District Department of Transportation

2024 District Freight Plan

May 2024

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

The District of Columbia is the nation's capital, a compact city adjacent to Virginia and Maryland. With approximately 670,000 residents, 25,000 businesses, and 480,000 employees, the District serves as the center of the National Capital Region.[1] It covers 61 square miles, encompassing both the nation's federal hub as well as local community businesses and destinations.[2] The District's historic urban environment presents unique challenges and opportunities to effectively move freight through the District. The 2024 District Freight Plan is one part of the District's efforts to enhance residents' quality of life and economic competitiveness. The District Freight Plan provides a snapshot of the current freight landscape in the District and identifies near- and long-term freight activities and investments. As a prerequisite of the Infrastructure Investment and Jobs Act (IIJA) for a state/District to receive National Highway Freight Program Funding, the District Freight Plan must be updated every four years.

In 2014, the District Department of Transportation (DDOT) developed a freight plan in accordance with the Moving Ahead for Progress in the 21st Century Act (MAP-21) to become the foundation for integrating freight priority projects into the District's capital programming processes. In 2017, DDOT developed an addendum to incorporate the new Fixing America's Surface Transportation (FAST) Act requirements. Between 2019 and 2020, the Department provided updates to the plan to refine the investment plan.

The 2024 District Freight Plan modernizes previous iterations of the District Freight Plan, including the most recent 2023 Interim District Freight Plan. As the freight industry responded to the COVID-19 pandemic, the freight landscape quickly evolved and continues to respond to changing conditions. The 2023 Interim District Freight Plan met the IIJA requirements that were released in 2021 and provided updates on the progress and evolving priorities. While there are many similar aspects to DDOT's 2023 Interim District Freight Plan, the 2024 District Freight Plan adds data analysis of urban freight trends and a reassessment of those trends in the District as well as additional stakeholder engagement. The resulting plan sets forth an updated implementation and investment strategy that is aligned with District goals. A summary of the key updates from the 2023 Interim District Freight Plan in the 2024 District Freight Plan is in **Table 1** below.

[1] "U.S. Census Bureau Quickfacts: District of Columbia; Washington ..." US Census, 2021, www.census.gov/quickfacts/fact/table/DC,washingtoncitydistrictofcolumbia/PST045222.
[2] "U.S. Census Bureau Quickfacts: District of Columbia; Washington ..." US Census, 2021, www.census.gov/quickfacts/fact/table/DC,washingtoncitydistrictofcolumbia/PST045222.

Table 1| New Elements of the 2024 District Freight Plan

New Content in the 2024 District Freight Plan	Description
Expanded Stakeholder and Public Engagement	The 2024 District Freight Plan process included a robust outreach process, engaging more than 130 stakeholders from more than 30 entities throughout the plan development timeline (January 2023–January 2024). Through more than 14 meetings and two surveys, the project team gathered insights and feedback from a variety of stakeholders. Online polling, with consistent format/ questions across stakeholder groups, created an interactive engagement experience for participants and enabled the project team to compare priorities and findings across stakeholder groups. For more specifics about stakeholder outreach, please see **Chapter 4**.
Detailed Analysis of New and Existing Data	The 2024 District Freight Plan incorporates 2021 and 2022 e-commerce data as well as disaggregated commodity flow analysis to paint a more precise picture of goods movement within the dense urban geography of the District. This new data and refined analysis of existing data provides insights on current package delivery and construction trends as well as freight flows out to 2050. For more on this analysis, see **Chapter 6**.
New Implementation and Investment Plans Based on Prioritized Strategies	The project team integrated new stakeholder insights into the development of the 2024 District Freight Plan, notably its needs and issues, strategies, implementation plan, and investment plan. Meetings with DDOT staff, the industry, and the public guided the identification and prioritization of needs and issues. Regional and local stakeholders later helped DDOT refine and rank strategies. Lastly, DDOT staff and members of the general public suggested modifications and prioritization of the strategies and projects within the document's implementation and investment plans. Stakeholder prioritization of strategies is in **Chapter 10**.

2. FEDERAL REQUIREMENTS

The 2024 District Freight Plan is compliant with the FAST Act Requirements and additional requirements identified by IIJA (49 U.S. Code § 70202) shown in **Table 2**. In addition to meeting these Federal requirements, discussion of how this freight plan aligns with other federal, regional, and local goals is discussed in **Chapter 3**.

Table 2| IIJA Federal Freight Plan Requirements

#	Federal Requirement	Discussed in
1	an identification of significant freight system trends, needs, and issues with respect to the State.	Chapter 5, 6, 7, and 9
2	a description of the freight policies, strategies, and performance measures that will guide the freight-related transportation investment decisions of the State.	Chapter 3 and 9
3	when applicable, a listing of-- (A) multimodal critical rural freight facilities and corridors designated within the State under section 70103 of this title; and (B) critical rural and urban freight corridors designated within the State under section 167 of title 23. *Note: Critical rural freight corridors are not applicable in the District.	Chapter 5
4	a description of how the plan will improve the ability of the State to meet the national multimodal freight policy goals described in section 70101(b) of this title and the national highway freight program goals described in section 167 of title 23.	Chapter 3
5	a description of how innovative technologies and operational strategies, including freight intelligent transportation systems, that improve the safety and efficiency of freight movement, were considered.	Chapter 9
6	in the case of roadways on which travel by heavy vehicles (including mining, agricultural, energy cargo or equipment, and timber vehicles) is projected to substantially deteriorate the condition of the roadways, a description of improvements that may be required to reduce or impede the deterioration.	Chapter 5 and 9
7	an inventory of facilities with freight mobility issues, such as bottlenecks, within the State, and for those facilities that are State owned or operated, a description of the strategies the State is employing to address the freight mobility issues.	Chapter 7, 8, and 9
8	consideration of any significant congestion or delay caused by freight movements and any strategies to mitigate that congestion or delay.	Chapter 7, 8, and 9
9	a freight investment plan that, subject to subsection (c)(2), includes a list of priority projects and describes how funds made available to carry out section 167 of title 23 would be invested and matched.	Chapter 10
10	the most recent commercial motor vehicle parking facilities assessment conducted by the State under subsection (f): Commercial Motor Vehicle Parking Facilities Assessments.--As part of the development or	Chapter 7 and 9

	updating, as applicable, of a State freight plan under this section, each State that receives funding under section 167 of title 23, in consultation with relevant State motor carrier safety personnel, shall conduct an assessment of-- ``(1) the capability of the State, together with the private sector in the State, to provide adequate parking facilities and rest facilities for commercial motor vehicles engaged in interstate transportation; ``(2) the volume of commercial motor vehicle traffic in the State; and ``(3) whether there exist any areas within the State with a shortage of adequate commercial motor vehicle parking facilities, including an analysis (economic or otherwise, as the State determines to be appropriate) of the underlying causes of such a shortage.	
11	the most recent supply chain cargo flows in the State, expressed by mode of transportation.	Chapter 6
12	an inventory of commercial ports in the State.	Chapter 5
13	if applicable, consideration of the findings or recommendations made by any multi-State freight compact to which the State is a party under section 70204.	Chapter 4
14	the impacts of e-commerce on freight infrastructure in the State.	Chapter 5 and 6
15	considerations of military freight.	Chapter 5
16	strategies and goals to decrease- (A) the severity of impacts of extreme weather and natural disasters on freight mobility; (B) the impacts of freight movement on local air pollution; (C) the impacts of freight movement on flooding and stormwater runoff; and (D) the impacts of freight movement on wildlife habitat loss.	Chapter 8 and 9
17	consultation with the State freight advisory committee, if applicable.	Chapter 4 and 5

3. STRATEGIC VISION, GOALS, AND OBJECTIVES

3.1 Overview and Development

Modernizing the District's previous freight visions, goals, and performance measures and aligning with the vision and goals of the District's long-range transportation plan, moveDC, the 2024 District Freight Plan provides an updated overarching vision for freight in the District. The District vision aligns with the visions outlined in national, regional, and local planning documents as shown in

Figure 1 and shared concepts noted in **Table 3**. The Plan's goals, vision, performance measures, and strategies integrate the 14 shared concepts. The following sections provide details about the national, regional, and local plans that influenced the development of the Plan's vision and goals.

Figure 1| National, Regional, and Local Plans Integrated into the 2024 District Freight Plan

Table 3| Key Themes in National, Regional, and Local Plans At A Glance

Concepts	NFSP	NMFP	NHFP	NCRFP	moveDC goals	2024 District Freight Plan
Congestion	O	●	●	●	O	O
Coordination/Collaboration	O	●	●	●	O	O
Economic Competitiveness	O	●	●	●	O	O
Environment	O	●	●	●	●	●
Equity	O	O		●	●	●
Infrastructure	●	●	●	●	O	O
Innovation	●	●	●	●	O	O
Short-Distance Mobility	O	●		O	O	●
Productivity of the system	O	●	●	●	O	●
Reliability	O	●	●	●		O
Resilience/Forward Looking	O	●	●	●	●	●
Safety	●	●	●	●	●	●
Security	O	●	●	●	O	●
Workforce	O	●	●			O

● = Primary Component (Goal/Policy) **O** = Secondary Component (Discussed in relation to a Primary Component)

National Plan(s) and Goals

National plans such as the US DOT National Freight Strategic Plan, the National Highway Freight Program, and the National Multimodal Policy set forth visions and goals for freight across the country. Aligning the District's goals and visions with these plans supports the realization of these goals locally and supports the national network. **Figure 2**, **Table 4**, and **Table 5** document the goals, objectives, and policies set forth by these national documents.

Figure 2| 2020 USDOT Freight Strategic Plan Goals and Objectives

Source: 2020 National Freight Strategic Plan Executive Summary

Table 4| National Multimodal Freight Policy Goals

#	National Multimodal Freight Policy Goal Statements
1	To identify infrastructure improvements, policies, and operational innovations that— • strengthen the contribution of the National Multimodal Freight Network to the economic competitiveness of the United States; • reduce congestion and eliminate bottlenecks on the National Multimodal Freight Network; and • increase productivity, particularly for domestic industries and businesses that create high-value jobs;
2	To improve the safety, security, efficiency, and resiliency of multimodal freight transportation;
3	To achieve and maintain a state of good repair on the National Multimodal Freight Network;
4	To use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Multimodal Freight Network;
5	To improve the economic efficiency and productivity of the National Multimodal Freight Network;
6	To improve the reliability of freight transportation;
7	To improve the short- and long-distance movement of goods that— • travel across rural areas between population centers; • travel between rural areas and population centers; and • travel from the Nation's ports, airports, and gateways to the National Multimodal Freight Network;
8	To improve the flexibility of States to support multi-State corridor planning and the creation of multi-State organizations to increase the ability of States to address multimodal freight connectivity;
9	To reduce the adverse environmental impacts of freight movement on the National Multimodal Freight Network; and
10	To pursue the goals described in this subsection in a manner that is not burdensome to State and local governments.

Source: §70101. National Multimodal Freight Policy

Table 5| National Highway Freight Program Goals

#	National Highway Freight Program Goal Statements
1	to invest in infrastructure improvements and to implement operational improvements on the highways of the United States that- » strengthen the contribution of the National Highway Freight Network to the economic competitiveness of the United States; » reduce congestion and bottlenecks on the National Highway Freight Network; » reduce the cost of freight transportation; » improve the year-round reliability of freight transportation; and » increase productivity, particularly for domestic industries and businesses that create high-value jobs;
2	to improve the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas;
3	to improve the state of good repair of the National Highway Freight Network;
4	to use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Highway Freight Network;
5	to improve the efficiency and productivity of the National Highway Freight Network;
6	to improve the flexibility of States to support multi-State corridor planning and the creation of multi-State organizations to increase the ability of States to address highway freight connectivity; and
7	to reduce the environmental impacts of freight movement on the National Highway Freight Network.

Source: 23 USC 167: National Highway Freight Program

Regional Plan(s) and Goals

The National Capital Region Transportation Planning Board (TPB) is the Metropolitan Planning Organization (MPO) for the District and surrounding areas in Maryland and Virginia. The 2023 National Capital Region Freight Plan's policy statements, shown in **Table 6**, provide regional context and outline the advancement and implementation of freight activities across the National Capital region. The 2024 District Freight Plan aims to align and advance the regional vision and goals within the context of the District.

Table 6| 2023 National Capital Region Freight Plan Policies

#	National Capital Region Freight Policy Statement
1	Encourages that freight related projects, programs, and activities in the region support or bolster TPB's plans, programs, and policies, such as the TPB Vision, Visualize 2050 (including its Connected and Automated Vehicle policies), Complete Streets policy, Equity and Safety policy.
2	Supports the prioritized advancement of freight-related transportation projects that provide maximum value, efficiency, and safety with particular emphasis on those that improve freight access to activity centers.
3	Supports investments that maintain a state of good repair for the region's freight transportation system.
4	Supports freight investments that bolster the region's environmental objectives and resiliency.
5	Supports the use of best practices for safety, engineering, and maintenance, of freight- related transportation infrastructure.
6	Supports the alleviation of roadway bottlenecks where feasible to improve travel times and reliability for trucks and passenger vehicles.
7	Supports maximizing opportunities to expand transportation options, address roadway congestion, and reduce pollution by increasing the use of passenger and freight rail.
8	Encourages that freight related projects, programs, and activities provide benefits equitably to all people in the region and avoid disproportionate negative impacts to any group or community.
9	Recognizes freight's role in economic development and supports efforts to maximize the use of important economic drivers, including airports, ports, and intermodal facilities serving the region's residents and businesses.
10	Encourages that freight and goods are moved in ways that help minimize disruptions and facilitate livability of the region's communities.
11	Encourages that freight related projects, programs, and activities in the region ensure security (including cybersecurity) and privacy, and prevention of risks to people and infrastructure.
12	Supports improvements in truck safety using education, enforcement, and engineering strategies.
13	Supports efforts to route hazardous materials away from the National Capital Region; for hazardous materials that must be transported to, from, within, and through the region, the TPB supports the selection of the safest and most secure modes and routes.

14	Encourages information sharing on explosive, toxic by inhalation, and radioactive materials being shipped to, from, within, and through the region, including real-time notifications and long-term planning information.
15	Supports robust first responder training and exercise activities regarding freight in general and hazardous materials transport in particular.
16	Supports collaboration among agencies and with the private sector on freight planning and operations concerns to support mutual goals.
17	Supports the proactive analysis of freight-related performance measures and data in the context of overall regional performance measurement to identify lessons learned and promote regional goals.
18	Promotes sustainable methods of freight operations that are sensitive to environmental, cultural, and community resources.
19	Encourages collaboration among transportation planners, land use planners, private railroads, elected officials, and other stakeholders to find creative ways to facilitate community-beneficial land use development (residential, commercial, or industrial as appropriate) while providing space for necessary future rail expansion along key rail corridors.
20	Supports the review and study of new freight-related technologies, emerging business practices, and evolving commodity mixes and mode shares to advance regional goals.

Source: Regional Freight Policies from the National Capital Region Freight Plan Executive Summary (Item 7, Resolution R3-2024)

Local Plan(s) and Goals

moveDC, the District's long-range transportation plan, establishes goals, policies, strategies, and metrics to enhance the transportation network in the District. Published in 2021, the plan outlines 7 goal areas shown in **Figure 3**, 18 policies, and 41 strategies. During the development of the moveDC plan, the project team conducted outreach and developed modal priority networks, including a freight priority network, shown in **Figure 6**. Many policies and strategies outlined in moveDC indirectly support freight movement through the District. moveDC Policy M directly relates to freight movement and efficiency by aiming to "increase accessibility and efficient delivery of goods and movement of people through curbside management and roadway management". Policy M includes strategies that directly relate to freight by creating a process to implement a curbside management hierarchy (Strategy #26) and providing and maintaining safe routes for trucks (Strategy #28).

Figure 3| 2021 District Multimodal Long-Range Plan (moveDC) goals

Source: moveDC

Figure 4| District Agency Plans

Source: moveDC, District Comprehensive Plan, Sustainable DC 2.0, Resilient DC

In addition to moveDC, many District agency plans include discussions about freight and the role that it plays in day-to-day life for District residents and businesses. Through the development of the freight plan the project team reviewed over 15 District agency plans, such as those shown in **Figure 4**, and documents to understand their goals related to freight, what is on the horizon, and how the freight plan could foster shared goals and strategies. Many of the plans noted that freight is a critical component of the transportation network and economy, freight operations can present safety concerns, and freight is part of the solution to reduce emissions and improve sustainability. A few excerpts from District plans include;

- "…DC should continue to focus their efforts on improving the robustness and reliability of critical systems to facilitate the continuous flow of goods" (DC Comprehensive Plan, 2021)
- "reduce greenhouse emissions and air pollution from the transportation sector" and suggests one way to reduce emissions is by targeting and reducing idling vehicles (Sustainable DC 2.0, 2019)
- "To make the greatest impact, District agencies will focus resources on a Safe Systems approach to end traffic deaths and severe injuries." (DC Vision Zero, 2022 Update)
- "DC needs to be resilient to three types of technological change: automation and the future of work, the movement of people and goods" (Resilient DC, 2019)
- "Grow economic opportunity" by "identifying industrial, intermodal, or freight rail service opportunities to capitalize on rail service in the District for economic growth and equitable development outcomes" (District of Columbia State Rail Plan, 2017)

3.2 2024 District Freight Plan Vision

The 2024 District Freight Plan builds on District, regional, and federal guidance discussed in the sections above along with feedback received from the public, industry, and the DDOT working group meetings. The vision and goals focus on mobility, equity, and the environment. The vision also looks forward to preparing DDOT and its freight-related activities to adapt to e-commerce and other emerging trends. The 2024 District Freight Plan Vision is shown below.

The vision for the District's freight system is an **efficient goods movement system** that is **sustainable**, **safe**, and **secure**. DDOT will work to eliminate or **minimize negative impacts** on historically burdened communities by reviewing and prioritizing projects through an equity lens. This vision includes **reliable freight** operations that will support the District's economic growth and help residents, and public and private sector establishments, to thrive. DDOT will strategically invest in technology and data to support this vision.

3.3 2024 District Freight Plan Goals

Building on the 2024 District Freight Plan vision, the goals aim to advance the vision through the consideration of six approaches. As noted above, the District Freight Plan's goals align with national, regional, and local goals. The six goals, guided by moveDC, are shown below in **Table 7**. The complete set of goals, metrics, performance measures, and how they address the National Multimodal Freight Policy Goals are shown in **Table 8**.

Table 7| 2024 District Freight Plan Goals

Sustainability	Mobility	Safety	Security	Management & Operations	Equity
Sustainable and diverse freight fleets to reduce emissions and strengthen resilience.	Reliable, adaptable, and accessible freight infrastructure that supports economic vitality and competitiveness.	Planning efforts that consider freight movements and improve the safe movement of goods.	Collaboration between District agencies to support the secure movement of goods.	Maintained and modernized infrastructure and operational improvements to increase efficiency.	Shared and just distribution of benefits and burdens when planning for and investing in freight-related infrastructure and services.

Table 8| 2024 District Freight Plan Goals, Metrics, and Performance Measures

Goal Area	Goal Components/Metrics	Goal Performance Measures	National Multimodal Freight Policy Goals
Sustainability	– Reduce congestion caused by bottlenecks – Reduce greenhouse gas (GHG) emissions from the transportation sector – Reduce vehicle miles traveled (VMT) – Add DCFCs (direct current fast charging) to the AFCs (alternative fuel corridors)	• Interstate congestion as measured by the Truck Time Reliability Index (TTRI) • GHG emissions from the transportation sector • Percentage of Alternative Fuel Corridors (AFCs) with DCFCs (direct current fast charging) • Number of innovative freight pilots implemented	1, 9 ,10
Mobility	– Improve system reliability, create infrastructure and policies that enhance goods movement and improve efficiency – Accommodate the movement and management of freight and goods into future projects – Explore new freight strategies including delivery to micro-hubs and delivery demand management techniques – Integrate the District's transportation system with the region's transportation network – Optimize freight access within planning of dedicated transit and bike facilities – Balance residential character of local streets with truck access for home deliveries – Provide reliable available curb space for deliveries by good management of the loading zone program	• Number of tickets issued for unauthorized vehicles in loading zones • Number of tickets issued to vehicles in violation of through-truck restrictions • Number of tickets issued to commercial vehicles for double-parking • Number of curbside loading zones • Number of street redesign and reconstruction projects utilizing freight considerations checklist	1, 2,4, 5, 6, 9, 10
Safety	– Improve safety for all users	• Number of crashes involving trucks • Percent of structures in compliance with FHWA low clearance signage requirements • Number of low clearance bridge strikes (involving trucks) • Number of fatalities in crashes involving trucks • Number of serious injuries in crashes involving trucks	4, 10
Security	– Ensure the secure movement of goods – Consistent data sharing with public security agencies.	• Number of hazardous material incidents involving truck, water, or rail	2, 10
Management & Operations	– Maximize reliability for all District transportation infrastructure by investing in maintenance and asset management – Coordinate within DDOT, other District agencies, and private industry partners to improve freight related operations and solutions – Leverage data for continuous evaluation and decision-making	• Number of functioning static weigh station and weigh in motion (WIM) systems • Percent of moveDC Freight Priority network pavement in good condition • Percent of bridges on primary freight routes in fair or better condition • Percent of primary freight route pavement in good condition • Number of Freight Advisory and/or other official internal DDOT advisory meetings attended • Number of Regional Freight Advisory meetings led by DDOT or other entities	3, 5, 10
Equity	– Reduce negative freight impacts in communities of greatest need	• Number of projects assessed for equity • Number of community-based organizations (CBOs) invited to attend Freight Advisory Committees (e.g., environmental organizations)	9, 10

4. STAKEHOLDER ENGAGEMENT

The project team executed an extensive outreach plan to solicit stakeholder input. To accommodate stakeholders, most of whom are located across the National Capital Region and beyond, the project team held outreach meetings virtually and used PollEV[3], an online polling tool, to help participants easily provide feedback. Through these outreach efforts, as summarized in **Table 9**, the project team engaged with a wide range of stakeholders including industry representatives, DDOT staff, regional representatives, local advocates, and the public.

Table 9| Stakeholder Engagement Summary

	Engagement Summary	
 **5 DDOT Working Group meetings**	 **2 industry representative meetings**	 **2 public information meetings**
 **1 briefing to the National Capital Region Transportation Planning Board (TPB) Technical Committee**	 **3 briefings to the MWCOG TPB Freight Subcommittee**	 **2 briefings to local partners and advocates**

4.1 Public and Industry Engagement

Engaging Industry Stakeholders

DDOT hosted two industry stakeholder meetings, which were attended by representatives of the Downtown Business Improvement District (BID), Georgetown BID, CSX, CVS, Amazon, and the District of Columbia Association of Beverage Alcohol Wholesalers (DCABAW). The invite list included many private sector representatives (including carriers, shippers, and other companies that send, receive, or carry freight). A list of invited private industry representatives is shown in **Appendix A**. The stakeholders convened on March 30, 2023, at a virtual meeting to provide feedback on the needs and issues and participate in a PollEV survey. The top needs and issues the stakeholders mentioned were safety, travel time, and reliability. One of the biggest challenges attendees highlighted was site access and curbside availability. Later in the plan development process, industry stakeholders were present at the fall Metropolitan Washington Council of Governments (MWCOG) and DC Sustainable Transportation (DCST) meetings to offer feedback to shape the freight plan strategies. The project team gathered input on the draft strategies through an industry survey and interactive online polling during the DCST meeting. The polling results informed the Implementation Plan and are shown in **Chapter 10.**

[3] PollEV is a polling software used for virtual stakeholders to provide responses to scripted questions or provide comments using an internet-enabled device.

Engaging the Public

DDOT hosted a virtual meeting on May 24, 2023, for the general public and distributed an online survey to collect additional feedback. DDOT advertised the meeting via its press releases and social media postings. District residents, local Advisory Neighborhood Commissions (ANC) representatives, civic associations, and industry stakeholders attended the meeting. Meeting attendees voted safety, sustainability, and mobility as their top priorities and listed climate change, truck routes and enforcement, and competition for curbside space as their top needs and issues. Survey and public meeting participants expressed concerns about truck drivers not respecting regulations and infrastructure; they reported incidences of illegal/double parking, idling, blocked lanes and crosswalks, and damaged flexi-posts.

DDOT hosted a second virtual meeting on January 31, 2024, for the general public to share study findings and draft strategies. DDOT advertised the meeting via its press releases and social media postings. District residents; representatives of civic associations, such as the Bicycle Advisory Council, and Committee of 100 on the Federal City; and industry stakeholders attended the meeting. The presentation included a summary of fall/winter 2023 outreach, the identified needs and issues, and draft strategies. During the meeting, participants provided feedback on the draft strategies via PollEv. Participants expressed concerns about overall enforcement, truck-bicycle interactions, inactivity on the 2017 State Rail Plan, and the reduction of commercial loading zones. The polling results informed the Implementation Plan and are shown in **Table 26**.

4.2 DDOT Staff Coordination

The project team convened an internal DDOT Freight Working Group consisting of representatives from the agency's Infrastructure Project Management Administration (IPMA), Planning and Sustainability Division (PSD), Traffic Engineering and Safety Division (TESD), Curbside Management Division, Innovation Division, and Maintenance Division to gather their input and guidance throughout the development of the plan update. Presentation and discussion topics for the six meetings held with this group included:

- Freight Vision and Goals
- Freight Strengths, Weakness, Opportunities, and Threats (SWOT)
- Freight Needs and Issues
- Critical Urban Freight Corridors (CUFCs)
- Strategies
- Implementation and Investment Planning

During the DDOT Freight Working Group visioning activity in Spring 2023, participants highlighted freight-related strengths including collaboration to implement the new/upgraded Weigh in Motion (WIM) stations, data sharing, and DDOT's presence on planning/regional boards. Some of the freight-related weaknesses included the tension between bike facilities and freight routes and curbside space, curbside enforcement challenges, and developing constructive partnerships with private freight companies. Attendees voiced opportunities to integrate technology to easily identify truck routes route options based on height and weight. Some of the threats to the freight industry included the reduction of industrial land use based on recent rezonings; EV truck challenges with charging, regulation, and safety; and how to ensure freight reliability.

During the fall working group meeting, DDOT staff reviewed, prioritized the draft strategies, and discussed their implementation. The polling results are shown in **Table 26**. The winter 2024 working group meeting presented the

freight plan implementation and investment plan to identify opportunities to collaborate and align schedules (funding or implementation).

4.3 Multistate Metropolitan Planning Organization Coordination

The National Capital Region TPB is the federally designated metropolitan planning organization (MPO) for metropolitan Washington and comprises more than 300 elected officials. TPB committees, such as the Freight Subcommittee, provide platform(s) for regional coordination and cooperation. Agencies and stakeholders can collaborate to identify opportunities to improve the movement of goods across jurisdictional boundaries. The MPO is comprised of urban, suburban, and rural communities and includes the following jurisdictions:

- DDOT
- Maryland Department of Transportation (MDOT)
- Town of Bladensburg
- City of Bowie
- City of College Park
- Charles County
- City of Frederick
- Frederick County
- City of Gaithersburg
- City of Greenbelt
- City of Hyattsville
- City of Laurel
- Montgomery County
- Prince George's County
- City of Rockville
- City of Takoma Park
- City of Alexandria
- Arlington County
- City of Fairfax
- Fairfax County
- City of Falls Church
- Loudoun County
- City of Manassas
- City of Manassas Park
- Prince William County

Through the development of the 2024 District Freight Plan, the project team engaged with the TPB Technical Committee and the Freight Subcommittee. The IIJA requires state/District freight plans to coordinate with the regional MPO and note all multi-state compact findings and recommendations.

TPB Freight Subcommittee

The project team met with the TPB Freight Subcommittee in 2023 on January 19, July 6, and November 9 to provide updates on the 2024 District Freight Plan and solicit feedback on various plan elements. The Freight Subcommittee invited DOTs, regional/state agencies, and key industry stakeholders to the meeting, including:

- DDOT
- MDOT
- CSX
- Northern Virginia Transportation Authority (NVTA)
- DCABAW
- District of Columbia Homeland Security and Emergency Management Agency (DC HSEMA)

On January 19 and July 6, the project team introduced the 2024 District Freight Plan and discussed existing conditions and peer review findings. On November 9, 2023, DDOT presented the freight needs, issues, and strategies developed through the freight plan development to the TPB Freight Subcommittee. Using PollEV,

participants including MWCOG, Fredericksburg Area Metropolitan Planning Organization (FAMPO), DCABAW, CSX, NVTA, TPB, DC HSEMA, and MDOT, prioritized their top strategies for each of the six goal areas. The polling results are shown in **Table 26** and informed the Implementation Plan.

TPB Technical Committee

On September 8, 2023, the project team introduced the proposed Critical Urban Freight Corridors (CUFCs) to the TPB Technical Committee. As federally required, the District must work with and gain approval of the updated CUFCs from the local MPO. **Chapter 5.5** provides greater detail on the identification of CUFC segments. The TPB's Technical Committee, on behalf of the TPB board, approved and adopted all CUFC designation changes on October 6, 2023. The approved resolution is shown in **Appendix B**.

4.4 Multistate Freight Compacts

As required by the IIJA, state/District freight plans must include findings and recommendations made by any multistate freight compact that the state/District is a party to under 49 U.S.C. §702204. These types of compacts are based on common regional interests to improve the movement of goods across jurisdictional boundaries. Potential outcomes of this coordination include addressing corridor issues that impact multiple states, improving data access, creating efficiencies in resource and planning utilization, and upgrading freight network resilience.

The Eastern Transportation Coalition (TETC)

TETC is a partnership of 18 states and the District focused on connecting public agencies across all modes of travel to increase safety and efficiency. Formerly known as the I-95 Corridor Coalition, TETC has evolved to include more than 200 public agencies working together to address the pressing challenges facing I-95 with a focus on Transportation Management and Operations (TSMO), freight, and innovation. Freight-specific resources include freight data access through TETC's transportation data marketplace; technical assistance on commercial vehicle operations, truck parking, the freight planning activities of member states; and involvement in the M-95 Marine Highway corridor and National Freight Fluidity Program. The District benefits from its participation in TETC through shared best practices for regional truck parking and vehicle size and weight permit harmonization.

M-495 Potomac River Commuter Fast Ferry Project

The Northern Virginia Committee Regional (NVRC) Policy Steering Committee for the M-495 Potomac River Commuter Fast Ferry Project comprises members from federal, state, and local governments within the National Capital Region. The project area encompasses ferry stops along the Potomac River that include SW Waterfront DC, Poplar Point, Joint Base Anacostia-Bolling (JBAB), Indian Head, Woodbridge, Georgetown, The Wharf, Buzzard Point, Nationals Park, and The Yards. The project evaluated route options connecting the above locations, and others, which could provide benefits to the freight network by easing congestion hot spots and improving truck travel time reliability in the region. Leveraging the ferry for freight purposes could also be considered in the future. NVRC led the outreach, coordination, and development of a market assessment and business plan for the project. Based on the "Potomac Fast Passenger Ferry Business Plan – Phase 1 and 2," dated September 2023, no existing governing body has expressed an interest in taking on a new commuter ferry service in the National Capital Region. In 2023, NVRC handed responsibility for the project's next steps over to the Capitol Riverfront BID.

5. FREIGHT NETWORK AND INFRASTRUCTURE

This chapter focuses on defining each modal freight network. The four most critical freight networks are for trucking, railroads, ports and waterways, and air cargo. Given the District is entirely an urban area — and contains no rail intermodal yards, no airports, and only two small docks — the freight network is dominated by roadways, which is unusual compared to most U.S. states. **Figure 5** shows an overview of the freight network in the District. Goods may arrive from other parts of the U.S. by train, plane, or other mode, but these shipments are then transferred to trucks before finally being brought into the District. This places a unique emphasis on the importance of the highway and roadway freight network.

