

PRODUCTION,  
DISTRIBUTION,  
REPAIR LAND  
USE REPORT

A large, stylized white ampersand graphic on a dark blue background, positioned to the right of the report title.

October 2024

# District of Columbia PDR Report

TPB Freight Committee

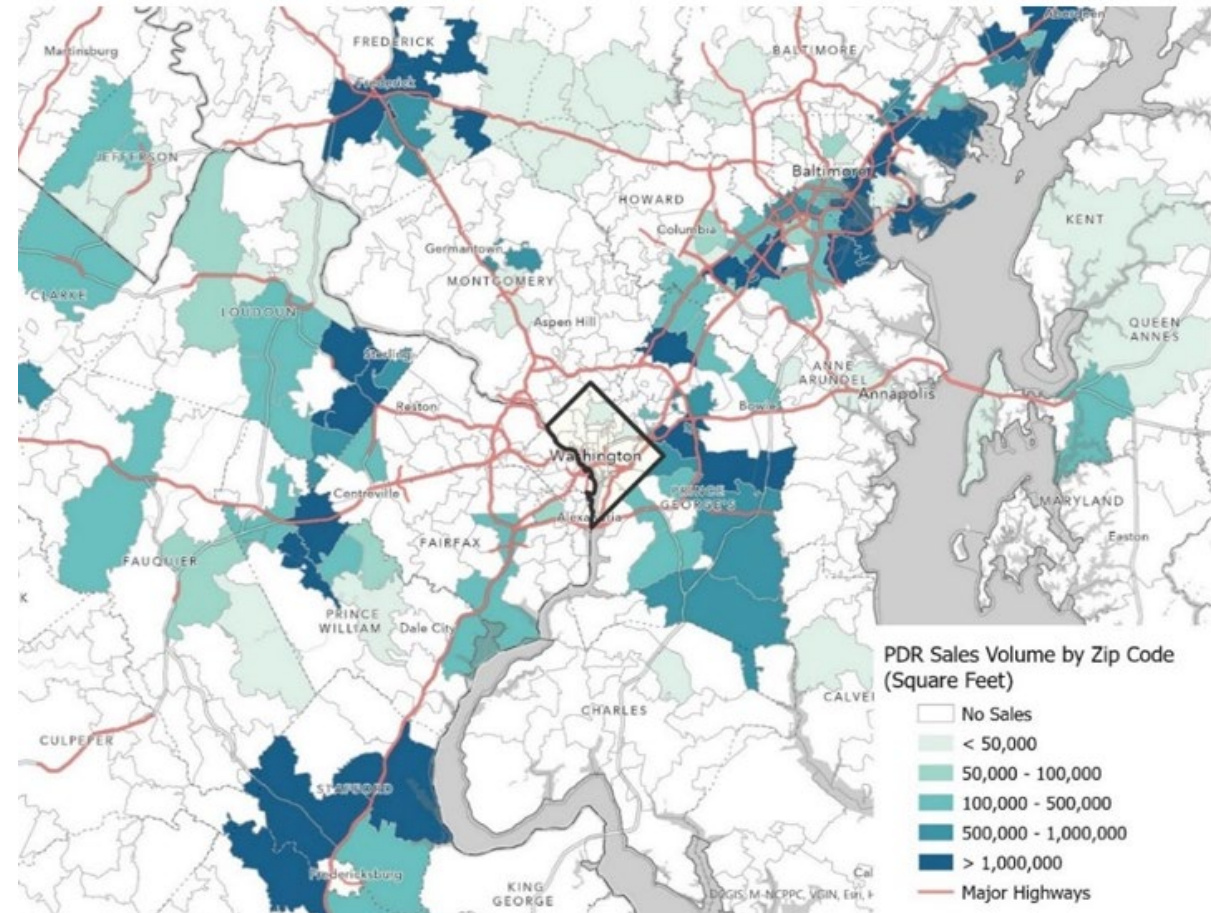
**Ryan Hand**  
**DC Office of Planning**

# Overview

- OP recently released a report on Production, Distribution, and Repair Land Uses in preparation for the District's next Comprehensive Plan.
- These land uses are often called light to medium intensity industrial land uses.
- The District uses this category to accurately reflect what activities occur in these areas.

