

MAPS
AND
DATA
PRODUCTS
CATALOG

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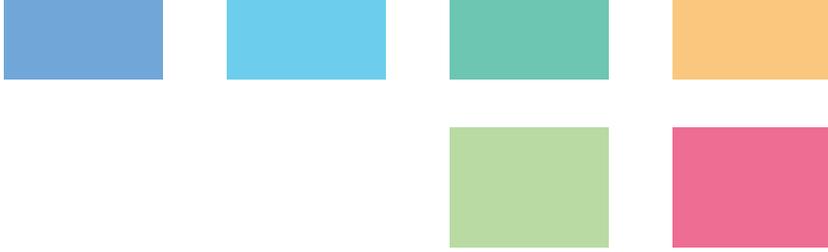
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INTRODUCTION

Maps and data described in this catalog are available from the Office of Transportation Planning. Products listed in this catalog can be obtained by filling out a data request form (Appendix C).

Three categories of standard products are available: Geographic Information System (GIS) paper maps, GIS and database digital data, and road inventory printouts. Each of these products is described in this catalog.

Please note this catalog's date. The number of available products is regularly expanded to reflect new products, please make sure that you have the most recent catalog. Copies of the catalog can be obtained from:

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Massachusetts Road Inventory File

Most maps generated by Planning's GIS system include the state road network as a primary component. This information is based on the Road Inventory file, which serves as the foundation of Planning's GIS capabilities. The Road Inventory is linked to 1:5,000 Centerline files using ArcGIS, and contains approximately 480,000 road inventory records, representing over 36,000 centerline miles of roadway. This system allows for mapping of attributes in the Road Inventory file at any geographic level (i.e., state, MassDOT Highway District, etc.). Appendix B contains a list of all the road inventory attributes.

Sources and Disclaimer

Many of the map products described in this catalog show data obtained from MassGIS, the clearinghouse for all spatial data developed or maintained by the various Massachusetts state agencies. Road attribute data is derived from the Road Inventory File maintained by Planning and does not constitute a legal record. The location of features and boundaries shown on these maps are approximate and are intended for planning purposes only. These maps are not intended for survey, engineering, or legal purposes.

GIS Services available to MassDOT

The need to view spatial data and presence of map-making has become vital to the success of the Massachusetts Department of Transportation (MassDOT). The Office of Transportation Planning (Planning) supports rising interest by offering GIS services to all of MassDOT. This support enhances the development and exchange of spatially related databases throughout the all aspect of state transportation. The GIS Services group can provide a full range of services, as described in detail below.

- Customized mapping. Using ArcGIS, Planning will develop maps for your public presentations, preliminary analyses, or field assessments. Data can be displayed in relation to an orthophoto, the Road Inventory, or other landscape features of your choice.
- Perform Spatial Analysis: Using the GIS tools and databases, planning can perform spatial analyses on one or more datasets and provide the result in tabular or map form.
- ArcGIS Software support. Planning offers troubleshooting and “help-desk” capabilities for ArcGIS to support their continuing use within MassDOT.
- Database design and programming. Sophisticated use of GIS requires an understanding of database design and programming techniques. Planning should be consulted for database design and programming issues related to the development of spatial data.

GIS Services Group Overview

The GIS Services group provides MassDOT with all of its geographic information system (GIS) needs, which include creating and maintaining statewide spatial databases, preparing official MassDOT maps, conducting spatial analysis, and locating MassDOT's assets.

Road Inventory

The GIS Services group is responsible for the official statewide road inventory database, used by MassDOT, all Massachusetts agencies that use GIS, all Massachusetts Regional Planning Agencies, and all Massachusetts cities and towns. This database is also used for reporting annual roadway statistics to the Federal Highway Administration for funding of statewide projects and for determining the Chapter 90 money allocation based on road mileage. GIS Services maintains the accuracy of the road inventory database by continually updating the spatial line work representing the statewide roadway network and associated data.

Other Spatial Data

The GIS Services group creates and maintains other spatial databases used by MassDOT and the entire Massachusetts GIS community. These spatial databases include project based (active construction, bicycle, etc.), asset based (park and ride, rest areas, depots, etc) and transportation based (airports, seaports, intermodal terminals, etc). They provide a means to track projects and assets and map the transportation network, which serves as an important component for transportation planning activities in the Commonwealth.



GIS Enterprise

The GIS Services group has launched an online geospatial portal to which any member of MassDOT or companion agencies can request access. The launch was accompanied by a publically accessible Open Data Portal. It is the hope of the group to encourage others in government service to engage with projects and members of the public in a new way, incorporating geospatial workflows in the everyday activities of those working in transportation.

MAPS



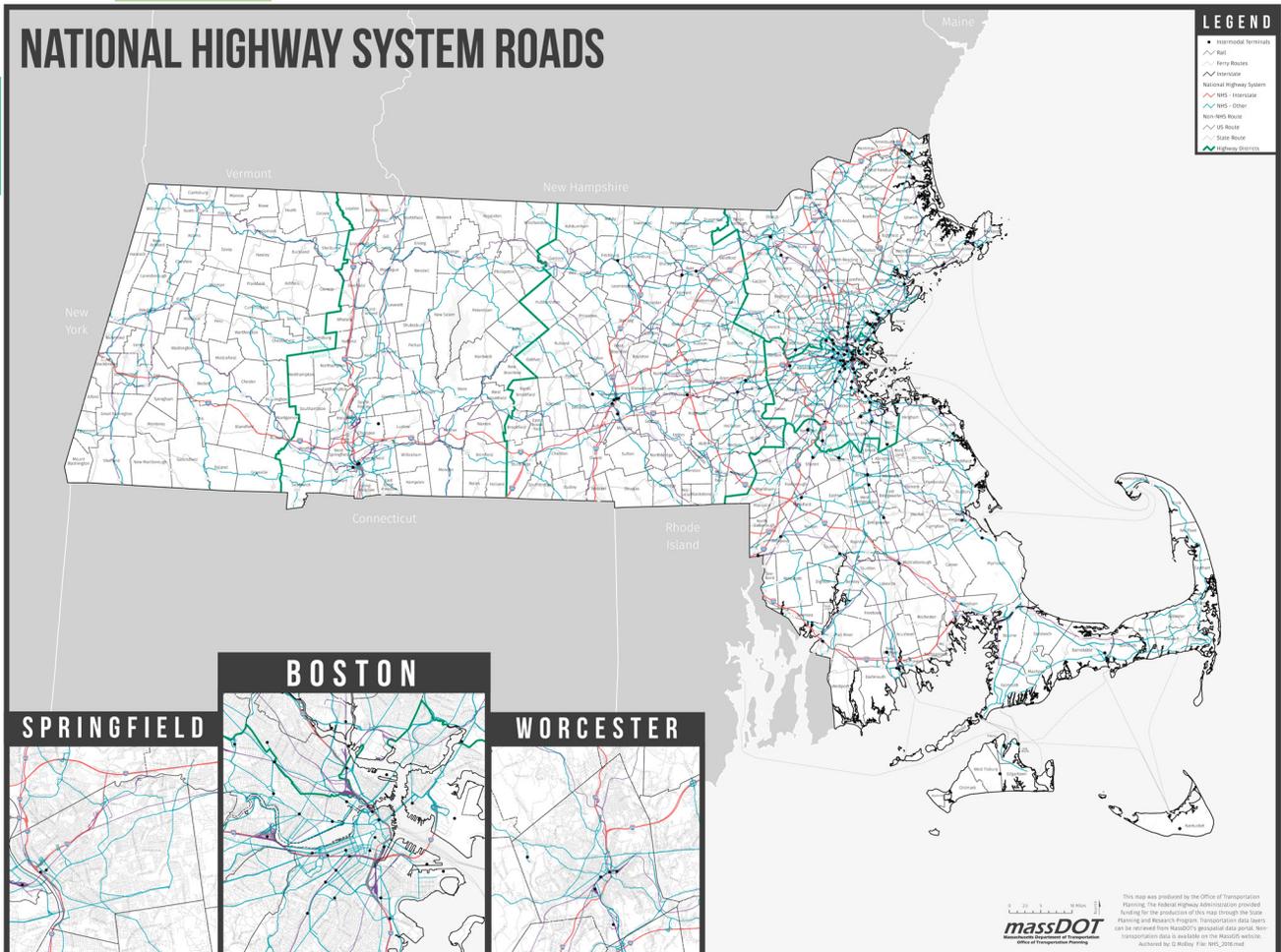
NATIONAL HIGHWAY SYSTEM

Description

The National Highway System (NHS) is a network of nationally significant highways selected by the state and Metropolitan Planning Organizations and approved by Congress to ensure continuity across state lines and connection with other priority transportation networks. It includes the Interstate System, Strategic Defense Highway System, other principal arterials, and connectors to major intermodal terminals. The roadways are color-coded according to subcategories of the NHS and also depict all other non-NHS arterials and collectors for reference.