Figure 5| Summary of District Freight Networks and Infrastructure

Bus and Truck Through Routes	Highways/Interstates	Water Ports	Rail
 194 miles	 16 miles	 2 docks	 56 miles

Source: OpenData DC

5.1 Roadways

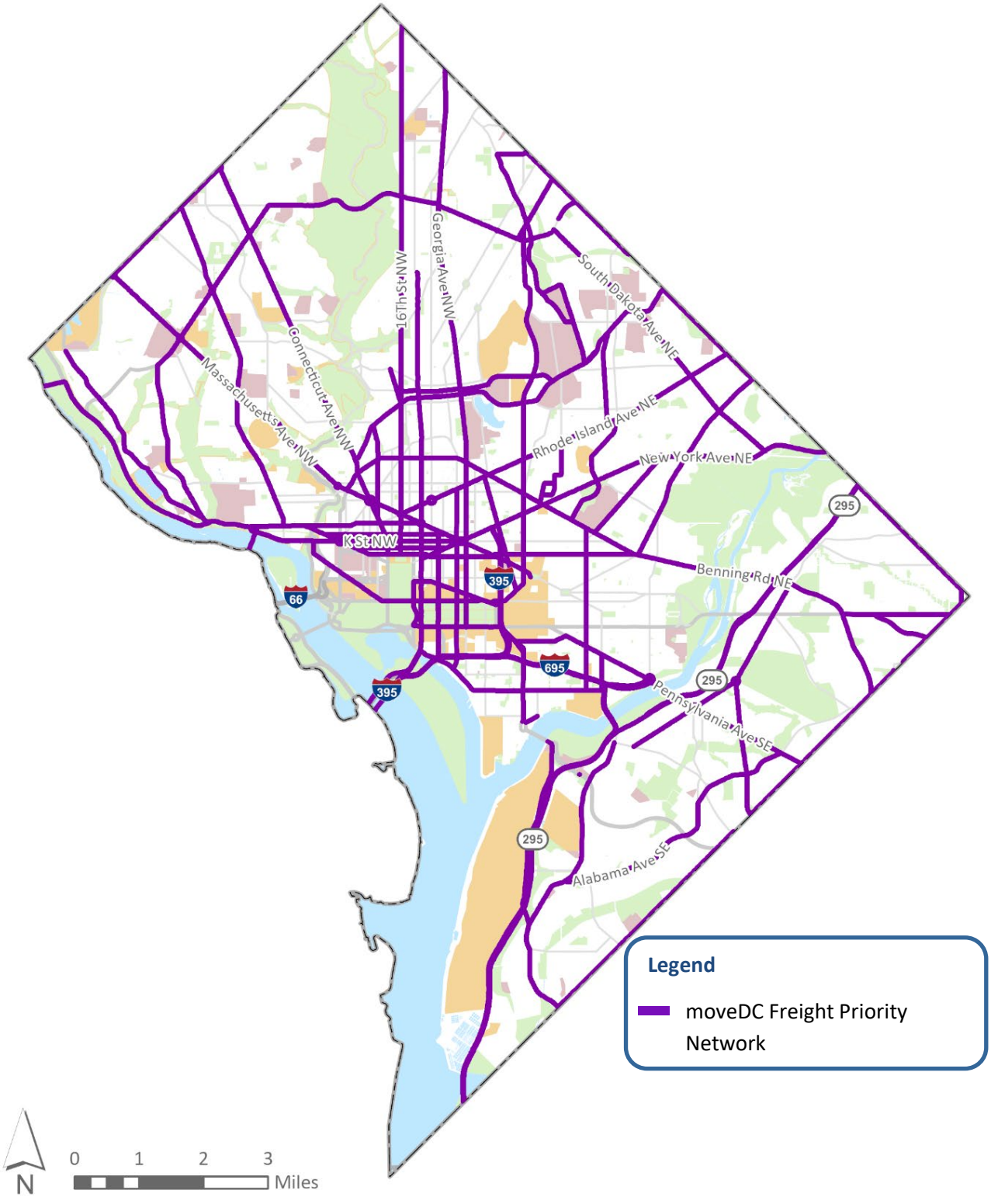
Freight Networks

As discussed in **Chapter 3.1**, moveDC, the District's long-range transportation plan, designated Mobility Priority Networks, one each for transit, bicycles, and freight. **Figure 6** shows the final moveDC Freight Priority Network. Parts of this network overlap with the other Mobility Priority Networks; it will be important for the District to propose appropriate transportation solutions in the areas where the networks overlap that accommodate each priority mode safely and efficiently. More information on the moveDC Mobility Priority Networks can be found in the full moveDC Plan.[4]

From a national scale, the National Highway Freight Network (NHFN) identifies roadways of national importance in the National Capital Region. The Fixing America's Surface Transportation (FAST) Act, passed in 2015, created the NHFN, which consists of Interstates, other roadways identified as the most critical highway portions of the U.S., critical urban freight corridors (CUFCs), and critical rural freight corridors (CRFCs). Critical freight corridors are designated public roadways that provide access and connection to important ports, public transportation facilities, or other intermodal freight facilities. A summary of the District's National Highway Freight Network roadway components is shown in **Table 10**. In total, the District has 140 miles of CUFCs, under the 150 mile-maximum allowed by the 2021 Bipartisan Infrastructure Law (BIL). Detailed discussion about the District's CUFC designations can be found in **Chapter 5.5**. The District does not have any identified CRFCs, as the District is entirely designated as urban.

[4]District Department of Transportation. moveDC 2021 Update: The District of Columbia's Multimodal Long-Range Transportation Plan. Available at https://movedc.dc.gov/. Accessed May 2023.

Figure 6| moveDC Freight Priority Network



Source: moveDC 2021 Update: The District of Columbia's Multimodal Long-Range Transportation Plan, 2021.

Table 10|District National Highway Freight Mileage

Primary Highway Freight System (PHFS)*	Non-PHFS Interstate*	Critical Urban Freight Corridors (CUFCs)**	Critical Rural Freight Corridors (CRFCs)
4.58	11.48	139.96	N/A

PHFS and Non-PHFS are based on FHWA's NHFN Network Map as of March 11, 2023. Data may vary slightly across federal sources.

****Mileage of CUFCs identified in the 2024 District Freight Plan.***

Military Considerations

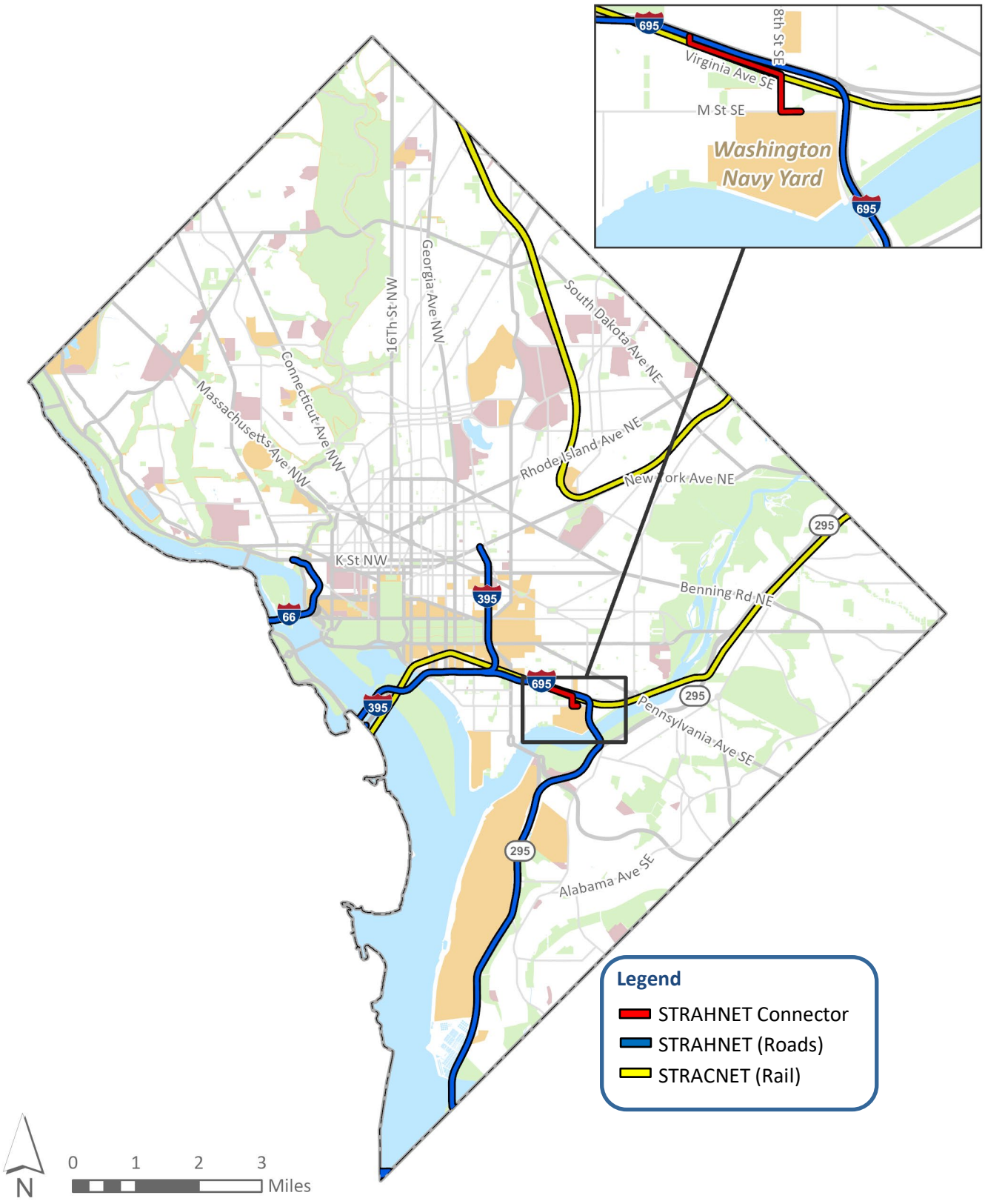
In evaluating the District's freight network and potential needs, DDOT created an inventory of military facilities and strategic defense networks in the District of Columbia to better understand military freight implications. **Table 11** lists the military bases or installations that are within the borders of the District of Columbia, with the understanding that there are additional installations within the jurisdictions of the identified districts and bases.

Table 11 | Military Installations within the District of Columbia

Military Branch	Base/Installation	Location
Army	Fort Lesley J. McNair	317 P Street SW, Washington, DC 20024
Coast Guard	U.S. Coast Guard Headquarters	1790 Ash Street SE, Washington, DC 20032
Navy / Air Force	Joint Base Anacostia-Bolling	20 MacDill Boulevard SE, Washington, DC 20032
Navy	Naval District	1411 Parsons Avenue, Washington DC 20003
Navy	Naval Research Laboratory	4555 Overlook Ave SW, Washington, DC 20375

The U.S. Transportation Command developed the Strategic Highway Network (STRAHNET), a system of approximately 62,500 miles of roadways, including the Interstate System, which serves as the foundation of the U.S. Department of Defense's domestic on-the-ground operations. The STRAHNET defines the public highway network that is essential for supporting critical military and defense needs, including emergency mobilization and movement of goods such as heavy armor, fuel, ammunition, repair parts, food, and other freight commodities that support military operations. The STRAHNET, combined with the Strategic Rail Corridor Network (STRACNET), strategic seaports, military airports, and other infrastructure facilities support essential freight activity and goods movement for the U.S. military. In the District, STRAHNET consists of the entire Interstate network as well as one STRAHNET connector, which connects the Washington Navy Yard to I-695 along Virginia Ave SE, 8th St SE, and M St SE. These facilities provide highway and rail service to the military installations of the District. The Strategic Rail Corridor Network (STRACNET), as defined by the U.S. Department of Defense (DoD) and the Federal Railroad Administration (FRA), provides access to essential military bases and support installations and is used for the deployment of military equipment during emergencies or natural disasters. A number of the rail lines within the District are on the STRACNET. One practical implication of being on the STRACNET is that lines must be able to accommodate railcars of the DoD clearance profile, which includes a 12-foot overall width and 16.92-foot overall height above rails. **Figure 7** shows the STRAHNET and STRACNET corridors in the District.

Figure 7| STRAHNET and STRACNET Networks



Source: U.S. Army Transportation Engineering Agency, 2023.

Truck Routes and Restrictions

To manage the movement of trucks throughout the District, the District has designated a truck network system, that informs the moveDC Freight Priority Network, and consists of designated truck routes and roadways that restrict trucks, either to through-traffic or in some instances, all truck travel.[5] **Figure 8** shows the location of these routes and restrictions. There are three types of designations:

Truck and Bus Through Routes: Trucks should use these routes as long as possible until they reach the final destination. These are more likely to be arterial and collector roads that have roadway geometry appropriate to truck mobility.

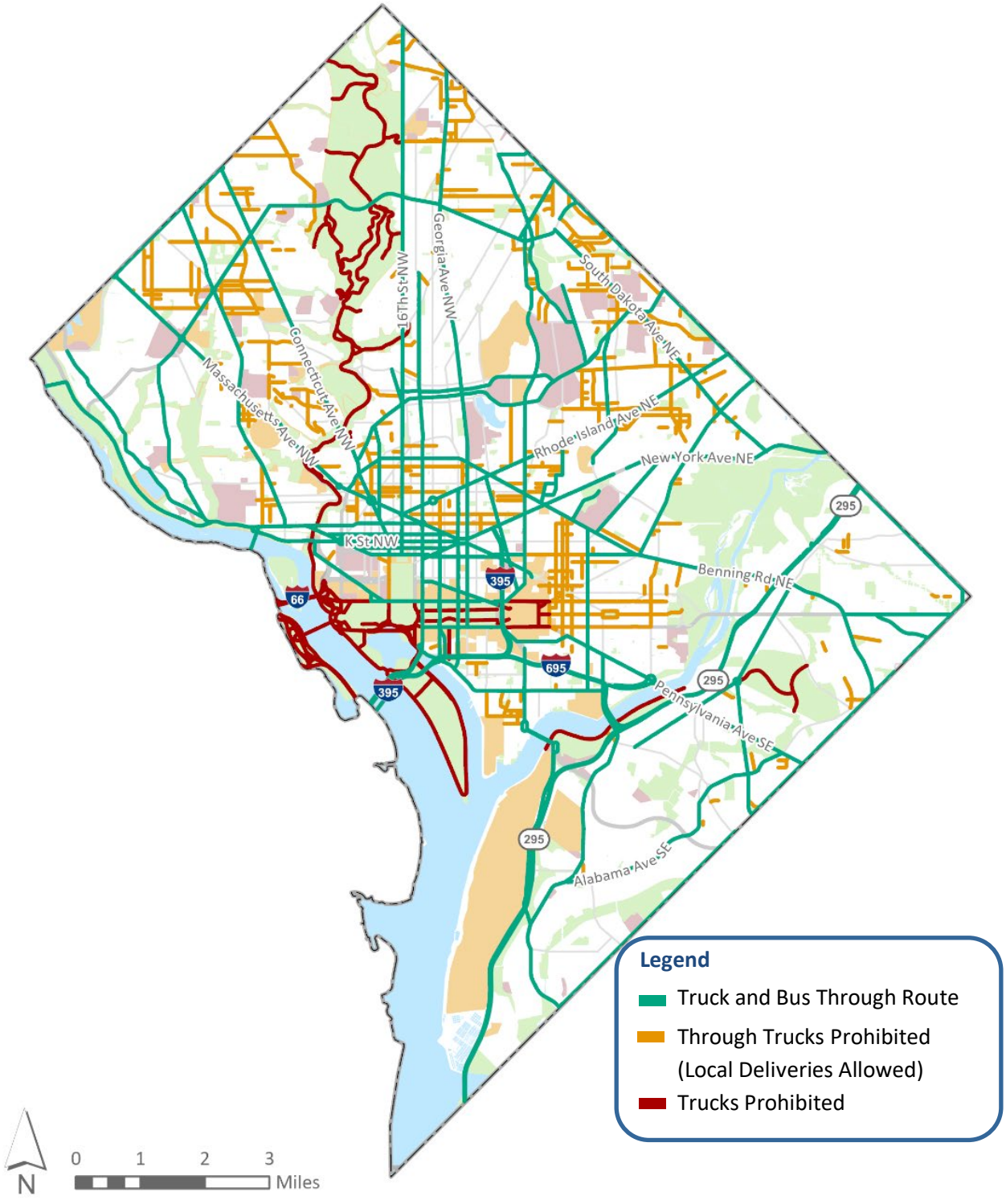
Through Trucks Prohibited (local deliveries allowed): Trucks traveling along these routes without making local deliveries are prohibited. Trucks traveling on these routes and stopping at destinations are permitted. These are typically local roads that are more suited to pedestrian traffic or have lower-density residential spaces along them.

Trucks Prohibited: Trucks are not allowed on these roads. These are generally found in places like the National Mall, near the White House, and larger parks, like Rock Creek Park.

The most notable roads that completely prohibit trucks are two bridges between the District and Arlington, VA: the Theodore Roosevelt Bridge on I-66 and the Arlington Memorial Bridge. Truck-accessible routes across the Potomac River include the Francis Scott Key Memorial Bridge in Georgetown, the bridges carrying I-395, I-495 at the very southern tip of the District near Alexandria, VA, and Chain Bridge that connects between the Palisades neighborhood of Washington, DC and Arlington, VA.

[5] District Department of Transportation. DC Truck Map Brochure. Available at https://ddot.dc.gov/sites/default/files/dc/sites/ddot/service_content/attachments/DC%20Truck%20Map%20Brochure_12.10.20_web.pdf. Accessed May 2023.

Figure 8| Truck Routes and Restrictions



Source: Open Data DC, 2022

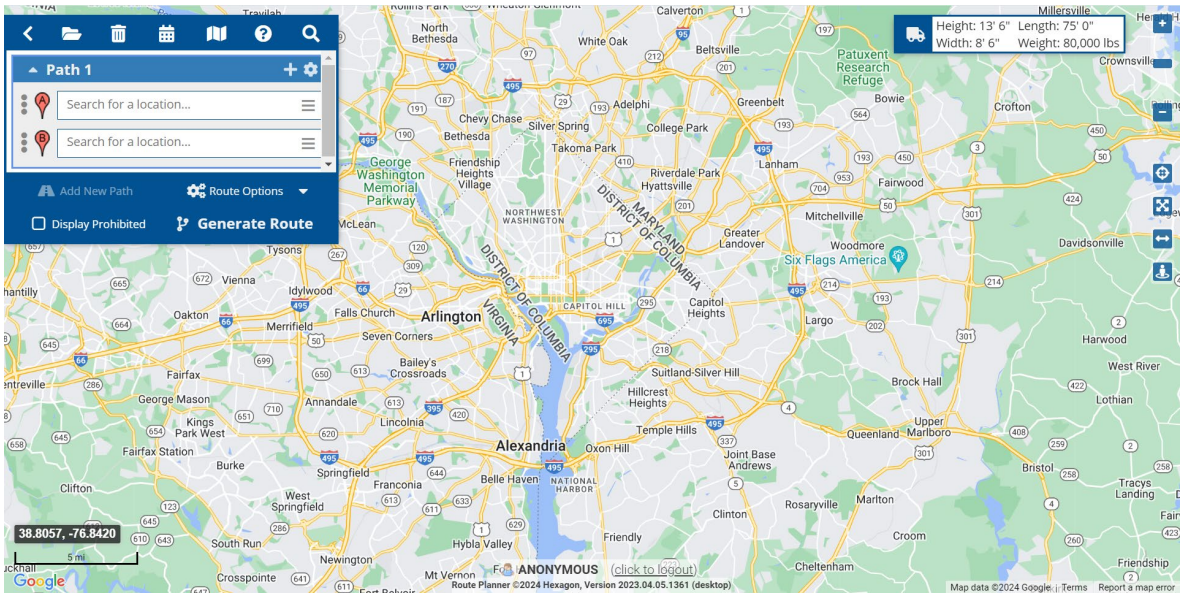
Oversize/Overweight Vehicles

If vehicles exceed state and federal size and weight thresholds, drivers need to apply for permits through DDOT in order to minimize their potential impact on transportation infrastructure, such as bridges and pavement. Vehicles carrying oversized loads need to be routed along corridors that can accommodate their size and weight and that avoid impediments such as low bridges, narrow roads, steep grades, sharp turns, or other restrictions. Oversize or overweight (OSOW) vehicles can increase wear and tear on roadway networks, so they need to be permitted to ensure pavement conditions do not deteriorate under these heavy loads. Some of these permits carry additional conditions, such as time of day or speed restrictions. The specific legal dimensions and legal weights for OSOW movements within the District are shown below: [6]

- Any vehicle exceeding 21,000 lbs. on any single axle (or 20,000 lbs. for vehicles over 73,000 lbs. gross weight); 34,000 lbs. on a tandem axle; or 79,000 lbs. gross vehicle weight [7]
- Any vehicle, other than a bus, wider than 8 feet except under special circumstances [8]
- Any vehicle, other than a bus, over 40 feet long
- Any vehicle with a combined overall length of over 55 feet
- A bus longer than 60 feet or wider than 8 feet, 6 inches
- Any vehicle higher than 13 feet, 6 inches (including load)

To assist in the routing of these vehicles, DDOT uses a tool shown in **Figure 9**, that generates mandatory routes for OSOW vehicles needing permits to travel within the District. The tool is also publicly available outside the OSOW permitting process for the general public to route regular trucks as well.

Figure 9| DDOT OSOW Routing Tool



Source: https://routeplanner.ddot.dc.gov/routeplanner/

[6] District Department of Transportation. Oversize and Overweight Vehicles. Available at https://ddot.dc.gov/publication/oversize-and-overweight-vehicles. Accessed May 2023.
[7] See DCMR Title 18, Section 2505.5 for details.
[8] See DCMR Title 18, Section 2505.3 for details.

5.2 Rail

The District's rail network is made up of 56.4 active track miles of railroad, owned by two different Class I rail carriers: Amtrak and CSX Transportation. Amtrak owns the portion of the network by Virginia Avenue SW to the Maryland state line (11.4 track miles) and CSX owns the rest of the 45.0 track miles of network. **Figure 10** shows the extent of this network in the District and the destinations of each outgoing line.

Each railroad hosts other rail services along their lines, including MARC and VRE, two commuter rail lines in the Washington and Baltimore metropolitan areas; and Norfolk Southern, another freight rail company. Norfolk Southern has track usage rights to both the Amtrak line and the CSX line from the Virginia border, across the Anacostia River, up to the Maryland border.

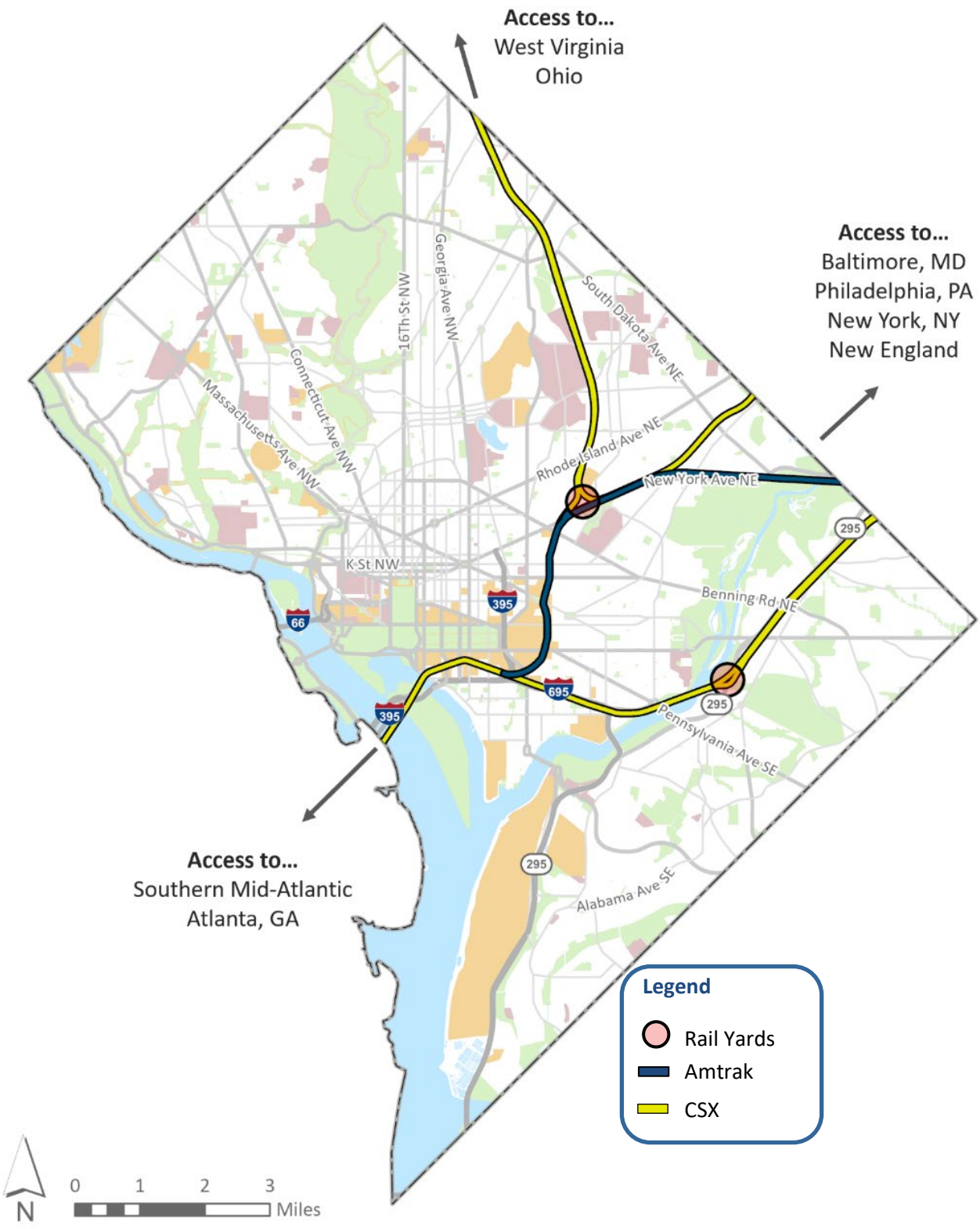
Additionally, there are two rail yard locations in the District (seen in **Figure 10**). One is Benning Yard, owned by CSX, east of the Anacostia River. The other is a collection of multiple yards north of Union Station, mostly used by the commuter rail companies. Neither of these locations has the ability to interface with other modes of transportation (either through intermodal transfer or transload), which means the freight that enters the District does not stop for delivery in the District; it only passes through. Freight that is transported by rail to the District would unload at one of the nearby rail facilities in Maryland or Virginia, and then move by truck to its final destination(s).

Unlike many other states, there are currently no at-grade rail crossings of public roads in the District. The Federal Railway Administration reports that there are seven active at-grade crossings, but they are all on private roads that mainly provide access for employees to the rail yards. [9] Because of this, the risk for rail-highway incidents is lower than at public crossings. The Federal Railway Administration maintains a database of rail-highway incidents, and since 2000, there have been eight incidents with the most recent occurring in 2018. [10]

Sources: DDOT

[9] Federal Railroad Administration, Highway-Rail Crossing Database Files and Reports. Available at https://safetydata.fra.dot.gov/officeofsafety/publicsite/DownloadCrossingInventoryData.aspx. Accessed May 2023.
[10] Federal Railroad Administration, Highway/Rail Grade Crossing Dashboard. Available at https://railroads.dot.gov/accident-and-incident-reporting/highwayrail-grade-crossing-incidents/highwayrail-grade-crossing. Accessed May 2023.

Figure 10| District Railway Infrastructure



Source: Bureau of Transportation Statistics, 2022.

5.3 Ports and Waterways

Although the District has three major rivers within or near its boundary, maritime freight movement is not a significant driver of freight activity in the region. The three rivers (the Potomac, Anacostia, and Occoquan) are largely devoid of large-scale shipping infrastructure. Larger, more accessible, ports in the area such as the Port of Virginia in Norfolk, VA, and the Port of Baltimore in Baltimore, MD, are the primary recipients of regional maritime freight.

Marine Highways

In 2007, the Marine Highway Program was established to expand the use of the nation's navigable waterways. Administered by the U.S. Department of Transportation Maritime Administration (MARAD), the program works closely with public and private organizations to develop and expand service along designated waterways, especially where water-based transport can provide an efficient, effective, and sustainable transportation option. One of the nation's 26 Marine Highway routes, M-495, runs through the District's boundaries. M-495 includes the navigable portions of the Anacostia, Occoquan, and Potomac rivers and connects the Chesapeake Bay shipping channel (part of M-95) to the District, where the marine highway terminates.

In future years, this designation as a Marine Highway may prove beneficial as it will improve the maritime infrastructure along the corridor and make the area more attractive for maritime shipping. Recently, in June 2022, MARAD announced the designation of new Marine Highway projects, which includes the support of an existing barge service in North Carolina that uses the M-495, M-95, and M-64 corridors. [11]

Other Port Infrastructure

The U.S. Army Corps of Engineers (USACE) keeps an up-to-date list of port and dock facilities in the United States, and their list reports numerous docks, marinas, and piers in the District, but these account for negligible freight. There are two notable locations of maritime operations, one used by the District and one used by the USACE. Both are seen in **Figure 11**.

The property used by the District, shown on the left in **Figure 11**, is located in Ward 6 on S Street SW, adjacent to the Anacostia River and South Capitol Street Bridge. This property has been leased by the District and contains a small dock and a heliport used by the Metropolitan Police Department's Air Support Unit. DDOT has used this location to support the inspection, maintenance, and construction of bridges. It has also been used by Pepco to unload large transformers and more recently as the location where the Captain White Seafood barge was dismantled after leaving the SW Waterfront. DDOT does not have free access to any other developed docks in the District, which makes this facility a significant and important asset.

The USACE property, shown on the right in **Figure 11**, was formerly part of a gas manufacturing plant, but is now used by the USACE as a station for debris collection boats that patrol the Anacostia and Potomac Rivers. It is located on Water Street, just east of the 11th Street and I-695 bridges. [12]

[11] https://www.maritime.dot.gov/newsroom/marad-announces-four-new-marine-highway-project-designations-projects-will-be-eligible.

[12] https://www.nab.usace.army.mil/Portals/63/siteimages/Regulatory/DC%20Drift%20Field%20Office%20Dock_FINAL_FONSIEA_andAppendix%20_508_.pdf?ver=fh9QCBIwDKdnHMmGNny6Hw%3D%3D&timestamp=1618518654866.

Figure 11| District- and USACE-Owned Docks on the Anacostia River

Source: Google Maps

5.4 Air Cargo

While there are no air cargo facilities directly in the District, there are three major cargo airports in the region that can serve the District. All three major airports are vital to both the movement of cargo along the east coast, as well as the movement of passengers. The three airports are:

Ronald Reagan Washington National Airport (DCA), is located 1 mile from the District across the Potomac River in Arlington, VA. The airport has access to both I-395 and US-1 (which connect to the greater National Capital Region through I-95 and I-66) through the George Washington Memorial Parkway.

Dulles International Airport (IAD), is located approximately 20 miles west of the District in Dulles, VA. The airport is directly connected to the Dulles Greenway, Dulles Toll Road, and Dulles Access Road, which provide connections to all the major Interstates in the National Capital Region.

Baltimore/Washington International Thurgood Marshall Airport (BWI), is located approximately 35 miles northeast of the District in unincorporated Anne Arundel County, MD. I-95 connects directly to BWI and provides access to the Baltimore-Washington Parkway (MD-295), which provides connections to the south of the District.

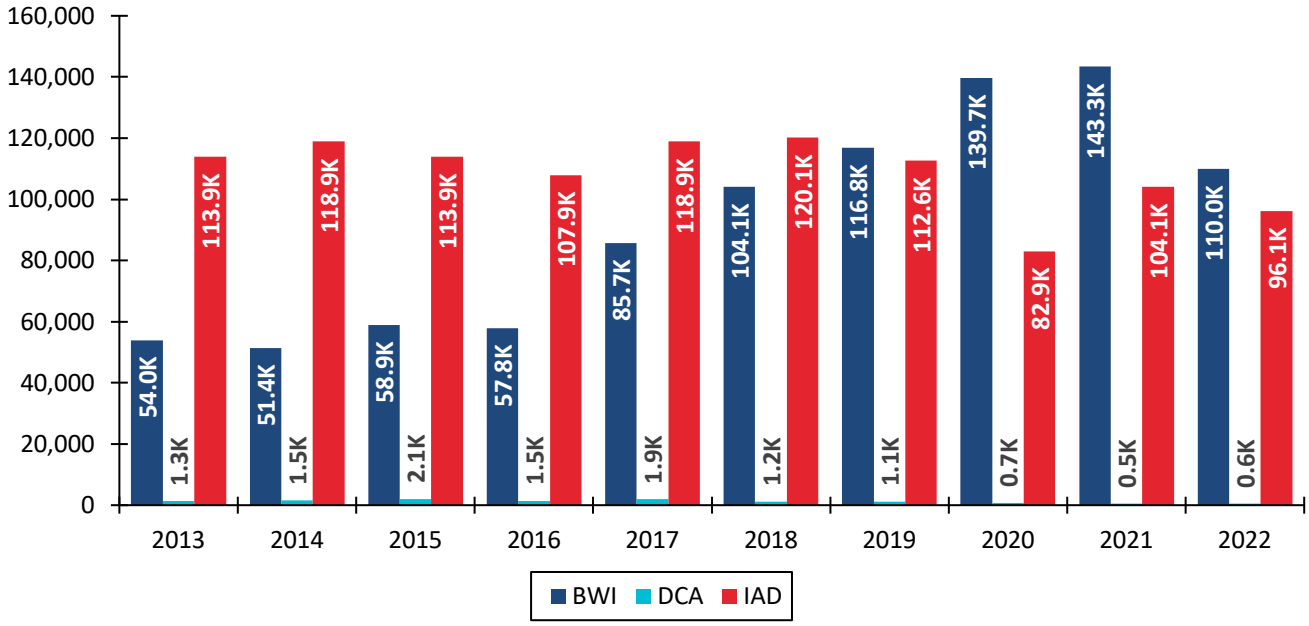
Total freight air traffic has steadily increased in the last 10 years with a relatively small disruption around the time of the COVID-19 pandemic in 2020. These trends generally fall in line with overall economic growth. The rise in e-commerce generally worked to smooth the negative impacts of the pandemic regarding air cargo,[13] thus 2021 proved to be the biggest year for air cargo in the National Capital Region to date, with nearly six hundred thousand tons of cargo going through the region in that year.

