

Green Access:

A Transit to Trails Analysis for Montgomery County

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About the Fellow

Jonathan Robison is a Master of Regional Planning student at Cornell University with a focus on transportation and urban design. Prior to Cornell, Jonathan worked as a program manager and researcher on international trade and workforce development issues at the Center for Strategic and International Studies (CSIS) in Washington, DC and a geographic information analyst at Apple in Austin, TX. He received his undergraduate degree in international relations from Washington University in St. Louis with a minor in Chinese.



Introduction: What is Transit to Trails?

Transit to Trails is the nomenclature that is most commonly used to describe public transportation services and provisions that provide access specifically to green spaces and public recreational amenities. While the name might imply service specifically to hiking trails, in this context it is meant to be more comprehensive in nature, covering access to green spaces in general – whether parks, hiking trails, conservation areas, recreation areas, etc. Transit to trails is an idea integral to undoing the transportation and environmental inequities commonly found in American society and across the American landscape. The unfortunate reality is that the communities with the lowest access to private vehicles *and* the lowest access to recreational and green spaces are disproportionately people and communities of color. To rectify this, transit to trails seeks to improve and provide wider access to these spaces via public transportation

While similar sounding in name, Transit to Trails is *not* rails to trails. While both share the goal of expanding recreational spaces, rails to trails is the practice of converting abandoned railways and railroad rights of way into trails for recreational use. Some famous examples include the Capital Crescent Trail and Metropolitan Branch Trail between Bethesda and Silver Spring respectively and Washington, DC or the Beltline in Atlanta, Georgia.

For the purposes of this analysis, Transit to Trails is also more intentional. While nearly every public transit agency and department in the country likely provides existing service to some green spaces and public lands, that is not a goal that many transit providers actively pursue or purposefully promote as such. This paper will examine and propose transit service or products that are actively aimed at this goal and through this lens – improving equity of access by transporting people to parks and greenspaces specifically.

The Transit to Trails Act of 2021

At the federal level, Senator Cory Booker (D-NJ) and Congressman Jimmy Gomez (D-CA 34) introduced into the Senate and House respectively the *Transit to Trails Act of 2021*.

This legislation helps to frame the topic and issues at play in this paper. Similar to legislation they introduced in 2019 and 2020, the *Transit to Trails Act* highlights that “a lack of transportation options often excludes those in underserved communities from accessing our public lands, which are national resources that should be readily available to all Americans.”¹ The Act would create a federal grant funding program specifically dedicated to creating transportation projects to connect underserved communities with greenspaces and public lands.

According to the text of the bill, the U.S. Department of Transportation and the Secretary of Transportation would establish a grant program which will award grants for:

- (A) projects that develop transportation connectors or routes in or serving, and related culturally and linguistically appropriate education materials for, critically underserved communities to increase access and mobility to Federal or non-Federal public land, inland and coastal waters, parklands, or monuments; or
- (B) projects that facilitate transportation improvements to enhance access to Federal or non-Federal public land and recreational opportunities in critically underserved communities.²

Why Transit to Trails?

Transit to trails can be a small but powerful step in implementing racial and environmental equity in access to the county’s wonderful green spaces. For car owners, transit to trails can perhaps be an additional push to (temporarily) abandon cars while demonstrating that transit can be an effective and successful mode of transportation to get people to choice destinations. Beyond these overall social benefits, there can be significant direct benefits. As will be seen in the examples below, transit to trails service can be a popular and effective method of moving a significant number of passengers to well-traveled sites while significantly lowering traffic congestion and improving traffic and pedestrian safety around these destinations. Finally, transit to trails riders can help support local businesses and community organizations that are centered around recreational destinations.

¹ (Senator Booker and Congressman Gomez Introduce Transit to Trails Act of 2021, 2021)

² 8/10/21 11:38:00 AM

Montgomery County Background Analysis

Public Transportation Network

Ride On

Montgomery County is served by Ride On, a comprehensive bus transit system operating fixed, regularly scheduled bus routes across many parts of the county. Ride On additionally operates Ride On Flash, for bus rapid transit service along the US Route 29 corridor; Ride On extRa, for limited-stop service along Maryland Route 355; and Ride On FLEX, for on demand transit service within two zones, one in Wheaton and one in Rockville.

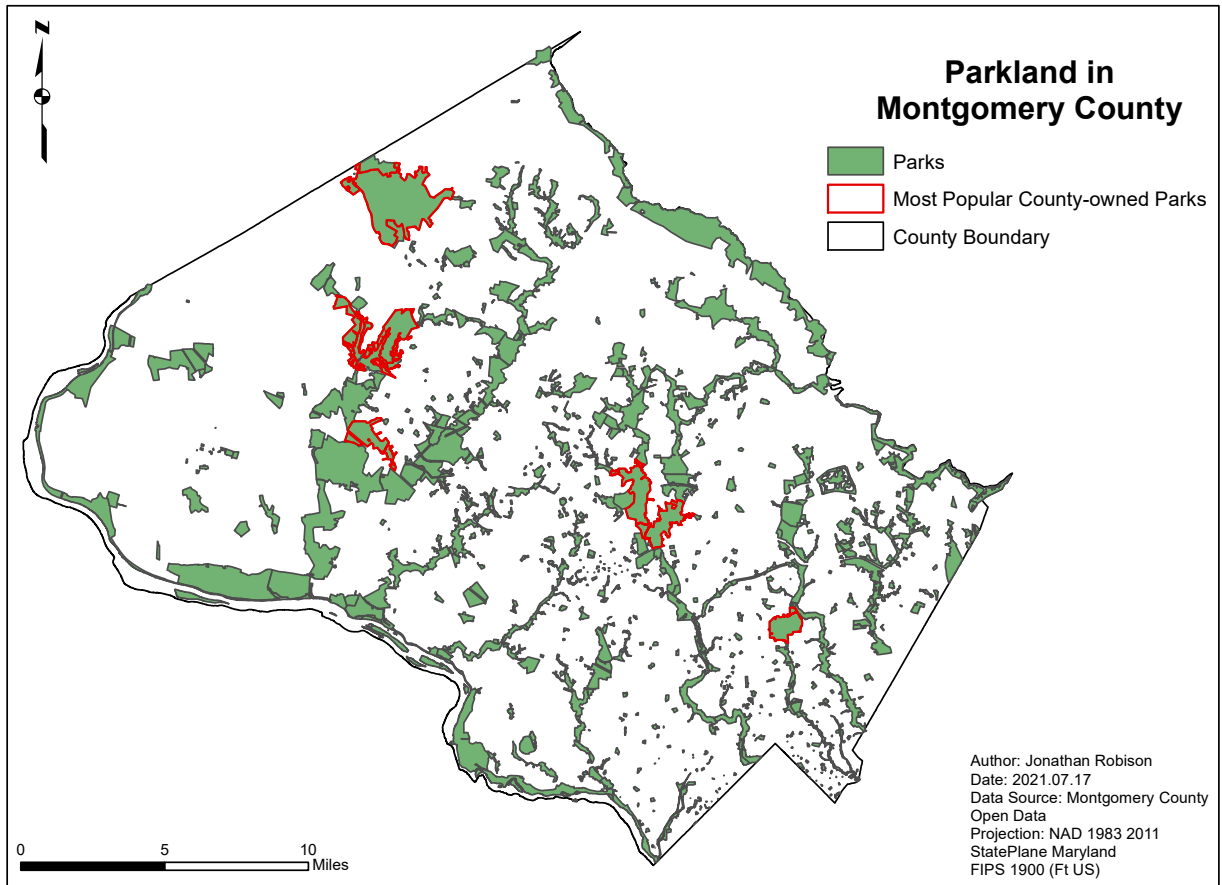
In FY2019, before the onset of the COVID-19 pandemic, Ride On transported 20.596 million passengers across more than 80 routes, with an on-time performance rate of 87.5 percent. Current Ride On bus routes cover 76 percent of all county residents and 89 percent of all employers. Eighty-one percent of low-income households and 86 percent of carless households are within a quarter mile (0.25) of a Ride On stop. The approved budget for Ride On in FY21 was \$135,482,592.³

WMATA

Montgomery County is also served by WMATA, the Washington Metropolitan Area Transit Authority, through both Metrorail and Metrobus services. The Metrorail Red Line operates along two separate corridors in the county, with just under half of the line's 27 stations within the county including the two terminus stations. Metrobus also operates 25 bus routes within the county. Since WMATA is not directly controlled by Montgomery County, WMATA services will not be closely examined or analyzed in this paper.

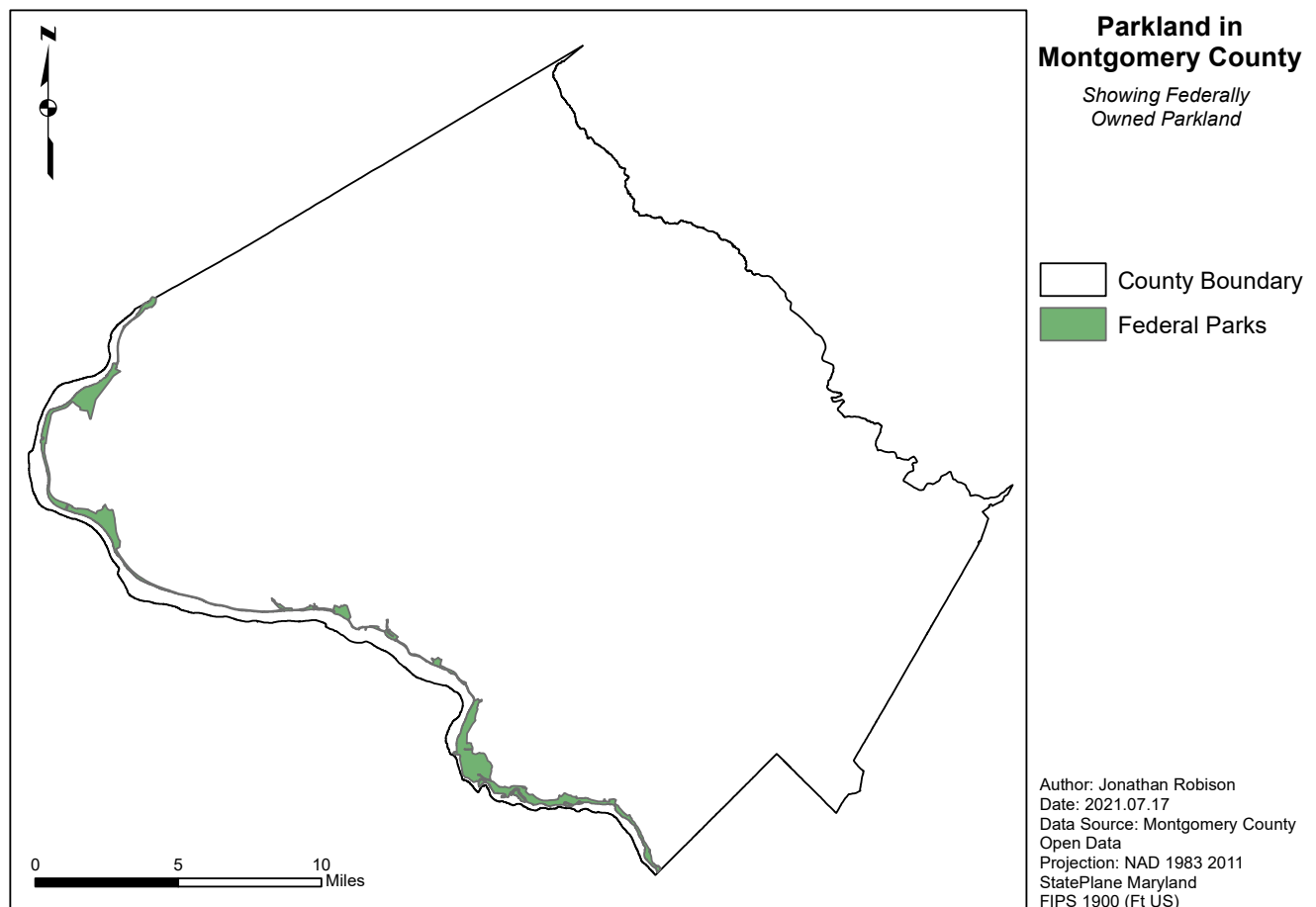
³ (Transit Services - Transit Services Program | Montgomery County Maryland Operating Budget, n.d.)

