



Southeastern Regional Transit Authority South Coast Rail Service Plan Market Analysis

August 2022



Cover image source: Nelson\Nygaard Consulting Associates, Inc.

MARKET ANALYSIS

INTRODUCTION

South Coast Rail (SCR) is a planned Commuter Rail extension of the MBTA Middleborough/Lakeville Line to Fall River, Freetown, and New Bedford. When construction is complete, there will be four SCR stations in the Southeastern Regional Transit Authority (SRTA) service area: Fall River Depot, Freetown, Church Street in New Bedford, and New Bedford. The Southeastern Regional Transit Authority (SRTA) is conducting this South Coast Rail Service Plan to assess options for providing service to these four stations when the service is expected to begin operating in 2023.

To connect SRTA service area residents to SCR, SRTA will need to align its local transit service with SCR train departures and arrivals in the mornings and evenings, and ensure SRTA service operates near where potential SCR riders live. This market analysis assesses the second of those two needs by estimating where potential SCR riders live within the SRTA service area.

Purpose of This Market Analysis

The purpose of this market analysis is to identify where potential SCR riders live in the SRTA service area. The findings from the market analysis will help SRTA develop fixed-route and microtransit scenarios for serving SCR stations.

Study Area

The market analysis primary study area is the entire SRTA service area of Acushnet, Dartmouth, Fairhaven, Fall River, Freetown, Mattapoisett, New Bedford, Somerset, Swansea, and Westport.

MARKET ANALYSIS

Methods

This market analysis was primarily conducted using geographic data to identify potential SCR riders. The market analysis used data from several resources, the most important of which are:

- **SCR average weekday ridership estimates**, by station, from the Massachusetts Department of Transportation (MassDOT).¹

Figure 1 MassDOT SCR Weekday Ridership Estimates

Service Subarea	Station Name	Estimated Potential SCR Riders
Fall River	Freetown	50
	Fall River Depot	380
	<i>Fall River Subtotal</i>	<i>410</i>
New Bedford	Church Street	240
	New Bedford	440
	<i>New Bedford Subtotal</i>	<i>680</i>
Grand Total		1,090

- **Commute flows** from the 2019 U.S. Census Bureau's Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics (LODES).

These datasets were used to estimate the home locations of SRTA service area residents that are assumed to ride a future SCR service. The three primary steps used to develop these assumptions are:

1. Use LODES data from table JT00, using field S000 to identify the census block group home location of people that live in the SRTA service area and work within a half-mile network distance of SCR stations from Bridgewater to JFK/UMASS, and within one mile network distance of South Station. This method includes people that travel by all modes and/or telecommute; these people are called 'study commuters'. If a census block group partially

¹ Ridership estimates are revised estimates for opening year 2023, provided by SCR staff via e-mail on July 20, 2022. Estimates were produced by Central Transportation Planning Staff.

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overlapped with a station watershed, the census block group was included in the analysis.

1. Use MassDOT SCR ridership estimates to transform the count of 'study commuters' in each census block group into a number of 'potential SCR riders'. This was done by multiplying each block group's count of 'study commuters' by the ratio of estimated SCR rides to area study commuters (e.g., if MassDOT ridership estimates assume 75 people will board SCR in Fall River on an average weekday, but there are 100 'study commuters' in the Fall River area, all block group counts of 'study commuters' were multiplied by 75% to produce an estimate of 'potential SCR riders').
 - a. This step divided the SRTA service area into two subareas: Fall River and New Bedford. The SRTA service area was divided into two subareas by drawing a rough boundary halfway between the New Bedford and Fall River areas.
2. The resulting number of 'potential SCR riders' was then mapped by block group using dot density.