According to **Figure 12**, there is a marked shift within the region in terms of which airport handles the bulk of the freight in and out of the region. In 2013 IAD had over twice the volume of BWI. However, by 2019, BWI became the largest airport in the region by combined freight and mail volume with a particularly large lead in 2020, though

[13] "COVID-19 Impact on the air cargo industry". WTW. 2021. https://www.wtwco.com/en-us/insights/2021/01/covid-19-impact-on-the-air-cargo-industry.

this has since stabilized. This shift can likely be attributed to a variety of factors, including broader economic changes and shifting air freight carrier strategies. Additionally, BWI's investments to greatly expand its cargo capacity and improve its facilities seem to have proven particularly effective. This includes the 2019 opening of the 200,000-square-foot Midfield Cargo Building H to handle an increased number of shipments. [14]

Figure 12| Total Combined Freight and Mail Tonnage, 2013-2022



NOTE: 2022 data only available Jan-Oct.

Source: BTS T-100 Market Data. OST_R | BTS | Transtats.

[14] "BWI Thurgood Marshall Airport Set Cargo Record in 2021, Hogan Says". CBS Baltimore. 2022. https://www.cbsnews.com/baltimore/news/bwi-thurgood-marshall-airport-set-cargo-record-in-2021-hogan-says/.

5.5 Critical Urban Freight Corridors

The Infrastructure Investment and Jobs Act (IIJA) requires components of the National Highway Freight Network (NHFN) to be identified and designated to be eligible for freight funding from the NHFP. The classifications of the NHFN applicable to the District include:

- **Primary Highway Freight System (PHFS):** A network of highways identified as the most critical highway portions of the U.S. freight transportation system determined by measurable and objective freight data. Intermodal connectors and roadways providing access to other freight transportation such as ports and rail terminals, can also be designated as part of the PHFS.
- **Other Interstate Portions not on the PHFS (non-PHFS):** Interstates not included in the PHFS that provide continuity and access.
- **Critical Urban Freight Corridors (CUFC):** Public roads in urbanized areas that provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

Note: Critical Rural Freight Corridors (CRFC) do not apply to the District, as the District is entirely within an urbanized area.

In 2023, FHWA had designated 4.58 miles of PHFS and 11.99 miles of Non-PHFS Interstate in the District [15] based on 2019 data. The designation of CUFC's in a State/District is limited to 150 miles or 10% of the PHFS mileage in the State/District, whichever is greater. As specified by Section 167 of Title 23, the metropolitan planning organization (MPO), in consultation with the State/District, may designate a CUFC. As such, the District assessed its public roads for CUFC designation, in coordination with the regional MPO, the MWCOG Transportation Planning Board (TPB). In order to qualify for a CUFC designation, a segment must meet one or more of the Federal criteria shown below:

- Segment connects an intermodal facility to the PHFS, Interstate System, or an intermodal freight facility.
- Segment is located within a corridor of a route on the PHFS and provides an alternative highway option important to goods movement
- Segment serves a major freight generator, logistic center, or manufacturing and warehouse industrial land
- Segment is important to the movement of freight within the region, as determined by the MPO or the State/District

The District has limited highway facilities and logistics/industrial complexes, and therefore many of the CUFCs classified support local freight generation and movement of freight within the National Capital Region. In the District, much of the freight is generated by business centers and dense residential areas as discussed further in **Chapter 6**. Qualitative and quantitative considerations to better capture the local context, as shown in **Table 12**, were used to identify CUFC's within the District. Data sources for **Table 12** are noted in **Appendix C**.

[15] https://ops.fhwa.dot.gov/Freight/infrastructure/nfn/maps/nhfn_mileage_states.htm

Table 12| Critical Urban Freight Corridor (CUFC) District Considerations

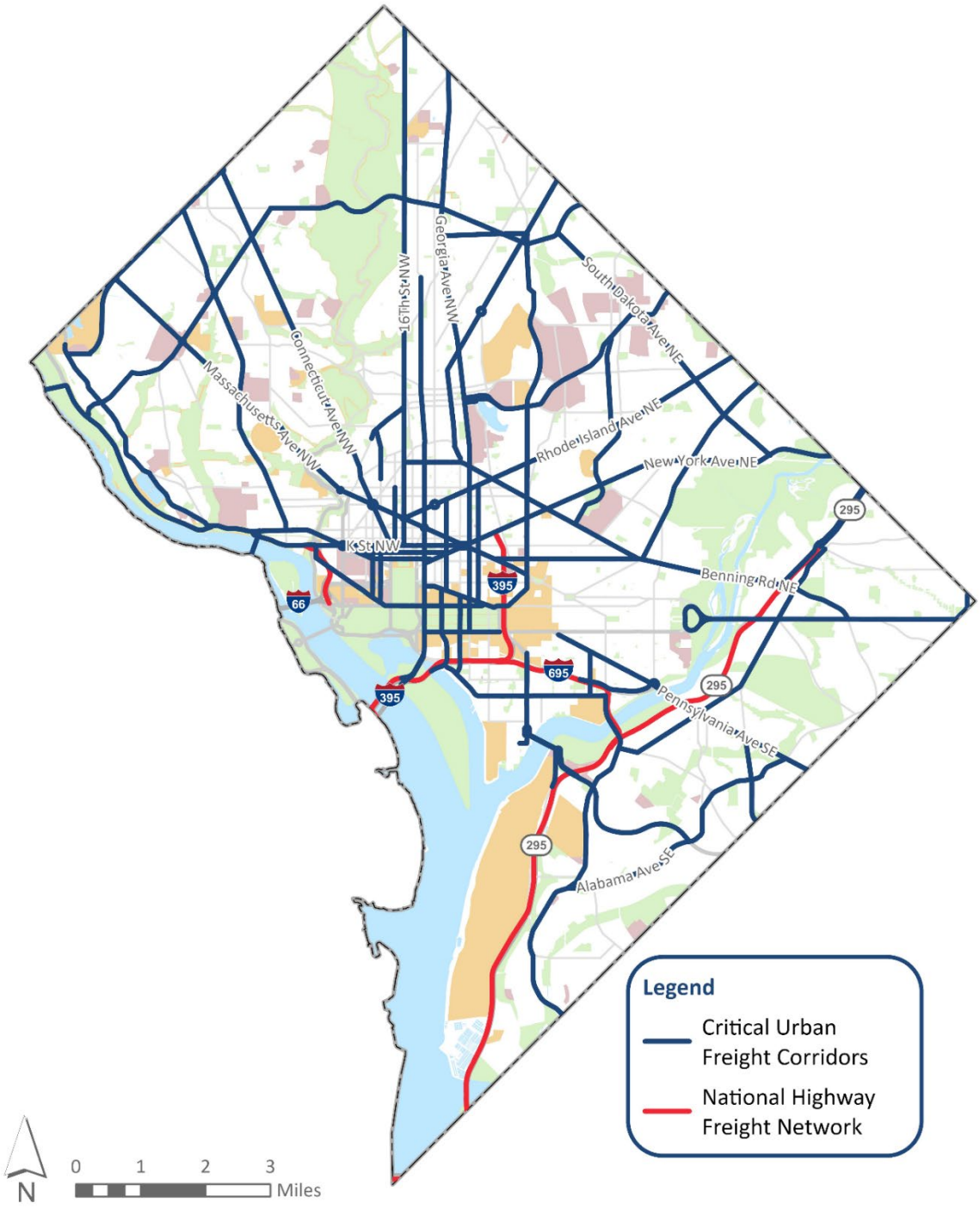
Data Types and Considerations
High Truck Volume Corridors
Freight Generators / Commercial Districts
Roadway Classification
Access
Pavement Characteristics
District Plans and Projects
Stakeholder Feedback
Truck and Bus Through Routes
Existing Truck Restrictions
E-Commerce Data
Neighborhood Characteristics/ Land Use

CUFCs At A Glance

The 2024 District Freight Plan CUFC designations are shown below in **Figure 13** and the full list is shown in **Appendix D**.

- Total of ~140 miles of CUFC 2024 designations.
- Removal of ~ 3 miles of the 2017 CUFC designations.
- Addition of ~70 miles of CUFC designations from the 2017 designations.
- CUFCs are different than truck through routes. Rather, they identify segments eligible for NHFP funding to maintain and improve freight movement.
- As the District continues to pursue innovative freight solutions, CUFC segments may be considered as candidates for pilots or implementation of innovative freight strategies.

Figure 13| District Critical Urban Freight Corridors



Source: FHWA NHFN 2019

Note: Kenilworth Avenue Northeast and DC-295 are two closely spaced parallel routes. While there may appear to be overlap between the National and District classifications, DC-295 is classified as a part of the National Highway Freight Network, and Kenilworth Avenue Northeast is classified as a part of the District's Critical Urban Corridors.

6. FREIGHT DEMAND AND ECONOMY

This chapter focuses on the impact of freight on the District's economy. Traditionally, this involves a commodity flow analysis to determine the most prevalent types of freight, most popular modes, top trading partners, and other trends. However, given the District's urban environment, an additional analysis was done for e-commerce, as it is fast becoming an important factor in freight discussions and planning in the District.

6.1 Commodity Flow

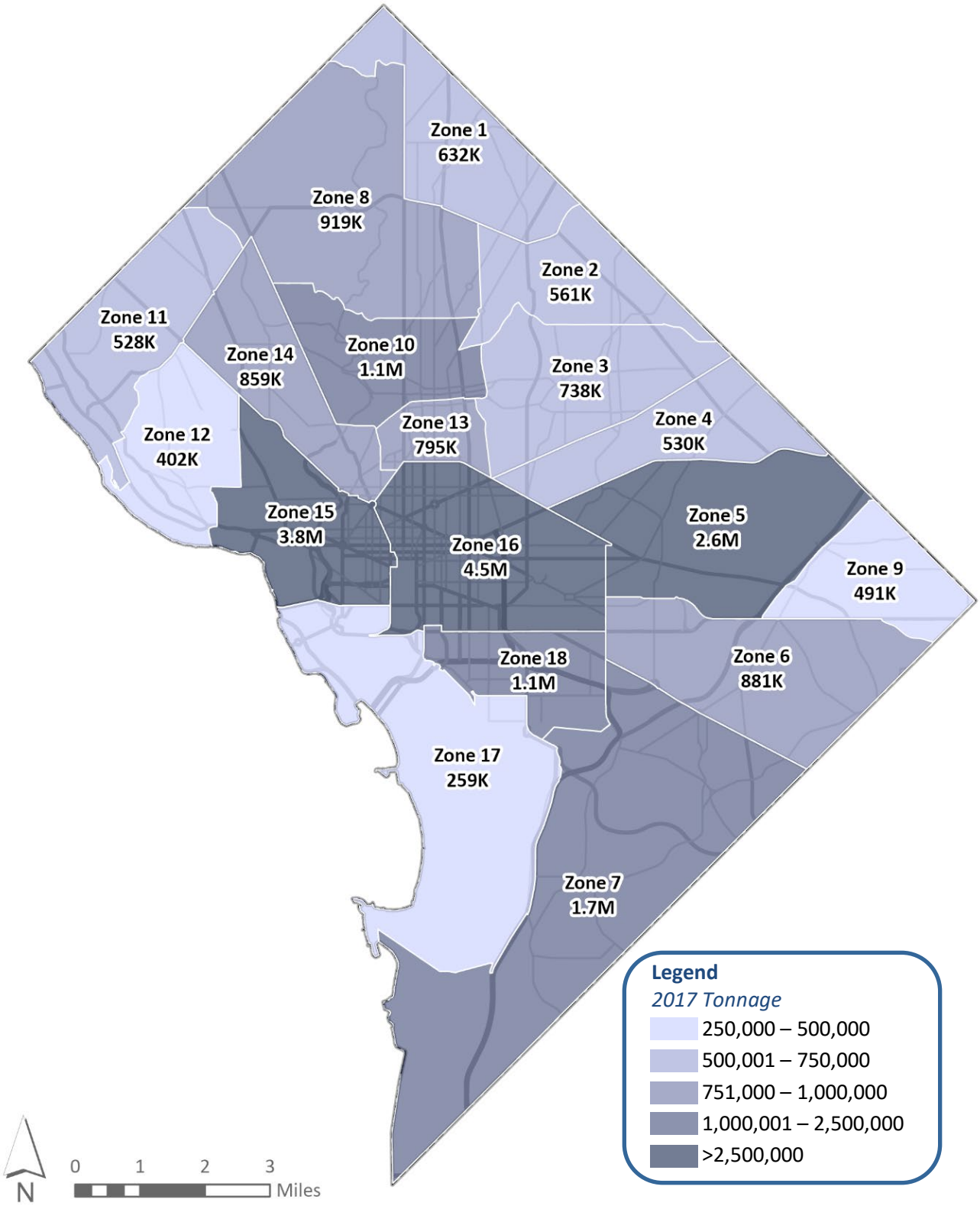
This section uses data from the Freight Analysis Framework Version 5 (FAF5) from the Bureau of Transportation Statistics to analyze freight flows in the District of Columbia with the most recent base year data from 2017 and trade projections for multiple years out to 2050. The District's particular freight portfolio is unique as it does not have the same land uses and freight infrastructure found in larger states. For instance, there are no major freight-carrying airports in the District and far fewer freight-producing businesses (agricultural businesses, mining, major manufacturing plants, etc.) than in larger states in the US. Despite this, 18 million tons of freight worth $7.2 billion was transported within the District in 2017. This is projected to increase to almost 25 million tons worth $14.4 billion in 2050, an increase of about 40% by tonnage and 100% by value.

While most of this analysis is focused on the District of Columbia as a whole, a disaggregation process was conducted on 18 Freight Zones within the District to better understand the commodity flow patterns. These Zones are represented in **Figure 14** and **Figure 15** below. Freight activity in the District is concentrated in:

- Zone 16 (Downtown/NOMA)
- Zone 15 (Georgetown/Foggy Bottom)
- Zone 5 (Ivy City/Kenilworth)
- Zone 7 (Southeast/Joint Base Anacostia-Bolling)

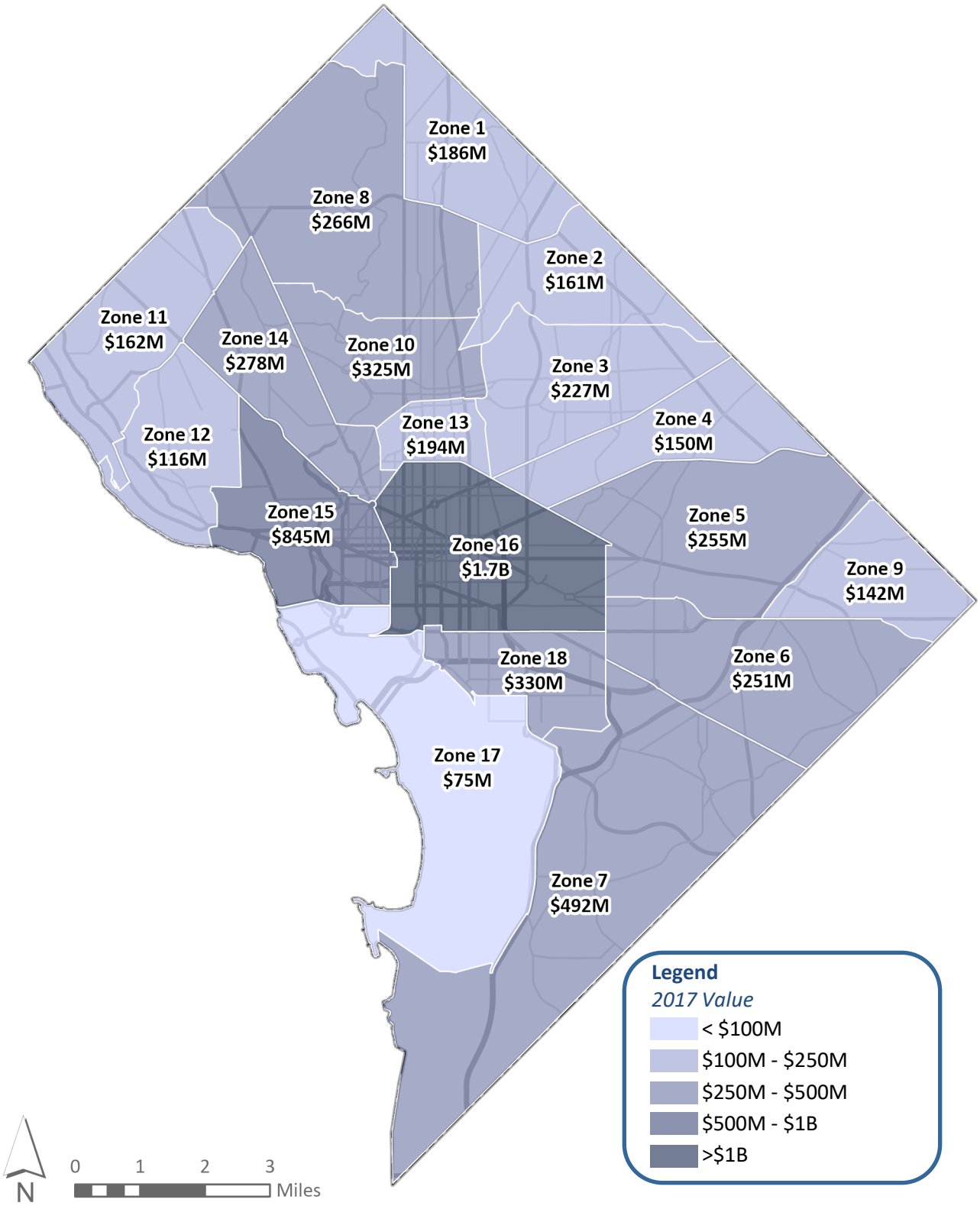
These four zones represent 4.5M tons ($1.7B), 3.8M tons ($400.7M), 2.6M tons ($255M), and 1.7M tons ($492M) respectively. This is more than half the total freight by tonnage and by value. Like the District as a whole, the freight activity in these zones comes primarily from inbound freight as there are few manufacturing facilities or other freight generators in these zones. Zone 16 and Zone 15 in particular, encompasses the central business district of the region, and have dense conglomerations of commercial and office hubs.

Figure 14| Total Tonnage by Freight Zone



Source: Bureau of Transportation Statistics, FAF5, 2023. Analysis by Cambridge Systematics, 2023.

Figure 15| Total Value by Freight Zone



Source: Bureau of Transportation Statistics, FAF5, 2023. Analysis by Cambridge Systematics, 2023.

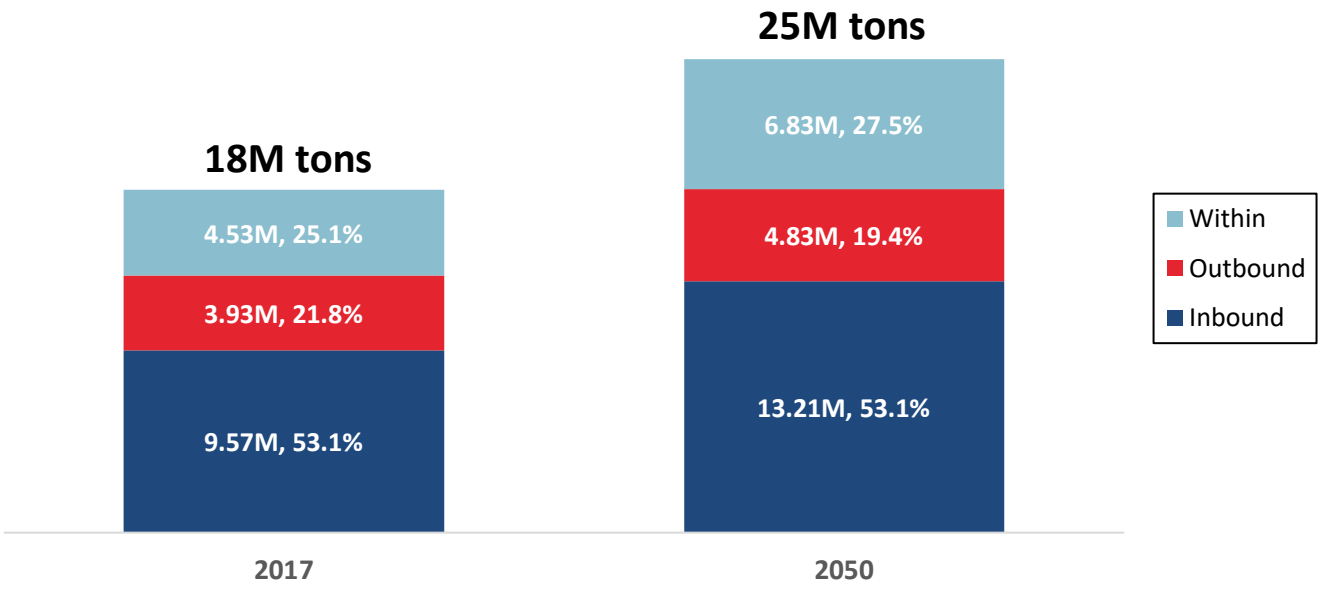
Directional Share

Directional movements are categorized as either inbound, outbound, or within the District. Inbound movements originate from areas outside the District while outbound movements originate from the District. Movements within the District are between Freight Zones or unspecified freight terminals. These definitions also account for foreign trade (e.g., inbound freight movements may have originated from a foreign trade partner). Overall, only 2% of freight tonnage in the District was a foreign import/export. The overall directional share of freight movements is shown in **Figure 16**.

Consistent with the District as a consumer of freight, the majority of goods are shipped inbound to the District (53% by tonnage in 2017). This is followed by goods movement within the District, which accounts for 25% of tonnage in 2017. Goods moving within the District are expected to grow faster than other directions, showing a 41% growth between 2017 and 2050. Outbound goods are expected to decrease in 2035 but will rebound by 2050.

When measured by value, inbound movements make up over 70% of total freight and outbound movements make up 25%. Internal movements are a much smaller proportion of freight movements – in 2017 only 3% of the total value of freight movements.

Figure 16| District-Wide Directional Share by Tonnage, 2017 and 2050



Source: Bureau of Transportation Statistics, FAF5, 2023. Analysis by Cambridge Systematics, 2023.

Mode Share

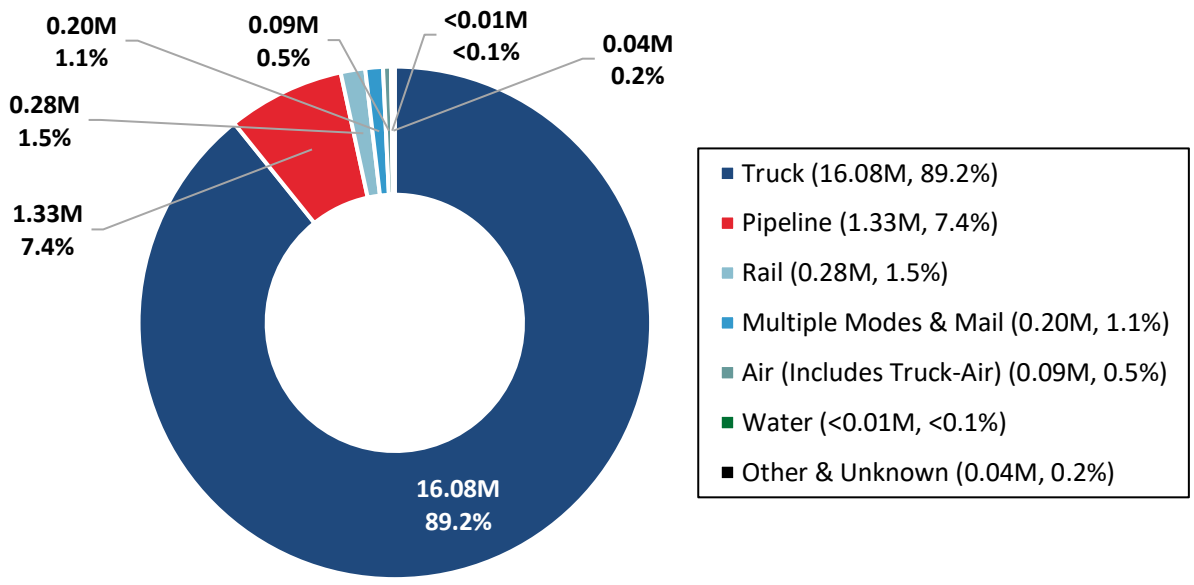
As seen in **Figure 17**, the majority of freight movements in the District are handled by truck (over 89% of freight by tonnage, which is over 16 million tons), which reflects the relatively few facilities that can handle other modes of freight. Pipeline was the second-most common mode, representing 7% (1.3 million tons) of all freight tonnage. Pipeline movements mostly consist of energy products and all pipeline movements are inbound to the District from other US states.

The next largest portion of freight moves by rail (0.2 million tons), though at a much lower order of magnitude. Rail tends to be used to move low value, high volume freight such as coal, cereal and grains, or gravel and sands. The multiple modes and mail category represents freight movements that are moved by parcel delivery services, the U.S. Postal Services, couriers (capped at 150 pounds), and multiple modes, which usually denotes containerized cargo, but could include any commodities delivered with an intermodal transfer during shipment. These two somewhat different categories are combined because the mode used by small parcel shipments are not usually known/reported.

Because the District has no airports in its jurisdictional boundaries, air movements in the District consist entirely of truck-air movements, which are trucks carrying air cargo from an airport. Truck-air movements included inbound and outbound movements; the main outbound goods were pharmaceuticals and the main inbound goods were transportation equipment. In general, goods moved by air are high value and/or time sensitive goods. These goods are an increasingly important part of the economic activity in the U.S. with the ubiquity of online shopping and e-commerce. The smallest portion of the overall tonnage by mode is water.

The mode share in 2050 is almost identical to the mode share in 2017; no major changes are predicted and truck movements continue to make up the majority of freight movements.

Figure 17| District Mode Share by Tonnage (Millions), 2017



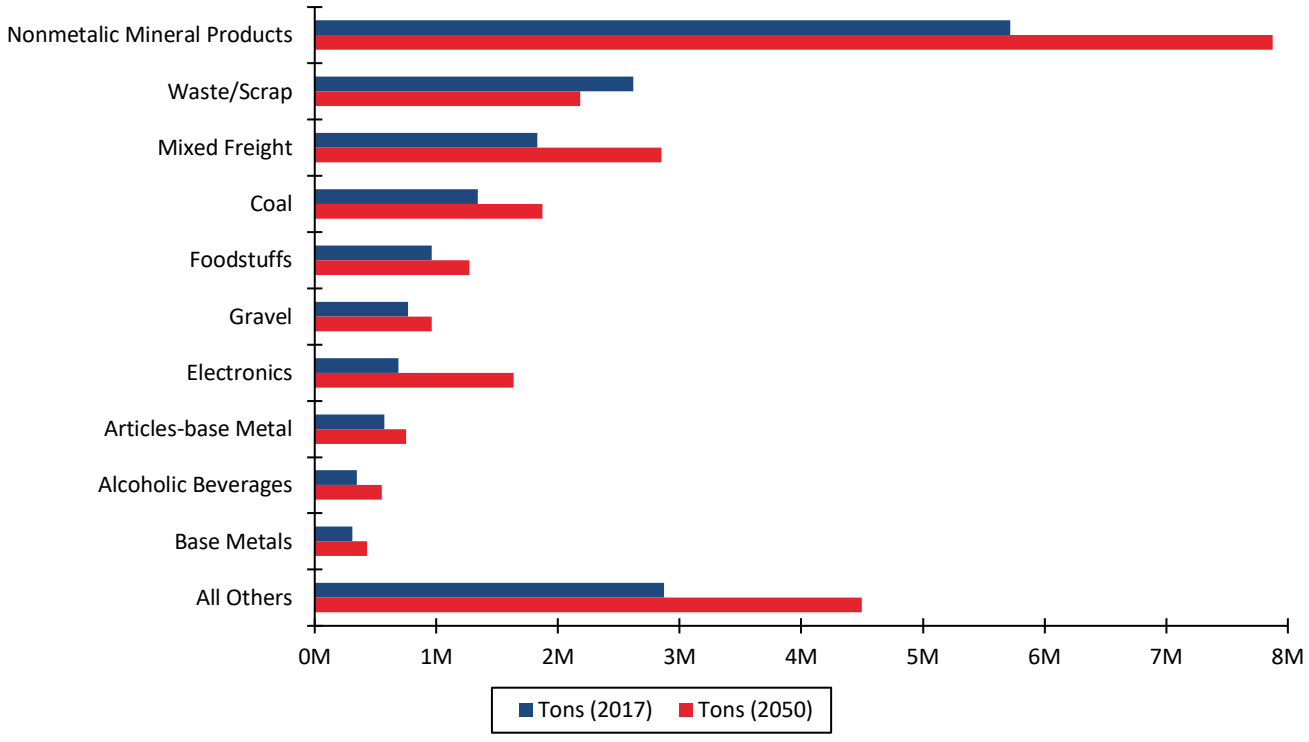
Source: Bureau of Transportation Statistics, FAF5, 2023. Analysis by Cambridge Systematics, 2023.

Top Commodities

Commodities often indicate the type of economic activity present in a given location. **Figure 18** shows the top ten commodities in the District by tonnage, regardless of direction. In 2017, by far the largest commodity was nonmetallic mineral products, which accounted for 5.7 million tons of goods, or 32% of all trade. This includes many types of goods, but is often associated with cement/concrete production, reflecting the size of the construction industry in the District. Waste/scrap is the next top commodity, accounting for 2.6 million tons of freight, or 15% of the 2017 total. Mixed freight, the third top commodity, are goods (including food) for grocery and retail stores, fast food establishments, office supplies, and miscellaneous goods. Mixed freight accounted for 1.8 million tons, or 10% of all tonnage in 2017. These top three commodities give a picture of the major forces in the District's economy — a large construction industry that is projected to continue requiring raw materials into 2050, and a large consumer population.

Trends into 2050 indicate that most commodity groups by tonnage will continue to grow, especially nonmetallic mineral products, mixed freight, and electronics. Only waste/scrap commodities are expected to decrease into 2050. Coal is another commodity with uncertain future. Many parts of the world — including the U.S. — have become less reliant on coal, but the District is expected to increase the tonnage of coal used in the region into 2050, perhaps due to the relative abundance of the material in this part of the U.S.

Figure 18| Top Commodities by Tonnage, 2017 and 2050



Source: Bureau of Transportation Statistics, FAF5, 2023. Analysis by Cambridge Systematics, 2023.

Top Trading Partners

The District receives the vast majority of goods from its nearest neighbors Maryland and Virginia: 77% of all tonnage and 52% of all value in 2017. Pennsylvania is the third top trading partner by tonnage and value, with only 4% of all tonnage and 7% of all value. In general, the top trading partners by value include farther locations such as California, Florida, and Washington state.

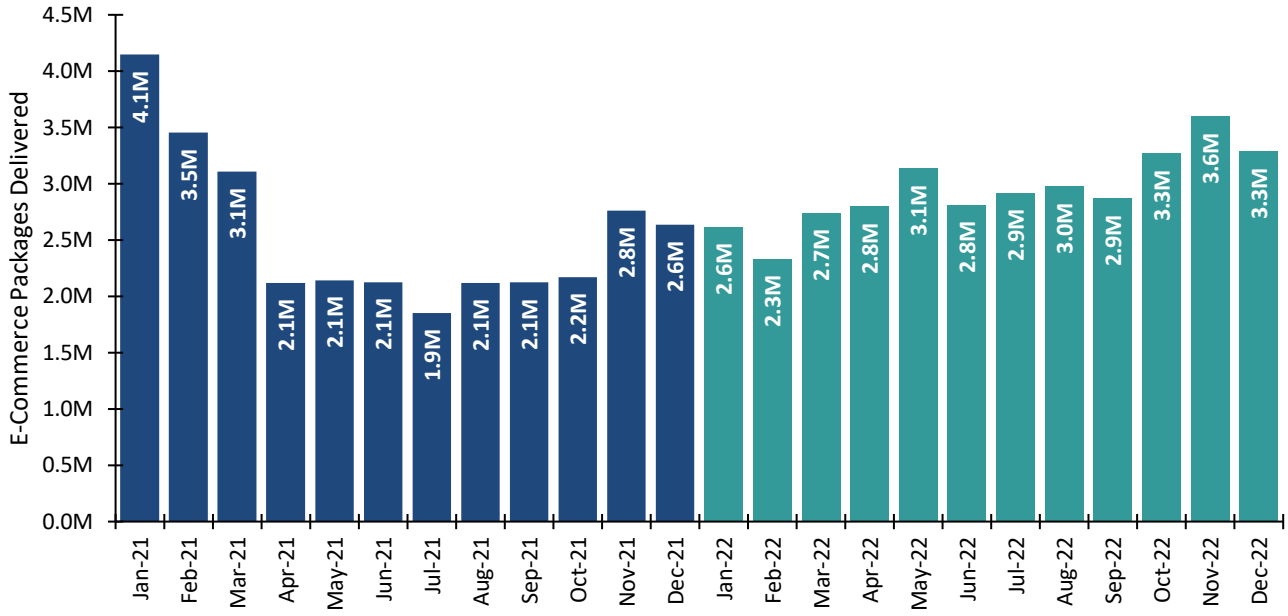
Outbound goods see a similar distribution of trading partners. The majority of the District's freight is sent to neighboring states. By tonnage, Virginia, Maryland, and Pennsylvania together account for 3.5 million tons, or 90% of the overall 2017 tonnage. When measured by value, the top outbound trading partners are less skewed. Virginia and Maryland only account for 31% of all freight movements in 2017, or $551 million.

