



MassGIS Data: Trains



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[JSON](#)

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via the DKAN API (<https://docs.getdkan.com/en/latest/apis/index.html>)

MassGIS Data: Trains

April 2015

Active Trains: passenger, freight, and MBTA Commuter Rail and Rapid Transit

Download this layer http://download.massgis.digital.mass.gov/shapefiles/state/trains.zip ESRI Shapefile with ArcGIS LYRs	lyrs=Detailed%20Features%7EBasemaps_MassGISBasemapWithLabels2%7E%7CActive%20and%20Proposed%20
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(https://docs.digital.mass.gov/s3/files/styles/panopoly_image_original/s3/trains.jpg?itok=GMjX7ia)  Sample of Trains
 The layer includes active passenger, freight, and MBTA Commuter Rail and Rapid Transit railways, along with abandoned rail lines and railroad beds now used as rail trails. In many instances there is more than one track per rail line, and rail yards and spurs are included.

The **Central Transportation Planning Staff** (<http://www.ctps.org/Drupal/>) updated and enhanced railroad linework distributed by the United States Geological Survey (USGS) as 1:100,000 Digital Line Graphs (DLGs). The original 1:100,000 DLG data were conflated to the orthophoto-derived 1:5,000 Centerline linework now used in this layer. CTPS added several attributes pertaining to type of service, **MBTA Commuter Rail** (http://www.mbta.com/schedules_and_maps/rail/) status, rail line ownership, and freight and passenger operation.

Stored in ArcSDE and distributed in shapefile format, the statewide layers are named **TRAINS_ARC** (rail lines), **TRAINS_NODE** (named station locations) and **TRAINS_RTE_TRAIN** (MBTA Commuter Rail Routes (a dissolved subset of TRAINS_ARC). In addition, the **MBTA Rapid Transit** (<http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/mbta.html>) data are stored in separate layers (subway, trolley, Silver Line railways and T stops).

The data are up-to-date through April 29, 2015.

Production

(https://docs.digital.mass.gov/s3/files/styles/panopoly_image_original/s3/trains1.jpg?itok=YGIO-6FE)

CTPS transferred the attributes from the old trains data layer and has added many more. CTPS used track charts, railroad timetables, old maps, University of New Hampshire website, railroad websites, books, rail experts and field work for sources of **MBTA Commuter Rail Lines and Stations** information.

The lines and branches in the arc layer represent the most current name for the rail line while the route feature class has more names for same line. One line may be named differently and have different beginning and ending points because of historic changes or because of passenger operations and freight operations on the line. The route system contains routes based on several sources. The route source item identifies its source. The karr_rt is the numbering system depicted in "The Rail Lines of Southern New England" by Ronald Karr. The 189 routes include the Amtrak Downeaster, Amtrak Northeast Corridor, the MBTA Commuter Rail lines, and others.

Segments of rail trails that are in the railroad right-of-way have been added. Track numbers were coded where track charts were available to delineate them.

The node layer contains station names and links to the Federal Railroad Administration's Crossing database (crossing), the National Bridge Inventory (bin, alt-bin) and MassHighway Road Inventory data layer (csn).

MassGIS received data from CTPS and converted the route and node layers directly to ArcSDE format. The arc feature class was dissolved on all fields to remove pseudo-nodes before being imported to SDE. MassGIS also performed some quality assurance on the data.

Maintenance

The Central Transportation Planning Staff will update the datalayer as needed and provide data files to MassGIS for distribution.

In the July 2014 release the SERV_TYPE and DES_HSPDC fields were added to TRAINS_ARC, the fields LINE_BRNCH and STATE were added to TRAINS_NODE, and the status of some Commuter Rail lines and stations were updated to reflect the latest MBTA map. In April 2015 the point for the Brockton Commuter Rail station was moved to its correct location.

Last Updated 4/29/2015

Items

 **Trains / Shapefile**
ESRI Shapefile with ArcGIS LYRs

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 **Trains / Online Map**
View this datalayer in an online map.

