DEPARTMENT OF TRANSPORTATION **[4910-22-P]**

Federal Highway Administration

[Docket No. FHWA-2013-0050]

Designation of the Primary Freight Network

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice; Request for comments.

SUMMARY: This notice publishes the draft initial designation of the highway Primary Freight Network (PFN), which is established by the Secretary of Transportation as required by 23 U.S.C. 167(d), and provides information about designation of Critical Rural Freight Corridors (CRFC), which are designated by the States, and establishment of the National Freight Network (NFN), which combines the two, along with the portions of the Interstate System not designated as part of the highway PFN. This notice also solicits comments on the draft initial designation of the highway PFN and other critical aspects of the NFN. A notice published in the Federal Register on February 6, 2013 (78 FR 8686), introduced the process for designation of the highway PFN, NFN, and CRFCs.

DATES: Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: To ensure that you do not duplicate your docket submissions, please submit them by only one of the following means:

- Federal eRulemaking Portal: Go to http://www.regulations.gov and follow the online instructions for submitting comments.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200

New Jersey Ave., SE., W12-140, Washington, DC 20590-0001.

- Hand Delivery: West Building Ground Floor, Room W12-140, 1200 New Jersey Ave., SE., between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is (202) 366-9329.
- Instructions: You must include the agency name and docket number at the beginning of your comments. All comments received will be posted without change to http://www.regulations.gov, including any personal information provided.

FOR FURTHER INFORMATION CONTACT: For questions about this program, contact Ed Strocko, FHWA Office of Freight Management and Operations, (202) 366–2997, or by email at Ed.Strocko@dot.gov. For legal questions, please contact Michael Harkins, FHWA Office of the Chief Counsel, (202) 366–4928, or by email at Michael.Harkins@dot.gov. Business hours for the FHWA are from 8:00 a.m. to 4:30 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access

You may retrieve a copy of the notice through the Federal eRulemaking portal at: *http://www.regulations.gov*. The Web site is available 24 hours each day, every day of the year. Electronic submission and retrieval help and guidelines are available under the help section of the Web site. An electronic copy of this document may also be downloaded from Office of the Federal Register's home page at: *http://www.archives.gov/federal_register* and the Government Printing Office's Web page at: *http://www.gpoaccess.gov*.

Background

Section 167(c) of title 23 United States Code (U.S.C.), created by Section 1115 of the Moving Ahead for Progress in the 21st Century Act (MAP–21), directs the Secretary to establish a NFN to assist States in strategically directing resources toward improved system performance for efficient movement of freight on the highway portion of the Nation's freight transportation system, including the National Highway System (NHS), freight intermodal connectors, and aerotropolis transportation systems. The U.S. Department of Transportation (DOT) approaches this with a full understanding that with regard to surface freight transportation, significant tonnage moves over rail, water, and pipeline networks and that this highway PFN designation does not fully reflect those aspects of the U.S. freight system.

Under 23 U.S.C. 167(c), the NFN will consist of three components: the highway PFN, the portions of the Interstate System not designated as part of the highway PFN, and CRFCs, which are designated by the States.

Congress limited the highway PFN to not more than 27,000 centerline miles of existing roadways that are most critical to the movement of freight. Congress allowed an additional 3,000 centerline miles (that may include existing or planned roads) critical to the future efficient movement of goods on the highway PFN.

Congress instructed DOT to base the highway PFN on an inventory of national freight volume conducted by the FHWA Administrator, in consultation with stakeholders, including system users, transport providers, and States. Congress defined eight factors to consider in designating the highway PFN.

The eight factors are:

1. Origins and destinations of freight movement in the United States;
2. Total freight tonnage and value of freight moved by highways;
3. Percentage of annual average daily truck traffic in the annual average daily traffic on principal arterials;
4. Annual average daily truck traffic on principal arterials;
5. Land and maritime ports of entry;
6. Access to energy exploration, development, installation, or production areas;
7. Population centers; and
8. Network connectivity.

Purpose of the Notice

The purpose of this notice is to publish the draft initial designation of the highway PFN as required by 23 U.S.C. 167(d), provide information regarding State designation of CRFCs and the establishment of the complete NFN, and to solicit comments on aspects of the NFN. The five areas for comment are: (1) specific route deletions, additions, or modifications to the draft initial designation of the highway PFN contained in this notice; (2) the methodology for achieving a 27,000-mile final designation; (3) how the NFN and its components could be used by freight stakeholders in the future; (4) how the NFN may fit into a multimodal National Freight System; and (5) suggestions for an urban-area route designation process.