6.2 E-Commerce and Last Mile Deliveries

Over the past decade, e-commerce has grown rapidly and significantly, especially during the COVID-19 pandemic of 2020 and 2021. Due to lockdowns and restrictions on visiting brick-and-mortar stores, e-commerce flourished when it was safest for many people to order online and have products delivered straight to their homes. The last leg of delivery, often referred to as the "last mile," or in a highly urban environment such as the District, the "last 50 feet," is increasingly dominated by the e-commerce sector, and the rapid changes of the past few years have required creative solutions to curb management and pick-up and drop-off locations, especially in denser metropolitan areas where the competition for curb space is at a premium. Predicting the trends in e-commerce and its effect on freight mobility will be an increasingly larger challenge as time goes on.

Figure 19 below shows e-commerce delivery data during 2021 and 2022 by month in the boundaries of the District, which includes the period when COVID-19 social distancing measures were in place. Over those two years, e-commerce delivery was highest at the beginning of 2021 (over 4.1 million packages in January 2021) when there were still restrictions on brick-and-mortar stores and consumers were not conducting as much in-person shopping. Over the first half of 2021, when many people started getting vaccinated and guidance on in-person activities loosened, e-commerce deliveries declined by about 50%, to closer to 2 million packages per month for most of the spring, summer, and early fall. Demand then increased around the holiday season in late 2021 and has steadily increased since then, with the end of 2022 seeing more than 3 million packages delivered per month.

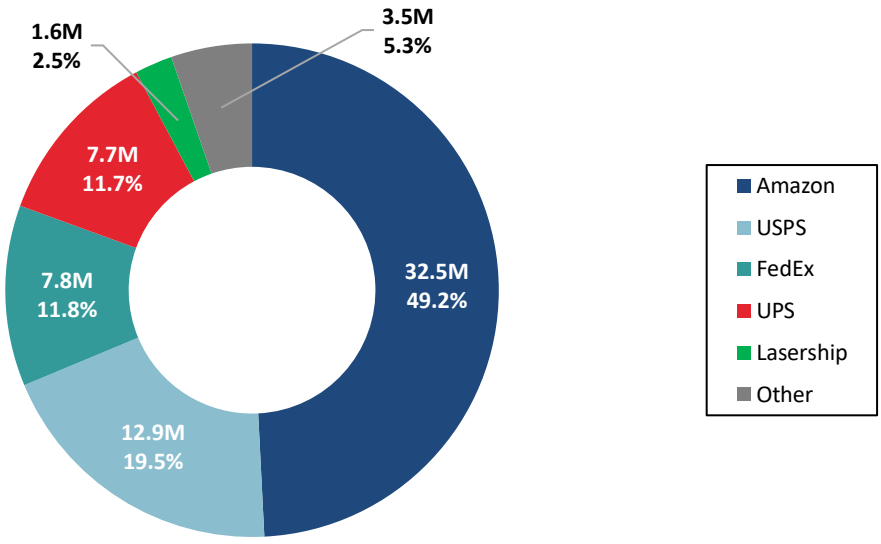
Figure 19| Total E-Commerce Packages by Month, 2021-2022



Source: NielsenIQ, 2021-2022; Analysis by Cambridge Systematics, 2023.

Figure 20 shows a breakdown of the carriers that delivered e-commerce packages during the 2021-2022 time period. Amazon is responsible for almost half (32.5 million packages) of the e-commerce packages, followed by the United States Postal Service (USPS) with about 20% (12.9 million packages) and then FedEx and the United Parcel Service (UPS), each with about 11% (7.7 million packages). The rest of the packages are delivered by much smaller companies such as LaserShip, Dynamex, DHL, and other services.

Figure 20| E-Commerce Packages by Carrier, 2021-2022

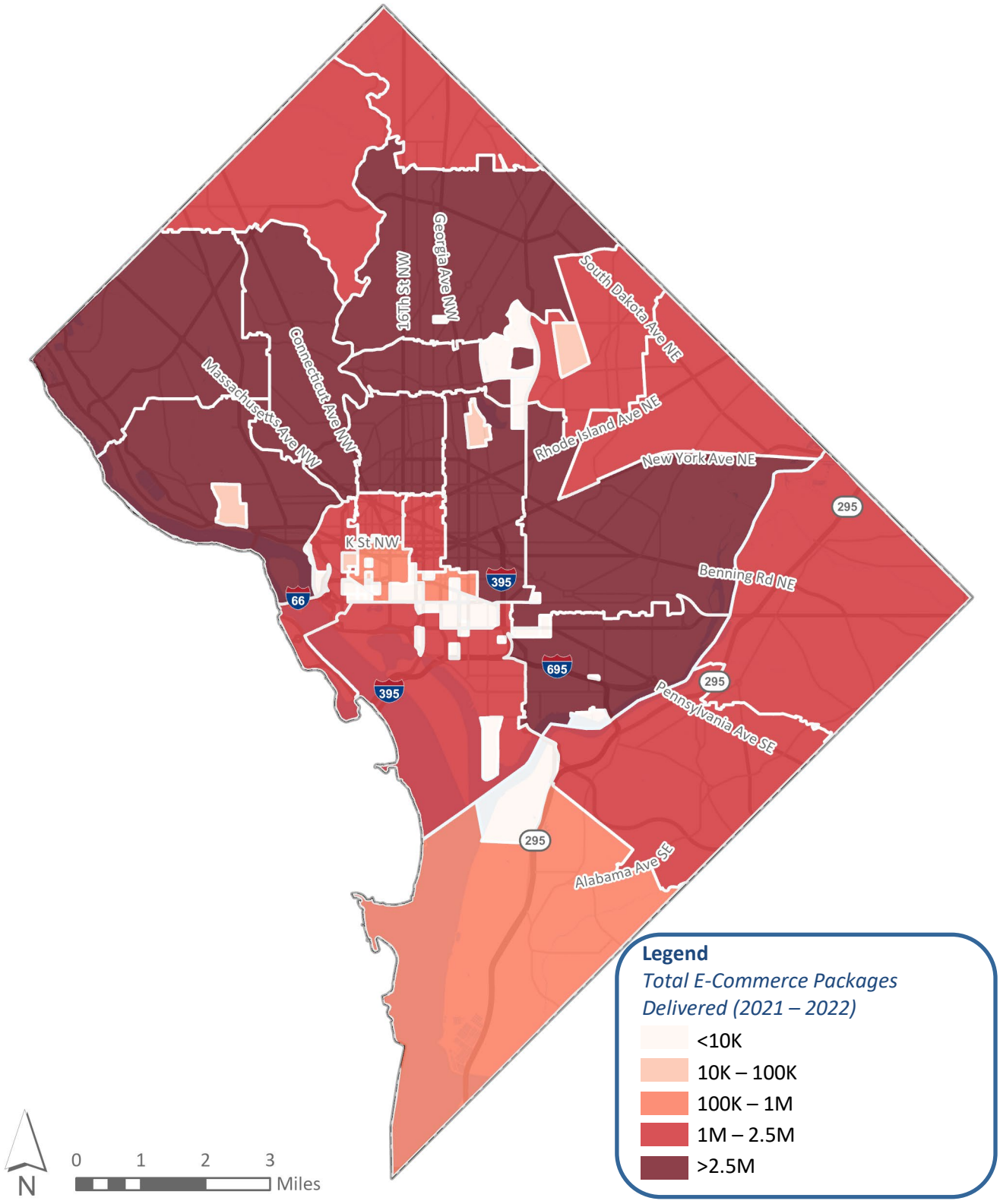


Source: NielsenIQ, 2021-2022; Analysis by Cambridge Systematics, 2023.

Figure 21 shows a breakdown of the total packages delivered by zip code. In general, the more residential-heavy areas in the District have more packages delivered; the zip codes with the largest number of packages delivered are zip code 20001 (north of the Capitol to around Howard University) with 9.0 million packages, zip code 20009 (just west of zip code 20001, bounded by Rock Creek Park and Dupont Circle) with 8.1 million packages, and zip code 20002 (just east of zip code 20001, bounded by East Capitol Street) with 7.5 million packages.

In general, Amazon looks to be dominant in residential areas, while the other three carriers are more prevalent closer to Central DC. This could signify that Amazon is more popular for home deliveries while USPS, FedEx, and UPS are more popular for office and store deliveries.

Figure 21| Total E-Commerce Packages Delivered by Zip Code, 2021-2022



Source: NielsenIQ, 2021-2022; Analysis by Cambridge Systematics, 2023.

7. FREIGHT SYSTEM PERFORMANCE

This chapter depicts the performance of the freight system, with a focus on highway bottlenecks, safety, asset condition, and truck parking.

7.1 Roadway Bottlenecks

Regional Freight Bottlenecks

Each year, the American Transportation Research Institute (ATRI) develops a nationwide truck bottleneck analysis that uses its extensive database of freight truck GPS data. The analysis utilizes vehicle time, data, and speed information to project truck volumes and congestion measures for locations around the entire country. [16] While not identifying any locations within the District's boundaries, ATRI did identify three interchanges in the Washington D.C. region that are in the top 100 truck bottlenecks in the nation. [17] Those three locations are the following:

- #79: I-95 at I-495, north of the District in Prince George's County, MD
- #89: I-495 at I-66, west of the District in Fairfax County, VA
- #92: I-495 at I-270, north of the District in Montgomery County, MD

These interchanges are not within the boundaries of the District but demonstrate that coordination between Washington D.C. and its surrounding metropolitan area is vitally important to the nation's freight movement.

District Freight Bottlenecks

Various metrics of the District's roadway system performance can be estimated using data from the National Performance Management Research Set (NPMRDS), such as speed and travel time reliability. When considering where both poor average truck speeds and truck travel time reliability are observed, the following main thoroughfares were identified as District bottlenecks in the District:

- The 295 corridor from Joint Base Anacostia-Bolling to Pennsylvania Avenue and from Benning Road to the Maryland border
- I-695 from the interchange with 295 corridor to the interchange with I-395
- I-395 from the Capitol to its terminus at New York Avenue NW
- I-395 where it crosses the Potomac River
- North Capitol St, north of Rhode Island Avenue NE near the medical campus with the Children's National Hospital and Washington Hospital Center
- US-29/Whitehurst Freeway as it parallels Georgetown
- Canal Rd on the east side of the Potomac River near the Maryland border

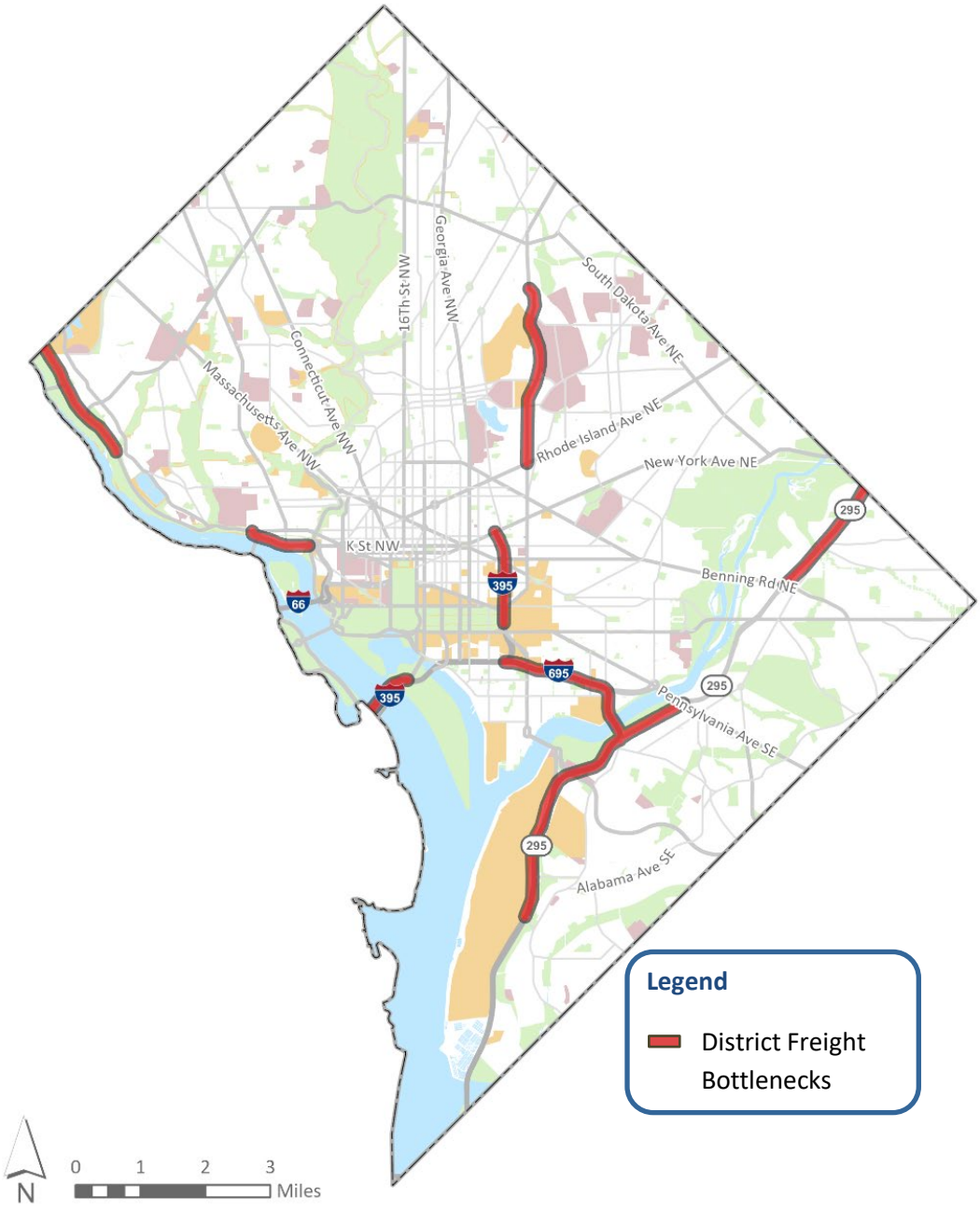
These roads either experience high truck speed differentials, high truck travel time reliability index numbers (making them less reliable), or both. Bottlenecks occur on main thoroughfares that facilitate truck movement from

[16] American Transportation Research Institute. Available at https://truckingresearch.org/wp-content/uploads/2023/02/ATRI-2023-Top-Truck-Bottleneck-Methodology-02-2023.pdf. Accessed May 2023.
[17] American Transportation Research Institute. Available at https://truckingresearch.org/wp-content/uploads/2023/02/ATRI-2023-Top-Truck-Bottlenecks-Executive-Summary.pdf. Accessed May 2023.

neighboring states to the District or on those that allow trucks to travel to and through the District more easily. Most of these routes carry passenger traffic as well; in an urban environment this can negatively affect truck mobility, especially at peak travel times.

These identified bottlenecks are also shown in **Figure 22**.

Figure 22| District Freight Bottlenecks

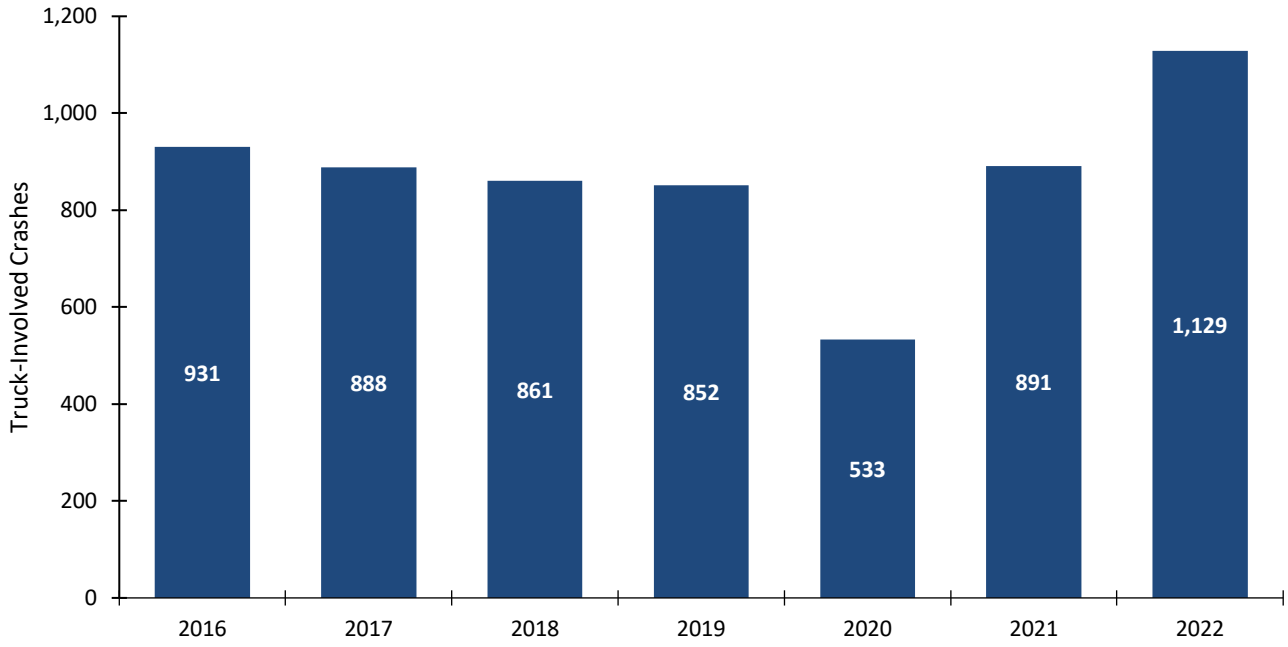


Source: National Performance Management Research Data Set, 2022.

7.2 Roadway Safety

In the past seven years (2016 to 2022), there were 6,085 crashes in the District where a large truck was involved. Out of these 6,085 crashes, four people were killed and 1,054 were injured. **Figure 23** shows the number of crashes by year. From 2016 to 2019, there was a steady decline in crashes, an average 5% change year to year. The year 2020 saw a significant drop in crashes, 37% from the previous year, likely due to decreased traffic volumes during the COVID-19 pandemic. The return of regular traffic volumes in 2021 and 2022 saw a growth in crashes to 30 percent above pre-COVID levels.

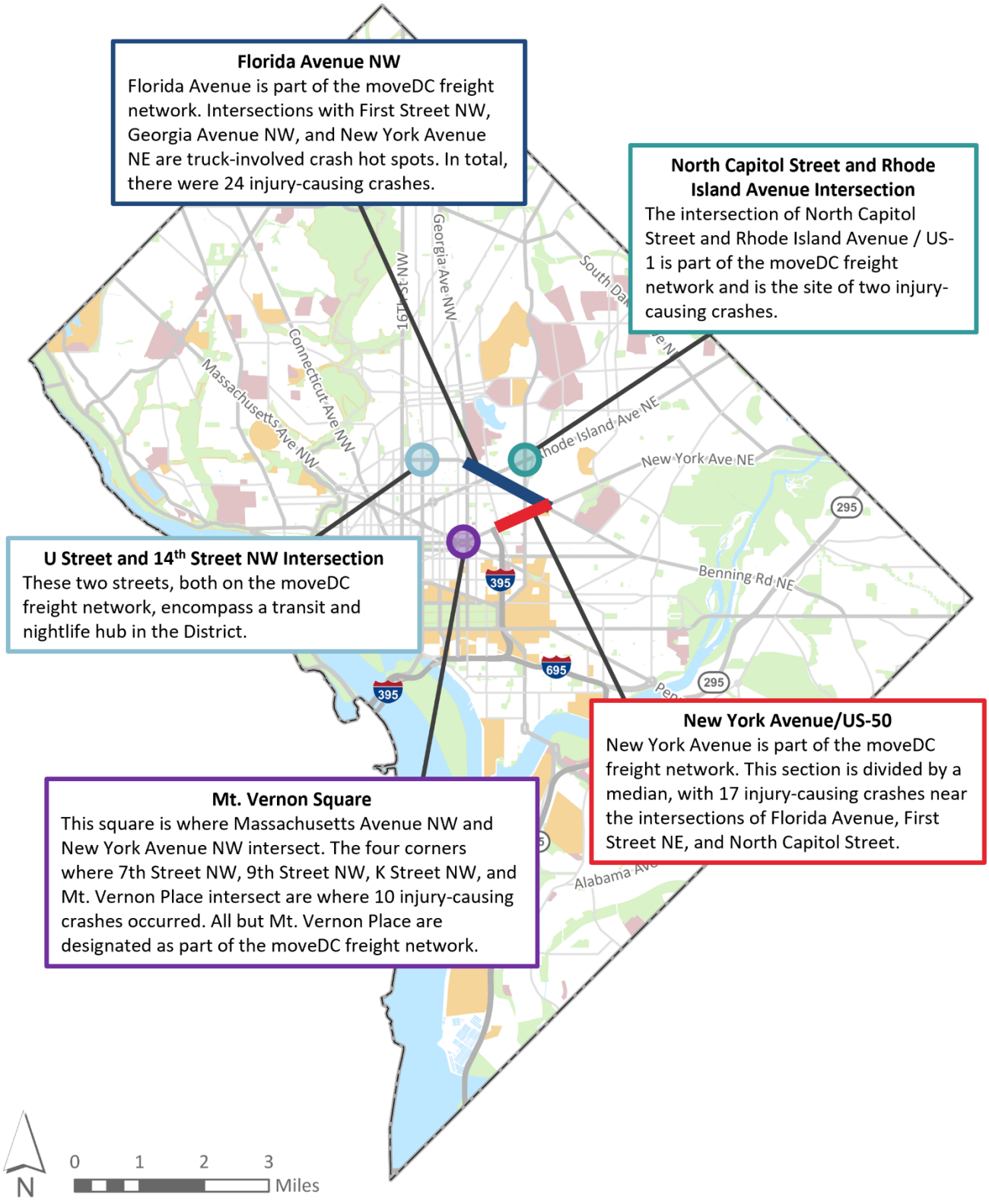
Figure 23| Truck-Involved Crashes, 2016-2022



Source: Open Data DC, Crashes in the District of Columbia, 2016-2022.

An analysis of truck crash locations revealed overlapping regions of high truck crashes. Most of central DC from the National Mall up to the neighborhood of Columbia Heights is considered a major truck crash hot spot. This rather large region of the District is home to its oldest, densest, and most complex street network, with major arterials such as Georgia Avenue/US-29 having sections with stop signs, street parking, bus stops, pedestrian crosswalks, and other potential conflict points. Additionally, many residents and businesses are located in this area, making it an important delivery destination. **Figure 24** shows particular central DC corridors and intersections with high crash rates.

Figure 24| Locations in Central DC with High Truck Crash Rates, 2016-2022



Source: Open Data DC, Crashes in the District, 2016-2022.

Other overlapping truck crash hot spots include:

- **I-695 south of the National Mall:** This is likely due to the high levels of traffic and congestion as well as the many on-and-off ramps in a short distance.
- **295 Corridor from I-695 to Pennsylvania Ave SE:** These bridges over the Anacostia River are a chokepoint for traffic.
- **295 Corridor near Benning Rd NE:** The area immediately surrounding the freeway is a small industrial cluster with a large Pepco utility facility and waste management center.
- **New York Ave NE and Bladensburg Rd NE:** On the north side of this intersection is a dense collection of warehouses.

7.3 Asset Condition

The condition of the District's pavement and bridge infrastructure affects not only the speed and reliability of freight but also the wear and tear on trucks using the network. Likewise, maintaining the freight network in a state of good repair will ease the burden of freight travel across the District, potentially helping spur economic activity. To set the stage for asset-related strategies discussed in **Chapter 7**, this chapter describes existing conditions of pavement and bridge infrastructure within the District of Columbia.

Pavement Conditions

Pavement condition is analyzed using a measure called pavement condition index (PCI). PCI measures pavement based on inspectors' assessments of the type of cracking as well as the severity and density of distress on the pavement surface. FHWA guidance recommends a score of 100 as the best condition pavement could potentially be in and 0 the worst. **Table 13** shows the 2022 PCI rating and categories as well as the mileage of pavement for the entire District roadway system, including local roads. Less than 1% of pavement is in the failed range; however, 15% of pavement in the District is within the poor range and 15% is within the fair range. 15% of the moveDC freight network has poor condition pavement. Less than 1% of the moveDC network is in the failed category. Eliminating poor-quality and failed roads in the District is a mayoral commitment managed through the PaveDC Program.

Table 13| Pavement Conditions in the District

PCI Category	PCI Rating	Mileage	% of Mileage
Excellent	86 – 100	571	50%
Good	71 – 85	225	20%
Fair	56 – 70	170	15%
Poor	21 – 55	172	15%
Failed	0 – 20	5	< 1%

Source: DDOT Pavement Condition Index.

Bridge Conditions

The FHWA requires state departments of transportation to annually report on the characteristics of bridges in their jurisdiction for collection in the National Bridge Inventory (NBI) database. DDOT reports on 248 bridges.

Bridge condition is based on the lowest rating of any three elements on a scale of 1 (worst) to 9 (best): superstructure, substructure, and deck condition. The NBI considers scores greater than a 7 to be in good condition, 5 – 6 to be in fair condition, and less than 4 to be in poor condition.

The four bridges that are in poor condition are older, and the deck of each bridge has the lowest condition rating:

- Kenilworth Avenue NE ramp for Benning Road NE – located in the northeast quadrant near the interchange of Benning Road NE and the 295 Corridor. Benning Road NE and the 295 Corridor are part of the moveDC Freight network.
- Washington Terminal Yard H Street Bridge NE – located in the northeast quadrant of the District and crossing over the Union Station terminal yard. H Street NE is part of the moveDC Freight Network.
- Theodore Roosevelt Bridge – this historic bridge carries I-66 across the Potomac River. While an important facility for the city, this bridge is not considered critical freight infrastructure, as it is truck restricted.
- Joyce Road NW – a noncritical bridge located on federal park lands in Rock Creek Park.

The National Bridge Inventory reports the Joyce Road NW bridge as being under the jurisdiction of the National Park Service, while DDOT owns the remaining three bridges.

Section 13.3.1 of the DDOT Design and Engineering manual specifies minimum vertical clearances for roadways within the District based on the functional classification of the roadway under the bridge, as follows:[18]

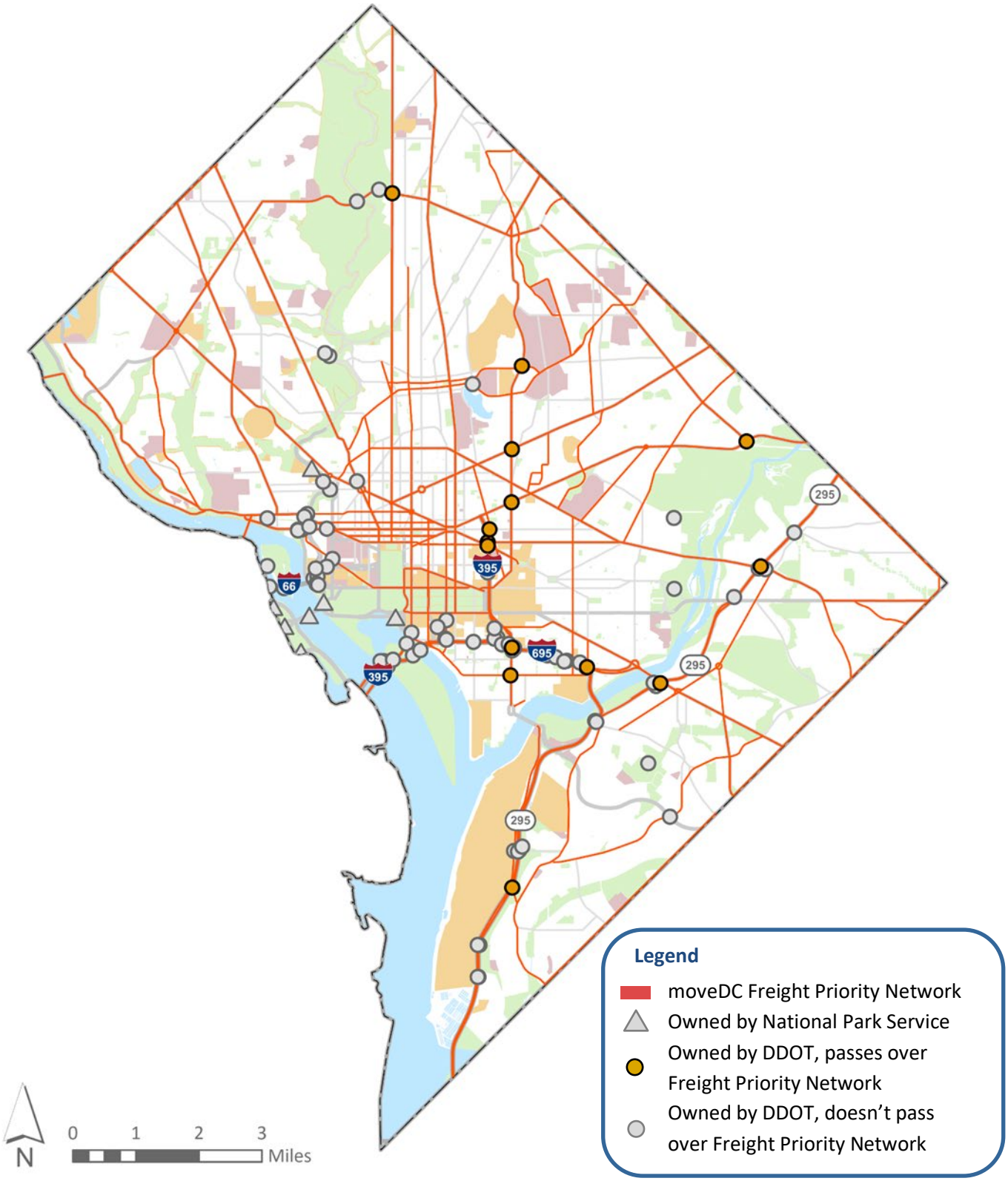
- Overhead structures over roadways: 14 feet, 6 inches
- Overhead structures over the Interstate system and National Highway System (NHS): 16 feet, 6 inches
- Overhead structures over highways connecting to the Interstate system and NHS: 16 feet, 6 inches
- Pedestrian structures over roadways: 17 feet, 6 inches

Figure 25 shows bridges with low vertical clearance based on the roadway under the bridge and the above vertical clearance standards. When trucks crash into low clearance bridges it blocks the roadway under the bridge and can also cause damage to the bridge, making the overhead roadway less safe to use or requiring it to be closed for inspections and repairs. There are 102 bridges under the minimum vertical clearance that is advised by the DDOT Design and Engineering (DEM) manual. Seven of these bridges are owned by the National Park Service, while the rest are owned by DDOT. The majority of these bridges were constructed before the DEM standards were implemented, and most (91 bridges) were built before the 1970s. Only 5 low-clearance bridges have been constructed since 2000.

Many of these low-clearance structures have little effect on freight movements. Around 40 bridges are located within parks or are associated with park roadways. Some bridges have arch shaped trusses that may have higher vertical clearances in one travel lane than another. In **Figure 25**, bridges that directly pass over the moveDC Freight Priority Network (and would interfere with trucks that need the most vertical clearance) are colored in orange. Bridges not affecting trucks on the Freight Priority Network are colored in gray.

[18] DDOT Design and Engineering Manual

Figure 25| Bridges with Low Vertical Clearances



Source: FHWA National Bridge Inventory, 2022.

7.4 Truck Parking

Truck parking facilities provide long-haul truckers safe places to rest overnight, stage deliveries to match delivery windows, and refuel their vehicle. The District has no public or large private truck parking facilities, as locating available land in the District is extremely challenging due to constrained right-of-way and dense development. DDOT does, however, participate in a truck parking working group through the Eastern Transportation Coalition and seeks opportunities to coordinate with neighboring jurisdictions to address truck parking needs. A review of regional plans by neighboring jurisdictions indicates that truck parking is a major issue in the National Capital Region, with large truck volumes and very few parking facilities available.

The Maryland Department of Transportation (MDOT) conducted a 2020 Truck Parking Study [19] that identified public and private truck parking facilities in the state, with MDOT's I-95/495 Park & Ride being the only facility close to the District, with less than 19 truck parking spots. The plan also conducted a modeling exercise to determine how easily trucks can find parking on major corridors in the area. The analysis included major corridors in the National Capital Region in Maryland, Virginia, and the District. In the surrounding Maryland jurisdictions, there is a low likelihood that truck drivers can find truck parking at peak hours. The Maryland study recommends developing a truck parking committee and integrating truck parking into land use, zoning, and planning.

The Virginia side of the National Capital Region also has limited truck parking availability. The Virginia Department of Transportation's (VDOT) 2015 truck parking study [20] identifies only two truck parking locations in the region. Both are public truck parking facilities along I-66 and I-95, but they are located far outside the I-495 beltway, near the cities of Manassas and Montclair, VA. The plan also identifies I-95 from Richmond to the District to be a traffic-safety-risk corridor because there is a higher incidence of trucks parking in undesignated areas, such as highway ramps or shoulders. A key finding of this study was that more truck parking is needed across the state, specifically along I-81 and I-95. In a survey conducted for the Virginia Truck Parking Study, more than 70 percent of truckers surveyed reported that overnight truck parking is a personal safety concern.