NATIONAL HIGHWAY SYSTEM ROADS



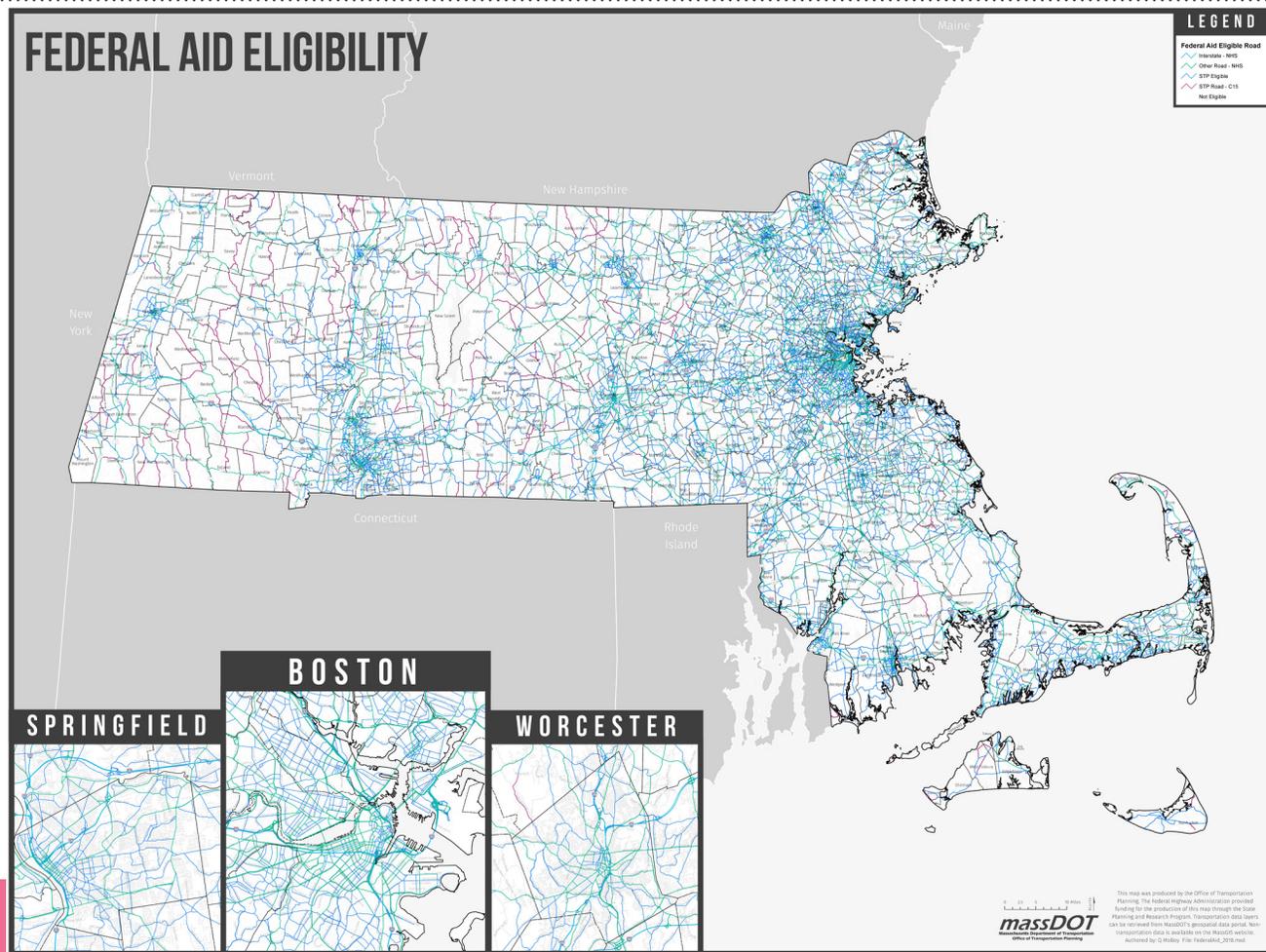
FEDERAL AID PROGRAM

Description

These maps depict roadways that are eligible for Federal Funding, under both the National Highway System and Surface Transportation Program. The Surface Transportation Program includes all urban arterials, urban collectors, rural arterials, and rural major collectors that are not on the NHS. Rural minor collectors are eligible for limited STP funding under the SAFETEA-LU Program.

JURISDICTION BY FEDERAL AID CATEGORY

	NHS	STP	FED TOTAL	LOCAL AID	ALL TOTAL
MassDOT	2167.53	789.48	2957.01	60.24	3017.25
City/Town	1129.53	7028.05	8157.54	21548.86	29706.40
DCR	52.11	61.58	113.69	132.91	246.60
MassPort	4.46	1.79	6.25	0.81	7.06
State Park	0.00	6.89	6.89	272.17	279.06
State Institutional	0.58	4.49	5.07	72.92	77.99
County Institutional	0.00	0.01	0.01	3.72	3.73
Combined Federal	1.21	8.61	9.82	97.85	107.68
Unaccepted	6.31	23.44	29.74	3247.08	3276.82
TOTAL	3361.69	7924.34	11286.03	25436.56	36722.59



FUNCTIONAL CLASSIFICATION

Description

These maps depict roadways according to their functional classification (arterial, collector, local). The functional classification of a roadway refers to the character of services that it is intended to provide. In general, roads either serve to provide mobility or access for vehicles to locations. Planning developed the functional classification system in 1993 in cooperation with the Metropolitan Planning Organizations and in accordance with Section 1006(c) of the Intermodal Surface Transportation Efficiency Act. Planning maintains the functional classification system on an ongoing basis. A federal functional classification map is also available by request.

ARTERIALS

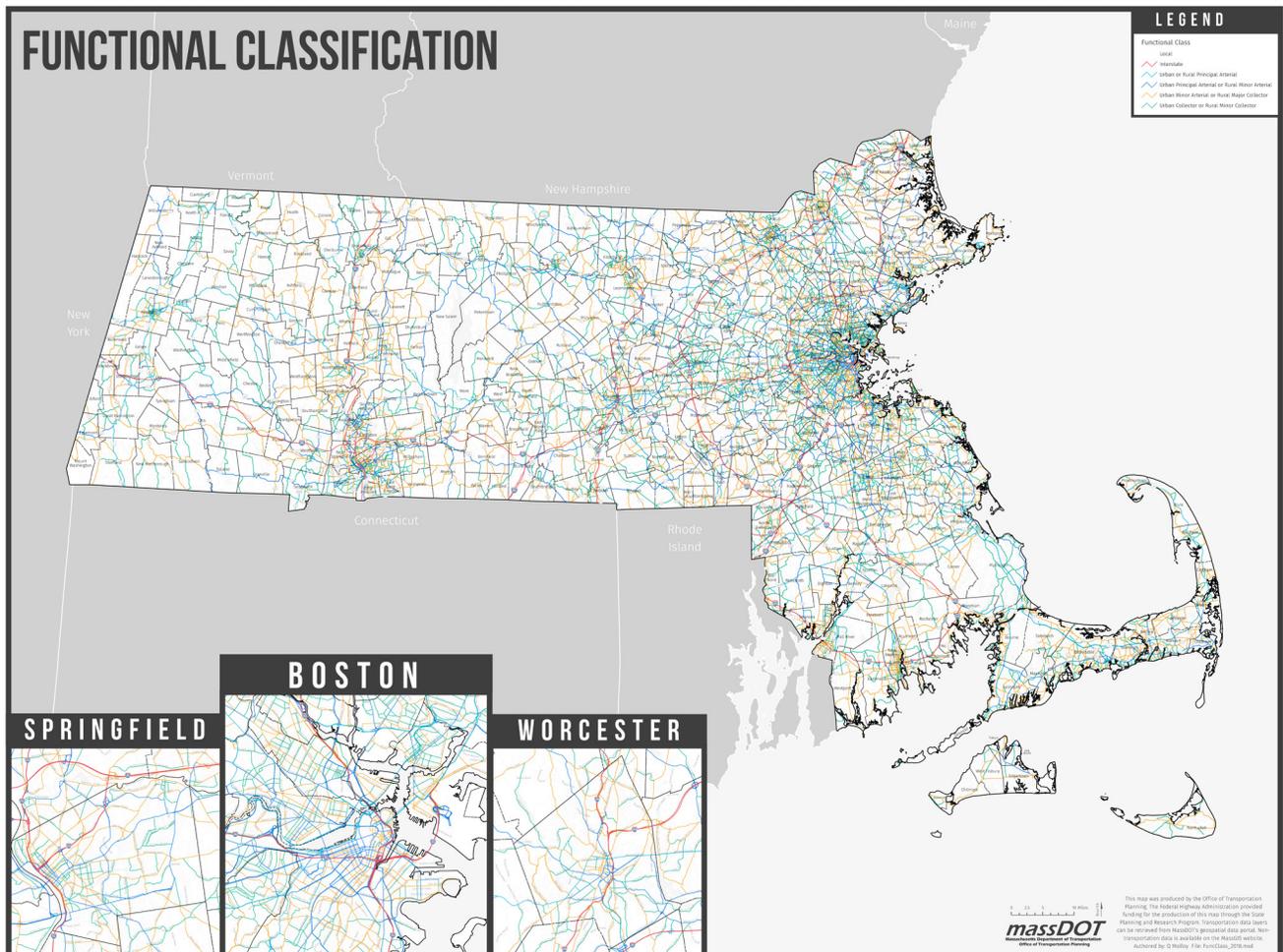
Arterials provide the highest level of mobility at the greatest vehicular speed for the longest uninterrupted distances and are not intended to provide access to specific locations. Arterials are further subdivided into Principal Arterials and Minor Arterials. Interstates are considered to be arterials but are given their own category in these maps.

COLLECTORS

Collectors provide some level of both mobility and access. They collect traffic from local roads and funnel it to arterials. In rural areas, collectors are further subdivided into Major Collectors and Minor Collectors.

