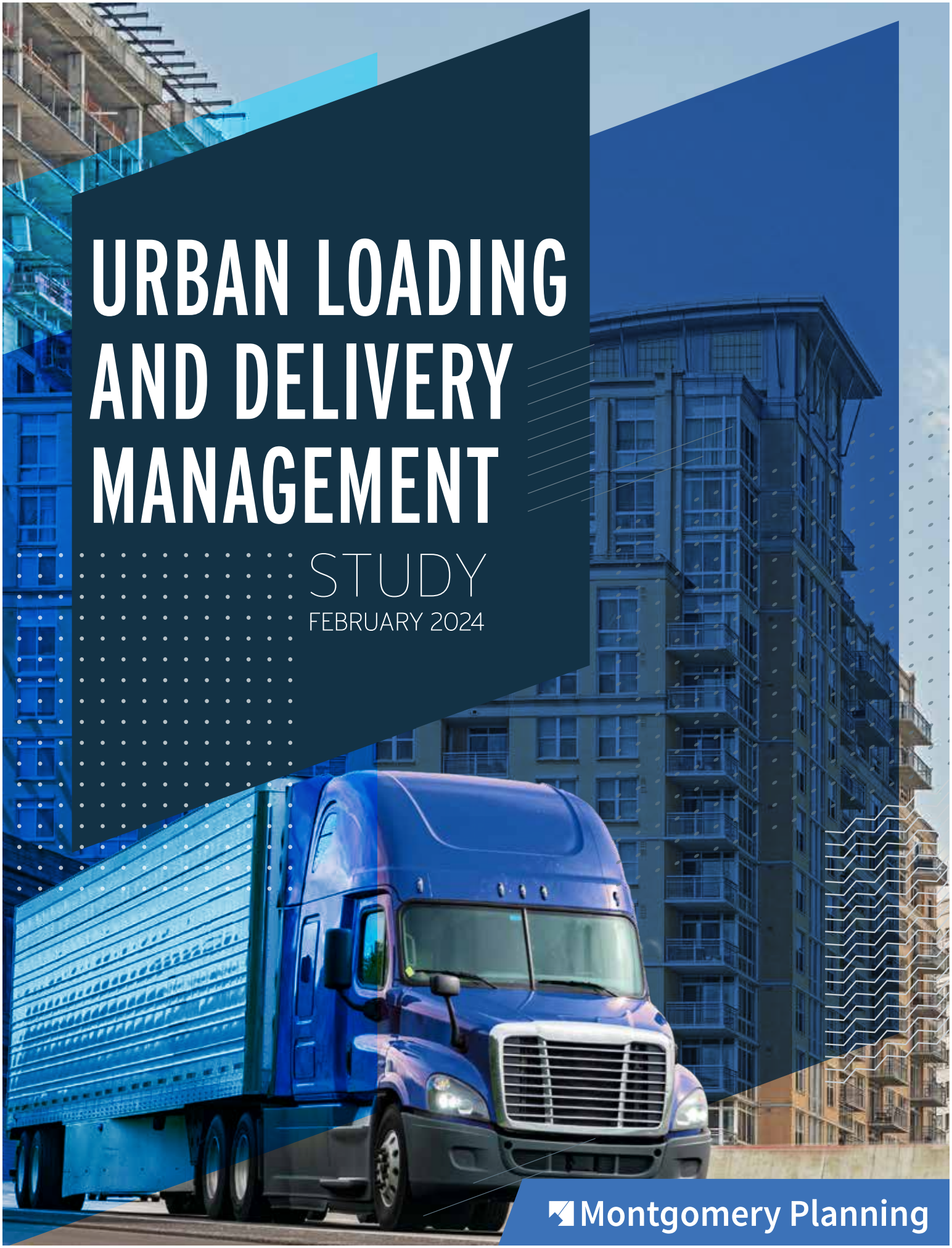

URBAN LOADING AND DELIVERY MANAGEMENT

STUDY

FEBRUARY 2024

Montgomery Planning

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Urban Loading and Delivery Management Study addresses challenges associated with expanding loading and deliveries on urban streets and sidewalks. Staff conducted interviews with:

- public agencies, including Montgomery County Department of Transportation, Department of Permitting Services, Police Department, Bethesda-Chevy Chase Regional Service Center, and the Bethesda Urban Partnership;
- community stakeholders including commercial property managers, the Greater Bethesda Chamber of Commerce, the Transportation Management District Advisory Committee, and the Bethesda Downtown Implementation Advisory Committee; and
- delivery companies Amazon, FedEx, and DHL International.

Staff studied existing conditions in downtown Bethesda, as well as recent large-site developments including Downtown Crown in Gaithersburg, NoBe Market in North Bethesda, and Mosaic in Fairfax County, Virginia, and also identified current regulatory and administrative structures related to loading and deliveries.

The study findings include documentation of the problem, challenges identified by stakeholder groups, analysis of current enforcement, a review of best practices from around the region, country, and beyond, and lessons learned from studies of regional developments.

In conclusion, the study identifies two main questions to guide future action:

- Are current on-site loading standards adequate to current and evolving needs and practices?
- How can public agencies accommodate the changing needs of delivery services for proximate short-term delivery space?

The questions are not a matter of "bad actors" but of standards mismatched to current needs and practices. Each step in the loading and delivery management process, from the design and function of on-site loading facilities to the public sidewalks and streets outside them, is interconnected and collectively function to meet the needs of residents, businesses, and visitors. Public agencies and community stakeholders must collaborate to make it easier for loading and deliveries to coexist with other functions of the public right-of-way: not to focus solely on enforcement of current standards, but to develop new flexible approaches.

