	9.1%	350	8.0%	77	7.7%
83	Rindge Ave. - Central Square, Cambridge	5.9%	87	33.9%	77	31.6%	RL	29.2%	64	26.4%	69	21.3%	1	19.1%	86	16.5%	70	15.9%	47	15.6%	88	15.2%
86	Sullivan Station - Cleveland Circle	1.2%	CT2	22.2%	66	19.3%	69	16.3%	70	14.9%	87	13.4%	57	13.1%	GL	12.7%	83	11.0%	1	10.6%	80	10.1%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	6.0%	88	60.4%	77	31.8%	89	30.2%	80	30.0%	83	25.8%	RL	17.1%	350	15.3%	86	15.2%	94	14.6%	69	13.3%
88	Clarendon Hill - Lechmere Station via Highland Avenue	9.0%	87	72.0%	80	45.2%	89	42.7%	94	18.3%	RL	14.7%	69	14.1%	83	13.8%	77	13.6%	86	12.7%	CT2	12.0%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	0.4%	101	50.5%	80	46.2%	88	40.4%	87	34.0%	94	24.6%	RL	11.9%	77	10.9%	86	10.3%	CT2	7.9%	109	6.8%
93	Sullivan Station - Downtown Via Bunker Hill	41.1%	OL	43.8%	93	41.1%	4	41.0%	GL	32.6%	BL	24.2%	111	20.4%	354	20.1%	426	18.6%	554	16.9%	556	16.9%
94	Medford Square - Davis Square Station	0.0%	101	63.9%	80	51.1%	89	29.1%	134	25.5%	88	20.5%	87	19.6%	RL	14.1%	354	9.2%	77	8.9%	83	7.1%
99	Boston Reg. Med Center Stoneham - Wellington Station	24.3%	106	61.2%	104	35.9%	101	26.4%	99	24.3%	131	22.5%	136	22.5%	137	22.5%	132	18.7%	411	18.6%	430	18.6%
100	Elm Street - Wellington Station	45.6%	100	45.6%	101	29.9%	134	24.4%	99	2.8%	106	2.5%	110	2.5%	112	2.5%	OL	1.3%				
101	Malden Station - Sullivan Station Via Medford Square	16.9%	80	30.5%	94	28.6%	89	26.8%	101	16.9%	104	14.2%	134	14.0%	99	13.6%	131	10.6%	136	10.6%	137	10.6%
104	Malden Station - Sullivan Station Via Ferry Street	15.1%	109	55.2%	99	37.7%	106	36.2%	101	28.8%	110	26.0%	131	21.5%	136	21.5%	137	21.5%	411	20.2%	430	20.2%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	16.2%	99	44.2%	131	36.3%	136	33.4%	137	33.4%	411	31.0%	430	31.0%	104	25.0%	106	16.2%	101	13.4%	110	12.4%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
109	Linden Square - Sullivan Station	25.1%	104	56.8%	110	27.3%	109	25.1%	112	18.9%	411	16.8%	119	12.9%	426	12.9%	429	12.9%	93	11.5%	86	10.9%
110	Wonderland Station - Wellington Station	10.1%	112	31.0%	117	29.4%	111	29.3%	411	28.4%	109	22.6%	104	22.2%	119	19.0%	450	18.7%	455	18.7%	426	17.1%
111	Woodlawn or Bway & Park - Haymarket Station	9.5%	112	40.2%	116	35.7%	117	35.3%	110	32.2%	93	16.2%	4	16.0%	426	15.0%	GL	13.8%	OL	13.8%	119	12.4%
112	Wellington Station - Wood Island Station	14.7%	111	38.1%	110	32.3%	116	25.9%	117	25.9%	109	16.2%	104	16.2%	112	14.7%	99	14.5%	106	14.5%	120	11.8%
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	74.8%	411	36.6%	111	33.4%	112	25.6%	119	21.1%	120	18.2%	426	15.1%	450	15.1%	455	15.1%	110	12.8%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	80.8%	111	35.8%	110	32.6%	411	31.3%	112	27.7%	119	22.9%	450	20.7%	455	20.7%	120	19.6%	426	19.0%
119	Northgate Shopping Center - Beachmont Station	21.3%	411	58.0%	429	23.5%	117	22.7%	116	22.5%	426	21.9%	119	21.3%	110	20.9%	111	12.4%	109	11.8%	450	9.9%
120	Orient Heights Station - Maverick Station	31.6%	120	31.6%	116	28.6%	117	28.6%	BL	24.3%	112	18.3%	450	10.0%	455	10.0%	448	9.6%	713	9.3%	712	8.7%
131	Melrose Highlands - Malden Station	33.9%	136	62.5%	137	62.5%	106	45.5%	131	33.9%	132	20.5%	99	20.4%	101	18.6%	104	18.6%	411	17.7%	430	17.7%
132	Redstone Shopping Center - Malden Station	63.2%	132	63.2%	131	25.9%	136	25.9%	137	25.9%	99	21.5%	OL	15.8%	106	14.9%	101	14.0%	104	11.2%	411	8.9%
134	North Woburn - Wellington Station	61.4%	134	61.4%	101	16.2%	94	13.1%	354	12.0%	100	9.4%	99	1.0%	106	1.0%	110	1.0%	112	1.0%	OL	0.5%
136	Reading Depot - Malden Station Via Lakeside	22.1%	137	77.9%	131	44.7%	106	30.0%	136	22.1%	132	14.6%	99	14.6%	101	13.3%	104	13.3%	411	12.6%	430	12.6%
137	Reading Depot - Malden Station Via North Ave	14.2%	136	85.8%	131	49.3%	106	33.0%	132	16.1%	99	16.1%	101	14.7%	104	14.7%	137	14.2%	411	13.9%	430	13.9%
170	Oak Park - Dudley Station (Limited Service)	2.8%	70	36.7%	1	27.9%	554	23.8%	SL5	19.5%	SL4	19.5%	39	19.4%	9	18.9%	556	17.9%	GL	17.4%	47	16.1%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	32.1%	211	44.1%	210	32.1%	RL	25.0%	18	21.0%	15	15.1%	215	15.0%	230	9.4%	236	8.4%	214	8.0%	216	8.0%
211	Quincy Center Station - Squantum	51.0%	211	51.0%	210	33.7%	215	22.5%	RL	13.9%	214	6.1%	216	6.1%	225	5.9%	220	5.8%	221	5.8%	222	5.8%
214	Quincy Center Station - Germantown	19.1%	216	80.9%	220	32.0%	221	32.0%	222	32.0%	225	25.2%	215	24.7%	230	24.7%	238	24.7%	236	22.2%	214	19.1%
215	Quincy Center Station - Ashmont Station	40.6%	215	40.6%	238	28.7%	211	19.7%	230	19.2%	236	18.1%	225	14.1%	240	12.9%	26	11.7%	RL	10.2%	210	10.1%
216	Quincy Center Station - Houghs Neck	31.0%	214	69.0%	216	31.0%	220	27.3%	221	27.3%	222	27.3%	225	21.5%	215	21.0%	230	21.0%	238	21.0%	236	18.9%
220	Quincy Center Station - Hingham	41.5%	221	53.6%	222	49.0%	220	41.5%	225	17.6%	214	14.5%	216	14.5%	215	11.4%	230	11.4%	238	11.4%	236	10.3%
221	Quincy Center Station - Fort Point	11.8%	220	88.2%	222	80.6%	225	29.0%	214	23.8%	216	23.8%	215	18.7%	230	18.7%	238	18.7%	236	17.0%	221	11.8%
222	Quincy Center Station - East Weymouth	53.7%	222	53.7%	220	46.3%	221	46.3%	225	16.6%	214	13.7%	216	13.7%	215	10.7%	230	10.7%	238	10.7%	236	9.8%
225	Quincy Center Station - Weymouth Landing	77.4%	225	77.4%	220	16.8%	221	16.8%	222	16.8%	215	16.2%	230	16.2%	238	16.2%	236	15.5%	214	10.9%	216	10.9%
230	Quincy Center Station - Montello Station	64.9%	230	64.9%	236	33.2%	215	21.5%	238	21.0%	225	15.8%	220	10.6%	221	10.6%	222	10.6%	214	10.4%	216	10.4%
236	Quincy Center Station - South Shore Plaza	39.1%	230	44.7%	238	41.4%	236	39.1%	215	27.2%	225	20.3%	220	12.9%	221	12.9%	222	12.9%	214	12.6%	216	12.6%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	40.2%	238	40.2%	240	28.6%	215	25.9%	236	24.9%	230	16.9%	225	12.8%	220	8.5%	221	8.5%	222	8.5%	214	8.4%
240	Avon Line - Ashmont Station	50.4%	240	50.4%	238	30.4%	24	16.3%	215	12.4%	21	9.8%	ML	9.1%	26	9.0%	RL	6.4%	18	4.8%	22	4.8%
275	Downtown Boston - Long Island Health Campus	0.5%	SL4	67.1%	SL5	65.3%	11	62.8%	9	46.7%	OL	33.2%	RL	31.7%	47	28.3%	276	22.2%	7	21.2%	GL	20.8%
276	Boston City Hospital - Long Island Health Campus	0.0%	SL4	74.0%	SL5	68.1%	7	52.7%	11	52.7%	OL	48.5%	554	47.8%	556	47.8%	RL	43.1%	1	42.6%	47	42.6%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0%	SL5	56.5%	1	51.7%	170	51.7%	SL4	45.5%	GL	45.4%	RL	35.2%	OL	30.3%	93	28.9%	7	25.7%	276	23.0%
350	North Burlington - Alewife Station	30.7%	350	30.7%	77	24.8%	354	12.4%	87	12.3%	67	9.8%	80	7.5%	62	2.6%	76	2.6%	RL	2.0%	83	1.1%
354	Woburn Line - State Street	47.1%	354	47.1%	134	18.5%	BL	17.4%	350	16.5%	93	15.0%	OL	14.6%	4	14.5%	GL	13.7%	101	7.9%	RL	7.4%
411	Malden Station - Revere/Jack Satter House	0.8%	119	36.6%	430	35.8%	426	30.0%	106	26.5%	116	24.7%	450	22.2%	455	22.2%	110	19.7%	117	19.6%	429	16.1%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	14.9%	455	59.3%	450	47.8%	442	40.2%	429	36.4%	411	28.1%	436	25.2%	448	19.1%	426	14.9%	119	12.9%	110	11.1%
429	Northgate Shopping Center - Central Sq. Lynn	27.2%	426	41.7%	429	27.2%	455	22.5%	435	22.0%	436	21.4%	442	20.6%	430	19.6%	411	17.2%	119	15.9%	450	13.8%
430	Saugus, Appleton Street - Malden Station	21.2%	411	49.8%	106	37.0%	429	25.5%	430	21.2%	131	16.8%	136	16.8%	137	16.8%	104	16.6%	99	16.0%	101	15.8%
435	Liberty Tree Mall - Central Sq. Lynn	60.9%	435	60.9%	436	29.7%	429	16.9%	450	13.6%	455	11.3%	442	10.5%	426	8.7%	448	6.8%				
436	Danvers Sq. - Central Sq. Lynn	36.4%	455	38.5%	436	36.4%	435	36.4%	442	31.8%	426	27.1%	450	24.3%	429	20.1%	448	10.6%				
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	8.5%	448	70.1%	455	35.8%	426	31.8%	436	23.5%	450	23.0%	429	14.2%	411	10.9%	435	9.5%	442	8.5%	110	5.2%
448	Marblehead - Downtown Crossing	4.7%	442	70.0%	455	24.0%	426	15.1%	4	13.4%	7	12.2%	450	11.9%	411	11.2%	SL1	10.1%	SL2	9.6%	SLW	9.6%
450	Salem Depot – Haymarket/Wonderland Station	23.5%	455	60.8%	426	45.4%	442	27.6%	450	23.5%	436	21.5%	411	19.7%	435	14.7%	448	14.3%	110	11.5%	117	11.5%
455	Salem Depot - Haymarket or Wonderland Station	29.0%	450	49.8%	426	46.1%	442	35.1%	455	29.0%	436	27.9%	448	23.5%	411	16.1%	429	15.2%	435	10.0%	110	9.4%
554	Waverley Square - Federal & Franklin Streets	36.1%	556	41.5%	554	36.1%	170	28.7%	7	10.6%	448	9.7%	OL	8.9%	4	8.6%	11	8.4%	59	8.0%	70	7.8%
556	Waltham Highlands - Federal & Franklin Streets	24.7%	554	58.5%	170	30.4%	556	24.7%	70	21.1%	7	14.9%	59	14.6%	448	13.6%	OL	12.6%	4	12.1%	11	11.8%
CT2	Sullivan Station - Kendall MIT Station	3.8%	47	71.6%	GL	51.7%	CT3	43.1%	39	30.0%	60	21.8%	64	18.0%	57	18.0%	1	16.2%	66	14.9%	15	13.7%
CT2	Kendall MIT Station - Ruggles Station	0.0%	86	53.2%	64	34.4%	87	26.1%	69	25.5%	80	22.5%	88	21.2%	89	14.7%	101	14.7%	CT2	13.2%	83	12.5%
CT3	Longwood Medical Area - Andrew Station	3.0%	47	77.3%	1	38.9%	CT2	37.5%	170	36.4%	SL5	33.9%	SL4	33.9%	15	24.2%	39	21.8%	GL	20.7%	23	18.7%
SL1	Logan Airport - South Station	8.9%	SL2	87.2%	SLW	87.2%	4	86.5%	448	78.1%	7	66.8%	11	47.6%	SL4	37.2%	RL	36.3%	554	32.1%	556	32.1%
SL2	Boston Marine Industrial Park - South Station	6.6%	4	92.5%	SL1	77.3%	SLW	77.3%	7	66.6%	448	65.8%	11	42.2%	SL4	33.0%	RL	32.2%	554	28.4%	556	28.4%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	4	98.8%	448	85.0%	7	76.7%	11	54.5%	SL4	42.7%	RL	41.6%	554	36.8%	556	36.8%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	90.6%	170	60.7%	47	50.8%	1	45.6%	11	43.5%	CT3	32.4%	275	31.2%	9	27.1%	276	24.5%	OL	24.4%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	95.1%	170	63.8%	47	53.3%	1	47.9%	11	37.8%	CT3	34.0%	275	31.9%	9	29.1%	OL	27.3%	276	23.6%
BL	Blue Line	6.3%	4	34.0%	93	31.3%	354	30.0%	OL	28.4%	120	26.7%	GL	26.6%	117	26.6%	450	20.8%	455	20.8%	426	18.4%
GL	Green Line	21.2%	39	23.4%	GL	21.2%	66	18.1%	57	14.9%	170	13.7%	OL	13.6%	9	12.5%	60	12.4%	CT2	10.9%	47	10.3%
ML	Mattapan Line	21.8%	24	49.6%	240	43.3%	215	29.7%	ML	21.8%	716	20.6%	28	20.3%	30	20.3%	33	20.3%	21	15.4%	26	13.7%
OL	Orange Line	7.0%	GL	32.1%	93	29.4%	4	25.0%	39	20.8%	SL5	15.6%	11	15.4%	BL	14.8%	22	14.7%	SL4	14.6%	7	14.2%
RL	Red Line	6.9%	18	21.2%	83	17.0%	11	16.9%	210	15.7%	77	14.9%	1	14.0%	87	13.1%	64	12.2%	47	11.9%	211	11.3%

Table A-9
Revised Unique and Overlap Coverage Percentages by Route for the Four-Tenths-Mile Coverage Threshold