LOCAL

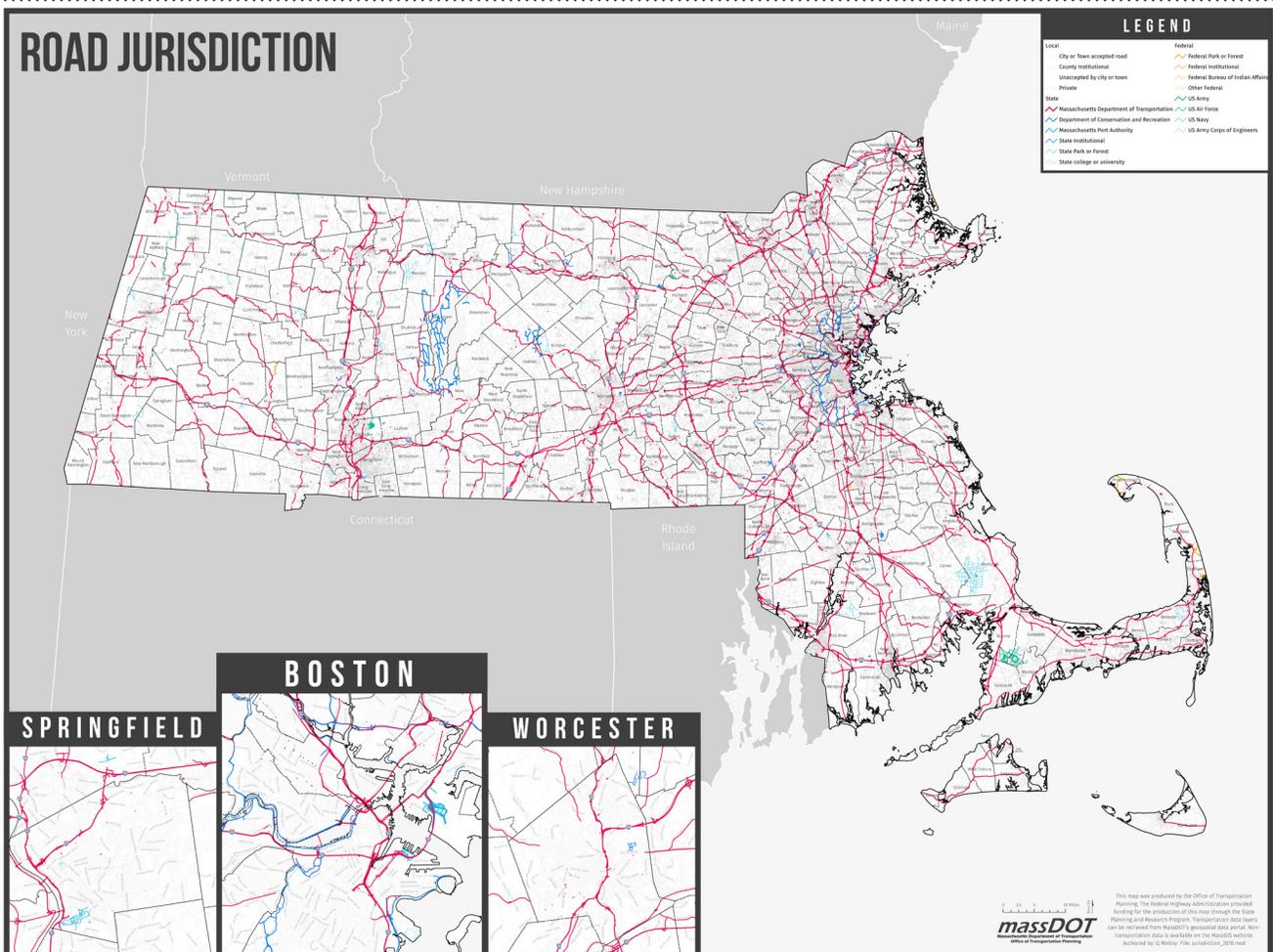
Local roads provide access to abutting land with little or no emphasis on mobility. The term "local road" should not be confused with local jurisdiction. Most, though not all, functionally classified local roads are under city or town jurisdiction.



JURISDICTION OF ROADS

Description

These maps depict roadways according to their jurisdiction. The jurisdiction of a roadway refers to the agency that owns it and has responsibility for its repair and maintenance. The source for the jurisdiction data is the Road Inventory file that contains 16 jurisdictional categories.

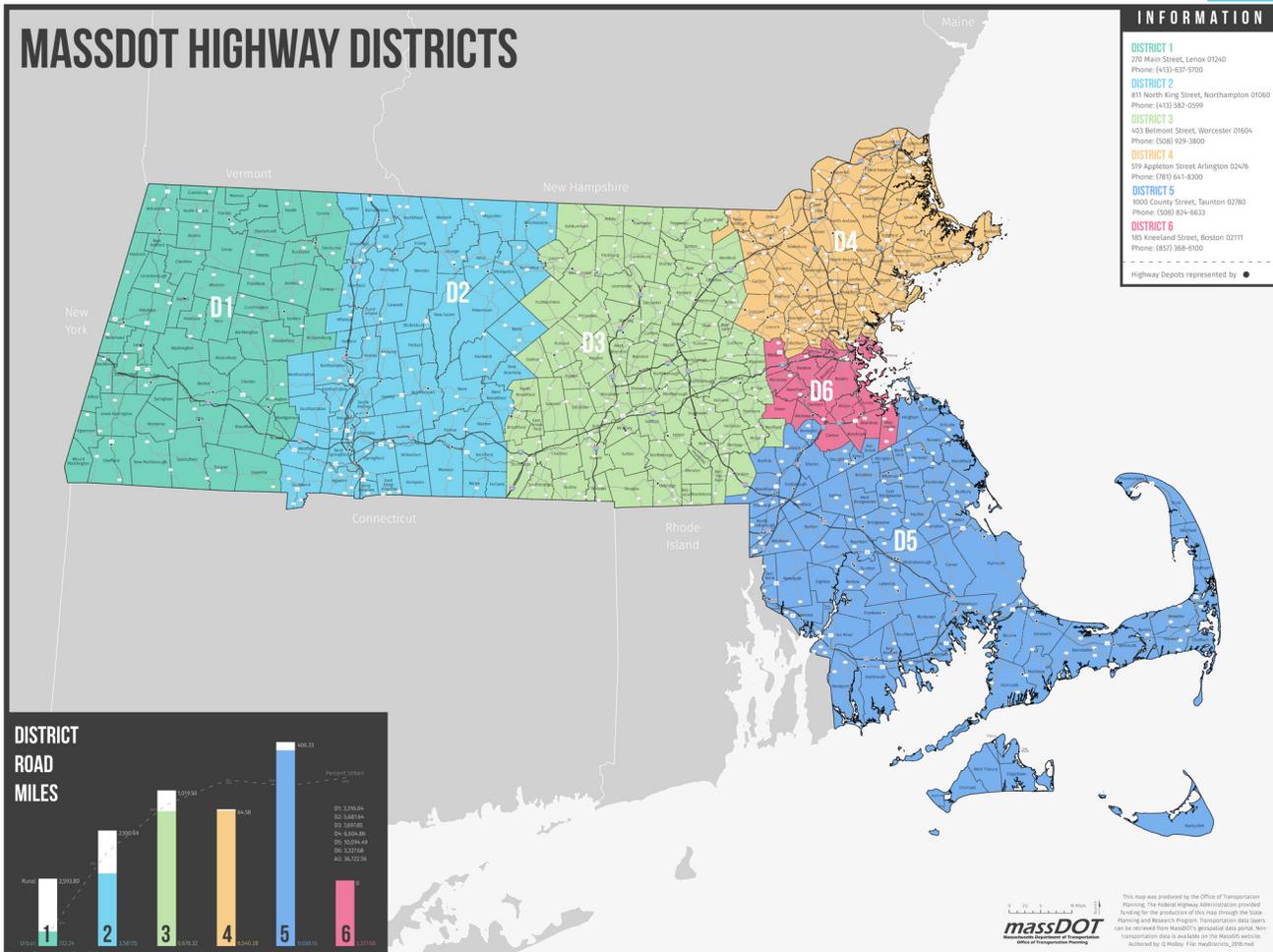


HIGHWAY DISTRICTS

Description

This map depicts the boundaries of the MassDOT Highway Districts within Massachusetts and District Office locations:

- District 1 – Lenox
- District 2 – Northampton
- District 3 – Worcester
- District 4 – Arlington
- District 5 – Taunton
- District 6 – Boston

