

## **README for “National Highway Planning Network 1996-Present” dataset.**

U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA); Bureau of  
Transportation Statistics (BTS) [distributor]

2021-03-22

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### **LINKS TO DATASET**

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A. Dataset archive link:

<https://doi.org/10.21949/1520802>

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### **SUMMARY OF DATASET**

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The National Highway Planning Network (NHPN) 1996-Present dataset is from the Federal Highway Administration (FHWA), Office of Planning, and part of the U.S. Department of Transportation (USDOT)/Bureau of Transportation Statistics' (BTS') National Transportation Atlas Database (NTAD). This dataset is a comprehensive network database of the nation's major highway system. It consists of the nation's highways comprised of Rural Arterials, Urban Principal Arterials and all National Highway System routes. The data set covers the 48 contiguous States plus the District of Columbia, Alaska, Hawaii, and Puerto Rico. The nominal scale of the data set is 1:100,000 with a maximal positional error of 80 meters.

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### **TABLE OF CONTENTS**

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- A. General Information
- B. Sharing/Access & Policies Information
- C. Data and Related File Overview
- D. Methodological Information
- E. Data-Specific Information for: National Highway Planning Network (NHPN) 1996-Present [datasets]
- F. Update Log

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## A. GENERAL INFORMATION

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0. Title of Dataset:

National Highway Planning Network (NHPN) 1996-Present [datasets]

1. Description of Dataset:

The National Highway Planning Network (NHPN) 1996-Present dataset is as from the Federal Highway Administration (FHWA), Office of Planning, and part of the U.S. Department of Transportation (USDOT)/Bureau of Transportation Statistics' (BTS)' National Transportation Atlas Database (NTAD). This dataset is a comprehensive network database of the nation's major highway system. It consists of the nation's highways comprised of Rural Arterials, Urban Principal Arterials and all National Highway System routes. The data set covers the 48 contiguous States plus the District of Columbia, Alaska, Hawaii, and Puerto Rico. The nominal scale of the data set is 1:100,000 with a maximal positional error of 80 meters.

2. Dataset archive link:

<https://doi.org/10.21949/1520802>

3. Authorship Information:

Principal Data Creator or Data Manager Contact Information

Institution: U.S. Department of Transportation, Federal Highway Administration (FHWA)

Address: 1200 New Jersey Ave SE, Washington D.C. 20590

Email: [ExecSecretariat.FHWA@dot.gov](mailto:ExecSecretariat.FHWA@dot.gov)

Data Distributor Contact Information

Name: National Transportation Atlas Database (NTAD)

Institution: U.S. Department of Transportation, Bureau of Transportation Statistics (BTS), The Office of Spatial Analysis and Visualization (OSAV)

Address: 1200 New Jersey Ave. SE, Washington D.C. 20590

Email: [ntad@dot.gov](mailto:ntad@dot.gov)

4. Date of data collection and update interval:

As needed

5. Geographic location of data collection:

The data set covers the 48 contiguous States plus the District of Columbia, Alaska, Hawaii, and Puerto Rico.

6. Information about funding sources that supported the collection of the data:

U.S. Department of Transportation, Federal Highway Administration (FHWA)

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## B. SHARING/ACCESS & POLICIES INFORMATION

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0. Recommended citation for the data:

U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA); Bureau of Transportation Statistics (BTS)[distributor]. (2020). National Highway Planning Network (NHPN) 1996-Present [datasets]. <https://doi.org/10.21949/1520802>

1. Licenses/restrictions placed on the data:

These data are in the Public Domain.

2. Was data derived from another source?:

No.

3. This dataset and its documentation was created and shared to meet the requirements enumerated in the U.S. Federally-Funded Scientific Research" Version 1.1 << <https://doi.org/10.21949/1520559> >> and guidelines suggested by the DOT Public Access website << <https://doi.org/10.21949/1503647> >>, in effect and current as of December 03, 2020.

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## C. DATA & RELATED FILE OVERVIEW

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### 1. File List for the bts\_NTAD\_NHPN\_Data\_Package.zip collection

#### A. Filename:

nHPN\_XXXX.zip

#### Short description:

Compressed file folders containing the geospatial data for National Highway Planning Network (NHPN) 1996-Present dataset.

#### B. Filename:

bts\_NHPN\_DMP\_20210322.pdf

#### Short description:

A PDF file containing the Data Management Plan that was created for current and future management of the data and associated files.

#### C. Filename:

bts\_NHPN\_20210322\_README.txt

#### Short description:

The README.txt file that includes human-readable information about the data, variable definitions, contact information, and other contextual information. The file you are reading now.

### 2. File List for the NHPN\_XXXX.zip collection

#### A. Filename:

nHPN.shp

#### Short description:

A shapefile containing the geospatial data for National Highway Planning Network (NHPN) 1996-Present dataset. This includes associated files with extensions .prj, .dbf, .sbn, .sbx, .shx.

#### B. Filename:

nHPN.txt

#### Short description:

A text file containing key metadata and documentation information such as methodology, procedures, data dictionary, etc.

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## **D. METHODOLOGICAL INFORMATION**

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### 1. Description of methods used for collection/generation of data:

The National Highway Planning Network (NHPN) 1996-Present was created by building the Node-Link Geometry for conflation. Steps include splitting line at intersection using ArcGIS planarize tool, creating node point features for the intersections, removing uncommon points in overpass/underpass. Conflation of NHPN is based on HPMS. Attribute is then conflated. Dual carriage treatments convert dual carriage from HPMS to a centerline. Simplify features using custom built ArcGIS tool. Mile marker calibration and line direction fix using custom built ArcGIS tool that takes into account the connectivity of adjacent links and the shape lengths. Dangling errors fix for overshoot and undershoot errors. Connectivity errors fix for overshoot and undershoot errors. Edge matching to connect interstates and other appropriate links from adjacent states. Topology validations to remove overlap errors. Record ID assignments using computer program to ensure unique ID assignment and to keep a connection to previous version of NHPN.

### 2. Instrument- or software-specific information needed to interpret the data:

The data and documentation files can be opened with Esri ArcMap and any GIS software package.

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## **E. DATA-SPECIFIC INFORMATION**

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### 1. XXXXXX data table

Data is updated as needed. Dataset Manager is contacted to verify changes to data resulting in NTAD update. The metadata is updated in the same manner. For the most recent data, please visit the NTAD catalog at <https://data-usdot.opendata.arcgis.com/>

#### A. Number of variables (columns):

The data dictionary found in (PDF documentation) provides definitions for the variables

#### B. Data Dictionary/Variable List:

Because of the large number of variables, please refer to the Data Dictionary found within the file nhpn.txt for names, definitions, and formats of variables.

#### C. Missing data codes:

None

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## F. UPDATE LOG

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This bts\_NHPN\_20210322\_README.txt file was originally created on 2021-03-22 by Dominic Menegus, Geographer, dominic.menegus@dot.gov

[Note changes or update to the readme.txt file, e.g.:]

2021-03-22: Original file created