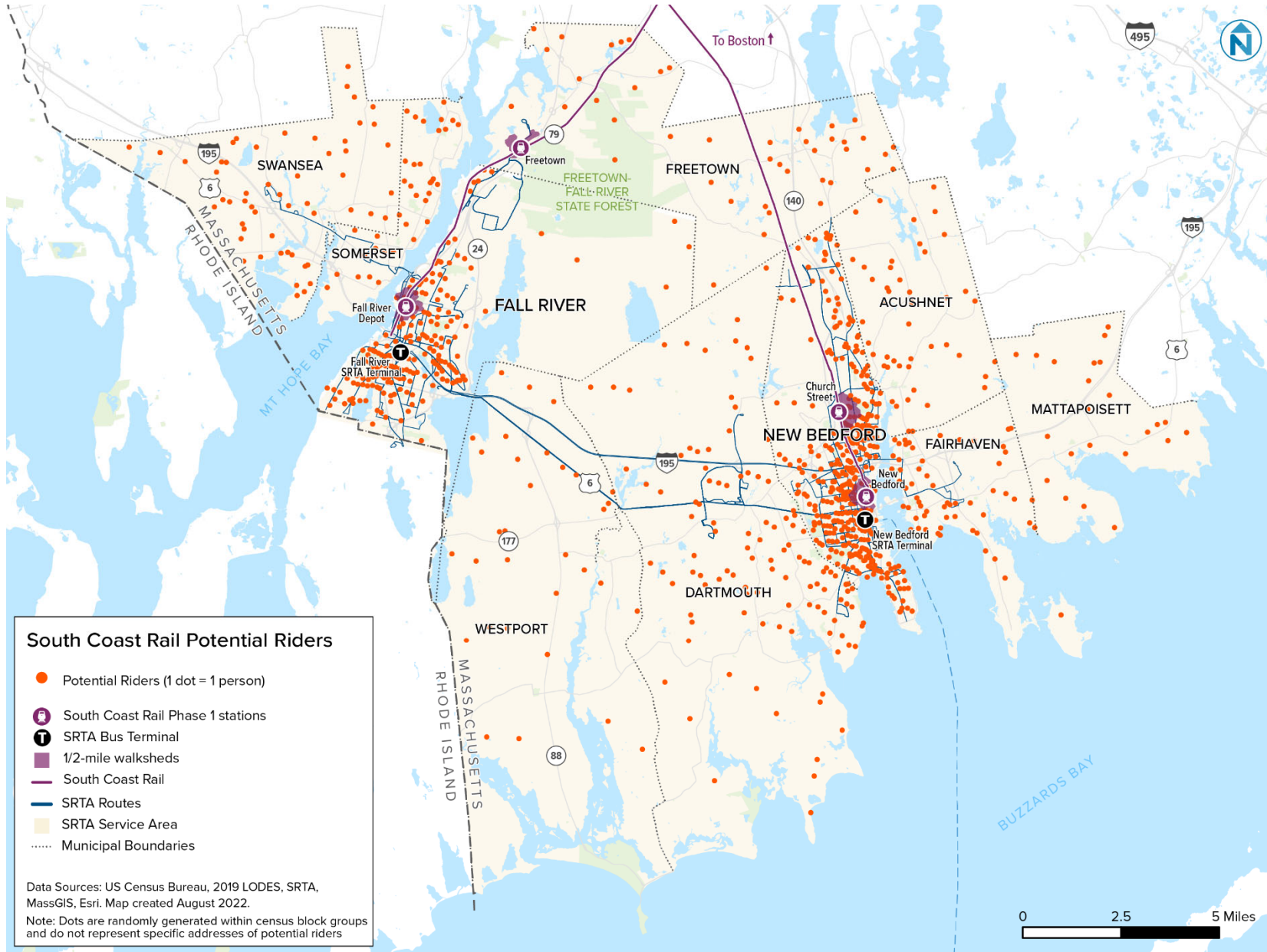
Results

Figure 2 through Figure 4 show the density of potential SCR riders in the SRTA service area using dot density maps, where one dot equals one potential rider. In general, potential SCR riders are concentrated in Fall River and New Bedford, near the future Fall River Depot and New Bedford stations. More detail on the estimated market for Fall River and New Bedford area SCR service is provided below.