Public Parks and Green Spaces



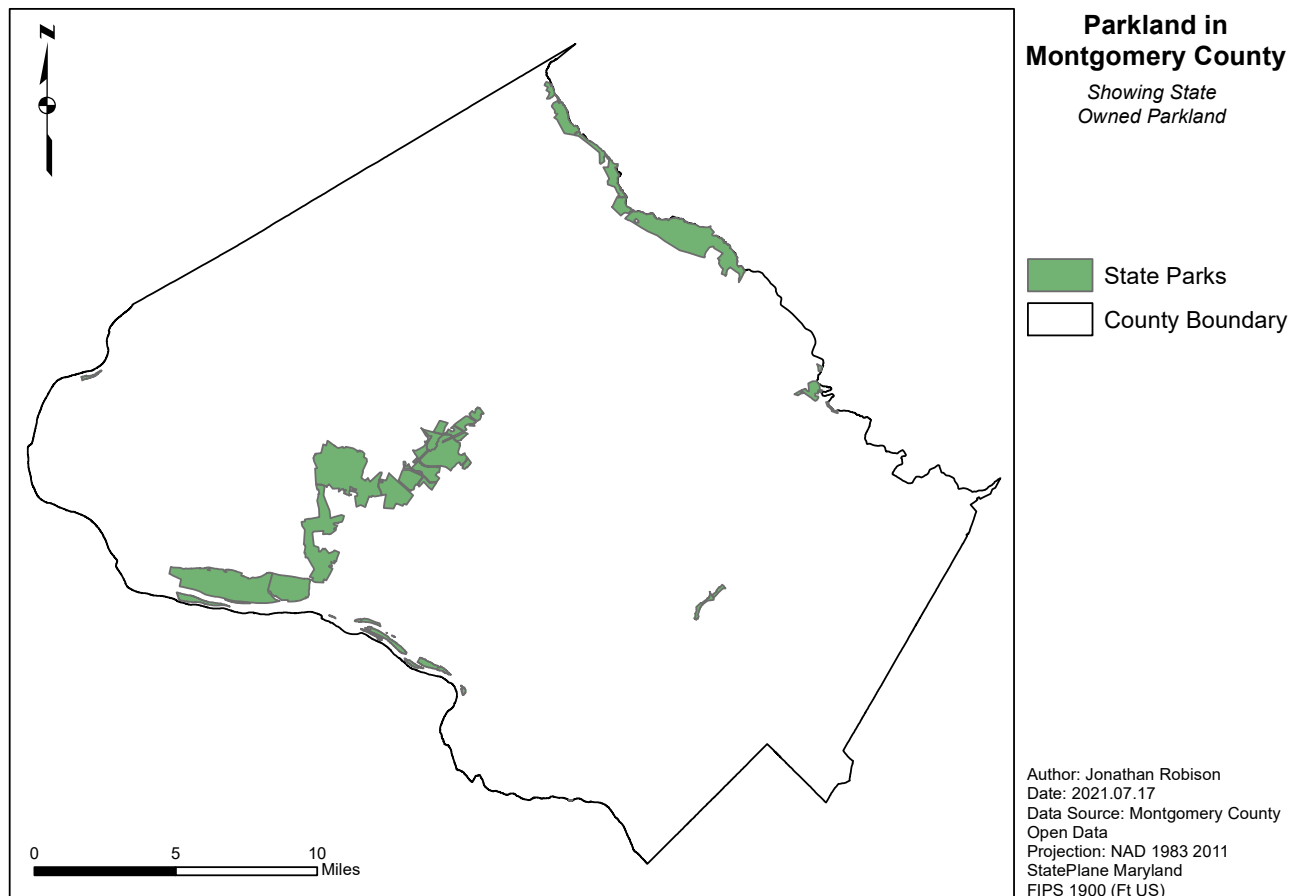
Montgomery County is blessed with significant natural space for public enjoyment, managed and protected by federal, state, county, and municipal governments. According to available data through the DataMontgomery portal, just over 57,422 acres of land in the county is set aside as parkland. Above is a map of all parkland in the county owned by all jurisdiction levels. Highlighted in red are the five most popular county-owned parks.

Federal



According to the GIS data, the only federally owned green space in the county is the C&O Canal National Historical Park, owned and operated via the Department of the Interior's National Park Service. The C&O Canal Park contains over 4,061 acres of parkland stretching along the entire length of the Potomac River in the county. It also forms the county's western border with Virginia. The C&O Canal is both a recreation area and historical site, allowing access to the river, walking and biking paths along the canal tow path, and historical preservation and interpretations at canal locks and canal homes. Most prominently, the C&O Canal also contains the Maryland-side access to the Great Falls of the Potomac. Visitors can access the Falls and their associated popular hiking routes (like the Billy Goat Trail) through the Great Falls Tavern Visitors Center and nearby parking lots and access points. Further visitor data analysis and Great Falls specific issues will be outlined later in this report.

State



The State of Maryland has eight parks across the county, mostly concentrated in the western and far northern parts of the county. Collectively, they cover over 12,000 acres of land, including popular recreational areas like the McKee-Beshers Wildlife Management Area, Patuxent River State Park, and Seneca Creek State Park. The largest of these is Seneca Creek State Park, accounting for over half of all acreage owned by the state.

According to data provided by the Maryland Department of Natural Resources, over 1.175 million people visited Seneca Creek State Park in 2020, a 48.3 percent increase over the 792,774 visitors in 2019. The park is currently on track to surpass its 2020 visitor numbers, with every month in 2021 outpacing the same month the year before. Several times in 2020, the park had to close to new visitors since the parking lots were at capacity.

The peak season is from April to October plus December, due to the annual Winter Lights Festival. Unsurprisingly, weekends are the most popular time to visit the park. The park collects its data by counting the number of entering vehicles and using a multiplier to account for the number of passengers per vehicle. Therefore, the numbers below are estimates, not an actual exact visitor count. The park does not collect visitor data for visitors who arrive on foot or by bike.

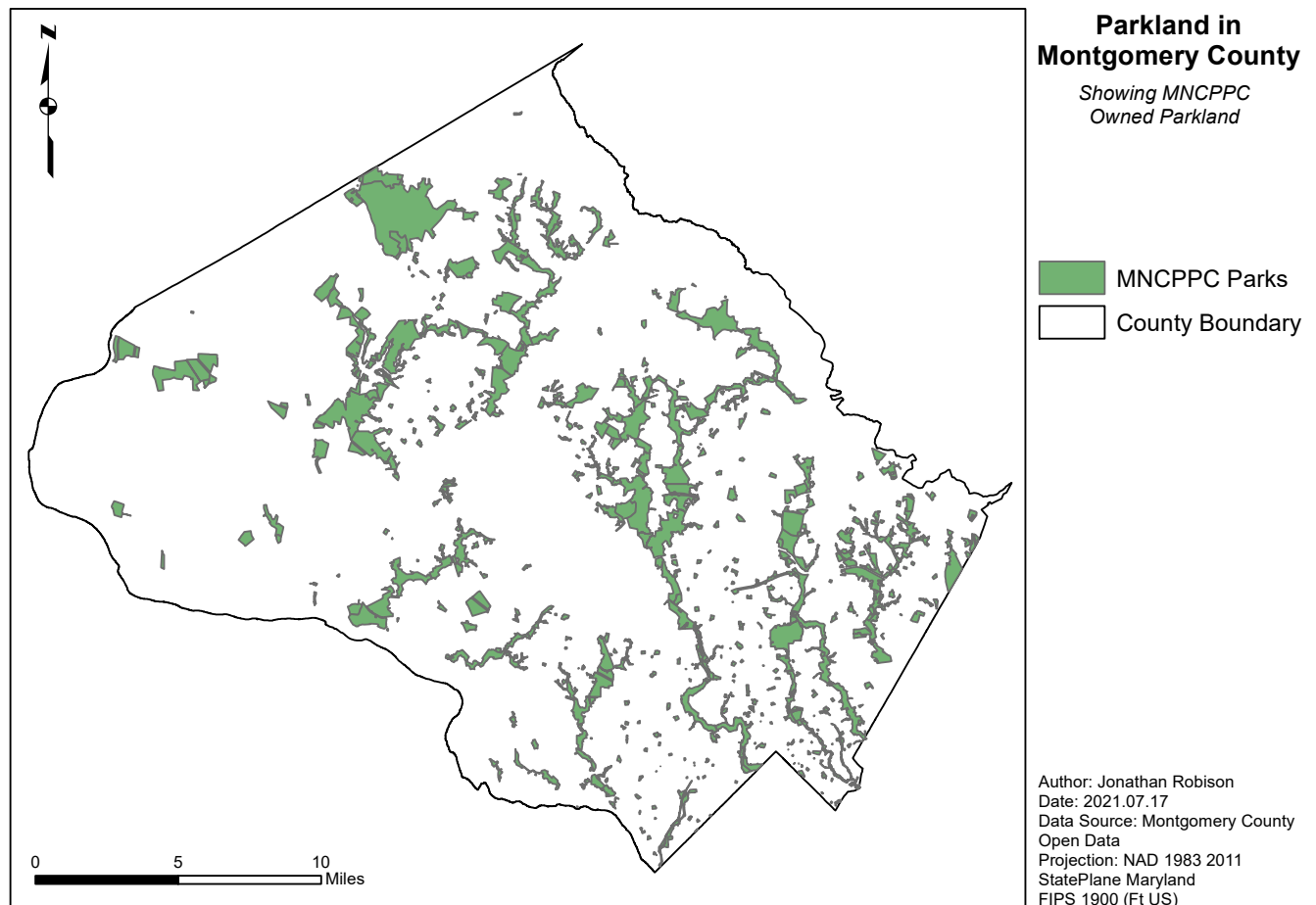
Seneca Creek State Park Visitor Data:⁴

Year	J	F	M	A	M	J	J	A	S	O	N	D	Yr. Tot.
2021	72,108	47,104	103,088	124,380	144,488	131,380	49,760	0	0	0	0	0	672,308
2020	26,416	34,028	68,408	76,072	128,840	128,332	108,964	99,916	102,269	99,707	107,340	195,568	1,175,860
2019	20,396	22,072	51,439	69,155	78,250	89,690	71,120	78,615	75,850	63,230	50,605	122,352	792,774

Seneca Creek 2021	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
(1/1- 7/1 by day of week)	81,956	81,160	79,456	76,304	77,468	138,228	137,736	672,308

⁴ Data provided by the Maryland Department of Natural Resources via staff at Seneca Creek State Park

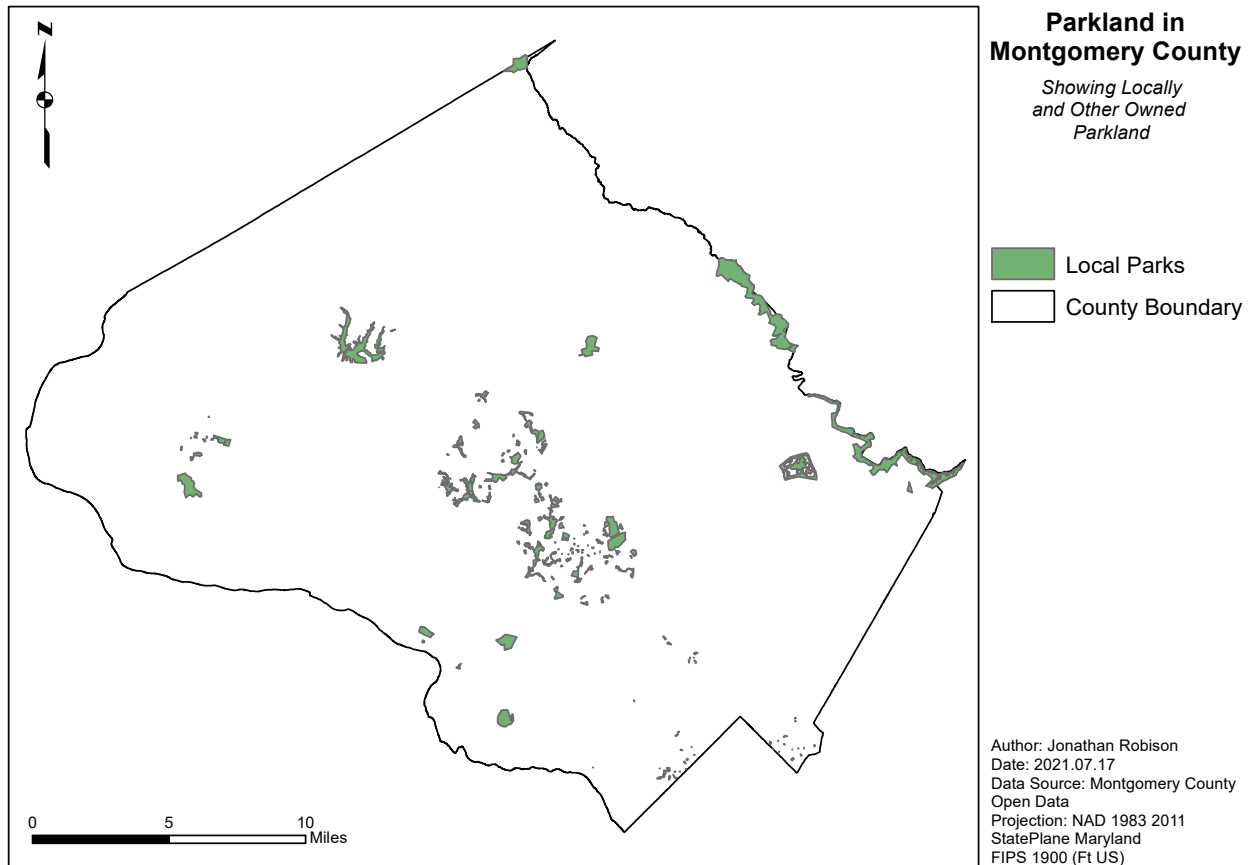
County



Montgomery Parks, through the Maryland-National Capital Park and Planning Commission (M-NCPPC), controls the largest number of green spaces across the county. According to Montgomery Park’s Green Tree Report, the Department controls 424 parks covering 37,043 acres of land and nearly 270 miles of hiking trails disbursed across the county. According to data collected by Montgomery Parks, the most popular parks are Rock Creek Regional Park, Wheaton Regional Park, Black Hill Regional Park, Little Bennett Regional Park, and the South Germantown Recreational Park. The largest park in the system is Little Bennett Regional Park, at over 3,229 acres.⁵

⁵ (“About the Parks,” n.d.)