The study recommends the following actions:

- Implement Loading and Delivery Management Districts;
- Reassess and expand standards for off-street loading facilities;
- Expand use of Loading Management Plans;
- Create a grid of streets an alleys along transit corridors; and
- Conduct a study of Curbside Management.

BACKGROUND

INTRODUCTION

Montgomery Planning staff began work on this study in 2019. Staff conducted the bulk of the research and consultation and coordination with transportation agencies, community representatives, and delivery companies before the COVID-19 pandemic. Though much has changed during the intervening years, as life and commerce enters a "new normal" many of the issues that inspired the study remain the same.

Montgomery County, Maryland is home to vibrant and dynamic urban centers with office and apartment buildings, restaurants, shops, and arts and entertainment venues. The liveliness of these areas is supported by delivery of goods. Historically, delivery operations have primarily been "business-to-business", but this model is increasingly shifting to "business-to-consumer," as highlighted dramatically during the COVID-19 pandemic.

With increasing frequency, commercial and private loading and deliveries are making use of public roads in ways that can disrupt orderly vehicular and bicycle traffic, and pedestrian curb space that has become so important to the fabric of urban life. The timing and manner of deliveries is an equally critical part of providing a safe and efficient multimodal transportation network. These deliveries and the 'urban front door' are increasingly competing for space.

PURPOSE

The purpose of the Urban Loading and Delivery Management Study ("study") is to identify regional, national, and international best practices and policy options to better balance loading and delivery functions with everyday pedestrian, bicycle, and vehicular traffic in public rights-of-way in densely developed areas of Montgomery County, and recommend potential next steps towards solutions.

This study does not address construction-related impacts of new development as those impacts are temporary in nature and vary widely based on the development type and location.

PROCESS

Staff proposed a scope of work to the Planning Board in November of 2020 that outlined the process for this study, including outreach and engagement with various stakeholders, a review of best practices for urban loading and deliveries in neighboring jurisdictions and places around the world, and site visits to downtown Bethesda and other areas in the region. While this effort began in 2019

before the COVID-19 pandemic, the analysis continued for the duration of the pandemic which gave the ability to understand how sites adapted to evolving demand for flexible curbside uses.

Staff conducted outreach and engagement that included a diverse group of stakeholders, including public agencies, community groups, and delivery companies (see Appendix A). The "best practices" literature review included local, national, and international approaches to loading management to identify possible solutions that focus on engineering and design, enforcement, and policy elements. Additionally, at the recommendation of the Planning Board, staff conducted site visits and analyses of recent mixed-use development in the region, including Downtown Crown in Gaithersburg, NoBe Market in North Bethesda, and Mosaic in Fairfax County, Virginia.

DOWNTOWN BETHESDA CASE STUDY

The study specifically focuses on downtown Bethesda, one of the oldest and densest urban environments within the county, to identify major problems with loading and deliveries raised by residents and business owners, and solutions that could be implemented in other urban areas throughout Montgomery County in post COVID-19. Downtown Bethesda began to develop in the late 19th century, with rapid growth occurring after World War II and again in the late 1980s after the metrorail expansion. While there has been significant construction of new development in the past 20 years that meets updated regulatory requirements for fire access, loading vehicles, parking, bike lanes, etc, many residential and commercial buildings lack onsite space for loading and deliveries.

WHAT WE ARE TALKING ABOUT WHEN WE SAY LOADING AND DELIVERIES

Loading and deliveries occur in many contexts and for many purposes. Vehicles range in size and include tractor-trailer trucks, parcel delivery vans, "U-Haul"-style box trucks, postal service vehicles, personal automobiles, and even bicycles and other micro-mobility vehicles. The materials being delivered and the length of stay vary as well.

Loading and deliveries occur either internal to a building or site, or within the public right-of-way (sometimes both, hence the study).

Loading docks inside a building can be located immediately off the public street, or further inside the building, depending on the size, location, and configuration of the site itself and that of the adjacent street(s). Loading docks typically are used for large deliveries of goods, such as for a supermarket and other large commercial uses, or for residents moving into and out of multi-family apartment buildings. As discussed in greater detail below, the number and dimensions of internal loading docks are set forth in the Zoning Ordinance.

Loading and deliveries within public rights-of-way are generally done on-street, in a signed "No Parking" or loading area, parking lane, or partially or wholly in a travel lane, and even on the sidewalk for bicycle and scooter deliveries, but can also be done in an alley. This is most frequent in passenger

pick-up and drop-off and food and package delivery, but can also include larger-scale deliveries that create greater disruption.

EXISTING REGULATORY AND ADMINISTRATIVE FRAMEWORK

In Montgomery County, several regulatory and administrative provisions and divisions govern or impact loading and deliveries.

Montgomery County Zoning Ordinance

Section 59.6.2.8 sets forth standards for loading design (see Appendix B). The number of required off-street loading spaces is determined by the number of dwelling units, gross floor area of the use, and the type of use. Additionally, the section includes provisions for the location, dimension, surfacing, safety, and maneuvering into and around these spaces.