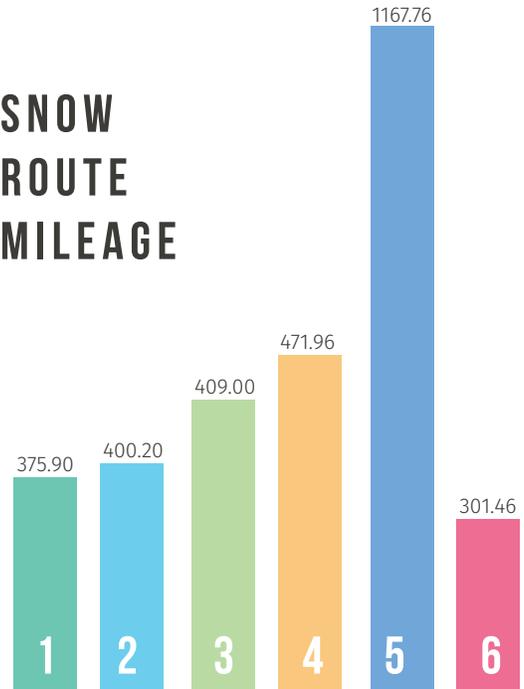


HIGHWAY SUBDISTRICTS

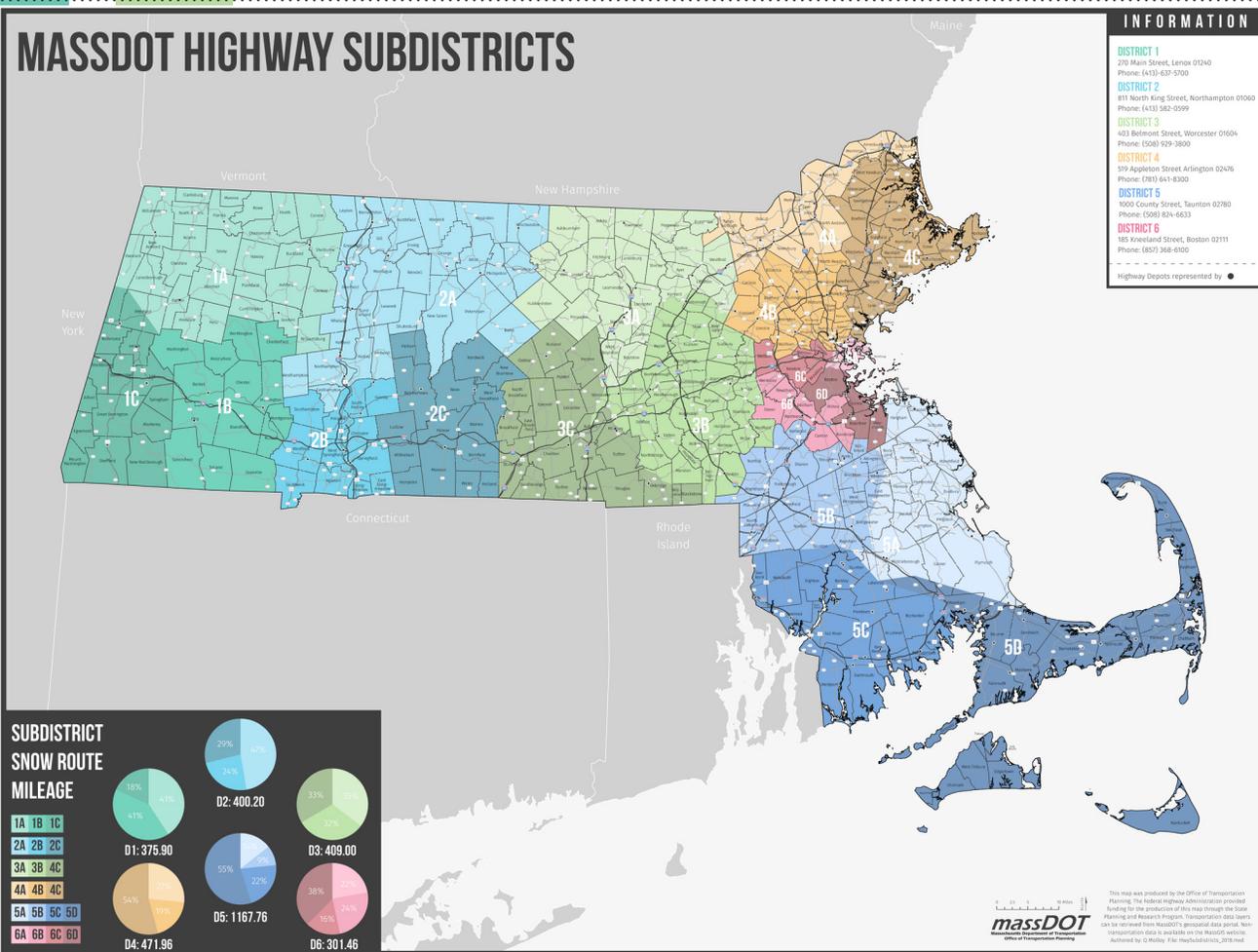
Description

This map depicts the boundaries of the MassDOT Highway Subdistricts within Massachusetts and District Office locations. Subdistricts are often used when planning snow plow routes and other maintenance activities.

SNOW ROUTE MILEAGE

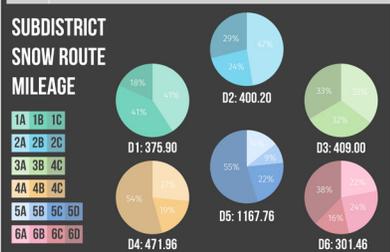


MASSDOT HIGHWAY SUBDISTRICTS



INFORMATION	
DISTRICT 1	278 Main Street, Lenox 01240 Phone: (413) 637-5700
DISTRICT 2	811 North King Street, Northampton 01060 Phone: (413) 552-0599
DISTRICT 3	403 Belmont Street, Worcester 01506 Phone: (508) 929-3800
DISTRICT 4	319 Appleton Street, Arlington 02476 Phone: (978) 641-8300
DISTRICT 5	1000 County Street, Taunton 02780 Phone: (508) 824-4433
DISTRICT 6	185 Kneeland Street, Boston 02111 Phone: (617) 368-0100

Highway Deposits represented by ●

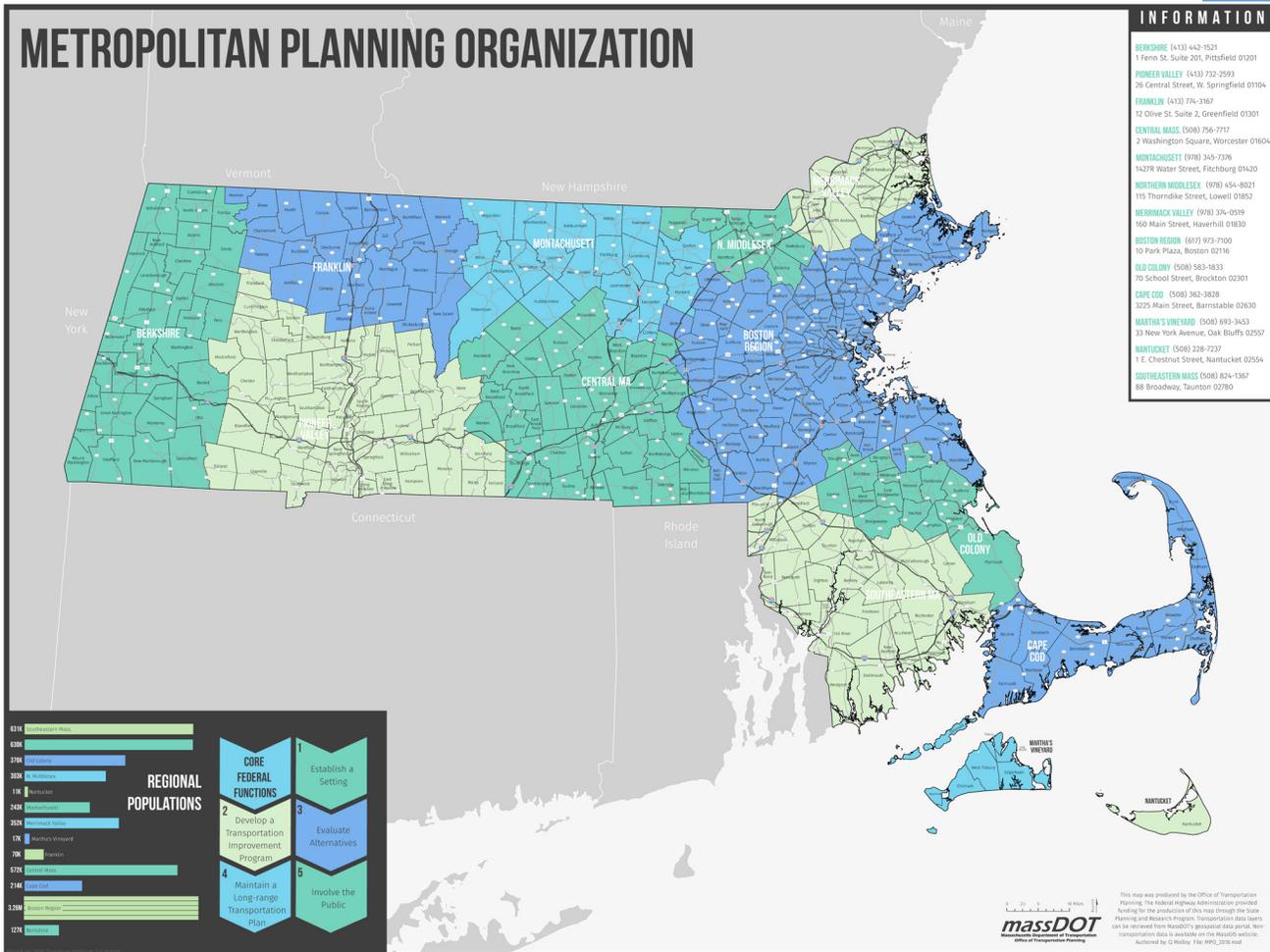


This map was produced by the Office of Transportation Planning. The Federal Highway Administration provided funding for the production of this map through the State Planning and Research Program. Transportation data layers can be retrieved from MassDOT's geospatial data portal. More transportation data is available on the MassDOT website. Authored by G. Hickey / @MassDOTGIS, 2018.mxd

METROPOLITAIN PLANNING

Description

This map depicts the boundaries of the Metropolitan Planning Organizations (MPO) within Massachusetts as well as their office locations. MPOs are comprised of state, regional, and local governmental representatives that prioritize and select what transportation projects to fund each year using their allocated of Federal money. The staff to each MPO is usually the regional planning agency except in the Boston MPO, where both the Metropolitan Area Planning Council (the regional planning agency) and the Central Transportation Planning Staff (Boston MPO staff) provide staff support to the MPO.



