

Contents

1	Introduction	1-1
	Report Purpose	1-2
	Report Outline	1-2
	Study Area	1-3
2	Existing Plans and Policy Review	2-1
	Statewide Transportation Plans	2-4
	Climate and Sustainability Plans	2-9
	Safety and Complete Streets Plans	2-11
	Land Use & Housing Policies and Plans	2-14
	Summary and Opportunities	2-20
3	Land Use Assessment	3-1
	Existing Land Use Breakdown	3-2
	Glossary of Land Use Categories	3-5
	Zoning Analysis	3-7
	Land Assessment	3-13
	Summary and Opportunities	3-20
4	Transit Network Analysis	4-1
	RIPTA Bus Service	
	Primary Route Descriptions	4-4
	Speed and Reliability	4-8
	Transit Priority Infrastructure	4-10
	Bus Stop Infrastructure	4-12
	Key Transit Hubs and Transfer Locations	4-14
	Ridership	4-18
	Rail, Ferry, and Other Services	4-21
	Summary and Opportunities	4-22
5	Road Characteristics	5-1
	Roadway Characteristics	5-2
	Speed and Congestion	5-9
	Safety	5-10
	Railway Characteristics	5-12
	Summary and Opportunities	5-15
6	Market Profile	6-1
	Introduction	6-2
	Population and Population Density	6-4

	Socioeconomic Characteristics	6-5
	Socioeconomic Characteristics and Transit Propensity	6-12
	Jobs and Economic Activity-Based Demand	6-15
	Composite Transit Demand	6-22
	Travel Times and Travel Flows	6-24
	Summary and Opportunities	6-28
7	Environmental Review	7-1
	Summary and Opportunities	7-14
3	Next Steps and Conclusion.	8-1



Table of Figures

Figure 1-1	Metro Connector Study Area1-3
Figure 2-1	High-Capacity Transit2-5
Figure 2-2	Mobility Hubs2-5
Figure 2-3	Proposed Statewide Greenway Network2-8
Figure 2-4	Environmental Justice Screening Map2-10
Figure 2-5	Asthma Hotspot Prevalence in Rhode Island2-10
Figure 2-6	Walk Bike PCF Recommendations2-11
Figure 2-7	Proposed Citywide Urban Trail Network2-12
Figure 2-8	Proposed Street Designs2-13
Figure 2-9	Station Vision Plan2-14
Figure 2-10	Draft Proposal: Growth Strategy Map2-16
Figure 2-11	Warwick Comprehensive Plan Strategic Priorities2-16
Figure 2-12	Proposed Development in Valley Falls/Lonsdale
	along Major Corridor2-18
Figure 3-1	Existing Land Use3-2
Figure 3-2	Existing Land Use Breakdown3-3
Figure 3-3	Residential Land Use Breakdown3-4
Figure 3-4	Cumberland Zoning3-7
Figure 3-5	Central Falls Zoning3-8
Figure 3-6	Pawtucket Zoning3-9
Figure 3-7	Providence Zoning3-10
Figure 3-8	Cranston Zoning3-11
Figure 3-9	Warwick Zoning3-12
Figure 3-10	Multifamily Use3-13
Figure 3-11	Affordable Housing3-14
Figure 3-12	Commercial Land Use3-15
Figure 3-13	Industrial Land Use3-16
Figure 3-14	Mixed Use Residential/Commercial Land3-17
Figure 3-15	Vacant Land3-18
Figure 3-16	Underdeveloped Properties3-19
Figure 4-1	RIPTA Routes within Study Area4-3
Figure 4-2	R Line Route Map4-4
Figure 4-3	RIPTA Bus Travel Speeds4-8
Figure 4-4	RIPTA Existing Bus On-Time Performance4-9

