



MEMORANDUM

To: Michael Davis, Parking Program Manager, Land Development Services
From: Nelson\Nygaard
Date: January 6, 2022 (Updated February 27, 2023)
Subject: Task 3.2: Regional Peer Review - Parking Zoning Ordinance

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City of Alexandria, VA



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Context

Located on the western side of the Potomac River approximately five miles south of Washington, D.C., Alexandria is an independent city in Virginia. Alexandria is known for its rich history and its walkable lifestyle. Public parking is available throughout the downtown area, but rush hour traffic means that street parking restrictions are strictly enforced. Alexandria's economy is influenced by the federal government, with many residents working for the US federal government, the US military, or a private contractor to the US government. Many residents commute into Washington D.C., using both transit and single-occupancy vehicles.

Key Citywide Practices

Baseline Parking Requirements

The City of Alexandria's zoning code outlines standards and guidelines for the provision and design of off-street parking spaces in Article 8 – Off-Street Parking Requirements.¹ The city provides both parking minimums and parking maximums. Alexandria has had a number of rounds of relatively recent parking changes. In 2013, the Alexandria City Council directed staff to update parking regulations. The first phase in 2015 looked at multi-family residential requirements and created a modest parking reduction for multi-family apartments. The second phase was commercial uses. The main element of the second phase was to lower overall parking rates required for different types of parking in commercial areas and

¹ All parking regulations throughout this white paper are current through January 31, 2023.

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offer more consistency and more specific uses. This second phase reduced parking ratios and added a provision that exempts any development from minimum parking requirements if the minimum is 2 spaces or less. It is targeted at trying to address parking requirements in older parts of the city. Rates vary across the city, with additional flexibility around enhanced transit areas. There have been some anecdotal negative impacts from the commercial parking updates, with spillover parking from developments with under one parking space per unit of parking.

Figure 1 Sample Selection of Minimum and Maximum Parking Requirements in Alexandria City Code

Land Use	Minimum Spaces Required
Dwelling, Multifamily	8/10 th of a space per bedroom within a Metro Station Walkshed Area 1 per bedroom outside a Metro Station Walkshed Area
Club, Service Organization, or Community Center	One space for each 200 square feet of floor area
School	Elementary: one space for each 25 classroom seats
	High: one space for each 10 classroom seats
Transit Facilities	N/A
Restaurant	Within Enhanced Transit Area Min: 1.0 space per 1,000 square feet of floor area Within Enhanced Transit Area Max: 3.0 spaces per 1,000 square feet of floor area Outside Enhanced Transit Area Min: 1 space per 1,000 square feet of floor area Outside Enhanced Transit Area Max: 4.0 spaces per 1,000 square feet of floor area
Office	Within Enhanced Transit Area Min: 0.25 spaces per 1,000 square feet of floor area Within Enhanced Transit Area Max: 1.5 spaces per 1,000 square feet of floor area Outside Enhanced Transit Area Min: 0.75 spaces per 1,000 square feet of floor area Outside Enhanced Transit Area Max: 2.25 spaces per 1,000 square feet of floor area
Goods Distribution Hub	1 space for each 400 square feet of office area of all floors plus 1 parking space for each three employees in excess of 20 employees.

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Shopping Center, 100,000 to 400,000 GFA	<p>Within TSA Min: 0.25 spaces per 1000 square feet of floor area</p> <p>Within TSA Max: 3 spaces per 1000 square feet of floor area</p> <p>Outside TSA Min: 0.75 spaces per 1,000 square feet of floor area</p> <p>Outside TSA Max: 4 spaces per 1000 square feet of floor area</p>
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Conditional Requirement Reductions

Shared Parking

Shared parking may be used to satisfy minimum parking requirements for two or more uses provided that:

- An application is filed with the director of planning and zoning.
- A shared parking agreement is submitted outlining the uses, the square footage occupied by each use, the location of the parking facility and the number of spaces that each use would share.
- If the uses are not on the same property, the distance between the shared parking facility and the off-site uses is no more than 1,000 feet.
- The shared parking is sufficient to meet the minimum amount required for all uses according to this calculation:
 1. Determine minimum parking requirements for each individual use
 2. Multiply each amount by the corresponding percentages in the table below:

Time Period	Weekday Daytime	Weekday Evening	Weekend Daytime	Weekend Evening
Office	100%	5%	5%	5%
Hotel	80%	100%	80%	100%
Medical Care Facility, Amusement Enterprise, Theaters/Auditoriums/Assembly halls, Specific Commercial, and General Commercial	60%	90%	100%	70%
Restaurant	50%	80%	80%	100%
Residential	60%	100%	90%	100%

3. Sum total requirement for each use for each time period
4. The time period with the highest value will be the required minimum for the shared parking. Only the land uses listed in the shared parking calculations table are eligible for shared parking.

While Alexandria allows shared parking, some developers have chosen not to share parking. In the North Potomac Yards development, Virginia Tech did not want to share parking with the rest of the development.

Other Practices

Transportation Demand Management

Section 11-702 of Alexandria's Zoning Code establishes a transportation management program. The transportation management plans are required to maximize the mobility of all users by encouraging transit use, ridesharing, and pedestrian and bicycle transportation to minimize single occupancy vehicle trips. In addition to transportation management plans, section 11-703 establishes a TDM fund for the City of Alexandria. The fund is intended to promote and create transportation alternatives to single occupancy vehicles. Any payment to the city as a result of a transportation management plan site use plan will be deposited into the TDM fund. The fund will be used for expenditures identified by the director of transportation and environmental services in their annual report to the city on the TDM program.

Parking Waivers

Within the Old and Historic Alexandria District, access to all parking is required be provided from an alley or interior court. Upon finding that it is clearly not feasible to provide such access, a waiver for part or all of any parking requirement may be granted by the planning commission as part of its site plan review or, if no site plan is required, by the director.