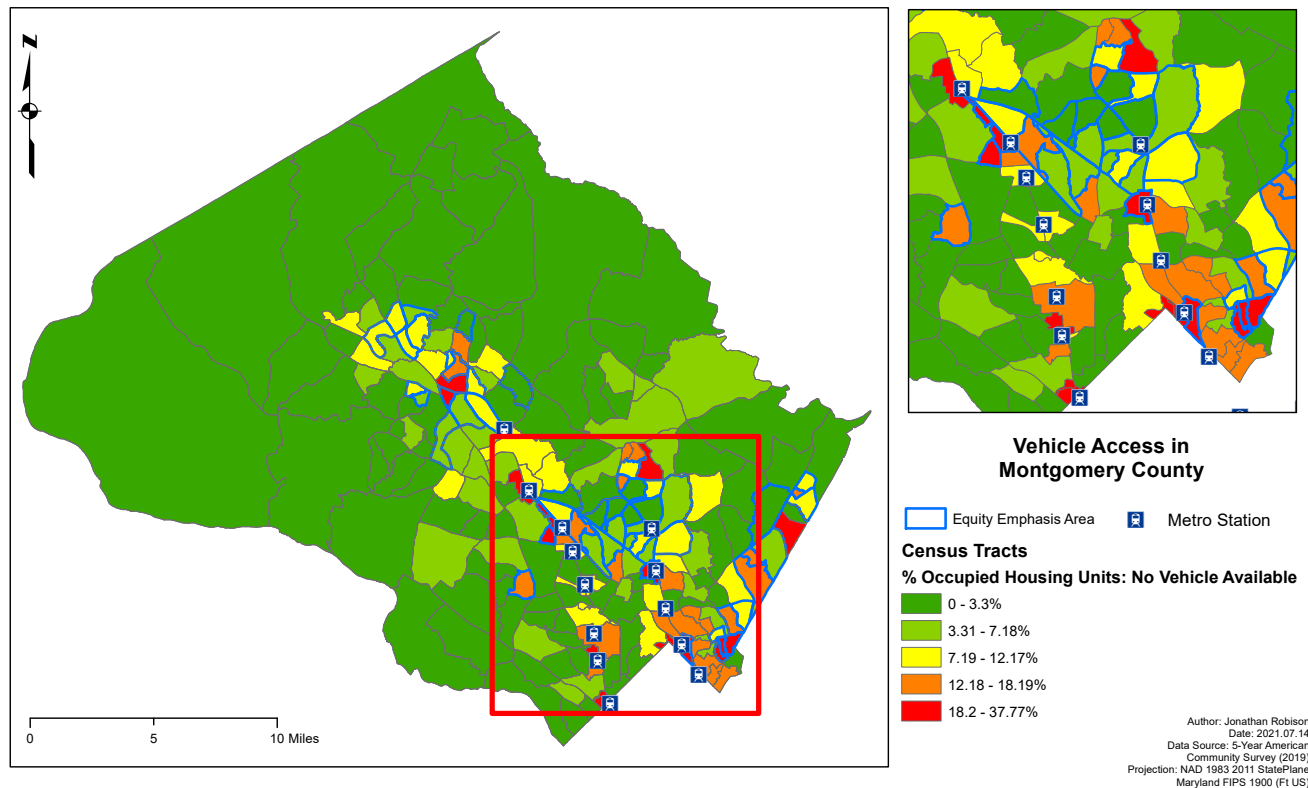
Other



The remaining 5,988 acres of parkland in the county is owned by several entities. This includes local municipalities, like Rockville, Gaithersburg, and Chevy Chase and mostly consists of small urban parks or golf courses. The Washington Suburban Sanitary Commission (WSSC), which provides drinking water to suburban communities in Maryland, also controls land and waterbodies related to the public drinking water supply like Little Seneca Reservoir or the Triadelphia Reservoir on the Patuxent River bordering Howard County.

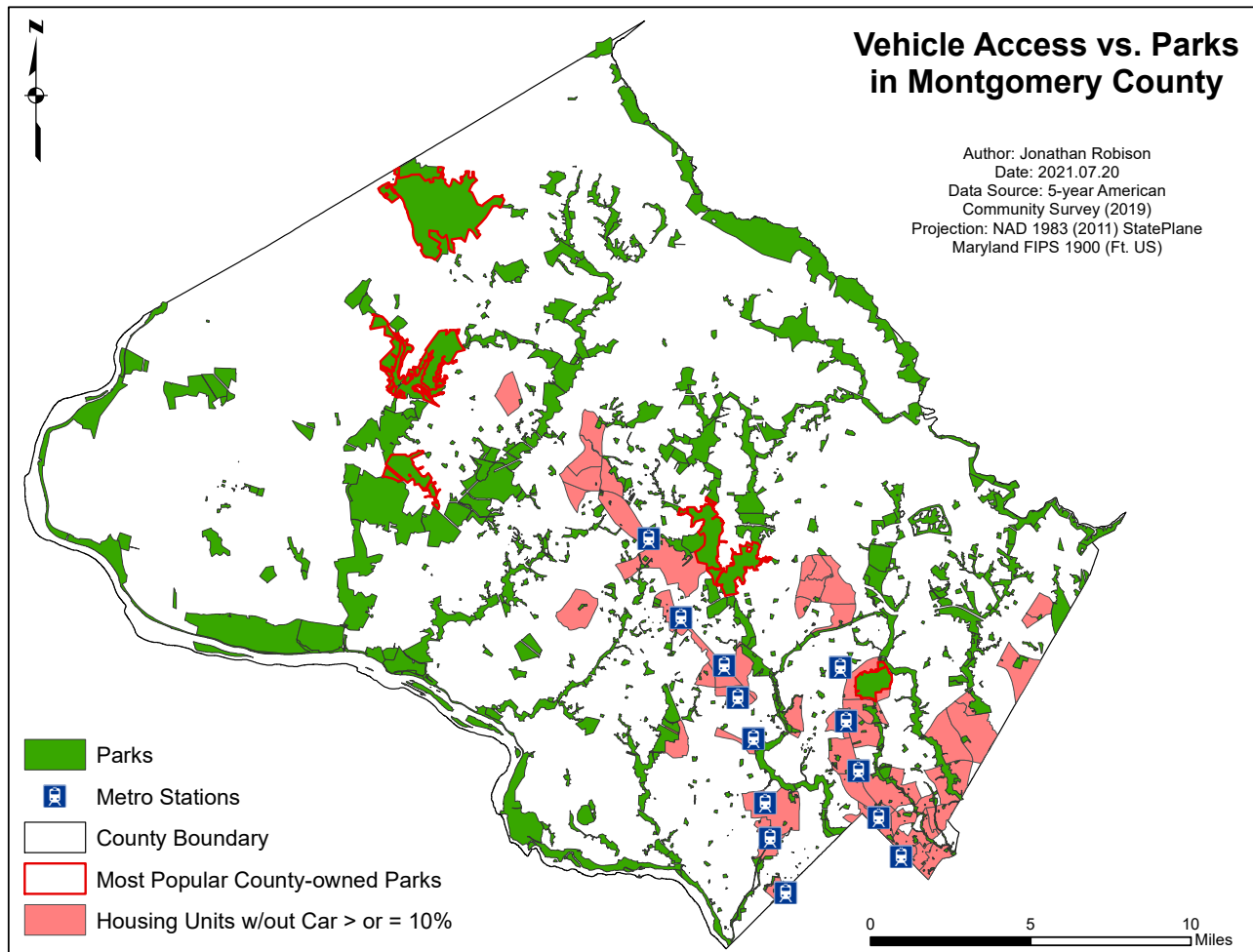
Private Vehicle Availability Analysis

For this analysis, areas with low levels of vehicle availability are particularly important. According to census tract data from the U.S. Census Bureau's 5-year American Community Survey, an average of 7 percent of all occupied housing units in the county have no vehicle access. The number of vehicles available per occupied housing unit is the closest proxy data the Census Bureau has available for vehicle ownership or accessibility. While in many parts of the county, vehicle access is 90 percent or higher, there are other parts of the county where nearly 38 percent of occupied housing units do not have vehicle access. In total, 18 census tracts in the county have a no vehicle availability rate of 20 percent or higher.



As can be seen in the map above, low vehicle availability is clustered around major urban and transportation nodes in the county like Friendship Heights, Bethesda, Silver Spring, Rockville, and Wheaton. However, there are still significant areas of the county far from existing Metrorail stops that have a high number of occupied housing units that lack a vehicle, particularly in Gaithersburg and along the US Route 29 Corridor in the eastern-most edge of the county. Unsurprisingly, many of these areas also overlap

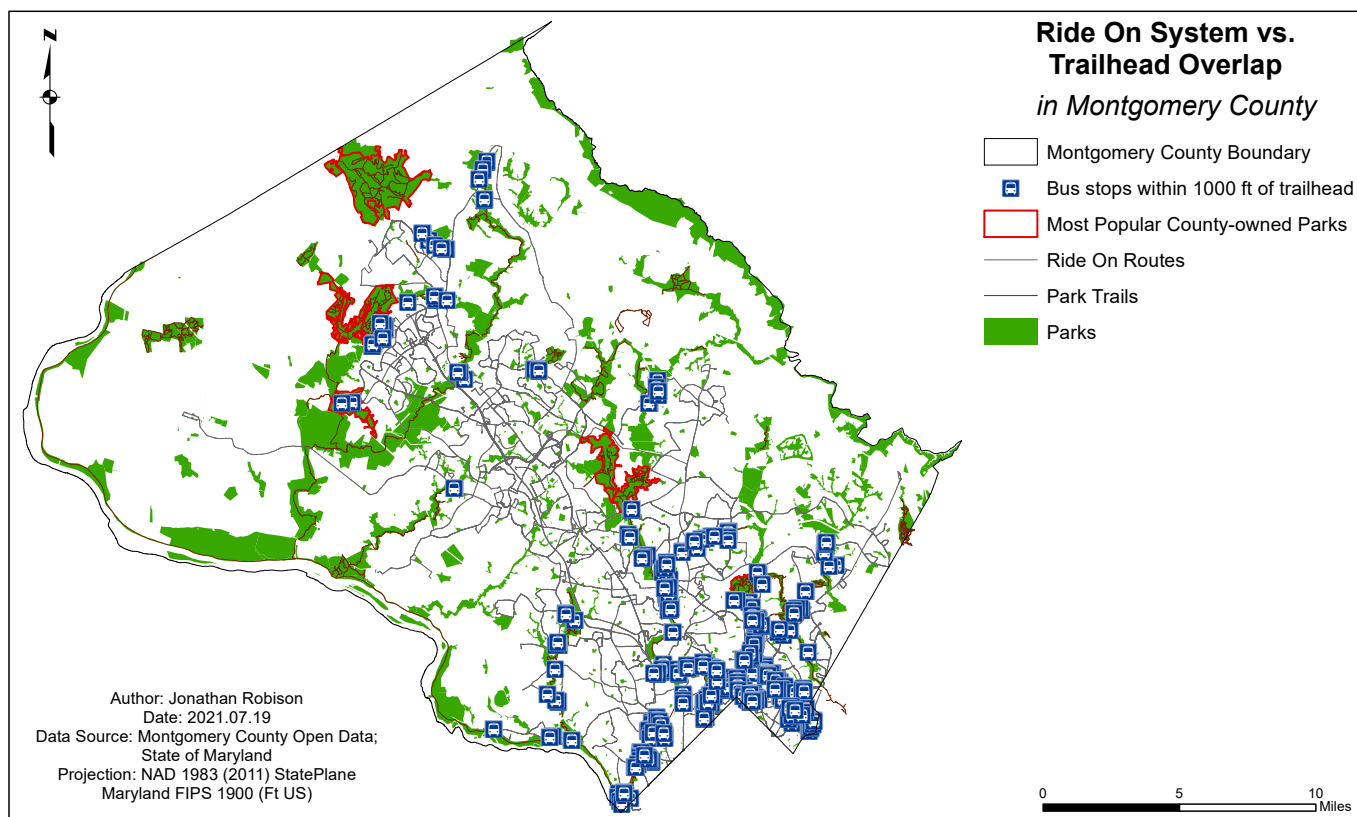
with the county's Equity Focus Areas, or those areas that the county has identified as having "high concentrations of lower-income people of color, who may speak English less than well." According to Montgomery Planning, 26.5 percent of the county's population lives in one of these Equity Focus Areas.⁶



Juxtaposing vehicle availability vs. park space in the county demonstrates a disconnect between Down County and Up County. While many areas of Down County that lack vehicle availability are proximate to smaller urban and local parks, and even some larger parks or linear parks, they are far removed from the largest parks in the county, which are predominantly found in Up County. This includes three of the five most popular county-owned parks: Black Hill Regional Park, Little Bennett Regional Park, and South Germantown Recreation Park.

⁶ (*The Equity Focus Areas Analysis*, n.d.)

Existing Bus vs. Parks Nexus in Montgomery County



For those who lack access to private vehicles, there is of course the Ride On system to help serve their needs. According to an analysis of available data, there is some overlap between the existing Ride On system and the park and trail network in the county. Of the 4827 stops in the Ride On system, 512 stops are within 1000 ft of a trailhead or park access point, about 10.6 percent of all stops.

Of these 512 stops, most are unsurprisingly concentrated in Down County, nearest smaller urban parks. Still, many of the largest parks, with the most space and greatest number of public amenities, are wholly beyond access by the current Ride On transit system.

It should be noted that actual trailhead specific data were not available and therefore had to be derived through further analysis. Trailheads or park entrances were derived by determining points where a trail or path intersects with roads or streets. For the analysis done in this paper, these intersect points served as a proxy for trailheads. 1000 ft (measured by straight radial distance, not based on distance traveled along the

street network) was set as a proximate for about a 5-minute walk. This map also does not consider other issues like bus scheduling, headways, and stop infrastructure that can determine actual accessibility. For instance, a bus stop may be within a 1000 ft radius of a trailhead but in actuality the road network or other obstacles may cause the on-foot-journey from the bus stop to the trailhead to be much longer. Or there might be a proximate bus stop, but it only sees services every few hours on weekdays. These issues will be further discussed in following sections of this paper.