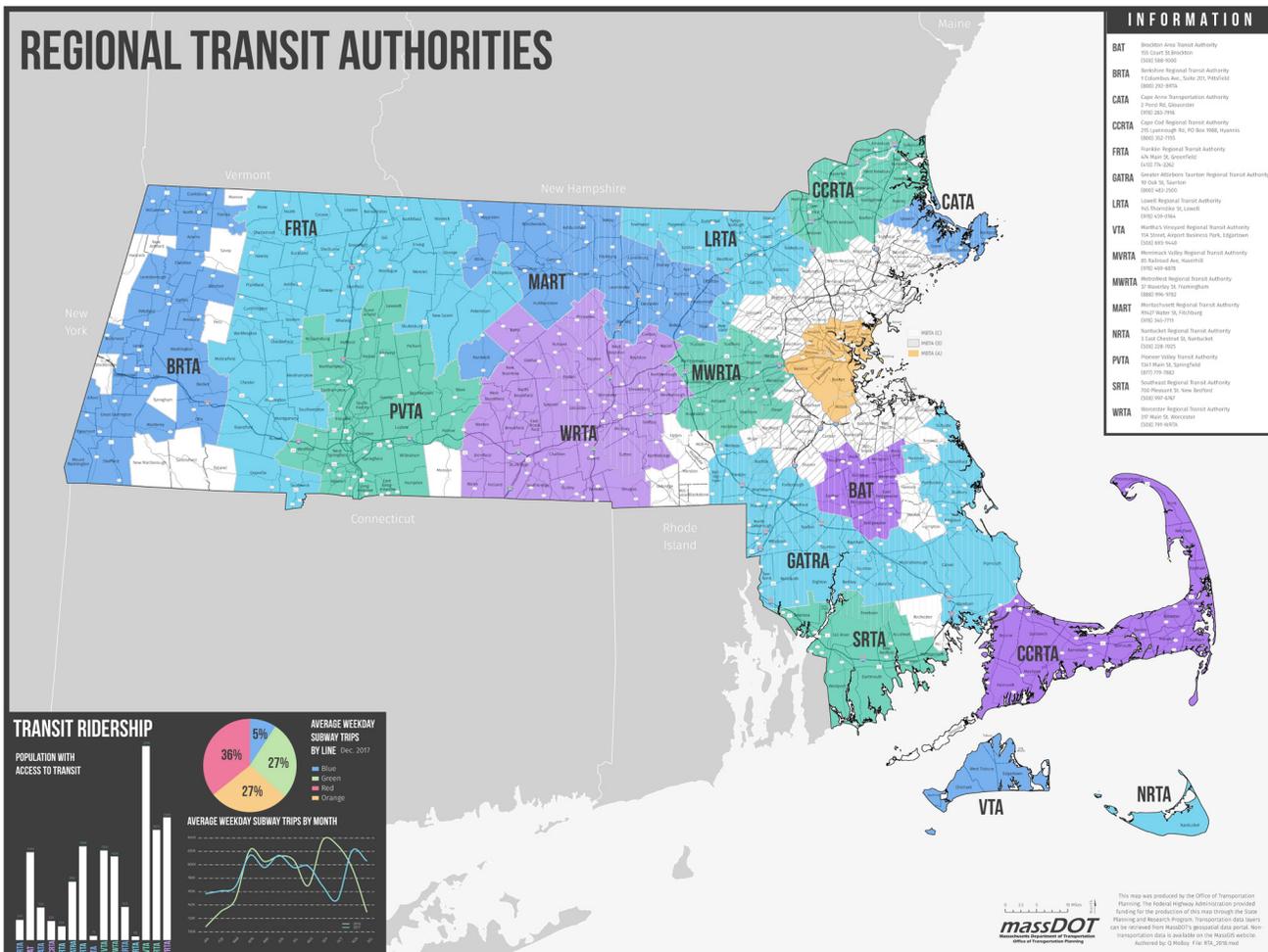
REGIONAL TRANSIT AGENCIES

Description

This map depicts the boundaries of the Regional Transit Authorities (RTAs) within Massachusetts. RTAs represent transit provider districts serving the state of Massachusetts and the communities included in each RTA assessment district. The Massachusetts Bay Transportation Authority (MBTA) has three separate assessment districts also included in the map.

MBTA ZONES

Zone A and B represent communities served only by the MBTA. **Zone A** represents communities with the highest transit availability and therefore the highest percentage assessment. While **Zone B** represents communities with less transit availability and therefore lower percentage assessments. **Zone C** represents communities either in other RTA districts or in none at all that pay an assessment to the MBTA for transit access or border a community with transit access.



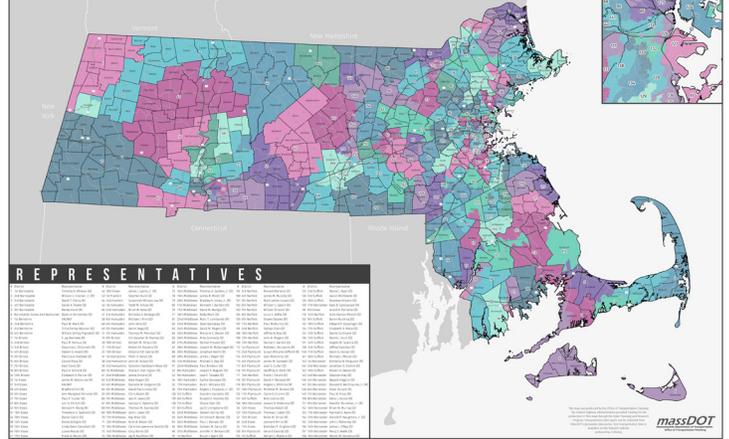
LEGISLATIVE DISTRICTS

Description

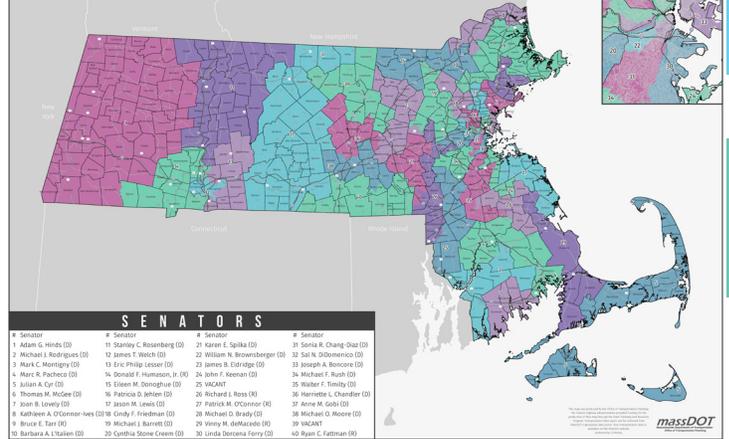
These maps show the boundaries of the State Senatorial, House of Representative and United States Congressional districts. The legislative districts are coded with a numeric label. The names of the Senators and Representatives are listed with the reference number for the purpose of locating each district on the map. The maps are updated during each new legislative year.



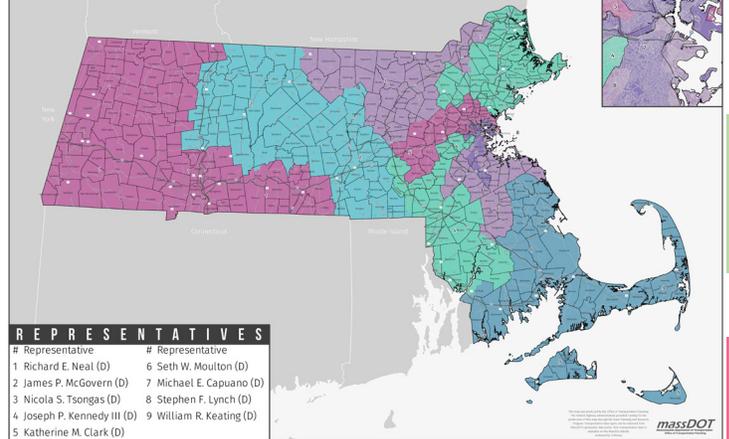
MA STATE REPRESENTATIVE DISTRICTS



MASSACHUSETTS STATE SENATE DISTRICTS



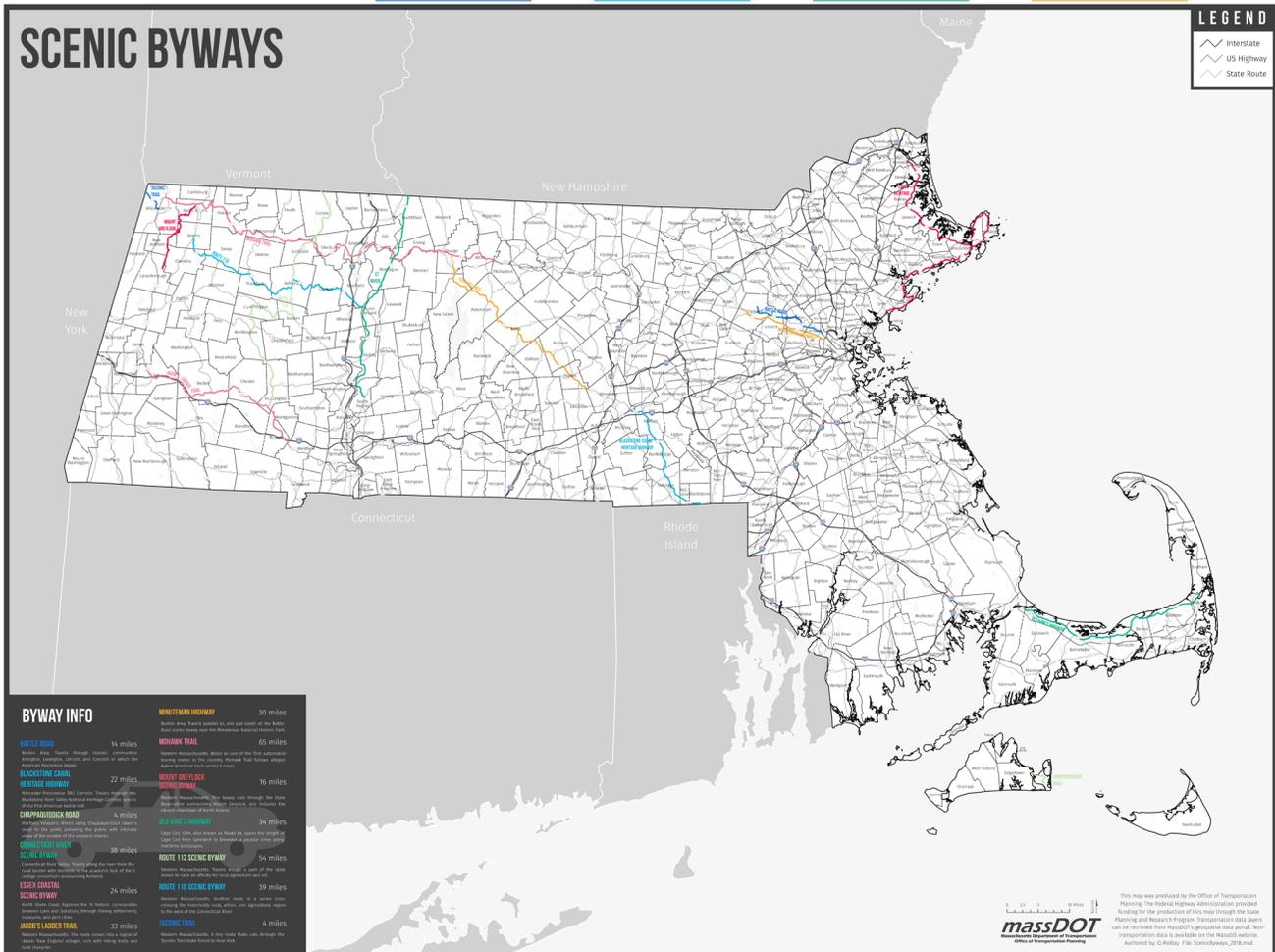
US CONGRESSIONAL DISTRICTS



SCENIC BYWAYS

Description

This map highlights the state-designated Scenic Byways in Massachusetts. These distinctive roadways have been recognized by the Commonwealth in order to preserve and enhance existing resources and to generate new possibilities for economic growth. Financial support for Scenic Byways is provided through the National Scenic Byways Program to qualifying byways that meet eligibility criteria based on their archaeological, cultural, natural, recreational, historic and scenic qualities.