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
1	Harvard Square - Dudley Station via Mass. Ave.	4.2%	170	50.3%	47	47.0%	SL5	27.8%	SL4	27.8%	CT3	25.4%	64	24.5%	GL	23.0%	RL	21.1%	70	20.7%	66	20.6%
7	City Point - Otis & Summer Streets	4.2%	11	69.0%	9	41.6%	SL2	41.1%	SL1	37.6%	SLW	37.6%	554	33.9%	556	33.9%	OL	31.4%	RL	31.1%	SL4	27.6%
9	City Point - Copley Square via Broadway Station	1.2%	11	61.9%	170	42.6%	GL	36.7%	39	36.0%	7	22.6%	SL5	21.7%	SL4	21.4%	275	18.8%	OL	18.3%	1	17.4%
11	City Point - Downtown	2.2%	9	70.2%	7	42.6%	SL4	33.7%	RL	32.2%	SL5	29.4%	275	25.5%	OL	22.9%	554	17.4%	556	17.4%	SL1	16.0%
14	Roslindale Square - Heath Street Loop	9.2%	28	47.9%	23	41.2%	22	31.3%	41	29.7%	30	22.1%	66	18.8%	42	18.7%	15	18.7%	32	15.4%	16	11.8%
15	Kane Square - Ruggles Station	8.1%	41	54.0%	23	44.3%	28	35.5%	14	26.0%	47	26.0%	66	24.1%	16	23.6%	CT3	22.0%	1	19.4%	170	17.3%
16	Forest Hills Station - U Mass.	13.5%	41	27.1%	15	23.7%	14	16.5%	28	16.5%	23	16.3%	RL	16.1%	21	14.3%	22	14.1%	16	13.5%	CT3	13.3%
21	Ashmont Station - Forest Hills Station	26.1%	21	26.1%	24	25.9%	28	24.8%	240	23.9%	16	22.5%	215	20.6%	22	14.5%	23	13.5%	38	13.0%	42	12.8%
22	Ashmont Station - Ruggles Station Via Talbot Ave	5.5%	23	56.0%	14	43.5%	28	40.9%	42	21.9%	41	21.4%	OL	20.9%	15	16.7%	16	14.0%	66	13.6%	215	13.4%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	3.8%	28	61.4%	14	52.6%	22	51.4%	15	40.6%	41	23.8%	66	22.0%	47	20.9%	42	18.9%	CT3	15.0%	1	14.9%
24	Wakefield Ave. - Mattapan Station or Ashmont	26.6%	33	39.5%	24	26.6%	240	25.8%	ML	21.2%	21	18.1%	32	16.0%	30	15.3%	716	14.2%	215	14.2%	28	14.1%
28	Mattapan Station - Ruggles Station	6.7%	23	58.4%	14	58.0%	22	35.7%	15	30.9%	41	22.7%	66	21.0%	47	19.9%	42	18.0%	16	14.3%	CT3	14.3%
30	Mattapan Station - Roslindale Square	18.2%	14	44.9%	36	38.3%	51	38.3%	34	35.3%	32	26.9%	24	20.4%	33	19.9%	30	18.2%	28	17.5%	716	15.6%
32	Wolcott Square or Cleary Square - Forest Hills Station	22.4%	14	32.5%	33	31.5%	30	27.9%	32	22.4%	24	22.1%	34	12.7%	36	12.7%	16	9.9%	21	9.9%	38	9.9%
33	River & Milton Streets - Mattapan Station	30.1%	24	51.1%	33	30.1%	32	29.6%	30	19.4%	28	15.8%	716	15.5%	ML	10.5%						
34	Dedham Line - Forest Hills Station	73.1%	34	73.1%	36	14.0%	30	11.8%	51	11.7%	14	6.6%	38	5.7%	32	4.1%	39	3.9%	16	3.7%	21	3.7%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	7.2%	38	51.3%	51	42.9%	34	35.8%	30	32.7%	14	19.6%	52	18.7%	32	10.5%	39	10.0%	16	9.5%	21	9.5%
38	Wren Street - Forest Hills Station	17.8%	36	40.5%	51	31.4%	39	22.9%	38	17.8%	52	12.8%	41	12.0%	34	11.5%	OL	11.1%	42	9.9%	30	8.3%
39	Forest Hills Station - Back Bay Station	0.3%	GL	57.5%	170	37.1%	9	32.4%	OL	29.6%	41	25.6%	38	20.2%	1	20.1%	66	19.5%	47	15.3%	CT3	14.2%
41	Centre & Eliot Streets - JFK U Mass Station	1.7%	15	49.4%	14	37.9%	39	27.0%	16	24.7%	23	23.8%	28	23.8%	42	23.7%	22	19.7%	66	19.6%	OL	15.7%
42	Forest Hills Station - Ruggles Station	7.8%	14	42.6%	41	42.2%	22	35.8%	23	33.7%	28	33.7%	OL	29.3%	15	27.1%	66	25.6%	1	20.5%	47	20.5%
47	Central Square Cambridge. - Broadway Station	1.8%	1	45.0%	CT3	43.7%	170	30.4%	SL4	30.3%	SL5	30.3%	GL	26.5%	64	23.3%	15	21.2%	70	19.7%	66	19.2%
51	Cleveland Circle - Forest Hills Station	38.7%	51	38.7%	36	29.6%	38	27.5%	30	22.5%	34	20.7%	14	13.5%	86	10.3%	GL	9.4%	60	7.9%	39	5.9%
52	Dedham Mall - Watertown Yard	50.7%	52	50.7%	59	15.5%	57	15.3%	36	9.9%	38	8.6%	GL	8.5%	554	8.4%	556	8.4%	70	5.1%	71	5.1%
57	Watertown Yard - Kenmore Station	5.8%	GL	41.9%	64	28.4%	52	21.7%	66	20.3%	86	16.8%	47	11.3%	554	11.3%	556	11.3%	59	9.9%	60	9.4%
59	Needham Junction - Watertown Square	64.1%	59	64.1%	52	16.3%	556	15.9%	554	13.9%	70	7.4%	71	7.4%	57	7.4%	GL	6.3%				
60	Chestnut Hill - Kenmore Station	31.6%	GL	48.9%	60	31.6%	66	21.5%	47	19.9%	39	18.3%	CT3	11.8%	57	11.5%	51	10.6%	1	4.8%	170	3.0%
62	Bedford V.A. Hospital - Alewife Station	24.1%	78	33.9%	62	24.1%	67	14.1%	77	8.8%	350	2.9%	RL	2.3%	83	1.4%	75	0.0%				
64	Oak Square - University Pk. Cambridge	8.5%	70	33.8%	57	27.7%	1	26.2%	47	26.0%	83	22.6%	RL	18.8%	66	17.5%	86	14.6%	69	13.0%	64	8.5%
66	Harvard Square - Dudley Station via Brookline	2.7%	GL	46.9%	14	21.6%	86	21.0%	1	19.9%	15	19.9%	23	19.9%	28	19.9%	47	19.4%	39	18.6%	57	17.9%
67	Turkey Hill - Alewife Station	35.7%	67	35.7%	77	33.4%	62	30.2%	350	25.2%	78	18.6%	80	12.8%	87	11.0%	RL	5.0%	83	3.0%	75	0.1%
69	Harvard Square - Lechmere Station	5.1%	86	39.8%	1	37.0%	83	35.4%	87	29.8%	64	24.8%	80	24.7%	88	24.7%	66	19.6%	RL	18.6%	77	18.4%
70	Cedarwood - Central Square Cambridge	31.9%	170	34.2%	70	31.9%	64	16.8%	556	12.4%	1	11.0%	47	11.0%	71	8.7%	86	8.4%	554	7.9%	83	7.2%
71	Watertown Square - Harvard Station	17.2%	73	58.5%	75	29.7%	70	23.8%	78	22.8%	77	19.3%	71	17.2%	86	16.1%	66	15.2%	59	13.2%	1	12.9%
73	Waverley Square - Harvard Station	29.0%	71	56.7%	75	29.4%	73	29.0%	78	21.5%	77	18.1%	86	15.1%	66	14.2%	554	13.1%	1	12.1%	69	11.9%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	29.5%	78	61.1%	73	35.0%	71	34.3%	75	29.5%	77	24.3%	86	18.7%	66	17.6%	1	14.9%	69	14.7%	RL	12.9%
77	Arlington Heights - Harvard Station	9.1%	87	35.3%	350	29.7%	78	25.1%	83	24.6%	RL	23.7%	67	18.8%	88	15.2%	75	14.7%	71	13.5%	73	13.1%
78	Arlmont Village - Harvard Station	17.4%	62	43.4%	75	39.2%	77	26.5%	78	17.4%	71	16.9%	73	16.5%	86	12.0%	66	11.3%	67	11.1%	1	9.6%
80	Arlington Center - Lechmere Station	2.9%	101	49.0%	88	39.1%	89	38.9%	94	34.8%	87	32.4%	86	11.5%	69	11.2%	350	10.4%	77	9.5%	67	6.6%
83	Rindge Ave. - Central Square, Cambridge	2.7%	87	40.7%	RL	37.5%	77	34.1%	64	29.7%	69	24.5%	1	24.3%	88	22.9%	70	19.1%	86	18.9%	47	18.5%
86	Sullivan Station - Cleveland Circle	1.1%	66	20.9%	69	18.8%	87	15.5%	GL	15.5%	70	15.2%	57	14.8%	64	13.2%	83	12.9%	80	12.1%	1	11.9%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	4.0%	88	64.6%	80	37.7%	77	37.2%	89	31.3%	83	30.9%	RL	20.4%	350	18.2%	94	17.7%	86	17.3%	69	15.6%
88	Clarendon Hill - Lechmere Station via Highland Avenue	3.1%	87	76.2%	80	53.6%	89	51.1%	94	22.1%	83	20.5%	77	18.9%	RL	18.7%	86	15.4%	69	15.3%	101	10.4%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	0.0%	101	53.4%	80	52.7%	88	50.5%	87	36.5%	94	28.4%	77	15.9%	RL	15.5%	86	13.3%	83	9.7%	OL	8.9%
93	Sullivan Station - Downtown Via Bunker Hill	40.5%	OL	46.6%	93	40.5%	GL	30.6%	111	27.8%	426	25.9%	442	20.1%	450	20.1%	455	20.1%	109	20.1%	BL	19.7%
94	Medford Square - Davis Square Station	0.0%	101	66.3%	80	53.8%	89	32.4%	134	28.3%	88	24.9%	87	23.6%	RL	17.7%	77	11.6%	354	10.6%	83	10.0%
100	Elm Street - Wellington Station	41.6%	100	41.6%	101	33.3%	134	25.4%	106	2.5%	110	2.5%	112	2.5%	OL	1.4%	354	0.7%	94	0.2%	132	0.0%
101	Malden Station - Sullivan Station Via Medford Square	11.6%	80	36.1%	94	31.5%	89	29.0%	134	16.3%	136	12.3%	137	12.3%	101	11.6%	100	11.5%	106	11.1%	411	10.9%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	30.4%	136	38.1%	137	38.1%	411	33.1%	106	30.4%	101	15.3%	110	13.7%	112	13.0%	132	12.8%	109	10.4%	OL	7.3%
109	Linden Square - Sullivan Station	35.0%	109	35.0%	110	30.6%	112	20.7%	411	20.1%	106	15.1%	119	13.4%	426	13.4%	429	13.4%	93	13.3%	86	12.8%
110	Wonderland Station - Wellington Station	6.2%	111	33.7%	112	32.5%	117	30.3%	411	29.6%	109	26.1%	119	23.9%	450	19.5%	455	19.5%	426	18.0%	106	16.9%
111	Woodlawn or Bway & Park - Haymarket Station	6.0%	112	41.7%	116	38.6%	117	38.1%	110	36.1%	93	16.9%	426	16.7%	GL	15.2%	OL	15.2%	119	14.9%	450	13.2%
112	Wellington Station - Wood Island Station	8.6%	111	41.6%	110	34.6%	116	30.9%	117	30.9%	109	18.8%	106	17.1%	120	13.4%	112	8.6%	BL	2.5%	100	1.5%
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	77.1%	111	37.9%	411	37.5%	112	30.4%	119	24.0%	120	19.6%	426	19.0%	450	19.0%	455	19.0%	110	16.4%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	82.8%	111	40.1%	110	34.2%	411	33.0%	112	32.6%	119	27.7%	450	22.1%	455	22.1%	120	21.1%	426	20.4%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
119	Northgate Shopping Center - Beachmont Station	13.5%	411	63.5%	426	29.2%	117	27.7%	110	27.0%	116	25.8%	429	25.8%	450	17.3%	455	17.2%	111	15.8%	119	13.5%
120	Orient Heights Station - Maverick Station	22.0%	116	32.9%	117	32.9%	BL	32.2%	112	22.2%	120	22.0%	450	13.4%	455	13.4%	713	11.4%	712	10.7%	426	10.2%
132	Redstone Shopping Center - Malden Station	63.3%	132	63.3%	136	31.3%	137	31.3%	106	19.8%	OL	19.4%	101	17.8%	411	11.9%	354	0.1%	100	0.0%		
134	North Woburn - Wellington Station	57.1%	134	57.1%	101	18.6%	94	15.3%	354	14.6%	100	10.0%	106	1.0%	110	1.0%	112	1.0%	OL	0.5%	80	0.1%
136	Reading Depot - Malden Station Via Lakeside	19.1%	137	80.9%	106	33.0%	136	19.1%	132	17.6%	101	14.7%	411	13.8%	OL	8.8%						
137	Reading Depot - Malden Station Via North Ave	12.0%	136	88.0%	106	35.9%	132	19.1%	101	16.0%	411	15.0%	137	12.0%	OL	9.6%						
170	Oak Park - Dudley Station (Limited Service)	1.6%	70	37.6%	1	29.4%	554	25.1%	SL5	22.2%	SL4	22.1%	9	22.1%	39	21.4%	GL	20.3%	556	19.3%	47	18.6%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	30.5%	211	46.6%	RL	33.2%	210	30.5%	215	18.6%	15	17.1%	230	11.7%	214	10.6%	216	10.6%	225	9.7%	220	9.6%
211	Quincy Center Station - Squantum	43.5%	211	43.5%	210	39.8%	215	27.3%	RL	19.1%	214	9.1%	216	9.1%	225	8.3%	220	8.2%	221	8.2%	222	8.2%
214	Quincy Center Station - Germantown	16.2%	216	83.8%	220	37.8%	221	37.8%	222	37.8%	225	30.6%	215	29.9%	230	29.9%	238	29.9%	210	20.8%	211	20.8%
215	Quincy Center Station - Ashmont Station	35.0%	215	35.0%	238	30.8%	211	22.2%	230	20.5%	225	15.3%	240	15.2%	RL	14.2%	210	12.9%	220	10.8%	221	10.8%
216	Quincy Center Station - Houghs Neck	28.7%	214	71.3%	220	32.2%	221	32.2%	222	32.2%	216	28.7%	225	26.1%	215	25.5%	230	25.5%	238	25.5%	210	17.7%
220	Quincy Center Station - Hingham	40.1%	221	54.7%	222	50.0%	220	40.1%	225	22.2%	214	16.7%	216	16.7%	215	13.4%	230	13.4%	238	13.4%	210	8.3%
221	Quincy Center Station - Fort Point	10.2%	220	89.8%	222	82.1%	225	36.4%	214	27.5%	216	27.5%	215	22.1%	230	22.1%	238	22.1%	210	13.6%	211	13.6%
222	Quincy Center Station - East Weymouth	53.2%	222	53.2%	220	46.8%	221	46.8%	225	20.7%	214	15.6%	216	15.6%	215	12.6%	230	12.6%	238	12.6%	210	7.8%
225	Quincy Center Station - Weymouth Landing	73.5%	225	73.5%	222	21.0%	220	21.0%	221	21.0%	230	18.3%	215	18.1%	238	18.1%	214	12.8%	216	12.8%	210	8.0%
230	Quincy Center Station - Montello Station	74.0%	230	74.0%	215	23.1%	238	22.5%	225	17.4%	220	12.1%	221	12.1%	222	12.1%	214	12.0%	216	12.0%	210	9.1%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	44.6%	238	44.6%	240	31.3%	215	29.1%	230	18.9%	225	14.5%	220	10.2%	221	10.2%	222	10.2%	214	10.0%	216	10.0%
240	Avon Line - Ashmont Station	48.3%	240	48.3%	238	31.6%	24	17.3%	215	14.5%	ML	11.6%	21	11.2%	RL	8.6%	22	6.2%	23	6.2%	230	5.0%
275	Downtown Boston - Long Island Health Campus	0.1%	SL4	69.8%	SL5	69.4%	11	67.2%	9	56.2%	RL	40.7%	OL	39.2%	47	31.3%	170	27.1%	GL	26.5%	276	25.1%
276	Boston City Hospital - Long Island Health Campus	0.0%	SL4	78.0%	SL5	75.2%	7	50.9%	11	50.9%	OL	49.8%	554	49.6%	556	49.6%	RL	45.5%	1	45.1%	47	45.1%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0%	SL5	64.0%	SL4	54.6%	GL	53.4%	1	50.1%	170	50.1%	RL	36.1%	OL	34.6%	276	30.2%	7	27.6%	47	26.7%
350	North Burlington - Alewife Station	27.5%	350	27.5%	77	26.1%	87	15.2%	67	12.4%	354	12.4%	80	10.0%								
354	Woburn Line - State Street	43.1%	354	43.1%	134	21.3%	BL	19.3%	OL	16.6%	350	15.8%	GL	15.7%	RL	11.0%	554	9.4%	556	9.4%	7	9.3%
411	Malden Station - Revere/Jack Satter House	5.9%	119	40.3%	426	33.5%	106	29.4%	116	25.6%	450	25.2%	455	25.2%	110	21.2%	117	21.0%	429	17.4%	442	16.2%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	14.8%	455	62.4%	450	52.0%	442	44.4%	429	40.0%	411	29.9%	436	26.3%	119	16.5%	426	14.8%	435	11.7%	116	11.6%
429	Northgate Shopping Center - Central Sq. Lynn	35.5%	426	47.1%	429	35.5%	455	26.2%	436	24.4%	435	24.4%	442	23.7%	411	18.3%	450	17.4%	119	17.2%	109	8.6%
435	Liberty Tree Mall - Central Sq. Lynn	57.9%	435	57.9%	436	33.0%	429	18.5%	450	15.9%	455	12.9%	442	12.3%	426	10.5%						
436	Danvers Sq. - Central Sq. Lynn	33.8%	455	39.9%	435	39.9%	436	33.8%	442	33.7%	426	28.4%	450	27.2%	429	22.4%						
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	55.2%	442	55.2%	455	41.0%	426	35.7%	450	27.6%	436	25.1%	429	16.2%	411	11.6%	435	11.1%	110	6.1%	117	6.1%
450	Salem Depot – Haymarket/Wonderland Station	20.5%	455	64.5%	426	48.6%	442	32.1%	436	23.6%	411	21.0%	450	20.5%	435	16.7%	429	13.8%	110	11.7%	117	11.7%
455	Salem Depot - Haymarket or Wonderland Station	28.8%	450	53.7%	426	48.6%	442	39.7%	436	28.8%	455	28.8%	411	17.5%	429	17.3%	435	11.3%	110	9.7%	117	9.7%
554	Waverley Square - Federal & Franklin Streets	31.9%	556	44.9%	554	31.9%	170	28.8%	59	11.5%	7	11.0%	OL	10.4%	70	10.0%	11	9.2%	RL	8.9%	SL4	8.5%
556	Waltham Highlands - Federal & Franklin Streets	21.1%	554	63.9%	170	31.5%	70	22.2%	556	21.1%	59	18.6%	7	15.7%	OL	14.9%	11	13.0%	RL	12.7%	SL4	12.1%
CT3	Longwood Medical Area - Andrew Station	0.5%	47	76.7%	1	42.6%	170	40.7%	SL5	36.9%	SL4	36.9%	15	31.6%	GL	25.7%	66	24.0%	23	23.5%	28	23.5%
SL1	Logan Airport - South Station	11.6%	SL2	88.4%	SLW	88.4%	7	78.1%	11	54.0%	SL4	42.4%	RL	41.8%	554	37.4%	556	37.4%	OL	30.4%	276	29.3%
SL2	Boston Marine Industrial Park - South Station	10.8%	SL1	82.4%	SLW	82.4%	7	79.5%	11	50.3%	SL4	39.5%	RL	38.9%	554	34.9%	556	34.9%	OL	28.3%	276	27.3%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	7	88.3%	11	61.0%	SL4	47.9%	RL	47.2%	554	42.3%	556	42.3%	OL	34.4%	276	33.2%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	92.1%	170	65.4%	47	54.9%	1	48.2%	11	45.7%	CT3	38.1%	275	35.9%	9	32.9%	OL	32.6%	276	29.6%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	95.0%	170	67.9%	47	56.7%	1	49.7%	11	41.1%	CT3	39.3%	275	36.8%	OL	34.8%	9	34.4%	277	29.5%
BL	Blue Line	2.9%	354	17.9%	OL	17.6%	GL	16.8%	120	16.5%	117	15.4%	450	14.2%	455	14.2%	426	13.3%	RL	11.9%	93	10.1%
GL	Green Line	9.6%	39	13.6%	66	11.6%	GL	9.6%	OL	9.2%	57	9.2%	60	8.7%	170	8.3%	9	7.8%	47	6.6%	1	5.5%
ML	Mattapan Line	7.9%	24	33.9%	240	27.7%	215	20.3%	716	13.6%	28	13.0%	30	13.0%	33	13.0%	21	11.8%	22	10.6%	23	10.6%
OL	Orange Line	2.2%	GL	20.5%	39	15.5%	93	12.1%	SL5	10.4%	SL4	10.0%	11	9.6%	22	9.5%	BL	9.0%	9	8.6%	101	8.4%
RL	Red Line	4.5%	83	11.1%	210	10.6%	11	10.5%	77	9.7%	1	8.8%	87	7.9%	64	7.3%	47	7.3%	211	7.2%	215	6.6%

