Federal Highway Administration

[Docket No. FHWA-2020-0010]

Re-Designation of the Primary Highway Freight System (PHFS)

AGENCY: Federal Highway Administration (FHWA), Department of Transportation (DOT).

ACTION: Notice; Request for information (RFI).

SUMMARY: The FHWA is re-designating the PHFS to meet the statutory requirements of the authorizing law. The Fixing America's Surface Transportation (FAST) Act designated the PHFS and provided for an update to the PHFS every 5 years. Beginning five years after the date of the enactment of the FAST Act, and every 5 years thereafter, using the designation factors described in FAST Act, the FHWA Administrator shall re-designate the primary highway freight system. Each re-designation may increase the mileage on the PHFS by not more than 3 percent of the total mileage of the system. The current PHFS consists of 41,518 centerline miles of roadway and is a component of the National Highway Freight Network (NHFN). The re-designation initiated through this RFI may add up to 1,246 miles of additional mileage to the current PHFS. State Freight Advisory Committees, represented by their States, are invited to submit comments.

Other entities are encouraged to engage directly with their State Freight Advisory Committee or the State department of transportation (State DOT). Comments submitted by entities other than a State Freight Advisory Committee will be considered for general input into the process.

DATES: Comments must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Late comments will be considered to the extent practicable.
ADDRESSES: Interested parties are invited to submit comments identified by DOT Docket ID FHWA-2020-0010 by any of the following methods:

    Web Site: For access to the docket to read background documents or comments received, go to the Federal eRulemaking Portal: http://www.regulations.gov. Follow the online instructions for submitting comments.

    Fax: 1-202-493-2251.

    Mail: Docket Management Facility, U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, S.E., Washington, DC  20590.

    Hand Delivery or Courier: U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue S.E., Washington, DC  20590, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Questions may be addressed to Birat Pandey, birat.pandey@dot.gov, 202-366-2842, Office of Freight Management & Operations (HOFM-1), Office of Operations, FHWA, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., Washington, DC  20590. Office hours are from 7:30 a.m. to 4:00 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Background:

Congress established a National Highway Freight Program (NHFP) in 23 U.S.C. 167 to improve the efficient movement of freight on the NHFN and support several goals. The NHFP required the FHWA Administrator to establish a NHFN to strategically direct Federal resources and policies toward improved performance of the network. The definition of the NHFN is established under 23 U.S.C. 167(c) and consists of four separate highway network components: the PHFS; Critical Rural Freight Corridors (CRFCs); Critical Urban Freight Corridors (CUFCs); and those portions of the Interstate
System that are not part of the PHFS. The initial designation of the PHFS was identified during the designation process for the primary freight network under section 23 U.S.C. 167(d), as in effect on the day before the date of enactment of the FAST Act.

The FHWA Administrator is required to re-designate the PHFS every 5 years. Each re-designation is limited to a maximum 3 percent increase in total mileage of the system per 23 U.S.C. 167(d)(2)(B).

**PHFS:**

Congress established the PHFS as a network of highways intended to reflect the most critical highway portions of the U.S. freight transportation system, determined by measurable and objective national data. The network consists of 41,518 centerline miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads. Maps and tables exhibiting roads currently included in the PHFS of the NHFN are available by State here: https://ops.fhwa.dot.gov/freight/infrastructure/ismt/nhfn_states_list.htm.

**PHFS and Use of NHFP Funds:**

Congress established a NHFP in 23 U.S.C. 167 to improve the efficient movement of freight on the NHFN and support several goals. Additional details on the NHFP are available at: https://www.fhwa.dot.gov/fastact/factsheets/nhfpfs.cfm. A State shall obligate funds apportioned to the State under section 104(b)(5) to improve the movement of freight on the NHFN pursuant to 23 U.S.C. 167. A State with PHFS mileage of less than 2 percent of the national total PHFS mileage may obligate NHFP funds for projects on all portions of the NHFN. A State with PHFS mileage greater than or equal to 2 percent of the national PHFS total may use its NHFP funds for projects on the PHFS, CRFCs, and CUFCs.