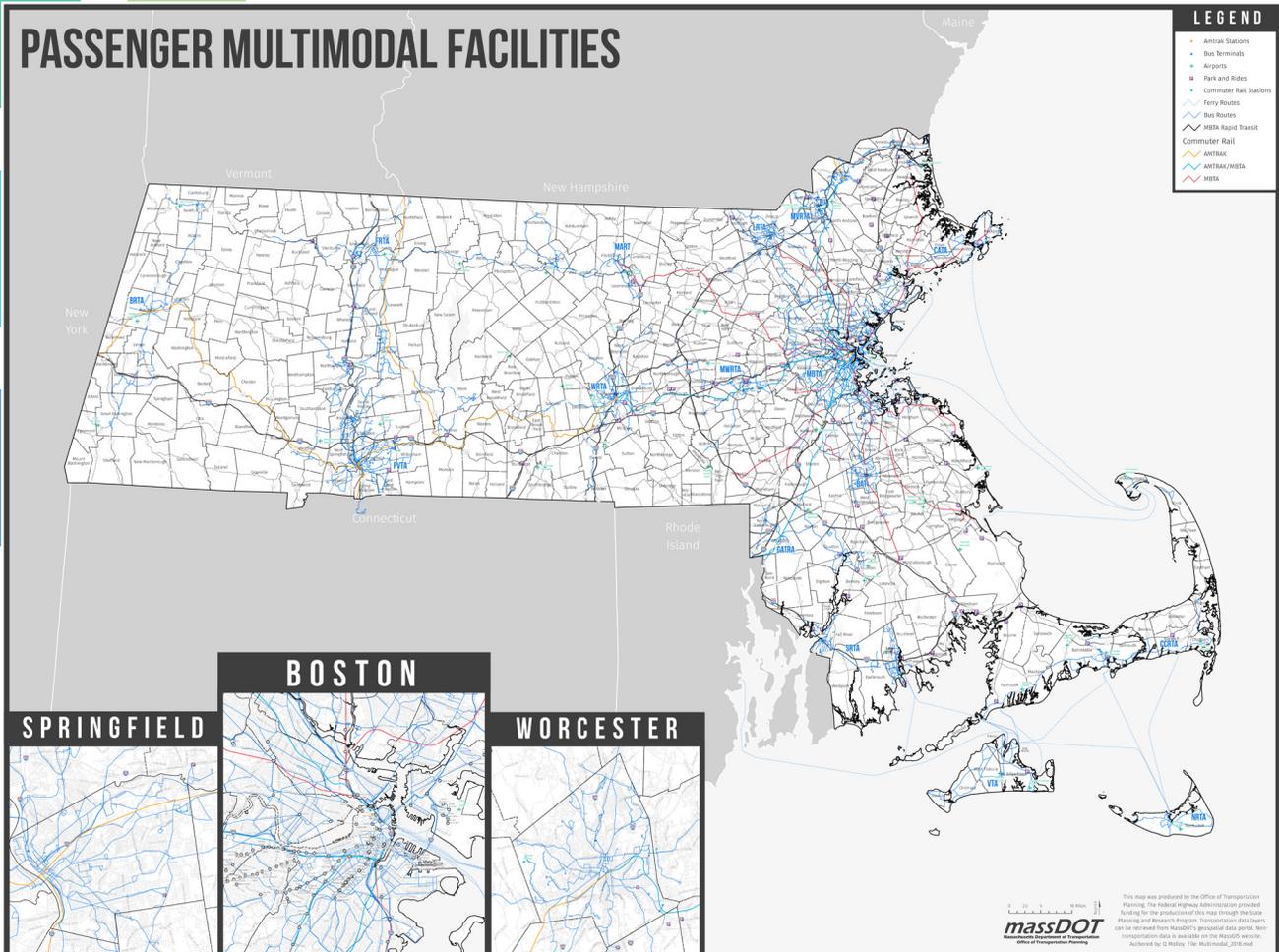
PASSENGER MULTIMODAL

Description

This map depicts the statewide passenger multimodal transportation system consisting of park-and-ride lots (transfer points between automobile and bus), MBTA lots (transfer point between automobile and rail), bus network, and rail passenger rail network. It also includes ferry service and public airport locations.



PASSENGER MULTIMODAL FACILITIES



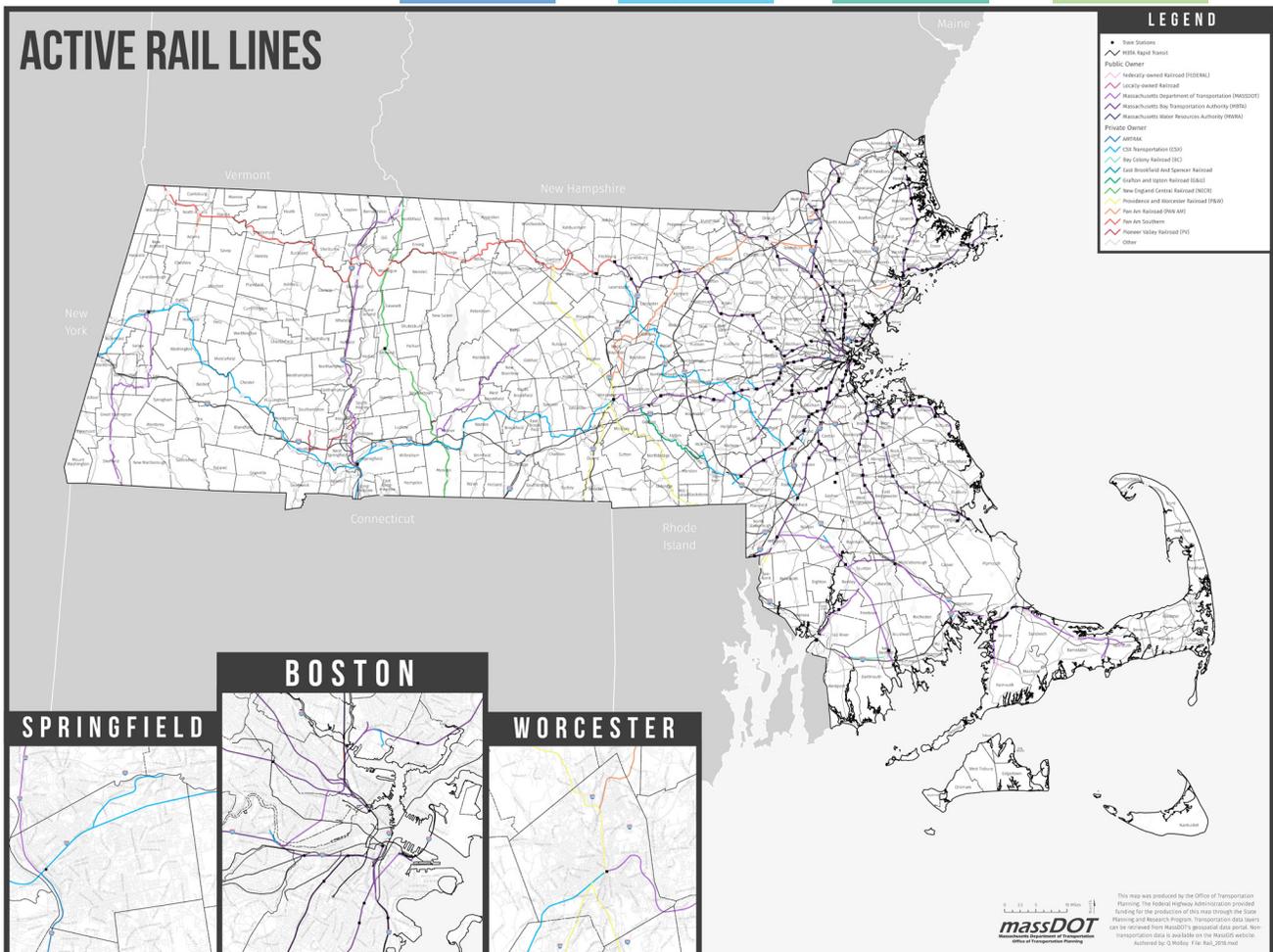
ACTIVE RAIL



Description

This map shows the locations of active rail lines throughout Massachusetts by ownership. MassDOT, MBTA, Amtrak, and other public/private owned rail-road companies. Interstate highways are included for reference. Other rail maps are available for the following categories upon request:

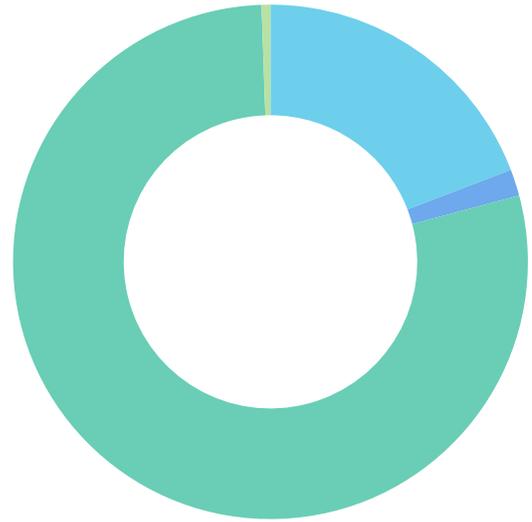
- Rail Type: active, abandoned
- Rail Operations: passenger, freight
- Passenger Rail: commuter, AMTRAK, rapid transit
- Rail Yards, Rail Spurs, & Sidings.