To approve a development application, the Planning Board must find that the proposed site design provides for safe, adequate, and efficient circulation and access. Folded into Staff's recommendation to the Planning Board is analysis of the site's loading facilities. Per the Zoning Code, all projects with 50 or more residential units, 25,000 square feet of office, or 15,000 square feet of retail must provide at least one off-street, onsite loading facility. The Zoning Code specifies minimum design and space requirements of the loading facility based on the vehicle type selected by the developer (e.g., box truck, tractor trailer, etc.). It also has stipulations pertaining to location, minimum size for maneuvering area of delivery vehicles, surfacing, and safe design. For example, off-street loading spaces are prohibited from projecting into a sidewalk, street, or public right-of-way. During the development review process, transportation planners and engineers in the Planning Department, Montgomery County Department of Transportation (MCDOT), and the County Department of Permitting Services (MCDPS) review the required loading facilities and work with developers to ensure that the design meets or exceeds the Zoning Code requirements. In cases where access is provided from a state road, the Maryland Department of Transportation State Highway Administration (SHA) also participates in the review.

In addition to the Zoning Code requirements, transportation planners and engineers review truck turning templates of the design vehicles to ensure that the delivery and trash trucks can safely maneuver in and out of the buildings, along the adjacent roadway network.

Loading Management Plans

In urban areas, it has become common practice for Planning Staff and the Planning Board to require Loading Management Plans as part of regulatory approvals. Loading Management Plans are intended to anticipate, manage, and avoid potential negative impacts of loading, delivery, and trash collection activities. Common provisions of a loading management plan include staffing an onsite loading and delivery loading manager, scheduling routine deliveries and move-in/outs outside of peak travel hours and educating residents of the appropriate spaces to direct ridesharing and non-routine food

deliveries. Enforcement responsibilities of the Loading Management Plans is shared by the Planning Department and MCDPS. Improper use of public parking spaces (on street or in public garages) may incur fines from MCDOT's Parking Division. Any loading activities that violate traffic laws are to be enforced by the County Police Department.

Parking Lot Districts and Transportation Management Districts

MCDOT currently implements two administrative structures, Parking Lot Districts and Transportation Management Districts (TMDs). These districts have defined geographic boundaries and cover the county urban centers, including downtown Bethesda.

As stated on the MCDOT website,

> Montgomery County, through its Parking Lot District (PLD) program, operates more than half of the public (publicly available) parking in three of its largest central business districts: Bethesda, Silver Spring and Wheaton. These public inventories provide a shared pool of parking resources for the benefit of all area businesses, patrons, and commuters.

The MCDOT website also states that "Transportation Management Districts (TMDs) provide concentrated services to encourage the use of transit and other commuting options in Montgomery County's major business districts. TMDs have four broad goals:

- Cut traffic congestion
- Increase transportation capacity
- Reduce air and noise pollution
- Promote bicycle and pedestrian access."

TMDs provide concentrated services to encourage the use of transit and other commuting options in Montgomery County's major business districts such as Friendship Heights, Silver Spring, downtown Bethesda, North Bethesda, Greater Shady Grove, and White Oak. During the regulatory review process, certain projects are required to create a Traffic Demand Management Plan. MCDOT Commuter Services provides oversight for these plans and works with employers to inform employees about their commuting options.

These two types of districts do not directly address issues relating to loading and deliveries, but may be good precedents for future efforts to do so.

FINDINGS

THE PROBLEM IS REAL

There are many photographic examples of loading and delivery vehicles blocking roadway travel lanes and reducing usable sidewalk areas. The occurrence is common enough to be captured by Google Street View. Below are a handful of examples. Some show older commercial areas without dedicated off-street loading facilities, but more recently constructed loading docks are also represented.

Figure 1 – Google Street View image of delivery vehicles utilizing travel lane in Bethesda

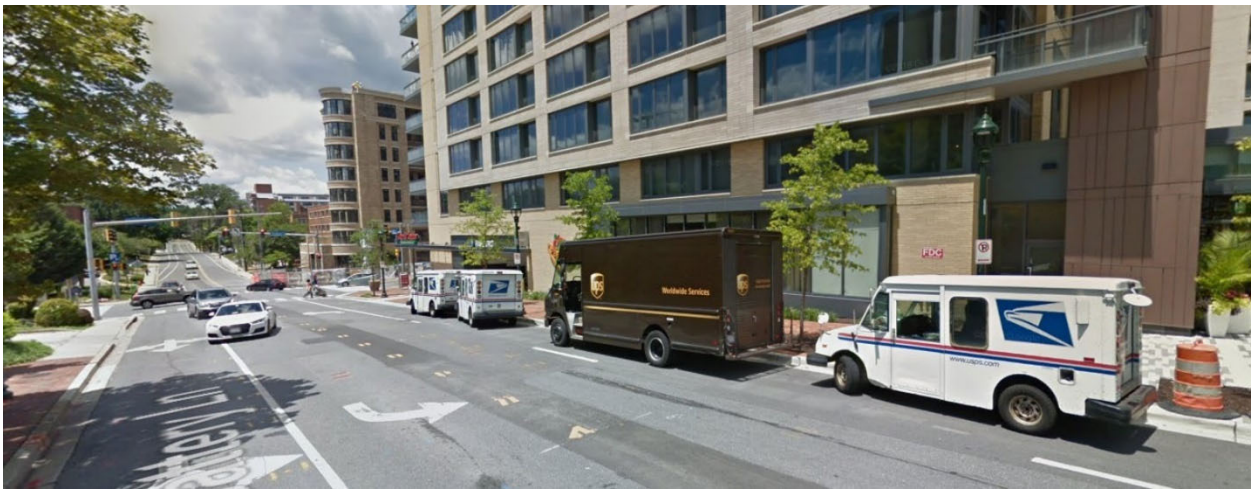

Figure 2 – Google Street View image of postal and parcel delivery vehicles utilizing travel lane with a "No Parking" sign.