The Transportation Planning Board (TPB) National Capital Region Freight Plan 2023 Update [21] identifies the same truck parking locations as the Maryland and Virginia studies, citing the limited number of truck parking spots at rest areas and weigh stations.

[19] MDOT, Maryland Statewide Truck Parking Study: Final Report. (2020). Available at: https://www.mdot.maryland.gov/tso/pages/Index.aspx?PageId=80. Accessed May 2023.
[20] VDOT, Virginia Truck Parking Study. (2022). Available at: https://vtrans.org/resources/VDOT_2022_Truck_Parking_Study.pdf
[21] TPB, National Capital Region Freight Plan. (2023). Available at https://www.mwcog.org/documents/2023/07/19/national-capital-region-freight-plan-freight/. Accessed March 2024.

8. FREIGHT RESILIENCE, ENVIRONMENTAL, AND EQUITY CONSIDERATIONS

8.1 Minimizing Impacts to District Habitats

The District has more than 7,600 acres of wetlands, water, forests, and meadows, accounting for approximately 17% of the District's land area. [22] The National Park Service owns and maintains approximately 90%, 6,700 acres, and the remaining acres are owned and maintained by the District. [23] These natural resources are home to more than 1,390 species including birds, fish, reptiles, amphibians, mammals, and invertebrates. Unique to the District, many of these parks and natural habitats coexist with developed land, which accounts for 78% of the District's area, and are located near the roadway network. The District Department of Energy and Environment (DOEE) Climate Action Plan aims to protect, restore, and expand the natural resources throughout the District. The District's Sustainable DC 2.0 plan complements the DOEE Climate Action Plan and identifies the need to "weave the natural environment throughout Washington DC's urban footprint". [24] The District closely coordinates with the National Park Service (NPS) to support the biodiversity within the District.

Aquatic

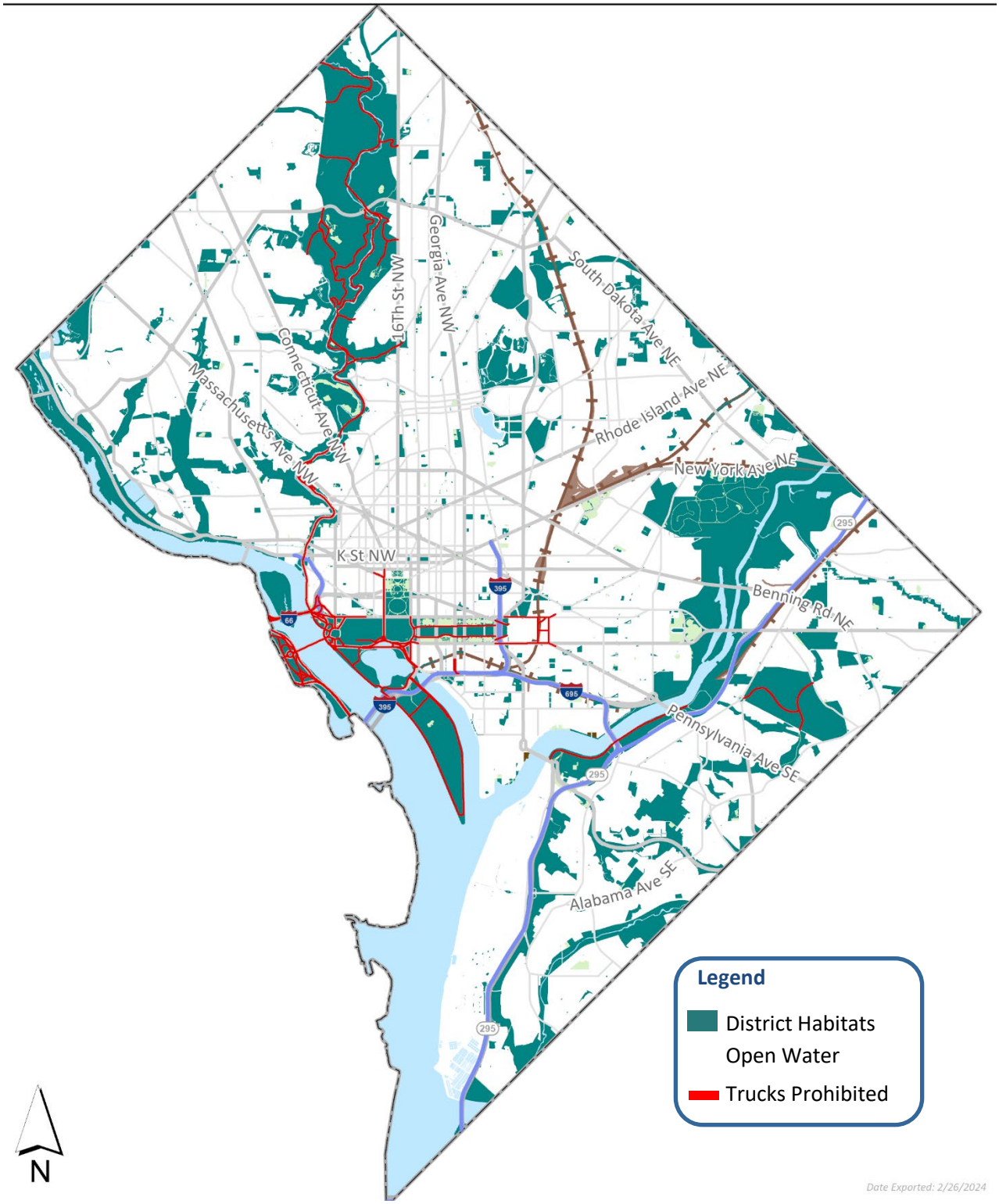
Sustainable DC 2.0 and the DOEE Wildlife Action Plan (2015) outline goals, targets, and strategies to protect, restore, and expand aquatic ecosystems through investment in targeted Conservation Opportunity Areas. The existing District-owned dock is downstream of the eight identified Conservation Opportunity Areas. While marine freight activity is currently limited, leveraging marine freight to improve network resilience will need to be balanced and coordinated with stakeholders to minimize impacts on aquatic ecosystems.

Land

The 2024 District Freight Plan leverages a variety of existing policies and strategies to minimize impacts on District habitats. For example, truck movements are restricted through NPS areas, as shown in **Figure 26**. Over 6,700 acres of land habitats are within NPS areas. Secondarily, the additional miles of designated Critical Urban Freight Corridors will provide funding opportunities to manage freight movements in the District. Advancing the strategies in this plan can benefit habitats: delivery microhubs and diversifying last mile modes can lower emissions and noise and reduce truck incursions on NPS land. The District will continue to coordinate with DOEE and other District stakeholders to minimize freight-related impacts on land habitats.

[22] District DOEE Wildlife Action Plan, Chapter 1, Page 2 (2015)
[23] District DOEE Wildlife Action Plan, Chapter 1, Page 2 (2015)
[24] https://sustainable.dc.gov/sites/default/files/dc/sites/sustainable/page_content/attachments/SDC2%20Nature.pdf

Figure 26| District Habitats and Roads on which Trucks are Prohibited



Source: DOEE 2015 Macro Habitats

8.2 Reducing Freight-Related Emissions

In 2020, the transportation sector accounted for approximately 21% of the District's greenhouse gas emissions(GHGs)[25]. This includes private transportation, public transportation, freight, and other transportation-related activities. Preserving and supporting the District's environment are key components of many of the District's planning initiatives, including Sustainable DC 2.0, moveDC, Carbon Free DC, and District's Comprehensive Plan. An overview of the freight-related emission targets discussed across District plans are shown in **Figure 27** and overlaid with federal emission targets.

Freight moves through the District primarily by truck, contributing to overall transportation-related greenhouse emissions and air pollutants. GHG emissions are gases, such as carbon dioxide and methane, emitted by burning fossil fuels that can trap heat within the Earth's atmosphere. Air pollution includes particulate matter, such as nitrogen oxide and volatile compounds, emitted into the air, especially from diesel vehicles, which can impact the environment and health. The District's air quality and pollutant levels are monitored federally and regionally. The Clean Air Act sets forth requirements for six pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, particle pollution, and sulfur dioxide) and the Environmental Protection Agency (EPA) classifies non-attainment areas.[26] Pollutant levels in the District continue to decrease, meeting the federal requirement for five air pollutants, though the District is currently a non-attainment area for 8-hour Ozone (2015).[27] Emissions and air pollution are not confined to jurisdictional boundaries. Thus, MWCOG's Air Quality Committee plays a key role in evaluating data and setting forth regional and context-sensitive goals. The 2023 National Capital Region Freight Plan Equity Analysis highlights "freight-related environmental justice issues arise when the impacts and externalities of freight, such as noise and air pollution, are unfairly concentrated in low-income and minority communities."[28] As many freight vehicles travel through the District's dense roadway network and deliver goods along residential urban streets, they impact the quality of life and health of District residents and visitors.

Many of the District's goals and strategies to meet emission targets are already in motion through existing DDOT programs. Innovative freight delivery strategies support the diversification of freight modes to include electric trucks, electric private delivery vehicles, cargo e-bikes, and microhubs, can help reduce freight-related emissions in the District. The DDOT Positive Truck Signage Study evaluated emission impacts of a potential transition to a mandatory truck route system. While the impacts of that potential transition on each pollutant would be varied, there is an estimated total annual monetized emission benefit (relative to existing conditions in 2026) of approximately $80,000. Transitioning to a mandatory truck route framework could also improve air quality for local populations by redirecting trips away from local roads to arterials.

To further towards these goals, DDOT will explore the strategies **Innovative Freight Delivery Practices** and **District's National Electric Vehicle Infrastructure (NEVI) Plan** to reduce vehicle emissions via alternative fuel infrastructure and diversified delivery modal options. DDOT will also support efforts to reducing congestion in the region through strategies such as **Oversize/Overweight (OSOW) Vehicles** and **Freight Advisory Committee** discussed further in **Chapter 9**.

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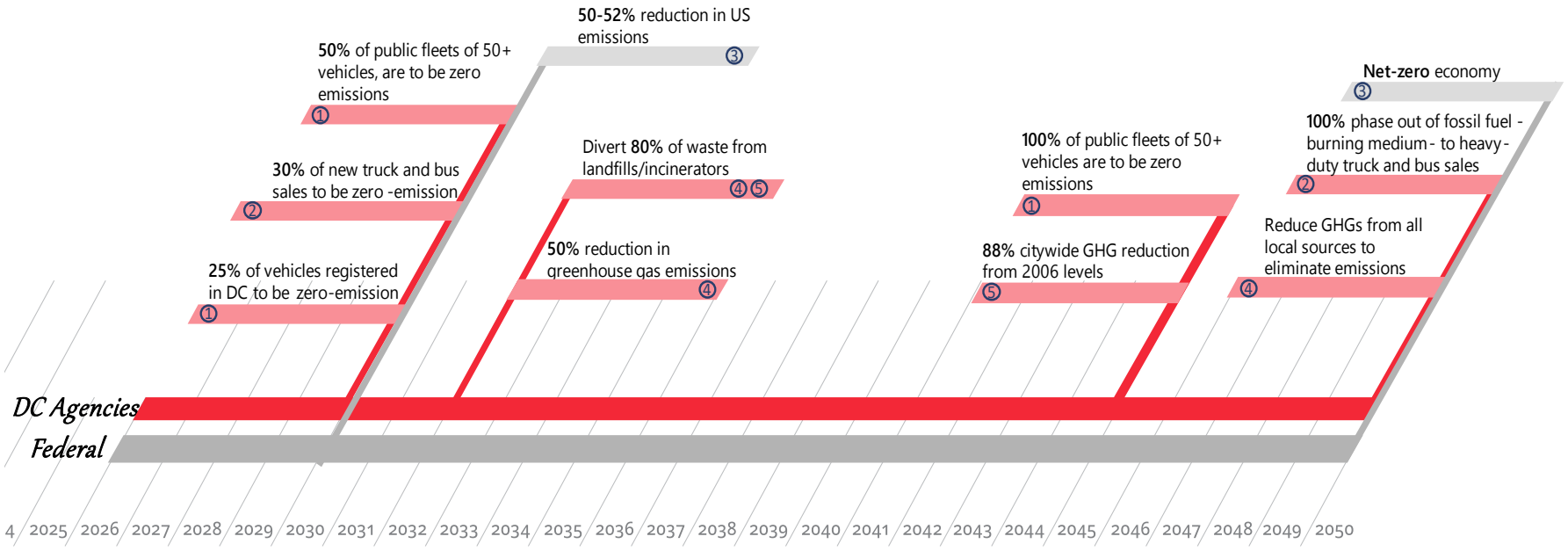
[25] Sustainable DC 2.0

[26] Nonattainment: Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for a NAAQS. (EPA, *Ozone Designation and Classification Information*)

[27] https://www.mwcog.org/environment/data-and-tools/air-quality-progress-dashboard/

[28] https://www.mwcog.org/documents/2023/07/19/national-capital-region-freight-plan-freight/

Figure 27| Overview of Freight-Related Emission Targets

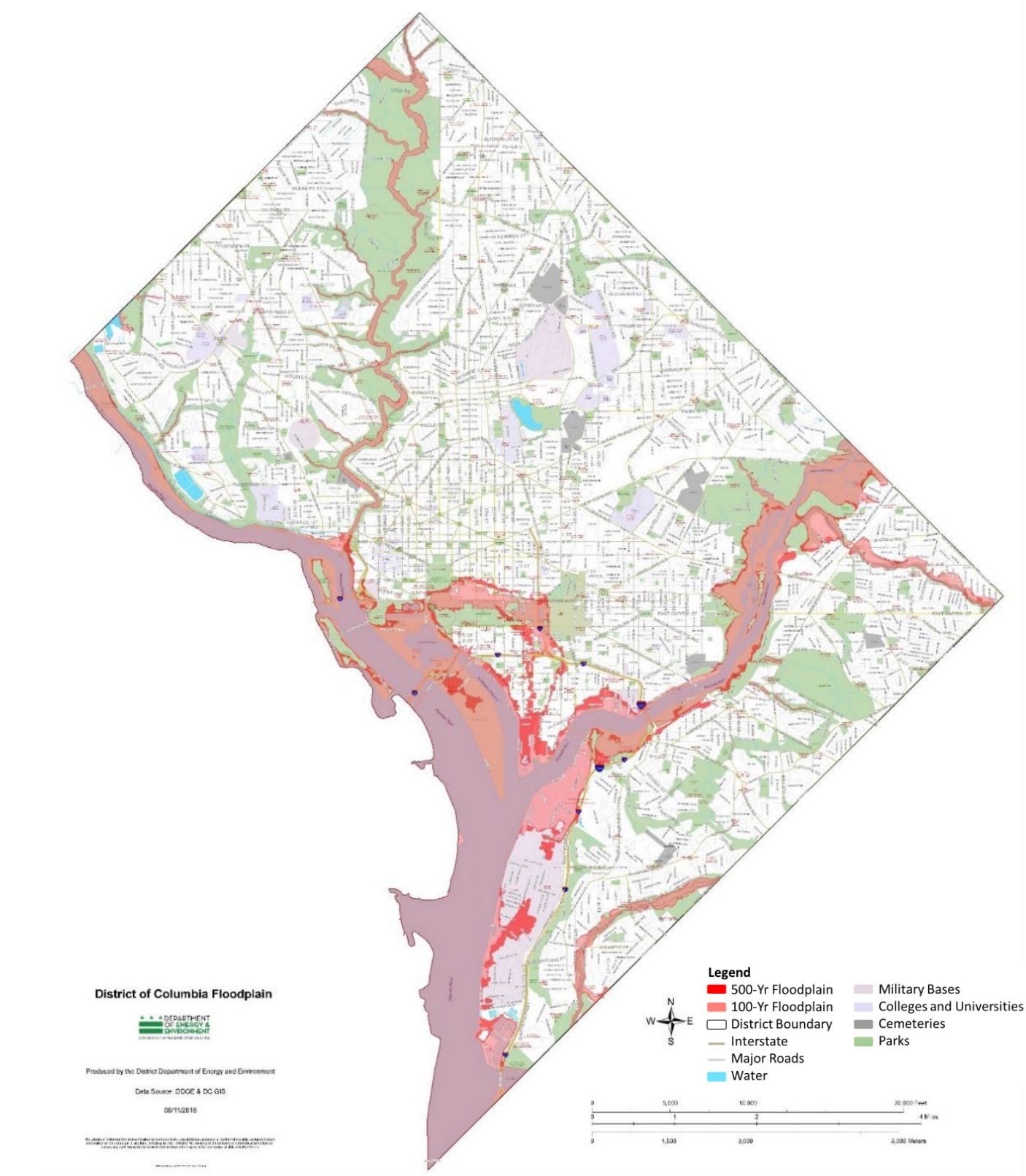


Sources: (1) DOEE Transportation Electrification Roadmap, (2) Multi-State Medium- and Heavy-Duty Zero Emission Vehicle MOU, (3) US DOT Climate Strategic Plan, (4) Sustainable DC 2.0, (5) Carbon Free DC

8.3 Resilient Freight Modes and Infrastructure

As discussed in **Chapter 5**, goods movement within the District relies heavily on the roadway network. District agencies are preparing for storm surges, flooding, and increasing temperatures. The 500-year and 100-year floodplains for the District are depicted in dark and light red, respectively, in **Figure 28**. The probability of a 500-year flood occurring in any one year is 0.2%, and the probability of a 100-year flood is occurring in any one year is 1%. The floodplains show impacts to roadways near the riverbanks, the central business district, and segments of the I-395 tunnel. Portions of the National Mall and Rock Creek Parkway may also experience flooding which may not directly impact truck routes as trucks are currently prohibited on these roadways. Though, trucks may be indirectly impacted by increased congestion though the District roadway network due to more widespread flooding. Current District plans such as Sustainable DC 2.0 and Climate Ready DC identify strategies to improve the District's resilience to natural disasters. Resiliency improvements to the roadway network and infrastructure will provide benefits to the freight industry in addition to passenger vehicles.

Figure 28| Storm Surge Impacts on the District



Source: DOEE District of Columbia Floodplain (2018)

The District also should consider ways to diversify freight modes to support long-term resilience. Strategies such as **Innovative Freight Delivery Practices** and **Multimodal Options**, discussed in **Chapter 9**, can provide transportation redundancy and greater flexibility in instances of disruption, such as extreme weather and natural disasters. DDOT is implementing green infrastructure, such as bioretention systems, permeable pavement, and larger landscaped areas within its right of way to minimize the impacts of flooding and stormwater runoff in its roadway projects. DDOT also updates its Design and Engineering Manual to support District and DDOT goals. The **Design Guidelines** strategy provides the opportunity to update freight design guidelines and suggest solutions to minimize the impacts of flooding and runoff for the entire roadway network.

Scenario planning is a key strategy to identify infrastructure and other adaptations to improve freight resilience and consider alternative future scenarios. Environmental factors may be included in the scenarios to understand how to best prepare for storm surges and temperature changes and minimize the impacts of flooding and runoff.

8.4 Advancing Equity

DDOT conducts an equity assessment of all of its projects and programs, including its freight projects, as part of its project prioritization process, and already has equity-focused projects underway. For example, the delivery microhub feasibility study is evaluating how the District could leverage microhubs to improve safety, sustainability, and equity. As the study transitions to a pilot program, potential microhub locations will consider demand, access, and equity criteria. Looking forward, strategies discussed in **Chapter 9**, such as **Data and Metrics, Diversify Stakeholders**, **Freight Workforce**, and **moveDC Equity Lens**, aim to better understand how the benefits and burdens of freight are distributed across the District and how to minimize negative impacts such as air pollution. The strategy to address **Truck Related Crashes Safety** also aims to improve awareness and reduce truck-related crashes in hotspots and/or equity priority areas.

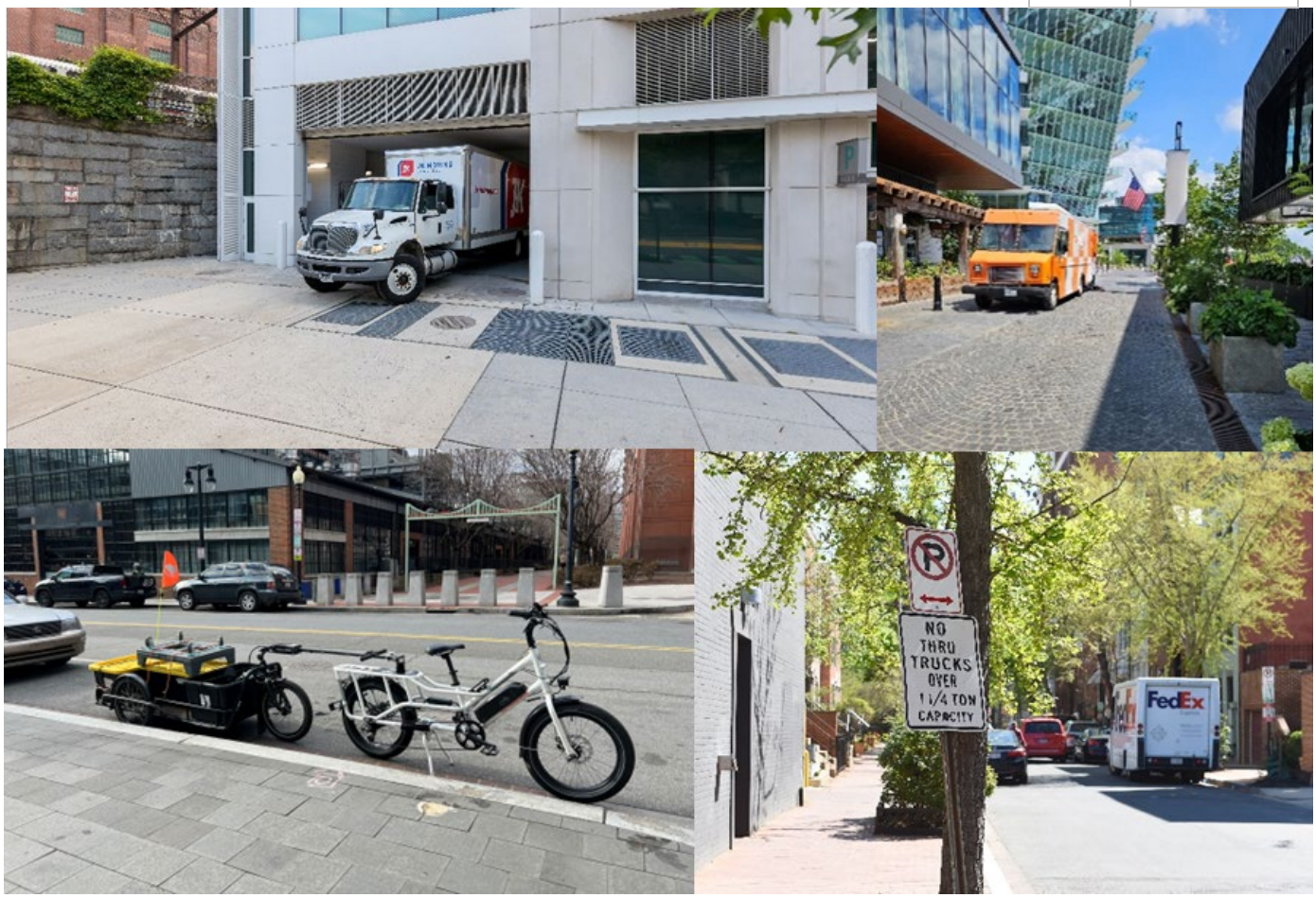
9. FREIGHT NEEDS, ISSUES, AND STRATEGIES

9.1 Introduction

The 2024 District Freight Plan identified **17 needs and issues** and developed **27 strategies**. The District Freight Plan goal areas, inspired by the moveDC goals, provide the framework and organization for the needs, issues, and strategies. The needs, issues, and strategies were developed through multiple stakeholder engagements and a detailed review of industry best practices and strategies that have been successful in peer cities. The strategies range from studies and pilots to infrastructure investments. While needs, issues, and strategies might be listed within one moveDC goal area, they are not exclusive to it and may provide benefits to multiple moveDC goal areas. **Table 27** summarizes all the strategies and their relationships to the goal areas. Strategies will be adopted and prioritized by the agency and advanced through in-house efforts or as a part of a project list.

The symbology to the right will be utilized throughout the chapter to help readers identify needs, issues, and strategies. Issues are challenges or problems that should be addressed in the longer term, whereas needs should be addressed in the near term.

	Issue
	Need
	Strategy



Source: DDOT

9.2 Sustainability

Table 14| Overview of Sustainability Needs, Issues, and Strategies

Needs and Issues	Strategies
Reduce freight-related transportation emissions.	Evaluate, develop, and implement innovative freight delivery practices to improve curbside loading operations, reduce loading conflicts, support cleaner and more sustainable freight modes, and expand microhubs and sustainable delivery modes.
Prepare for alternative fuel infrastructure and fleets.	Update data and metrics to provide a baseline and insights on the impacts of strategies.
	Coordinate with DDOT's National Electric Vehicle Infrastructure (NEVI) Planning Team.

Needs and Issues

Reduce freight-related transportation emissions.

District plans such as Sustainable DC 2.0 and CarbonFreeDC set forth goals and visions to "reduce greenhouse emissions and air pollution from the transportation sector" and "…move people and freight with less noise and pollution[29]" respectively. The DDOT Sustainability Plan highlights DDOT's mission to develop and maintain a cohesive, sustainable transportation system that delivers safe, affordable, and convenient ways to move people and goods — while protecting and enhancing the natural, environmental, and cultural resources of the District." While the goals and visions of the plans are not exclusive to freight, the freight plan aims to operationalize the related goals, visions, and strategies within the context of the District's freight industry. DDOT seeks to consider, implement, and evaluate the feasibility of strategies to reduce freight-related emissions within the context of the District.

The importance of industry partnerships

Freight transport and deliveries are often privately owned and operated. This means that DDOT has limited authority over what type of fleet they choose and their delivery practices. DDOT is committed to continuing to collaborate with industry stakeholders and other District agencies to inform and support private sector transitions to cleaner fleets and more sustainable modes.

To work towards these goals, DDOT will explore strategies to reduce vehicle emissions via alternative fuel infrastructure, increasing modal options for deliveries, and reducing congestion in the region. A discussion of Regional and District bottlenecks can be found in **Chapter 7.1**.

[29] https://storymaps.arcgis.com/stories/034104405ef9462f8e02a49f2bd84fd9

Prepare for alternative fuel infrastructure and fleets.

As the alternative fuel fleet and infrastructure industry continues to evolve, DDOT needs to support the transition to electric and alternative fuel fleets. There is an expanding demand for low- and no-emission vehicles for local and regional trips in the form of short-distance delivery vehicles and electric trucks, respectively. While most freight fleets are privately owned and operated, DDOT needs to prepare policy for emerging trends such as low- and no-emission vehicles, charging stations, autonomous vehicles, and micro-mobility modes. Additionally, the District needs to coordinate with the private industry to understand and forecast infrastructure needs to accommodate emerging trends. The District's National Electric Vehicle Infrastructure (NEVI) Plan includes strategies for the most prevalent mode of freight movement in the District, trucks. Strategies discuss truck electrification and provisions for alternative fueling infrastructure for trucks.

Strategies

Innovative Freight Delivery Practices: Develop, implement, and evaluate innovative freight delivery practices to improve curbside loading operations, reduce loading conflicts, support cleaner and more sustainable freight modes, and expand microhubs and sustainable delivery modes.

Continuously research, implement, and evaluate potential innovations, technologies, and strategies successfully adopted by peer cities. DDOT also should aim to identify grants and partnerships to fund future research and/or pilot programs. Topics of research, analysis, and pilot programs aim to evaluate new and quickly evolving innovative technologies and strategies and the opportunity to implement them to mitigate the negative impacts of freight movement in the District. Topics could include:

Microhubs: Monitor land use zoning opportunities to leverage mixed-use development for freight facilities—especially for package consolidation and last-mile facilities.

> **What are microhubs?**
> Microhubs are small-scale distribution centers. They often serve a smaller geographic area, such as a neighborhood, and consolidate packages and deliveries to enable more efficient, smaller, and more sustainable modes to complete the last mile(s) of the delivery.

Low- or No-Emission Modes: Promote and prepare for low- or no-emission modes such as cargo bikes, often with electric assistance, for delivery and pickups. These modes are commonly used for shorter trips, such as for last-mile parcel deliveries or food and app-based deliveries, but also can be used for longer trips with electrified fleets.

Curbside Management: Consider curbside strategies and technologies such as progressive pricing, dynamic curbside uses, automated enforcement, and zones that differentiate between service vehicles and delivery vehicles. By improving curbside access, these projects could reduce congestion caused by double parking or circling in search of parking.

Delivery Demand Management: Implement strategies such as business outreach, education campaigns, incentives to change delivery practices. Identify opportunities to adapt existing policies or regulations to minimize delivery impacts at the curb. Strategies targeted along commercial corridors with bus and/or bike lanes aim to reduce conflicts between modes, support transit operations, and provide safety benefits.

Data and Metrics: Update data and metrics to provide a baseline and insights on the impacts of strategies.

Leverage existing data sources and identify opportunities for improved and new data sources to better understand progress and outcomes of investments and implementation of strategies. Collecting data before the implementation of innovative delivery practice pilot(s) and again after implementation can improve a data-driven evaluation of implementation impacts. Expansion of data sources such as truck vehicles miles traveled (VMT), total freight greenhouse gasses (GHGs), commercial freight emissions per capita, percentage of electric trucks, percent of alternative fuel trucks, and number of cargo bikes and other low- or no-emission modes can provide baseline and progress insights for sustainability and other freight plan metrics. The development of more comprehensive data sets also would address the need to diversify delivery modes such as Class 1, 2, 3 trucks and other modes by first identifying smaller vehicles being used for commercial delivery.

District National Electric Vehicle Infrastructure (NEVI) Plan: Coordinate with DDOT's NEVI Planning Team.

The DDOT Freight Planning Team should support the team tasked with implementing the District's NEVI Plan to ensure alignment and eliminate redundancies. One of the NEVI plan activities is to plan for light- and medium-duty electric trucks and related infrastructure, specifically along District truck routes.

Strategies will advance the freight plan's sustainability goal and metrics as shown in **Table 15**.

Table 15| Advancing the Sustainability Metrics

Sustainability Metrics	Innovative Freight Delivery Practices	Data and Metrics	District National Electric Vehicle Infrastructure (NEVI) Plan
Reduce congestion caused by bottlenecks	•	•	
Reduce greenhouse gas (GHG) emissions from the transportation sector	•	•	•
Reduce vehicle miles traveled (VMT)	•	•	
Add DCFCs (direct current fast charging) to the AFCs (alternative fuel corridors)	•	•	•

9.3 Mobility

Table 16| Overview of Mobility Needs, Issues, and Strategies

Needs and Issues	Strategies
Balance competing curbside demands. Truck through routes and restrictions. Truck and loading zone enforcement. Congestion and constrained long-term truck parking. Unique mobility disruptions in the District. Improve network redundancy by expanding freight modes.	Identify opportunities to improve off-street loading. Coordinate with existing DDOT Autonomous Vehicle (AV) Pilot and Working Group. Update and maintain permitting and routing systems for oversize/overweight (OSOW) vehicles and leverage their use across the agency. Coordinate across the agency to maintain goods movement and mitigate truck conflicts in future projects. Implement Positive Truck Route Signage Study findings. Consider multimodal options, such as rail and water, for redundancy and resiliency. Research best practices for communicating transportation updates to the industry and drivers.

Needs and Issues

Balance competing curbside demands.

The curb continues to serve a key role in the efficient and safe movement of goods and people. Increased e-commerce, food deliveries, population density, and freight flows all increase the demand for curbside access. The curbside is also utilized for bike and bus lanes, as well as micro-mobility parking and related infrastructure, which can further constrain the available curb space. moveDC acknowledges the need to "manage curb space and roadways for accessibility and efficiency" in moveDC policy M. DDOT has implemented curbside management strategies such as demand-based parking pricing for on-street spaces, off-sidewalk parking corrals, metered motorcoach parking, and short-term curbside access zones to address challenges at the curb. Competing curbside demands can be a challenge for curbside deliveries that are crucial to the Districts' economy and growth. By better understanding freight delivery trends and curbside behavior, DDOT can better manage curb space.

Truck routes and restrictions.

The District currently utilizes an advisory designated truck and bus route network that encourages trucks to stay on the network but does not require heavy vehicles to travel along designated routes. The Metropolitan Police Department (MPD) and DDOT's Automated Traffic Enforcement (ATE) unit enforce roadways that are restricted to buses and through-trucks and signed accordingly. Industry stakeholders and the public identified compliance and enforcement as a challenge.

Commercial vehicle loading zone enforcement.

Curbside commercial vehicle loading zones throughout the District are crucial for trucks to be able to safely and efficiently load and unload goods when off-street loading facilities are not available. Industry stakeholders report challenges with the availability and the enforcement of curbside zones for loading activities. It can be difficult for delivery vehicles to park in their designated zones or avoid blocking bike or travel lanes when loading zones are occupied by non-freight-related vehicles.

Congestion and constrained long-term truck parking.