Implementation Considerations

- There were concerns from both Alexandria's City Council and the Alexandria community around multi-family apartment parking rates. Alexandria's City Council had a general desire to understand the effects of requiring too much parking and the community wanted a rationale for why the city was pursuing specific changes. Staff tried to make a logical rationale for each change that was offered. For example, access to transit will decrease demand for parking, or parking is expensive to provide and affects the affordability of housing. Alexandria was able to satisfy a lot of concerns, but now has a fairly complex set of overlapping criteria for multi-family apartments.
- There are overlapping concerns of spillover parking into neighborhoods. This was not explicitly part of the City's study, but there was an ongoing parking study in Old Town meant to look at how Alexandria manages parking districts.
- Parking monitoring requirements are not codified in the zoning code but are included in standard conditions. Alexandria can request parking data at any time, but the city has struggled with how to manage this with developers and has not taken advantage of this yet.

Lessons Learned

- Alexandria is continuing to receive requests from developers for overall parking reductions. For example, a development with a lot of affordable units came in at under 1 space per unit despite not being near transit currently. Upon build-out the city is hearing anecdotal reports of a full parking garage with spillover parking on the streets.
- Alexandria has not been able to streamline the approval process. Larger, multi-family buildings need approval by the council regardless, so no time is saved by the city.

Arlington County, VA



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Context

Arlington County's coordinated policy approach to land use and transportation planning has allowed it to grow rapidly over the last 40 years without major expansions in its highway networks and with minimal traffic growth. In that time, the County's rapid population and economic growth has been largely concentrated within corridors served by Washington Metropolitan Area Transit Authority (WMATA) rapid rail transit, particularly the areas around the Rosslyn, Courthouse, Clarendon, Virginia Square, and Ballston stations. The zoning ordinance was last amended in April 2021.

Key Countywide Practices

Parking Requirements

Arlington County's zoning code outlines standards and guidelines for provision and design of off-street parking spaces in Article 14. Parking requirements and regulations have not been substantially updated in decades in Arlington. The largest updates came in 2013 for commercial parking requirements and 2018 for residential parking requirements. Arlington has undertaken smaller updates to parking requirements, such as updating requirements for accessory dwellings in 2017. In the residential parking update in 2018, there was some discussion of removing parking minimums, but it was ultimately not recommended. An element of the non-inclusion was in part the want of the County to enable a level of

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negotiating ability in site plan development which would have been removed if there zero parking minimums. Minimum parking requirements for a sampling of common land uses are outlined below.

Figure 2 Sample Selection of Minimum and Maximum Parking Requirements in Arlington County Code

Land Use	Minimum Spaces Required
Dwelling, Multifamily	1 & 1/8 for each of the first 200 dwelling units in any structure, 1 space for each unit above 200
Club, Service Organization, or Community Center	1 per each 3 seats or other accommodations or other accommodations for attendants or participants
School	High School: 1 per each 10 students of design capacity. Plus 1 space for each 10 fixed seats, or other vantage accommodation for spectators, for public assembly; plus 1 per 50 sq. ft. of floor area for auditoriums, multipurpose rooms, gymnasium, or other facilities used for public assembly but having no fixed seating arrangement specified
	Elementary and Middle School: 1 per each 7.5 students of design capacity for employee parking plus 1 space for each 40 students of design capacity for visitor parking
Transit Facilities	Determined by Zoning Administrator based on most similar use
Restaurant	1 per each 6 seats (in addition to all parking space provided for service to patrons while seated in automobiles)
Office	1 per each 250 square feet of floor area on the first floor plus 1 per 300 square feet of floor area located in the basement or on the 2 nd through 5 th floors, plus 1 per 400 square feet of floor area located above the fifth floor
Goods Distribution Hub	Determined by Zoning Administrator based on most similar use
Shopping Center, 100,000 to 400,000 GFA	N/A

Other Practices

Transportation Demand Management

Mixed-use districts and site plan standards in the Arlington County zoning ordinance require TDM plans for development. Guidance in section 14.3 Parking and Loading states that TDM plans must demonstrate that the potential adverse impacts of parking demand will be mitigated through TDM strategies to offset parking demand. Arlington County has an additional Arlington County Commuter

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Services Transportation Demand Management Plan. The current version is updated through the 2018-2023 fiscal years. While not codified in a TDM plan, county staff indicated that parking provision is a form of TDM that they use. Less parking creates less demand for cars on the road.

Shared Parking

In determining parking requirements for developments, the County Board may consider the adequacy of a shared parking management plan. Special planning area regulations for areas like the Clarendon Revitalization District require a shared parking plan and provisions for shared parking. Additionally, the Columbia Pike Form-Based Code requires all commercial parking to be shared parking.

Key Code Complementary Practices

Comprehensive Plans

Bicycle parking requirements are not included in the Arlington County Zoning Ordinance. Arlington County includes bicycle parking goals in the Master Transportation Plan, *Bicycle Element*, adopted in April 2019. Parking in-lieu fees are not included in the Arlington County Zoning Ordinance. Arlington County includes in-lieu fees as part of policies and implementation actions in the Master Transportation Plan: Parking and Curb Space Management Elements, adopted in 2009.

Columbia Pike Special Revitalization District Form Based Code

The Columbia Pike Special Revitalization District Form Based Code is an optional zoning tool and property owners retain the zoning rights under the existing zoning. Use of the Form Based Code is selected through the filing of an application for development under the Form Based Code. If this Code is used, development proposals shall comply with all provisions of this Code.

Special Exemption Approval Process

Arlington's special exception approval processes are intended to help redevelop metro corridors. A combination of input from the development community and input from other stakeholders gives staff feedback to look at changing requirements in the special exemption process.

