

## Express Bus Routes, New York NY, Nov 2018

### ISO 19139 metadata content

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### Resource Identification Information

#### CITATION

TITLE Express Bus Routes, New York NY, Nov 2018

PUBLICATION DATE 2018-11-30

EDITION nov2018

PRESENTATION FORMAT mapDigital

#### SERIES

NAME NYC Mass Transit Spatial Layers

#### RESPONSIBLE PARTY - POINTOFCONTACT

ORGANIZATION'S NAME Newman Library, Baruch CUNY

CONTACT'S POSITION Geospatial Data Librarian

#### CONTACT INFORMATION

##### ADDRESS

DELIVERY POINT 151 E 25th St Box H-0520

DELIVERY POINT Newman Library, Baruch CUNY

CITY New York

ADMINISTRATIVE AREA NY

POSTAL CODE 10010

COUNTRY UNITED STATES

THEMES OR CATEGORIES OF THE RESOURCE structure, transportation

#### PLACE KEYWORDS

KEYWORDS City of New York, 2395220, Borough of Bronx, 978756, Borough of Brooklyn, 978759, Borough of Manhattan, 979190, Borough of Queens, 979404, Borough of Staten Island, 979522

#### THESAURUS

TITLE Geographic Names Information Service (GNIS)

ALTERNATE TITLES ANSI INCITTS 446:2008

PUBLICATION DATE 2008-01-01

#### PLACE KEYWORDS

KEYWORDS Bronx County, 36005, Kings County, 36047, New York County, 36061, Queens County, 36081, Richmond County, 36085

THESAURUS

TITLE US Census ANSI/FIPS

ALTERNATE TITLES ANSI INCITTS 38:2009 (Formerly FIPS 5-2) & ANSI INCITTS 31:2009 (Formerly FIPS 6-4)

PUBLICATION DATE 2009-01-01

TEMPORAL KEYWORDS

KEYWORDS 2018

THEME KEYWORDS

KEYWORDS Buses, Local transit, Commuting, New York City Transit Authority, Transportation

THESAURUS

TITLE Library of Congress Subject Headings (LCSH)

PUBLICATION DATE 2015-02-17

DESCRIPTIVE KEYWORDS

KEYWORDS Downloadable Data

THESAURUS ArcIMS Metadata Service Content Types

ABSTRACT

This line layer was created from the GTFS data feeds from the Metropolitan Transportation Authority (MTA) to represent New York City express bus routes. Express busses are long-distance coaches that take passengers from areas of the outer boroughs to midtown and downtown Manhattan and back, with limited stops. A python script was written to take the data files as input, process them and save them as a spatial layer in the local state plane coordinate reference system. Lines in this layer represent individual bus routes over a roadway for a specific direction; they were generalized from the GTFS format where lines depicted individual services. The unique ID is route\_dir, which is a combination of the bus route id and its direction. This layer was created as part of the NYC Mass Transit Spatial Layers series, and is updated biannually to account for changes in the transit system.

PURPOSE

This dataset is intended for researchers, policy makers, students, and educators for basic geographic analysis and mapping purposes. It was created by the GIS Lab at the Newman Library at Baruch College CUNY as part of the NYC Mass Transit Spatial Layers series, so that members of the public could have access to well-documented and readily-usable GIS layers of NYC mass transit features.

DATASET LANGUAGE English

DATASET CHARACTER SET utf8

STATUS completed

MAINTENANCE

UPDATE FREQUENCY biannually

RESOURCE CONSTRAINTS

CONSTRAINTS

LIMITATIONS OF USE

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RESOURCE CONSTRAINTS

LEGAL CONSTRAINTS

ACCESS CONSTRAINTS licenseUnrestricted

USE CONSTRAINTS license

SPATIAL REPRESENTATION TYPE vector

PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.4.1.5686

EXTENT

EXTENT DESCRIPTION

City of New York

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT CONTAINS THE RESOURCE true

WEST LONGITUDE -74.040963

EAST LONGITUDE -73.779182

NORTH LATITUDE 40.762565

SOUTH LATITUDE 40.572425

TEMPORAL EXTENT

BEGINNING DATE 2018-10-18 00:00:00

ENDING DATE

INDETERMINATE TIME unknown

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT CONTAINS THE RESOURCE true

WEST LONGITUDE -74.253964

EAST LONGITUDE -73.70054

NORTH LATITUDE 40.933765

SOUTH LATITUDE 40.502762

SUPPLEMENTAL INFORMATION

The direction of a bus route is indicated with a 0 (which means that the bus runs either northbound or eastbound) or a 1 (the bus runs either southbound or westbound). Express busses are long-distance express services that make minimal stops. For buses bound for midtown or downtown Manhattan, riders can only board the bus at the outer borough stops (no one may disembark) and may only disembark at Manhattan stops (no one may board). The inverse is true for outer borough-bound buses. The mid-section of each route is express, and no stops are made.