Based on the above analysis, there is a clear, demonstrable need to improve and expand access to green spaces across the county. The core question for the remainder of this body of work will be examining ways to rectify this issue and will be centered around answering the following how-can-we statement:

**How can we make it easier for people and communities
without cars to access green spaces?**

Existing Examples

In order to answer the above how-can-we statement, it is important to consider real-world examples of transit to trails service in the United States and whether any of those services could serve as a model for any such service in Montgomery County. Below is a summary of some noteworthy efforts:

Previous Attempts in Montgomery County

According to interviews with MCDOT and Montgomery Parks staff, there have been no serious attempts to create devoted transit to trails service. Occasional, one-time shuttle bus services have been implemented for large events or as part of promoting a ‘car-less’ day. But no comprehensive, dedicated service has ever been implemented nor attempted. Despite that, staff at both MCDOT and Montgomery Parks have expressed support and general interest in this idea.

King County Metro: Trailhead Direct

Seattle’s Trailhead Direct service is the premiere example in the United States of transit to trails service. A joint effort between King County Parks and King County Metro, Trailhead Direct offers seasonal transit service that operates on weekends and designated holidays (Independence Day and Labor Day) and provides access from the Seattle urban core to popular hiking trails and recreation destinations along the I-90 corridor to the east during the peak season.



Trailhead Direct was launched in 2017 as a two-year pilot program in partnership with the U.S. Forest Service, the Washington State Department of Natural Resources, municipalities in the region, and many interest groups including the Environmental Coalition of South Seattle, the Issaquah Alps Trails Club, Mountains to Sound Greenway Trust, REI Co-op, the Mountaineers, The Wilderness Society, and the Washington Trails Association.

When service first began in 2017, the aim was to decrease congestion and demand on parking lots at the Issaquah Alps and Mount Si. When parking lots were full, traffic

would spill over onto local roads and visitors would need to dangerously walk along busy roadways. The 2017 Trailhead Direct season operated from early August to mid-October along two routes. Service ran every thirty minutes from about 7AM to 7PM each weekend day, for a total of 23 trips each day. That year Trailhead Direct carried 900 passengers who each paid the standard off-peak fare of \$2.50. The total cost to King County Metro was \$44,000 – lower than initially budgeted \$56,000.⁷

In 2018, there were 20,373 boardings and by 2019 service usage skyrocketed. During the 2019 season, which ran from April through the end of October, Trailhead Direct had 35,838 boardings or about 17,500 roundtrip trips made. Due to the success of the service, a third route to Cougar Mountain was added. An analysis of the 2019 season showed that 65 percent of all riders took public transportation to reach Trailhead Direct stops and that 71 percent of riders do not own cars. Additionally, one-third of all riders actually used the service for non-hiking purposes, such as commuting shopping, or other needs – demonstrating a previous lack of transit access for these groups and areas and that transit service was welcomed.⁸

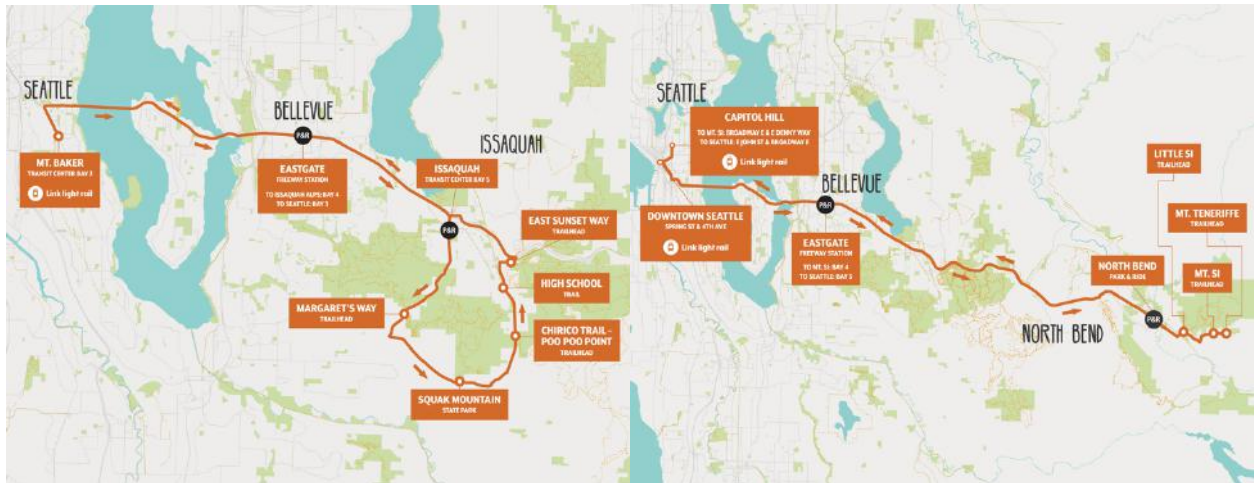
Due to the COVID-19 pandemic, service was suspended in 2020. But Trailhead Direct resumed operations in June 2021 for the season running through the end of September. Service was pared back to two routes, running every 30 minutes on the Issaquah Alps route and every 20 minutes on Mount Si route. Trip times from central Seattle to the furthestmost stops on the current routings run roughly 40 minutes to an hour. Each route begins at a central transit node in central Seattle, makes an intermediate stop in Bellevue, and then continues to trailheads and mountain destinations before making the return trip to Seattle. Some stops are at park and ride facilities to encourage suburban car users to drive there and then pick up the service as well.

Trailhead Direct service is integrated with Seattle’s existing payment and trip planning system and operates 13, 17, 19, and 27-seat vehicles along its routes. Each vehicle is

⁷ (Bush, 2017)

⁸ (Belltown, 2020)

equipped with a bike rack that can carry up to two bikes – though biking is prohibited at many of the trail destinations. Standard fare is now \$2.75 for adults, \$1.50 for youths and Orca Lift (King County Metro’s income qualified reduced fare program), and \$1 for seniors, Medicare, and disabled riders. Children aged 5 and under ride free.



Above: 2021 service routing and maps (from Trailhead Direct website)

Below: 2019 promotional poster with routes and branding (from Trailhead Direct website)





Above: Trailhead Direct vehicles and livery (from Trailhead Direct website and King County website)

Pasadena Transit: Route 88

In April 2018, Pasadena Transit launched a pilot program to transport passengers from the LA Metro Gold Line’s Memorial Park Station to the Sam Merrill Trailhead, a popular hiking trail in the San Gabriel Mountains. The six-month pilot program was a partnership between Pasadena Transit, Metro, the Trust for Public Land, the Wilderness Society, Edison International, and LA County Supervisor Kathy Barger.



Using CNG busses, the service operated every 30 minutes from 7AM to 5PM on Saturdays and Sundays between the trailhead and the Metro station, a 23-minute journey. Supervisor Barger said at the opening that the new route “expands access to

open space recreation and provides another option to improve regional transit connectivity for our residents in the Altadena community.”⁹ By mid-June, the service had transported 5,106 passengers – or an average of 638 per weekend – who each paid 75-cents for a one-way trip or 50-cents if transferring from LA Metro. Monthly operating costs were estimated at \$12,000.¹⁰



Above: Opening day celebrations for Route 88 Service in 2018, from the Twitter of Andrea Alday: <https://twitter.com/akalday/status/982660441670270976>

Service was eventually discontinued, with the pilot program not being extended beyond its September 2018 end date. The service was met by opposition from local residents who complained about the noise of bus service as it passed through residential neighborhoods. Many say they were frustrated by

Pasadena Transit’s lack of engagement and partnership in planning the route that impacted their quality of life. Service was switched to a smaller bus in part to rectify noise complaints. Additionally, data from Pasadena Transit showed that only about 6–9 percent of all on-and-off boardings were at the trailhead, compared to 28 percent at the first stop in a neighborhood.¹¹ Like Trailhead Direct, locals were using the service for purposes other than what it was initially designed for.

⁹ (Pasadena Transit Announces - Transit to Trails Bus Service, 2018)

¹⁰ (Pasadena’s New “Transit-to-Trails” Route 88 Bus Service Proves Successful, Transports Over 600 Riders Per Weekend – Pasadena Now, 2018)

¹¹ (“Loma Alta Portion of Pasadena Bus Route 88 to Be Eliminated,” 2018)

Skamania County Transit: Columbia River Gorge Service and Dog Mountain Trail Shuttle



Skamania County Transit (SCT) provides limited service in this rural county in Washington State, located across the Columbia River Gorge from Oregon. It offers east-west service along Washington State Route 14/Evergreen Highway from Carson to the Fisher's Landing Transit Center in Vancouver, WA, providing connectivity to the greater Portland region. Service runs two-to-three times each weekday in each direction.¹²

In 2014, under their former branding of WET Bus (West End Transit), the department attempted to provide weekend transit to trail service connecting riders from the Portland area via Vancouver to major trailheads along WA-14. This service was made possible through a grant from the Western Federal Lands division of the Federal Highway Administration, the Washington Department of Transportation, Friends of the Columbia Gorge, and tourism funds from the governments of Stevenson, North Bonneville, and Skamania County. In the end the service was suspended after that first season due to low ridership, with a department representative estimating that ridership during the four-month pilot period ranging somewhere between 15-20 people total.¹³

Today, SCT offers two services for recreational travelers. The first is a simple flag stop system. Anyone can request a bus driver to drop them anywhere along a route or flag down a passing bus for pick up, even at non-established bus stops. In theory, any hikers at any of the many trailheads along WA-14 could flag down a passing bus for service. However, such functionality is very limited given SCT's limited regular service, only on weekdays.¹⁴

Second is the Dog Mountain Shuttle. This service is offered in conjunction with the U.S. Forest Service (USFS) and supported by other local transit agencies in the Gorge,

¹² (Public Transportation / Skamania County, n.d.)

¹³ From phone call with Mandy (last name unknown) at Skamania County Transit

¹⁴ (Public Transportation / Skamania County, n.d.)

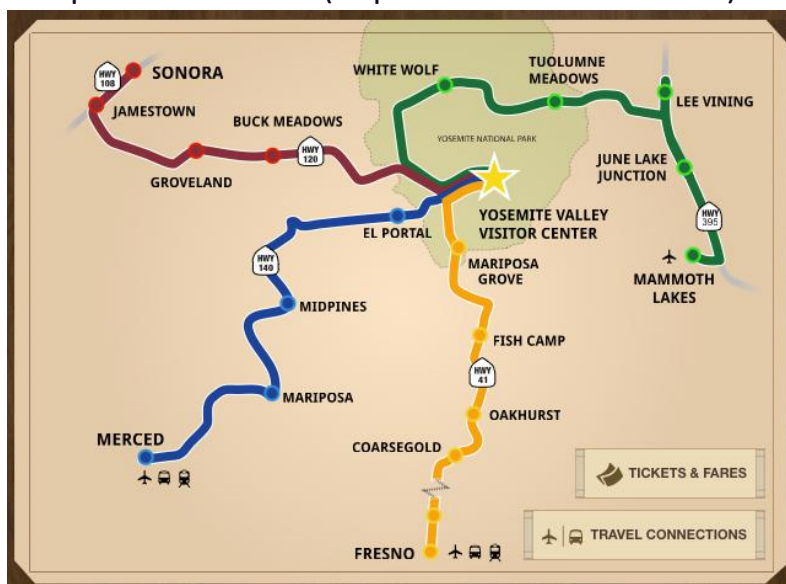
traveling about 20-minutes from the Skamania County Fairground in Stevenson to the Dog Mountain trailhead, every 30-minutes during the peak season of late-April to mid-June. The shuttle service allows any visitors who uses it forgo the \$1 permit fee to visit the trail or the \$5 pass fee to park at the small parking lot adjacent to the trailhead during weekends. The frequent overcrowding at Dog Mountain helped push stakeholders from USFS and local counties into creating the shuttle service, which carries thousands of people each season according to SCT.¹⁵

YARTS: Yosemite Area Regional Transportation System Bus



Created in 2000 by the Merced County Association of Governments as a way to decrease traffic congestion in and around Yosemite National Park (NP), YARTS is a public, intercity bus service offering access to Yosemite. Since its inception, YARTS has carried more than 1,000,000 passengers on its four intercity lines, connecting Yosemite Valley visitors with the cities of Merced, Fresno, Mammoth Lakes, and Sonora. YARTS operates year-round on the Merced-Yellowstone route and seasonally on all other routes. The service allows visitors to reach Yosemite NP car-free from major transportation nodes (airports and train stations) in the region and delivers riders to

the park's central hub at Yosemite Valley, where lodging facilities and shuttles departing for popular destinations within the park are located.¹⁶



Roundtrip fares range from approximately \$20-\$50 depending on the destination and zone, and perhaps most importantly, **all YARTS fares**

¹⁵ From phone call with Mandy (last name unknown) at Skamania County Transit

¹⁶ (About YARTS - YARTS - Public Transit to Yosemite, n.d.)

includes the entrance fee for Yosemite NP. According to Title VI Program report for fiscal years 2014-2017, YARTS receives \$300,000 annually from the US Department of Transportation as part of the FTA 5311(f) Intercity Bus grant program. While YARTS does own and operate its own fleet, it also contracts services with VIA Adventures for some bus services when necessary. Additionally, while visitors to Yosemite NP make up the majority of YARTS riders, park employees commuting to work daily are a significant minority of the system's ridership.¹⁷

New Jersey TRANSIT: Map Feature



New Jersey TRANSIT's transit to trails service is not actually new or dedicated service to public green spaces in the state. Rather, it is a dedicated page on their website featuring an interactive map of their system and green spaces across the state that are accessible by public transit.



Transit to Trails

Giving Everyone Access to the Great Outdoors

As the Garden State, New Jersey boasts numerous parks and recreational areas to enjoy. These beautiful areas provide residents and visitors the opportunity to get outdoors and enjoy hiking, biking, fishing, swimming, and more.