Henrico County, VA

Context

Henrico County is in Central Virginia, approximately 100 miles from Fairfax County. It is bordered by the City of Richmond. There is no incorporated community in Henrico, but it is part of the Greater Richmond Region. Henrico purchases public bus service from Greater Richmond Transit Company. Two major Interstate highways run through the County. Interstate 95 is a major North/South highway and is one of the busiest roads in the Country. Interstate 64 is an East/West highway ending in the Tidewater area of Virginia.

Key Countywide Practices

Baseline Parking Requirements

Henrico County's Zoning Code is included in Chapter 24 of the Henrico County Code. The new zoning ordinance was adopted in June 2021 and went into effect on September 1, 2021. Minimum parking rates were lowered, particularly for office uses. Henrico experienced challenges with small, nonconforming sites. The new Zoning Ordinance includes a provision for graduated compliance for nonconforming sites when a building addition or a change of use increases the parking requirement.

Minimum parking requirements for a sampling of common land uses are outlined below.

Land Use	Minimum Spaces Required
Dwelling, Multifamily	2 spaces per dwelling unit; 1 space per dwelling unit in an age-restricted community
Club, Service Organization, or Community Center	3 spaces per 1,000 square feet
School	Under 11th grade: 1 space per 8 students design capacity 11th and 12th grades: 1 space per 2 students design capacity
Transit Facilities	In accordance with facility plan
Restaurant	10.0 per 1,000 sf GFA including outdoor dining area
Office	2.5 spaces per 1,000 square feet
Goods Distribution Hub	2 spaces per 1,000 square feet of office area
Shopping Center, 100,000 to 400,000 GFA	N/A

Other Practices

Transportation Demand Management

Henrico specifies transportation demand management and reduction strategies that allow for a reduction in off-street parking.

- Transportation Demand Management Plan: The Planning Director may, through approval of a Transportation Demand Management (TDM) plan, authorize up to a 30 percent reduction in the minimum number of off-street parking spaces required by Sec. 24-5110, Minimum Number of Off-Street Parking Spaces, for nonresidential uses having a floor area of at least 25,000 square feet, including nonresidential components of mixed-use developments, in accordance with the following standards. The TDM Plan must provide the following TDM activities:
 - A Guaranteed Ride Home program that offers emergency ride services to each employee with an allowance of no fewer than four rides per year, which an applicant may establish to serve the development or in partnership with other developments or uses.
 - Written notice to all employees of available transportation and ride-sharing options.
 - Formation of transportation demand reduction programs such as carpooling, vanpooling, ridesharing, subsidy of employee bus passes, teleworking, and shuttle service programs.
- Transit accessibility: A five percent reduction in the minimum number of off-street parking spaces required by Table 5110: Minimum Number of Off-Street Parking Spaces, may be approved for uses located within one-eighth mile of any station, stop, or other transit facility served by scheduled transit with weekday peak-level frequencies of 15 minutes or less and weekday off-peak frequencies of 20 minutes or less at the time of approval.

Shared Parking

Mixed-use developments may apply for a parking reduction using shared parking. The following methodology will be used to calculate the required parking:

- The applicant must determine the minimum parking required for each principal use in the development in accordance with Table 5110: Minimum Number of Off-Street Parking Spaces.
- The applicant must apply the time-of-day demand factors for each principal use in accordance with Table 5113: Shared Parking Time-of-Day Parking Ratios.
- The applicant must calculate the sum of each column in the resulting table (rounding up all fractions). These sums represent the total estimated shared demand for each time period throughout a typical day.
- The highest of the sums of the columns may be used as the minimum amount of parking required for the development.

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Table 5113: Shared Parking Time-of-Day Parking Ratios

Use Classification, Category, or Type	Weekdays			Weekends		
	2 AM to 7 AM	7 AM to 6 PM	6 PM to 2 AM	2 AM to 7 AM	7 AM to 6 PM	6 PM to 2 AM
Office	20%	100%	20%	5%	10%	0%
Residential	100%	60%	100%	100%	80%	100%
Retail sales	0%	100%	80%	0%	100%	60%
Personal service establishments	20%	100%	40%	0%	60%	0%
Eating establishments	20%	80%	100%	20%	80%	100%
Hotel or motel	100%	60%	100%	100%	60%	100%
Schools	10%	100%	80%	10%	20%	10%
All other uses	100%					

Bicycle Parking

Henrico’s new parking ordinance includes new minimum bicycle parking standards. These apply to all new development and any expansion or alteration of a building existing prior to September 1, 2021, if the expansion increases the building’s gross floor area by 50 percent or more, or if the alteration involves 50 percent or more of the building’s gross floor area (including interior alterations). A five percent reduction in the minimum number of off-street parking spaces required by Table 5110: Minimum Number of Off-Street Parking Spaces, is allowed for developments that comply with the bicycle parking standards in Sec. 24-5122, Bicycle Parking Standards, and provide both of the following: additional bicycle parking spaces that are secure and either enclosed or covered (indoor or locker) equal to at least five percent of the number of vehicle parking spaces provided; and shower and dressing areas for employees.

Table 5122: Minimum Bicycle Parking Standards

Principal Use Type	Minimum Required Bicycle Parking Spaces	
	CMU District	All Other Districts
Residential Uses		
Dwelling, multifamily	1 per 20 du	1 per 40 du
Dormitory	1 per 10 bedrooms	1 per 20 bedrooms
Other residential uses	No minimum	
Public, Civic, and Institutional Uses		
School, elementary or secondary	1 per 20 students planned capacity	1 per 40 students planned capacity
Passenger terminal, surface transportation	In accordance with facility plan	In accordance with facility plan
Other Public, Civic, and Institutional uses	No minimum	
All other use classifications		
All other uses	No minimum	

In-Lieu Parking

In an urban mixed-use district, the developer applicant may submit a provisional use permit for a parking plan in lieu of minimum parking requirements. Section 24-92.5 focuses on the Westwood Redevelopment overlay district. In lieu of compliance with minimum parking requirements, a development or redevelopment may provide parking within 1000 feet of the main entrance of the building to which it is allocated or a parking study must be submitted containing the parking allocation for the property.