Limitations and Considerations for Primary Freight Network Development

The process of developing a highway PFN that reflects the criteria for consideration identified by Congress and which results in a network limited to only 27,000 centerline miles of roads is highly complex. After careful consideration, DOT

determined that the multitude of factors combined with the mileage cap does not yield a network that is representative of the most critical highway elements of national freight system that exists in the United States. For example, the effort to link qualifying segments to achieve a contiguous network, and to ensure sufficient connections to Mexico and Canada, requires the additional designation of thousands of miles. This reduces the number of miles left for qualifying segments and necessitates raising the qualifying threshold for level of volume, value, tonnage or other factors. In addition, DOT discovered the following challenges in designating the network required by MAP-21.

Application of the Primary Freight Network

The lack of a stated application for the highway PFN and NFN introduces uncertainty into the designation process. Without a better understanding of the goals for the highway PFN, it was challenging to weight the factors for designation relative to one another and to gauge whether the resulting network would meet future public planning and investment needs. Each individual criterion yields different network coverage when compared to the simulations for the other factors. For example, a map that shows the top roads by percentage of truck traffic and a map that shows the top roads by average annual daily truck traffic yields very different results. The aggregation of all these factors results in a map that is difficult to limit to 27,000 miles without some significant prioritization of the many factors and their cut-off points. With no clear optimal solution, additional input from stakeholders is critical to prioritizing the miles to achieve a 27,000-mile designation.

Centerline versus Corridor Approach

Limiting the highway PFN to 27,000 centerline miles, as required by 23 U.S.C. 167(d), excludes many freight-significant Interstate and NHS routes throughout the country. In 2008, DOT looked at the question of critical U.S. freight routes as part of the Freight Story 2008[1] report and developed a multimodal, corridor-based map. This approach allowed for the inclusion of more than one vital route in a congested region. By contrast, the statutory language in MAP-21 clearly directs DOT to use centerline roadway miles for the development of the NFN, which does not necessarily allow for the designation of multiple routes in a region that comprise an active and fluid highway freight system. The DOT suggests that corridor-level analysis and investment has the potential for widespread freight benefits, and can improve the performance and efficiency of the highway PFN.

Limitations of National Data

The data utilized for the development of the draft initial highway PFN comprises the best information available on freight behavior at a national level. Nevertheless, national data is not sufficient to understand fully the behavior of freight in smaller subsets of the Nation, to include goods movement in urban areas. Urban areas of 200,000 and above include a freight-generating population and in most cases, are the site of significant freight facilities where highway freight intersects with other modes – at rail yards, ports, and major airports. These "first and last mile" connections, which are also represented in rural areas, do not always show up well in data sets.

Lack of Consideration for Critical Urban Freight Routes in the National Freight Network

[1] Publication: FHWA-HOP-08-051, available at http://www.ops.fhwa.dot.gov/freight/freight_analysis/freight_story/index.htm.

The DOT recognizes that many highway freight bottlenecks and chokepoints are located in urban areas and at first and last mile connectors, making urban areas critical to the efficiency of domestic and international supply chains. Although Federal law provides a mechanism to enable connectivity to critical freight "last mile" origins and destinations in rural areas through CRFC designation, which are designated by the States, the NFN language in 23 U.S.C. 167(d) lacks a parallel process for designating critical urban freight routes to address the need for connectivity to urban areas. Urban area mileage may only be included in the NFN if it qualifies as a highway PFN route or if it is an Interstate System route. Given the lack of precision of national data at the urban level, DOT believes there is merit in establishing a process for local, regional, or State government entities to designate critical urban freight routes that are important for freight movement to, from, and through an urban area, but which were not apparent through analysis of the national-level data.

Using national data, DOT included in the highway PFN designation connectivity to urban areas over 200,000 in population with major freight transfer facilities. However, DOT recognizes that cities, Metropolitan Planning Organizations, and State Departments of Transportation (State DOTs) are best positioned to understand the complexities of freight movement in individual urban areas, including current freight movement patterns, and plans or projections for shifts in freight movement within the urban areas. The DOT strongly urges these agencies to act in partnership to reach out to freight facility owners and operators to: (1) review and provide comments to DOT on the inclusion of these and other facilities in the highway PFN; (2) consider inclusion of these facilities in State and Metropolitan Freight Plans; (3) provide comments and suggestions to DOT for a

metropolitan area process similar to the CRFC designation for critical urban freight routes; (4) undertake a metropolitan area process similar to the CRFC designation for critical urban freight routes; and (5) jointly identify for DOT more precise data that could be used in the identification of critical urban freight routes.