Figure 4-5	Existing and Under-Construction Transit Infrastructure 4-10
Figure 4-6	Bus Lanes and High-Quality Stations on Providence's
	Downtown Transit Connector4-11
Figure 4-7	RIPTA High Activity Bus Stop4-12
Figure 4-8	Kennedy Plaza is one of three existing Transit Centers
	located in the study area4-13
Figure 4-9	RIPTA Transit Hubs4-14
Figure 4-10	Kennedy Plaza Map4-15
Figure 4-11	Providence Station Entrance4-15
Figure 4-12	Map of Pawtucket-Central Falls Transit Center4-16
Figure 4-13	Diagram of improvements at CCRI Transit Center4-17
Figure 4-14	Ridership by Stop4-18
Figure 4-15	Systemwide Average Alightings by Hour (Oct. 2023)4-19
Figure 4-16	Commuter Rail Boardings and Alightings within Study Area
	by Hour (Apr 2024)4-19
Figure 4-17	Percentage of Peak vs. Off Peak Boardings by Stop4-20
Figure 5-1	Number of Travel Lanes and Signalized Intersections in
	Cumberland5-3
Figure 5-2	Number of Travel Lanes and Signalized Intersections in
	Central Falls5-4
Figure 5-3	Number of Travel Lanes and Signalized Intersections in
	Pawtucket5-5
Figure 5-4	Number of Travel Lanes and Signalized Intersections in
	Providence5-6
Figure 5-5	Number of Travel Lanes and Signalized Intersections in
	Cranston5-7
Figure 5-6	Number of Travel Lanes and Signalized Intersections in
	Warwick5-8
Figure 5-7	Map of Bus Speeds5-9
Figure 5-8	Crash Density Within The Study Area Weighted by Injury
	Severity5-11
Figure 5-9	Current Uses of Existing Railroad Rights of Way5-13
Figure 5-10	Ownership of Existing Railroad Rights of Way5-14
Figure 6-1	Relationship between Land Use and Transit Types and
	Frequencies6-2
Figure 6-2	Average Housing and Transportation Costs6-3
Figure 6-3	Population Density6-4



Figure 6-4	Race and Ethnicity	6-5
Figure 6-5	Low-Income Households	6-6
Figure 6-6	Foreign-Born Households	6-7
Figure 6-7	Zero Vehicle Households	6-8
Figure 6-8	Limited English	6-9
Figure 6-9	Renters	6-10
Figure 6-10	Transportation Costs	6-11
Figure 6-11	Transit Propensity	6-13
Figure 6-12	Adjusted Population Density	6-14
Figure 6-13	Employment Density	6-15
Figure 6-14	Customers, Clients, Students, and Patients	6-16
Figure 6-15	Jobs Held By Women	6-17
Figure 6-16	Adjusted Employment Density	6-18
Figure 6-17	Non-Traditional Commuters	6-19
Figure 6-18	Land-Use Mix	6-20
Figure 6-19	Intersection Density	6-21
Figure 6-20	Composite Density	6-23
Figure 6-21	Trips Originating in Study Area (Thursdays)	6-24
Figure 6-22	Trips Originating in Study Area (2023)	6-24
Figure 6-23	All Travel Flows	6-25
Figure 6-24	Weekday Transit Travel Flows	6-26
Figure 6-25	Equity Travel Flows	6-27
Figure 7-1	Potential Hazardous Materials Sites	7-2
Figure 7-2	Federal and State Wetlands	7-4
Figure 7-3	Waterbodies	7-5
Figure 7-4	Flood Hazard Areas	7-6
Figure 7-5	Historic Resources	7-7
Figure 7-6	Natural Heritage Areas	7-8
Figure 7-7	Parks and Recreation	7-9
Figure 7-8	Areas with High Rates of Poverty	7-11
Figure 7-9	Areas with High Minority Population	7-12
Figure 7-10	Areas Sensitive to Noise and Vibration	7-13

Table of Tables

Table 2-1	Reviewed Plans and Reports	2-2
Table 2-2	Transit Forward RI Initiatives	2-4
Table 2-3	State Transportation Goals and Metro Connector Study.	2-6
Table 2-4	RI Act on Climate Goals and Metro Connector Study	2-9
Table 2-5	Climate Update Priority Actions and Metro Connector	
	Study	2-9
Table 3-1	Existing Land Use	3-3
Table 3-2	Multifamily Housing by Municipality	.3-13
Table 3-3	Affordable Housing Units by Municipality	.3-14
Table 3-4	Commercial Land Use by Municipality	.3-15
Table 3-5	Industrial Land Use by Municipality	.3-16
Table 3-6	Mixed Use Land by Municipality	.3-17
Table 3-7	Vacant Land by Municipality	.3-18
Table 3-8	Number of Underdeveloped Properties by Municipality	3-19
Table 4-1	Existing Bus Service	4-2
Table 5-1	Weights Used in Crash Density Analysis	.5-10
Table 6-1	Population by Municipality	6-4
Table 6-2	Languages of LEP Residents by Municipality	6-9
Table 6-3	Transit Propensity by Demographic Group	.6-12
Table 6-4	Demand Adjustment Factor by Job Type	.6-18
Table 7-1	Federally Listed fish and Wildlife Species with Potential t	to
	Occur in the Study Area	7-3
Table 7-2	Poverty Status of Population	.7-11
Table 7-3	Minority Status of Population	.7-12





1 Introduction

The purpose of the Metro Connector Study is to consider options for providing fast, reliable, and frequent transit that connects major transportation hubs, regional activity centers, and residential neighborhoods in metropolitan Providence while achieving other State goals related to climate, sustainable housing growth, and economic development in an equitable manner. This Existing Conditions Report is a key piece of the Metro Connector Study; it provides an overview of opportunities and constraints within the study area, identifies the most relevant information and sets the stage for development and evaluation of rapid transit alternatives. This introduction lays out the rest of this report, providing:

- Report Purpose, which describes the role of the Existing Conditions Report in the overall Metro Connector Study
- Report Outline, which describes how this report is organized.
- Study Area, which provides an overview of the study area examined in this document

Report Purpose

This Existing Conditions Report provides an overview of opportunities and constraints within the study area, identifies the most relevant information and sets the stage for development and evaluation of rapid transit alternatives.