Electric Vehicle Parking and Charging

Up to ten percent of the required number of off-street parking spaces may be used and designated as electric vehicle (EV) charging stations, subject to the standards in Sec. 24-4416, Accessory Electric Vehicle Level 1, 2, or 3 Charging Station. The Planning Director may approve the use and designation of additional required parking spaces as EV charging stations, provided that such additional spaces will count as only one-half of a parking space when computing the minimum number of parking spaces required. EV charging stations must be contiguous to spaces clearly marked for electric vehicles

Implementation Considerations

- This new code has more flexibility in terms of shared parking and unusual uses. Under the old ordinance, Henrico had few tools to approve shared parking, deferred parking, or other flexible tools.
- Henrico's Board of Supervisors did not struggle to give up authority. They wanted the increased flexibility.
- There were no citizen concerns on parking. The old minimum requirements were so high that there weren't many areas where people thought there wasn't enough parking.

Lessons Learned

- Henrico did not do an independent study of parking, but developers over the past decade made it clear that Henrico was overparked. Henrico never had, and still does not have, a parking maximum but requirements were reduced to more "normal" requirements.
- Henrico has some small sites with no parking that were developed in the 1930s. When these undergo a change of use, the developer has to increase parking. It's an idea of gradual increase for parking for nonconforming uses. This helped to fill some buildings that were vacant for a long time.

Loudoun County, VA

Context

Loudoun County is located 25 miles outside of DC in Northern Virginia. It borders on Fairfax County. Loudoun County has a strong rural and service economy. Loudoun’s rural economy includes equine industry worth \$78 million and a growing wine industry. The county’s service economy includes companies like MCI, Inc. and Telos. Loudoun County also houses over 60 data centers, estimated to carry 70% of global web traffic. Loudoun County is also home to Dulles International Airport, on the border of Loudoun County and Fairfax County. WMATA’s Silver Line metro extension will extend into Loudoun County.

Loudoun County is currently in the process of updating their zoning ordinance. In September 2019, Loudoun County’s Board of Supervisors voted to update the current zoning ordinance from 1993 to implement the Loudoun County 2019 General Plan. The revised zoning ordinance is scheduled to be presented to the Board of Supervisors in 2022.

Key Countywide Practices

Baseline Parking Requirements

Loudoun County’s zoning code outlines standards and guidelines for the provision and design of off-street parking spaces in Article 5: Additional Regulations and Standards. While there have been small revisions to Loudoun County’s parking regulations included in Section 5-1100 in the last few years, such as lowering childcare parking ratios in 2019, the last time Loudoun County updated their parking regulations on a much larger scale was with the annual review adopted October 16, 2007. The current zoning code update is attempting to “rightsize” parking, avoiding a “one size fits all approach” to parking minimums by requiring context sensitive parking ratios based upon the different policy areas of the County. In addition, greater flexibility is proposed with parking adjustments and the ability to utilize on-street parking to meet minimum parking requirements. Minimum and maximum parking rates applicable by policy area are being proposed as part of the County’s current Zoning Ordinance Rewrite in order to implement the policies of the 2019 General Plan and the 2019 Countywide Transportation Plan. In general, concerns have been raised that state that many of the commercial/office/retail minimum parking ratios are too high and residential minimum parking ratios are too low. Issues also include parking uses that may have multiple uses operating simultaneously in the same building(s), especially in the Rural portions of the County. During the ZOR process, there has been some concern from ZOC regarding draft proposals to require parking maximums and regulations which require minimum amounts of alternative types of modes of transportation on a site.

Minimum parking requirements for a sampling of common land uses are outlined below.

Land Use	Minimum Spaces Required
Dwelling, Multifamily	Studio: 1.25 spaces per dwelling 1 Bedroom: 1.5 spaces per dwelling 2-3 Bedroom: 2 spaces per dwelling 4+ Bedroom: 2.5 spaces per dwelling

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Club, Service Organization, or Community Center	0.33 spaces per person in permitted occupancy approved by the Fire Marshal plus 1 space per employee
School	1 space per classroom and other room used by students plus 0.2 spaces per student over driving age
Transit Facilities	Determined by Zoning Administrator based on most similar use
Restaurant	15 spaces per 1,000 sq. ft. of GFA, minimum of 1 space
Office	4 spaces per 1,000 sq. ft. of GFA for up to 30,000 sq. ft.; then 3.3 spaces per 1,000 sq. ft. of GFA thereafter
Goods Distribution Hub	Determined by Zoning Administrator based on most similar use
Shopping Center, 100,000 to 400,000 GFA	3.5 spaces per 1,000 Sq. Ft. of GFA for centers with up to 400,000 Sq. Ft.

Other Practices

Transportation Demand Management

Section 1102 of Article 5 of Loudoun County’s zoning code includes adjustments to parking requirements. Subsection 1102(F-5) lists alternative transportation reductions. Alternative transportation options to encourage less single-occupancy vehicle use and a reduction in required parking include transit (up to 20% reduction), carpooling and vanpooling (up to 20% reduction), and shuttle service (up to 10% reduction). A combination of reductions are allowed provided that the total reduction does not exceed 35%.

Shared Parking

Section 1102(2) of Article 5 of Loudoun County’s zoning code includes requirements for shared parking and loading facilities. Cumulative parking requirements for mixed-use occupancies may be reduced when it is determined by the zoning administrator that the parking demand can be provided on the premises.

Bicycle Parking

Loudoun County includes bicycle parking in section 600, Additional Regulations for Specific Uses, of Article 5. Bicycle parking is only included in the context of schools. Public schools are required to install at least one bicycle rack with space to accommodate at least ten bicycles.