Since the COVID-19 pandemic, congestion is returning to the National Capital Region and can pose challenges for reliable truck operations. The District has unique challenges as it has a constrained roadway network and freight vehicles are heavily integrated with other modes on roadways of all functional classifications. During peak travel times, trucks are negatively affected by overall network congestion and delay. While trucks are not the main cause of congestion, they are a contributor. For example, when truck drivers park illegally, circulate excessively in search of parking, or travel along restricted roadways, it can cause inefficiencies and safety concerns. In addition to the District's constrained network, the freight network has limited options and route redundancies to circumvent locations with greater delay or maneuverability challenges.

Due to the compact nature of the District, another challenge is finding space for long-term truck parking and rest areas for drivers. The District has no public or large private truck parking facilities. Trucks may look to neighboring states for long-term parking and rest areas, though they have also reported limited truck parking availability.

Unique mobility disruptions in the District.

The District has unique and unpredictable mobility distributions that can cause congestion and re-routing that impact truck operations. Operators may encounter disruptions such as Presidential motorcades, festivals, events, and protests—some that are communicated in advance, and others that occur without prior notice. The District currently communicates with and notifies freight carriers, including OSOW permit holders, through Metropolitan Area Transportation Operations Coordination (MATOC), DDOT's TMC (Traffic Management Center), District press releases, and news outlets.

Improve network redundancy by expanding freight modes.

Trucks account for approximately 90% of District freight by tonnage and approximately 70% of District freight by value. With limited rail space and no airport or significant port operations within the District, there are limited options to diversify the District's freight mode shift. In response to this unique challenge, DDOT needs to continue to collaborate with its partners to identify strategies and options to create regional network redundancy. Within the District, DDOT can evaluate options to increase the mode share of micro-mobility modes such as bikes, cargo e-bikes, electric scooters, and other innovations.

Strategies

Off-Street Loading: Identify opportunities to improve off-street loading.

Collaborate with the DC Office of Planning, DDOT's Development Review team, and other stakeholders to identify policy and design opportunities to provide off-street loading where feasible.

Autonomous Vehicle Pilot: Coordinate with DDOT Autonomous Vehicle (AV) Pilot and Working Group.

Coordinate with the DDOT AV Pilot and Working Group to enhance peer-to-peer learning, share lessons learned and best practices, identify opportunities for collaboration, and address shared challenges. Coordinate with DDOT's Innovation/Research Division that is supporting the pilot program.

Oversize/Overweight (OSOW) Vehicle Management: Update and maintain permitting and routing systems for OSOW vehicles and leverage their use across the agency.

The OSOW vehicle routing tool currently generates mandatory, vetted routes for OSOW vehicles requesting a single haul permit to travel within the District. To realize the full benefits of the tool and update it to industry standards, further investment is needed. Improvements could include automated load rating analysis, automated permit issuance, and updating routing based on construction along permitted routes. Additionally, integration of the OSOW tool into the construction permitting process should be explored to better route vehicles to and from construction sites.

Freight in Planning Efforts: Coordinate across the agency to maintain goods movement and mitigate truck conflicts in future projects.

Building on existing coordination, advocate for freight considerations to be elevated in the planning, conceptualizing, and implementation phases of project development in order to support reliable goods movement and solutions that mitigate truck conflicts. Coordinate with DDOT's Planning and Transit Divisions in supporting this strategy.

Truck Signage: Implement Positive Truck Route Signage Study findings.

Advocate for implementation of the findings from the Positive Truck Route Signage Study and modify policy accordingly. Examples of positive truck signage are shown in **Figure 29**. The strategy includes investment in implementation and educational materials to inform the industry and public.

What did the Positive Truck Route Signage Study evaluate?
Recently completed in 2023, the study evaluated the costs and benefits of implementing positive truck route signage (indicating where trucks should go) and mandatory truck routes in the District.

Figure 29| Example of Truck Signage (Truck Route Sign)

Source: Positive Truck Signage Study Draft Signs

Multimodal Options: Consider rail and water to improve redundancy and resiliency.

Investments in new and updated infrastructure to expand the District's modal options can improve redundancy of the freight system and resiliency to disruptions in the District's primary freight mode of vehicles. DDOT should continue to coordinate with the DC Office of Planning, other District agencies, regional stakeholders, and companies such as CSX and Amtrak, to identify opportunities to support expansion efforts, such as interjurisdictional rail and intermodal freight facilities. The Long Bridge Project, shown in **Figure 30**, is an example of interjurisdiction cooperation to improve rail network capacity.

Long Bridge Project

CSX and Amtrak are expanding access across the Potomac River between Crystal City and Southwest Washington DC parallel to I-395. The project is an example of collaboration across jurisdictions and private-public entities. DDOT led the environmental analysis and will benefit from the implementation of the project.

Figure 30| Long Bridge Project Schematic

Source: VPRA - Long Bridge Project

To support water modes for freight operations, conduct inspection and repair for the District-owned dock along the Anacostia River. As a part of a study, assess opportunities to expand the functionality and access to the District owned dock along the Anacostia River. Consider and invest in upgrades to bring the dock to industry standards and expand its use for select freight functions.

Updates to Industry: Research best practices for communicating transportation updates to the industry and drivers.

Work with the industry to identify strategies to better keep freight operators informed of updates such as detours, construction, and road closures due to special events such as parades and demonstrations.

Strategies will advance the freight plan's mobility goal and metrics as shown in **Table 17**.

Table 17| Advancing the Mobility Metrics

Mobility Metrics	Off-Street Loading	Autonomous Vehicles Pilot	OSOW Vehicle Management	Freight in Planning Efforts	Truck Signage	Multimodal Options	Updates to Industry
Improve system reliability, create infrastructure and policies that enhance goods movement, and improve efficiency	•		•	•		•	•
Accommodate the movement and management of freight and goods in future projects	•			•	•	•	
Explore new freight strategies including delivery microhubs and delivery demand management techniques		•					
Integrate the District's transportation system with the region's transportation network			•	•	•	•	
Incorporate freight access within planning of dedicated transit and bike facilities				•			
Balance residential character of local streets with truck access for home deliveries			•	•	•		
Provide reliable available curb space for deliveries through efficient management of the loading zone program	•			•			

9.4 Safety

Table 18| Overview of Safety Needs, Issues, and Strategies

Needs and Issues	Strategies
Vertical clearance restrictions. Roadway design limitations and challenges. Increase in truck-involved crashes.	Update freight design guidelines. Coordinate with DDOT's Asset Management Team to track and address infrastructure-related truck crashes. Coordinate with District agency and industry partners to improve truck-related crash data quality and support road safety, focusing efforts in areas with high incidences of truck-involved crashes, or in priority equity areas. Analyze and communicate opportunities and constraints for limiting truck size in urban areas.

Needs and Issues

Vertical clearance restrictions.

There are approximately 60 bridges under the minimum vertical clearance advised by the DDOT Design and Engineering (DEM) manual. Many were constructed before the implementation of the standards and have geometric factors that present challenges to retrofit or update the structures. Clearance should be maintained or raised within capital improvement projects occurring along truck routes. Bridges with low vertical clearance can lead to bridge strikes, circuitous routing, and other hazardous conditions.

Roadway design limitations and challenges.

Narrow roadways, irregular intersections, and sharp turns can have significant cost implications for operators. Tight maneuvering can increase travel time, increase safety hazards, and property damage. In some instances, where roadway constraints prohibit the use of operators' traditional fleets, investment in new equipment is required, which can impact the region's economic competitiveness. In order to balance the region's economic competitiveness with the advancement of moveDC's goals for the District, roadway projects should meet design standards for large trucks, especially along designated truck routes. Concurrently, there is a need to understand how non-traditional fleets and smaller fleets could help to balance efficient goods movement and safety.

Increase in truck-involved crashes.

Truck-involved crashes, which do not assume either the truck or other party was at fault, decreased from 2016 to 2020. Starting in 2021 the trend reversed; in 2022 truck-involved crashes were approximately 95% higher than 2019 values. The severity of truck-involved crashes also increased between 2016 and 2022. The top three collision types included sideswipes, parked vehicles, and rear ends. Further discussion about truck-related crashes can be found in **Chapter 6.2**. Crash 'hot spots' are within the center of the District and along key arterial corridors. Additionally, there is an opportunity to improve the quality of truck-related crash data, including infrastructure-

related incidents. Improved crash data enables the planning team to better identify trends, proactively address infrastructure or signage gaps, and address crash hot spots.

Strategies

Design Guidelines: Update freight design guidelines.

To address moveDC strategy #28, "provide and maintain safe routes for trucks," ensure DDOT's *Design and Engineering Manual* includes logistical needs that are unique to commercial motor vehicles (e.g., turning radii, loading zone design) and design accommodations for trucks on major truck corridors. Future design projects should estimate truck traffic and identify potential truck operational issues to be addressed in the project design.

Truck Related Crashes Involving Infrastructure: Coordinate with DDOT's Asset Management Team to track and address infrastructure-related truck crashes.

Investigate infrastructure-related truck crash data and distinguish trends of low-vertical-clearance bridge strikes to identify opportunities to remedy infrastructure and / or improve signage of posted clearances and weights.

Truck-Related Safety: Coordinate with District agency and industry partners to improve truck-related crash data quality and support road safety, focusing efforts in areas with high incidences of truck-involved crashes, or in priority equity areas.

Engage a variety of stakeholders such as the Metropolitan Police Department (MPD), Federal Motor Carrier Safety Administration (FMSCA), National Highway Traffic Safety Administration (NHTSA), DDOT's Vision Zero Team, the District's Highway Safety Office, and industry stakeholders to holistically improve road safety. Potential actions could include:

- Identifying opportunities to improve data quality for all truck-involved crashes
- Expanding educational efforts to advise motorists, bicyclists, and pedestrians about safety issues with the operation of trucks on District streets
- Establishing relationships with trucking associations and independent drivers to provide safety training and urban driving awareness education
- Coordinating with partner District agencies for emergency preparedness with hazardous freight and freight-related vehicle crashes (for example, electric vehicle fires)
- Identifying intersections with high crash concentrations for potential design improvements
- Focusing safety education efforts in areas with high incidences of truck-involved crashes, or priority equity areas

Truck Size: Analyze and communicate constraints and opportunities for limiting truck size in urban areas.

Research to understand the policy constraints and opportunities, as well as the industry impacts of limiting truck sizes, along with other options that would support the District's goals outlined in moveDC.

Strategies will advance the freight plan's safety goal and metrics as shown in **Table 19**.

Table 19| Advancing the Safety Metrics

Safety Metric	Design Guidelines	Infrastructure Truck-Related Crashes	Truck-Related Safety	Truck Size
Improve safety for all users	•	•	•	•

9.5 Security

Table 20| Overview of Security Needs, Issues, and Strategies

Needs and Issues	Strategies
Ensure the secure movement of goods. Improve delivery and driver security.	Provide publicly available comprehensive and up-to-date truck route information. Maintain coordination with public safety partners, HSEMA and MPD. Engage industry stakeholders about freight delivery safety.

Needs and Issues

Ensure the secure movement of goods.

The District, being the Nation's capital, and housing multiple important federal facilities, has unique security requirements. Multiple District and federal agencies, including the DC Homeland Security and Emergency Management Agency (HSEMA), are responsible for facilitating and ensuring the safe movement of hazardous materials through the District. There is an ongoing need for continued guidance, data sharing, and transparency between agencies for these efforts.

Support delivery and driver security.

The delivery of goods to residents and businesses in the District is integral to the economy. Reported and perceived incidences of crime, some related to delivery activities, in the District have increased. While much of the actual delivery process is outside of DDOT's purview, DDOT will explore how best to collaborate with District and industry partners to support the safe and secure delivery of goods.

Strategies

Truck Route Information: Provide publicly available comprehensive and up-to-date truck route information.

Regularly coordinate with DDOT's mapping, signage, and communication teams to ensure truck route and restriction information is comprehensive, accurate, and accessible in multiple formats, including through OpenData DC.

Public Safety Coordination: Maintain coordination with public safety partners, HSEMA and MPD.

Support the safe movement of hazardous materials through the District by expanding the partnership with HSEMA and MPD to improve information sharing and coordination surrounding the movement of these goods. Coordination with public safety partners such as HSEMA and MPD will be important for the success of this strategy.

Delivery Safety: Engage industry stakeholders about freight delivery safety.

Expand existing relationships with industry partners by conducting a survey to better understand the safety and security challenges facing freight operators and identify opportunities for enhanced collaboration between the industry and public safety partners to help address these challenges.

Strategies will advance the freight plan's security goal and metrics as shown in **Table 21**.

Table 21| Advancing the Security Metrics

Security Metrics	Truck Route Information	Public Safety Coordination	Delivery Safety
Secure movement of goods.	•	•	•
Consistent data sharing with public safety agencies.	•	•	

9.6 Management and Operations

Table 22| Overview of Management and Operations Needs, Issues, and Strategies

Needs and Issues	Strategies
Protect infrastructure. Maintain and improve acceptable pavement conditions. Maintain freight infrastructure in a state of good repair and prepare for future technology.	Conduct scenario planning to understand impacts of and strategies to address urban freight trends such as e-commerce and last-mile delivery. Maintain a freight advisory committee. Support commercial vehicle enforcement systems, including weigh stations. Maintain and update a USDOT-approved State Freight Plan. Maintain and update an FMCSA-approved Innovative Technology Deployment Plan. Support research and sharing out of waste management best practices. Support state of good repair and infrastructure projects along the National Highway Freight Network, including the National Highway Performance Program (NHPP) pavement and highway sign design and installation.

Needs and Issues

Protect infrastructure.

As trucks move through the District, they can potentially cause adverse impacts to infrastructure due to their size and maneuverability challenges: Overweight trucks can damage pavement and bridge structures, while delivery trucks can damage flex posts or other curbside infrastructure. Infrastructure should be protected through design, signage, enforcement, and proactive asset management. Since the National Park Service (NPS) owns and manages some bridges and roadways in the District, interagency coordination is crucial to comprehensively identify and address infrastructure needs.

Maintain and improve acceptable pavement conditions.

While trucks are not the primary reason for pavement deterioration, their size, weight, and axles impact pavement conditions. It is important that roadway pavement is maintained and in a state of good repair. The pavement condition index is a measure used to assess the cracking and severity of distress on the pavement surface. The categories are excellent, good, fair, poor, and failed. While nearly 70% of the District road network is in the good or excellent categories, portions of the moveDC freight priority network have poor-condition pavement. DDOT continues to maintain and fix roadway segments with poor and very poor pavement indices.

Maintain freight infrastructure in a state of good repair and prepare for future technology.

Maintaining freight-related infrastructure such as highways and interchanges, truck signage, weigh stations, and weigh-in-motion systems in a state of good repair is important to the management and operations of freight movement throughout the District. The District's weigh station and weigh-in-motion systems continually need maintenance and updates to support truck size and weight enforcement.

In addition, it is important to prepare infrastructure for future technologies. By ensuring that infrastructure and systems are updated and maintained at industry standards, the District may more easily adopt new technologies as they are available and economic conditions evolve.

Strategies

Scenario Planning: Conduct scenario planning to understand impacts of and strategies to address urban freight trends such as e-commerce and last-mile delivery.

Identify and investigate alternative futures to better inform decision-making. Scenarios would align with the moveDC goals and address potential growth scenarios (expanding or shrinking economic forecasts) and disruptive scenarios (e.g., pandemics, and natural disasters). The effort may include forecasting models, community outreach, planning tools, and other materials to support holistic future planning. The analysis also may identify critical investments or shared investments that support alternative outcomes.

Freight Advisory Committee: Maintain a freight advisory committee.

Build upon existing engagement with the freight advisory committee by growing and adapting it to address needs and issues identified in this plan. A formal standing committee, with a diverse group of freight stakeholders, can provide regular feedback to DDOT and serve as a resource to exchange information and provide data for future studies. This committee would complement efforts to engage other stakeholders and the public. DDOT also will continue to chair, or be active, on the Transportation Planning Board (TPB) Freight Subcommittee.

Commercial Vehicle Enforcement: Support commercial vehicle enforcement systems, including weigh stations.

Continue to maintain and invest in commercial vehicle enforcement systems. Investments may include:

- The calibration, data collection, QA/QC, repairs, upgrades, and maintenance of weigh in motion (WIM) systems on the 295 Corridor and New York Avenue NE that collect vehicle volume and weight data.
- Upgrading the 295 Corridor southbound and northbound weigh stations and related equipment to support regular enforcement of truck violations identified by the adjacent WIM through the development of a scope and procurement of design and construction consultant services.
- Investing in and maintaining portable enforcement equipment that can be deployed by MPD to respond to traffic conditions and hot spots throughout the District.

To achieve this strategy, coordination and support between DDOT's Infrastructure Project Management Administration and Intelligent Transportation System Division, MPD, and the District Department of Motor Vehicles (DMV) will be important.

State Freight Plan: Maintain and update an US DOT-approved State Freight Plan.

The District is federally mandated to update the State Freight Plan every four years under the Bipartisan Infrastructure Legislation. As this plan will be approved in 2024, the next freight plan is scheduled to be approved in 2028.

Innovative Technology Deployment Plan: Maintain and update an FMCSA-approved Innovative Technology Deployment Plan.

By developing and maintaining a Federal Motor Carrier Safety Administration (FMCSA)-approved Innovative Technology Deployment Plan (ITD) for interagency commercial vehicle enforcement and monitoring, the District will have access to financial and technical assistance to deploy, operate, and maintain innovative technologies such as those that support electronic permitting and enforcement.

Waste Management: Support research and sharing out of waste management best practices.

Research best practices for safe, clean, and efficient trash and waste management within urban areas and evaluate their feasibility to implement in the District. Determine the appropriate audiences and distribution methods to disseminate best practice information for future implementation. DDOT will coordinate with the Office of the Deputy Mayor of Operations and Infrastructure (DMOI) to disseminate best practices.

State of Good Repair: Support state of good repair and infrastructure projects along the National Highway Freight Network, including the National Highway Performance Program (NHPP) pavement and highway sign design and installation.

The National Highway Freight Network includes the Primary Highway Freight System (PHFS), other Interstate portions not on the PHFS, and the Critical Urban Freight Corridors (CUFCs). Funds will support the maintenance of these segments including paving restoration, bridge and highway construction, sign design and installation, and other activities. Sign design and installation will continue within the DDOT's existing highway sign structure contract administered by the Infrastructure Project Management Administration. Paving restoration along the National Highway System (NHS) and within the NHPP, administered through the Asset Management Division, may be funded through the National Highway Freight Program. Potential projects to support the state of good repair and infrastructure include:

- Geometric and Safety Improvements along the 295 Corridor Study
- Rehabilitation of Minnesota Ave Bridge over East Capitol St
- Rehabilitation of the H Street NE deck structure over the Union Station terminal yard

Strategies will advance the freight plan's management and operations goal and metrics as shown in **Table 23**.

Table 23| Advancing the Management and Operations Metrics

Management and Operations Metrics	Scenario Planning	Freight Advisory Committee	Commercial Vehicle Enforcement	State Freight Plan	Innovative Tech. Deployment Plan	Waste Management	State of Good Repair
Maximize reliability for all District transportation infrastructure by investing in maintenance and asset management	•		•	•	•		•
Coordinate within DDOT, other District agencies, and private industry partners to improve freight-related operations	•	•	•		•	•	•
Leverage data for continuous evaluation and decision-making	•		•		•		

9.7 Equity

Table 24| Overview of Equity Needs, Issues, and Strategies

Needs and Issues	Strategies
Continue to use an equity lens and apply to a freight context and projects.	Examine methods to meaningfully engage with communities for freight-related discussions. Identify partners to facilitate discussions and solutions for freight workforce challenges. Continue to incorporate moveDC equity lens and apply to a freight context and projects.

Needs and Issues

Continue to use an equity lens and apply to a freight context and projects.

Set forth by DDOT's Transportation Equity and Inclusion Division, "DDOT is committed to elevating and advancing transportation equity by evaluating our policies, planning, community engagement, and project delivery to ensure public investments in transportation justly benefit all residents, visitors, and commuters." In addition to applying the moveDC equity assessment to all freight projects, there is a need to better identify how freight-related activities disparately impact communities. Understanding the geographic distribution of the benefits and burdens of freight infrastructure, such as corridors with high truck volumes, and the siting of last-mile distribution centers relative to where packages are delivered, can better inform investments and projects to mitigate burdens.

Strategies

Diversify Stakeholders: Continue to expand stakeholder groups and include community-based organizations and environmental justice organizations.

Review existing federal and local guidance on integrating community-based and environmental justice organizations into planning and implementation discussions. Foster a broad and more diverse public stakeholders group involved in the District's freight planning and implementation discussions.

Freight Workforce: Identify partners to facilitate discussions and solutions for freight workforce challenges.

Coordinate with the Office of the Deputy Mayor for Planning and Economic Development and Office of the Deputy Mayor for Operations and Infrastructure to better understand workforce challenges for freight industry employees and opportunities to support workforce development. Support in identifying potential freight industry partners for discussions and feedback on initiatives.

moveDC Equity Lens: Continue to incorporate moveDC equity lens and apply to a freight context and projects.

Examine the impact of freight on communities through the collection and review of qualitative and quantitative information, in addition to applying the moveDC equity assessment tool to all freight projects. Coordination with DDOT colleagues leading the moveDC Plan update will be important when applying the assessment tool. Identify supplemental data sources such as Department of Energy and Environment (DOEE) air quality data, the Climate

and Economic Justice Screening Tool (CEJST), and the USDOT Equity Transportation Community (ETC) Explorer web application to understand freight impacts geographically. Leverage qualitative and quantitative data to map community impacts of the benefits and burdens of freight-related activities.

Strategies will advance the freight plan's equity goal and metrics as shown in **Table 25**.

Table 25| Advancing the Equity Metrics

Equity Metrics	Diversify Stakeholders	Freight Workforce	moveDC Equity Lens
Reduce negative freight impacts in communities of greatest need	•	•	•
Seek to listen, learn, and address historical inequities arising from freight movement	•		•

10. IMPLEMENTATION AND INVESTMENT PLAN

10.1 Implementation Plan

DDOT, using a phased approach and in partnership with other District agencies, regional partners, and industry stakeholders, will be responsible for implementing the strategies included in this plan. The strategies listed in **Table 27** are intended to advance the District's 2024 Freight Plan vision, goals, and metrics.

Integrating Stakeholder Feedback into the Implementation Plan

As part of the public outreach effort, the project team leveraged PollEv to receive feedback on prioritization of the 2024 District Freight Plan strategies. The project team identified and used similar polling questions across the stakeholder groups to better understand priorities within each stakeholder group and across all stakeholders **Table 26** details the priorities for each of the stakeholder groups by 2024 District Freight Plan goal areas.

Table 26| Stakeholder Top Strategies (from PollEv)

Goal Area	DDOT Working Group Meeting	TPB Freight Subcommittee	DCST Meeting	Industry Survey	Public Information Meeting #2
Sustainability	Innovative Freight Delivery Practices, Data and Metrics	Innovative Freight Delivery Practices, Data and Metrics	Innovative Freight Delivery Practices	Data and Metrics	Innovative Freight Delivery Practices
Mobility	OSOW Vehicle Management	Freight in Planning Efforts, Multimodal Options	Off Street Loading, Freight in Planning Efforts	Off Street Loading, Freight in Planning Efforts	Off Street Loading, OSOW Vehicle Management
Safety	Truck-Related Safety	Truck Related Crashes Involving Infrastructure	Truck Related Crashes Involving Infrastructure	Truck Related Crashes Involving Infrastructure	Design Guidelines
Security	Truck Route Information	Truck Route Information	Public Safety Coordination	Delivery Safety	Truck Route Information
Management & Operations	Commercial Vehicle Enforcement	Freight Advisory Committee	State of Good Repair, Scenario Planning	State of Good Repair	Freight Advisory Committee
Equity	Diversify Stakeholders	Diversify Stakeholders	Freight Workforce	moveDC Equity Lens	Diversify Stakeholders

Note: The project team captured the evolution of the strategies in identifying the top strategies for each stakeholder group.

The qualitative and quantitative feedback received from stakeholders shown in **Figure 31** were weighted equally in determining the prioritization in the Average Stakeholder column in **Table 27.** Stakeholder prioritization will be considered in funding and project decision-making.

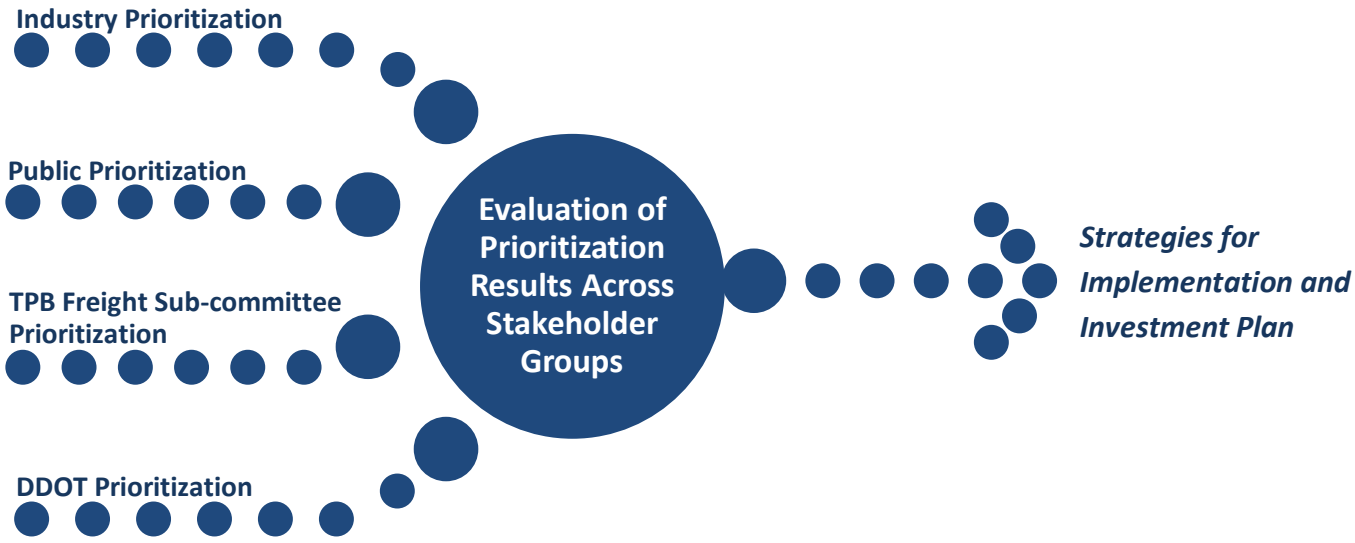


Figure 31| Strategy Prioritization Inputs

How to Read the Implementation Plan

The implementation plan is organized by the 2024 District Freight Plan goals, each of the strategies within those goal areas. While the strategies primarily correlate to one goal, Secondary Goal(s) are listed in the second column. The Average Stakeholder Prioritization column aims to illustrate strategies that are top priority across all the stakeholder groups within the goal area. A 'High' ranking indicates the strategy often ranked as a top priority across most of the stakeholder groups. A 'Medium' ranking indicates that there was variation in the stakeholder responses (some higher, some lower), or it was often ranked in the middle of the strategies within the goal area. A 'Low' ranking indicates a strategy that was most frequently not selected as a top priority. The Implementation Effort for the DDOT Freight Team column identifies strategies that involve significant time, fiscal investment, or potential implementation challenges. As noted in **Chapter 3**, freight initiatives are woven throughout a variety of the District's operations and plans. Some of the strategies in this implementation plan are in support of other agency initiatives, and some are led by DDOT's Freight Team. The DDOT team can use the stakeholder prioritization, implementation effort and responsibility, and available funding to prioritize and advance strategies toward the overarching freight plan vision and goals.

2024 Implementation Plan

Table 27| Implementation Plan

Strategy (by Goal Area)	Secondary Goal(s) Sustainability, Mobility, Safety, Security, Management & Operations, Equity	Average Stakeholder Prioritization	Implementation Effort for DDOT Freight Team	DDOT Freight Team Responsibility
Goal Area: Sustainability *Sustainable and diverse freight fleets to reduce emissions and strengthen resilience.*				
Evaluate, develop, and implement innovative freight delivery practices to improve curbside loading operations, reduce loading conflicts, support cleaner and more sustainable freight modes, and expand microhubs and sustainable delivery modes	Mobility, Safety, Management & Operations	High	High	Lead/Consultant
Update data and metrics to provide a baseline and insights on the impacts of strategies	Mobility, Management & Operations, Equity	Medium	Medium	Lead/Consultant
Coordinate with DDOT's National Electric Vehicle Infrastructure (NEVI) Planning Team	Management & Operations	Low	Low (Ongoing)	Support
Goal Area: Mobility *Reliable, adaptable, and accessible freight infrastructure that supports economic vitality and competitiveness*				
Identify opportunities to improve off street loading	Safety	High	Low (Ongoing)	Lead
Coordinate with existing DDOT Autonomous Vehicle (AV) Pilot and Working Group	Sustainability	Low	Low	Support
Update and maintain permitting and routing systems for oversize/overweight (OSOW) vehicles and leverage their use across the agency	Safety, Management & Operations	Medium	High (Ongoing)	Lead/Consultant
Coordinate across the agency to maintain goods movement and mitigate truck conflicts in future projects	Security	High	Low (Ongoing)	Support
Implement Positive Truck Route Signage Study findings	Safety, Management & Operations	Medium	High (Ongoing)	Lead
Consider multimodal options, such as rail and water, for redundancy and resiliency	Sustainability, Security, Management & Operations	Medium	Medium	Lead, Support
Research best practices for communicating transportation updates to the industry and drivers	Management & Operations	Medium	Low	Lead
Goal Area: Safety *Planning efforts that consider freight movements and improve the safe movement of goods.*				
Update freight design guidelines	Mobility	Medium	Medium	Lead/Consultant
Coordinate with DDOT's Asset Management Team to track and address infrastructure-related truck crashes	Management & Operations	Medium	Medium	Lead
Coordinate with District agency and industry partners to improve truck-related crash data quality and support road safety, focusing efforts in areas with high incidences of truck-involved crashes, or in priority equity areas	Mobility, Equity	Medium	Medium	Support
Analyze and communicate constraints and opportunities for limiting truck size in urban areas		Medium	Low	Lead/Consultant

Strategy (by Goal Area)	Secondary Goal(s) Sustainability, Mobility, Safety, Security, Management & Operations, Equity	Average Stakeholder Prioritization	Implementation Effort for DDOT Freight Team	DDOT Freight Team Responsibility
Goal Area: Security *Collaboration between District agencies to support the secure movement of goods.*				
Provide publicly available comprehensive and up-to-date truck route information	Mobility, Equity	High	Medium	Lead
Maintain coordination with public safety partners, HSEMA and MPD	Mobility, Safety	Low	Low	Support
Engage industry stakeholders about freight delivery safety	Mobility	Medium	Low	Lead, Support
Goal Area: Management & Operations *Maintained and modernized infrastructure and operational improvements to increase efficiency.*				
Conduct scenario planning to understand impacts of and strategies to address urban freight trends such as e-commerce and last-mile delivery	Sustainability, Mobility, Security, Safety, Equity	Medium	Medium	Lead/Consultant
Maintain a freight advisory committee	Sustainability, Mobility, Security, Safety, Equity	High (Ongoing)	Medium	Lead
Support commercial vehicle enforcement systems, including weigh stations	Mobility, Safety	Medium (Ongoing)	High	Support
Maintain and update an US DOT-approved state freight plan	Sustainability, Mobility, Security, Safety, Equity	Required	High	Lead/Consultant
Maintain and update an FMCSA-approved Innovative Technology Deployment Plan	Mobility	Low		Lead/Consultant
Support research and sharing out of waste management best practices	Sustainability, Mobility	Low	Low	Support
Support state of good repair and infrastructure projects along the National Highway Freight Network, including the National Highway Performance Program (NHPP) pavement and highway sign design and installation	Safety	Medium	High	Support
Goal Area: Equity *Shared and just distribution of benefits and burdens when planning for and investing in freight-related infrastructure and services.*				
Continue to expand stakeholder group and include community-based organizations and environmental justice organizations		Medium	Low	Lead/Consultant
Identify partners to facilitate discussions and solutions for freight workforce challenges	Management & Operations	Medium	Low	Lead
Continue to incorporate moveDC equity lens and apply to a freight context and projects	Sustainability, Mobility, Safety, Security	Medium	High	Support

10.2 Investment Plan

The Infrastructure Investment and Jobs Act (IIJA) requires states/District and MPOs to provide an eight-year financially constrained freight-investment plan that includes a list of priority projects and proposed funding within their freight plans (49 U.S. Code § 70202). The investment plan is designed to not be a static document but to be regularly updated to reflect the current needs of the District.

DDOT's approach for allocating federal freight funds is to apply the funding for federal fiscal years 2024-2031 to projects preserving and optimizing existing resources and assessing the potential of innovative practices to mitigate freight movement impacts. This approach follows the framework of the moveDC plan.

The District of Columbia NHFP fund apportionment totals for FY2024 through FY 2031 are shown in **Table 28** and total $51,356,801. This summary of the District's planned National Highway Freight Program fund expenditures includes the projected unused balance at the end of each fiscal year.