**PHFS and Use of INFRA Grants:**
Congress established 23 U.S.C. 117, the Nationally Significant Freight and Highway Projects program, currently known as Infrastructure for Rebuilding America (INFRA). This discretionary grant program provides Federal financial assistance to highway and freight projects of national or regional significance. Eligibility for INFRA grant funding for highway projects is limited to those existing or planned roads that are or will become part of the NHFN or the National Highway System (NHS). Additional details on INFRA Grants are available at:
https://www.transportation.gov/buildamerica/infragrants.

Progression of PHFS:

Section 1116 of the FAST Act (Pub. L. No. 114-94) repealed both the Primary Freight Network (PFN) and National Freight Network from Moving Ahead for Progress in the 21st Century Act (MAP-21), and directed the FHWA Administrator to establish an NHFN to strategically direct Federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system.

The initial creation of the PHFS occurred during the designation process for the MAP-21 highway-only PFN under 23 U.S.C. 167(d). The MAP-21 limited the highway PFN to not more than 27,000 centerline miles of existing roadways that are most critical to the movement of freight. In addition, MAP-21 allowed an additional 3,000 centerline miles (existing or planned roads) critical to the future efficient movement of goods on the highway PFN. The MAP-21 instructed DOT to base the highway-only PFN on an inventory of national freight volumes conducted by the FHWA Administrator, in consultation with stakeholders, including system users, transport providers, and States. The FHWA released a larger “Comprehensive PFN” of 41,518 miles for consideration, to accompany the designation of the PFN. This Comprehensive PFN was used by Congress to establish the PHFS, and the PFN was sunset. Information on the methodology and
Methodology Used for the Designation of the Highway PFN:

The FHWA developed the following methodology for generating a network that could include as many of the MAP-21 criteria as practicable. The FHWA undertook extensive research and numerous approaches to better understand and model the criteria. This research informed the finding that compliance with the mileage cap yields a network that does not sufficiently accommodate the full set of criteria. To comply with the mileage cap while still accommodating the statutory criteria, FHWA developed a methodology that prioritized the application of the criteria and set thresholds within the data sets. The FHWA used the following methodology to develop the highway-only PFN:

(1) Used the Freight Analysis Framework (FAF) and Highway Performance Monitoring System (HPMS) data sets to generate the top 20,000 miles of road segments that qualified in at least two of the following four factors: Value of freight moved by highway; tonnage of freight moved by highway; Average Annual Daily Truck Traffic (AADTT) on principal arterials; and percentage of AADTT in the annual average daily traffic on principal arterials.

(2) Analyzed the segments identified in Step 1 and gaps between segments for network connectivity. Created the network by connecting segments if the gap between segments was equal to or less than 440 miles (440 miles being the distance a truck could reasonably travel in 1 day). Eliminated a segment if it was less than one-tenth of the length of the nearest qualifying segment on the highway-only PFN.

(3) Identified land ports of entry with truck traffic higher than 75,000 trucks per year. Connected these land ports of entry to the network created in Steps 1 and 2.
(4) Identified the NHS Freight Intermodal Connectors within urban areas with a population of 200,000 or more.\textsuperscript{1} The NHS Freight Intermodal Connectors included any connectors categorized as connecting to a freight rail terminal, port, river terminal, or pipeline. In addition, these NHS Freight Intermodal Connectors included routes to the top 50 airports by landed weight of all cargo operations (representing 89 percent of the landed weight of all cargo operations in the United States). Connected the NHS Freight Intermodal Connectors back to the network created in Steps 1 and 2 along the route with the highest AADTT using HPMS data.

(5) Identified road segments within urban areas with a population of 200,000 or more that have an AADTT of 8,500 trucks/day or more. Connected segments to the network established in Steps 1 and 2 if they were equal to or greater than one-tenth of the length of the nearest qualifying segment on the highway-only PFN. Removed segments not meeting this rule as they were more likely to represent discrete local truck movement unrelated to the national system.

(6) Analyzed the network to determine the relationship to population centers, origins and destinations, ports, river terminals, airports, and rail yards and added minor network connectivity adjustments.

(7) Analyzed the road systems in Alaska, Hawaii, and Puerto Rico using HPMS data. These routes would not otherwise qualify under a connected network model but play a critical role in the movement of products from the agriculture and energy sectors, as well as international import/export functions for their States and urban areas and added roads connecting key ports to population centers.