Parking Waivers

Section 5-1101 of Loudoun County’s zoning ordinance includes parking waiver requirements. If fewer than ten spaces or ten percent of spaces are by a change in land use, the zoning administrator may waive additional required parking spaces. The parking waiver must be consistent with the goals of the Loudoun County comprehensive plan.

Captive Market

Parking requirements for retail and restaurant uses may be reduced where it can be determined that some portion of the patronage of these businesses comes from other uses (i.e., employees of area offices patronizing restaurants) located within the same building or a maximum walking distance of 400 feet.

Availability of Public Parking

Parking requirements may be reduced if a property has available to it a sufficient supply of existing under-utilized public parking spaces in both off-street public parking lots and/or on-street public parking spaces, and where the applicant adequately demonstrates that such availability will continue in the future.

Code Complementary Practices

- If a development is near transit, open space, or public housing, Loudoun County will consider reductions in parking. The county has allowed, in some specific instances, for public on-street parking to be counted as part of minimum parking requirements.

Implementation Considerations

- Loudoun County is considering including electric vehicle charging and parking requirements in the updated zoning code. However, there is concern from the community over who will pay for the infrastructure needed for electric vehicles.
- Regulations have been proposed to allow more flexibility for the Zoning Administrator to review and approve parking reductions and modifications based upon best practices seen across other parts of the United States.

Lessons Learned

- There is some community concern and want for developing commuter lots in areas like Sterling. This may be specific to commuting and county staff indicated that there probably wouldn't be a requirement in the zoning code. Loudoun County is building county-owned parking structures near Metro and is encouraging developers to create adequate parking structures near Metro.
- Strengths of the current ordinance include the ability to adjust or modify parking requirements administratively, however, such requests are often very technical in nature and are time consuming. On the other hand, there are still challenges which require modifications to be done legislatively, which is also time consuming and costly. Another challenge is that the review of parking studies and parking plans is a somewhat specialized skillset that some staff may not be familiar with and/or may need training in order to review such requests.

Prince William County, VA

Context

Prince William County is approximately 25 miles south of Washington DC and is directly south of Fairfax County. Many Prince William County residents work outside of the county in Washington D.C. and other northern Virginia counties. Prince William County is not served by any WMATA Metrorail lines, but is served by regional Virginia Railway Express commuter rail. Omniride local and metro buses serve the area. Many commuters in Prince William also use “slugging” services to commute into Washington, D.C. for employment. Slugging is unique to the Washington, D.C. metropolitan area. Commuters stop to pick up other passengers to meet HOV requirements on highways between Washington, D.C. and Prince William County.

Key Countywide Practices

Baseline Parking Requirements

Unlike other peer cities, parking requirements for Prince William County are specified in the Prince William County Design and Construction Standards Manual.

Minimum parking requirements for a sampling of common land uses are outlined below.

Land Use	Minimum Spaces Required
Dwelling, Multifamily	<p>Efficiency/studio: 1 space per dwelling</p> <p>One-bedroom unit: 1.5 spaces per dwelling</p> <p>Two or more bedroom units: 2.2 spaces/dwelling</p> <p>Multifamily, high-rise (buildings greater than 50ft. in height): 1 space per 10 units per building. Plus:</p> <p>Efficiency studio: 1 space per unit</p> <p>One-bedroom unit: 1.25 spaces per unit</p> <p>Two or more bedroom units: 2 spaces per unit</p>
Club, Service Organization, or Community Center	1 space per 150 net sq. ft.
School	<p>Elementary and Middle School: 1 space for every 20 classroom seats plus 5 visitor spaces, plus one space for every 5 seats in an auditorium or multipurpose room.</p> <p>High School: 1 space for every 5 students, plus one per faculty member, plus 10 spaces for visitors, plus one space for every 4 seats in an auditorium or multipurpose room</p>
Transit Facilities	The Director of Transportation, with the concurrence of the zoning administrator, shall require a minimum number of parking and loading spaces, based on the most similar use that is listed

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Restaurant	1 space per 100 net sq. ft.
Office	1 space per 250 net sq. ft. of building area; 10 minimum. With ancillary retail or service uses: 1 space per 250 net sq. ft. plus 5%
Goods Distribution Hub	1 space per 1,000 net sq. ft.
Shopping Center, 100,000 to 400,000 GFA	1 space per 200 net sq. ft. up to 50,000 net sq. ft.; then space 1 per 225 net sq. ft. up to 300,000 net sq. ft.; then space 1 per 250 net sq. ft. after that.

Other Practices

Transportation Demand Management

Section 602 of the Prince William County Design and Construction Standards Manual includes TDM requirements. A TDM plan is required if the development consists of mixed-use activity centers including a neo-traditional development or transit-oriented development and the applicant is requesting trip generation credits or reductions in conjunction with the proposed development.

Bicycle Parking

Table 6-13 in Section 600 includes bicycle parking requirements for specific land uses. Section 610.02 regulates overall parking and loading spaces. Bicycle racks, lockers, or docking stations for bike sharing programs must be considered near all existing and proposed transit stops along arterial and collector corridors. If bicycle parking is needed, a minimum of five bicycle parking spaces will be provided at each transit stop.

TABLE 6-13 Bike Parking for Specific Land Uses	
Use	Bicycle Parking Spaces Requirements*
Multi-Family Residential	One Space/10 Units
Commercial Retail	One employee space/10,000 square feet of floorarea.
Office	One employee space/10,000 square feet of floor area
Industrial	One employee space/25,000 square feet of floorarea
Institutional Uses Libraries, Schools (including colleges and universities) Government Facilities	To be determined in consultation with the Prince William County Public Schools and the Prince William County Department of Transportation.
Note: Bicycle parking is a defined space or facility set aside for storing bicycles, including bike racks, striped pavement and bike lockers.	