Table A-10
Revised Unique and Overlap Coverage Percentages by Route for the One-Half-Mile Coverage Threshold

Rte. #	Route Description	Unique	1st Overlap		2nd Overlap		3rd Overlap		4th Overlap		5th Overlap		6th Overlap		7th Overlap		8th Overlap		9th Overlap		10th Overlap	
		%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%	Rte.	%
1	Harvard Square - Dudley Station via Mass. Ave.	3.1%	47	53.7%	SL5	31.6%	SL4	31.6%	CT3	29.3%	RL	27.7%	GL	26.0%	66	25.6%	39	23.0%	70	22.7%	83	21.8%
7	City Point - Otis & Summer Streets	1.7%	9	48.3%	SL2	48.1%	SL1	45.8%	SLW	45.8%	RL	36.2%	553	36.1%	OL	35.1%	SL4	33.3%	GL	31.0%	SL5	26.8%
9	City Point - Copley Square via Broadway Station	8.3%	GL	43.4%	39	40.0%	SL5	28.0%	SL4	27.8%	7	27.4%	1	25.2%	OL	24.3%	47	19.7%	RL	18.9%	CT3	8.7%
15	Kane Square - Ruggles Station	5.1%	23	53.3%	28	41.9%	47	33.0%	CT3	30.1%	16	30.0%	66	28.7%	1	25.4%	22	22.2%	SL5	21.2%	SL4	21.2%
16	Forest Hills Station - U Mass.	12.1%	15	28.7%	23	19.0%	28	18.8%	RL	18.7%	CT3	17.2%	21	16.3%	22	15.6%	16	12.1%	42	10.4%	38	10.2%
21	Ashmont Station - Forest Hills Station	18.7%	24	31.0%	16	25.0%	28	24.7%	215	24.2%	22	21.0%	21	18.7%	23	17.7%	ML	16.7%	42	16.0%	38	15.7%
22	Ashmont Station - Ruggles Station Via Talbot Ave	2.3%	23	63.9%	28	46.3%	OL	28.0%	42	26.7%	15	21.3%	66	17.9%	215	15.8%	16	15.7%	47	15.6%	39	14.5%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	0.6%	28	63.3%	22	59.3%	15	47.6%	47	25.9%	66	25.6%	42	23.3%	CT3	19.7%	1	19.2%	16	17.7%	SL5	17.6%
24	Wakefield Ave. - Mattapan Station or Ashmont	27.6%	ML	29.4%	24	27.6%	21	23.3%	30	19.7%	716	18.7%	32	18.5%	215	18.1%	28	17.0%	22	13.0%	23	13.0%
28	Mattapan Station - Ruggles Station	4.0%	23	60.7%	22	41.3%	15	35.9%	47	24.9%	66	24.6%	42	22.4%	CT3	18.9%	1	18.4%	SL5	16.9%	SL4	16.9%
30	Mattapan Station - Roslindale Square	14.1%	36	41.7%	51	41.7%	34	39.4%	40	39.4%	32	31.9%	24	25.2%	28	20.6%	38	19.1%	716	18.7%	30	14.1%
32	Wolcott Square or Cleary Square - Forest Hills Station	31.8%	40	37.1%	30	33.3%	32	31.8%	24	24.6%	34	17.3%	36	17.0%	51	14.8%	21	12.0%	16	11.9%	38	11.9%
34	Dedham Line - Forest Hills Station	60.9%	34	60.9%	40	25.8%	36	16.2%	30	13.9%	51	13.8%	38	9.5%	32	5.8%	39	5.3%	16	4.7%	21	4.7%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	8.2%	38	57.5%	51	50.2%	34	39.8%	40	38.0%	30	36.0%	32	14.1%	39	12.9%	16	11.5%	21	11.5%	OL	11.0%
38	Wren Street - Forest Hills Station	18.0%	36	47.6%	51	40.6%	39	25.6%	34	19.3%	38	18.0%	40	17.8%	OL	16.1%	42	14.2%	30	13.7%	16	10.7%
39	Forest Hills Station - Back Bay Station	4.8%	GL	61.7%	OL	43.2%	9	33.8%	1	23.6%	66	22.7%	38	21.9%	47	21.1%	CT3	18.5%	42	14.1%	22	12.9%
40	Georgetowne - Forest Hills Station	14.1%	34	65.5%	36	39.3%	30	35.3%	51	34.9%	32	31.7%	38	22.2%	40	14.1%	24	12.1%	39	11.9%	OL	10.4%
42	Forest Hills Station - Ruggles Station	0.4%	OL	45.6%	22	42.4%	23	39.9%	28	39.9%	15	30.7%	66	29.8%	47	25.2%	39	25.0%	1	24.5%	SL5	24.5%
47	Central Square Cambridge. - Broadway Station	3.1%	1	51.5%	CT3	45.6%	SL4	34.0%	SL5	33.8%	GL	33.2%	15	26.5%	66	25.6%	23	23.3%	28	23.3%	RL	21.8%
51	Cleveland Circle - Forest Hills Station	38.9%	51	38.9%	36	35.4%	38	34.6%	30	25.4%	34	23.8%	40	23.8%	86	12.1%	GL	11.4%	32	8.6%	39	8.1%
57	Watertown Yard - Kenmore Station	14.5%	GL	48.3%	66	23.6%	86	20.3%	57	14.5%	47	14.0%	553	12.4%	70	9.9%	71	9.5%	1	5.1%	9	2.8%
62	Bedford V.A. Hospital - Alewife Station	34.2%	78	36.6%	62	34.2%	77	14.4%	350	4.0%	RL	2.7%	83	2.1%	75	1.3%						
66	Harvard Square - Dudley Station via Brookline	1.5%	GL	53.2%	47	25.7%	1	24.7%	86	24.0%	15	23.1%	23	23.1%	28	23.1%	39	21.3%	57	20.5%	CT3	18.9%
69	Harvard Square - Lechmere Station	4.2%	86	48.3%	1	44.7%	83	43.1%	RL	30.2%	80	30.1%	88	30.1%	66	23.3%	77	23.1%	71	22.2%	75	22.2%
70	Cedarwood - Central Square Cambridge	49.9%	70	49.9%	553	13.8%	1	12.6%	47	12.0%	71	12.0%	86	9.9%	83	9.1%	RL	9.1%	66	6.7%	57	5.0%
71	Watertown Square - Harvard Station	8.1%	73	62.3%	75	36.6%	70	31.1%	78	26.8%	77	21.5%	86	18.4%	66	16.9%	69	15.6%	1	15.5%	RL	14.3%
73	Waverley Square - Harvard Station	36.8%	71	59.7%	75	38.0%	73	36.8%	78	25.2%	77	20.0%	86	17.1%	66	15.7%	69	14.8%	1	14.7%	RL	13.5%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	21.3%	78	63.7%	73	44.3%	71	40.9%	77	27.5%	75	21.3%	86	20.6%	66	19.0%	69	17.5%	1	17.4%	RL	16.7%
77	Arlington Heights - Harvard Station	12.1%	78	31.8%	350	31.2%	RL	29.8%	83	27.0%	88	21.2%	89	18.5%	75	17.0%	62	16.6%	71	14.9%	73	14.5%
78	Arlmont Village - Harvard Station	9.6%	62	47.4%	75	44.3%	77	35.7%	71	20.9%	73	20.4%	86	14.3%	66	13.2%	69	12.1%	RL	12.1%	1	12.1%
80	Arlington Center - Lechmere Station	0.8%	101	53.1%	88	47.1%	89	42.2%	94	37.2%	86	14.4%	69	13.4%	77	13.2%	350	12.2%	GL	7.4%	RL	5.8%
83	Rindge Ave. - Central Square, Cambridge	0.9%	RL	47.7%	77	37.2%	88	33.3%	1	30.1%	69	28.9%	70	22.7%	86	22.7%	47	21.5%	89	16.6%	94	14.2%
86	Sullivan Station - Cleveland Circle	3.0%	66	23.8%	69	22.4%	GL	18.6%	57	17.5%	70	17.0%	83	15.7%	80	15.0%	88	14.8%	1	14.0%	77	13.0%
88	Clarendon Hill - Lechmere Station via Highland Avenue	0.5%	80	62.9%	89	58.7%	83	29.6%	94	26.8%	77	26.0%	RL	23.1%	101	19.6%	86	19.0%	69	17.9%	GL	9.9%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	0.0%	88	60.9%	80	58.5%	101	57.4%	94	33.4%	77	23.5%	RL	19.5%	86	17.0%	83	15.3%	OL	10.9%	109	10.8%
93	Sullivan Station - Downtown Via Bunker Hill	26.2%	OL	62.7%	GL	36.8%	111	32.8%	BL	29.7%	442	26.3%	450	26.3%	455	26.3%	93	26.2%	109	23.4%	86	23.0%
94	Medford Square - Davis Square Station	0.0%	101	69.9%	80	56.4%	89	36.5%	134	32.6%	88	30.4%	RL	21.4%	77	16.4%	83	14.3%	100	2.1%	350	0.3%
100	Elm Street - Wellington Station	32.2%	101	41.3%	100	32.2%	134	32.1%	106	5.1%	OL	4.9%	94	3.2%	110	3.0%	411	2.1%				
101	Malden Station - Sullivan Station Via Medford Square	6.7%	80	41.0%	94	35.5%	89	32.0%	134	19.7%	OL	14.5%	100	14.3%	106	13.3%	411	13.1%	88	11.3%	86	9.5%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	47.9%	106	47.9%	411	35.8%	101	17.9%	109	15.7%	110	14.9%	OL	9.9%	100	2.4%	134	1.4%				
109	Linden Square - Sullivan Station	24.3%	110	36.5%	109	24.3%	411	22.4%	106	22.3%	93	15.0%	86	14.7%	429	13.8%	89	11.5%	101	11.5%	OL	9.7%
110	Wonderland Station - Wellington Station	5.1%	111	41.7%	109	32.6%	411	32.2%	117	32.0%	450	21.6%	455	21.6%	116	20.8%	106	18.9%	442	14.2%	BL	9.7%
111	Woodlawn or Bway & Park - Haymarket Station	11.9%	116	42.8%	110	41.9%	117	41.7%	450	19.5%	455	19.5%	93	18.8%	OL	17.7%	GL	17.2%	442	17.0%	411	14.5%
116	Wonderland Station - Maverick Station Via Revere	0.0%	117	79.4%	111	45.2%	411	40.1%	450	24.9%	455	24.9%	110	22.1%	120	21.0%	BL	14.2%	442	13.2%	429	3.2%
117	Wonderland Station - Maverick Station via Beach	0.0%	116	85.9%	111	47.6%	110	36.8%	411	35.4%	450	24.9%	455	24.9%	BL	23.6%	120	22.8%	442	16.3%		
120	Orient Heights Station - Maverick Station	19.2%	BL	45.7%	116	38.8%	117	38.8%	450	20.4%	455	20.4%	120	19.2%	713	14.7%	712	14.2%	SL1	0.1%		
134	North Woburn - Wellington Station	19.8%	101	54.0%	94	45.4%	100	30.5%	134	19.8%	80	4.5%	106	2.8%	110	2.8%	OL	1.5%				
214	Quincy Center Station - Germantown	13.4%	216	86.6%	220	45.2%	222	45.2%	225	38.2%	215	36.7%	238	36.7%	RL	21.7%	214	13.4%				
215	Quincy Center Station - Ashmont Station	41.0%	215	41.0%	238	32.5%	RL	20.8%	225	17.4%	21	12.4%	22	12.4%	23	12.4%	24	12.4%	220	12.2%	222	12.2%
216	Quincy Center Station - Houghs Neck	26.1%	214	73.9%	220	38.6%	222	38.6%	225	32.6%	215	31.4%	238	31.4%	216	26.1%	RL	18.5%				
220	Quincy Center Station - Hingham	42.3%	222	51.2%	220	42.3%	225	27.4%	214	19.7%	216	19.7%	215	16.4%	238	16.4%	RL	9.5%	714	6.5%		
222	Quincy Center Station - East Weymouth	52.5%	222	52.5%	220	47.2%	225	25.6%	214	18.2%	216	18.2%	215	15.1%	238	15.1%	RL	8.7%				
225	Quincy Center Station - Weymouth Landing	68.2%	225	68.2%	222	25.4%	220	25.1%	215	21.3%	238	21.2%	214	15.3%	216	15.3%	RL	8.9%				
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	69.2%	238	69.2%	215	30.8%	225	16.4%	220	11.6%	222	11.6%	214	11.3%	216	11.3%	RL	6.9%				
350	North Burlington - Alewife Station	36.2%	350	36.2%	77	28.8%	80	12.3%	88	4.7%	89	4.7%	62	4.3%	RL	3.3%	83	3.3%	78	0.7%	75	0.3%