(8) Analyzed the network to determine the relationship to energy exploration, development, installation, or production areas. Since the data points for the energy sector

\textsuperscript{1} The Census defined urban areas (UZA) were used rather than the adjusted UZAs since these were not available at the time of the analysis.
are scattered around the United States, often in rural areas, and because some of the related freight may move by barge or other maritime vessel, rail, or even pipeline, FHWA did not presume a truck freight correlation.

(9) Steps 1 through 8 resulted in a network of 41,518 centerline miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads. In order to obtain the 27,000 centerline miles, FHWA identified those connected segments with the highest AADTT. These road segments represented on the final highway-only PFN map comprise 26,966 miles of centerline roads.

Criteria for PHFS Re-Designation:

In re-designating the PHFS, to the maximum extent practicable the FHWA Administrator must use measurable data to assess the significance of goods movement, including consideration of points of origin, destinations, and linking components of the United States global and domestic supply chains. 23 U.S.C. 167(d)(2)(C). In re-designating the PHFS, the Administrator shall provide an opportunity for State freight advisory committees, as applicable, to submit additional miles for consideration. 23 U.S.C. 167(d)(2)(D). In re-designating the PHFS the Administrator shall consider the factors outlined in 23 U.S.C. 167(d)(2)(E). Those factors include: changes in the origins and destinations of U.S. freight movement; changes in the percentage of annual daily truck traffic on principal arterials; changes in the location of key facilities; land and water ports of entry; access to energy exploration, development, installation, or production areas; access to other freight intermodal facilities, including rail, air, water, and pipeline facilities; the total freight tonnage and value moved on highways; significant freight bottlenecks; the significance of goods movement on principal arterials, including

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2 The 2011 HPMS database and the current FAF database differ in the delineation and exact geo-location of the NHS. This may result in 1-2 percent plus or minus variation on the total mileage because the mileage is based on the geospatial network and actual mileage reported by States may vary due to vertical and horizontal curves that are not always accurate in the geographic information system databases.
consideration of global and domestic supply chains; critical emerging freight corridors and critical commerce corridors; and network connectivity. 23 U.S.C. 167(d)(2)(E).

*Preliminary Analysis for PHFS Re-Designation:*

As calculated according to the statutory allowance, this re-designation may include up to 1,246 miles of additional PHFS mileage. The FHWA does not recommend removing previously designated routes from the PHFS unless they are no longer eligible for use by trucks. The rationale for retaining the existing routes is to ensure continued alignment with the State Freight Plans completed by all States and the District of Columbia pursuant to 49 U.S.C. 70202, which were based in part on the existing PHFS network and funding eligibilities of PHFS routes. Consideration for re-designation, therefore, focuses on technical corrections and the assignment of the additional 1,246 miles.

An assessment of changes in HPMS\(^3\) data for the PHFS resulted in an increase of approximately 286 centerline miles from years 2012 to 2017. The FHWA proposes to add these miles to improve the accuracy of the network. This addition reduces the miles available for the re-designation, leaving 960 miles for consideration. Several options for designating these 960 miles have been considered.

One option would be to provide an equal allocation of these 960 miles to each State; however, this would yield only 18 miles of potential new PHFS for each State, the District of Columbia, and Puerto Rico. This additional mileage might be useful for CUFC or CRFC designation but may be too short to yield meaningful additions when one of the core features of the existing PHFS is that the components comprise a connected network – one of the statutory criteria for consideration.

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\(^3\) The HPMS is a national-level highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the Nation's highways.
Another potential option would be to accommodate States that have greater restrictions on the use of Interstate Highway System routes to gain eligibility for funding under the NHFP and INFRA. Currently, there are 18 States (AK, AZ, CA, FL, GA, IL, IN, MO, MT, NM, NY, NC, OH, PA, TN, TX, UT, VA) with PHFS mileage greater than or equal to 2 percent of the total PHFS mileage in all States. These States may obligate funds for projects on the PHFS, the CRFCs, and the CUFCs. Remaining States with the PHFS mileage of less than 2 percent may obligate funds for projects on all portions of the NHFN, including any portion of the Interstate Highway System in that State. Equal allocation of 960 miles of PHFS to these 18 high-mileage States would result in 53 miles of new PHFS for these States.