Figure 3 – Delivery vehicle utilizing travel lane

Figure 4: Internal loading for multi-family building showing truck impeding pedestrian area

Figure 5: Delivery vehicle completely blocking the sidewalk, forcing pedestrians to enter the street

Figure 6: Commercial delivery vehicles occupying travel lane

STAKEHOLDER CHALLENGES

PUBLIC AGENCIES

Public agencies are charged with providing safe and efficient public streets and sidewalks as well as accommodating commercial activities, including urban loading and delivery. Public agency stakeholders who provided input in this study include the MCDOT, MCDPS, Police Department, Bethesda-Chevy Chase Regional Service Center, and the Bethesda Urban Partnership. These agency stakeholders identified the following challenges with loading and delivery:

- Less on-street curbside parking to provide loading areas means a reduction in County parking revenue.
- Reducing parking requirements for new development (which is allowed within Parking Lot Districts and encouraged by the most recent *Bethesda Downtown Plan*) means fewer ADA accessible spaces and potentially more need for MCDOT to provide ADA accessible spaces.

- Loading docks are too small to accommodate large trucks so they often stand in the curbside travel lane even when internal loading docks are available.
- Conflicts are typically observed between 9:00 a.m. and Noon or 11:00 a.m. to 1:00 p.m. which coincides with mid-day peak travel.
- Delivery vehicles block sidewalks, occupy curb lanes, and take available parking without paying for the space.
- Delivery vehicles stop within the on-street bike lanes and create safety hazards when cyclists have to unexpectedly move into the road. There's also concern that loading vehicles may not be looking for cyclists when they maneuver into and across the bike lanes.
- Disruptions of travel lanes and sidewalks is often short enough in duration that if a violation is reported, the disruption is gone by the time someone arrives.

COMMUNITY MEMBERS

Members of the community include residents, business owners, and those patronizing local businesses – basically anyone who lives in, works in, or visits downtown Bethesda. Members of the community who participated in this study included commercial property managers, the Greater Bethesda Chamber of Commerce, the Transportation Management District Advisory Committee, and the Bethesda Downtown Implementation Advisory Committee. These community stakeholders identified the following challenges in loading and delivery:

- Delivery vehicles do not use the loading docks.
- Installments of new separated bicycle facilities have eliminated on-street parking and curbside lanes, negatively impacting adjacent businesses.
- Delivery trucks are too large to be accommodated in the loading dock, resulting in curbside loading or blocking the sidewalk and sometimes travel lanes.
- Delivery trucks block the sidewalks and bike lanes.
- It is unclear whose role it is to enforce loading restrictions.
- Loading dock conflicts with trash pick-up during residential move-ins/move-outs which result in queuing issues along the street.

DELIVERY COMPANIES

Staff met with representatives from Amazon, FedEx, and DHL International. These delivery companies explained the challenges facing their drivers on a day-to-day basis and provided insight into best practices both domestically and internationally. These delivery companies identified the following challenges:

- Per package, residential delivery costs more than business delivery because the delivery points are more dispersed and requires delivery vehicles to route through neighborhoods rather than higher speed arterial roadways.
- One commercial property manager reported that his building sees an average of 150 packages per day from UPS and FedEx.
- Fines and tickets resulting from loading in improper areas are often budgeted as a "cost of doing business", rather than acting as a deterrent.
- Delivery companies need to make more than one trip to residential buildings to meet demand. In addition to parcel delivery service, building management stakeholders identified higher volumes of food delivery to residential buildings, with some buildings citing 10 to 20 deliveries per mealtime per day.
- There is competition for curb space, given the desire to be as close to the final point of delivery as possible, and consumer expectations for timely delivery.
- Loading accommodation in urban downtowns is generally geared toward restaurant/ commercial uses and does not necessarily accommodate e-commerce delivery.
- Curbside parking is always a challenge due to the size of the vehicles and the need for pedestrian/ bike/ traffic and courier safety. Timeline of service is important, but safety is more important.
- Peak pick-up/ delivery operations coincide with both the morning peak travel period and the lunchtime/ mid-day pedestrian peak period.
- Limited curb space sometimes requires the delivery drivers to circle the block looking for parking.

ENFORCEMENT

Enforcement of rules and standards related to loading and deliveries is challenging and is currently undertaken by several agencies.

- Montgomery Planning certifies Site Plan regulatory approvals to ensure they correctly document the loading facilities required by the Zoning Ordinance and reviewed and approved by the Planning Board in coordination with County transportation and permitting agencies.
- DPS, during their review of building permits, monitoring of building construction progress, and compliance with the Planning Board's regulatory approvals, can enforce for compliance with the associated standards.
- The Montgomery County Police Department can issue citations for violations of traffic laws.
- The MCDOT Division of Parking Management handles enforcement of parking within the PLDs and particular areas of the TMDs. Enforcement in these areas includes issuing citations for

metered spaces as well as other on-street violations such as no standing, double-parking, distance from the curb, etc.

BEST PRACTICES FROM LITERATURE REVIEW

The literature review included local, regional, national, and international sources. The most common issues identified in the review are very similar to those found in downtown Bethesda, such as lack of curb space, loading and deliveries during the peak hours, deliveries and ride share services blocking travel lanes, etc. Here are some examples of how many cities around the world manage loading and delivery within urban areas. A full review of these best practices is included in Appendix C.