Rte. #	Route Description	Unique %	1st Overlap Rte.	1st Overlap %	2nd Overlap Rte.	2nd Overlap %	3rd Overlap Rte.	3rd Overlap %	4th Overlap Rte.	4th Overlap %	5th Overlap Rte.	5th Overlap %	6th Overlap Rte.	6th Overlap %	7th Overlap Rte.	7th Overlap %	8th Overlap Rte.	8th Overlap %	9th Overlap Rte.	9th Overlap %	10th Overlap Rte.	10th Overlap %
411	Malden Station - Revere/Jack Satter House	8.8%	106	33.3%	116	27.7%	450	27.7%	455	27.7%	110	23.6%	117	22.6%	429	19.4%	442	17.7%	101	16.5%	109	14.7%
429	Northgate Shopping Center - Central Sq. Lynn	45.4%	429	45.4%	455	31.1%	435	27.2%	442	27.1%	450	22.3%	411	19.4%	109	9.1%	116	2.2%				
435	Liberty Tree Mall - Central Sq. Lynn	69.0%	435	69.0%	429	21.1%	450	18.8%	455	16.0%	442	14.7%										
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	48.8%	455	48.8%	442	48.8%	450	33.7%	429	19.2%	435	13.4%	411	12.6%	BL	9.5%	111	8.8%	93	7.8%	GL	7.8%
450	Salem Depot – Haymarket/Wonderland Station	17.7%	455	70.3%	442	36.5%	411	21.3%	435	18.7%	450	17.7%	429	17.1%	BL	13.8%	116	13.2%	117	12.2%	110	12.2%
455	Salem Depot - Haymarket or Wonderland Station	25.4%	450	60.1%	442	45.2%	455	25.4%	429	20.4%	411	18.2%	435	13.5%	BL	11.8%	116	11.3%	117	10.5%	110	10.4%
553	Roberts - Federal & Franklin Streets	55.1%	553	55.1%	70	21.2%	7	14.3%	OL	14.1%	RL	12.6%	GL	12.1%	SL4	12.1%	SL5	10.8%	57	9.6%	SL1	9.4%
CT3	Longwood Medical Area - Andrew Station	0.0%	47	76.0%	1	46.8%	15	40.3%	SL5	39.6%	SL4	39.6%	GL	34.2%	66	31.5%	23	29.6%	28	29.6%	39	28.9%
SL1	Logan Airport - South Station	9.7%	SL2	90.1%	SLW	90.1%	7	86.3%	RL	51.1%	SL4	50.9%	553	44.6%	OL	40.8%	GL	34.4%	SL5	33.1%	BL	27.6%
SL2	Boston Marine Industrial Park - South Station	6.8%	7	89.4%	SL1	88.9%	SLW	88.9%	RL	50.4%	SL4	50.3%	553	44.0%	OL	40.3%	GL	34.0%	SL5	32.6%	BL	27.2%
SLW	Silver Line Way - South Station	0.0%	SL1	100.0%	SL2	100.0%	7	95.7%	RL	56.7%	SL4	56.5%	553	49.5%	OL	45.3%	GL	38.2%	SL5	36.7%	BL	30.5%
SL4	Dudley Station - South Station at Essex Street	0.0%	SL5	92.6%	47	59.6%	1	53.1%	OL	45.7%	CT3	41.6%	9	38.5%	GL	37.1%	15	29.9%	23	27.8%	28	27.8%
SL5	Dudley Station - Downtown Crossing at Temple Pl	0.0%	SL4	95.2%	47	60.9%	1	54.5%	OL	48.0%	CT3	42.8%	GL	41.1%	9	39.8%	15	30.7%	23	28.5%	28	28.5%
BL	Blue Line	15.4%	450	33.7%	455	33.7%	GL	32.8%	OL	32.8%	120	32.0%	117	28.2%	442	25.1%	RL	24.6%	93	23.3%	116	18.4%
GL	Green Line	24.8%	39	26.0%	GL	24.8%	66	23.8%	OL	20.9%	57	18.8%	9	15.4%	47	14.9%	1	11.2%	SL5	10.3%	SL4	9.5%
ML	Mattapan Line	14.6%	24	68.5%	215	39.5%	21	29.2%	716	26.3%	28	25.0%	30	25.0%	22	21.9%	23	21.9%	RL	17.8%	ML	14.6%
OL	Orange Line	5.5%	GL	38.5%	39	33.4%	93	23.5%	SL5	22.1%	SL4	21.6%	42	19.9%	22	19.4%	101	16.2%	9	15.9%	BL	15.7%
RL	Red Line	14.8%	83	20.8%	77	17.9%	1	16.6%	RL	14.8%	215	13.8%	47	13.6%	88	11.3%	7	10.1%	OL	10.1%	GL	10.0%

Table A-11
Existing and Proposed Average Headways and Improvements by Route by Time Period for the One-Third-Mile Coverage Threshold

		Proposed					Existing					Percentage Change				
Rte. #	Route Description	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day
1	Harvard Square - Dudley Station via Mass. Ave.	7.8	11.3	7.0	10.3	9.5	9.1	12.9	8.1	11.5	10.8	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
4	North Station - World Trade Center	11.6	0.0	10.8	8.1	10.7	15.8	0.0	15.0	11.0	14.7	-27.0%	0.0%	-28.0%	-26.7%	-27.5%
7	City Point - Otis & Summer Streets	7.4	19.0	9.8	26.3	13.2	8.7	23.5	11.6	31.2	15.8	-15.5%	-19.1%	-15.1%	-15.8%	-16.6%
9	City Point - Copley Square via Broadway Station	6.2	11.4	8.4	16.1	10.6	7.4	14.1	9.9	19.1	12.7	-15.5%	-19.1%	-15.1%	-15.8%	-16.6%
11	City Point - Downtown	11.5	14.2	9.7	22.5	14.6	13.6	17.6	11.4	26.7	17.6	-15.5%	-19.1%	-15.1%	-15.8%	-16.6%
14	Roslindale Square - Heath Street Loop	22.9	32.3	25.3	8.8	24.4	35.9	52.4	42.0	14.0	39.4	-36.3%	-38.3%	-39.8%	-36.8%	-38.1%
15	Kane Square - Ruggles Station	5.1	12.8	13.5	28.6	14.9	6.5	18.7	17.9	31.5	18.5	-22.2%	-31.9%	-24.4%	-9.3%	-19.5%
16	Forest Hills Station - U Mass.	11.2	21.1	33.1	59.0	33.5	13.1	24.2	38.3	65.9	37.9	-14.6%	-12.8%	-13.6%	-10.3%	-11.7%
18	Ashmont Station - Andrew Station	22.4	32.9	25.8	0.0	26.1	30.0	49.3	36.0	0.0	37.3	-25.2%	-33.2%	-28.2%	0.0%	-30.0%
21	Ashmont Station - Forest Hills Station	8.6	16.7	10.7	32.5	16.2	10.1	19.2	12.4	36.3	18.5	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
22	Ashmont Station - Ruggles Station Via Talbot Ave	7.0	11.1	9.2	14.8	10.8	8.2	12.8	10.7	16.5	12.4	-14.6%	-12.8%	-13.6%	-10.3%	-12.3%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	4.7	8.4	6.2	12.5	8.1	5.5	9.6	7.2	13.9	9.3	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
24	Wakefield Ave. - Mattapan Station or Ashmont	13.6	26.8	23.3	40.3	26.7	18.3	40.2	32.5	46.4	34.7	-25.2%	-33.2%	-28.2%	-13.3%	-23.1%
26	Ashmont Station - Norfolk & Wash. Belt	22.1	32.0	21.6	30.8	27.2	29.5	47.9	30.1	35.5	36.4	-25.2%	-33.2%	-28.2%	-13.3%	-25.4%
28	Mattapan Station - Ruggles Station	7.0	7.4	7.6	14.8	9.3	8.2	8.5	8.8	16.5	10.6	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
30	Mattapan Station - Roslindale Square	12.6	21.8	13.1	20.8	17.6	19.7	35.3	21.8	33.0	28.3	-36.3%	-38.3%	-39.8%	-36.8%	-37.7%
32	Wolcott Square or Cleary Square - Forest Hills Station	4.7	11.3	5.2	10.8	7.9	7.4	18.3	8.6	17.1	12.7	-36.3%	-38.3%	-39.8%	-36.8%	-37.7%
33	River & Milton Streets - Mattapan Station	22.4	29.4	28.3	42.2	30.1	30.0	43.9	39.5	48.7	40.4	-25.2%	-33.2%	-28.2%	-13.3%	-25.4%
34	Dedham Line - Forest Hills Station	5.5	16.0	5.7	16.0	10.5	8.6	25.9	9.4	25.4	16.9	-36.3%	-38.3%	-39.8%	-36.8%	-37.6%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	18.7	29.1	33.8	30.4	28.0	29.4	47.1	56.1	48.1	45.0	-36.3%	-38.3%	-39.8%	-36.8%	-37.8%
38	Wren Street - Forest Hills Station	12.6	22.7	14.3	30.1	19.7	19.7	36.8	23.8	47.7	31.6	-36.3%	-38.3%	-39.8%	-36.8%	-37.7%
39	Forest Hills Station - Back Bay Station	5.2	8.5	6.7	9.1	7.7	6.1	9.8	7.8	10.2	8.7	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
41	Centre & Eliot Streets - JFK U Mass Station	20.1	24.9	21.2	24.2	23.0	23.6	28.5	24.5	27.0	26.4	-14.6%	-12.8%	-13.6%	-10.3%	-12.6%
42	Forest Hills Station - Ruggles Station	8.0	11.1	12.5	16.6	12.1	12.6	18.0	20.7	26.2	19.4	-36.3%	-38.3%	-39.8%	-36.8%	-37.6%
47	Central Square Cambridge. - Broadway Station	15.1	19.1	16.6	32.1	21.2	17.7	21.9	19.2	35.8	24.2	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
51	Cleveland Circle - Forest Hills Station	13.7	24.7	13.5	21.3	18.5	21.6	39.9	22.5	33.7	29.7	-36.3%	-38.3%	-39.8%	-36.8%	-37.8%
52	Dedham Mall - Watertown Yard	19.0	75.0	94.6	33.3	61.4	20.5	80.0	102.0	35.0	65.7	-7.1%	-6.2%	-7.2%	-4.8%	-6.6%
57	Watertown Yard - Kenmore Station	8.9	10.9	17.8	11.5	11.9	11.5	13.3	22.7	12.7	14.5	-22.6%	-18.6%	-21.9%	-9.7%	-17.9%
59	Needham Junction - Watertown Square	54.0	72.7	55.7	27.9	57.5	58.1	77.5	60.0	29.3	61.5	-7.1%	-6.2%	-7.2%	-4.8%	-6.6%
60	Chestnut Hill - Kenmore Station	21.3	25.6	22.9	26.7	24.6	27.5	31.5	29.3	29.5	29.7	-22.6%	-18.6%	-21.9%	-9.7%	-17.1%
62	Bedford V.A. Hospital - Alewife Station	26.2	45.4	66.2	202.0	78.2	31.6	54.8	80.5	236.1	92.9	-17.1%	-17.3%	-17.7%	-14.4%	-15.8%
64	Oak Square - University Pk. Cambridge	18.9	34.5	65.0	51.5	40.9	22.8	41.7	78.9	60.2	49.0	-17.1%	-17.3%	-17.7%	-14.4%	-16.5%
66	Harvard Square - Dudley Station via Brookline	6.8	10.3	8.0	15.8	10.4	8.0	11.8	9.2	17.6	11.9	-14.6%	-12.8%	-13.6%	-10.3%	-12.2%
67	Turkey Hill - Alewife Station	22.8	35.9	29.0	28.6	29.6	27.5	43.4	35.3	33.4	35.6	-17.1%	-17.3%	-17.7%	-14.4%	-16.9%
69	Harvard Square - Lechmere Station	12.6	18.2	18.5	28.3	19.7	13.5	19.4	19.9	29.7	21.0	-7.1%	-6.2%	-7.2%	-4.8%	-6.0%
70	Cedarwood - Central Square Cambridge	14.5	19.7	24.7	18.5	19.4	17.5	23.8	30.0	21.6	23.2	-17.1%	-17.3%	-17.7%	-14.4%	-16.5%
71	Watertown Square - Harvard Station	7.7	15.5	7.7	27.2	16.0	9.3	18.8	9.3	31.8	19.0	-17.1%	-17.3%	-17.7%	-14.4%	-15.8%
73	Waverley Square - Harvard Station	6.4	15.2	7.4	22.0	13.5	7.7	18.4	9.0	25.8	16.0	-17.1%	-17.3%	-17.7%	-14.4%	-15.9%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	44.4	61.1	45.5	55.3	53.2	53.6	73.9	55.3	64.6	63.9	-17.1%	-17.3%	-17.7%	-14.4%	-16.8%
76	Hanscom Air Force Base - Alewife Station	25.6	48.3	33.6	54.2	40.9	30.9	58.3	40.8	63.3	48.8	-17.1%	-17.3%	-17.7%	-14.4%	-16.3%
77	Arlington Heights - Harvard Station	6.7	11.2	7.4	14.2	10.9	8.1	13.5	9.0	16.5	13.0	-17.1%	-17.3%	-17.7%	-14.4%	-15.9%
78	Arlmont Village - Harvard Station	22.7	21.8	58.3	41.5	34.5	27.4	26.4	69.4	48.5	41.0	-17.0%	-17.3%	-16.0%	-14.4%	-15.9%
80	Arlington Center - Lechmere Station	21.0	29.1	19.1	38.5	28.1	22.6	31.0	20.6	40.4	29.9	-7.1%	-6.2%	-7.2%	-4.8%	-6.0%
83	Rindge Ave. - Central Square, Cambridge	14.0	20.4	17.6	31.1	21.4	16.9	24.7	21.4	36.3	25.6	-17.1%	-17.3%	-17.7%	-14.4%	-16.2%
86	Sullivan Station - Cleveland Circle	14.5	19.1	14.0	28.1	19.1	17.0	21.9	16.2	31.3	21.8	-14.6%	-12.8%	-13.6%	-10.3%	-12.4%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	15.9	24.9	16.4	69.5	36.8	17.2	26.5	17.7	73.0	38.9	-7.1%	-6.2%	-7.2%	-4.8%	-5.5%
88	Clarendon Hill - Lechmere Station via Highland Avenue	15.5	23.1	15.8	26.4	20.6	16.6	24.7	17.0	27.7	21.9	-7.1%	-6.2%	-7.2%	-4.8%	-6.1%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	16.7	35.1	16.3	26.8	23.2	22.1	47.8	21.9	34.2	30.9	-24.6%	-26.6%	-25.8%	-21.5%	-24.7%
93	Sullivan Station - Downtown Via Bunker Hill	10.6	23.0	10.7	24.4	16.9	14.5	31.5	14.9	33.3	23.2	-27.0%	-27.1%	-28.0%	-26.7%	-27.1%
94	Medford Square - Davis Square Station	20.7	34.2	24.7	33.5	28.9	24.9	41.3	30.0	39.1	34.5	-17.1%	-17.3%	-17.7%	-14.4%	-16.2%
99	Boston Reg. Med Center Stoneham - Wellington Station	17.8	30.2	19.8	38.3	27.2	23.6	41.2	26.7	48.8	35.9	-24.6%	-26.6%	-25.8%	-21.5%	-24.3%
100	Elm Street - Wellington Station	15.9	25.7	20.8	29.9	23.9	21.1	35.0	28.1	38.0	31.5	-24.6%	-26.6%	-25.8%	-21.5%	-24.1%
101	Malden Station - Sullivan Station Via Medford Square	12.8	18.1	33.7	39.3	24.8	17.0	24.6	45.4	50.0	32.8	-24.6%	-26.6%	-25.8%	-21.5%	-24.4%
104	Malden Station - Sullivan Station Via Ferry Street	11.0	20.1	12.5	26.6	18.0	14.6	27.4	16.9	33.9	23.8	-24.6%	-26.6%	-25.8%	-21.5%	-24.3%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	16.0	25.1	34.8	29.2	26.1	21.2	34.3	46.9	37.2	34.6	-24.6%	-26.6%	-25.8%	-21.5%	-24.6%