A third option for consideration would be to add to the PHFS any routes newly flagged as Interstate Highway System since the development of the Comprehensive PFN (built in 2015 from 2011 data). That concept, however, would not fit within the constraints of the 1,246 miles available, as 1,500 miles of new Interstate have been designated between 2011 and 2018.

This network is intended to provide the foundation for the United States’ domestic supply chain and global economic competitiveness. Road projects using NHFP funds must be located on the NHFN (which includes the PHFS). The routing of freight is not static, however, and it changes in response to the factors previously listed. In light of this, the network of routes with eligibility for investment should include components that support flexibility and resilience in the freight system.

State Freight Plans provide insight into the impact of 23 U.S.C. 167(d)(2)(E), and future freight system needs. States with a State Freight Advisory Committee (SFAC) have insights into the planning, investment, and operations priorities for the public and private sector. For this reason and in response to the statutory requirement, FHWA is
particularly interested in the input of SFACs regarding the routes to be considered in this re-designation.

*Data Submission Criteria for Modification to PHFS Re-Designation:*

The FHWA seeks comments from interested parties, and in particular from SFACs, on suggestions for the PHFS re-designation, including comments on the potential options identified above. A State submitting routes or feedback for consideration in the PHFS re-designation should provide a letter of support from or on behalf of their SFAC. States that have not yet convened a SFAC could do so for the purpose of responding to this RFI.


Submissions should specifically address at least one of the statutory criteria of 23 U.S.C. 167(d)(2)(E) as justification for inclusion, data to support the justification, and the mileage needed to address the requirement. Any additions or deletions proposed for PHFS re-designation regarding a specific roadway facility should include location details and roadway attribute data of the proposed segments for updating the existing PHFS geospatial network. Maps and tables showing roads currently included in the PHFS of the NHFN are available by State at: https://ops.fhwa.dot.gov/freight/infrastructure/ismt/nhfn_states_list.htm. Roadway facility specific data should be submitted using either of the options listed below:

Option 1: Tabulate proposed PHFS changes by including roadway specific information listed on Table 1 as a part of comments to this RFI through Federal Register comments procedures listed above in Addresses section (Web site, hand delivered, or courier); or
Option 2: Upload geospatial data of proposed PHFS changes utilizing the State’s linear referenced network data set consistent with spatial route information in HPMS 2018 with attributes listed in Table 2.

The FHWA encourages respondents to provide only that portion of geospatial data needed to identify proposed PHFS changes compatible with the State’s linear referenced network data set submitted as the spatial route information in HPMS 2018 8.0 software. The FHWA will receive geospatial data only through FHWA Secure Large File Transfer Service (SLFTS). Please contact Birat Pandey (birat.pandey@dot.gov) to request access to the SLFTS. Further details on HPMS can be found in the HPMS Field Manual at https://www.fhwa.dot.gov/policyinformation/hpms.cfm.

Table 1: Roadway Attributes for PHFS Consideration for Data Submission Option 1

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<tr>
<th>Attribute</th>
<th>Attribute Type</th>
<th>Attribute Definition</th>
<th>Attribute Code</th>
<th>Remarks</th>
<th>Data Type</th>
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<td>Type of Changes Proposed to Roadway</td>
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### HPMS Functional System

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<th>HPMS Functional System</th>
<th>1 = Interstate</th>
<th>2 = Principal Arterial – Other Freeways and Expressways</th>
<th>3 = Principal Arterial – Other</th>
<th>4 = Minor Arterial</th>
<th>5 = Major Collector</th>
<th>6 = Minor Collector</th>
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<td>4 = Non-Mainline.</td>
<td>5 = Non-Inventory Direction.</td>
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</table>

Table 2: Roadway Attributes for PHFS Consideration for Data Submission Option 2
Respondents are requested to provide a narrative description of how the proposed changes support goods movement by addressing applicable re-designation factors as found in 23 U.S.C. 167(d)(2)(E).

Other entities wishing to provide comment are encouraged to engage with a State Freight Advisory Committee. Comments submitted by entities separate from the input of a State Freight Advisory Committee will be considered for general input into the process.

Authority: 23 U.S.C. 167(d)

Stephanie Pollack,
Acting Administrator,
Federal Highway Administration.
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