Smart Loading Zones: A sign and smartphone app system (Figure 7) that provides delivery drivers and service providers an incentive to load in designated locations where it is safe, efficient, and legal. Smart Loading Zones can be tailored to provide time limits, hours of operations and prices, and drivers can use the mobile app to hold, pay for and extend their reservation. Smart Loading Zones are used by several cities in Spain, France, Germany, and Ireland.

Figure 7: Smart Loading Zone (Photo Credit: smartloadingzone.com)

Pick-Up/Drop-Off (PUDO) Zones: These zones were created in the District of Columbia as a pilot program in 2017 in response to mitigating unsafe passenger loading and ride-hailing in high activity nightlife locations. In their current form, PUDO zones are curbside locations that are dedicated full-time for passenger pick-up and drop-off and commercial loading. These zones enable passenger and commercial loading directly at the curb and out of travel lanes. Parking is not allowed at these locations at any time.

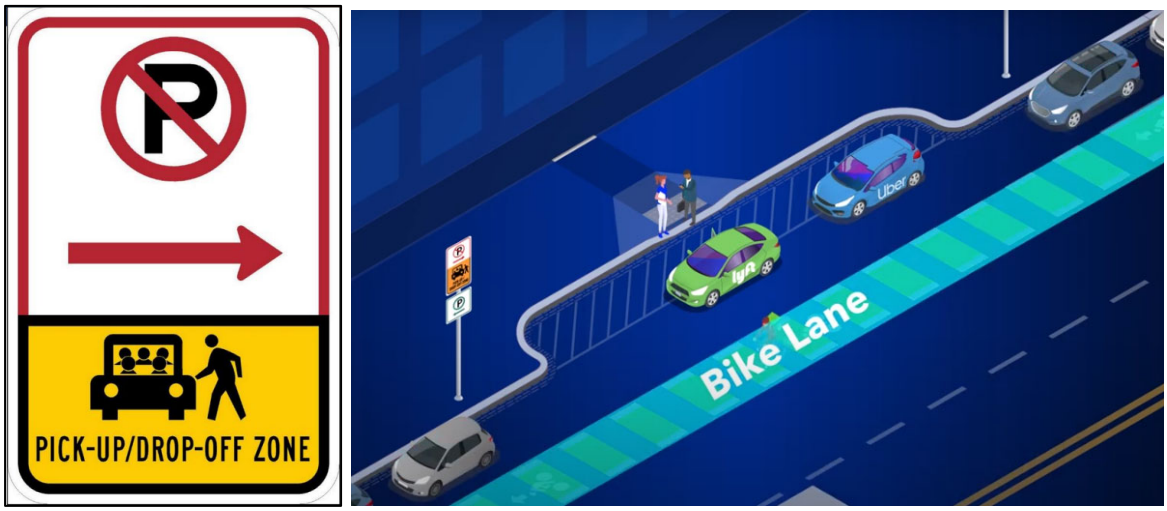

Figure 8: PUDO Zone signage Washington, DC (Photo Credit: parkdc.com)

MCDOT Active Pilot Program – Curbside Pickup Zones[1]

MCDOT's Division of Parking Management is experimenting with a new type of on-street loading designation in downtown Bethesda. As previously stated, the County does not currently allow loading zones. This pilot program will allow short-term parking for a variety of activities such as Uber pickup/drop offs, deliveries, and loading.

Traditional loading zones would limit activities to only loading, so the pilot program is intended to address a wider spectrum of parking demand while receiving meter payments. Locations in downtown Bethesda were chosen due to the critical mass of restaurants and retailers that create high rates of activity and congestion.

The zones have adjacent regulatory signage installed to clearly communicate the zones' locations and zone-specific decals are placed on the meter posts to further underscore their purpose. There is a time limit of 15 minutes enabling turnover and quick access to the businesses. Enforcement policy that is applied at other meters will be applied to these meters and users will pay the hourly rate at the meter or via mobile payment.

The objective of the zones is to support services in crowded areas where on-street parking is in high demand for food delivery pick-up and supply is limited. MCDOT will monitor utilization and effectiveness of the zones through data collected by sensors on the meters. The zones will be deployed for a minimum period to allow for sufficient collection of data. As the pilot draws to an end, MCDOT will engage with key stakeholders and local businesses in addition to reviewing collected data. If the pilot is deemed successful MCDOT will maintain the zones until further notice.

[1]For more information, see CURBSIDE FOOD PICKUP ZONES (montgomerycountymd.gov)

Figure 9: MCDOT pilot study signage

Flex Zones: A 'Flex Zone' is utilized by the City of Seattle for what we would traditionally call the parking lane or curbside space, however Seattle is reimagining how different right-of-way uses function along segments of the roadway and is adapting this space based on the surrounding land uses. Seattle's loading zones (called "Load Zones") are part of the Flex Zones and based on specific activities, including Passenger Load Zone, Truck-Only Load Zone, Commercial Vehicle Load Zone. Permits or payments are specifically required for commercial vehicles.[2]

[2] https://www.seattle.gov/transportation/projects-and-programs/programs/parking-program/parking-regulations/load-zones#:~:text=Load%20zones%20provide%20areas%20solely,684%2DROAD%20(7623). https://www.seattle.gov/transportation/permits-and-services/permits/atp-commercial-vehicle-load-zone