		Proposed					Existing					Percentage Change				
Rte. #	Route Description	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day
109	Linden Square - Sullivan Station	10.9	19.2	12.5	22.2	17.1	14.5	26.1	16.9	28.3	22.5	-24.6%	-26.6%	-25.8%	-21.5%	-24.0%
110	Wonderland Station - Wellington Station	17.2	22.6	49.5	31.6	30.0	22.8	30.8	66.7	40.2	39.9	-24.6%	-26.6%	-25.8%	-21.5%	-24.7%
111	Woodlawn or Bway & Park - Haymarket Station	8.7	9.5	13.6	8.8	10.1	10.2	10.9	15.7	9.8	11.6	-14.6%	-12.8%	-13.6%	-10.3%	-12.7%
112	Wellington Station - Wood Island Station	23.9	30.5	30.2	31.4	29.2	28.0	35.0	35.0	35.0	33.5	-14.6%	-12.8%	-13.6%	-10.3%	-12.9%
116	Wonderland Station - Maverick Station Via Revere	13.1	22.1	55.2	31.3	28.0	14.7	25.1	63.2	33.3	31.1	-10.7%	-12.1%	-12.6%	-5.9%	-10.0%
117	Wonderland Station - Maverick Station via Beach	16.8	22.3	17.6	30.4	22.6	18.8	25.4	20.2	32.3	25.0	-10.7%	-12.1%	-12.6%	-5.9%	-9.6%
119	Northgate Shopping Center - Beachmont Station	32.1	44.9	26.9	47.8	38.5	35.9	51.1	30.8	50.8	42.8	-10.7%	-12.1%	-12.6%	-5.9%	-10.0%
120	Orient Heights Station - Maverick Station	14.0	16.9	16.8	38.8	21.0	15.7	19.2	19.2	41.2	23.2	-10.7%	-12.1%	-12.6%	-5.9%	-9.5%
131	Melrose Highlands - Malden Station	19.7	45.0	48.6	18.6	33.2	21.2	48.0	52.4	19.6	35.6	-7.1%	-6.2%	-7.2%	-4.8%	-6.7%
132	Redstone Shopping Center - Malden Station	30.4	53.9	40.7	39.0	41.7	32.7	57.5	43.9	41.0	44.6	-7.1%	-6.2%	-7.2%	-4.8%	-6.5%
134	North Woburn - Wellington Station	30.2	77.8	90.6	143.7	86.7	32.5	83.0	97.6	151.0	92.2	-7.1%	-6.2%	-7.2%	-4.8%	-5.9%
136	Reading Depot - Malden Station Via Lakeside	33.2	52.4	53.4	63.6	48.3	35.8	55.8	57.5	66.9	51.6	-7.1%	-6.2%	-7.2%	-4.8%	-6.3%
137	Reading Depot - Malden Station Via North Ave	31.0	64.7	45.7	68.0	50.4	33.3	69.0	49.3	71.4	53.8	-7.1%	-6.2%	-7.2%	-4.8%	-6.2%
170	Oak Park - Dudley Station (Limited Service)	18.3	0.0	43.2	0.0	30.7	25.0	0.0	60.0	0.0	42.5	-27.0%	0.0%	-28.0%	0.0%	-27.7%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	23.4	59.2	30.4	99.4	49.1	26.9	67.4	34.5	107.3	55.0	-13.0%	-12.1%	-12.0%	-7.4%	-10.8%
211	Quincy Center Station - Squantum	25.1	39.2	27.5	33.9	31.5	28.8	44.6	31.3	36.6	35.6	-13.0%	-12.1%	-12.0%	-7.4%	-11.6%
214	Quincy Center Station - Germantown	17.0	22.6	35.0	12.4	23.4	19.6	25.7	39.7	13.3	26.6	-13.0%	-12.1%	-12.0%	-7.4%	-12.2%
215	Quincy Center Station - Ashmont Station	23.2	28.9	25.4	38.4	29.4	26.7	32.9	28.8	41.5	32.9	-13.0%	-12.1%	-12.0%	-7.4%	-10.7%
216	Quincy Center Station - Houghs Neck	10.5	23.8	17.0	83.7	36.0	12.1	27.1	19.3	90.3	39.6	-13.0%	-12.1%	-12.0%	-7.4%	-9.1%
220	Quincy Center Station - Hingham	19.1	52.6	18.6	59.0	39.0	22.0	59.9	21.1	63.7	43.5	-13.0%	-12.1%	-12.0%	-7.4%	-10.3%
221	Quincy Center Station - Fort Point	36.1	0.0	0.0	0.0	18.1	41.5	0.0	0.0	0.0	20.8	-13.0%	0.0%	0.0%	0.0%	-13.0%
222	Quincy Center Station - East Weymouth	29.4	63.6	50.5	61.4	51.9	33.8	72.4	57.3	66.3	58.2	-13.0%	-12.1%	-12.0%	-7.4%	-10.8%
225	Quincy Center Station - Weymouth Landing	21.2	71.8	29.4	100.5	54.7	24.3	81.8	33.4	108.5	60.8	-13.0%	-12.1%	-12.0%	-7.4%	-10.0%
230	Quincy Center Station - Montello Station	21.8	44.3	57.2	41.1	40.4	25.0	50.4	65.0	44.3	45.2	-13.0%	-12.1%	-12.0%	-7.4%	-10.7%
236	Quincy Center Station - South Shore Plaza	43.5	50.5	43.5	50.0	47.1	50.0	57.5	49.4	54.0	53.3	-13.0%	-12.1%	-12.0%	-7.4%	-11.5%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	22.8	53.2	35.1	69.3	46.7	26.2	60.5	39.9	74.8	52.0	-13.0%	-12.1%	-12.0%	-7.4%	-10.1%
240	Avon Line - Ashmont Station	25.5	48.2	93.2	51.3	53.0	29.3	54.8	105.9	55.3	59.4	-13.0%	-12.1%	-12.0%	-7.4%	-10.8%
275	Downtown Boston - Long Island Health Campus	53.1	0.0	63.8	47.5	49.6	61.0	0.0	72.5	51.3	55.0	-13.0%	0.0%	-12.0%	-7.4%	-9.9%
276	Boston City Hospital - Long Island Health Campus	49.3	35.1	29.9	42.5	40.6	56.7	40.0	34.0	45.8	45.5	-13.0%	-12.1%	-12.0%	-7.4%	-10.9%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	0.0%	0.0%
350	North Burlington - Alewife Station	15.5	44.6	25.3	46.0	32.8	18.7	53.9	30.8	53.8	39.2	-17.1%	-17.3%	-17.7%	-14.4%	-16.3%
354	Woburn Line - State Street	8.7	64.6	10.5	12.1	20.1	21.3	90.0	28.0	19.6	35.3	-59.3%	-28.2%	-62.4%	-37.9%	-43.1%
411	Malden Station - Revere/Jack Satter House	22.9	47.7	48.9	89.8	50.4	30.4	65.0	65.8	114.4	66.5	-24.6%	-26.6%	-25.8%	-21.5%	-24.2%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	24.1	27.8	22.1	29.1	26.2	36.6	45.0	34.7	34.1	37.2	-34.2%	-38.2%	-36.2%	-14.8%	-29.5%
429	Northgate Shopping Center - Central Sq. Lynn	16.5	25.1	24.4	40.7	25.9	25.1	40.6	38.2	47.7	37.5	-34.2%	-38.2%	-36.2%	-14.8%	-31.0%
430	Saugus, Appleton Street - Malden Station	22.6	42.8	31.7	40.4	34.9	30.0	58.3	42.8	51.5	46.3	-24.6%	-26.6%	-25.8%	-21.5%	-24.7%
435	Liberty Tree Mall - Central Sq. Lynn	14.8	45.4	40.5	45.1	38.9	20.0	60.4	51.4	51.1	49.0	-25.8%	-24.9%	-21.2%	-11.8%	-20.6%
436	Danvers Sq. - Central Sq. Lynn	20.4	33.8	36.9	79.1	34.5	27.5	45.0	46.9	89.7	44.3	-25.8%	-24.9%	-21.2%	-11.8%	-22.0%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	27.5	33.8	20.0	53.2	34.4	41.8	54.6	31.3	62.4	47.5	-34.2%	-38.2%	-36.2%	-14.8%	-27.6%
448	Marblehead - Downtown Crossing	26.3	0.0	0.0	0.0	15.8	40.0	0.0	0.0	0.0	24.0	-34.2%	0.0%	0.0%	0.0%	-34.2%
450	Salem Depot – Haymarket/Wonderland Station	19.1	43.9	29.4	32.5	31.2	29.0	71.0	46.1	38.1	43.0	-34.2%	-38.2%	-36.2%	-14.8%	-27.3%
455	Salem Depot - Haymarket or Wonderland Station	28.7	34.2	42.1	30.5	32.5	43.6	55.4	66.0	35.8	47.0	-34.2%	-38.2%	-36.2%	-14.8%	-30.9%
554	Waverley Square - Federal & Franklin Streets	4.4	23.0	9.3	6.1	13.7	26.5	60.0	49.8	28.8	46.2	-83.4%	-61.7%	-81.3%	-78.7%	-70.4%
556	Waltham Highlands - Federal & Franklin Streets	5.0	30.6	28.9	8.5	21.2	30.0	80.0	155.0	40.0	80.2	-83.4%	-61.7%	-81.3%	-78.7%	-73.6%
CT2	Sullivan Station - Kendall MIT Station	16.3	24.6	21.6	23.1	21.5	19.1	28.2	25.0	25.7	24.8	-14.6%	-12.8%	-13.6%	-10.3%	-13.1%
CT2	Kendall MIT Station - Ruggles Station	16.3	24.6	21.6	23.1	21.5	19.1	28.2	25.0	25.7	24.8	-14.6%	-12.8%	-13.6%	-10.3%	-13.1%
CT3	Longwood Medical Area - Andrew Station	14.3	26.3	23.2	37.8	23.2	15.5	28.2	25.0	40.0	24.9	-7.9%	-6.9%	-7.3%	-5.4%	-6.9%
SL1	Logan Airport - South Station	9.5	8.1	8.3	9.4	8.8	11.3	10.0	9.7	11.1	10.5	-15.5%	-19.1%	-15.1%	-15.8%	-16.7%
SL2	Boston Marine Industrial Park - South Station	4.7	7.7	5.4	8.7	6.8	5.6	9.5	6.3	10.3	8.2	-15.5%	-19.1%	-15.1%	-15.8%	-16.7%
SLW	Silver Line Way - South Station	6.0	6.4	14.2	18.9	11.2	7.1	7.9	16.7	22.4	13.3	-15.5%	-19.1%	-15.1%	-15.8%	-15.6%
SL4	Dudley Station - South Station at Essex Street	7.5	8.8	6.6	12.0	9.0	10.3	12.0	9.1	16.4	12.3	-27.0%	-27.1%	-28.0%	-26.7%	-27.1%
SL5	Dudley Station - Downtown Crossing at Temple Pl	5.0	6.3	4.5	7.4	6.1	6.8	8.7	6.2	10.1	8.3	-27.0%	-27.1%	-28.0%	-26.7%	-27.1%

Table A-12
Existing and Proposed Average Headways and Improvements by Route by Time Period for the Four-Tenths-Mile Coverage Threshold