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Figure 2 Map of Potential SCR Rider Density in SRTA Service Area



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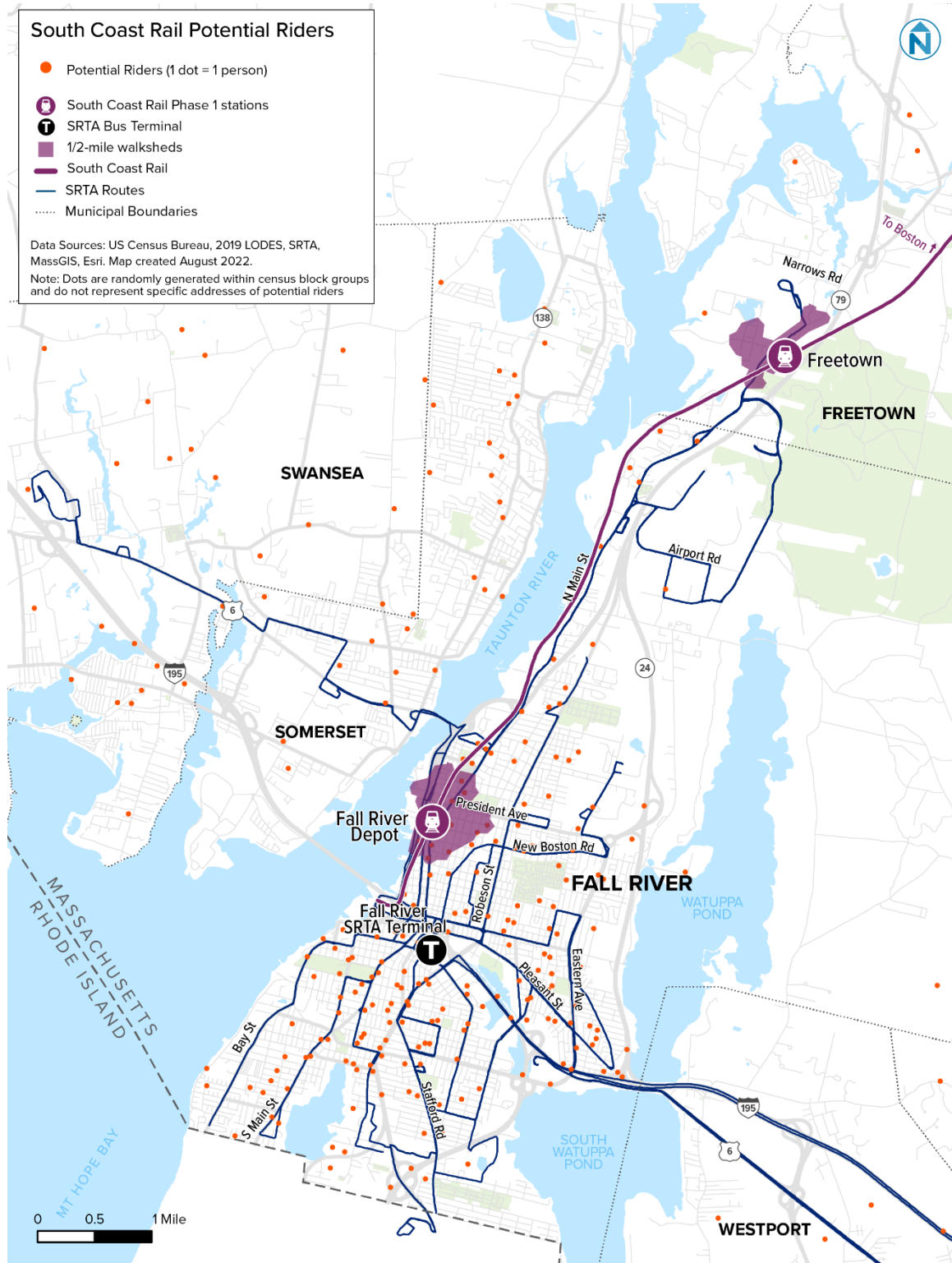
In the Fall River service area (Figure 3), potential SCR rider density is relatively evenly distributed throughout the core of Fall River. Slightly higher concentrations of potential riders live in the South End and areas east of downtown, while a medium concentration of riders exists in neighborhoods surrounding the future Fall River Depot Station. Neighborhoods in the South End are primarily served by SRTA routes FR1, FR3, FR5, and FR9. These four routes currently provide 30-minute service to and from the SRTA Fall River Terminal, but riders would have to transfer to routes FR2 or FR14 to reach Fall River SCR stations.