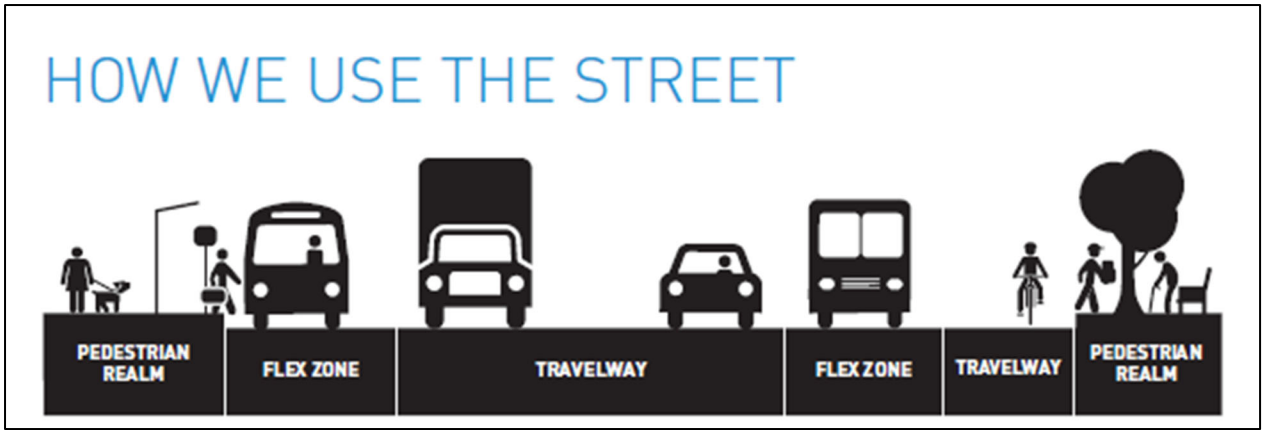

Figure 10: Flex Zone street section from City of Seattle, WA (Photo Credit: seattle.gov)[3]

Loading Zones: Locally, SHA allows loading zones along state highways like Connecticut Avenue, New Hampshire Avenue, Colesville Road, etc.

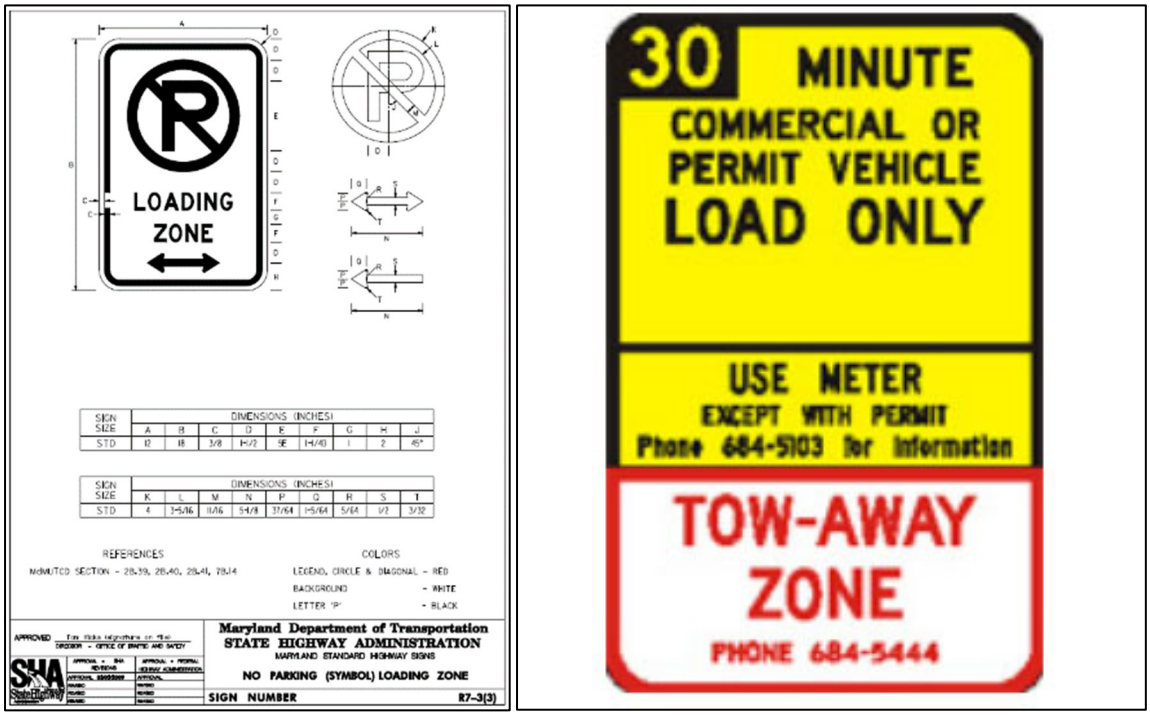

Figure 11: Typical loading zone signs (Photo Credits: SHA & Seattle DOT)

The City of Chicago has integrated floating loading zones adjacent to bicycle lanes along several commercial corridors.[4] The design provides for street corner clearances longer than their standard (20

[3] (https://www.seattle.gov/transportation/projects-and-programs/programs/parking-program/parking-regulations/flex-zone/curb-use-priorities-in-seattle)

[4] https://ops.fhwa.dot.gov/publications/fhwahop16080/index.htm

feet). The City of Chicago recommends any local jurisdiction looking to replicate protected bicycle lanes that incorporate loading zones to engage all stakeholders early in the process.