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Parking Waivers

Section 610.03 of the Prince William County Design and Construction Standards Manual includes requirements for the parking credit allowance. The Director of Transportation may authorize a parking credit upon the request of the property owner. Up to thirty percent (30%) of the required parking spaces may be waived when the use is located in an area of development that is so intense that normal individual demand will not be generated. Credit may be given for parking spaces required for one use when parking spaces required for another use on the same lot, or on an adjacent lot, can be used because of a difference in normal operating hours.

Montgomery County, MD



Context

Montgomery County is located about 25 miles away from Washington, D.C. and shares its southern border with Fairfax County. Part of the planning response to rapid urbanization in Montgomery County was to establish a set of parking lot districts (PLDs) in areas anticipated to grow most rapidly. Within each PLD, County-parking revenues are channeled into and enterprise fund to maintain a public parking system. And, from early on, PLD managers realized that success would require a focus on more than simply providing ample supply. Today, the PLD program operates most of the public parking in its two largest cities, Bethesda, and Silver Spring. This public inventory includes all on-street spaces and numerous off-street facilities in each city. These public inventories provide a shared pool of parking resources for the benefit of all area businesses. They also provide a viable alternative to on-site parking requirements and provides the County numerous opportunities to mitigate traffic levels and commute patterns, and to promote alternative modes.

Key Countywide Practices

Baseline Parking Requirements

Montgomery County's Zoning Ordinance is Chapter 59 of the Montgomery County Code. Parking requirements are included in Chapter 59, Section 6.2.4. The last comprehensive change to the Zoning Code came with the Zoning Code rewrite which was enacted on October 30, 2014. There have been a

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few minor adjustments to parking through Zoning Text Amendments since 2014 including the most recent amendment to bicycle parking and design requirements that took effect August 2020, or special provisions in local overlay zones. The 2014 rewrite lowered parking rates for non-residential uses Countywide, and created lower parking minimums and established parking maximums in reduced parking areas (mixed use activity centers and proximity to rail transit).

Minimum parking requirements for a sampling of common land uses are outlined below.

Land Use	Minimum Spaces Required
Dwelling, Multifamily	<p>Efficiency Dwelling Unit, baseline minimum and maximum in all zones: : 1 space per dwelling;</p> <p>1 Bedroom Dwelling Unit, baseline minimum within a parking lot district or reduced parking area: 1 space</p> <p>1 Bedroom Dwelling Unit, baseline minimum in agricultural, rural residential, residential, and industrial zones; baseline maximum in a parking lot district or reduced parking lot area; and outside of a parking lot district: 1.25 spaces per dwelling;</p> <p>2 Bedroom Dwelling Unit, baseline minimum within a parking lot district or reduced parking area: 1 space</p> <p>2 Bedroom Dwelling Unit, baseline minimum in agricultural, rural residential, residential, and industrial zones; baseline maximum in a parking lot district or reduced parking lot area; and outside of a parking lot district: 1.5 spaces per dwelling;</p> <p>3 Bedroom Dwelling Unit, baseline minimum within a parking lot district or reduced parking area: 1 space</p> <p>3 Bedroom Dwelling Unit, baseline minimum in agricultural, rural residential, residential, and industrial zones; baseline maximum in a parking lot district or reduced parking lot area; and outside of a parking lot district: 2 spaces per dwelling;</p>
Club, Service Organization, or Community Center	<p>Baseline minimum in agricultural, rural residential, residential, and industrial zones: 2.50 spaces per 1000 sq. ft. of GFA;</p> <p>Within a parking lot district or reduced parking area: minimum is 1.50 spaces per 1000 sq. ft. of GFA, maximum is 2.25 spaces per 1000 sq. ft. of GFA.</p> <p>Outside of a parking lot district: minimum is 2.25 spaces per 1000 sq. ft. of GFA</p>

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School	<p>Baseline minimum in agricultural, rural residential, residential, and industrial zones: 0.25 spaces per student (ages 16+) or 1 space per employee. Within a parking lot district or reduced parking area: minimum is 0.15 spaces per student or 0.25 spaces per employee; maximum is 0.25 spaces per student or 0.50 spaces per employee. Outside of a parking lot district: minimum is 0.25 spaces per student or 0.50 spaces per employee</p>
Transit Facilities	<p>Baseline minimum in agricultural, rural residential, residential, and industrial zones: 1.50 spaces per 1000 sq. ft. of GFA. Baseline minimum within a parking lot district or reduced parking area: 1 space per 1000 sq ft of GFA. Baseline maximum: 3 spaces per 1000 sq ft of GFA. Baseline minimum outside a parking lot district or reduced parking area: 1.50 spaces per 1000 sq ft of GFA.</p>
Restaurant	<p>Baseline minimum in agricultural, rural residential, residential, and industrial zones: 10 spaces per 1000 sq. ft. for patron use. Baseline minimum within a parking lot district or reduced parking area: 4 spaces per 1000 sq. ft. Baseline maximum: 12 spaces per 1000 sq. ft. Baseline minimum outside a parking lot district or reduced parking area: 4 spaces per 1000 sq. ft.</p>
Office	<p>Baseline minimum in agricultural, rural residential, residential, and industrial zones: 2.80 spaces per 1000 sq. ft. Baseline minimum within a parking lot district or reduced parking area: 2 spaces per 1000 sq. ft. Baseline maximum: 3 spaces per 1000 sq. ft. Baseline minimum outside a parking lot district or reduced parking area: 2.25 spaces per 1000 sq. ft</p>
Goods Distribution Hub	<p>Baseline minimum in agricultural, rural residential, residential, and industrial zones: 1.50 spaces per 1000 sq. ft. Baseline minimum within a parking lot district or reduced parking area: 1 space per 1000 sq. ft. Baseline maximum: 3 spaces per 1000 sq. ft. Baseline minimum outside a parking lot district or reduced parking area: 1.50 spaces per 1000 sq. ft.</p>
Shopping Center, 100,000 to 400,000 GFA	<p>Regional shopping center - 4 parking spaces for each 1000 sq. ft. of gross leasable area</p>