Process for Designating the Draft Initial Primary Freight Network

In undertaking the highway PFN analysis, DOT developed multiple scenarios to identify a network that represents the most critical highway portions of the United States freight system. The DOT welcomes comment on the following methodology.

Highway Primary Freight Network Data Sources

The draft initial highway PFN was informed by measurable and objective national data. In performing the analysis that led to development of the draft initial highway PFN, FHWA considered the following criteria and data sources, which are further described at the following Web locations:

Factor	**Data Source**
Origins/destinations of freight movements	FHWA Freight Analysis Framework (FAF) 3.4 http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/
Freight tonnage and value by highways	FAF 3.4 http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/
Percentage of Average Annual	FHWA Highway Performance Monitoring System

Daily Truck Traffic (AADTT) on principal arterials	(HPMS) 2011 AADTT http://www.fhwa.dot.gov/policyinformation/hpms.cfm
AADTT on principal arterials	HPMS 2011 AADTT http://www.fhwa.dot.gov/policyinformation/hpms.cfm
Land & maritime ports of entry	U.S. Department of Transportation Maritime Administration (MARAD) Containers by U.S Customs Ports http://www.marad.dot.gov/documents/Container_by_US_Customs_Ports.xls DOT Bureau of Transportation Statistics (BTS) Transborder data http://www.bts.gov/programs/international/transborder/TBDR_QuickSearch.html U.S. Army Corps, Navigation Data Center, special request, October 2012 via BTS
Airports	Federal Aviation Administration (FAA) CT 2011 Cargo Airports by Landed Weight http://www.faa.gov/airports/planning_capacity/pas

	senger_allcargo_stats/passenger/media/cy11_cargo.xlsx FAA Aeronautical Information Services – Airport Database in the National Transportation Atlas Database (NTAD) 2013 www.bts.gov/programs/geographic_information_services/
Access to energy exploration, development, installation or production areas	United States Energy Information Administration Data http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/maps/maps.htm#geodata Pennwell Mapsearch data via Pipeline and Hazardous Materials Safety Administration (PHMSA) http://www.mapsearch.com Pennwell Mapsearch data via PHMSA http://www.mapsearch.com Pennwell Mapsearch data via PHMSA http://www.mapsearch.com
Population centers	2010 Census http://www.census.gov/cgi-

	bin/geo/shapefiles2012/main
Network connectivity	FAF 3.4 http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/ FHWA National Highway Planning Network (NHPN) Version 11.09 http://www.fhwa.dot.gov/planning/processes/tools/nhpn/
National Highway System Freight Intermodal Connectors	FHWA National Highway System Intermodal Connectors http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/
Railroads	Federal Railroad Administration analysis of Rail Inc Centralized Station Master data https://www.railinc.com/rportal/29
Origin and destination pairs	FAF 3.4 http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/

The methodology employed by DOT in developing a draft initial highway PFN included the following steps:

(1) The Freight Analysis Framework (FAF) and Highway Performance Monitoring System (HPMS) data sets were engaged to yield the top 20,000 miles of road segments that qualify in two of the following four factors: value of freight moved by highway, tonnage of freight moved by highway, annual average daily truck traffic (AADTT) on principal arterials, and percentage of AADTT in the annual average daily traffic on principal arterials.

(2) Segments identified in Step #1 and gaps between segments were analyzed for network connectivity purposes. A network was created by connecting segments if the gap between segments was equal to or less than 440 miles (440 miles being the distance a truck could travel in 1 day). A segment was eliminated if it was less than one-tenth of the length of the nearest qualifying segment on the highway PFN.

(3) Land ports of entry with truck traffic higher than 75,000 trucks per year were identified. These land ports of entry were then connected to the network created in Steps #1 and #2.

(4) The NHS Freight Intermodal Connectors within urban areas with a population of 200,000 or more were identified.[2] The NHS Freight Intermodal Connectors included any connectors that had been categorized as connecting to a freight rail terminal, port, or pipeline. In addition, these NHS Freight Intermodal Connectors included routes to the top 50 airports by landed weight of all cargo operations. These 50 airports represent 89 percent of the landed weight of all cargo operations in the United States. The NHS

[2] Due to the timing of the highway PFN analysis DOT chose to use the Census defined urban areas (UZAs) rather than the adjusted UZAs that may be modified by states until June 2014.