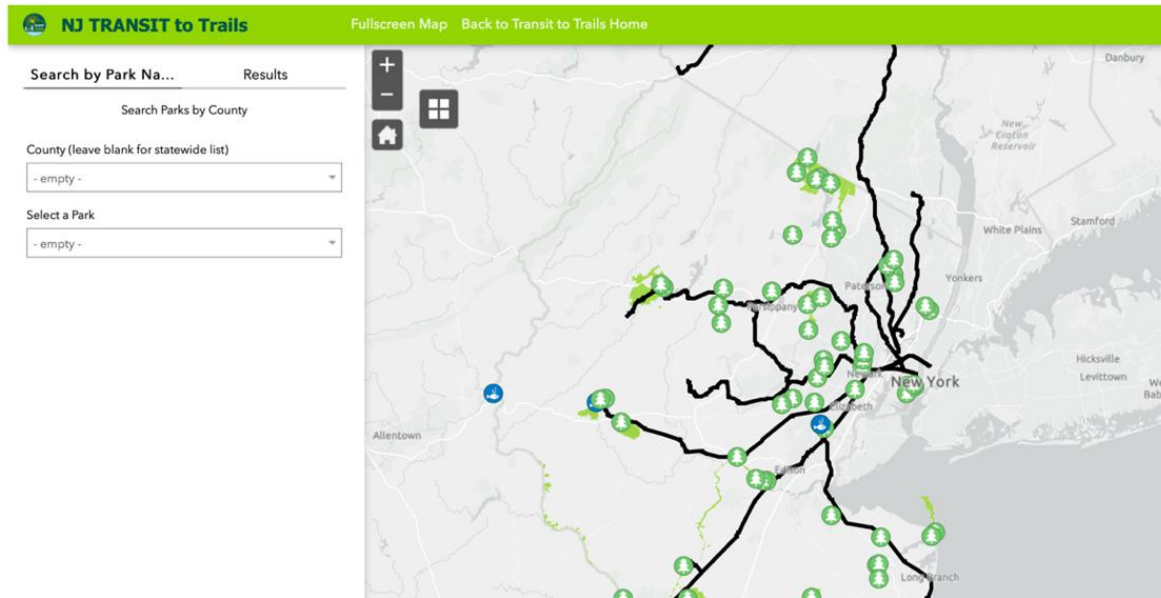
NJ TRANSIT's new Transit to Trails program gives everyone the ability to access over 60 parks in all 21 New Jersey counties via our bus, light rail, rail, or [Access Link](#) services.

Our interactive map below lets you search by park name or view a virtual map of the state with different park locations designated. Each destination has clickable access points comprised of park entranceways, parking lots, or meeting areas. Service options for each of these areas, park info, and directions are all accessible from a pop-up that appears at each access point.

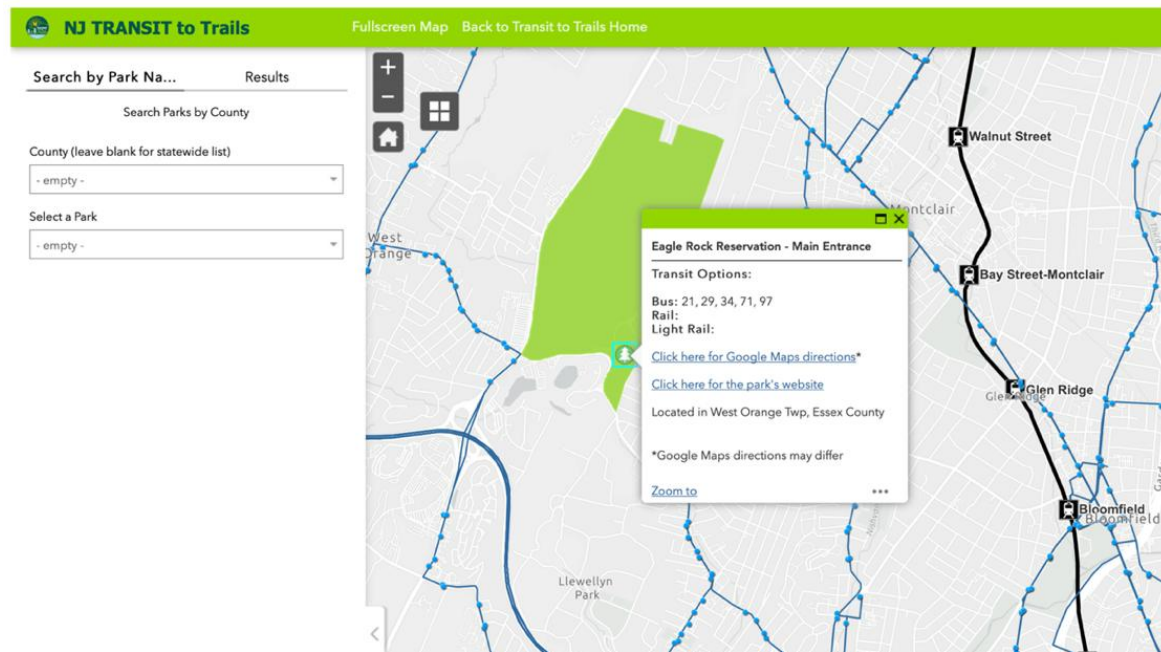
Bikes and other personal vehicles are a great way to experience parks in New Jersey. Learn about traveling on NJ TRANSIT with yours [here](#).

¹⁷ "Yosemite Area Regional Transportation System (YARTS) Title VI Program FFY 2014-2017." YARTS, YARTS, Yosemite Area Regional Transportation System (YARTS) Title VI Program FFY 2014-2017.

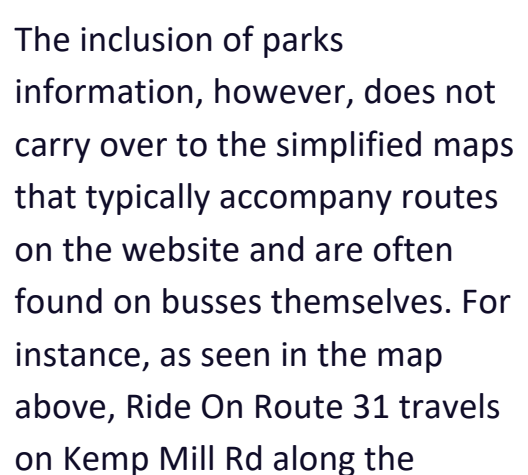
Click on the map below to explore where Transit to Trails can take you!



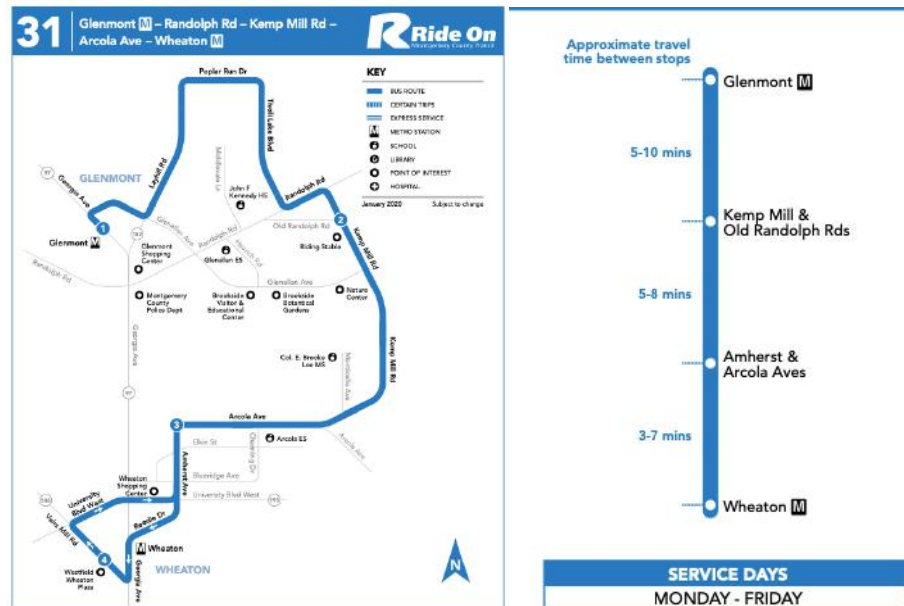
Click on the map below to explore where Transit to Trails can take you!



This can be as simple as changing existing Ride On routing maps to emphasize where



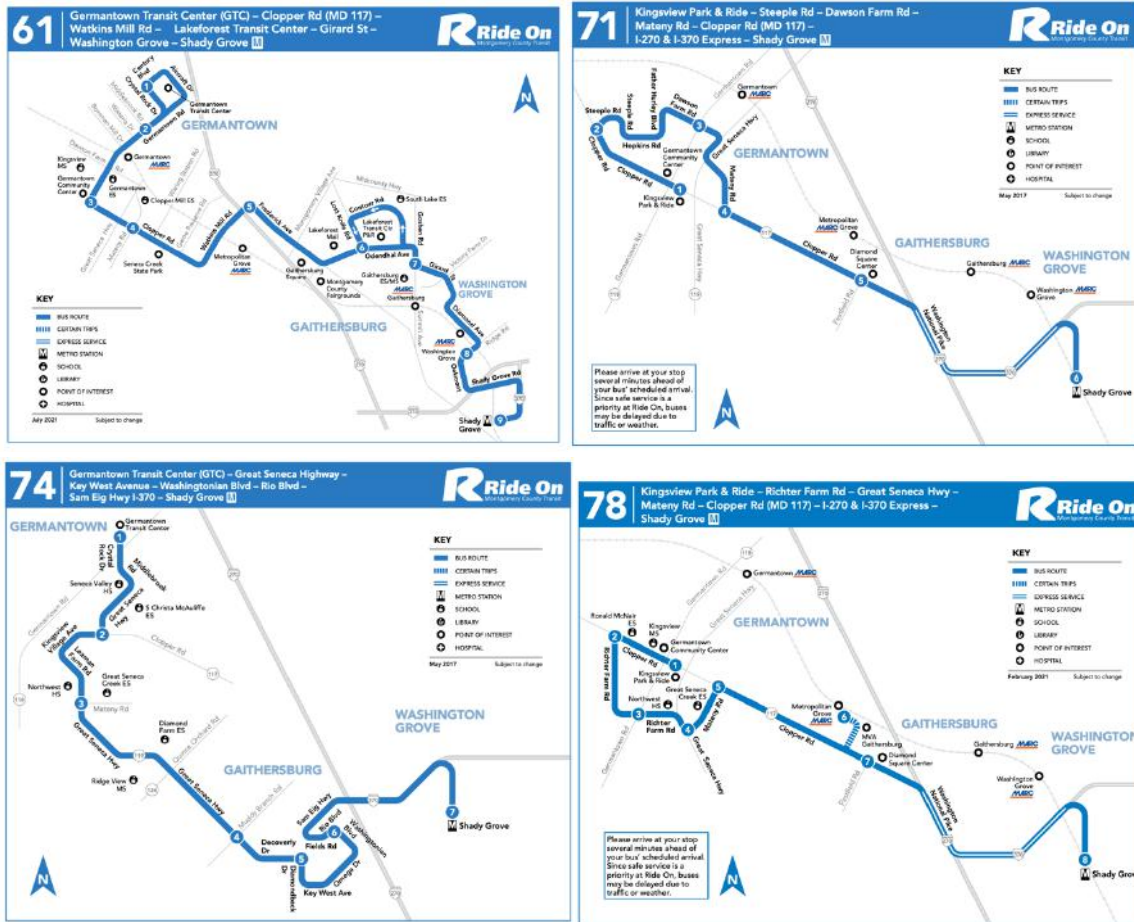
eastern edge of Wheaton Regional Park, the second most visited park in the entire Montgomery Parks system. But the simplified route map for Route 31 and schedule (below) does little to tell one that this is the case nor where one would alight to access the park.



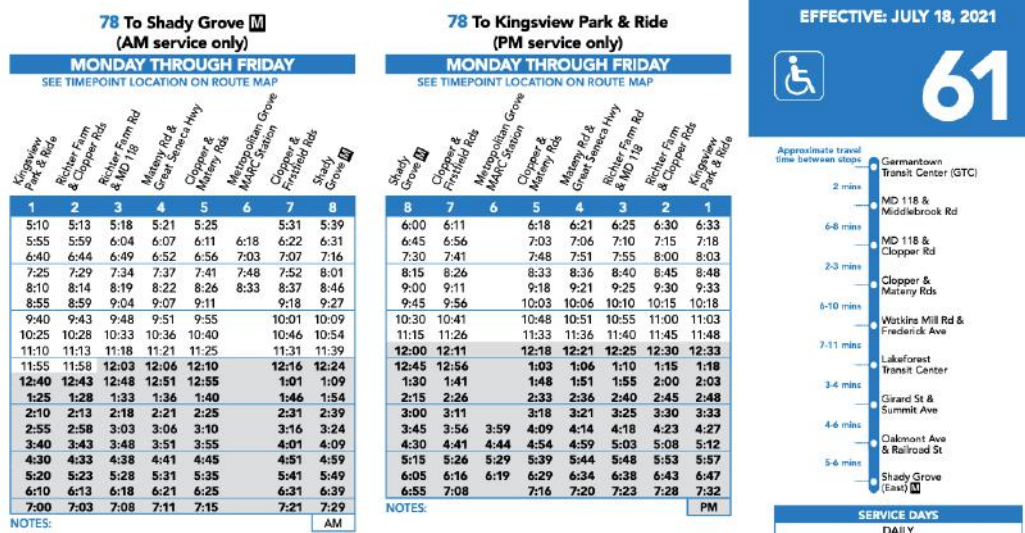
Similarly, routes 61, 71, 74, and 78 pass through Seneca Creek State Park along Clopper Road and Great Seneca Highway, as seen in the total system map:



But when examining the individual maps for those routes, there is again a lack of information.