# Where PDR is Today

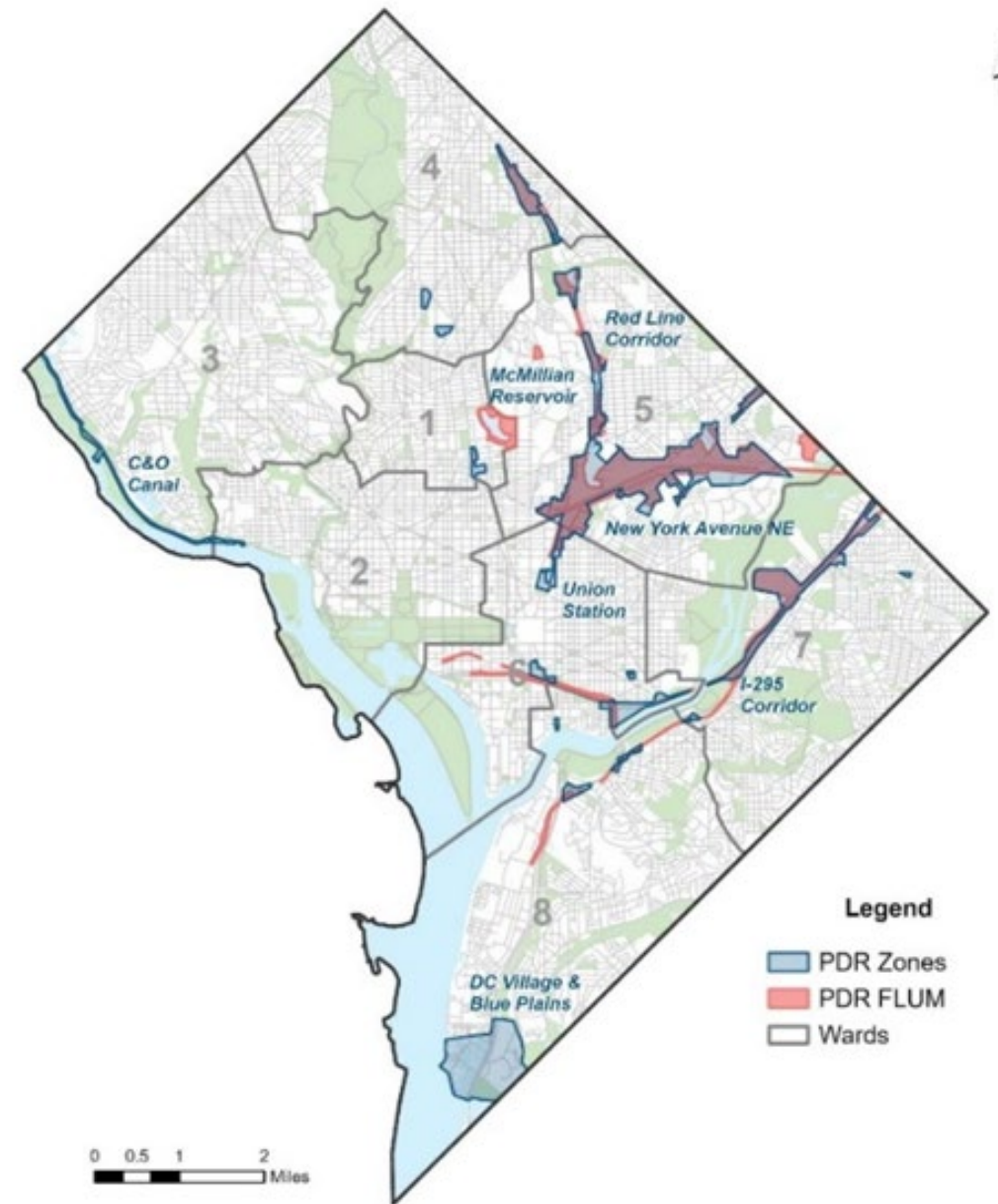
- Manufacturing and distribution businesses operate regionally.
- Most of the region's supply is outside the beltway along the I-95, I-66, and I-270 corridors.
- The District has 8.5 million of the region's 195.7 million square feet of PDR building space.