POINT OF CONTACT - POINTOFCONTACT

ORGANIZATION'S NAME Newman Library, Baruch CUNY

CONTACT'S POSITION Geospatial Data Librarian

#### CONTACT INFORMATION

##### ADDRESS

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## Spatial Representation - Vector

LEVEL OF TOPOLOGY FOR THIS DATASET geometryOnly

##### GEOMETRIC OBJECTS

OBJECT TYPE composite  
OBJECT COUNT 150

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## Reference System Information

REFERENCE SYSTEM IDENTIFIER

VALUE 2263

CODESPACE EPSG

VERSION 10.2

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## Data Quality Information

SCOPE OF QUALITY INFORMATION

RESOURCE LEVEL dataset

##### LINEAGE

###### LINEAGE STATEMENT

This line layer was created using the data feeds from the Metropolitan Transportation Authority (MTA). The MTA provides text files that contain route information in a General Transit Feed Specification (GTFS) format, and are geographically referenced so they are able to be plotted. Python scripts were written to take the text files for each New York City borough as input, process them and create a single spatial layer for the entire New York City. The text files used for geometry creation are 'shapes.txt' and they provide geographically referenced data for the routes in the form of points. The script creates geometry object out of the individual points provided for the route, and then creates a line geometry object out of the points grouped by the common id of the segment that they belong to. Then it joins created geometry object with data from text files, 'trips.txt' and 'routes.txt', which contain additional relevant information provided by the MTA. Based on common attribute, individual bus services for different times and days of the week, are dissolved to create lines that represented an individual bus route that travels in one direction. Local routes are separated from express routes based on the naming convention pattern of the route id. Attribute columns that are blank, redundant, or that represent information that is only relevant to specific services and not to individual routes

are removed and layers for each borough are merged into a single layer. The final layer is reprojected from NAD 83 to NY State Plane Long Island in feet and saved in a shapefile format. The unique ID is route\_dir, which is a combination of the bus route id and its direction. This layer was created as part of the NYC Mass Transit Spatial Layers series, and is updated biannually to account for changes in the transit system.

SOURCE DATA

LEVEL OF THE SOURCE DATA Metropolitan Transportation Authority

SOURCE CITATION

TITLE MTA NYC Transit Shapes, Trips and Routes Files

PUBLICATION DATE 2018-10-18

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## Distribution Information

DISTRIBUTOR

DISTRIBUTOR INFORMATION - POINTOFCONTACT

ORGANIZATION'S NAME Newman Library, Baruch CUNY

CONTACT'S POSITION Geospatial Data Librarian

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ADDRESS

DELIVERY POINT Newman Library, Baruch CUNY

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FORMAT

NAME Shapefile

VERSION

NIL REASON missing

TRANSFER OPTIONS

TRANSFER SIZE 0.126

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## Metadata Information

LAST UPDATE 2018-11-30

MAINTENANCE

UPDATE FREQUENCY biannually

MAINTENANCE NOTES This metadata record was updated by Frank Donnelly in November 2018.

METADATA CONSTRAINTS

CONSTRAINTS

LIMITATIONS OF USE

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METADATA CONSTRAINTS

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ACCESS CONSTRAINTS licenseUnrestricted

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SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset

METADATA LANGUAGE English

METADATA CHARACTER SET utf8

NAME OF THE METADATA STANDARD USED NAP - Metadata

VERSION OF THE METADATA STANDARD 1.2

METADATA IDENTIFIER 981EB9BA-66EF-46CD-94EA-D55BCB67C679

URI OF THE DATA DESCRIBED BY THE METADATA

<https://www.baruch.cuny.edu/confluence/display/geoportal/NYC+Mass+Transit+Spatial+Layers>

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