In the maps above, only the Route 61 map displays that the bus passes Seneca Creek State Park. None of the scheduling data or other maps (in print or online) show where along the route a rider could access the park (see below).



Below is the summary of routes 71 and the 31 as displayed on Ride On's website, listing major stops and streets. Both pass through or adjacent to parks, Seneca Creek

State Park and Wheaton Regional Park respectively. Both in fact have existing bus stops located at major entrances to these parks, but this information is not denoted anywhere on either the print/PDF or online route information or schedules.

Route Information

[Route 71 map](#)

Route 71 operates between these stops:

- Shady Grove Station
- I 370, I-270 Express
- Clopper Rd-MD 117
- Mateny Rd
- Dawson Farm Rd
- Hopkins Rd
- Steeple Rd
- Kingsview Park & Ride

Route Information

[Route 31 map](#)

Route 31 operates between these stops:

- Glenmont Station
- Glenallan Ave
- Layhill Rd
- Poplar Run Dr
- Tivoli Lake Blvd
- Randolph Rd
- Kemp Mill Rd
- Arcola Ave
- Amherst Ave
- Wheaton Station
- Germantown Transit Center

Recommendation: Ride On should add information to these materials to help denote the presence of a park and where one should alight to access it. Doing so could be as simple as adding a labelled, shaded area on the maps or placing a tree symbol like 🌳 next to a stop name in any pamphlets or the Route Information section online. Ride On already does this on its route maps to denote schools, libraries, and hospitals along or near the bus line (see any of the above route maps). It should extend such practice to large parks and recreation spaces as well. This could be particularly useful for riders who have limited digital proficiency and literacy or lack internet access.

Proposal 2: Medium Intensity – Interactive Online Map

Similar to the website feature created by New Jersey TRANSIT, the County – whether through MCDOT or Montgomery Parks (or in partnership with both) – should develop an interactive wayfinding map feature allowing local residents and visitors to find information on how to access a park through the existing public transportation network.

Already, the County has made significant investments in GIS mapping capabilities. This includes an interactive map through ESRI and ArcGIS Online for Montgomery Parks and the MCAtlas. These are the same service providers that NJ TRANSIT uses to power its interactive Transit to Trails map. See below for the map system (MC Atlas) that Montgomery Parks uses to help residents find parks and trails near their location.



Recommendation: The county should examine building upon the MCAtlas to better improve way finding and trip planning. Currently, MCDOT directs online users to Google Maps for trip planning within the Ride On system. While Google Maps is a powerful and useful tool, it is still a third-party service that is not directly controlled by MCDOT or the county. Therefore, it can be difficult to ensure that riders and customers are provided with the latest information about service changes, routing updates, and bus stop locations.

Changes to Existing Service

While the above proposals provide some small steps toward improving legibility of the existing Ride On network for customers seeking to access parks, they are inherently limited. They do nothing to address the fundamental lack of access to many greenspaces by transit that the first part of this report highlighted. Larger, and therefore tougher, service changes are required to properly implement any vision for transit to trails and to tackle the equity issues more comprehensively.

Proposal 3: Medium Intensity – Adding or Improving Weekend Service

Currently, service to many areas of the county is limited to weekdays, and particularly during rush hour. This is of course understandable given Ride On's purpose and role in the county transportation system. However, to support non-commuting customers

across the county, Ride On should consider extending weekend service to some routes on a limited basis.

Example 1 – Wheaton Regional Park:

Wheaton Regional Park is the second most popular park in the entire Montgomery Parks system. It is centrally located in some of the most densely populated parts of the county as well as near several equity focus areas. Because of this, it will be examined in more depth to serve as an example.

Despite its location, the park can be difficult to access by transit. The park can be reached by three routes (Route 9, 10, and 31) which travel near the park's northern, eastern, and southern edges on Randolph Rd, Kemp Mill Rd, and Arcola Ave respectively. The park is also reachable along the northern edge on Randolph Rd by WMATA Metrobus route C8. Since this route is not under MCDOT's direct control, it will not be examined at depth.

Route 31 is the most geographically comprehensive service, traveling along all three sides of the park. The closest stops to the park are the stops at Kemp Mill Rd & 12439 (Stop IDs 28086 and 28084) on the eastern edge; Arcola Ave & Orebaugh Ave (Stop IDs 20088 and 20062) near the southwest corner; and at Randolph Rd & Heurich Rd (Stop IDs 28478 and 2000717) near the northwest corner. Yet Route 31 does not have any weekend service, the most popular time to visit the park. Even during weekdays, Route 31 runs very limited service – operating on one-hour headways just three or four times each morning and evening. Between 9AM and 4PM on weekdays, there is *no* service on this route at all.

Route 9 serves the same Arcola Ave & Orebaugh Ave stops (Stop IDs 20088 and 20062) at the southwest corner of the park. It runs at far more frequent intervals (20 – 40-minute headways during weekdays; 40-minute headways during the weekends) and every day of the week. This provides access only at the far southwestern edge of the park though, close to the athletic complex of baseball fields and tennis courts, but far from other park features. There is also no sidewalk connectivity between these bus stops and the park's athletic complex.

Route 10 serves the stops at Randolph Rd & Heurich Rd (Stop IDs 28478 and 2000717) near the northwest corner of the park, which are a 7–10-minute walk from the nearest entrance to the park at Brookside Gardens. Route 10 also runs each day of the week, with 40-minute headways on weekends. Yet any rider using Route 10 to access the park may have to cross six lanes of traffic at Randolph Road (where there are *no* crosswalks) before accessing just the very northwest corner of the park. The playgrounds and athletic fields are another 15 – 20-minute walk beyond Brookside Gardens.

Recommendation: Service frequency increases to all routes, particularly to Route 31, along with infrastructure improvements like painting crosswalks and adding sidewalks could increase access to Wheaton Regional Park. Wheaton Regional Park and these routes are just one example, however, and MCDOT should further analyze what other bus routes could benefit from increased or added weekend service to provide improved access to parks.

Example 2 – South Germantown Recreational Park

The fifth most popular park in the Montgomery Parks system, South Germantown Recreation Park is only served by Route 98 on a very limited basis – only on Saturdays with 50-minute headways. The current Route 98 timetable does not list any of the times the bus services the park at all (see below for Saturday timetable):

98 To Germantown Transit Center									
SATURDAY									
SEE TIMEPOINT LOCATION ON ROUTE MAP									
Kingsview Park & Ride	Richer Farm Rd & Copper Rd	Father Hurley Blvd & Winters Dr	Wingspan Dr & Wynfield Dr	Father Hurley Blvd & Waters Landing Dr	Germantown Transit Center (GTC)				
1	5	6	7	8	9				
8:20	8:27	8:36	8:40	8:44	8:46				
9:10	9:17	9:26	9:30	9:34	9:36				
10:00	10:07	10:16	10:20	10:24	10:26				
10:50	10:57	11:06	11:10	11:14	11:16				
11:40	11:47	11:56	12:00	12:04	12:06				
12:30	12:37	12:46	12:50	12:54	12:56				
1:20	1:27	1:36	1:40	1:44	1:46				
2:10	2:17	2:26	2:30	2:34	2:36				
3:00	3:08	3:18	3:22	3:26	3:29				
3:50	3:58	4:08	4:12	4:16	4:19				
4:40	4:48	4:58	5:02	5:06	5:09				
5:30	5:37	5:46	5:49	5:52	5:54				
6:20	6:27	6:36	6:39	6:42	6:44				
7:10	7:17	7:26	7:29	7:32	7:34				
NOTES:					AM	PM			

98 To Kingsview Park & Ride									
SATURDAY									
SEE TIMEPOINT LOCATION ON ROUTE MAP									
Germantown Transit Center (GTC)	Father Hurley Blvd & Waters Landing Dr	Wingspan Dr & Wynfield Dr	Father Hurley Blvd & Winters Dr	Richer Farm Rd & Copper Rd	Kingsview Park & Ride				
9	8	7	6	5	1				
8:35	8:39	8:42	8:46	8:54	9:01				
9:25	9:29	9:32	9:36	9:44	9:51				
10:15	10:19	10:22	10:26	10:34	10:41				
11:05	11:09	11:12	11:16	11:24	11:31				
11:55	11:59	12:02	12:06	12:14	12:21				
12:45	12:49	12:52	12:56	1:04	1:11				
1:35	1:39	1:42	1:46	1:54	2:01				
2:25	2:29	2:32	2:36	2:44	2:51				
3:15	3:20	3:23	3:27	3:36	3:43				
4:05	4:10	4:13	4:17	4:26	4:33				
4:55	5:00	5:03	5:07	5:16	5:23				
5:45	5:50	5:53	5:57	6:06	6:13				
6:35	6:40	6:43	6:47	6:56	7:03				
7:25	7:30	7:33	7:37	7:45	7:52				
NOTES:					PM				

EFFECTIVE: SEPTEMBER 27, 2020

98

Approximate travel time between stops

3-5 mins

5-10 mins

10-15 mins

15-20 mins

20-25 mins

25-30 mins

30-35 mins

35-40 mins

40-45 mins

45-50 mins

50-55 mins

55-60 mins

60-65 mins

65-70 mins

70-75 mins

75-80 mins

80-85 mins

85-90 mins

90-95 mins

95-100 mins

100-105 mins

105-110 mins

110-115 mins

115-120 mins

120-125 mins

125-130 mins

130-135 mins

135-140 mins

140-145 mins

145-150 mins

150-155 mins

155-160 mins

160-165 mins

165-170 mins

170-175 mins

175-180 mins

180-185 mins

185-190 mins

190-195 mins

195-200 mins

200-205 mins

205-210 mins

210-215 mins

215-220 mins

220-225 mins

225-230 mins

230-235 mins

235-240 mins

240-245 mins

245-250 mins

250-255 mins

255-260 mins

260-265 mins

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930-935 mins

935-940 mins

940-945 mins

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965-970 mins

970-975 mins

975-980 mins

980-985 mins

985-990 mins

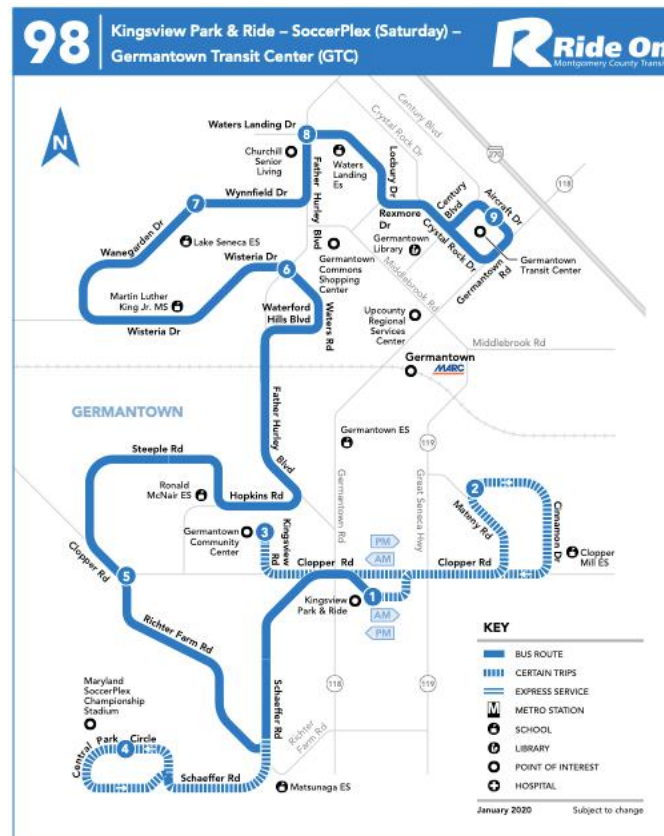
990-995 mins

995-1000 mins

SERVICE DAYS: MONDAY – SATURDAY

Again, the route map for the 98 (below) does not denote in any symbolic way the presence of a park along the route, like it does for elementary schools or libraries. It also only labels the park as the SoccerPlex Stadium despite the fact that the stadium is

but one of the many features in the park including soccer fields, tennis courts, a driving range, mini-golf, boating lake, splash park, baseball fields, and the Dairy Mooseum.