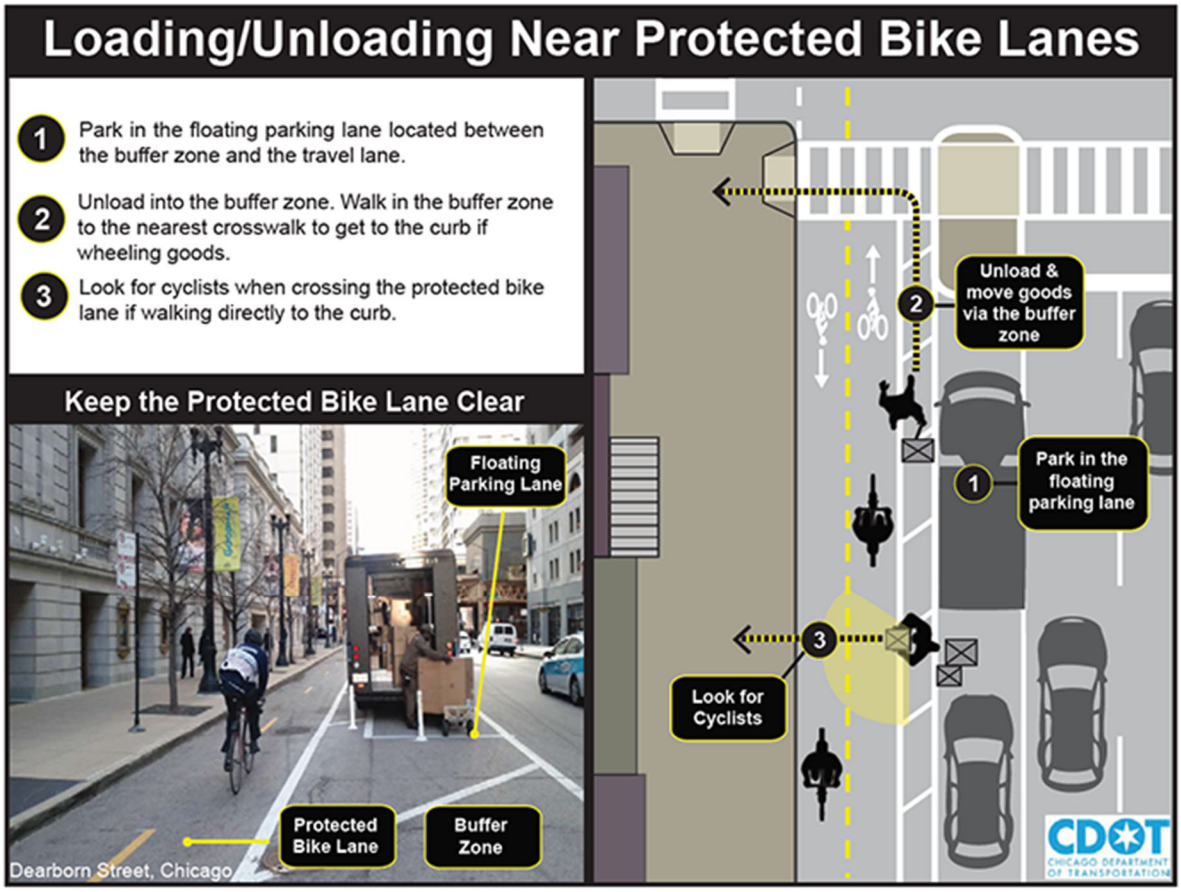

Figure 12: Loading near bicycle lanes (Photo Credit: Chicago Department of Transportation)

The City of Frederick, Maryland has a downtown historic district that shares physical similarities with present day Bethesda, with existing buildings that lack onsite loading and are unlikely to redevelop. The downtown area utilizes a mixture of loading zones and alley loading, with approximately one loading zone on each block. The loading zones are predominantly located at the end of the block which is easier for trucks to maneuver in and out of. The City also provides specific locations for ride-hailing services (taxi stands) from 9pm-3am for 15 minutes. Recent assessments of the City's freight needs concluded that most deliveries utilize the existing loading zones, however certain types of deliveries are more likely to double-park such as short-term package deliveries.

Figure 13: Loading zones and ride-hailing zones, City of Frederick, MD

SITE VISITS – LESSONS LEARNED

Staff analyzed three recent suburban developments in the DC Metropolitan area with urban-type street networks to observe how the planned loading and delivery was functioning. Full analysis of these developments – Downtown Crown in Gaithersburg, NoBe Market in North Bethesda, and Mosaic in Fairfax, Virginia – is available in Appendix D. These developments were planned holistically, to meet current needs and standards for loading and delivery of goods, and are not a direct correlate to organic urban areas that have developed over time as needs and standards have changed. However, these developments are dealing with many of the same challenges identified by stakeholders in our downtowns, and have lessons to offer.

LESSONS LEARNED

1. Consolidated loading areas can readily be sized to adequately service all of the uses in the block and access to these areas can be provided from more or less dedicated service drives, within a network of streets. Downtown Crown and Mosaic exemplify this approach. NoBe Market is closer to an urban infill situation, being a single block within an existing street grid. In each of these developments, the service drives have limited retail frontage and only secondary building entrances.

Figure 14: Downtown Crown development with consolidated loading areas shown

2. A unique benefit of larger redevelopment sites with private streets is that adaptive repurposing of curbside space from parking to other uses like short-term pick-up/drop-off or loading, as seen at both Downtown Crown and Mosaic, is more readily done by the developer/property owner. A similar repurposing of parking to other uses on a public street may take longer and have more impacts to consider.

Figure 15: On-street parking added to alley system in Mosaic during the COVID-19 Pandemic

3. Finally, despite these developments' best efforts and unique ability to design a street and block network to their specifications for closer loading access to retail and commercial uses, the same issues result in loading vehicles temporarily occupying travel lanes and sidewalks, as seen in downtown Bethesda.