Table 28| NHFP Apportionments and Spending Projections

Fiscal Year (FY)	Annual NHFP Apportionments	Unused/ Rollover NHFP Funding	Projected Federal NHFP Funds	Projected Non-Federal Funds	FY Total
FY 24	$ 5,950,870	$ 1,874,374	$ 7,825,244	$ 1,956,312	**$ 9,781,556**
FY 25	$ 5,925,762	$ -	$ 5,925,762	$ 1,481,441	**$ 7,407,203**
FY 26	$ 6,103,535	$ -	$ 6,103,535	$ 1,525,884	**$ 7,629,419**
FY 27	$ 6,286,641	$ -	$ 6,286,641	$ 1,571,660	**$ 7,858,301**
FY 28	$ 6,475,241	$ -	$ 6,475,241	$ 1,618,810	**$ 8,094,051**
FY 29	$ 6,669,498	$ -	$ 6,669,498	$ 1,667,375	**$ 8,336,873**
FY 30	$ 6,869,583	$ -	$ 6,869,583	$ 1,717,396	**$ 8,586,979**
FY 31	$ 7,075,671	$ -	$ 7,075,671	$ 1,768,918	**$ 8,844,589**
Total	**$ 51,356,801**	**$ 1,874,374**	**$ 53,231,175**	**$ 13,307,796**	**$ 66,538,971**

The 2024 Investment Plan was developed using feedback received during the robust public involvement process identified in **Chapter 4**, projects and priorities identified in the 2023 District Freight Plan Interim Update (February 14, 2023), and the moveDC long term transportation plan goals. All projects and programs identified for federal funds support DDOT's long-term transportation and freight programmatic goals to make full use of the District's federal freight funding authority. Higher priority (shown in blue highlight) was given to strategies that are tied to dedicated funding based on DDOT's approved budget. **Table 29** summarizes the District of Columbia freight projects and programs identified for freight formula funds for FY2024 to FY2031. The federal and local matches are detailed in **Appendix E**.

Table 29| District Freight Projects Identified for Freight Formula Funds for FY2024 to FY2031

Program/Project	Primary Goal Area	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
*Innovative freight delivery practices program	Sustainability		$ 596,750	$ 596,750	$ 596,750	$ 596,750	$ 596,750	$ 596,750	$ 596,750	$ 4,177,250
*Delivery demand management program	Sustainability		$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 2,800,000
Annual data analysis study to provide a baseline and insights on the impacts of innovative freight strategies	Sustainability			$ 500,000	$ 445,000	$ 445,000	$ 445,000	$ 445,000	$ 445,000	$ 2,725,000
*Positive truck route signage design and construction	Mobility		**$ 890,000**	**$ 2,194,000**						$ 3,084,000
Communication plan for sharing transportation updates to the industry and drivers	Mobility					$ 45,000				$ 45,000
Update and maintain an USDOT-approved state freight plan	Mobility			$ 868,000				$ 868,000		$ 1,736,000
Evaluate and maintain multimodal rail and water options	Mobility			**$ 200,000**	**$ 602,175**	**$ 2,007,250**	$ 500,000			$ 3,309,425
*Update DDOT Freight Design Guidelines	Safety			$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 120,000
Analyze and communicate constraints and opportunities for limiting truck size in urban areas	Safety					$ 50,000				$ 50,000
Develop and share up-to-date truck route information	Security					$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 400,000
Engage industry stakeholders about freight delivery safety	Security				$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
Scenario planning study	Management and Operations				$ 300,000				$ 300,000	$ 600,000
*Commercial vehicle enforcement system(s)	Management and Operations	**$ 3,567,500**	**$ 9,437,206**	**$ 1,920,450**	**$ 4,037,844**	**$ 615,190**	$ 217,000	$ 217,000	$ 817,000	**$ 20,829,190**
*Oversize/Overweight Vehicle Management	Management and Operations	$ 253,103	$ 1,030,750	$ 314,650	$ 314,650	$ 314,650	$ 683,550	$ 314,650	$ 314,650	$ 3,540,653
Study to identify waste management best practices and recommendations	Management and Operations					$ 100,000				$ 100,000
*Support state of good repair and infrastructure projects along the National Highway Freight Network, NHPP pavement condition and Highway sign design and installation	Management and Operations				$ 265,461	$ 5,405,651	$ 5,274,573	$ 5,525,579	$ 5,751,189	**$ 22,222,453**
Develop stakeholder and public engagement strategies	Equity					$ 300,000				$ 300,000

**Light blue shading indicates DDOT Freight Program High Priority Programs/Projects for Funding Requests*
*** Bolded funding amounts indicate changes made since the District finalized its FY25 budget*

10.3 Next Steps

With the development of the 2024 District Freight Plan, DDOT engaged with internal and external stakeholders to fully understand and infuse the plan with the ongoing work of others as well as regional freight needs. This outreach laid the framework for the strategies and investments of this freight plan. The 2024 District Freight Plan also includes an implementation plan that illustrates stakeholder prioritization of the strategies, the implementation effort, and the role and responsibility of the DDOT Freight Team. Over the next four years, DDOT plans to:

- **Engage** with partners on current trends and challenges, develop plans and opportunities.
- **Facilitate** agency coordination to understand and plan for freight needs, including those specific to safety, equity, resiliency, and environmental impact.
- **Plan** collaboratively with regional partners: the Metropolitan Washington Council of Governments, the Transportation Planning Board, The Eastern Transportation Coalition, Maryland DOT and Virginia DOT.
- **Promote** freight improvements, including safety and traffic management efforts across the District.
- **Develop** best practices that serve the public and private sector.
- **Look** to the future, planning for electric trucks and innovative technologies.

Going forward, DDOT will improve upon the successes of the District's current freight planning program, while continuing to expand the visibility of freight to a more diverse group of stakeholders throughout the region.

This 2024 District Freight Plan is a broad document that lays out needs and issues, as well as strategies, investments, and projects to address them. It details how, where, why, and when cargo moves along the District's multimodal freight network. DDOT looks forward to the plan's implementation over the next four years.

APPENDIX A – INDUSTRY STAKEHOLDERS

#	Stakeholder Group	#	Stakeholder Group	#	Stakeholder Group
1	A & A Transfer Inc.	30	FedEx	59	Reliable Churchill
2	ABCO Corp	31	Fells Point Wholesale Meats	60	Republic National Distributing Company, LLC
3	Acme Paper	32	Fort Myer Construction Corp.	61	Restaurant Association of Metropolitan Washington
4	Akridge	33	Fraley Corporation	62	Riegel Transportation Industries
5	Amazon	34	GE Appliances	63	Roadway Express/YRC Trucking
6	American Energy Restaurant Equipment	35	Giant	64	Robinson Terminal Warehouse
7	American Trucking Associations	36	Green Hat	65	Rodgers Brothers Service, Inc.
8	Aramark	37	Guernsey Office Products, Inc.	66	Safeway
9	Belair Produce Inc.	38	Harris Teeter	67	Saval Foods
10	Belts Logistics	39	Hotel Association of Washington DC	68	Sodexo
11	Breakthru Beverage Group-DC	40	Intralot	69	Southern Wine
12	Broadview Waste Services	41	J.B. Hunt Transport Inc.	70	Sysco
13	Budweiser/Capital Eagle	42	JBG Smith	71	Target
14	BWI Airport	43	John W. Ritter Trucking/Semi Express	72	The Charmer Sunbelt Group
15	CBRE	44	Kelly's Transportation LLC	73	The Kane Company
16	Clevenger Corporation	45	Paxton Companies (Atlas & logistics)	74	Tradepoint Atlantic
17	Coca Cola	46	Pepsi Bottling Group	75	Transco / SBC Global
18	Comfort Management Corp	47	Premium Distributors	76	Truck Renting and Leasing Association
19	Commercial Vehicle Safety Alliance	48	Koll Distributors	77	UPS
20	Douglas Development	49	MAPDA	78	US Food Service

21	Consumer Brand Association	50	Martha's Table	79	Verizon
22	CSX (Railroad)	51	Maryland Motor Truck Association, Inc.	80	Virginia Trucking Association
23	CVS	52	Metro Poultry / A M Briggs	81	Wal-Mart
24	DC Association of Beverage & Alcohol Wholesalers	53	Moving Masters	82	Wawa
25	DC Chamber of Commerce	54	National Capitol Region Foodbank	83	Winebow spirits
26	DHL	55	Norfolk Southern Railway	84	Yes! Organic Market
27	DM Bowman warehousing & distribution	56	OceanPro Industries, LTD / Profish		
28	DMV Freight & Movers	57	OOIDA (Owner Operator Independent Drivers Association		
29	DOPS Inc.	58	Pro-Air HVAC company		

APPENDIX B – TRANSPORTATION PLANNING BOARD CRITICAL URBAN FREIGHT CORRIDORS APPROVAL

TPB SR6-2024
October 6, 2023

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002

RESOLUTION TO UPDATE THE CRITICAL URBAN FREIGHT CORRIDORS IN THE DISTRICT OF COLUMBIA

WHEREAS, the National Capital Region Transportation Planning Board (TPB), which is the metropolitan planning organization (MPO) for the Washington Region, has the responsibility under the provisions of the Fixing America's Surface Transportation (FAST) Act, reauthorized November 15, 2021 when the Infrastructure Investment and Jobs Act (IIJA) was signed into law, for developing and carrying out a continuing, cooperative and comprehensive transportation planning process for the Metropolitan Area; and

WHEREAS, the provisions of the FAST Act enable the designation of Critical Urban Freight Corridors (CUFC) and Critical Rural Freight Corridors (CRFC) as part of the National Highway Freight Network; and

WHEREAS, the provisions of the FAST Act authorize MPOs with a population greater than 500,000 (including the TPB) to designate public roads within its urbanized area as CUFCs in consultation with the relevant state(s); and

WHEREAS, CUFCs are important complements to the Primary Highway Freight System (PHFS) designated in the FAST Act, to provide Federal funding eligibility for a wide range of activities that support freight infrastructure including planning, engineering, and construction; and

WHEREAS, the TPB adopted Resolution R6-2018 on November 17, 2017, designating CUFCs in the District of Columbia, and Maryland and Virginia portions of the National Capital Region, in accordance with the FAST Act requirements and constraints; and

WHEREAS, the IIJA modified requirements and constraints for CUFC designation; and

WHEREAS, TPB staff has collaborated with the District Department of Transportation (DDOT) staff to identify updates to its CUFC network as a result of the CUFC modifications of the IIJA and to coordinate with the DDOT State Freight Plan; and

NOW, THEREFORE, BE IT RESOLVED THAT the Steering Committee of the National Capital Region Transportation Planning Board approves the changes to the designation of the District of Columbia public roads listed in the attached table as Critical Urban Freight Corridors, as described in the attached materials.

Adopted by the TPB Steering Committee at its meeting on Friday, October 6, 2023.
Final approval following review by the full board on Wednesday, October 18, 2023.

Table 1: Existing District Critical Urban Freight Corridors to be Removed

ID	Segment	Extent A	Extent B	Length (mile)
1	58th St NE	Eastern Ave NE	East Capitol St. NE	0.66
2	Anacostia Fwy	I-295	East Capitol St. BN	2.46
			SUM	**3.12**

Table 2: District of Columbia Corridors to be Added

ID	Segment	Extent A	Extent B	Length (mile)
A	Riggs Rd. NE	South Dakota Ave. NE	DC Line/Eastern Ave. NE	0.46
B	S Capitol St. BN	DC Line/Southern Ave. SE	Martin Luther King Ave. SE	1.17
C	Martin Luther King Ave. SE	S Capitol St. SW/SE	Good Hope Road SE	2.58
D	Good Hope Rd. SE	Martin Luther King Ave. SE	Minnesota Ave. SE	0.24
E	Minnesota Ave. SE/NE	Good Hope Rd. SE	Nannie Helen Burrough Ave. NE	3.58
F	New Hampshire Ave. NW	North Capitol St. BN	Sherman Ave. NW	2.09
G	Massachusetts Ave. NW	Dupont Cir. NW	Westmoreland Circle NW	4.40
H	14th St. NW	Rhode Island Ave. NW	Delafield Pl NW	2.77
I	16th St. NW	U St. NW/New Hampshire Ave. NW	DC Line/Eastern Ave. NE	5.20
J	Suitland Pkwy. SE	S Capitol St. SW	Alabama Ave. SE	2.79
K	Dalecarlia Pkwy. NW	Loughboro Rd. NW	Westmoreland Circle NW	0.96
L	Loughboro Rd. NW	MacArthur Rd. NW	DalecarliaParkway	0.28
M	MacArthur Blvd. NW	Foxhall Rd. NW	Little Falls Rd. NW	2.84
N	Canal Rd./Foxhall Rd. NW	M St. NW/37th St. NW	MacArthur Rd. NW	0.57
O	Arizona Ave. NW	Canal Rd. NW	Loughboro Rd. NW	0.80
P	9th St. NE/Brentwood Pkwy.	Florida Ave. NE	Mt Olivet Rd. NE	0.56
Q	9th St. NE/Brentwood Rd. NE	Mt Olivet Rd. NW	Rhode Island NE	0.93
R	Canal Rd. NW	Foxhall Rd. NW	Arizona Ave. NW	2.16
S	Canal Rd. NW	Arizona Ave. NW	Across Chain Bridge	0.72
T	Loughboro Rd. NW/Nebraska Ave. NW	Arizona Ave. NW	Tenley Circle NW	1.43
U	C St. NE/East. Capitol St. NE	22nd St. SE	Benning Rd. SE	2.74
V	Harvard. St. NW/Hobart Pl. NW & Columbia Rd. NW	Georgia Ave. NW/US 29	Warder St. NW/5th St. NW	0.34
W	Michigan Ave. NW/NE	Warder St. NW	Eastern Ave. NE	3.13
X	Maine Ave. SW	12th St. SW	6th St. SW	0.52

Y	Bladensburg Rd. NE	Benning Rd. NE/Florida Ave. NE/H St. NE	New York Ave. NE	1.33
ID	**Segment**	**Extent A**	**Extent B**	**Length (Mile)**
Z	9th St. SW	Frontage Rd. SW	Maine St. SW	0.20
AA	Western Ave. NW	Westmoreland Circle NW	Chevy Chase Circle NW	1.77
BB	S St. SW.	Half St. SW	Termination of Road	0.13
DD	H St. NW	Pennsylvania Ave. NW	New York Ave. NW	0.71
EE	Pennsylvania Ave. NW	22nd St. NW	H St. NW/19th St.	0.32
FF	New York Ave. (US 50) NE	14th St. NW	9th St. NW	0.47
GG	I St. NW	Pennsylvania Ave. NW	New York Ave. NW	1.09
HH	9th St./Florida Ave. NW	U St. NW	Sherman Ave. NW	0.21
II	Sherman Ave. NW	Florida Ave. NW	New Hampshire Ave. NW/Park Rd.	0.90
LL	Virginia Ave. NW	27th St. NW	Constitution Ave. NW	1.01
KK	27th St. NW	Whitehurst Fwy NW/K St. NW	Virginia Ave. NW	0.15
MM	Constitution Ave. NW	Virginia Ave. NW	14th St. NW	0.47
NN	19th St. NW	Virginia Ave. NW	K St. NW	0.61
OO	18th St. NW	Virginia Ave. NW	K St. NW	0.67
PP	17th St. NW	R St. NW	K St. NW	0.69
QQ	12th St. NE	Michigan Ave. NE	Rhode Island NE	1.09
RR	11th St. SE	M St. SE	Good Hope Road SE	0.68
SS	M St. SW/SE	6th St. SW	11th St. SE	1.53
TT	Kennedy St. NW/NE	New Hampshire Ave. NW	Georgia Ave. NW	1.02
UU	18th St. NW	S St. NW	Columbia Rd. NW	0.60
VV	Columbia Rd. NW	Mintwood Pl NW	16th St. NW	0.55
WW	8th St. SE	M St. SE	Pennsylvania Ave. SE	0.53
XX	11th St. NW	K St. NW	Rhode Island NE	0.55
YY	Southern Ave. NE	East Capitol St. BN	63Rd. St. NE	0.17
ZZ	63Rd. St. NE	Southern Ave. NE	Eastern Ave. NE	0.19
AAA	Southeast. Blvd SE	DC-695	Pennsylvania Ave. SE	1.11
CCC	6th St. NW	Constitution Ave. NW	Rhode Island NW	1.45
EEE	Branch Ave. SE	Pennsylvania Ave. SE	Southern Ave. SE	1.01
FFF	Alabama Ave. SE	Martin Luther King Ave. SE	Pennsylvania Ave. SE	3.28
GGG	Kenilworth Ave. NE	Nannie Helen Burroughs Ave. NE	Eastern Ave. NE	0.85
SUM				**68.6**

Table 3: Existing District Critical Urban Freight Corridors that Remain Unchanged from 2017 Designation

ID	Segment	Extent A	Extent B	Length (mile)
1	16th St. NW	U St. NW/New Hampshire Ave. NW	K St. NW	1.00
2	Georgia Ave. NW	DC Line/Eastern Ave. NW	U St. NW	4.76
3a	Massachusetts Ave. NW	Dupont Cir NW	9th St. NW	1.06
3b	Massachusetts Ave. NW	7th St. NW	North Capitol St. BN	0.76
4a	Pennsylvania Ave. NW	29th St. NW	22nd St. NW	0.46
4b	Pennsylvania Ave. NW	14th St. NW	4th St. NW	0.88
4c	Pennsylvania Ave. NW	3rd St. NE	DC Line/Southern Ave. SE	3.48
5	Wisconsin Ave. NW	DC Line/Western Ave. NW	M St. NW	4.12
6	Connecticut Ave. NW	DC Line/Western Ave. NW	K St. NW	5.00
7	Rhode Island Ave. NE	DC Line/Eastern Ave. NE	Scott Cir NW/ 16th St. NW	4.55
8	South Dakota Ave. NE	Riggs Rd. NE	New York Ave. NE	3.70
9	Florida Ave. NW/NE	9th St. NW	H St. NE	2.44
10	North Capitol St. NE	New Hampshire Ave. NE	Louisiana Ave. NE	4.35
11	14th St. NW	Rhode Island Ave. NW	I-395	2.56
12	Nebraska Ave. NW	Military Rd. NW	Tenley Cir NW	1.20
13	H St. NE	Florida Ave. NE	Massachusetts Ave. NW	1.73
14	7th St. NW	Florida Ave. NW	Independence Ave. SW	1.98
15	Benning Rd. NE	East. Capitol St. BN	Florida Ave. NE	2.67
16	Missouri Ave. NW	Military Rd. NW	North Capitol St. BN	1.33
17	K St. NW	27th St. NW	7th St. NW	1.84
18a	Constitution Ave. NW	14th St. NW	Pennsylvania Ave. NW	0.73
18b	Constitution Ave. NW	Pennsylvania Ave. NW	Louisiana Ave. NW	0.18
19	Independence Ave. NW	14th St. SW	3Rd. St. SW	0.90
20	South Capitol St. BN	Firth Sterling Ave. SE	Canal St. SW	2.36
21	M St. NW	US29/Francis Scott Key Memorial Bridge	29th St. NW	0.68
22	Military Rd. NW	Nebraska Ave. NW	Missouri Ave. NW	1.95
23	New Hampshire Ave. NE	DC Line/Eastern Ave. NE	North Capitol St. BN	0.72
24	Dupont Cir.	Massachusetts Ave. NW	Massachusetts Ave. NW	0.27
25	U St. NW	New Hampshire Ave. NE	9th St. NW	0.68
26	Thomas Cir.	M St. NW	M St. NW	0.16

ID	Segment	Extent A	Extent B	Length (mile)
27	Tenley Cir.	Nebraska Ave. NW	Nebraska Ave. NW	0.14
28	Washington Cir.	Pennsylvania Ave. NW	Pennsylvania Ave. NW	0.23
29	Scott Cir.	Massachusetts Ave. NW	Massachusetts Ave. NW	0.12
30	New York Ave. (US 50)	DC Line NE	7th St. NW	4.60
31	East Capitol St. NE	DC Line/Southern Ave. SE	Benning Rd. SE	1.31
32	Louisiana Ave. NW	North Capital St. BN	Constitution Ave. NW	0.30
33	Riggs Rd. NE	South Dakota Ave. NE	North Capitol St. BN	0.40
34a	9th St. NW	Mt Vernon Pl NW	K St. NW	0.06
34b	9th St. NW	Pennsylvania Ave. NW	Frontage Rd. SW	0.75
35	12th St. NW	I-395 BN	Pennsylvania Ave. NW	1.11
36	Francis Scott Key Bridge	DC Line/GW Memorial Pkwy	M St. NW	0.31
37	Mt. Vernon Pl. NW	7th St. NW	9th St. NW	0.11
38	Kenilworth Ave NE	East Capitol St. BN	DC Line/Eastern Ave. NE	1.51
39	Water St NW/Whitehurst Fwy NW	350' east. of Key Bridge NW	27th St. NW	0.79
40	Bladensburg Rd NE	Eastern Ave NE	New York Ave. NE	1.23
			SUM	**71.4**

National Capital Region
Transportation Planning Board

MEMORANDUM

TO: TPB Steering Committee

FROM: Andrew Meese, TPB Systems Performance Planning Program Director
Janie Nham, TPB Transportation Planner

SUBJECT: Proposed Critical Urban Freight Corridor (CUFC) Designation Updates for the District of Columbia

DATE: September 29, 2023

This memorandum describes proposed updates to the District of Columbia's Critical Urban Freight Corridor (CUFC) designations, originally approved by the Transportation Planning Board in November 2017. The 2021 Infrastructure Investment and Jobs Act (IIJA) increased the number of CUFC miles that a state or MPO can designate. The District Department of Transportation (DDOT) and TPB staff recently collaborated to develop recommended changes to its CUFC network under this new designation limit, described below in this memorandum and an accompanying PowerPoint presentation. Staff recommends that the TPB Steering Committee approve Resolution SR6-2024 at its October 6, 2023 meeting, to authorize the CUFC designation updates listed in the resolution and described in this memorandum.

BACKGROUND

The 2015 Fixing America's Surface Transportation (FAST) Act created a freight-specific formula grant funding program, the National Highway Freight Program (NHFP) (in addition to other freight discretionary grant funding programs) to ensure the condition and performance of highways deemed most critical to freight movement. The programs were established to increase U.S. competitiveness in the global economy, improve the efficiency and reliability of the freight network, and reduce the environmental impacts of freight.

Since 2016, between $1.1 billion to $1.5 billion[1] has been authorized annually for the NHFP to support the most critical portions of the national freight network. The FAST Act outlined requirements and constraints for identifying the subset of roadway segments to receive NHFP funding. Some of these provisions were subsequently amended under the IIJA.

Designation Responsibility

The FAST Act directed NHFP funds towards roadway segments identified as part of the National Highway Freight Network (NHFN), a subsection of the total national freight network. The NHFN is composed of various subcategories of urban and rural roadways. Of these subcategories, the TPB is responsible for designating Critical Urban Freight Corridors (CUFCs), public roads in an urbanized area that provide access to and connection between the primary highway freight system and the

[1] Federal Highway Administration (FHWA) FAST Act and Bipartisan Infrastructure Law Fact Sheets.

Interstate with other important ports, public transportation facilities, or other intermodal freight facilities. The FAST Act requires the TPB to coordinate with the relevant states on the designations.

It should be noted that CUFCs do not represent the totality of state-designated truck routes nor of truck-allowing facilities in the region and may not be contiguous from an operational standpoint. Rather, CUFCs are subsets of these truck-allowing facilities that are identified for the purpose of ensuring eligibility for the aforementioned special federal grants. States and MPOs generally prioritize the limited miles available under federal law for CUFCs for road segments that have anticipated improvement needs. Identified segments may not be contiguous and may later change once improvements have been implemented.

Requirements for Candidate Critical Urban Freight Corridors

To be designated as a Critical Urban Freight Corridor, candidate public roadways must be located within an urbanized area and meet at least one of the following criteria:

- Connects an intermodal facility to the Primary Highway Freight System (PHFS) or the Interstate System;
- Is located within a corridor of a route on the PHFS and provides an alternative option important to goods movement;
- Serves a major freight generator, logistics center, or manufacturing and warehouse industrial land; or
- Is important to the movement of freight within the region, as determined by the MPO or the State.

Mileage Limitations and IIJA Amendments[2]

The FAST Act limited the number of CUFC miles that a state or MPO could designate to 75 miles of highway or 10 percent of the PHFS mileage in the state, whichever was greater.

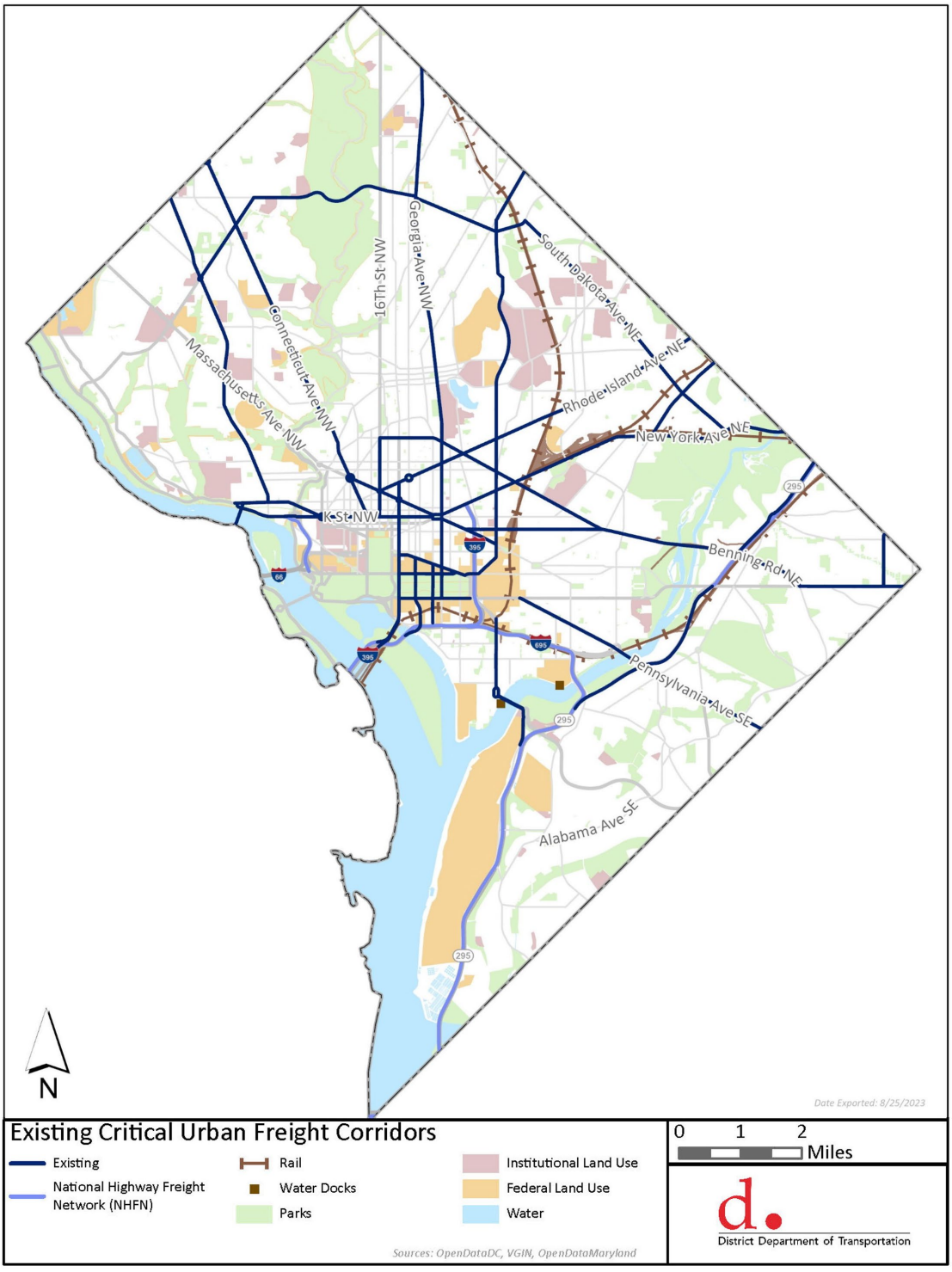
The IIJA continued all provisions that applied to CUFCs under the FAST Act, except for the mileage limitation. The IIJA increased the total amount of CUFC mileage that could be designated by states and MPOs to 150 miles of highway or 10 percent of the PHFS mileage in the state, whichever is greater. As a result of this change, up to 150 CUFC miles can be designated in the District.

DISTRICT OF COLUMBIA CRITICAL URBAN FREIGHT CORRIDORS

The TPB adopted Resolution R6-2018 on November 15, 2017, which established the Critical Urban Freight Corridors for the National Capital Region. The 2017 designation included 73.1 corridor miles for the District of Columbia, which are illustrated in Figure 1.

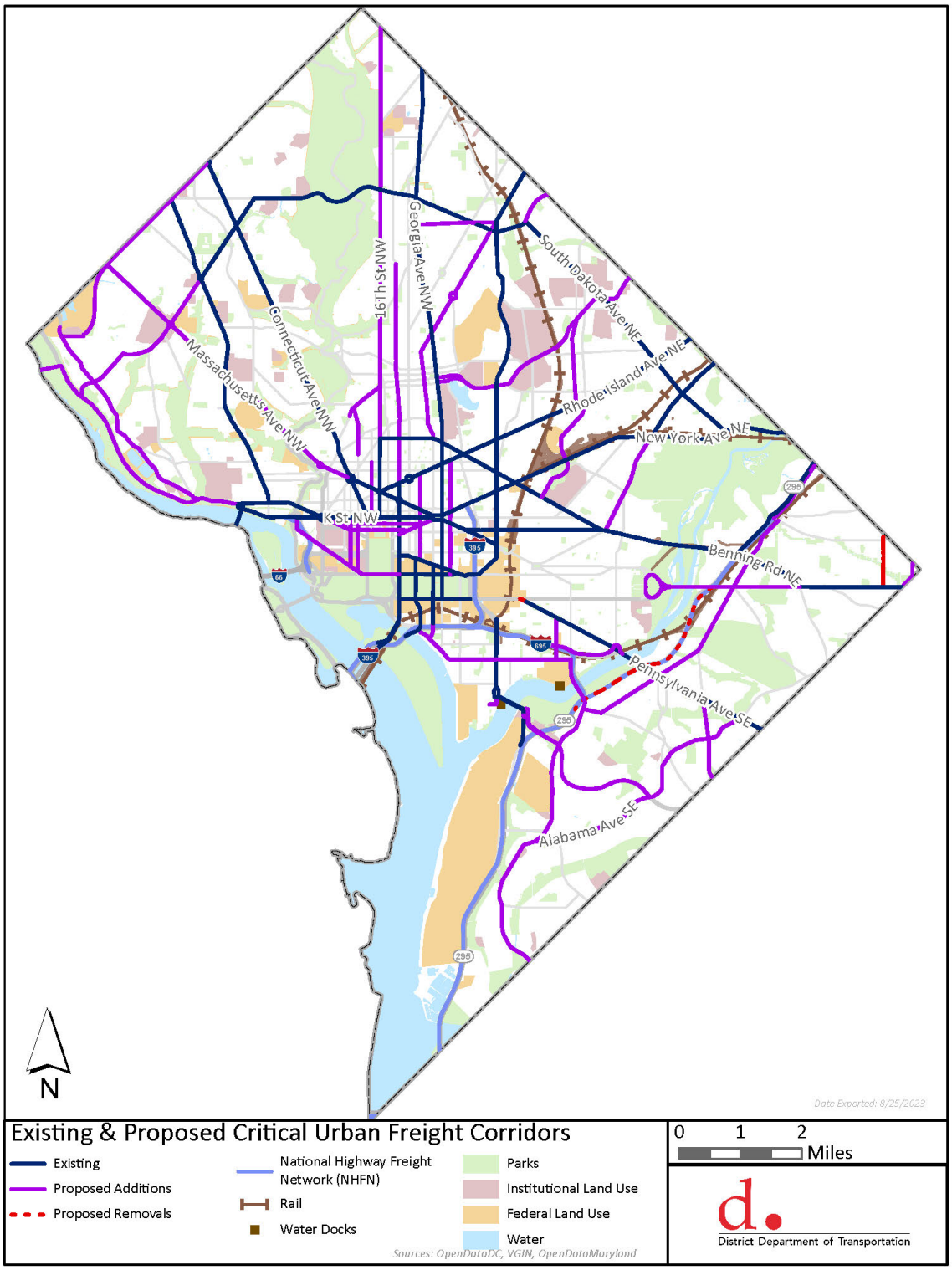
[2] This paragraph only discusses the IIJA amendments concerning CUFCs. For a summary of all IIJA amendments that apply to the NHFP, see the FHWA's Bipartisan Infrastructure Law Fact Sheet for the NHFP, available at: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nhfp.cfm .

Figure 1: Map of Existing District CUFC Designations (Source: DDOT)



As a result of the CUFC mileage increase provided through the IIJA, DDOT and TPB staff have identified potential updates to the District's CUFC designations. The proposed changes include the removal of approximately three miles of roadway segments and the addition of roughly 70 miles of corridors, for a proposed new designation of approximately 140 CUFC miles. The recommended changes are illustrated in Figure 2, and a detailed listing of the segments within the new CUFC network is provided as an appendix.