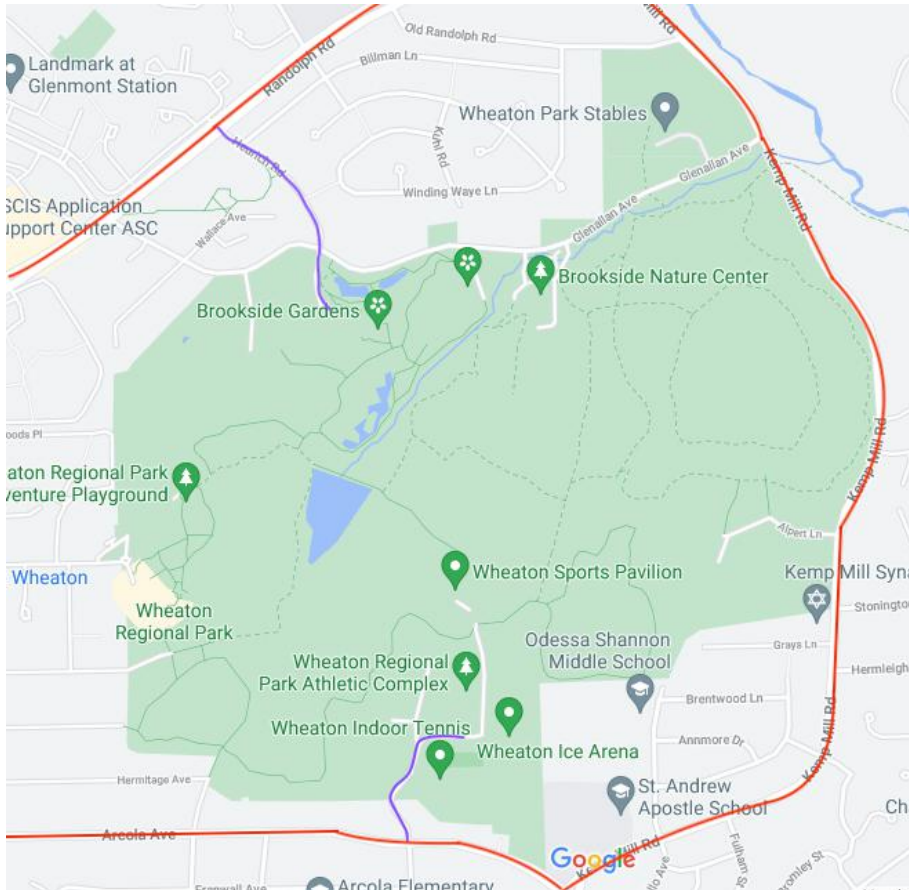
Recommendation: Labelling should be updated to reflect the entire park – not just one feature of it. On top of these category of improvements (as suggested in proposal 1), MCDOT should consider improving the timetables so that bus times to the SoccerPlex Stadium are displayed. Finally, MCDOT should also investigate increasing headways on this route as well as adding Sunday service.

Proposal 4: Medium/High Intensity – Minor Alterations to Existing Routes

While the above examples and recommendations deal exclusively with changes that could be made to existing service along existing routings, small alterations to those routes could be implemented to better serve greenspaces.

Example 1: Brookside Gardens and Wheaton Regional Park

As already noted, Wheaton Regional Park is both heavily visited and near three existing Ride On routes, the 9, 10, and 31. Small detours from those routes directly to destinations just within the park could improve accessibility and encourage visitors to forego vehicle use. In the map below, existing bus routings are in red, proposed detours are in purple:



There are no doubt other parks within the system where slight service and routing modifications could improve accessibility. Given Wheaton Regional Park's centralized location and popularity, it is likely the best candidate for these changes, benefitting the most visitors and riders. As outlined previously, nearby stops additionally have several 'last-mile' hurdles like lack of crosswalks and

sidewalks. Such detours could improve safety by delivering riders directly to popular park features yet are short enough to not significantly inconvenience other riders or impact the schedule.

Recommendation: Slightly alter existing bus routes to better deliver riders and visitors to the main park attractions and facilities. Existing infrastructure appears to support suggested detours. Brookside Garden's main visitors center already has a paved access road and loop area that could be used for boarding and alighting as well as bus turn around. The Athletic Complex in the southern edge of the park also has paved road access and several parking lot areas that should allow for a bus to turn around.

New Service

Proposal 5: Highest Intensity – Creating New, Dedicated Transit to Trails Service

Of the busiest and largest parks in the county, most are inaccessible by the current Ride On network. This is either in actuality, as in there are no bus routes or stops near the park at all, or functionally, as in there are bus stops nearby but their location or service levels are not conducive to promoting visits by via public transit. This includes Montgomery Parks facilities, such as Black Hill Regional Park and Little Bennett Regional Park; State of Maryland parks like Seneca Creek State Park and McKee-Beshers Wildlife Management Area; and the one Federal level park, the C&O Canal and Great Falls.

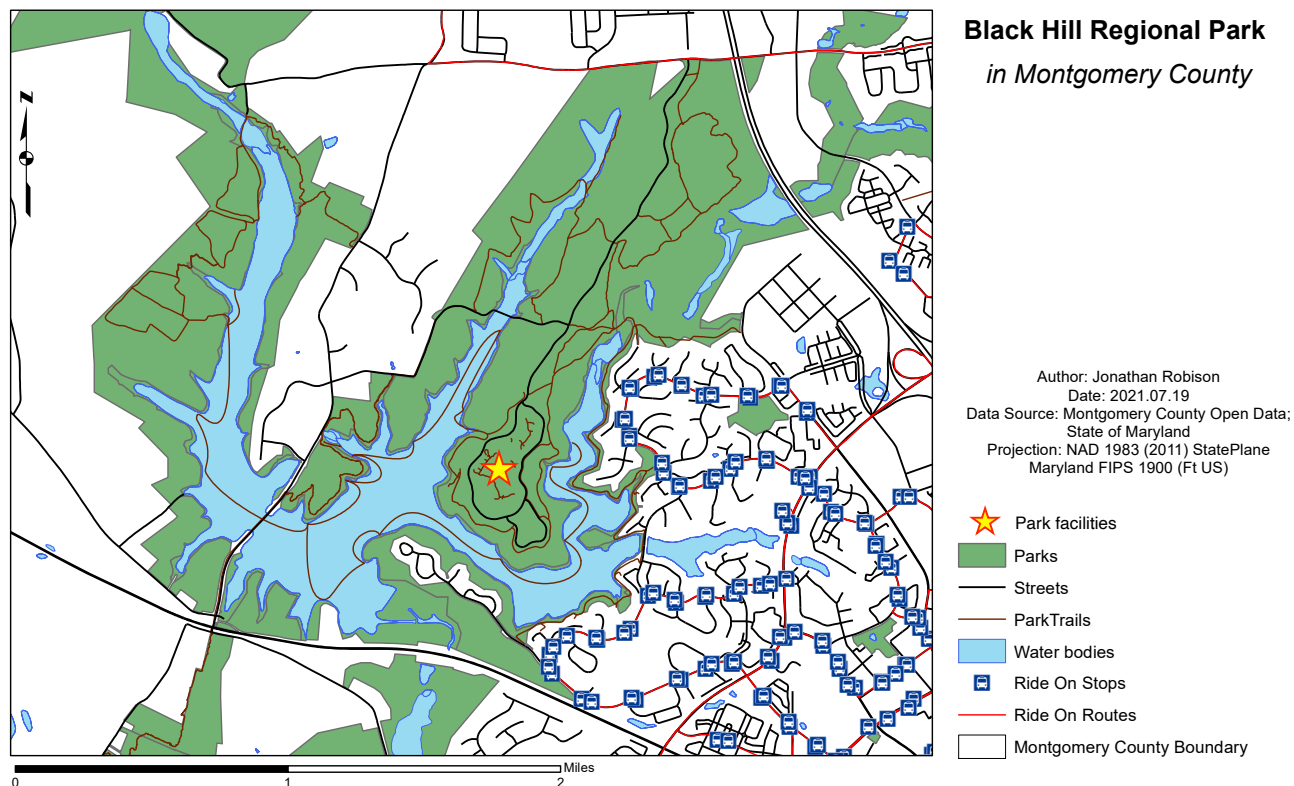
Creating such service is no doubt an expensive endeavor. It requires at a minimum both equipment and personnel time to implement, to say nothing of other infrastructure changes required to support bus service – from paving roads and adding sidewalks, to ensuring there is sufficient space for a bus turn around and layover area at final destinations.

Such service should be primarily focused on a select few destinations, limited to weekends during the peak outdoor season (April – October), but also have realistic headways that make transit visits possible.

Example 1: Black Hill Regional Park

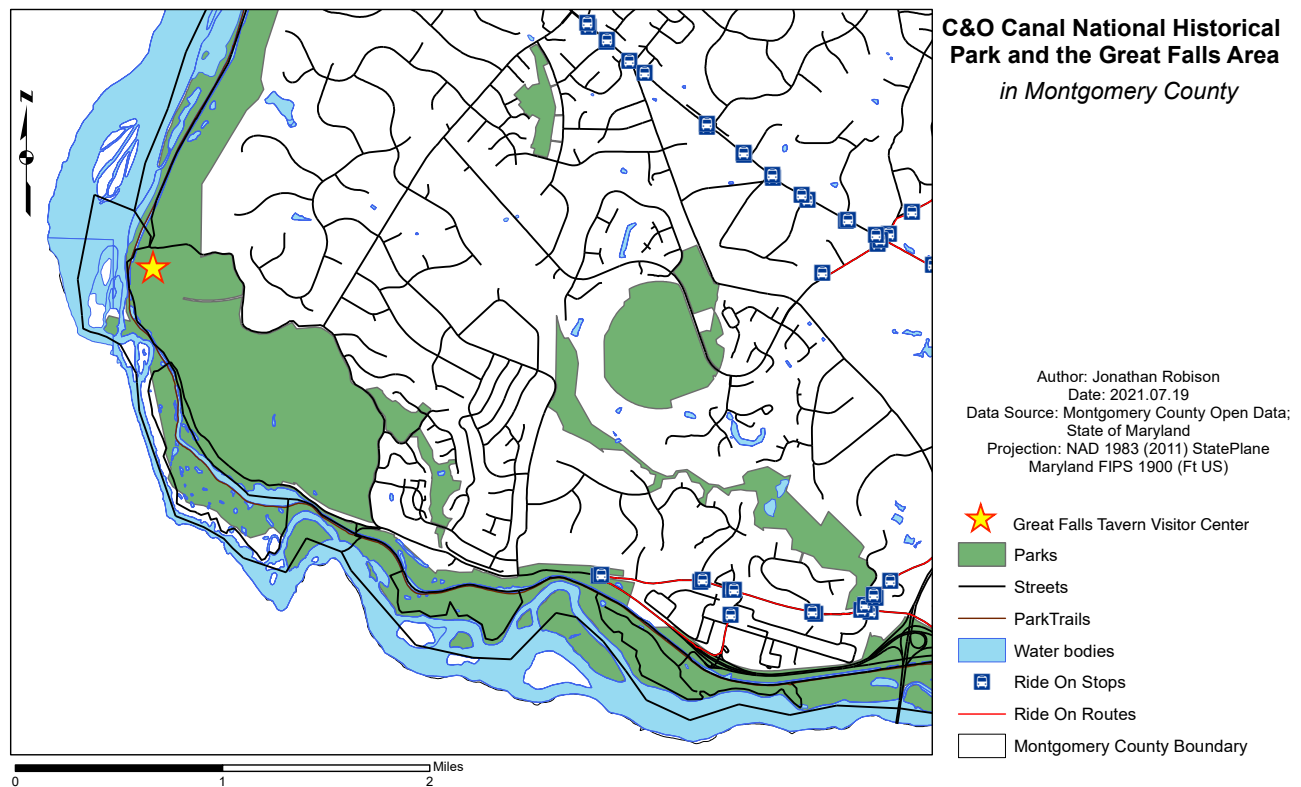
Black Hill Regional Park is one of the largest and most popular parks in the county's system. It offers recreational activities including boating, fishing, nature programming, biking, hiking, and picnicking amongst others. Contained within the park is Little Seneca Lake which supports a myriad of wildlife including colonies of beavers, bald eagles, and blue herons. Despite the park's size and its plethora of available activities, it is only marginally accessible by Ride On. Routes 83 and 98 only serve peripheral neighborhoods around the eastern edge of the park. Theoretically, visitors could use those routes to access the park by alighting in those neighborhoods and entering the park along one of the trailheads. However, the heart of the park and its main visitor

facilities are quite a distance from those bus stops/trailheads and is currently only accessible by private car. See map below:



Recommendation: MCDOT and Montgomery Parks should examine the possibility of adding transit service to the park on popular weekends during the peak season. This could be done by altering the service routing of an existing bus route (though the distance of such an alteration would be significant given the roadway network) or by creating dedicated service to the park as deemed appropriate based on visitor data. The infrastructure at Black Hill Regional Park appears to support bus service, with all major roads paved and several parking areas near the visitor's center that could serve as a bus stop or turn around. Such service could deliver riders directly to the main visitor's center before looping around the park and exiting.

Example 2: The C&O Canal National Historical Park and Great Falls



Perhaps the most famous and one of the most visited greenspaces in the county is the Chesapeake and Ohio (C&O) Canal National Historical Park, particularly the areas around the Great Falls on the Potomac. Beyond viewing the waterfalls, visitors can walk along the canal towpath, hike the Billy Goat Trail, enjoy historical interpretations and canal boat rides at the Great Falls Tavern Visitor Center, and white-water raft and kayak the falls (for the very brave).

The National Park Service (NPS) only tracks data for the number of vehicles passing through the toll booth at Great Falls Tavern, not the actual number of persons. According to NPS data, 130,592 *vehicles* accessed the park just at Great Falls Tavern in 2019. That number increased to 137,581 vehicles in 2020 – despite the parking lot being closed to visitors for April and May 2020 due to COVID-19. In 2019 the average monthly number of vehicles was 10,883 across the entire year and 13,213 during the peak season, which runs from April to October. The busiest months in 2019 were June and August, with about 14,500 vehicles each.

The park has seen a significant increase in visitors since the COVID-19 pandemic compared to the immediately preceding years. In January 2021, the park had a 75.75 percent increase in vehicles from January 2020 and an 865.6 percent increase compared to January 2019. January 2021 saw as many vehicles as a typical summer month. October 2020, when 18,711 vehicles entered, was the busiest month at Great Falls Tavern since July 2017.