A key piece of the Metro Connector Study, the Existing Conditions Report collects, synthesizes, and assesses a variety of qualitative and quantitative information that provides context for the rapid transit study.

Transit Forward RI 2040, Rhode Island's statewide Transit Master Plan, was adopted into the State Guide Plan in 2020. The Plan identified that much of metropolitan Providence has very high underlying demand for transit which rivals that found along existing light rail and bus rapid transit corridors in much larger cities across the US. Two corridors were identified that connect such areas of high demand and that run north-south across the Providence metropolitan region, the first extending from the Central Falls/Cumberland border through Pawtucket, downtown Providence, Cranston, and Warwick to the CCRI-Warwick Campus, and the second connecting downtown Providence to T.F. Green International Airport.

The purpose of the Metro Connector Study is to consider options for providing fast, reliable, and frequent transit that connects major transportation hubs, regional activity centers, and residential neighborhoods in metropolitan Providence while achieving other State goals related to climate, sustainable housing growth, and economic development in an equitable manner.

Report Outline

This report is organized into seven chapters, with each chapter examining a different type of existing conditions information:

- 1. **Chapter 1 Introduction**, which is this chapter.
- 2. Chapter 2 Plan and Policy Review summarizes existing transportation and land use plans, transportation policies, and other studies which inform potential future rapid transit in the study area.
- 3. Chapter 3 Land-Use and Zoning Assessment assesses current and future land uses in the study area, with a special focus on the relationship between land use and rapid transit.
- 4. Chapter 4 Transit Network Analysis highlights relevant aspects of the transit network and transit performance in the study area.
- 5. Chapter 5 Existing Right-of-Way Conditions describes existing relevant right-of-way characteristics, such as roadway widths and railroad right-ofway.
- Chapter 6 Market Analysis describes the market for transit in the study area.
- 7. **Chapter 7 Environmental** identifies the major environmental features in the study area that should be considered as part of the study, with an emphasis on sensitive environmental features that will serve as constraints to our analysis.



Study Area

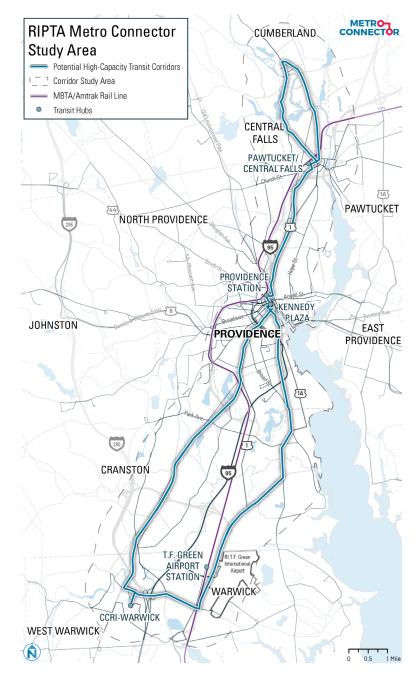
The Metro Connector study area (Figure 1-1) can generally be defined as the area from the Valley Falls neighborhood of Cumberland, RI in the north to the Community College of Rhode Island's Warwick Campus in Warwick, RI, including much of Central Falls, Pawtucket, Providence, and Cranston. The study area includes several potential north-south road alignments connecting these areas.

The study area for the project is the area within 1 mile of the two corridors identified for light rail and/or bus rapid transit in RIPTA's Transit Forward RI 2040 Transit Master Plan (TMP). The study area allows us to consider a wide variety of potential alignments.

The major transit corridors identified in the TMP are:

- A longer corridor from Valley Falls to CCRI-Warwick or TF Green Airport Station via Broad Street or Dexter Street in Central Falls, Downtown Providence, and Route 2 (named Reservoir Boulevard, New London Avenue, and Bald Hill Road).
- A shorter corridor from Downtown Providence to TF Green Airport Station or CCRI Warwick via Eddy Street, Warwick Avenue, and Post Road.

Although the study area includes the municipalities of Cumberland, Central Falls, Providence, Cranston, and Warwick only, residents from other communities in Rhode Island and Massachusetts are expected to benefit from an investment in high-capacity transit as well.



Metro Connector Study Area Figure 1-1