Freight Intermodal Connectors were connected back to the network created in Steps #1 and #2 along the route with the highest AADTT using HPMS.

(5) Road segments within urban areas with a population of 200,000 or more that have an AADTT of 8,500 trucks/day or more were identified.[3] Segments were connected 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 PFN. Those segments not meeting this rule were removed as they were more likely to represent discrete local truck movement activity unrelated to the national system.

(6) The network was analyzed to determine the relationship to population centers, origins and destinations, maritime ports, airports, and rail yards. Minor network connectivity adjustments were incorporated into the network.

(7) The road systems in Alaska, Hawaii, and Puerto Rico, were analyzed 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. Roads connecting key ports to population centers were incorporated into the draft initial highway PFN.

(8) The network was analyzed to determine the relationship to energy exploration, development, installation, or production areas. Since the data points for the energy sector 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, DOT did not presume a truck freight correlation, electing instead to leave this to the expert

[3] Ibid.

consideration of States through the designation of the CRFCs or comments to the draft initial designation of the highway PFN.

Outcome

This methodology resulted in a comprehensive map of 41,518 centerline miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads.[4] Since the statute limits the highway PFN to 27,000 centerline miles, the DOT then identified those segments with the highest AADTT. These road segments represented on the draft highway PFN map comprise 26,966 miles of centerline roads that reflect consideration of the criteria offered by Congress. This draft highway PFN results in an unconnected network with major gaps in the system, including components of the global and domestic supply chains. The DOT acknowledges that this 27,000-mile highway PFN does not meet the statutory criterion for network connectivity and would appreciate feedback on the importance of designating a connected highway PFN compared to achieving the connectivity with the addition of the Interstate routes in the designation of the NFN. Furthermore, we offer the comprehensive 41,518-mile map to elicit suggestions as to how to proceed to a final designation of 27,000 miles.

The DOT notes that goods movement occurs in a very fluid environment and during the drafting of MAP-21, Congress did not have access to the latest data on freight movement. As a point of comparison, the DOT took the major freight corridors map that was originally developed for Freight Story 2008 and ran an analysis in the spring of 2013 to see how that map would look using current data. This effort was done internally as

[4] Commenters should note the 2011 HPMS database and the current FAF database differ in the delineation and exact geo-location of the NHS system. This may result in 1% - 2% plus/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 GIS databases. The DOT will look to integrate the 2011 HPMS database with the FAF database to reduce variation in future iterations.

part of the work to develop the highway PFN. The Freight Story 2008 map contained 27,500 miles of roads (26,000 miles based on truck data and parallel intermodal rail lines and 1,500 miles representing goods movement on parallel major bulk rail lines or waterways). Using the same methodology with 2011 HPMS and rail data, the mileage based solely on the truck and intermodal rail data grew to over 31,000 miles of roads, not including consideration of growth in other freight modes on parallel major bulk rail lines or waterways.

Additional Miles on the Primary Freight Network

The Secretary of Transportation, under Section 167 of title 23, U.S.C., may increase the highway PFN by up to 3,000 centerline miles above the 27,000-mile limit, to accommodate existing or planned roads critical to future efficient movement of goods on the highway PFN.

In the February 6, 2013, notice describing the planned process for the designation of the NFN, DOT outlined a process for determining facilities to be included in these additional 3,000 miles. The DOT indicated that in determining whether a route is critical to the future efficient movement of goods on the highway PFN, the Secretary will consider the factors identified for the designation of the highway PFN as well as one or more additional factors.

In the draft initial designation of the highway PFN, DOT focused on freight routes critical to the current movement of freight. The Department is aware of emerging freight routes that will be critical to the future efficient movement of goods and believes there is value in expanding the highway PFN in the future to reflect these routes as the Nation grows.

Draft Initial Primary Freight Network Designation

The DOT has posted the details of the draft initial highway PFN, including the 26,966-mile draft highway PFN map, the 41,518-mile comprehensive map, State maps and lists of designated routes, tables of mileage by State, and information regarding intermodal connectors and border crossings at: http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm.