Traffic Count at Great Falls Tavern Booth (# vehicles)												
Year	J	F	M	A	M	J	J	A	S	O	N	D
2021	16898	7668	17373	16328	17088	14750						
2020	9615	8678	14870	0	0	7120	15068	15517	18163	18711	17137	12702
2019	1750	5012	11841	13013	12527	14458	12351	14533	12708	12904	10823	8672
2018	8267	8125	9217	11238	13224	12807	11971	13865	9012	12471	12534	1750
2017	7568	11431	9116	16921	14147	18742	16630	17218	7397	16398	13521	7166
2016	7833	6508	10853	16137	15950	18525	18749	14951	18856	19872	14266	7647
2015	6195	4673	14810	16254	24841	18236	16630	17018	15232	18147	13032	13525

Data from the NPS: <https://irma.nps.gov/STATS/SSRSReports/Park%20Specific%20Reports/Traffic%20Counts?Park=CHOH>

Year	Yearly Total	Monthly Avg	Monthly Avg (Peak Season April - Oct)
2021 (YTD)	90105	15017.5	16055.33333
2020	137581	11465.08333	10654.14286
2019	130592	10882.66667	13213.42857
2018	124481	10373.41667	12084
2017	156255	13021.25	15350.42857
2016	170147	14178.91667	17577.14286
2015	178593	14882.75	18051.14286

Currently, there is no public transit access at all to the Great Falls area. The closest Ride On stop is located at the corner of MacArthur Blvd and the Clara Barton Parkway (Stop IDs 27748 and 27758), over 3 miles from the Tavern. Those stops are served by Route 32 to the Naval Surface Warfare Center, which only runs on weekdays during peak hours.

Vehicles accessing Great Falls may park for free at a small, gravel parking lot across from the Old Anglers Inn on MacArthur Blvd. Many more choose to park at the much larger paved parking lot at Great Falls Tavern, which is directly adjacent to the Falls. The parking fee at Great Falls Tavern is \$20 per vehicle or \$10 to enter by foot or by bike. It is free for foot and bike traffic to access the park from the Old Anglers Inn entrance, though it is much farther from the Falls.

Frequently during peak season weekends, the parking lots quickly reach capacity. This results in cars backing up along MacArthur Blvd and Falls Rd, waiting to enter. The NPS also often closes the entrance entirely. In these frequent scenarios, drivers seeking alternative parking options (or to avoid the parking fee altogether) park illegally in adjacent neighborhoods, on the MacArthur Blvd shared-use path, or on the private property of neighboring residences. The recent addition of plastic divider sticks along the southern side of MacArthur Blvd to create a protected share-use path has helped decrease this problem. However, signage denoting these areas as no parking zones has done little to effectively discourage this behavior.

Below are images of parking conditions from Saturday July 24, 2021, at approximately 12:30PM, a typical summer weekend in the Great Falls vicinity. The Great Falls Tavern parking area *was* open at this time, with no wait, suggesting the parking lot was not at capacity and that these vehicles sought to avoid parking fees or were overflowing from the Old Anglers Inn parking area.



Above: Vehicles parked illegally along the north side of MacArthur Blvd, as approaching the Great Falls area from the west. Note “No Parking” signs are visible in several images. Images taken by author.

Below: Vehicles parked illegally in construction zone at the intersection of Falls Rd. and MacArthur Blvd near the entrance to the Great Falls Tavern area. Image taken by author.



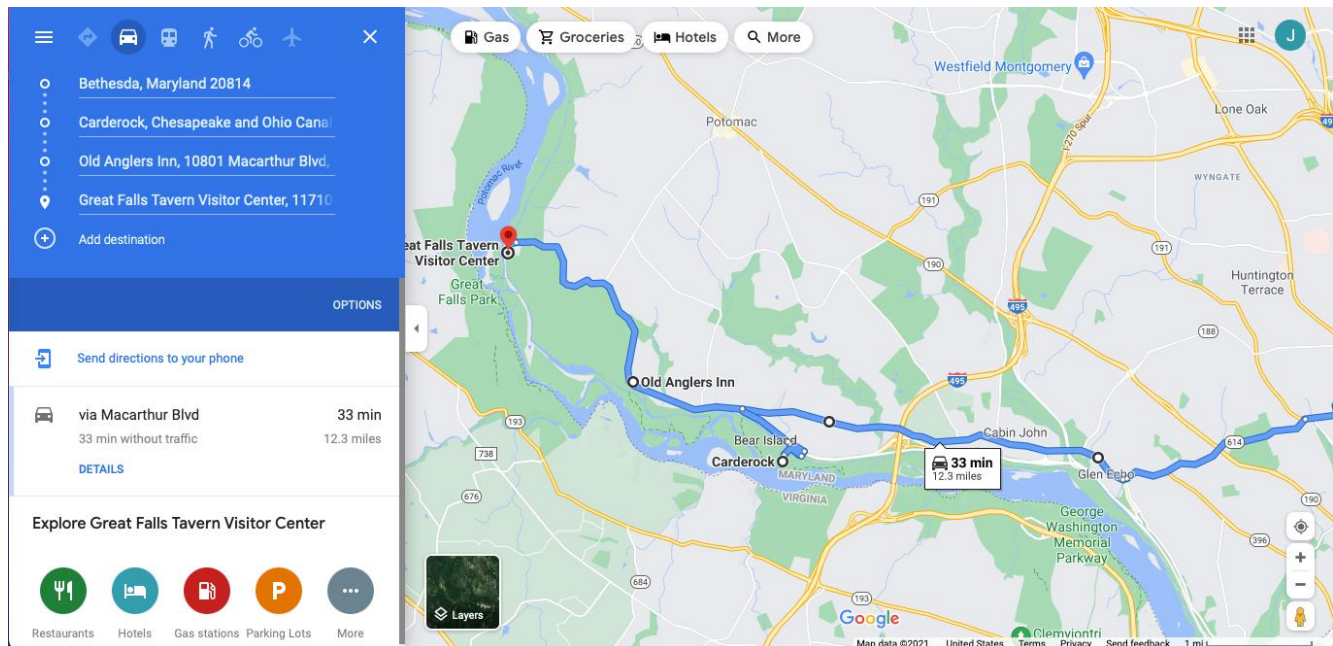
Below: Vehicles parked along Stable Lane, looking west toward Falls Road, at the entrance to the River Falls residential development. Images taken by author.



This presents a significant problem from a public safety perspective: haphazardly parked cars narrow the travel lanes; visitors (frequently with pets and small children) exiting and accessing their vehicles must walk along the edge of a busy roadway; and bicyclists must now bike in the winding and narrow car lanes since the shared use path may be blocked. In the event of an accident in the park or on the road, emergency vehicles would then have to navigate the traffic and these hazards to access the falls. It also presents a significant public nuisance to neighboring residents, who may have trouble accessing their homes or must grapple with cars illegal parked on their properties.

Recommendation: MCDOT should work with the NPS to study and coordinate the creation of a transit to trails pilot program specifically aimed at visitors to the Great

Falls area. Such a pilot program can be modeled off Seattle's Trailhead Direct service and could offer limited, seasonal weekend service at 30-40-minute headways from a major transit hub, like the Friendship Heights or Bethesda Metrorail stations. The service can make several stops along the routing, including at the Carderock section of the park/Billy Goat Trail, the Old Anglers Inn Parking area, and the Great Falls Tavern Visitors Center. See below for proposed routing:



As an incentive to promote ridership of this bus service, visitors who arrive at the Great Falls Tavern area by Ride On can have their admission fee waived. This is similar to the precedent set with NPS by YARTS and Yosemite NP and with the U.S. Forest Service by SCT and the Dog Mountain Shuttle (it should be noted that NPS is a division of the Dept. of Interior while the Forest Service is a division of the Dept. of Agriculture). Ride On itself has a similar precedent of negotiating special benefits to its customers, with the Glenstone Museum waiving the reservation requirement for Ride On riders who use the Route 301 service to access the museum, although all admission to Glenstone is always free.

This service can be provided by any of Ride On's smaller bus models, such as the Starlite Transit or Starlite Allstar used for Ride On Flex or the Route 301 services. They all have mounted bike racks as well. These smaller bus models can navigate the narrow

right of way along MacArthur Blvd and clear the 11' 3" tunnel at Carderock. Infrastructurally, the roads at both Great Falls Tavern and Carderock are paved. Carderock has a large, paved parking lot and Great Falls Tavern has an existing traffic circle that could serve as bus stops and bus turn arounds.

There are challenges to this route. First is the practical challenge of a stop near Old Anglers Inn, which does not have any sidewalk infrastructure. The NPS controlled parking lot there is also not paved. Countless Ride On stops across the system, however, are simple concrete pads without further connectivity to sidewalks or crosswalks, including many of Route 32's stops along MacArthur Blvd. Additionally, on days where there is significant traffic waiting to access Great Falls Tavern, the bus will also become ensnared in that traffic, lengthening journey times and decreasing on-time rates.

Such a service may also violate federal transit rules against providing exclusive shuttle service. Any such Great Falls bus route, however, is open to any member of the public at any stops. Ride On also currently operates bus service to at least two closed federal facilities not generally open to the public: the National Institute of Standards and Technology Campus in Gaithersburg (via Route 54) and the Naval Surface Warfare Center at Carderock (via Route 32). General counsel should be consulted to determine legality of any such service.

Finally, funding will of course be a hurdle. All of the listed examples, including Trailhead Direct, were launched with grant funding and in consortium with local government, private entities, and interest groups who supported such a service. This model provides one possible avenue for funding support. The C&O Canal also currently works with local sponsors for its Canal Community Days, including REI Co-op, First Energy Foundation, Deloitte, M&T Bank, the Minkoff Company, Clark Construction, Devil's Backbone Brewing Company, and Younger Toyota. These companies offer some possible private partners for support and funding of any transit to trails service.



Above: Canal Community Days advertisement with corporate sponsors. Image taken by author.

General Challenges

Funding

The primary challenge to any changes to transit service is always budget and funding. There are always limited funds for Ride On and every change to existing service, let alone the addition of new service, will require funding for operations and potentially the acquisition of new vehicles to support any service. Money is not always the only determinant of service, however. Ride On and MCDOT operate routes that underperform based on ridership and on-time performance but serve a social good. Route 301 to Tobytown is a key example of this, with the county supporting transit to this historically Black community through contracted service even though it sees limited ridership.

Based on the examples outlined in the beginning of this report, such service could cost anywhere between \$12,000 - \$20,000 per month to operate. Nearly all the transit to trail examples also operated as a partnership between various governmental agencies, corporations, and special interest organizations. Nearly all of them also received grant funding to support their pilots and later continued operations. MCDOT should investigate potential partnerships and grant funding sources further to possibly support any changes or additions to bus service – whether local, state, or federal level partners and grants.

Regulatory

Like all transit service providers in the United States, MCDOT is heavily monitored and regulated by the U.S. Department of Transportation’s Federal Transit Administration (FTA). The FTA Circular 4702.1B on Title VI of the Civil Rights Act of 1964 requires that, among other things, any transit providers operating more than 50 peak hour vehicles conduct Service and Fare Equity Analyses on any major changes to service, the creation of new service, or the elimination of any service. All service changes must also be published publicly and are subject to a public comment period. For MCDOT, a major service change is an alteration in a “route’s revenue vehicle hours greater than 25% of the prior schedule’s revenue vehicle hours.”¹⁸

Additionally, per the same FTA regulations, MCDOT’s service must meet defined service standards for vehicle load, vehicle headway, on-time performance, and service availability. If a route does not meet these standards, it should be modified or eliminated. A fuller study of any service changes or new service proposed in this work should be conducted to ensure they meet these regulatory standards.

A full review of MCDOT’s Title VI definitions and regulations can be viewed on the department’s website: <https://www.montgomerycountymd.gov/DOT-Transit/titlevi.html>.

¹⁸ (*Title VI Policies*, n.d.)

Intergovernmental and Interagency

The very nature of the proposed bus routes and service alterations will require cooperation and support from potentially dozens of agencies at all levels of government. At the federal level, USDOT and the FTA have regulatory and oversight power. Any service impacting federal lands, like the C&O Canal, will require partnership with the Department of Interior and NPS. At the state level, this could include the Maryland Department of Transportation, the Maryland Transit Administration, and the Maryland Department of Natural Resources if state parks are included. Finally, at the local level, stakeholders could include MCDOT, Montgomery Parks, Montgomery County Recreation, M-NCPPC, Visit Montgomery, the Montgomery Economic Development Corporation; municipal governments and their relevant departments and agencies; and neighborhood organizations, special interest groups, and associations like the Montgomery Parks Foundation, the C&O Canal Trust, Friends of Historic Great Falls Tavern, the Montgomery Bicycle Club, or the Mountain Club of Maryland. A tangled web and alphabet soup of acronyms.

Each stakeholder represents the ever-present challenge of constructive cooperation. Each comes to the table with their priorities and regulatory requirements. Each, however, also represents an opportunity for support and partnership to accomplish this common goal.

Infrastructure and Built Environment

Despite the noble goal of transit to trails, not every area is properly equipped for bus service. Is the road surface wide enough and strong to support a wide, heavy vehicle like a bus? Is there enough space to meet a bus's turning radius at stops and at turns? Is there even a safe location with enough space for a bus stop? Even if there is space for a bus stop, what does the area around it look like – is there a sidewalk or other accessibility features from the bus stop to the trailhead or park facilities? While this analysis has tried to account for some of these issues where possible, they can and should be further studied on an individual route/stop basis. Future alterations to the infrastructure, while costly, may also be possible to support bus service.

Conclusion

This paper sought to outline the possibilities of transit to trails, provide some relevant existing examples of such service, analyze its applicability specifically to the Montgomery County context, and provide various policy recommendations for implementation at all levels of ease and intensity. This included changes to passenger information pamphlets and maps, new interactive wayfinding features, small alterations to existing service headways and routes, or even the launching of new, devoted transit to trails service.

Overall, transit to trails represents an exciting opportunity to improve racial and environmental equity by increasing access to parks, greenspaces, and recreational facilities for all, particularly those who do not have access to private vehicles. This is also a space where Montgomery County and MCDOT have not previously made significant headway. It deserves serious consideration for future implementation, whether through incremental changes proposed above or as part of a more comprehensive initiative like the upcoming Reimagining Ride On process.

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