Figure 2: Map of District Proposed CUFC Changes (Source: DDOT)



Designation Methodology

The District's CUFC designations represent a subset of the District's truck and bus route network and other truck allowable segments. To identify additional recommended CUFC segments, DDOT staff assessed its roadway network and freight facilities to select the most important candidate segments for CUFC designation. This included analysis of high traffic corridors, connections to freight generators and commercial districts, locations of planned investments, neighborhood characteristics, and e-commerce data, among other considerations. DDOT staff additionally solicited stakeholder feedback through the TPB Freight Subcommittee and the DDOT Freight Working Group.

NEXT STEPS

On October 6, 2023, the TPB Steering Committee will be asked to approve the proposed changes to the District's CUFC designations. This action is recommended so that DDOT can include these updated CUFC designations within its federally-required State Freight Plan Update, which is scheduled for submittal in 2024. The proposed changes have also been presented to the TPB Technical Committee for technical review at its September 8, 2023 meeting, in advance of the anticipated October 6 TPB Steering Committee action. No comments or revisions were received from the Technical Committee. Therefore, staff recommends TPB Steering Committee approval of Resolution SR6-2024 addressing these updates.

Upon approval, TPB Staff will submit the updated CUFC designations to the Federal Highway Administration (FHWA).

TPB staff continues to coordinate with the Maryland Department of Transportation (MDOT) and the Virginia Department of Transportation (VDOT) regarding identifying appropriate modifications for their CUFC networks. Whereas DDOT's timeframe is driven by the need to finalize their State Freight Plan Update in the coming months, consideration of changes to CUFCs in the Maryland and Virginia portions of the TPB region is still awaiting prerequisite determinations of 2020 Census-impacted Maryland and Virginia statewide Urbanized Area boundary adjustments which are still in process. (Such boundary adjustments are not anticipated to impact the District of Columbia itself.) TPB staff anticipates following this same process in the future for proposed CUFC designation updates in the Maryland and Virginia portions of the region, once necessary information becomes available.

APPENDIX

Table 1: Existing (2017) List of District Critical Urban Freight Corridors Proposed to be Maintained

ID	Segment	Extent A	Extent B	Length (mile)
1	16th St. NW	U St. NW/New Hampshire Ave. NW	K St. NW	1.00
2	Georgia Ave. NW	DC Line/Eastern Ave. NW	U St. NW	4.76
3a	Massachusetts Ave. NW	Dupont Cir NW	9th St. NW	1.06
3b	Massachusetts Ave. NW	7th St. NW	North Capitol St. BN	0.76
4a	Pennsylvania Ave. NW	29th St. NW	22nd St. NW	0.46
4b	Pennsylvania Ave. NW	14th St. NW	4th St. NW	0.88
4c	Pennsylvania Ave. NW	3rd St. NE	DC Line/Southern Ave. SE	3.48
5	Wisconsin Ave. NW	DC Line/Western Ave. NW	M St. NW	4.12
6	Connecticut Ave. NW	DC Line/Western Ave. NW	K St. NW	5.00
7	Rhode Island Ave. NE	DC Line/Eastern Ave. NE	Scott Cir NW/ 16th St. NW	4.55
8	South Dakota Ave. NE	Riggs Rd. NE	New York Ave. NE	3.70
9	Florida Ave. NW/NE	9th St. NW	H St. NE	2.44
10	North Capitol St. NE	New Hampshire Ave. NE	Louisiana Ave. NE	4.35
11	14th St. NW	Rhode Island Ave. NW	I-395	2.56
12	Nebraska Ave. NW	Military Rd. NW	Tenley Cir NW	1.20
13	H St. NE	Florida Ave. NE	Massachusetts Ave. NW	1.73
14	7th St. NW	Florida Ave. NW	Independence Ave. SW	1.98
15	Benning Rd. NE	East. Capitol St. BN	Florida Ave. NE	2.67
16	Missouri Ave. NW	Military Rd. NW	North Capitol St. BN	1.33
17	K St. NW	27th St. NW	7th St. NW	1.84
18a	Constitution Ave. NW	14th St. NW	Pennsylvania Ave. NW	0.73
18b	Constitution Ave. NW	Pennsylvania Ave. NW	Louisiana Ave. NW	0.18
19	Independence Ave. NW	14th St. SW	3Rd. St. SW	0.90
20	South Capitol St. BN	Firth Sterling Ave. SE	Canal St. SW	2.36
21	M St. NW	US29/Francis Scott Key Memorial Bridge	29th St. NW	0.68
22	Military Rd. NW	Nebraska Ave. NW	Missouri Ave. NW	1.95
23	New Hampshire Ave. NE	DC Line/Eastern Ave. NE	North Capitol St. BN	0.72
24	Dupont Cir.	Massachusetts Ave. NW	Massachusetts Ave. NW	0.27
25	U St. NW	New Hampshire Ave. NE	9th St. NW	0.68
26	Thomas Cir.	M St. NW	M St. NW	0.16

ID	Segment	Extent A	Extent B	Length (mile)
27	Tenley Cir.	Nebraska Ave. NW	Nebraska Ave. NW	0.14
28	Washington Cir.	Pennsylvania Ave. NW	Pennsylvania Ave. NW	0.23
29	Scott Cir.	Massachusetts Ave. NW	Massachusetts Ave. NW	0.12
30	New York Ave. (US 50)	DC Line NE	7th St. NW	4.60
31	East Capitol St. NE	DC Line/Southern Ave. SE	Benning Rd. SE	1.31
32	Louisiana Ave. NW	North Capital St. BN	Constitution Ave. NW	0.30
33	Riggs Rd. NE	South Dakota Ave. NE	North Capitol St. BN	0.40
34a	9th St. NW	Mt Vernon Pl NW	K St. NW	0.06
34b	9th St. NW	Pennsylvania Ave. NW	Frontage Rd. SW	0.75
35	12th St. NW	I-395 BN	Pennsylvania Ave. NW	1.11
36	Francis Scott Key Bridge	DC Line/GW Memorial Pkwy	M St. NW	0.31
37	Mt. Vernon Pl. NW	7th St. NW	9th St. NW	0.11
38	Kenilworth Ave NE	East Capitol St. BN	DC Line/Eastern Ave. NE	1.51
39	Water St NW/Whitehurst Fwy NW	350' east. of Key Bridge NW	27th St. NW	0.79
40	Bladensburg Rd NE	Eastern Ave NE	New York Ave. NE	1.23
			SUM	**71.4**

Table 2: Existing (2017) List of District Critical Urban Freight Corridors Proposed to be Removed

ID	Segment	Extent A	Extent B	Length (mile)
1	58th St NE	Eastern Ave NE	East Capitol St. NE	0.66
2	Anacostia Fwy	I-295	East Capitol St. BN	2.46
			SUM	**3.12**

Table 3: District Critical Urban Freight Corridors Proposed Additions

ID	Segment	Extent A	Extent B	Length (mile)
A	Riggs Rd. NE	South Dakota Ave. NE	DC Line/Eastern Ave. NE	0.46
B	S Capitol St. BN	DC Line/Southern Ave. SE	Martin Luther King Ave. SE	1.17
C	Martin Luther King Ave. SE	S Capitol St. SW/SE	Good Hope Road SE	2.58
D	Good Hope Rd. SE	Martin Luther King Ave. SE	Minnesota Ave. SE	0.24
E	Minnesota Ave. SE/NE	Good Hope Rd. SE	Nannie Helen Burrough Ave. NE	3.58
F	New Hampshire Ave. NW	North Capitol St. BN	Sherman Ave. NW	2.09
G	Massachusetts Ave. NW	Dupont Cir. NW	Westmoreland Circle NW	4.40
H	14th St. NW	Rhode Island Ave. NW	Delafield Pl NW	2.77
I	16th St. NW	U St. NW/New Hampshire Ave. NW	DC Line/Eastern Ave. NE	5.20
J	Suitland Pkwy. SE	S Capitol St. SW	Alabama Ave. SE	2.79
K	Dalecarlia Pkwy. NW	Loughboro Rd. NW	Westmoreland Circle NW	0.96
L	Loughboro Rd. NW	MacArthur Rd. NW	DalecarliaParkway	0.28
M	MacArthur Blvd. NW	Foxhall Rd. NW	Little Falls Rd. NW	2.84
N	Canal Rd./Foxhall Rd. NW	M St. NW/37th St. NW	MacArthur Rd. NW	0.57
O	Arizona Ave. NW	Canal Rd. NW	Loughboro Rd. NW	0.80
P	9th St. NE/Brentwood Pkwy.	Florida Ave. NE	Mt Olivet Rd. NE	0.56
Q	9th St. NE/Brentwood Rd. NE	Mt Olivet Rd. NW	Rhode Island NE	0.93
R	Canal Rd. NW	Foxhall Rd. NW	Arizona Ave. NW	2.16
S	Canal Rd. NW	Arizona Ave. NW	Across Chain Bridge	0.72
T	Loughboro Rd. NW/Nebraska Ave. NW	Arizona Ave. NW	Tenley Circle NW	1.43
U	C St. NE/East. Capitol St. NE	22nd St. SE	Benning Rd. SE	2.74
V	Harvard. St. NW/Hobart Pl. NW & Columbia Rd. NW	Georgia Ave. NW/US 29	Warder St. NW/5th St. NW	0.34
W	Michigan Ave. NW/NE	Warder St. NW	Eastern Ave. NE	3.13
X	Maine Ave. SW	12th St. SW	6th St. SW	0.52
Y	Bladensburg Rd. NE	Benning Rd. NE/Florida Ave. NE/H St. NE	New York Ave. NE	1.33
Z	9th St. SW	Frontage Rd. SW	Maine St. SW	0.20
AA	Western Ave. NW	Westmoreland Circle NW	Chevy Chase Circle NW	1.77
BB	S St. SW.	Half St. SW	Termination of Road	0.13
DD	H St. NW	Pennsylvania Ave. NW	New York Ave. NW	0.71

ID	Segment	Extent A	Extent B	Length (mile)
EE	Pennsylvania Ave. NW	22nd St. NW	H St. NW/19th St.	0.32
FF	New York Ave. (US 50) NE	14th St. NW	9th St. NW	0.47
GG	I St. NW	Pennsylvania Ave. NW	New York Ave. NW	1.09
HH	9th St./Florida Ave. NW	U St. NW	Sherman Ave. NW	0.21
II	Sherman Ave. NW	Florida Ave. NW	New Hampshire Ave. NW/Park Rd.	0.90
LL	Virginia Ave. NW	27th St. NW	Constitution Ave. NW	1.01
KK	27th St. NW	Whitehurst Fwy NW/K St. NW	Virginia Ave. NW	0.15
MM	Constitution Ave. NW	Virginia Ave. NW	14th St. NW	0.47
NN	19th St. NW	Virginia Ave. NW	K St. NW	0.61
OO	18th St. NW	Virginia Ave. NW	K St. NW	0.67
PP	17th St. NW	R St. NW	K St. NW	0.69
QQ	12th St. NE	Michigan Ave. NE	Rhode Island NE	1.09
RR	11th St. SE	M St. SE	Good Hope Road SE	0.68
SS	M St. SW/SE	6th St. SW	11th St. SE	1.53
TT	Kennedy St. NW/NE	New Hampshire Ave. NW	Georgia Ave. NW	1.02
UU	18th St. NW	S St. NW	Columbia Rd. NW	0.60
VV	Columbia Rd. NW	Mintwood Pl NW	16th St. NW	0.55
WW	8th St. SE	M St. SE	Pennsylvania Ave. SE	0.53
XX	11th St. NW	K St. NW	Rhode Island NE	0.55
YY	Southern Ave. NE	East Capitol St. BN	63Rd. St. NE	0.17
ZZ	63Rd. St. NE	Southern Ave. NE	Eastern Ave. NE	0.19
AAA	Southeast. Blvd SE	DC-695	Pennsylvania Ave. SE	1.11
CCC	6th St. NW	Constitution Ave. NW	Rhode Island NW	1.45
EEE	Branch Ave. SE	Pennsylvania Ave. SE	Southern Ave. SE	1.01
FFF	Alabama Ave. SE	Martin Luther King Ave. SE	Pennsylvania Ave. SE	3.28
GGG	Kenilworth Ave. NE	Nannie Helen Burroughs Ave. NE	Eastern Ave. NE	0.85
			SUM	**68.6**

APPENDIX C – CRITICAL URBAN FREIGHT CORRIDORS DATA LIST

The table below notes the data sources leveraged to evaluate the District's CUFC classifications.

District Consideration	Description	Open Data DC / District Source
D.1	High Truck Volume Corridors	Roadway Subblock (2022) *Not a District Source: Replica (2022 & 2021)*
D.2	Freight Generators / Commercial Districts	Existing Land Use (2023)
D.3	Roadway Classification	Roadway Functional Classification (2022)
D.4	Access	*Received through stakeholder and public meetings*
D.5	Pavement Characteristics	Pavement Condition Index (2022)
D.6	Stakeholder Feedback	*Received through stakeholder and public meetings*
D.7	Truck and Bus Through Routes	Truck and Bus Through Route (2023)
D.8	Existing Truck Restrictions	Existing Truck Restrictions (2023)
D.9	E-Commerce Data	*NielsenIQ*
D.10	Neighborhood Characteristics/ Land Use	2021 Future Land Use (2021)
D.11	District Plans and Projects	moveDC Freight Priority Network (2023) *Received through stakeholder and public meetings*

APPENDIX D – CRITICAL URBAN FREIGHT CORRIDORS COMPLETE LIST

The follow table outlines the federal criteria to be eligible to be classified as a CUFC.

Criteria	Description
H	Segment connects an intermodal facility to the PHFS, Interstate System, or an intermodal freight facility.
I	Segment is located within a corridor of a route on the PHFS and provides an alternative highway option important to goods movement
J	Segment serves a major freight generator, logistic center, or manufacturing and warehouse industrial land
K	Segment is important to the movement of freight within the region, as determined by the MPO or the State

The table below details each of the segments and extents classified as CUFCS, the federal criteria the segment achieves and the length of the segment. These segments are illustrated in **Figure 13**. Please note, the term "BN" utilized below indicates roadway segments that are on the boundary of two or more quadrants.

ID	Segment	Extent A	Extent B	Criteria	Length (mile)
1	16th St. NW	DC Line/Eastern Ave NE	K St. NW	K	6.20
2	Georgia Ave. NW	DC Line/Eastern Ave. NW	U St. NW	J,K,I	4.76
3a	Massachusetts Ave. NW	DC Line/Westmoreland Circ. NW	9th St. NW	J, K	5.46
3b	Massachusetts Ave. NW	7th St. NW	North Capitol St. BN (NE/NW)	J, K	0.76
4a	Pennsylvania Ave. NW	29th St. NW	H St. NW/19th St.	J, K	0.78
4b	Pennsylvania Ave. NW	14th St. NW	4th St. NW	J, K	0.88
4c	Pennsylvania Ave. SE	3rd St. SE	DC Line/Southern Ave. SE	K	3.40
5	Wisconsin Ave. NW	DC Line/Western Ave. NW	M St. NW	J, K	4.12
6	Connecticut Ave. NW	DC Line/Western Ave. NW	K St. NW	J, K	5.00
7	Rhode Island Ave. NE/NW	DC Line/Eastern Ave. NE	Scott Cir NW/ 16th St. NW	J, K	4.55
8	South Dakota Ave. NE	Riggs Rd. NE	New York Ave. NE	J, K	3.70
9	Florida Ave. NW/NE	9th St. NW	H St. NE	J, K	2.44

ID	Segment	Extent A	Extent B	Criteria	Length (mile)
10	North Capitol St. NE	New Hampshire Ave. NE	Louisiana Ave. NE	K, I	4.35
11	14th St. NW	Delafield Pl NW	I-395	J, K	5.34
12	Nebraska Ave. NW	Military Rd. NW	Tenley Cir NW	K	1.20
13	H St. NE	Florida Ave. NE	Massachusetts Ave. NW	K	1.73
14	7th St. NW	Florida Ave. NW	Independence Ave. SW	J, K	1.98
15	Benning Rd. NE	East. Capitol St. BN (NE/SE)	Florida Ave. NE	J, K	2.67
16	Missouri Ave. NW	Military Rd. NW	North Capitol St. BN	K	1.33
17	K St. NW	27th St. NW	7th St. NW	J, K	1.84
18a	Constitution Ave. NW	Virginia Ave. NW	Pennsylvania Ave. NW	K	1.20
18b	Constitution Ave. NW	Pennsylvania Ave. NW	Louisiana Ave. NW	K	0.18
19	Independence Ave. NW	14th St. SW	3rd. St. SW	K	0.90
20	South Capitol St. BN (SE/SW)	Firth Sterling Ave. SE	Canal St. SW	J,K,I	2.36
21	M St. NW	US29/Francis Scott Key Memorial Bridge	29th St. NW	J, K	0.68
22	Military Rd. NW	Nebraska Ave. NW	Missouri Ave. NW	K	1.95
23	New Hampshire Ave. NE	DC Line/Eastern Ave. NE	North Capitol St. BN	J, K	0.72
24	Dupont Cir.	Massachusetts Ave. NW	Massachusetts Ave. NW	K	0.27
25	U St. NW	New Hampshire Ave. NE	9th St. NW	J, K	0.68
26	Thomas Cir.	M St. NW	M St. NW	K	0.16
27	Tenley Cir.	Nebraska Ave. NW	Nebraska Ave. NW	K	0.14
28	Washington Cir.	Pennsylvania Ave. NW	Pennsylvania Ave. NW	K	0.23
29	Scott Cir.	Massachusetts Ave. NW	Massachusetts Ave. NW	K	0.12
30	New York Ave. (US 50)	DC Line NE	7th St. NW	H, J,K,I	4.60
31	East Capitol St. NE/SE	DC Line/Southern Ave. SE	Benning Rd. SE	K, I	1.31
32	Louisiana Ave. NW	North Capital St. BN	Constitution Ave. NW	K, A	0.30

ID	Segment	Extent A	Extent B	Criteria	Length (mile)
33	Riggs Rd. NE	Eastern Ave NE	North Capitol St. BN (NE/NW)	K	0.86
34a	9th St. NW	Mt Vernon Pl NW	K St. NW	K	0.06
34b	9th St. NW	Pennsylvania Ave. NW	Maine St. SW	K	0.95
35	12th St. NW	I-395	Pennsylvania Ave. NW	K	1.11
36	Francis Scott Key Bridge	DC Line/GW Memorial Pkwy	M St. NW	K	0.31
37	Mt. Vernon Pl. NW	7th St. NW	9th St. NW	K	0.11
39	Kenilworth Ave NE	Benning Rd NE	DC Line/Eastern Ave. NE	K	1.51
40	Water St NW/Whitehurst Fwy NW	350' east. of Key Bridge NW	27th St. NW	K	0.79
41	Bladensburg Rd NE	Eastern Ave NE	New York Ave. NE	K	1.23
42	S Capitol St. BN (SE/SW)	DC Line/Southern Ave. SE	Martin Luther King Ave. SE	J, K	1.17
43	Martin Luther King Ave. SE	S Capitol St. SW/SE	Good Hope Road SE	J, K	2.58
44	Good Hope Rd. SE	Martin Luther King Ave. SE	Minnesota Ave. SE	J, K	0.24
45	Minnesota Ave. SE/NE	Good Hope Rd. SE	Nannie Helen Burrough Ave. NE	I, J, K	3.58
46	New Hampshire Ave. NW	North Capital St. BN (NE/NW)	Sherman Ave. NW	K	2.09
47	Suitland Pkwy. SE	S Capitol St. SW	Alabama Ave. SE	K	2.79
48	Declarlia Pkwy. NW	Loughboro Rd. NW	Westmoreland Circle NW	J, K	0.96
49	Loughboro Rd. NW	MacArthur Rd. NW	Decarlia Parkway NW	J, K	0.28
50	MacArthur Blvd. NW	Foxhall Rd. NW	Little Falls Rd. NW	J, K	2.84
51	Canal Rd./Foxhall Rd. NW	M St. NW/37th St. NW	MacArthur Rd. NW	J, K	0.57
52	Arizona Ave. NW	Canal Rd. NW	Loughboro Rd. NW	K	0.80

ID	Segment	Extent A	Extent B	Criteria	Length (mile)
53	9th St. NE/Brentwood Pkwy.	Florida Ave. NE	Mt Olivet Rd. NE	J, K	0.56
54	9th St. NE/Brentwood Rd. NE	Mt Olivet Rd. NW	Rhode Island NE	J, K	0.93
55	Canal Rd. NW	Foxhall Rd. NW	Across Chain Bridge	K	2.88
56	Loughboro Rd. NW/Nebraska Ave. NW	Arizona Ave. NW	Tenley Circle NW	J, K	1.43
57	C St. NE/East. Capitol St. NE	22nd St. SE	Benning Rd. SE	K	2.74
58	Harvard. St. NW/Hobart Pl. NW & Columbia Rd. NW	Georgia Ave. NW/US 29	Warder St. NW/5th St. NW	J, K	0.34
59	Michigan Ave. NW/NE	Warder St. NW	Eastern Ave. NE	J, K	3.13
60	Maine Ave. SW	12th St. SW	6th St. SW	J, K	0.52
61	Bladensburg Rd. NE	Benning Rd. NE/Florida Ave. NE/H St. NE	New York Ave. NE	J, K	1.33
62	Western Ave. NW	Westmoreland Circle NW	Chevy Chase Circle NW	K	1.77
63	S St. SW	Half St. SW	Termination of Road	K	0.13
64	H St. NW	Pennsylvania Ave. NW	New York Ave. NW	J, K	0.71
65	New York Ave. (US 50) NW	14th St. NW	9th St. NW	J, K	0.47
66	I St. NW	Pennsylvania Ave. NW	New York Ave. NW	J, K	1.09
67	9th St./Florida Ave. NW	U St. NW	Sherman Ave. NW	K	0.21
68	Sherman Ave. NW	Florida Ave. NW	New Hampshire Ave. NW/Park Rd.	K	0.90
70	Virginia Ave. NW	27th St. NW	Constitution Ave. NW	J, K	1.01
71	27th St. NW	Whitehurst Fwy NW/K St. NW	Virginia Ave. NW	J, K	0.15
72	19th St. NW	Virginia Ave. NW	K St. NW	J, K	0.61
73	18th St. NW	Virginia Ave. NW	K St. NW	J, K	0.67

ID	Segment	Extent A	Extent B	Criteria	Length (mile)
74	17th St. NW	R St. NW	K St. NW	J, K	0.69
75	12th St. NE	Michigan Ave. NE	Rhode Island NE	K	1.09
76	11th St. SE	M St. SE	Good Hope Road SE	I, K	0.68
77	M St. SW/SE	6th St. SW	11th St. SE	J, K	1.53
78	Kennedy St. NW	New Hampshire Ave. NW	Georgia Ave. NW	K	1.02
79	18th St. NW	S St. NW	Columbia Rd. NW	K	0.60
80	Columbia Rd. NW	Mintwood Pl NW	16th St. NW	K	0.55
81	8th St. SE	M St. SE	Pennsylvania Ave. SE	K	0.53
82	11th St. NW	K St. NW	Rhode Island NE	J, K	0.55
83	Southern Ave. NE	East Capitol St. BN	63Rd. St. NE	K	0.17
84	63Rd. St. NE	Southern Ave. NE	Eastern Ave. NE	K	0.19
85	Southeast. Blvd SE	DC-695	Pennsylvania Ave. SE	I, K	1.11
87	6th St. NW	Constitution Ave. NW	Rhode Island NW	J, K	1.45
88	11th St. NW	K St. NW	Pennsylvania Ave. NW		0.54
89	Branch Ave. SE	Pennsylvania Ave. SE	Southern Ave. SE	K	1.01
90	Alabama Ave. SE	Martin Luther King Ave. SE	Pennsylvania Ave. SE	K	3.28
91	Kenilworth Ave. NE	Nannie Helen Burroughs Ave. NE	Eastern Ave. NE	I, K	0.85
				SUM	139.96

APPENDIX E – DETAILED 2024 INVESTMENT PLAN

Program/Project	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
Innovative freight delivery practices program*		**$ 596,750**	**$ 596,750**	**$ 596,750**	**$ 596,750**	**$ 596,750**	**$ 596,750**	**$ 596,750**	**$ 4,177,250**
Program Activities (Non Federal)		*$ 119,350*	*$ 119,350*	*$ 119,350*	*$ 119,350*	*$ 119,350*	*$ 119,350*	*$ 119,350*	*$ 835,450*
Program Activities (Federal)		*$ 477,400*	*$ 477,400*	*$ 477,400*	*$ 477,400*	*$ 477,400*	*$ 477,400*	*$ 477,400*	*$ 3,341,800*
Delivery demand management program*		**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 2,800,000**
Program Activities (Non Federal)		*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 560,000*
Program Activities (Federal)		*$ 320,000*	*$ 320,000*	*$ 320,000*	*$ 320,000*	*$ 320,000*	*$ 320,000*	*$ 320,000*	*$ 2,240,000*
Annual data analysis study to provide a baseline and insights on the impacts of innovative freight strategies			**$ 500,000**	**$ 445,000**	**$ 445,000**	**$ 445,000**	**$ 445,000**	**$ 445,000**	**$ 2,725,000**
Project Activities (Non Federal)			*$ 100,000*	*$ 89,000*	*$ 89,000*	*$ 89,000*	*$ 89,000*	*$ 89,000*	*$ 545,000*
Project Activities (Federal)			*$ 400,000*	*$ 356,000*	*$ 356,000*	*$ 356,000*	*$ 356,000*	*$ 356,000*	*$ 2,180,000*
Oversize/Overweight routing tool maintenance and enhancement*	**$ 253,103**	**$ 1,030,750**	**$ 314,650**	**$ 314,650**	**$ 314,650**	**$ 683,550**	**$ 314,650**	**$ 314,650**	**$ 3,540,653**
Project Activities (Non Federal)	*$ 50,621*	*$ 206,150*	*$ 62,930*	*$ 62,930*	*$ 62,930*	*$ 136,710*	*$ 62,930*	*$ 62,930*	*$ 708,131*
Project Activities (Federal)	*$ 202,482*	*$ 824,600*	*$ 251,720*	*$ 251,720*	*$ 251,720*	*$ 546,840*	*$ 251,720*	*$ 251,720*	*$ 2,832,522*
Positive truck route signage design and construction*			**$ 890,000**	**$ 2,194,000**					**$ 3,084,000**
Project Activities (Non Federal)			*$ 178,000*	*$ 438,800*					*$ 616,800*
Project Activities (Federal)			*$ 712,000*	*$ 1,755,200*					*$ 2,467,200*
Communication plan for sharing transportation updates to the industry and drivers					**$ 45,000**				**$ 45,000**
Project Activities (Non Federal)					*$ 9,000*				*$ 9,000*
Project Activities (Federal)					*$ 36,000*				*$ 36,000*
Update DDOT Freight Design Guidelines*			**$ 20,000**	**$ 20,000**	**$ 20,000**	**$ 20,000**	**$ 20,000**	**$ 20,000**	**$ 120,000**
Project Activities (Non Federal)			*$ 4,000*	*$ 4,000*	*$ 4,000*	*$ 4,000*	*$ 4,000*	*$ 4,000*	*$ 24,000*
Project Activities (Federal)			*$ 16,000*	*$ 16,000*	*$ 16,000*	*$ 16,000*	*$ 16,000*	*$ 16,000*	*$ 96,000*
Analyze and communicate constraints and opportunities for limiting truck size in urban areas					**$ 50,000**				**$ 50,000**
Project Activities (Non Federal)					*$ 10,000*				*$ 10,000*
Project Activities (Federal)					*$ 40,000*				*$ 40,000*
Develop and share up-to-date truck route information					**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 400,000**
Project Activities (Non Federal)					*$ 20,000*	*$ 20,000*	*$ 20,000*	*$ 20,000*	*$ 80,000*
Project Activities (Federal)					*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 320,000*
Engage industry stakeholders about freight delivery safety				**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 500,000**
Project Activities (Non Federal)				*$ 20,000*	*$ 20,000*	*$ 20,000*	*$ 20,000*	*$ 20,000*	*$ 100,000*
Project Activities (Federal)				*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 80,000*	*$ 400,000*

Program/Project	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
Scenario planning study				**$ 300,000**				**$ 300,000**	**$ 600,000**
Project Activities (Non Federal)				*$ 60,000*				*$ 60,000*	*$ 120,000*
Project Activities (Federal)				*$ 240,000*				*$ 240,000*	*$ 480,000*
Commercial vehicle enforcement system program*	**$ 7,528,453**	**$ 5,022,550**	**$ 3,437,844**	**$ 1,215,190**	**$ 217,000**	**$ 217,000**	**$ 217,000**	**$ 817,000**	**$ 18,672,037**
WIM Operations Support (Non-Federal)	$ 37,500	$ 43,400	$ 43,400	$ 43,400	$ 43,400	$ 43,400	$ 43,400	$ 43,400	$ 341,300
WIM Operations Support (Federal)	$ 150,000	$ 173,600	$ 173,600	$ 173,600	$ 173,600	$ 173,600	$ 173,600	$ 173,600	$ 1,365,200
WIM Upgrade and Repair (Non-Federal)	$ 676,000								$ 676,000
WIM Upgrade and Repair (Federal)	$ 2,704,000								$ 2,704,000
I-295 Weigh Station Upgrade NB (Non-Federal)		$ 340,690							$ 340,690
I-295 Weigh Station Upgrade NB (Federal)		$ 1,362,760							$ 1,362,760
I-295 Weigh Station Upgrade SB (Non-Federal)	$ 792,191	$ 620,420							$ 1,412,611
I-295 Weigh Station Upgrade SB (Federal)	$ 3,168,762	$ 2,481,680							$ 5,650,442
I-295 Northbound Weigh Station Construction (Non-Federal)			$ 644,169	$ 79,638					$ 723,807
I-295 Northbound Weigh Station Construction (Federal)			$ 2,576,675	$ 318,552					$ 2,895,227
Truck Enforcement Equipment (Non-Federal)				$ 120,000				$ 120,000	$ 240,000
Truck Enforcement Equipment (Federal)				$ 480,000				$ 480,000	$ 960,000
Update and maintain an FHWA-approved state freight plan			**$ 868,000**				**$ 868,000**		**$ 1,736,000**
Project Activities (Non Federal)			$ 173,600				$ 173,600		$ 347,200
Project Activities (Federal)			$ 694,400				$ 694,400		$ 1,388,800
Study to identify waste management best practices and recommendations					**$ 100,000**				**$ 100,000**
Project Activities (Non Federal)					$ 20,000				$ 20,000
Project Activities (Federal)					$ 80,000				$ 80,000
Evaluate and maintain multimodal rail and water options		**$ 200,000**	**$ 602,175**	**$ 2,007,250**		**$ 500,000**			**$ 3,309,425**
Study DC Dock Infrastructure Improvements (Non-Federal)		$ 40,000							$ 40,000
Study DC Dock Infrastructure Improvements (Federal)		$ 160,000							$ 160,000
Maintain and Rebuild Existing DC Dock (Non-Federal)			$ 120,435	$ 401,450					$ 521,885
Maintain and Rebuild Existing DC Dock (Federal)			$ 481,740	$ 1,605,800					$ 2,087,540
Intermodal Rail Feasibility Study (Non-Federal)						$ 100,000			$ 100,000
Intermodal Rail Feasibility Study (Federal)						$ 400,000			$ 400,000

Program/Project	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
Support state of good repair and infrastructure projects along the National Highway Freight Network, NHPP pavement condition and Highway sign design and installation*	**$ 2,000,000**	**$ 157,153**		**$ 265,461**	**$ 5,405,651**	**$ 5,274,573**	**$ 5,525,579**	**$ 5,751,189**	**$ 24,379,606**
Highway Sign Design and Installation (Non-Federal)				$ 53,092	$ 382,806				$ 435,898
Highway Sign Design and Installation (Federal)				$ 212,369	$ 1,531,225				$ 1,743,594
MNT67A - Pavement Restoration - NHPP Streets (Non-Federal)	$ 400,000	$ 31,431							$ 431,431
MNT67A - Pavement Restoration - NHPP Streets (Federal)	$ 1,600,000	$ 125,722							$ 1,725,722
Safety and Geometric Improvements of I-295/DC-295 (long term) (Non-Federal)					$ 186,204	$ 1,054,915	$ 1,105,116	$ 1,150,238	$ 3,496,473
Safety and Geometric Improvements of I-295/DC-295 (long term) (Federal)					$ 744,816	$ 4,219,658	$ 4,420,463	$ 4,600,951	$ 13,985,888
Rehabilitation of Minnesota Avenue Bridge over East Capitol Street (Non-Federal)					$ 512,120				$ 512,120
Rehabilitation of Minnesota Avenue Bridge over East Capitol Street (Federal)					$ 2,048,480				$ 2,048,480
Develop stakeholder and public engagement strategies					**$ 300,000**				**$ 300,000**
Project Activities (Non Federal)					$ 60,000				$ 60,000
Project Activities (Federal)					$ 240,000				$ 240,000

**Light blue shading indicates DDOT Freight Program High Priority Programs/Projects for Funding Requests*

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