Outside the Fall River core, there are generally low concentrations of potential SCR riders. Swansea and Somerset have slightly more potential riders than other non-Fall River places, with northern part of Somerset showing slightly higher concentrations. This part of Somerset is not currently served by SRTA fixed-route bus service.

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Figure 3 Map of Potential SCR Rider Density in Fall River Area



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In the New Bedford area (Figure 4), SCR potential rider density is relatively highest in New Bedford, especially near the downtown core. Neighborhoods with high concentrations of potential riders are primarily served by SRTA routes NB1, NB2, NB3, and NB8. These four routes provide 20- to 40-minute service to SRTA's New Bedford Terminal, and routes NB2, NB4, NB8, NB11, and the North End Shuttle could potentially serve the future SCR stations.

Outside of New Bedford, there are moderate concentrations of potential SCR riders in west Fairhaven and east Dartmouth. The current SRTA fixed route serving Dartmouth, NB3, does not provide direct service to SCR stations; potential SCR riders using this route would need to transfer to route NB2 or NB11 to travel to New Bedford Station and NB4 to travel to Church Street station via SRTA New Bedford Terminal. Routes NB4 and the North End shuttle provide relatively close service to Church Street at Ashley Boulevard and Tarkin Hill Road. Both route alignments are within a ½-mile to one mile from the Church Street station but would need to be re-aligned to directly service the SCR station.