Other Practices

Transportation Demand Management

Chapter 42A of the Montgomery County Code, Ridesharing and Transportation Management, includes TDM in Article II. TDM goals are included in Sec. 42A-22. TDM plans may include alternative work hours programs, carpool or vanpool incentives, subsidized transit passes, preferential parking for carpools and vanpools, parking management strategies, peak period or single-occupancy vehicle parking charges, improved transit, bicycle and pedestrian access and safety, telework, share-a-ride districts, and other transportation demand management measures approved by the Director. Car-share parking spaces count as two spaces towards minimum requirements for residential uses and as three spaces for commercial uses. Dedicated carpool and vanpool spaces count as three spaces towards minimum parking requirements for office land uses. A bike-share facility, with a minimum of 10 bikes, counts as three spaces towards the minimum requirements for all uses. TDM plans are required for employers, existing non-residential buildings, new development projects. A TDM report is required every two years. Employers in a share-a-ride district or share-a-ride outreach area may obtain a reduction in its minimum parking requirements if the office participates in the share-a-ride program or other ridesharing incentives.

Shared Parking

An applicant proposing development with more than one use can submit a shared parking analysis using the Urban Land Institute Shared Parking Model instead of the parking table included in the Zoning Code. In Commercial/Residential and Employment Zones, the baseline parking minimum or shared parking minimum can be reduced by the non-auto driver mode share percentage goal recommended in the applicable masterplan. Montgomery County also has the Parking Lot District (PLD) program, through which the County operates more than half of the publicly available parking in Bethesda, Silver Spring, and Wheaton, MD. These PLD programs provide shared parking for area businesses and commuters in return for payment of an annual Ad Valorem tax that funds the PLD program.

Bicycle Parking

Article 59-6 – General Development Requirements includes bicycle parking requirements. Montgomery County regulates bicycle parking minimums. The minimum number of bicycle spaces is included in Table 6.2.4C. It includes bicycle parking minimums for all land uses and zones included in the minimum vehicle parking table. Bicycle parking design standards are included in 59-6.2.6. In terms of TDM programs, a bike-share facility with a minimum of 10 bikes counts as three spaces towards the minimum requirements for all uses.

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USE or USE GROUP	Metric	AGRICULTURAL, RURAL RESIDENTIAL, RESIDENTIAL, AND INDUSTRIAL ZONES		COMMERCIAL/RESIDENTIAL AND EMPLOYMENT ZONES	
		Minimum (Maximum)	% Long-Term	Minimum (Maximum)	% Long-Term
RESIDENTIAL					
HOUSEHOLD LIVING					
Multi-Unit Living	Dwelling Unit (20+ Units Only)	0.35 (100 max)	95%	0.50 (100 max)	95%
GROUP LIVING					
Dormitory					
Independent Living Facility for Seniors or Persons with Disabilities	Dwelling Unit (20+ Units Only)	0.25 (50 max)	95%	0.25 (50 max)	95%
Personal Living Quarters					
Residential Care Facility					
CIVIC AND INSTITUTIONAL					
Charitable, Philanthropic Institution	5,000 SF of GFA	1.00 (5 max)	85%	1.00 (5 max)	85%
Cultural Institution	10,000 SF of GFA	0.50 (10 max)	15%	1.00 (10 max)	15%
DAY CARE FACILITY					
Group Day Care					
Day Care Center	5,000 SF of GFA	1.00 (5 max)	85%	1.00 (5 max)	85%
Educational Institution (Private)	5,000 SF of GFA	1.00 (50 max)	15%	1.00 (50 max)	15%
Hospital	25,000 SF of GFA	1.00 (50 max)	85%	1.00 (50 max)	85%
Private Club, Service Organization	10,000 SF of GFA	0.50 (10 max)	15%	1.00 (10 max)	15%
Swimming Pool (Community)	5,000 SF of GFA	1.00 (25 max)	15%	0.50 (25 max)	15%
COMMERCIAL					
EATING AND DRINKING					
Restaurant	10,000 SF of GFA	1.00 (10 max)	15%	1.00 (10 max)	15%
LODGING					
Hotel, Motel	10 Guest Rooms	--	--	1.00 (25 max)	100%
MEDICAL AND DENTAL					
Clinic					
Medical, Dental Laboratory	5,000 SF of GFA	0.50 (25 max)	85%	1.00 (25 max)	85%
OFFICE AND PROFESSIONAL					
Life Sciences					
Office	5,000 SF of GFA	0.50 (100 max)	85%	1.00 (100 max)	85%
Research and Development					
RECREATION AND ENTERTAINMENT					
Conference Center					
Health Clubs and Facilities	10,000 SF of GFA	0.50 (50 max)	15%	1.00 (50 max)	15%
Recreation and Entertainment Facility					
RETAIL SALES AND SERVICE					
Retail/Service Establishment	10,000 SF of GFA	0.75 (50 max)	15%	1.00 (50 max)	15%
INDUSTRIAL					
MANUFACTURING AND PRODUCTION					
Light Manufacturing and Production					
Medical/Scientific Manufacturing and Production	10,000 SF of GFA	0.50 (15 max)	100%	1.00 (25 max)	100%
TRANSPORTATION					
Bus, Rail Terminal/Station	100 average daily riders	3.5 (100 max)	85%	7.00 (100 max)	85%

Parking Waivers

Section 59-6.2.10 of the Montgomery County zoning code regulates parking waivers. Any part of Division 6.2 may be waived by the deciding body if the alternative design standards satisfies section 6.2.1 – the intent of vehicle and bicycle parking is to ensure the adequate parking provided in a safe and efficient manner. Required parking in a PLD cannot be waived. Any request for a waiver in section 6.2.4.B (Minimum Parking Requirements) requires an application.