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Record Info

Contributor	MassGIS (Bureau of Geographic Information) (/massgis)
Modified Date	2017-12-09
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Author	MassGIS CTPS
Contact Name	MassGIS
Contact Email	massgismail@mass.gov (mailto:massgismail@mass.gov)
Public Access Level	Public
Data Quality	False
Content Type	Data (/content-type/data)
Language	English (United States)

Attributes:

The TRAINS_ARC attribute table includes the following fields:

Item Name	Width/Type	Description
TYPE	2 / I	Type of service. See TABLE 1 below
SOURCE	5 / C	See TABLE 2 below
COMMRAIL	1 / C	Commuter Rail status. See TABLE 3 below
OWNERSHIP	10 / C	See TABLE 4 below
FREIGHT_OP	10 / C	See TABLE 5 below
PASS_OP	11 / C	See TABLE 6 below
COMM_LINE	40 / C	Names of Commuter Rail lines. See TABLE 7 below
LINE_BRNCH	20 / C	Line branch
VALPLANNUM	6 / C	RR line no. & map no. ref.
VALPLANOWN	10 / C	See TABLE 8 below

TRACK	10 / I	Track no. in track chart
KARR_RT	6 / C	RR rt. in Karris book
YARD	30 / C	Name of rail yard
FREIGHT_ML	1 / C	B&M's Freight Mainline
STATE	2 / C	2-character U.S. state abbreviation
LINE_CODE	10 / I	Trk no. in "takings" doc
RAIL_TRL	25 / C	Rail trail-(rr row prt only)
SPUR	25 / C	Short side track connecting to main line
RT_CLASS	5 / I	Rapid Transit rail class. See TABLE 9 below
RT_LINE	20 / C	Abbreviated name for Rapid Transit line
RT_STATUS	1 / C	Status of Rapid Transit line (Y = active; P = proposed)
MAP_ONE	1 / C	Singles out one arc on multiple track lines for display purposes
DATE_ABAND	5 / I	Year line was abandoned
ASSET	10 / I	Name of tunnel (for Rapid Transit lines)
ASSET_ID	25 / C	ASSET identifier
SERV_TYPE	25 / C	Service type
DES_HSPDC	25 / C	Designated high speed rail corridor (indicated with a value of -1)

The **TRAINS_NODE** attribute table includes the following fields:

Item Name	Width/Type	Description
STATION	25 / C	Station name
C_RAILSTAT	1 / C	MBTA Commuter Rail station status (See TABLE 3 below)
AMTRAK	1 / C	AMTRAK station ("Y" if yes)
MAP_STA	1 / C	Singles out one station point ("Y") for display purposes
LINE_BRNCH	25 / C	Commuter Rail line or other line/branch name on which the station is located
STATE	25 / C	State in which the train station is located

The **TRAINS_RTE_TRAIN** route class attribute table includes the following fields:

Item Name	Width/Type	Description
COMM_LINE	30 / C	Name of MBTA Commuter line
COMMRAIL	1 / C	MBTA Commuter Rail line status (See TABLE 3 below)

The following tables detail code descriptions (for **TRAINS_ARC** unless otherwise specified):

TABLE 1 - TYPE

1	Active rail service
2	Multiple use i.e. active and recreation
3	Abandoned rail service
4	Abandoned rail service ROW in public ownership
5	Unknown status
6	Out of service
7	Right-of-way (ROW) used for hiking and biking
8	Other ROW (once used for trolleys, or never built or used for rail)
9	MBTA Rapid Transit

TABLE 2 - SOURCE

Visible indicates new 1:5000 scale line work received from MassGIS. These codes refer to the source of the attribute information. In addition to the coded sources, CTPS relied heavily on the University New Hampshire's website of scanned maps and the personal resources and expertise of CTPS staff person Tom Humphrey.

1890	1890 Topographical maps of Massachusetts (MA publisher).
1938	1938 General Highway Maps (MA DPW publisher).
BTS	Bureau of Transportation Statistics
CTPS	CTPS staff
KARR	"The Rail Lines of Southern New England" by Ronald Karr
MACOA	Massachusetts Coastal Railways
MBTA	Massachusetts Bay Transportation Authority
P&W	Providence and Worcester Railroad

vpmmap	Valuation Section Maps of 1917 of NY, NH, &H and Central NE Lines and 1970's Boston & Main Valuation Section Map.
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TABLE 3 - COMMRAIL (arcs) and C_RAILSTAT (nodes)

Y	Active MBTA Commuter Rail line or station
S	Seasonal Commuter Rail service (to Cape Cod in the summer, and to Gillette Stadium in Foxborough for special events)
P	Seriously proposed Commuter Rail line or station
C	Under construction