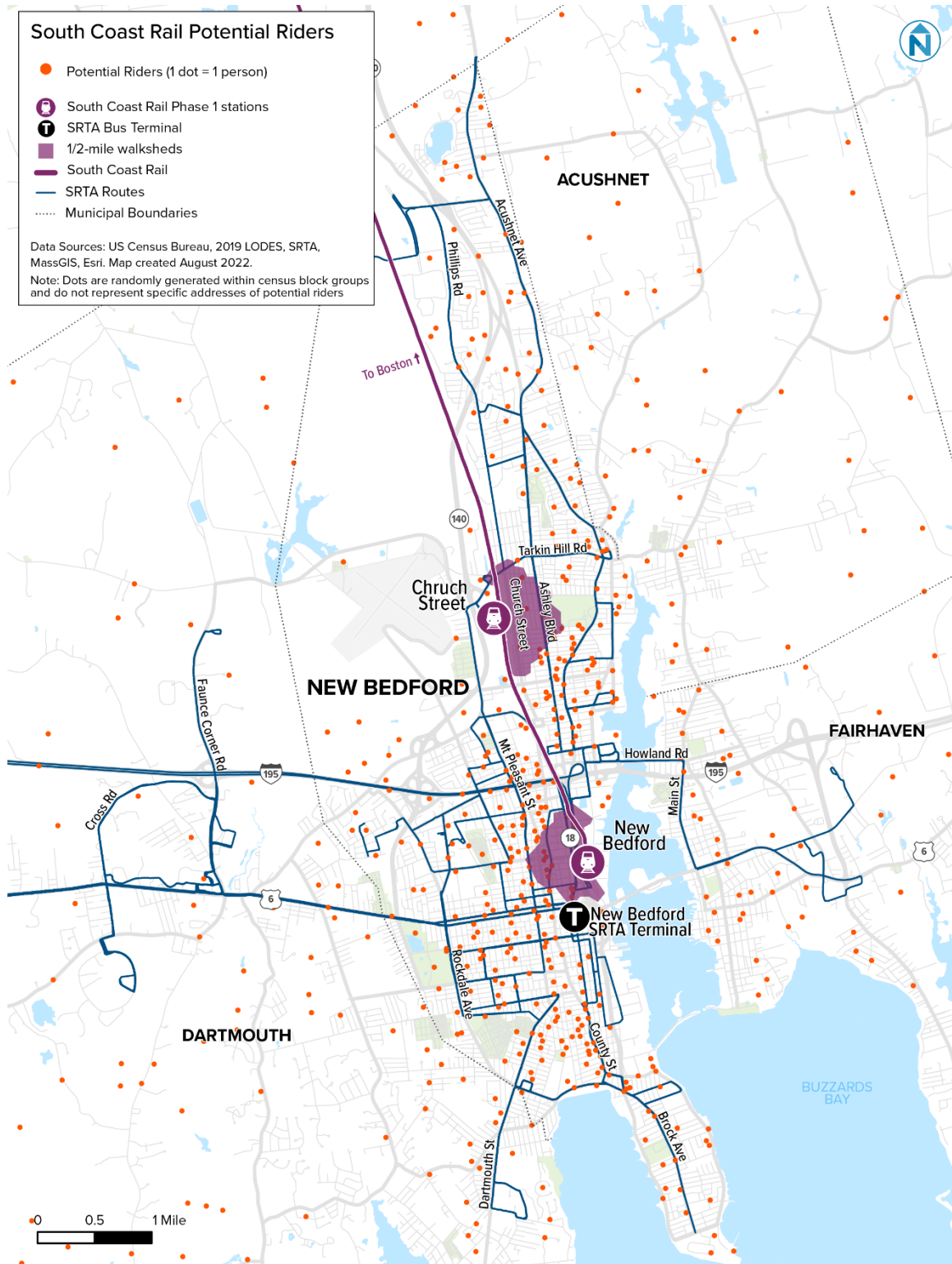
In Fairhaven, potential SCR riders are concentrated along Route NB11; this route provides direct access to both the SRTA New Bedford Terminal and the planned SCR New Bedford Station.

Although there are some potential SCR riders located elsewhere, such as in Acushnet, these are not major concentrations of riders and they are not currently served by SRTA's fixed-route bus network.

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Figure 4 Map of Potential SCR Rider Density in New Bedford Area



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Although excluded from the transit market analysis described above, it may be important for SRTA to understand the number of potential SCR riders living within a ½-mile of each planned SCR station. This information is included in Figure 5, where ½-mile distance is the network distance, or distance from each station on the street network, not as the crow flies. A half-mile is generally considered the ‘walkshed’ for commuter rail-type service.

Figure 5 Table of Potential SCR Riders Living within 1/2 Mile of Planned SCR Stations

Service Subarea	Station Name	Potential SCR Riders Living within ½ Mile of Station
Fall River	Freetown	0
	Fall River Depot	11
	<i>Fall River Subtotal</i>	<i>11</i>
New Bedford	Church Street	8
	New Bedford	17
	<i>New Bedford Subtotal</i>	<i>25</i>
	Grand Total	36

KEY FINDINGS

In both the New Bedford and Fall River areas, there are high concentrations of potential SCR riders living near existing SRTA fixed routes in the downtown cores. In Fall River, most existing bus routes do not connect areas where there are high concentrations of potential riders to SCR stations with a one-seat ride; transfers at the SRTA Fall River Terminal would be required.

In New Bedford, some existing SRTA fixed routes do serve both concentrations of potential SCR riders and future SCR stations, such as routes NB1/NB2 (routes NB1 and NB2 are interlined) and Route NB4.

In both service areas and under SRTA’s existing fixed-route service, most potential riders would need to transfer at a SRTA terminal to a route that serves a SCR stations.