Code Complementary Practices (from interviews)

- The zoning ordinance does regulate off-street loading and includes tables to calculate how many loading spaces/bays are required based on use and size of use, and has design requirements for what counts as a loading space. Staff started in 2020 an Urban Loading and Delivery Management project to look specifically at loading and delivery vehicle needs in the urban/mixed use areas.

Prince George’s County, MD

Context

Prince George’s County (PG County) is located in the middle of the Baltimore/Washington Corridor. It borders Washington, D.C. to the east and south and is 37 miles south of Baltimore. PG County shares Fairfax County’s southeastern border along the Potomac River. PG County is home to the University of Maryland and federal government facilities like Joint Base Andrews and the United States Census Bureau. WMATA’s metrorail and metrobus service extends into PG County and the Purple Line is currently under construction. The Maryland Area Commuter Rail has two lines that run through PG County.

Key Countywide Practices

Baseline Parking Requirements

Part 11 of Subtitle 27 of PG County’s Zoning Ordinance updated in December 2021 regulates parking requirements. An updated zoning ordinance was passed by the Prince George’s County Council in October 2021 and it is set to go into effect in April 2022. The new zoning code updated all parking regulations. The old zoning regulations were written for a suburban county and were not updated as Prince George’s County began to urbanize. The predominant changes for the parking update include removing parking minimums from most land uses.

Minimum parking requirements for a sampling of common land uses are outlined below.

Land Use	Minimum Spaces Required
Dwelling, Multifamily	<p>If within a one-mile radius of a metro station: 1.33 spaces per dwelling unit and 0.33 spaces per bedroom in excess of one per unit.</p> <p>Containing at least 90% one bedroom units: 1.5 spaces per dwelling unit and 0.5 spaces per bedroom in excess of one per unit.</p> <p>All others: 2 spaces per dwelling unit and 0.5 spaces/bedroom in excess of one per unit</p>
Club, Service Organization, or Community Center	Determined by uses comprising the community building (such as office, auditorium, eating or drinking establishment, recreational area)
School	<p>Private school which offers instruction at levels below 10th grade (including nurse school and kindergarten): 1 space per 6 students.</p> <p>Private school, 10th grade and above (including adult education): 1 space per 3 students</p>

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Transit Facilities	Determined by the Planning Board (or designee) on a case by case basis, based on location, projected passengers, and accessory uses (such as eating or drinking establishment, newsstand)
Restaurant	<p>Eating or Drinking Establishment (including drive-through service or carryout): 1 space per 3 seats plus 1 space/50 sq. ft. of GFA (excluding any area used exclusively for storage or patron seating, and any exterior patron service area).</p> <p>Eating or drinking establishment (not including drive through service): 1 space per 3 seats.</p> <p>Eating or drinking establishment, permitting music of any kind and patron dancing, with hours of operation that extend beyond 12:00 A.M. excluding adult entertainment.: 1 space per 3 seats or 3 persons legal occupancy, whichever is greater.</p> <p>Food Halls: 1 space per 200 sq ft of GFA above the first 3000 sq ft</p>
Office	<p>Medical practitioners' office: see medical care facility.</p> <p>Office building or office building complex: 1 space per 250 sq. ft. of the first 2,000 sq. ft. of GFA plus 1 space per 400 sq. ft. above the first 2,000 sq. ft. of GFA</p>
Goods Distribution Hub	1 space per 150 sq. ft. of the first 3,000 sq. ft. GFA plus 1 space per 200 sq. ft. of GFA above the first 3,000 sq. ft.
Shopping Center, 100,000 to 400,000 GFA	1 space per 250 sq. ft. of GLA (excluding theaters)

Other Practices

Transportation Demand Management

Division 2 of Title 17 of the PG County Zoning Code regulates transportation demand management. The regulations apply to all employers in PG County located within a TDM district. TDM districts may be established through petition or through an Area Master Plan. After a TDM district has been established, a TDM plan must be submitted. Plans must include strategies for trip reduction. Strategies include car and vanpools, transit use incentives, parking fees and disincentives, improved pedestrian and bicycle access and facilities. The Planning Director may approve up to a 25% reduction in the number of spaces typically required for uses that institute and commit to a TDM plan.

Shared Parking

Section 27A-705 of the PG County Zoning Code regulates parking reductions, which includes shared parking regulations. Applicants wishing to use shared parking must submit a shared parking analysis using the latest edition of the Urban Land Institute Shared Parking Model. Reductions in the total of

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required spaces for shared parking are not permitted unless a shared parking analysis is submitted. Reductions in the total number of spaces for existing developments may be permitted to achieve the goals of the Urban Center District.

Bicycle Parking

Section 27A-707 of the PG County Zoning Code regulates bicycle parking. The code specifies minimum bicycle parking requirements for residential and nonresidential development. All new non-residential developments providing less than 20 vehicle parking spaces must provide 4 bicycle parking spaces for each 10,000 square feet of nonresidential development. A minimum of 4 spaces must be provided regardless of size. All new residential developments providing more than 20 but less than 101 vehicle parking spaces must install a minimum of 10 bicycle parking spaces. Design regulations for bicycle parking are also included in the code.

Parking Waivers

Section 27-585 of the PG County Zoning Code regulates parking waivers. Any of the parking regulations may be waived by the District Council for any land within a parking district. Parking districts can be established through an assessment of parking facilities and future parking needs in a proposed district. The District Council may also exclude any part of the county from minimum parking requirements if other parking facilities are available in the vicinity or provision of parking space is impractical because of the lack of vacant land.

Lessons Learned

- In the new zoning ordinance, set to go into effect in April 2022, TDM will be removed. Few TDM districts have been established under the current program and other tools, like unbundling parking, have been more effective in PG County.
- The parking updates seemed to be relatively uncontroversial and the parking standards were not changed from the drafted ones in the final version. However, County Staff is worried that there are not enough fail-safes included in the parking requirements.