TABLE 4 - OWNERSHIP

AMTRAK	AMTRAK
BCLR	Bay Colony Railroad
COMM MA	Commonwealth of Massachusetts
CP	Canadian Pacific Railway
CSO	Connecticut Southern Railroad
CSX	CSX Transportation
CT STATE F	Connecticut
DCR	MA Department of Conservation and Recreation
DFG	MA Department of Fish and Game
EB&S	East Brookfield & Spencer Railroad
FEDERAL	United States Departments--DOD and Parks
G&U	Grafton & Upton
HOUSATONIC	Houstonic Railroad
LOCAL	City or town
MASS COASTAL	Massachusetts Coastal Railways
MASSPORT	Massachusetts Port Authority
MBTA	Massachusetts Bay Transportation Authority
MWRA	Massachusetts Water Resources Authority
MassDOT-HIGHWAY	Mass. Dept. of Transportation - Highway Division
MassDOT-RAIL	Mass. Dept. of Transportation - Rail & Transit Division
NECR	New England Central Railroad
P&W	Providence and Worcester Railroad
PANAM	Pan Am Railways
PAS	Pan Am Southern
PI	Private Industry
PRIVATE	Private owner
PV	Pioneer Valley Railroad
SEAVIEW TRANSPORTATION	Seaview Transportation Company
UTILITY	Utility
VC	Central Vermont

TABLE 5 - FREIGHT_OP (Freight Operation)

BCLR	Bay Colony Railroad (OoS indicates out of state)
CP	Canadian Pacific Railway
CSO	Connecticut Southern Railroad
CSX	CSX Transportation
EB&S	East Brookfield & Spencer Railroad
FLETCHER	Fletcher Granite Quarry
FORE	Fore River Railroad
G&U	Grafton & Upton Railroad
HOUSATONIC	Housatonic Railroad
KARR	Karr
MACOASTAL	Massachusetts Coastal Railways
MBTA	Massachusetts Bay Transportation Authority
MCR	Massachusetts Central Railroad
NECR	New England Central Railroad

P&W	Providence & Worcester Railroad
PANAM	Pan Am Railways
PAS	Pan Am Southern
PV	Pioneer Valley Railroad
SEAVIEW	Seaview Transportation Company

TABLE 6 - PASS_OP (Passenger Operation)

AMTRAK	AMTRAK
AMTRAK/MBTA	AMTRAK and MBTA operate on the line
BERK SCENIC	Recreational "dinner ride" in Berkshires
CC DN	Recreational "dinner ride" to Cape Cod
MBTA	Massachusetts Bay Transportation Authority

TABLE 7 - COMM_LINE (MBTA Commuter Rail Lines)

CFLYR	CapeFLYER Line
FAIR	Fairmount Line
FITCH	Fitchburg Line
fox	Foxboro (special events-only line)
FR	Fall River Line
FRANK	Franklin Line
GB	Greenbush Line
HAV	Haverhill/Reading Line
LOW	Lowell Line
MID-LAKE	Middleborough/Lakeville Line
NB	New Bedford Line
NEE	Needham Line
NEW-ROC	Newburyport/Rockport Line
OC	Old Colony Lines
PLY-KING	Plymouth/Kingston Line
PROV-STO	Providence/Stoughton Line
SC	South Coast Lines
WOR	Worcester Line

Lines that share the same track are separated with a +.

TABLE 8 - VALPLANOWN (Valuation Plan Owner at the time of 1917 valuation)

B&A	Boston & Albany
B&M	Boston & Maine
CHATHAM RR	Chatham Railroad
CV	Central Vermont
G&U	Grafton & Upton
HAMPDEN RR	Hampden Railroad
HT&W	Hoosac Tunnel & Wilmington
LRR	Lancaster Railroad
N&W	Norwich & Worcester
NYNH&H	New York, New Haven & Hartford
P&W	Providence & Worcester
SALEM & LA	Salem & Lawrence
SNE	Southern New England Railway
UNION FREI	Union Freight

TABLE 9 - RT_CLASS (MBTA Rapid Transit rail class)

1	Above Ground, Private ROW
2	Light Rail with Reservation in Street
3	Light Rail in Street with Traffic
4	Elevated
6	Open Cut
7	Underground Subway

