



**2022 Delaware Freight
Emphasis Area Summary:
E-commerce**

D.8 E-Commerce

Modern supply chains, particularly for an increasing volume of e-commerce activity, rely on complex networks of warehouses and distribution centers to support the efficient, fast, and affordable movement of freight. However, their operations and corresponding truck traffic generation can also have negative impacts on adjacent land uses. As part of broader planning processes throughout Delaware, added consideration for freight-related development should be explored.

A key element to supporting a proactive approach to balance freight needs and community impacts is the completion of the 2021 *Delaware First/Final Mile Freight Network Development Study*, as summarized in **Chapter 3.2.2** of this plan. Components from that study have been directly referenced and/or incorporated into the proposed strategies and implementation tasks detailed in **Chapter 6** of this Delaware State Freight Plan. These elements are reflected in freight planning strategies targeting freight land use preservation, freight and community impact planning, public outreach and education, and community planning considerations, among others. They are also specifically reflected in the Protect-Manage-Accommodate (PMA) Framework and the Planning Considerations Checklist for Freight Facilities and Truck Routes that are summarized in **Chapter 6.2.2**. Collectively these tools illustrate proactive considerations that community planners may need to anticipate when freight facility development is undertaken or when reviewing land use plans that have a freight component, notably including those related to e-commerce.

From an e-commerce perspective, Delaware continues to see significant expansion of e-commerce and warehousing related activities. A recent Delaware Public Media article¹⁷ highlighted a continued increase in warehouses and fulfillment centers with current or planned facility examples including:

- 3M SF Amazon facility at the former GM Boxwood Road auto plant in Newport
- Amazon expansion in Seaford
- 2M SF distribution space in Delaware City
- Building expansion at a newly constructed business center in Smyrna
- 3.3M SF of potential logistics space off SR 301 north of Middletown
- Up to 300,000 SF of new warehousing on the south side of Dover

While such expansion helps to support first/final mile distribution needs, public demand for expedient goods delivery, and opportunities for job growth and economic development, it can also introduce significant community conflicts. A recent Delaware specific example includes community pushback against a planned warehouse complex in Middletown.¹⁸ Proactive land use planning, first/final mile network planning, and ongoing agency, industry, and public coordination will remain critical to balancing e-commerce needs and opportunities with potential community concerns.

E-commerce Impacts in Delaware

Broad based concerns due to e-commerce expansion in Delaware typically include the impact of truck traffic on local roads and communities, viewsheds and building screening, conflicts with other community activities, and impacts on urban goods delivery that may be influenced by curbside parking and loading restrictions, local truck routes, delivery timeframes, or local land use and ordinance requirements.

¹⁷ Hurdle, Jon, Delaware Public Media, "Logistics booms in Delaware as companies meet strong demand from e-commerce," September 17, 2021, <https://www.delawarepublic.org/business/2021-09-17/logistics-booms-in-delaware-as-companies-meet-strong-demand-from-e-commerce>.

¹⁸ Megginson, Charlie, Delaware Live, "Middletown residents fight to stop warehouse construction," April 13, 2022, <https://delawarelive.com/middletown-residents-fight-to-stop-warehouse-construction/>.



E-commerce and the Future?

A wide variety of sources and organizations are tracking, predicting, and planning for the ever-evolving impacts of e-commerce activities on freight, deliveries, and communities. As evidence that states, MPOs, and local jurisdictions must continue to stay abreast of changes and trends, a sampling of potential e-commerce influences – reported here from just one of many sources (summarized from a Wall Street Journal article per the source details below) – includes the following:

- “By 2030, the number of delivery vehicles in the world’s 100 largest cities will balloon by more than a third from 2019, to 7.2 million.... That means more carbon emissions, more traffic congestion and – despite the rise of near-instant deliveries – probably more unhappiness in city life.”
- “Tech companies, retailers and real-estate firms working on ways to alleviate the strain of constant delivery on urban environments envision an alternate scenario: skies filled with zipping delivery drones and floating dirigible warehouses, streets and sidewalks teeming with as many robots as people, familiar storefronts serving as automated stockrooms for online fulfillment. ”
- “The vehicle that pulls up is an autonomously driven vehicle. The unpacking is done with vision technology and robotic equipment. The movement of equipment to automated storage and retrieval systems is done via mobile robots.”
- “Pebble, an urban-mobility technology project from Google, is pitching municipal governments on a system to manage curbside loading areas.... The hope is that if those [types of systems] become prevalent, that cities are able to get more out of their loading zones and really manage them in such a way that they’re able to turn over a super high volume there and avoid things like double parking and stopping in bike lanes.”
- “Urban centers with tall buildings and little open space for landings pose challenges for [delivery] drones. But major retailers in the U.S. are already preparing, writing drone-usage rights for rooftops and other areas into new leases...”
- “Prime Air, a service in development at Amazon, is planning drone deliveries in cities across the U.S., with the goal of getting goods to doorsteps within 30 minutes of an order.”
- “Proponents of autonomous vehicles and mobile service robots are betting that existing roads and highways will give them a jump start on delivery long before drones take off at scale.”

Source: Parker, Will, The Wall Street Journal, “Delivery Town: How Your Online Order Will Change Your City”, https://www.wsj.com/articles/drones-robots-warehouses-how-your-online-order-will-change-the-city-11649338872?st=6940c70pel624c2&reflink=desktopwebshare_permalink.