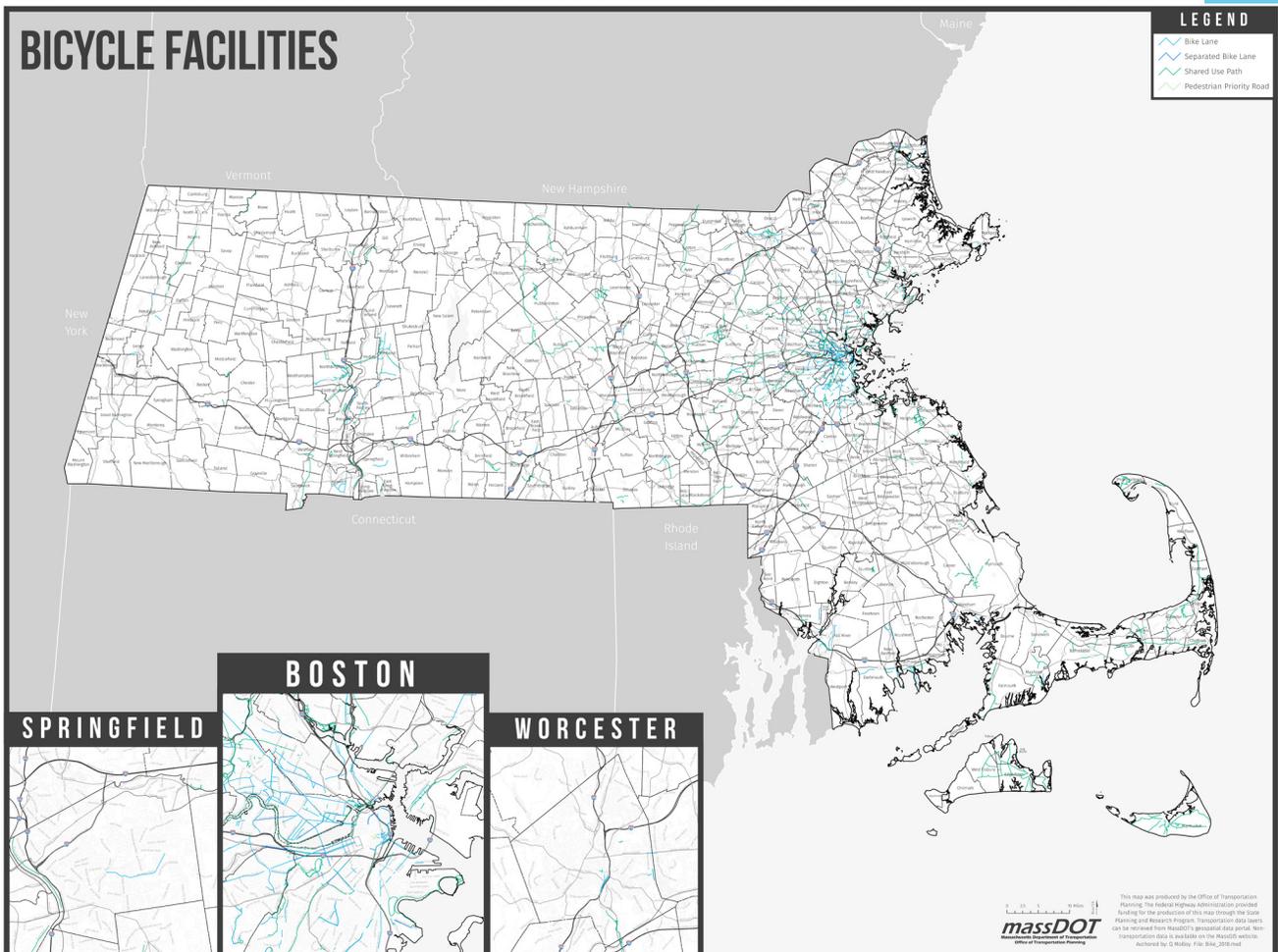
BICYCLE FACILITIES

Description

This map shows the bicycle facilities throughout Massachusetts. Bicycle facilities displayed include existing shared use paths, greenways, on-road facilities, and unimproved bike routes/facilities. Also shown are bicycle projects programmed in the state-wide transportation improvement plan under the categories of shared use paths and on-road facilities, and proposed project facilities.



- Bike Lane
- Separated Bike Lane
- Shared Use Path
- Pedestrian Priority Road



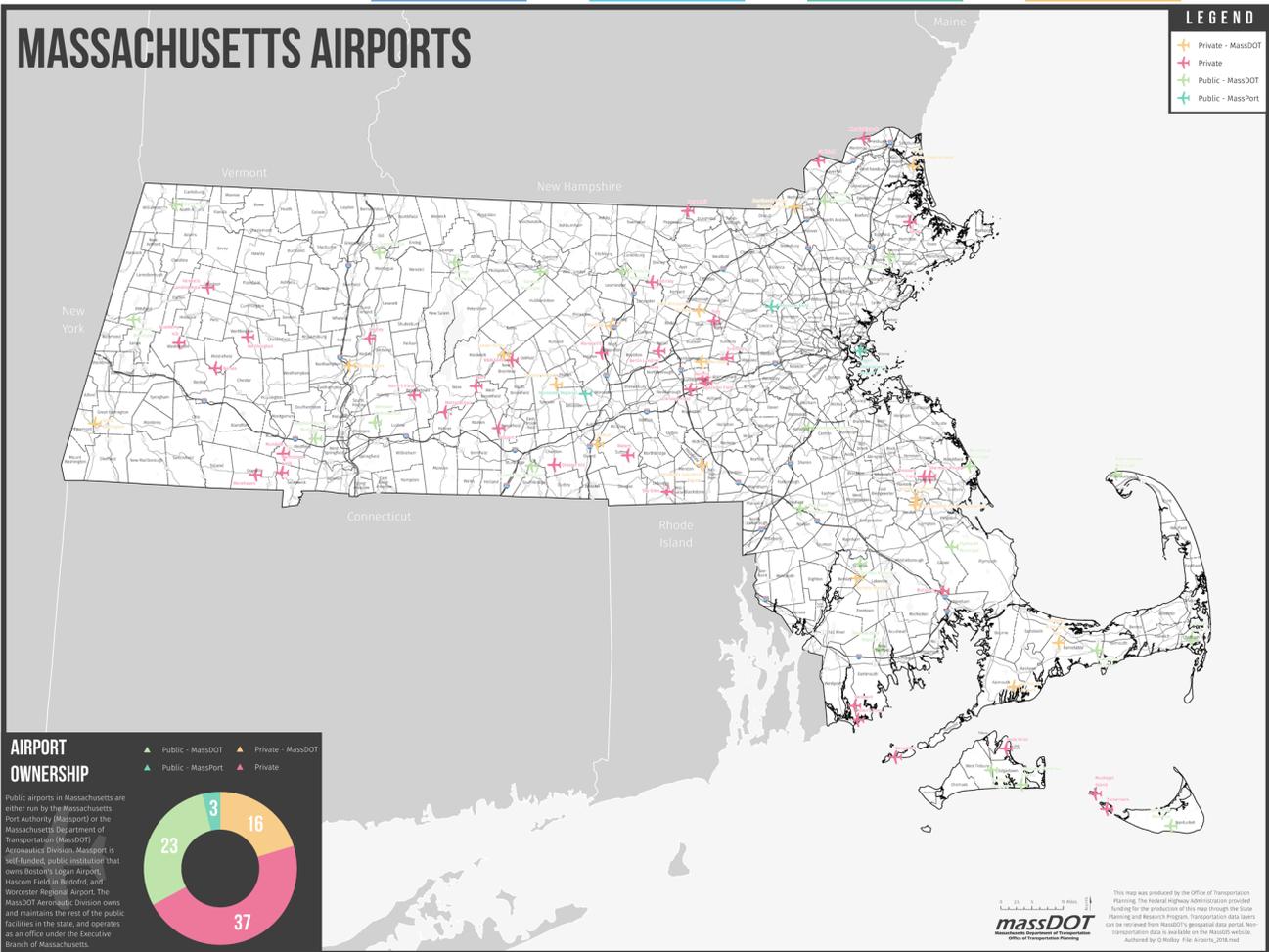
AIRPORTS

Description

This map shows the airport facilities throughout Massachusetts. Airports are displayed in a way that differentiates the facilities by user status (Public, Private) and ownership (MassDOT, MassPort, Private). A table of airport details is also included on the bottom left of the document.