Source: CoStar (2023)

# Where PDR is Today

- The District's PDR lands are concentrated along its railroad lines.
- Most PDR land and businesses are located along New York Ave NE.
- PDR uses are also prevalent in the areas between stations along the Metro Red Line corridor.
- Blue Plains is a very important cluster of government and utility uses.



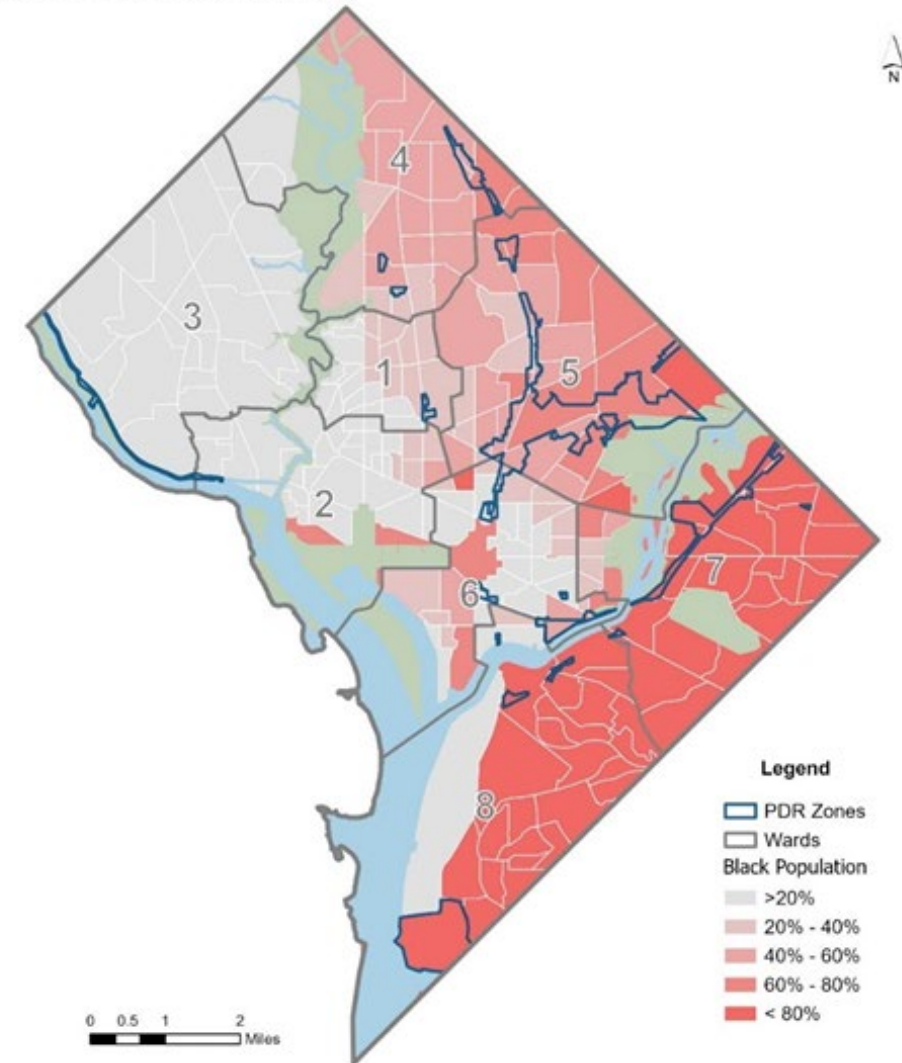
# Key Findings

- PDR land represents 5.2% of the District's land area.
- The vacancy rate for PDR buildings in the District is at a historic low of 4.2% and these buildings are generally in good condition.
- Government and utility facilities use 66% of the PDR land in the District.
- Commercial PDR uses are valuable to the District's economy.
- PDR uses impact quality of life for residents living nearby.