		Proposed					Existing					Percentage Change				
Rte. #	Route Description	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day
1	Harvard Square - Dudley Station via Mass. Ave.	7.5	10.8	6.7	10.1	9.1	9.1	12.9	8.1	11.5	10.8	-18.4%	-16.7%	-17.3%	-12.3%	-15.2%
7	City Point - Otis & Summer Streets	7.2	18.7	9.6	26.0	13.0	8.7	23.5	11.6	31.2	15.8	-16.9%	-20.2%	-16.6%	-16.6%	-17.8%
9	City Point - Copley Square via Broadway Station	6.1	11.2	8.3	15.9	10.4	7.4	14.1	9.9	19.1	12.7	-16.9%	-20.2%	-16.6%	-16.6%	-17.7%
11	City Point - Downtown	11.3	14.0	9.5	22.3	14.4	13.6	17.6	11.4	26.7	17.6	-16.9%	-20.2%	-16.6%	-16.6%	-17.7%
14	Roslindale Square - Heath Street Loop	22.6	32.0	25.0	8.8	24.1	35.9	52.4	42.0	14.0	39.4	-37.1%	-38.9%	-40.5%	-37.3%	-38.8%
15	Kane Square - Ruggles Station	4.2	10.1	11.0	26.0	12.8	6.5	18.7	17.9	31.5	18.5	-36.1%	-46.0%	-38.6%	-17.6%	-31.1%
16	Forest Hills Station - U Mass.	10.7	20.1	31.7	57.8	32.4	13.1	24.2	38.3	65.9	37.9	-18.4%	-16.7%	-17.3%	-12.3%	-14.4%
21	Ashmont Station - Forest Hills Station	8.2	16.0	10.2	31.8	15.7	10.1	19.2	12.4	36.3	18.5	-18.4%	-16.7%	-17.3%	-12.3%	-15.3%
22	Ashmont Station - Ruggles Station Via Talbot Ave	6.7	10.6	8.8	14.5	10.5	8.2	12.8	10.7	16.5	12.4	-18.4%	-16.7%	-17.3%	-12.3%	-15.3%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	4.5	8.0	5.9	12.2	7.8	5.5	9.6	7.2	13.9	9.3	-18.4%	-16.7%	-17.3%	-12.3%	-15.2%
24	Wakefield Ave. - Mattapan Station or Ashmont	10.9	21.1	18.4	35.2	22.1	18.3	40.2	32.5	46.4	34.7	-40.1%	-47.5%	-43.4%	-24.2%	-36.3%
28	Mattapan Station - Ruggles Station	6.7	7.0	7.3	14.5	9.0	8.2	8.5	8.8	16.5	10.6	-18.4%	-16.7%	-17.3%	-12.3%	-15.2%
30	Mattapan Station - Roslindale Square	12.4	21.5	12.9	20.7	17.5	19.7	35.3	21.8	33.0	28.3	-37.1%	-38.9%	-40.5%	-37.3%	-38.3%
32	Wolcott Square or Cleary Square - Forest Hills Station	4.7	11.2	5.1	10.7	7.8	7.4	18.3	8.6	17.1	12.7	-37.1%	-38.9%	-40.5%	-37.3%	-38.3%
33	River & Milton Streets - Mattapan Station	18.0	23.0	22.3	36.9	24.6	30.0	43.9	39.5	48.7	40.4	-40.1%	-47.5%	-43.4%	-24.2%	-39.1%
34	Dedham Line - Forest Hills Station	5.4	15.8	5.6	15.9	10.4	8.6	25.9	9.4	25.4	16.9	-37.1%	-38.9%	-40.5%	-37.3%	-38.2%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	18.5	28.8	33.3	30.1	27.7	29.4	47.1	56.1	48.1	45.0	-37.1%	-38.9%	-40.5%	-37.3%	-38.4%
38	Wren Street - Forest Hills Station	12.4	22.5	14.1	29.9	19.5	19.7	36.8	23.8	47.7	31.6	-37.1%	-38.9%	-40.5%	-37.3%	-38.4%
39	Forest Hills Station - Back Bay Station	5.0	8.1	6.5	8.9	7.4	6.1	9.8	7.8	10.2	8.7	-18.4%	-16.7%	-17.3%	-12.3%	-15.3%
41	Centre & Eliot Streets - JFK U Mass Station	19.2	23.8	20.3	23.7	22.2	23.6	28.5	24.5	27.0	26.4	-18.4%	-16.7%	-17.3%	-12.3%	-16.0%
42	Forest Hills Station - Ruggles Station	7.9	11.0	12.3	16.4	12.0	12.6	18.0	20.7	26.2	19.4	-37.1%	-38.9%	-40.5%	-37.3%	-38.2%
47	Central Square Cambridge. - Broadway Station	14.4	18.3	15.9	31.4	20.5	17.7	21.9	19.2	35.8	24.2	-18.4%	-16.7%	-17.3%	-12.3%	-15.3%
51	Cleveland Circle - Forest Hills Station	13.6	24.4	13.4	21.1	18.3	21.6	39.9	22.5	33.7	29.7	-37.1%	-38.9%	-40.5%	-37.3%	-38.5%
52	Dedham Mall - Watertown Yard	18.7	73.8	92.9	32.9	60.4	20.5	80.0	102.0	35.0	65.7	-8.8%	-7.7%	-8.9%	-5.9%	-8.1%
57	Watertown Yard - Kenmore Station	8.7	10.7	17.5	11.4	11.7	11.5	13.3	22.7	12.7	14.5	-23.8%	-19.8%	-23.1%	-10.6%	-19.0%
59	Needham Junction - Watertown Square	53.0	71.5	54.6	27.6	56.5	58.1	77.5	60.0	29.3	61.5	-8.8%	-7.7%	-8.9%	-5.9%	-8.2%
60	Chestnut Hill - Kenmore Station	20.9	25.3	22.5	26.4	24.2	27.5	31.5	29.3	29.5	29.7	-23.8%	-19.8%	-23.1%	-10.6%	-18.2%
62	Bedford V.A. Hospital - Alewife Station	24.9	43.6	63.4	195.3	75.3	31.6	54.8	80.5	236.1	92.9	-21.2%	-20.6%	-21.2%	-17.3%	-19.0%
64	Oak Square - University Pk. Cambridge	17.9	33.1	62.2	49.8	39.3	22.8	41.7	78.9	60.2	49.0	-21.2%	-20.6%	-21.2%	-17.3%	-19.8%
66	Harvard Square - Dudley Station via Brookline	6.5	9.8	7.6	15.4	10.1	8.0	11.8	9.2	17.6	11.9	-18.4%	-16.7%	-17.3%	-12.3%	-15.3%
67	Turkey Hill - Alewife Station	21.7	34.5	27.8	27.6	28.4	27.5	43.4	35.3	33.4	35.6	-21.2%	-20.6%	-21.2%	-17.3%	-20.3%
69	Harvard Square - Lechmere Station	12.3	17.9	18.2	27.9	19.4	13.5	19.4	19.9	29.7	21.0	-8.8%	-7.7%	-8.9%	-5.9%	-7.3%
70	Cedarwood - Central Square Cambridge	13.8	18.9	23.6	17.9	18.6	17.5	23.8	30.0	21.6	23.2	-21.2%	-20.6%	-21.2%	-17.3%	-19.8%
71	Watertown Square - Harvard Station	7.4	14.9	7.4	26.3	15.4	9.3	18.8	9.3	31.8	19.0	-21.2%	-20.6%	-21.2%	-17.3%	-19.0%
73	Waverley Square - Harvard Station	6.0	14.6	7.1	21.3	12.9	7.7	18.4	9.0	25.8	16.0	-21.2%	-20.6%	-21.2%	-17.3%	-19.1%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	42.2	58.7	43.6	53.5	51.0	53.6	73.9	55.3	64.6	63.9	-21.2%	-20.6%	-21.2%	-17.3%	-20.1%
77	Arlington Heights - Harvard Station	6.4	10.7	7.1	13.7	10.5	8.1	13.5	9.0	16.5	13.0	-21.2%	-20.6%	-21.2%	-17.3%	-19.1%
78	Arlmont Village - Harvard Station	21.6	20.9	56.1	40.1	33.2	27.4	26.4	69.4	48.5	41.0	-21.1%	-20.6%	-19.2%	-17.3%	-19.2%
80	Arlington Center - Lechmere Station	20.7	28.6	18.8	38.1	27.7	22.6	31.0	20.6	40.4	29.9	-8.8%	-7.7%	-8.9%	-5.9%	-7.4%
83	Rindge Ave. - Central Square, Cambridge	13.3	19.6	16.9	30.1	20.6	16.9	24.7	21.4	36.3	25.6	-21.2%	-20.6%	-21.2%	-17.3%	-19.4%
86	Sullivan Station - Cleveland Circle	13.9	18.3	13.4	27.5	18.4	17.0	21.9	16.2	31.3	21.8	-18.4%	-16.7%	-17.3%	-12.3%	-15.6%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	15.6	24.5	16.1	68.7	36.3	17.2	26.5	17.7	73.0	38.9	-8.8%	-7.7%	-8.9%	-5.9%	-6.7%
88	Clarendon Hill - Lechmere Station via Highland Avenue	15.2	22.8	15.5	26.1	20.3	16.6	24.7	17.0	27.7	21.9	-8.8%	-7.7%	-8.9%	-5.9%	-7.5%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	13.2	27.4	12.7	20.8	18.1	22.1	47.8	21.9	34.2	30.9	-40.4%	-42.8%	-42.2%	-39.3%	-41.3%
93	Sullivan Station - Downtown Via Bunker Hill	7.6	18.9	7.6	22.5	13.8	14.5	31.5	14.9	33.3	23.2	-47.6%	-39.9%	-48.7%	-32.5%	-40.5%
94	Medford Square - Davis Square Station	19.7	32.8	23.6	32.4	27.8	24.9	41.3	30.0	39.1	34.5	-21.2%	-20.6%	-21.2%	-17.3%	-19.5%
100	Elm Street - Wellington Station	12.6	20.0	16.2	23.1	18.6	21.1	35.0	28.1	38.0	31.5	-40.4%	-42.8%	-42.2%	-39.3%	-40.9%
101	Malden Station - Sullivan Station Via Medford Square	10.1	14.1	26.2	30.4	19.3	17.0	24.6	45.4	50.0	32.8	-40.4%	-42.8%	-42.2%	-39.3%	-41.1%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	12.6	19.6	27.1	22.6	20.4	21.2	34.3	46.9	37.2	34.6	-40.4%	-42.8%	-42.2%	-39.3%	-41.2%
109	Linden Square - Sullivan Station	8.6	14.9	9.8	17.2	13.3	14.5	26.1	16.9	28.3	22.5	-40.4%	-42.8%	-42.2%	-39.3%	-40.8%
110	Wonderland Station - Wellington Station	13.6	17.6	38.5	24.4	23.4	22.8	30.8	66.7	40.2	39.9	-40.4%	-42.8%	-42.2%	-39.3%	-41.3%
111	Woodlawn or Bway & Park - Haymarket Station	8.3	9.1	13.0	8.6	9.7	10.2	10.9	15.7	9.8	11.6	-18.4%	-16.7%	-17.3%	-12.3%	-15.9%
112	Wellington Station - Wood Island Station	22.9	29.2	28.9	30.7	28.0	28.0	35.0	35.0	35.0	33.5	-18.4%	-16.7%	-17.3%	-12.3%	-16.4%
116	Wonderland Station - Maverick Station Via Revere	12.9	21.7	54.2	31.0	27.6	14.7	25.1	63.2	33.3	31.1	-12.2%	-13.4%	-14.2%	-6.9%	-11.3%
117	Wonderland Station - Maverick Station via Beach	16.5	22.0	17.3	30.0	22.3	18.8	25.4	20.2	32.3	25.0	-12.2%	-13.4%	-14.2%	-6.9%	-10.9%

		Proposed					Existing					Percentage Change				
Rte. #	Route Description	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day
119	Northgate Shopping Center - Beachmont Station	31.5	44.2	26.5	47.2	38.0	35.9	51.1	30.8	50.8	42.8	-12.2%	-13.4%	-14.2%	-6.9%	-11.3%
120	Orient Heights Station - Maverick Station	13.7	16.6	16.5	38.3	20.7	15.7	19.2	19.2	41.2	23.2	-12.2%	-13.4%	-14.2%	-6.9%	-10.8%
132	Redstone Shopping Center - Malden Station	27.0	49.6	35.9	35.9	37.7	32.7	57.5	43.9	41.0	44.6	-17.3%	-13.8%	-18.3%	-12.5%	-15.5%
134	North Woburn - Wellington Station	26.9	71.5	79.8	132.1	78.8	32.5	83.0	97.6	151.0	92.2	-17.3%	-13.8%	-18.3%	-12.5%	-14.5%
136	Reading Depot - Malden Station Via Lakeside	29.6	48.1	47.0	58.5	43.7	35.8	55.8	57.5	66.9	51.6	-17.3%	-13.8%	-18.3%	-12.5%	-15.3%
137	Reading Depot - Malden Station Via North Ave	27.6	59.5	40.3	62.5	45.7	33.3	69.0	49.3	71.4	53.8	-17.3%	-13.8%	-18.3%	-12.5%	-15.0%
170	Oak Park - Dudley Station (Limited Service)	15.4	0.0	36.3	0.0	25.9	25.0	0.0	60.0	0.0	42.5	-38.4%	0.0%	-39.4%	0.0%	-39.1%
210	Quincy Center Sta. - No. Quincy Sta./Fields Corner Sta.	22.6	56.1	28.9	96.6	47.1	26.9	67.4	34.5	107.3	55.0	-16.0%	-16.7%	-16.2%	-9.9%	-14.4%
211	Quincy Center Station - Squantum	24.2	37.2	26.2	32.9	30.2	28.8	44.6	31.3	36.6	35.6	-16.0%	-16.7%	-16.2%	-9.9%	-15.4%
214	Quincy Center Station - Germantown	16.4	21.4	33.3	12.0	22.3	19.6	25.7	39.7	13.3	26.6	-16.0%	-16.7%	-16.2%	-9.9%	-16.2%
215	Quincy Center Station - Ashmont Station	22.4	27.4	24.2	37.4	28.2	26.7	32.9	28.8	41.5	32.9	-16.0%	-16.7%	-16.2%	-9.9%	-14.3%
216	Quincy Center Station - Houghs Neck	10.1	22.6	16.2	81.4	34.8	12.1	27.1	19.3	90.3	39.6	-16.0%	-16.7%	-16.2%	-9.9%	-12.2%
220	Quincy Center Station - Hingham	18.5	49.9	17.7	57.4	37.5	22.0	59.9	21.1	63.7	43.5	-16.0%	-16.7%	-16.2%	-9.9%	-13.8%
221	Quincy Center Station - Fort Point	34.8	0.0	0.0	0.0	17.4	41.5	0.0	0.0	0.0	20.8	-16.0%	0.0%	0.0%	0.0%	-16.0%
222	Quincy Center Station - East Weymouth	28.4	60.3	48.1	59.7	49.8	33.8	72.4	57.3	66.3	58.2	-16.0%	-16.7%	-16.2%	-9.9%	-14.4%
225	Quincy Center Station - Weymouth Landing	20.4	68.1	28.0	97.7	52.6	24.3	81.8	33.4	108.5	60.8	-16.0%	-16.7%	-16.2%	-9.9%	-13.5%
230	Quincy Center Station - Montello Station	21.0	42.0	54.5	39.9	38.8	25.0	50.4	65.0	44.3	45.2	-16.0%	-16.7%	-16.2%	-9.9%	-14.3%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	22.0	50.4	33.4	67.4	44.9	26.2	60.5	39.9	74.8	52.0	-16.0%	-16.7%	-16.2%	-9.9%	-13.6%
240	Avon Line - Ashmont Station	24.6	45.7	88.8	49.8	50.8	29.3	54.8	105.9	55.3	59.4	-16.0%	-16.7%	-16.2%	-9.9%	-14.5%
275	Downtown Boston - Long Island Health Campus	51.2	0.0	60.8	46.2	47.9	61.0	0.0	72.5	51.3	55.0	-16.0%	0.0%	-16.2%	-9.9%	-13.0%
276	Boston City Hospital - Long Island Health Campus	47.6	33.3	28.5	41.3	39.1	56.7	40.0	34.0	45.8	45.5	-16.0%	-16.7%	-16.2%	-9.9%	-14.2%
277	L. Shattuck Hospital - Park & Tremont Streets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	0.0%	0.0%
350	North Burlington - Alewife Station	14.7	42.8	24.2	44.5	31.6	18.7	53.9	30.8	53.8	39.2	-21.2%	-20.6%	-21.2%	-17.3%	-19.5%
354	Woburn Line - State Street	8.6	63.8	10.5	12.0	19.9	21.3	90.0	28.0	19.6	35.3	-59.6%	-29.1%	-62.7%	-38.4%	-43.7%
411	Malden Station - Revere/Jack Satter House	18.1	37.2	38.1	69.5	39.3	30.4	65.0	65.8	114.4	66.5	-40.4%	-42.8%	-42.2%	-39.3%	-41.0%
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	22.5	27.5	21.4	28.4	25.4	36.6	45.0	34.7	34.1	37.2	-38.5%	-38.8%	-38.2%	-16.7%	-31.6%
429	Northgate Shopping Center - Central Sq. Lynn	15.4	24.8	23.6	39.8	25.2	25.1	40.6	38.2	47.7	37.5	-38.5%	-38.8%	-38.2%	-16.7%	-32.9%
435	Liberty Tree Mall - Central Sq. Lynn	14.6	44.8	39.9	44.6	38.4	20.0	60.4	51.4	51.1	49.0	-26.9%	-25.9%	-22.5%	-12.7%	-21.6%
436	Danvers Sq. - Central Sq. Lynn	20.1	33.3	36.3	78.2	34.1	27.5	45.0	46.9	89.7	44.3	-26.9%	-25.9%	-22.5%	-12.7%	-23.0%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	25.7	33.4	19.3	52.0	33.4	41.8	54.6	31.3	62.4	47.5	-38.5%	-38.8%	-38.2%	-16.7%	-29.8%
450	Salem Depot – Haymarket/Wonderland Station	17.8	43.4	28.5	31.7	30.4	29.0	71.0	46.1	38.1	43.0	-38.5%	-38.8%	-38.2%	-16.7%	-29.2%
455	Salem Depot - Haymarket or Wonderland Station	26.9	33.9	40.8	29.8	31.5	43.6	55.4	66.0	35.8	47.0	-38.5%	-38.8%	-38.2%	-16.7%	-32.9%
554	Waverley Square - Federal & Franklin Streets	4.4	22.8	9.3	6.1	13.6	26.5	60.0	49.8	28.8	46.2	-83.4%	-62.0%	-81.4%	-78.7%	-70.6%
556	Waltham Highlands - Federal & Franklin Streets	5.0	30.4	28.8	8.5	21.1	30.0	80.0	155.0	40.0	80.2	-83.4%	-62.0%	-81.4%	-78.7%	-73.7%
CT3	Longwood Medical Area - Andrew Station	13.9	25.6	22.6	37.4	22.7	15.5	28.2	25.0	40.0	24.9	-10.1%	-9.1%	-9.5%	-6.5%	-8.9%
SL1	Logan Airport - South Station	9.3	8.0	8.1	9.3	8.7	11.3	10.0	9.7	11.1	10.5	-16.9%	-20.2%	-16.6%	-16.6%	-17.8%
SL2	Boston Marine Industrial Park - South Station	4.7	7.6	5.3	8.6	6.7	5.6	9.5	6.3	10.3	8.2	-16.9%	-20.2%	-16.6%	-16.6%	-17.8%
SLW	Silver Line Way - South Station	5.9	6.3	14.0	18.7	11.1	7.1	7.9	16.7	22.4	13.3	-16.9%	-20.2%	-16.6%	-16.6%	-16.9%
SL4	Dudley Station - South Station at Essex Street	6.4	8.3	5.5	11.5	8.2	10.3	12.0	9.1	16.4	12.3	-38.4%	-31.3%	-39.4%	-30.1%	-33.3%
SL5	Dudley Station - Downtown Crossing at Temple Pl	4.2	6.0	3.8	7.1	5.5	6.8	8.7	6.2	10.1	8.3	-38.4%	-31.3%	-39.4%	-30.1%	-33.1%

Table A-13
Existing and Proposed Average Headways and Improvements by Route by Time Period for the One-Half-Mile Coverage Threshold