MASSACHUSETTS AIRPORTS



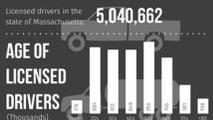
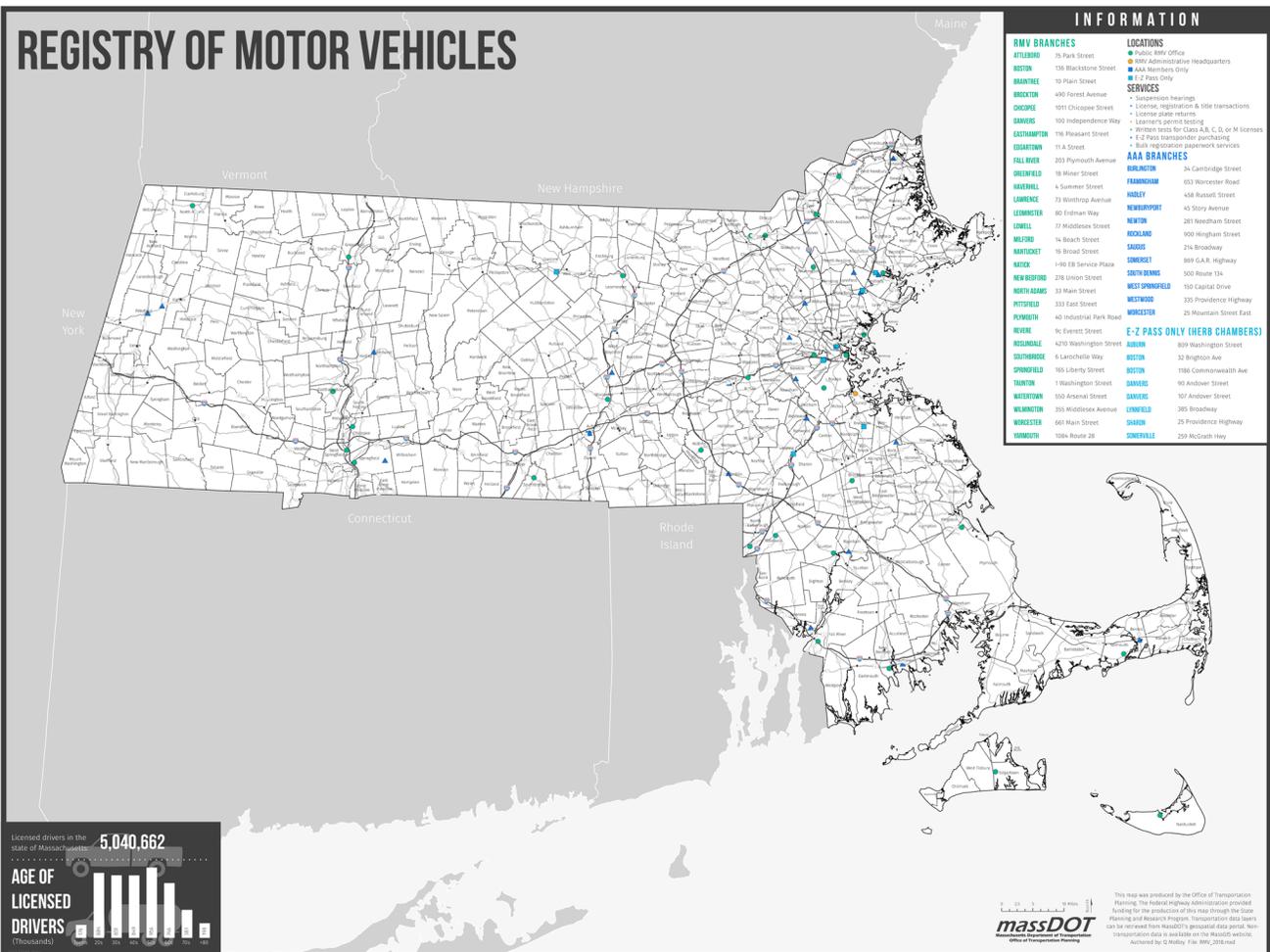
REGISTRY OF MOTOR VEHICLES

Description

This map depicts the Registry of Motor Vehicle (RMV) a branch locations within Massachusetts. Some RMV branches have service that only be accessed by AAA members in the state.



REGISTRY OF MOTOR VEHICLES



This map was produced by the Office of Transportation Planning. The Federal Highway Administration provided funding for the production of this map through the State Planning and Research program. Transportation data items can be retrieved from MASSDOT's geospatial data portal. Non-transportation data is available on the MASSDOT website. Authorized by Order of the RMV, 2/18/2014

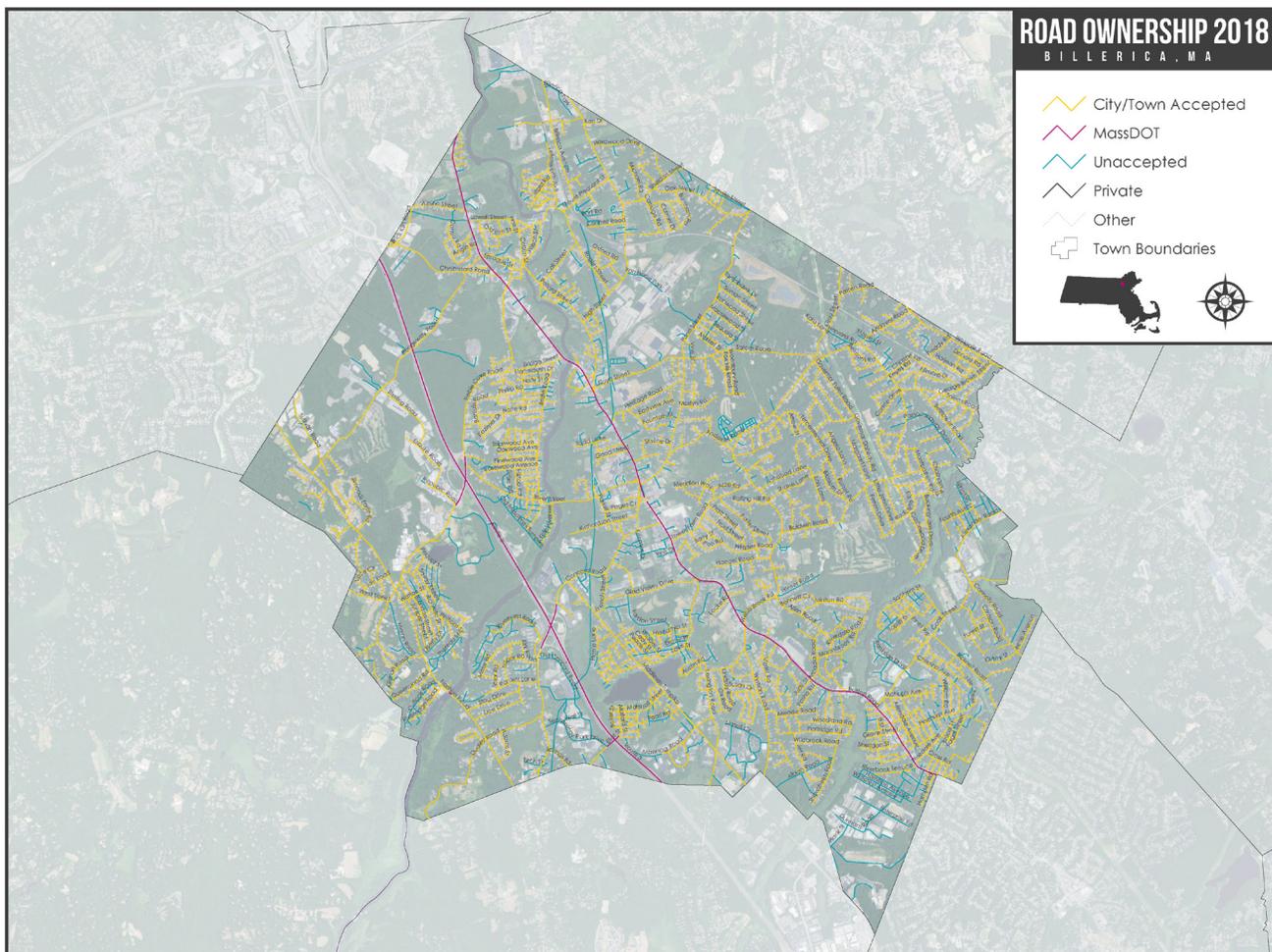
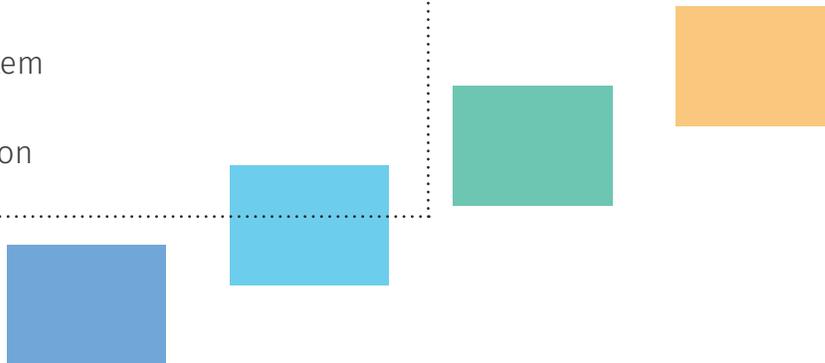
massDOT
Massachusetts Department of Transportation
Office of Transportation Planning

LOCAL ROAD MAP SERIES

Description

MassDOT GIS now offers a series of municipal road maps in each of the following road data categories. You can request one for any of the 351 municipalities in MA. They are 18 x 24 when printed.

- National Highway System
- Federal Aid Program
- Functional Classification
- Jurisdiction



AVAILABLE GIS LAYERS

The GIS Services group maintains and houses the following geospatial layers for download.

MULTIMODAL

- RTA Bus Routes
- MBTA Bus Routes
- Airports
- Water Taxis
- MBTA Bus Stops
- Rail Inventory
- Park and Ride Lots
- NHS Terminals
- Freight Rail Yards
- Ferry Routes
- Train Stations
- Seaports
- MBTA Parking

FACILITIES

- Rest Areas
- Toll Plazas
- Electric Vehicle Charging Stations
- RMV Locations
- Park and Ride Lots
- NHS Terminals
- Freight Rail Yards

BOUNDARIES

- RTA
- MPO
- Urban Boundaries 2010
- Highway Subdistricts
- Highway Districts

ROADWAYS

- Road Inventory
- Mileposts
- Sidewalks
- Maintenance Depots
- Highway Projects
- HSIP Pedestrian Crash Clusters
- Top 200 Crash Intersections 2011-2013
- Crash Clusters
- Bike Crash Clusters
- Drainage Outfalls
- Interchanges

THANK YOU!

For taking the time to read the MassDOT 2016 Map Catalog, a product of the Massachusetts Department of Transportation Office of Transportation Planning.

This report was compiled by Planning GIS Services Group using data generated by MassDOT, and base layers provided by MassGIS.

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