As previously noted, the statute places a cap on the designation of the highway PFN at 27,000 centerline miles. The tables and maps on the above Web site show a 41,518 mile connected network that DOT would prefer to designate if it were not constrained to 27,000 miles by the statute. The 27,000-mile subset shown in the map is only one option of many that DOT could choose to designate as the highway PFN. The DOT seeks comments on the routes identified in the draft initial highway PFN of 26,966 miles, including the specific identification of roadways that freight partners and stakeholders believe should be included or removed. In submitting comments relating to the deletion, addition or modification of roadways included in this draft highway PFN, commenters should provide information that addresses how the roadway relates to the factors identified above and in 23 U.S.C. 167(d).

Further, DOT welcomes comments on the proposed approach and methodology to achieve a 27,000 mile network, considering such questions as: connectivity; the treatment of urban area mileage and the concept of a critical urban freight corridor process; inclusion of border crossings of a certain level of truck volume; corridor-level designation; the adequacy of the network to identify bottlenecks and other freight infrastructure or operational needs, and more.

Designation of Rural Freight Corridors

The designation of CRFCs by the States is described in 23 U.S.C. 167(e), and provides that a State may designate a road within the borders of the State as a CRFC if the road is a rural principal arterial roadway and has at least 25 percent of the AADTT of the road measured in passenger vehicle equivalent units from trucks (FHWA vehicle class 8 to 13); provides access to energy exploration, development, installation or production areas; or connects the highway PFN, a roadway described above, or the Interstate System to facilities that handle more than 50,000 20-foot equivalent units per year, or 500,000 tons per year of bulk commodities. The designation of CRFCs will be performed by State DOTs and provided to DOT after designation of the highway PFN is complete. Further guidance and technical assistance for identifying these corridors will be provided in the coming months. The FHWA will make an initial request of the States to identify CRFCs and will maintain route information for the rural freight corridors thereafter. There is no equivalent provision in the law for States to designate routes in urban areas.

National Freight Network Role

Freight in America travels over an extensive network of highways, railroads, waterways, pipelines, and airways: 985,000 miles of Federal-aid highways; 141,000 miles of railroads; 11,000 miles of inland waterways; and 1.6 million miles of pipelines. There are over 19,000 airports in the United States, with approximately 540 serving commercial operations, and over 5,000 coastal, Great Lakes, and inland waterway facilities moving cargo.

Section 167(c) of title 23, U.S.C., directs the Secretary to establish a NFN to assist States in strategically directing resources toward improved system performance for

efficient movement of freight on the highway portion of the Nation's freight transportation system. Nevertheless, while specific commodities are likely to be moved on a particular mode or series of modes, a complex multi-modal system is required to meet fully the growing volume of bulk and high-velocity, high-value goods in the United States.

The DOT seeks to develop a NFN to provide connectivity between and throughout the three elements that comprise the NFN (highway PFN, Remainder of the Interstate System, and CRFC). The DOT recognizes that as a highway-only network, the NFN is an incomplete representation of the system that is required to efficiently and effectively move freight in the United States. Consistent with the national freight policy in MAP-21, DOT's goal is to designate a highway PFN that will improve system performance, maximize freight efficiency, and be effectively integrated with the entire freight transportation system, including non-highway modes of freight transport.

The DOT seeks comments on how the NFN fits into a larger multimodal national freight system and how a multi-modal national freight system may be defined.

Use of the National Freight Network in the Future

In creating the NFN, Congress stated that a NFN shall be established to assist States in strategically directing resources toward improved system performance for efficient movement of freight on the highway portion of the Nation's freight transportation system. Congress specified that the highway PFN shall be comprised of not more than 27,000 miles of existing roadways that are most critical to the movement of freight.

The DOT is seeking comments as to how the designation of the NFN and highway PFN could be used by and benefit public and freight stakeholders. We also welcome comments regarding potential undesirable applications of the NFN and highway PFN. The DOT encourages widespread input to this proposed draft to provide a thorough examination of the diverse issues presented in this notice.

National Freight Network Designation

The following is the approximate schedule for designation of the NFN:

1. Initial designation of highway PFN – Fall 2013
2. Compilation of State-designated CRFC routes – Late 2013 – Early 2014
3. Release of the initial designation of the full NFN (including highway PFN, rest of the Interstate System, CRFCs) – 2014

Authority: 23 U.S.C. 167; Section 1115 of Pub. L. 112-141.

Issued on: November 8, 2013

Victor M. Mendez
FHWA Administrator

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