		Proposed					Existing					Percentage Change				
Rte. #	Route Description	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day
1	Harvard Square - Dudley Station via Mass. Ave.	6.8	9.6	6.1	9.4	8.3	9.1	12.9	8.1	11.5	10.8	-25.6%	-25.5%	-25.0%	-18.4%	-22.6%
7	City Point - Otis & Summer Streets	6.5	15.6	8.2	22.7	11.2	8.7	23.5	11.6	31.2	15.8	-25.9%	-33.5%	-29.4%	-27.4%	-29.4%
9	City Point - Copley Square via Broadway Station	6.0	9.9	7.3	14.5	9.4	7.4	14.1	9.9	19.1	12.7	-18.8%	-30.0%	-26.2%	-24.3%	-25.5%
15	Kane Square - Ruggles Station	3.5	8.4	9.3	23.4	11.2	6.5	18.7	17.9	31.5	18.5	-46.4%	-55.0%	-47.8%	-25.7%	-39.9%
16	Forest Hills Station - U Mass.	9.7	18.0	28.7	53.7	29.8	13.1	24.2	38.3	65.9	37.9	-25.6%	-25.5%	-25.0%	-18.4%	-21.3%
21	Ashmont Station - Forest Hills Station	7.5	14.3	9.3	29.6	14.3	10.1	19.2	12.4	36.3	18.5	-25.6%	-25.5%	-25.0%	-18.4%	-22.7%
22	Ashmont Station - Ruggles Station Via Talbot Ave	6.1	9.5	8.0	13.5	9.5	8.2	12.8	10.7	16.5	12.4	-25.6%	-25.5%	-25.0%	-18.4%	-22.7%
23	Ashmont Sta. - Ruggles Sta. via Washington Street	4.1	7.2	5.4	11.4	7.2	5.5	9.6	7.2	13.9	9.3	-25.6%	-25.5%	-25.0%	-18.4%	-22.6%
24	Wakefield Ave. - Mattapan Station or Ashmont	9.0	17.5	15.3	30.6	18.8	18.3	40.2	32.5	46.4	34.7	-50.6%	-56.5%	-52.8%	-34.0%	-45.9%
28	Mattapan Station - Ruggles Station	6.1	6.3	6.6	13.5	8.2	8.2	8.5	8.8	16.5	10.6	-25.6%	-25.5%	-25.0%	-18.4%	-22.5%
30	Mattapan Station - Roslindale Square	11.6	20.1	12.2	20.3	16.7	19.7	35.3	21.8	33.0	28.3	-41.3%	-43.0%	-43.8%	-38.4%	-41.1%
32	Wolcott Square or Cleary Square - Forest Hills Station	4.3	10.4	4.8	10.6	7.5	7.4	18.3	8.6	17.1	12.7	-41.3%	-43.0%	-43.8%	-38.4%	-41.1%
34	Dedham Line - Forest Hills Station	5.1	14.8	5.3	15.7	10.0	8.6	25.9	9.4	25.4	16.9	-41.3%	-43.0%	-43.8%	-38.4%	-40.9%
36	VA Hosp - Forest Hills Station Via Chas. River Loop	17.3	26.9	31.5	29.6	26.5	29.4	47.1	56.1	48.1	45.0	-41.3%	-43.0%	-43.8%	-38.4%	-41.2%
38	Wren Street - Forest Hills Station	11.6	21.0	13.4	29.4	18.5	19.7	36.8	23.8	47.7	31.6	-41.3%	-43.0%	-43.8%	-38.4%	-41.4%
39	Forest Hills Station - Back Bay Station	4.5	7.3	5.9	8.3	6.8	6.1	9.8	7.8	10.2	8.7	-25.6%	-25.5%	-25.0%	-18.4%	-22.7%
40	Georgetowne - Forest Hills Station	15.9	28.0	18.4	25.8	22.5	25.0	45.0	30.0	38.8	35.5	-36.2%	-37.9%	-38.7%	-33.5%	-36.7%
42	Forest Hills Station - Ruggles Station	7.4	10.3	11.6	16.2	11.5	12.6	18.0	20.7	26.2	19.4	-41.3%	-43.0%	-43.8%	-38.4%	-41.1%
47	Central Square Cambridge. - Broadway Station	13.2	16.3	14.4	29.2	18.7	17.7	21.9	19.2	35.8	24.2	-25.6%	-25.5%	-25.0%	-18.4%	-22.7%
51	Cleveland Circle - Forest Hills Station	12.7	22.8	12.6	20.8	17.3	21.6	39.9	22.5	33.7	29.7	-41.3%	-43.0%	-43.8%	-38.4%	-41.6%
57	Watertown Yard - Kenmore Station	6.9	8.5	13.9	9.3	9.4	11.5	13.3	22.7	12.7	14.5	-39.4%	-36.0%	-38.7%	-27.1%	-35.0%
62	Bedford V.A. Hospital - Alewife Station	22.1	38.9	56.8	180.0	68.4	31.6	54.8	80.5	236.1	92.9	-30.0%	-29.0%	-29.4%	-23.8%	-26.4%
66	Harvard Square - Dudley Station via Brookline	5.9	8.8	6.9	14.4	9.2	8.0	11.8	9.2	17.6	11.9	-25.6%	-25.5%	-25.0%	-18.4%	-22.6%
69	Harvard Square - Lechmere Station	9.5	13.4	13.2	20.5	14.4	13.5	19.4	19.9	29.7	21.0	-30.1%	-31.0%	-34.0%	-30.8%	-31.2%
70	Cedarwood - Central Square Cambridge	12.2	16.9	21.1	16.5	16.8	17.5	23.8	30.0	21.6	23.2	-30.0%	-29.0%	-29.4%	-23.8%	-27.6%
71	Watertown Square - Harvard Station	6.5	13.3	6.6	24.3	14.0	9.3	18.8	9.3	31.8	19.0	-30.0%	-29.0%	-29.4%	-23.8%	-26.4%
73	Waverley Square - Harvard Station	5.4	13.0	6.4	19.6	11.7	7.7	18.4	9.0	25.8	16.0	-30.0%	-29.0%	-29.4%	-23.8%	-26.5%
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	37.5	52.5	39.1	49.3	45.9	53.6	73.9	55.3	64.6	63.9	-30.0%	-29.0%	-29.4%	-23.8%	-28.2%
77	Arlington Heights - Harvard Station	5.7	9.6	6.4	12.6	9.5	8.1	13.5	9.0	16.5	13.0	-30.0%	-29.0%	-29.4%	-23.8%	-26.5%
78	Arlmont Village - Harvard Station	19.2	18.7	50.7	37.0	30.0	27.4	26.4	69.4	48.5	41.0	-29.9%	-29.0%	-26.9%	-23.8%	-26.8%
80	Arlington Center - Lechmere Station	15.8	21.4	13.6	28.0	20.6	22.6	31.0	20.6	40.4	29.9	-30.1%	-31.0%	-34.0%	-30.8%	-31.2%
83	Rindge Ave. - Central Square, Cambridge	11.8	17.5	15.1	27.7	18.6	16.9	24.7	21.4	36.3	25.6	-30.0%	-29.0%	-29.4%	-23.8%	-27.1%
86	Sullivan Station - Cleveland Circle	12.7	16.3	12.2	25.6	16.8	17.0	21.9	16.2	31.3	21.8	-25.6%	-25.5%	-25.0%	-18.4%	-23.0%
88	Clarendon Hill - Lechmere Station via Highland Avenue	11.6	17.0	11.3	19.2	15.1	16.6	24.7	17.0	27.7	21.9	-30.1%	-31.0%	-34.0%	-30.8%	-31.2%
89	Clarendon Hill or Davis Sq. - Sullivan Sta. via Broadway	12.6	26.4	12.2	20.2	17.5	22.1	47.8	21.9	34.2	30.9	-42.8%	-44.8%	-44.4%	-41.0%	-43.3%
93	Sullivan Station - Downtown Via Bunker Hill	6.9	17.9	7.0	21.7	13.0	14.5	31.5	14.9	33.3	23.2	-52.7%	-43.1%	-53.2%	-34.8%	-44.0%
94	Medford Square - Davis Square Station	17.5	29.3	21.2	29.8	25.1	24.9	41.3	30.0	39.1	34.5	-30.0%	-29.0%	-29.4%	-23.8%	-27.3%
100	Elm Street - Wellington Station	12.1	19.3	15.6	22.5	18.0	21.1	35.0	28.1	38.0	31.5	-42.8%	-44.8%	-44.4%	-41.0%	-42.9%
101	Malden Station - Sullivan Station Via Medford Square	9.7	13.6	25.2	29.5	18.7	17.0	24.6	45.4	50.0	32.8	-42.8%	-44.8%	-44.4%	-41.0%	-43.1%
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	12.1	18.9	26.1	21.9	19.7	21.2	34.3	46.9	37.2	34.6	-42.8%	-44.8%	-44.4%	-41.0%	-43.2%
109	Linden Square - Sullivan Station	8.3	14.4	9.4	16.7	12.9	14.5	26.1	16.9	28.3	22.5	-42.8%	-44.8%	-44.4%	-41.0%	-42.8%
110	Wonderland Station - Wellington Station	13.1	17.0	37.1	23.7	22.6	22.8	30.8	66.7	40.2	39.9	-42.8%	-44.8%	-44.4%	-41.0%	-43.4%
111	Woodlawn or Bway & Park - Haymarket Station	7.6	8.1	11.8	8.0	8.9	10.2	10.9	15.7	9.8	11.6	-25.6%	-25.5%	-25.0%	-18.4%	-23.4%
116	Wonderland Station - Maverick Station Via Revere	11.0	18.9	45.9	26.5	23.6	14.7	25.1	63.2	33.3	31.1	-25.0%	-24.8%	-27.4%	-20.2%	-24.2%
117	Wonderland Station - Maverick Station via Beach	14.1	19.1	14.6	25.8	19.1	18.8	25.4	20.2	32.3	25.0	-25.0%	-24.8%	-27.4%	-20.2%	-23.5%
120	Orient Heights Station - Maverick Station	11.7	14.4	13.9	32.9	17.7	15.7	19.2	19.2	41.2	23.2	-25.0%	-24.8%	-27.4%	-20.2%	-23.5%
134	North Woburn - Wellington Station	6.9	28.4	24.9	52.0	29.0	32.5	83.0	97.6	151.0	92.2	-78.9%	-65.7%	-74.5%	-65.6%	-68.5%
214	Quincy Center Station - Germantown	10.4	14.3	21.2	7.4	14.4	19.6	25.7	39.7	13.3	26.6	-47.1%	-44.5%	-46.5%	-44.1%	-45.9%
215	Quincy Center Station - Ashmont Station	14.1	18.3	15.4	23.2	18.0	26.7	32.9	28.8	41.5	32.9	-47.1%	-44.5%	-46.5%	-44.1%	-45.2%
216	Quincy Center Station - Houghs Neck	6.4	15.1	10.3	50.4	21.9	12.1	27.1	19.3	90.3	39.6	-47.1%	-44.5%	-46.5%	-44.1%	-44.7%
220	Quincy Center Station - Hingham	11.6	33.3	11.3	35.6	24.0	22.0	59.9	21.1	63.7	43.5	-47.1%	-44.5%	-46.5%	-44.1%	-44.9%
222	Quincy Center Station - East Weymouth	17.9	40.2	30.7	37.0	31.9	33.8	72.4	57.3	66.3	58.2	-47.1%	-44.5%	-46.5%	-44.1%	-45.2%
225	Quincy Center Station - Weymouth Landing	12.9	45.4	17.9	60.6	33.5	24.3	81.8	33.4	108.5	60.8	-47.1%	-44.5%	-46.5%	-44.1%	-44.9%
238	Quincy Center Sta. - Holbrook/Randolph Com. Rail Sta.	14.8	35.9	22.8	43.0	30.1	26.2	60.5	39.9	74.8	52.0	-43.2%	-40.6%	-42.9%	-42.6%	-42.2%
350	North Burlington - Alewife Station	13.1	38.3	21.7	41.0	28.5	18.7	53.9	30.8	53.8	39.2	-30.0%	-29.0%	-29.4%	-23.8%	-27.2%

		Proposed					Existing					Percentage Change				
Rte. #	Route Description	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day	AM	MD	PM	NT	All Day
411	Malden Station - Revere/Jack Satter House	17.4	35.9	36.6	67.5	37.9	30.4	65.0	65.8	114.4	66.5	-42.8%	-44.8%	-44.4%	-41.0%	-43.0%
429	Northgate Shopping Center - Central Sq. Lynn	12.3	20.6	18.6	31.1	20.2	25.1	40.6	38.2	47.7	37.5	-51.0%	-49.2%	-51.2%	-34.9%	-46.2%
435	Liberty Tree Mall - Central Sq. Lynn	6.4	22.4	19.2	37.9	23.0	20.0	60.4	51.4	51.1	49.0	-68.0%	-62.9%	-62.7%	-25.8%	-53.0%
442	Marblehead – Haymarket/Wonderland Sta. via Humphrey	20.5	27.8	15.3	40.6	26.5	41.8	54.6	31.3	62.4	47.5	-51.0%	-49.2%	-51.2%	-34.9%	-44.2%
450	Salem Depot – Haymarket/Wonderland Station	14.2	36.1	22.5	24.8	24.2	29.0	71.0	46.1	38.1	43.0	-51.0%	-49.2%	-51.2%	-34.9%	-43.6%
455	Salem Depot - Haymarket or Wonderland Station	21.4	28.2	32.2	23.3	25.3	43.6	55.4	66.0	35.8	47.0	-51.0%	-49.2%	-51.2%	-34.9%	-46.2%
556	Waltham Highlands - Federal & Franklin Streets	2.4	10.8	13.5	3.3	8.5	30.0	80.0	155.0	40.0	80.2	-92.0%	-86.4%	-91.3%	-91.9%	-89.5%
CT3	Longwood Medical Area - Andrew Station	13.2	24.1	21.4	35.9	21.5	15.5	28.2	25.0	40.0	24.9	-14.7%	-14.6%	-14.3%	-10.1%	-13.8%
SL1	Logan Airport - South Station	8.3	6.7	6.9	8.1	7.4	11.3	10.0	9.7	11.1	10.5	-25.9%	-33.5%	-29.4%	-27.4%	-29.4%
SL2	Boston Marine Industrial Park - South Station	4.2	6.3	4.5	7.5	5.8	5.6	9.5	6.3	10.3	8.2	-25.9%	-33.5%	-29.4%	-27.4%	-29.4%
SLW	Silver Line Way - South Station	5.2	5.3	11.8	16.3	9.5	7.1	7.9	16.7	22.4	13.3	-25.9%	-33.5%	-29.4%	-27.4%	-28.4%
SL4	Dudley Station - South Station at Essex Street	5.8	7.9	5.1	11.1	7.8	10.3	12.0	9.1	16.4	12.3	-43.3%	-34.2%	-43.8%	-32.4%	-36.6%
SL5	Dudley Station - Downtown Crossing at Temple Pl	3.9	5.7	3.5	6.9	5.3	6.8	8.7	6.2	10.1	8.3	-43.3%	-34.2%	-43.8%	-32.4%	-36.3%

Table A-14
Projected Percentage Change in Ridership by Route* by Coverage Threshold