Figure 5. Black Population by Census Tract

# Racial Equity

- People who are racial and ethnic minorities are more likely to live near the District's PDR land.
- People who live near PDR land are more likely to be housing cost burdened.
- The life expectancy in some communities near PDR lands is ten years shorter than the District's most affluent areas, which are not near PDR lands.
- Roadway and railroad emissions are some of the leading impacts on resident health.



Source: 2022 ACS Social Characteristics by Census Tract, 5-year estimates

# Government and Utility PDR Land Use

Entities	Total Acreage	% of Municipal PDR	% of all areas zoned for PDR
Utilities	366	30%	20%
Transit & Rail Infrastructure	312	26%	18%
DC Government	259	21%	14%
Federal Government	187	16%	10%
Transportation ROW	81	7%	4%
<b>TOTAL Government &amp; Utility PDR</b>	<b>1,205</b>	<b>100%</b>	<b>66%</b>

Source: DC Open Data ([District Government Land](#), [Common Ownership Lots](#))

# Private Sector PDR Land Use

Industry	Total Acreage	% of Private PDR	% of all areas zoned for PDR
Construction	266	38%	13%
Manufacturing	59	8%	3%
Wholesale Trade	123	18%	6%
Transportation and Warehousing	88	13%	4%
Other Industries	165	23%	8%
<b>TOTAL Private PDR</b>	<b>701</b>	<b>100%</b>	<b>34%</b>

Source: Data Axel



# Emerging Trends

- Ecommerce Fulfillment – In 2023, ecommerce represented 15.1 percent of all retail sales compared to 9.4% in 2018.
  - Ecommerce companies operate networks of distribution facilities to enable fast delivery for common items.
  - Same day/next day delivery, the current standard requires facilities near the beltway.
  - 1-2 hour delivery requires micro-fulfillment hubs at the community scale.
  - These facilities are supplied by large regional warehouses.

# Outlook for PDR Employment in the District

- Government and utility employment will increase along with population growth.
- The cannabis industry is growing rapidly. Long-term growth depends on federal law.
- District made products, such as food and alcohol are in demand. However, many of these businesses are having trouble finding facilities they can afford in the District.
- Construction employment is forecast to grow as the population grows. Some construction demand is likely to be absorbed by other jurisdictions in the region.
- Transportation and warehousing is forecast to grow. The location of growth depends on the rate of 1-2 hour delivery adoption.
- Automotive repair businesses are forecast to contract as consumers transition to electric cars, which require less maintenance.

# Emerging Trends

- Vertical and Automated Warehousing
  - Warehouses are a leading edge of automation. Picking and packing work is increasingly done with robots.
  - New inventory management systems are reducing the need for forklifts, which enable shelving to be higher and closer together.
  - Warehouses are typically a single floor with ceilings that are at least 24 feet tall and 40-foot-tall buildings are becoming common.
  - Warehouses will have higher trip volumes because of these efficiencies.

# Autonomous and Electric Vehicles

- Autonomous vehicles will move freight inside and outside of warehouses.
- Warehouses will need fewer workers in the future.
- Autonomous vehicles have the potential to enable a lot more 1-2 hour delivery. Most of this demand is met by gig workers today, which is expensive.
- Electrification of light to medium duty delivery vehicles will reduce emissions near warehouses in the short to mid-term.

# Recommendations

## Adopt

Adopt a PDR retention strategy where 70% of current PDR land is reserved for exclusive PDR use.

## Establish

Establish new mixed-use PDR zoning designations that allow residential uses alongside low-impact PDR uses.

## Update

Update commercial and public facilities zoning to allow lower impact PDR uses.

## Identify

Identify and pursue co-location opportunities for DC government PDR facilities.

# Thank You

Ryan Hand

[Ryan.Hand@dc.gov](mailto:Ryan.Hand@dc.gov)

Associate Director, Citywide Planning

DC Office of Planning