Figure 16: Truck blocking sidewalk in NoBe District

Figure 17: Truck double parked in Downtown Crown

CONCLUSION & RECOMMENDATIONS

CONCLUSION

The study reveals two main questions to guide further action:

- Are current on-site loading standards and practices adequate to current and evolving needs and practices?
- How can public agencies accommodate the changing needs of delivery services for proximate short-term delivery space?

The prevalence of evidence of both issues in the sites studied and stakeholder feedback cited in this report shows that this is not a matter of "bad actors" but of standards mismatched to current needs and practices. Each step in the loading and delivery management process, from the design and function of on-site loading facilities to the public sidewalks and streets outside them, is interconnected and collectively function to meet the needs of residents, businesses, and visitors. Public agencies and stakeholders, including Montgomery Planning, MCDOT, MCDPS, MDSHA, the Bethesda Urban Partnership, the Downtown Bethesda Implementation Advisory Committee and others, must collaborate to make it easier for loading and deliveries to coexist with the other uses of the public right-of-way: not to focus solely on enforcement of current standards, but to develop new flexible approaches.

RECOMMENDATIONS

1. IMPLEMENT LOADING AND DELIVERY MANAGEMENT DISTRICTS

This study identifies an array of strategies to better accommodate deliveries and loading within urban areas. Using a defined geography similar to a Parking Lot District (PLD) or a TMD, Loading and Delivery Management Districts provide an opportunity to assess the needs of the district to identify designated areas and times where deliveries and loading can be prioritized through a variety of strategies. The number and location of the areas can afford short-term space near concentrations of residents and businesses and deliver a predictable infrastructure. Since the zones would be identified by signs and paint, they could be changed over time as needed, to accommodate new development or changes in land use.

One implementation could be to expand the responsibilities (and related funding and staffing) of the current Parking Lot District, with corresponding enforcement authority. The PLD staff with current ticketing authority for parking meters could have similar authority for violations of on-street loading and delivery requirements.

2. REASSESS AND EXPAND STANDARDS FOR OFF-STREET LOADING FACILITIES

Section 59.6.2.8 of the Zoning Ordinance addresses Loading Design Standards. Based on the type and magnitude of the use, the standards address the number, location, dimensions, maneuvering, surfacing and safety of required off-street loading facilities. Reassessing these standards in light of current practice in terms of vehicle size and other factors can address the commonly seen issue of loading vehicles projecting outside the loading docks to disrupt the public sidewalk. The study should analyze not only vehicle size but also the design of the loading facility itself to ensure standards afford sufficient space to accommodate the loading vehicle and function.

Additionally, planning and transportation agencies and other stakeholders could collaborate on a more visual set of standards, for incorporation into the Zoning Ordinance or other county standard, to provide further guidance on loading facility design. These standards could also explore prioritization of requirements for pull-through loading and other innovative solutions.

3. EXPAND USE OF LOADING MANAGEMENT PLANS

Loading Management Plans help set clear expectations about loading functions for new development in urban areas. These are publicly accessible agreements that can be enforced, and identify the appropriate entity for enforcement. The Planning Department and County agencies should coordinate to develop clear guidelines for the development and enforcement of these plans.

4. CREATE A GRID OF STREETS AND ALLEYS ALONG TRANSIT CORRIDORS

The recently approved *Pedestrian Master Plan* includes a recommendation to create a grid of streets and alleys along transit corridors[5] to make urban areas safer, more walkable environments. By moving driveways and loading areas to the alley, there are few conflict points with pedestrians along the public street frontage. While it would be difficult to

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[5] **Pedestrian Master Plan Recommendation B-4e: Create a grid of streets and alleys along transit corridors with block sizes based on the protected crossing spacing standards in the Complete Streets Design Guide.**

Many of Montgomery County's rail and bus rapid transit corridors (outside of Downtowns and Town Centers) are characterized by long blocks and are lined with commercial and residential driveways. Longer block lengths limit routing options for pedestrians and encourage crossing streets at unsafe places because protected crossing locations are spaced too far apart. Driveways create conflict points between cars and pedestrians. Tools are needed to reduce the size of these blocks where appropriate by expanding the street grid through future redevelopment and capital projects, as well as to consolidate and relocate driveways to side streets and alleys.

introduce an alley network into downtown Bethesda at this point in its development, it would be a good tool on a project by project basis, and alleys should be strongly encouraged within future development elsewhere in the County. This could be implemented through future design of street networks within a given Sector Plan/Master Plan and integrated into the Subdivision Ordinance Section 50.4.3.E.1.d for consideration of alley designs in regulatory applications.

5. CONDUCT A STUDY OF CURBSIDE MANAGEMENT

Further evaluation of the curbside space, jointly led with MCDOT, is necessary to determine how Montgomery County could properly manage the growing range of uses, including goods delivery, pick up and drop off (e.g. Uber and Lyft), on-street parking, transit stops and paratransit access, micromobility and bicycle facilities and parking, mobile food vending, and parklets. This future study should address how effectively managing the curb lane can improve safety, promote economic development, increase access, and support our climate goals. This effort would result in curbside management policies, prioritization, and a pilot project. Funding and implementation of this future study is supported by several County goals contained in *Thrive Montgomery 2050* and the *Vision Zero 2030 Action Plan*, and the *Bicycle Action Plan*.

APPENDICES

Appendix A: Outreach and Engagement

Appendix B: Zoning Ordinance Section 59.6.2.8 Loading Design Standards

Appendix C: Best Practices Literature Review

Appendix D: Site Visit Analyses