Rte. #	Route Description	Coverage Threshold 0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
1	Harvard Square - Dudley Station via Mass. Ave.	24.3%	35.6%	53.0%
4	North Station - World Trade Center	150.0%		
5	City Point - McCormack Housing			
7	City Point - Otis & Summer Streets	18.0%	14.1%	31.9%
8	Harbor Point /U Mass - Kenmore Station			
9	City Point - Copley Square via Broadway Station	22.1%	24.8%	66.0%
10	City Point - Copley Square Via BU Med Center			
11	City Point - Downtown	17.8%	15.9%	
14	Roslindale Square - Heath Street Loop	43.0%	36.2%	
15	Kane Square - Ruggles Station	21.6%	29.9%	59.2%
16	Forest Hills Station - U Mass.	5.7%	11.3%	24.8%
17	Fields Corner Station - Andrew Station			
18	Ashmont Station - Andrew Station	78.3%		
19	Fields Corner Station - Ruggles or Kenmore Station			
21	Ashmont Station - Forest Hills Station	21.5%	22.4%	45.7%
22	Ashmont Station - Ruggles Station Via Talbot Ave	18.6%	19.9%	41.1%
23	Ashmont Station - Ruggles Station via Washington Street	16.1%	15.0%	31.9%
24	Wakefield Ave. - Mattapan Station or Ashmont	8.3%	23.4%	60.4%
26	Ashmont Station - Norfolk & Wash. Belt	23.9%		
27	Mattapan Station - Ashmont Station			
28	Mattapan Station - Ruggles Station	22.3%	19.1%	31.9%
29	Mattapan Station - Jackson Sq. Station			
30	Mattapan Station - Roslindale Square	34.8%	32.4%	35.5%
31	Mattapan Station - Forest Hills Station			
32	Wolcott Square or Cleary Square - Forest Hills Station	27.9%	27.8%	35.0%
33	River & Milton Streets - Mattapan Station	-0.3%	13.1%	
34	Dedham Line - Forest Hills Station	34.3%	31.3%	35.4%
35	Dedham Mall - Forest Hills Station			
36	VA Hosp. - Forest Hills Station Via Chas. River Loop	33.8%	25.1%	32.1%
37	Baker & Vermont Streets - Forest Hills Station			
38	Wren Street - Forest Hills Station	85.2%	85.6%	103.3%
39	Forest Hills Station - Back Bay Station	23.3%	27.4%	45.4%
40	Georgetowne - Forest Hills Station			92.6%
41	Centre & Eliot Streets - JFK U Mass Station	2.2%	5.2%	
42	Forest Hills Station - Ruggles Station	141.5%	155.0%	186.5%
43	Ruggles Station - Park & Tremont Streets			
44	Jackson Sq. Station - Ruggles Station			
45	Franklin Park - Ruggles Station			
47	Central Square Cambridge. - Broadway Station	-36.0%	-25.5%	-30.6%
48	Centre & Eliot Streets - Jamaica Plain Loop			
50	Cleary Sq. - Forest Hills Station Via Metropolitan			
51	Cleveland Circle - Forest Hills Station	50.1%	48.6%	68.4%
52	Dedham Mall - Watertown Yard	6.8%	7.1%	
55	Queensberry Street - Park & Tremont Streets			
57	Watertown Yard - Kenmore Station	25.1%	24.3%	48.0%
59	Needham Junction - Watertown Square	6.7%	9.1%	
60	Chestnut Hill - Kenmore Station	-39.8%	-29.1%	
62	Bedford V.A. Hospital - Alewife Station	7.3%	13.3%	18.6%
64	Oak Square - University Pk. Cambridge	13.9%	17.1%	
65	Brighton Center - Kenmore Station			
66	Harvard Square - Dudley Station via Brookline	20.9%	22.1%	35.8%
67	Turkey Hill - Alewife Station	6.2%	-5.3%	
68	Harvard Square - Kendall MIT Station			
69	Harvard Square - Lechmere Station	4.9%	9.5%	73.8%
70	Cedarwood - Central Square Cambridge	11.9%	15.2%	25.5%
71	Watertown Square - Harvard Station	13.3%	15.1%	21.8%
72	Aberdeen & Mt. Auburn - Harvard Station			
73	Waverley Square - Harvard Station	17.6%	18.9%	20.7%
74	Belmont Center - Harvard Station via Concord Ave			
75	Belmont Center - Harvard Station via Fresh Pond Pkwy	-22.8%	-12.6%	-10.8%
76	Hanscom Air Force Base - Alewife Station	7.0%		
77	Arlington Heights - Harvard Station	26.6%	31.3%	49.4%
78	Arlmont Village - Harvard Station	8.1%	13.1%	26.4%
79	Arlington Heights - Alewife Station			
80	Arlington Center - Lechmere Station	12.5%	9.5%	59.0%
83	Rindge Ave. - Central Square, Cambridge	17.7%	18.4%	38.8%
84	Arlmont Loop - Alewife Station			
85	Spring Hill - Kendall MIT Station			
86	Sullivan Station - Cleveland Circle	12.1%	12.5%	31.3%
87	Clarendon Hill - Lechmere Station via Somerville Avenue	11.5%	12.3%	
88	Clarendon Hill - Lechmere Station via Highland Avenue	0.7%	-1.1%	25.2%
89	Clarendon Hill or Davis Square - Sullivan Station via Broadway	16.3%	28.6%	28.6%
90	Davis Square Station - Wellington Station			
91	Sullivan Station - Central Square, Cambridge			
92	Assembly Square Mall - Downtown Via Main Street			
93	Sullivan Station - Downtown Via Bunker Hill	-85.7%	2778.6%	3235.7%
94	Medford Square - Davis Square Station	10.7%	6.9%	19.4%
95	West Medford - Sullivan Station			
96	Medford Sq. - Harvard Station			
97	Malden Station - Wellington Station			
99	Boston Reg. Med Center Stoneham - Wellington Station	14.4%		
100	Elm Street - Wellington Station	-12.3%	67.9%	73.1%
101	Malden Station - Sullivan Station Via Medford Square	20.7%	38.8%	41.7%
104	Malden Station - Sullivan Station Via Ferry Street	16.0%		
105	Malden Station - Sullivan Station Via Main Street			
106	Franklin Sq. or Lebanon Street Loop - Wellington Station	32.4%	39.9%	64.7%
108	Linden Square - Wellington Station			
109	Linden Square - Sullivan Station	22.2%	41.1%	76.9%
110	Wonderland Station - Wellington Station	17.0%	55.8%	70.4%
111	Woodlawn or Bway & Park - Haymarket Station	8.9%	8.9%	14.6%
112	Wellington Station - Wood Island Station	-2.6%	12.7%	
114	Bellingham Square or Mystic Mall - Maverick Station			
116	Wonderland Station - Maverick Station Via Revere	11.8%	8.2%	18.7%
117	Wonderland Station - Maverick Station via Beach	7.6%	4.0%	12.6%
119	Northgate Shopping Center - Beachmont Station	2.5%	3.4%	

Rte. #	Route Description	Coverage Threshold 0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
120	Orient Heights Station - Maverick Station	20.4%	25.7%	52.2%
121	Wood Island Station - Maverick Station			
131	Melrose Highlands - Malden Station	5.5%		
132	Redstone Shopping Center - Malden Station	-1.6%	3.8%	
134	North Woburn - Wellington Station	4.5%	8.8%	-57.1%
136	Reading Depot - Malden Station Via Lakeside	4.0%	11.5%	
137	Reading Depot - Malden Station Via North Ave	2.7%	10.2%	
170	Oak Park - Dudley Station (Limited Service)	-44.4%	57.7%	
201	Fields Corner Station - Fields Corner Station			
202	Fields Corner Station - Fields Corner Station			
210	Quincy Center Station - No. Quincy Station or Fields Corner Station	-10.6%	-0.5%	
211	Quincy Center Station - Squantum	14.8%	22.2%	
212	Quincy Center Station - North Quincy Station			
214	Quincy Center Station - Germantown	6.1%	7.1%	33.7%
215	Quincy Center Station - Ashmont Station	25.0%	19.4%	87.1%
216	Quincy Center Station - Houghs Neck	7.8%	9.5%	42.8%
217	Wollaston Station - Ashmont Station via Wollaston Beach			
220	Quincy Center Station - Hingham	1.4%	2.6%	18.6%
221	Quincy Center Station - Fort Point	-0.5%	-2.6%	
222	Quincy Center Station - East Weymouth	0.5%	1.0%	13.8%
225	Quincy Center Station - Weymouth Landing	4.3%	7.6%	28.0%
230	Quincy Center Station - Montello Station	6.7%	14.6%	
236	Quincy Center Station - South Shore Plaza	1.5%		
238	Quincy Center Station - Holbrook/Randolph Comm. Rail St	7.8%	13.0%	84.7%
240	Avon Line - Ashmont Station	11.2%	13.2%	
245	Quincy Center Station - Mattapan Station			
275	Downtown Boston - Long Island Health Campus	2.2%	4.3%	
276	Boston City Hospital - Long Island Health Campus	4.5%	9.1%	
277	L. Shattuck Hospital - Park & Tremont Streets	8.3%	-4.7%	
325	Elm Street - Haymarket Station			
326	West Medford - Haymarket Station			
350	North Burlington - Alewife Station	21.0%	18.2%	42.4%
351	Oak Park - Alewife Station			
352	Burlington - State Street			
354	Woburn Line - State Street	43.2%	45.7%	-88.5%
355	Mishawum Station - State Street			
411	Malden Station - Revere/Jack Satter House	52.0%	85.7%	127.3%
424	Eastern & Essex - Haymarket or Wonderland			
426	Central Sq. Lynn - Haymarket or Wonderland Station Via	22.3%	28.1%	-99.6%
428	Oaklandvale - Haymarket Station via Granada Highlands			
429	Northgate Shopping Center - Central Sq. Lynn	15.0%	34.6%	76.9%
430	Saugus, Appleton Street - Malden Station	26.0%		
431	Neptune Towers - Central Sq. Lynn			
434	Peabody - Haymarket Station			
435	Liberty Tree Mall - Central Sq. Lynn	26.9%	26.1%	85.0%
436	Danvers Sq. - Central Sq. Lynn	14.4%	14.0%	
439	Bass Point Nahant - Central Sq. Lynn			
441	Marblehead - Haymarket or Wonderland Station via Paradise Road			
442	Marblehead - Haymarket or Wonderland Station via Humphrey Street	23.0%	36.7%	50.9%
448	Marblehead - Downtown Crossing	-13.7%		
449	Marblehead - Downtown Crossing			
450	Salem Depot - Haymarket or Wonderland Station	14.9%	26.3%	58.9%
451	North Beverly - Salem Depot			
455	Salem Depot - Haymarket or Wonderland Station	13.5%	18.1%	34.0%
456	Salem Depot - Central Sq. Lynn			
459	Salem Depot - Downtown Crossing			
465	Liberty Tree Mall - Salem Depot			
468	Danvers Square - Salem Depot (Limited Service)			
500	Riverside Station - Federal & Franklin Streets			
501	Brighton Center - Federal & Franklin Streets			
502	Watertown Yard - Copley Square			
503	Brighton Center - Copley			
504	Watertown Yard - Federal & Franklin Streets			
505	Waltham Center - Federal & Franklin Streets			
505	Waltham Center - Federal & Franklin Streets			
553	Roberts - Federal & Franklin Streets			
554	Waverley Square - Federal & Franklin Streets	102.8%	112.3%	
555	Riverside Station - Federal & Franklin Streets Via Newton			
556	Waltham Highlands - Federal & Franklin Streets	207.4%	178.7%	544.8%
558	Auburndale - Federal & Franklin Streets			
CT1	Central Square Cambridge. - South End Medical Area			
CT2	Sullivan Station - Kendall MIT Station - Ruggles Station	6.1%		
CT3	Longwood Medical Area - Andrew Station	-2.3%	0.3%	-3.4%
SL1	Logan Airport - South Station	16.3%	14.6%	24.1%
SL2	Boston Marine Industrial Park - South Station	-21.5%	-25.1%	-24.0%
SL Water	Silver Line Way - South Station	10.6%	22.9%	33.0%
SL4	Dudley Station - South Station at Essex Street	60.0%	88.5%	68.0%
SL5	Dudley Station - Downtown Crossing at Temple Pl	18.9%	20.4%	33.5%

** Routes that are eliminated in each service plan are not listed. Blank spaces indicate that the route is eliminated in the column's service plan.*

Table A-15
Projected Absolute and Percentage Change in Ridership by Neighborhood* by Coverage Threshold

Neighborhood	Absolute Change			Percentage Change		
	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius	0.33-Mile Radius	0.40-Mile Radius	0.50-Mile Radius
Back Bay	1	149	-36	0.0%	0.2%	0.0%
Bedford	179	21	-42	14.9%	1.8%	-3.5%
Brockton	87	97	-6	0.7%	0.8%	-0.1%
BU	-317	-40	-126	-1.0%	-0.1%	-0.4%
Burlington	268	499	-167	5.4%	10.0%	-3.3%
Central Sq	-116	111	78	-0.2%	0.2%	0.2%
Charlestown	-2	150	60	0.0%	0.8%	0.3%
Chelsea	-247	88	46	-0.7%	0.3%	0.1%
Chinatown	124	217	-47	0.2%	0.3%	-0.1%
Davis Sq	151	199	13	0.7%	1.0%	0.1%
Downtown	338	580	-191	0.2%	0.4%	-0.1%
East Arlington	24	100	30	0.3%	1.3%	0.4%
East Boston	-143	75	-78	-0.3%	0.2%	-0.2%
East Cambridge	90	111	25	0.4%	0.4%	0.1%
East Dedham	125	157	45	2.7%	3.4%	1.0%
East Everett	482	375	55	4.2%	3.2%	0.5%
East Lexington	330	4	-36	17.8%	0.2%	-1.9%
East Lynn	200	471	-570	1.2%	2.9%	-3.5%
East Malden	674	401	-243	5.2%	3.1%	-1.9%
East Medford	332	464	-37	3.4%	4.8%	-0.4%
East Revere	-106	129	-142	-0.4%	0.5%	-0.6%
East Somerville	-41	71	-9	-0.3%	0.6%	-0.1%
East Watertown	34	156	98	0.3%	1.5%	0.9%
East Woburn	2792	2995	-580	117.3%	125.8%	-24.4%
Fenway	-919	27	-250	-0.8%	0.0%	-0.2%
Fresh Pond	-158	-15	34	-2.3%	-0.2%	0.5%
Harvard Sq	-270	-42	171	-0.4%	-0.1%	0.3%
Hingham	-131	-110	78	-3.9%	-3.2%	2.3%
Holbrook	189	197	-40	17.2%	17.9%	-3.6%
Hyde Park	76	252	132	0.7%	2.2%	1.2%
Jamaica Plain	39	125	33	0.3%	0.8%	0.2%
Kendall/MIT	37	187	79	0.1%	0.5%	0.2%
Lincoln	57	9	-13	17.0%	2.8%	-4.0%
Logan Airport	-254	88	-378	-2.9%	1.0%	-4.4%
Longwood	-1033	65	-697	-2.0%	0.1%	-1.4%
Lynnfield	85	88	-25	37.3%	38.3%	-11.1%
Marblehead	-95	-16	-239	-4.2%	-0.7%	-10.6%
Mattapan	-59	-67	-30	-0.4%	-0.4%	-0.2%
Medford Hillside	72	62	6	1.5%	1.3%	0.1%
Melrose	867	645	-245	16.2%	12.1%	-4.6%
Mission Hill	-97	60	37	-0.5%	0.3%	0.2%
Needham	928	952	-253	30.0%	30.8%	-8.2%
North Allston	-89	55	248	-0.6%	0.3%	1.6%
North Belmont	54	40	-53	2.3%	1.7%	-2.2%
North Braintree	231	-70	103	2.5%	-0.8%	1.1%
North Brighton	-51	69	-12	-0.5%	0.7%	-0.1%
North Brookline	-157	26	184	-0.4%	0.1%	0.5%
North Cambridge	23	64	-42	0.1%	0.2%	-0.2%
North Dorchester	-221	114	-170	-0.7%	0.4%	-0.5%
North End	21	74	-19	0.1%	0.4%	-0.1%
North Medford	266	270	-39	7.3%	7.4%	-1.1%
North Milton	10	134	-123	0.2%	2.8%	-2.5%
North Newton	975	956	-47	8.0%	7.9%	-0.4%
North Quincy	101	245	-131	0.4%	1.0%	-0.6%
North Roxbury	-327	180	-218	-1.7%	0.9%	-1.1%
North Salem	-12	-54	-20	-0.2%	-1.0%	-0.4%
North Saugus	381	78	-94	23.2%	4.8%	-5.8%
North Waltham	336	450	-19	8.1%	10.9%	-0.4%
North Weymouth	-205	-162	162	-3.0%	-2.4%	2.4%
Norwood	58	70	81	1.2%	1.4%	1.6%
Outside	122	219	-11	0.1%	0.2%	0.0%
Randolph	172	201	11	4.9%	5.8%	0.3%
Reading	106	116	-38	7.8%	8.6%	-2.9%
Roslindale	-64	74	62	-0.4%	0.5%	0.4%
South Allston	-220	-95	212	-0.7%	-0.3%	0.7%
South Belmont	44	113	49	1.1%	2.8%	1.2%
South Boston	-49	42	-52	-0.2%	0.2%	-0.2%
South Braintree	337	327	-48	9.3%	9.0%	-1.3%
South Brighton	-152	10	36	-0.5%	0.0%	0.1%
South Brookline	24	130	31	0.1%	0.7%	0.2%
South Danvers	-119	-85	7	-12.4%	-8.8%	0.8%
South Dorchester	98	249	-154	0.3%	0.6%	-0.4%
South End	-142	18	-102	-1.7%	0.2%	-1.2%
South Medford	-18	130	20	-0.4%	2.5%	0.4%
South Newton	1961	2023	-451	11.0%	11.4%	-2.5%
South Peabody	-105	-41	-40	-2.7%	-1.1%	-1.1%
South Quincy	-539	-445	363	-1.8%	-1.5%	1.2%
South Roxbury	-354	-15	-106	-1.5%	-0.1%	-0.4%
South Salem	96	-39	5	2.0%	-0.8%	0.1%
South Saugus	510	225	-121	16.6%	7.3%	-3.9%
South Waltham	409	459	141	3.4%	3.8%	1.2%
South Weymouth	-104	-80	82	-5.1%	-3.9%	4.0%
Spring Hill	-138	142	-14	-0.6%	0.7%	-0.1%
Stoneham	972	1052	-225	51.1%	55.3%	-11.8%
Swampscott	38	-5	-103	1.1%	-0.1%	-2.8%
Wakefield	358	383	-159	10.5%	11.2%	-4.7%
Wellesley	114	119	-20	2.9%	3.0%	-0.5%
West Dedham	140	151	5	9.3%	10.0%	0.3%
West Everett	935	285	-171	10.5%	3.2%	-1.9%
West Lexington	370	15	-76	30.9%	1.2%	-6.3%
West Lynn	3	132	46	0.0%	2.2%	0.8%
West Malden	712	367	-222	3.7%	1.9%	-1.2%
West Medford/Medford Sq	214	264	-38	5.3%	6.5%	-0.9%
West Revere	-45	203	-8	-0.5%	2.2%	-0.1%
West Roxbury	458	587	-41	5.4%	7.0%	-0.5%
West Watertown	62	135	1	1.6%	3.4%	0.0%
West Woburn	855	905	-116	60.1%	63.6%	-8.2%
Winchester	655	706	-94	24.5%	26.4%	-3.5%
Winter Hill	-154	49	55	-2.1%	0.7%	0.8%

** Neighborhoods where none of the service plans' absolute changes exceeds 50 daily trips are excluded.*