U.S. FOOD AND DRUG ADMINISTRATION
MUIRKIRK ROAD CAMPUS MASTER PLAN

Draft Environmental Impact Statement

Appendix E – Transportation Impact Study

June 2021

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GSA

In cooperation with:

FDA U.S. FOOD & DRUG ADMINISTRATION

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Traffic Impact Study for
U.S. Food and Drug Administration
Muirkirk Road Campus Master Plan

GSA

General Services Administration

April 2021

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PROJECT SUMMARY

INTRODUCTION

The U.S. General Services Administration (GSA), National Capital Region, on behalf of and in cooperation with the U.S. Food and Drug Administration (FDA), is engaging in a master planning effort for the Muirkirk Road Campus (MRC), located at 8301 Muirkirk Road, Laurel, MD, to consolidate additional FDA employees to the MRC. The MRC is approximately 197 acres with approximately 300 employees including Center for Food Safety and Applied Nutrition (CFSAN) employees, Center for Veterinary Medicine (CVM) employees, and other support staff. The Master Plan will include additional office and shared use spaces to support a total population of 1,800 by 2040. An initial phase of growth is anticipated to occur around 2025 or 2026 with the consolidation of 700 additional employees, bringing the total site population to approximately 1,000. The timing of the additional 800 employees (total site population of 1,800) is not known at this time but is assumed to be a gradual increase to the future horizon year of 2040. The proposed action will result in an increase in vehicle trips to and from the MRC, particularly during the AM and PM peak commuter periods. Therefore, a Traffic Impact Study (TIS) is required to assess and report potential transportation impacts resulting from the planned growth on the MRC.

2021 EXISTING CONDITIONS

The existing roadway network within the vicinity of MRC was assessed to provide a baseline to compare to future conditions. Due to the COVID-19 pandemic, traffic volumes on the roadway network were much lower than what would be anticipated post-pandemic. In order to develop 2021 traffic volumes, field-collected data was compared to data obtained from existing pre-COVID count locations to develop factors in which to adjust the field-collected data to reflect anticipated 2021 volumes without the impacts of the pandemic. The study area intersections were analyzed utilizing Synchro 10/SimTraffic. The results of the capacity analysis show that all but two study area intersections operate at an overall level of service (LOS) D or better. The results also show that six out of the 13 study area intersections operate with one or more lane groups at LOS E or F in at least one peak hour.

PHASE 1 (2025-26) NO ACTION ALTERNATIVE

The 2026 No Action Alternative evaluates the future transportation network with future volumes, excluding the planned consolidation of additional employees on the MRC. It includes traffic growth due to nearby developments, increases in background traffic, and future development and infrastructure enhancements recommended in the *Brickyard Traffic Impact Study* (2008) and *Konterra Town Center-East Traffic Impact Study* (2008), prepared by The Traffic Group, as well as *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group. Under the 2026 No Action Alternative, delay and queuing are anticipated to increase at 10 study area intersections. Six out of the 13 study area intersections would operate with one or more lane groups at LOS E or F in at least one peak hour.

PHASE 2 (2040) NO ACTION ALTERNATIVE

The 2040 No Action Alternative evaluates the future transportation network with future volumes, excluding the planned MRC expansion. It includes traffic growth due to nearby developments, increases in background traffic, and future development and infrastructure enhancements recommended in the *Brickyard Traffic Impact Study* (2008) and *Konterra Town Center-East Traffic Impact Study* (2008), prepared by The Traffic Group, as well as *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group. Under the 2040 No Action Alternative, delay and queuing are anticipated to increase at 11 study area intersections. Six out of the 13 study area intersections would operate with one or more lane groups at LOS E or F in at least one peak hour. Significant increases in delay and queueing would be anticipated at the unsignalized intersections of Muirkirk Road and Muirkirk Meadows Drive and Virginia Manor Road (MD 212/MD 206) and Ritz Way.

PHASE 1 (2025-26) ACTION ALTERNATIVE

The 2026 Action Alternative analysis examines future anticipated volumes, taking into consideration traffic under the 2026 No Action Alternative as well as traffic that would be generated by the proposed increase in employees at the MRC. Although the Environmental Impact Statement (EIS) evaluates three Master Plan action alternatives, each one accommodates the same number of employees and each is generally the same when it comes to site access. Therefore, the 2026 Action Alternative presented in this TIS is the same for Master Plan action alternatives A, B, and C. The Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, was utilized to estimate the number of AM peak hour, PM peak hour, and total weekday trips that would be generated by the additional 700 MRC employees. It should be noted that because of the COVID-19 pandemic, accurate driveway volume counts for existing employees on the site was not possible. Therefore, the 2026 Action Alternative includes trips generated for all 1,000 employees (300 existing and the 700 additional employees). A 25 percent non-single occupancy vehicle (SOV) trip credit was applied to the base trip generation rates in 2026 to estimate the anticipated vehicular trip generation from the proposed growth based on the goals established in the *Transportation Management Plan for U.S. Food and Drug Administration Muirkirk Road Campus Master Plan* (2021) (TMP) (Table E-1).

Table E-1: Future Auto Trip Generation

	Number of Employees	AM Peak Hour			PM Peak Hour			Total Daily
		In	Out	Tot	In	Out	Tot	
Existing (2021)	300	90	16	106	5	100	105	1,180
2026	1,000	315	55	370	20	380	400	3,091
With Non-SOV Mode Share Goal (25%)		**236**	**42**	**278**	**15**	**285**	**300**	**2,319**
2040	1,800	566	100	666	36	684	720	4,946
With Non-SOV Mode Share Goal (50%)		**283**	**50**	**333**	**18**	**342**	**360**	**2,473**

A trip distribution analysis was conducted to estimate how the new vehicle trips would travel to and from the site. Employee home ZIP code data for off-campus and on-campus, obtained as part of the MRC commuter survey that was conducted in November 2020, indicated that most employees would

likely arrive from points north and west of the MRC via I-95 and MD 200. The trip distribution also accounts for a proposed new access point on Odell Road.

The results of the capacity analysis show that the trips generated would increase movement delay by 10 or more seconds at six of the study area intersections. Seven out of the 14 study area intersections would operate with one or more lane groups at LOS E or F in at least one peak hour.

PHASE 2 (2040) ACTION ALTERNATIVE

The 2040 Action Alternative analysis examines future anticipated volumes, taking into consideration traffic under the 2040 No Action Alternative as well as traffic that would be generated by the proposed growth of MRC employees. As noted earlier, the 2040 Action Alternative presented in this TIS is the same for Master Plan action alternatives A, B, and C. The ITE Trip Generation Manual, 10th Edition, was utilized to estimate the number of AM peak hour, PM peak hour, and total weekday trips that would be generated by the additional 1,500 MRC employees. It should be noted that because of the COVID-19 pandemic, accurate driveway volume counts for existing employees on the site was not possible. Therefore, the 2040 Action Alternative includes trips generated for all 1,800 employees (300 existing and the 1,500 additional employees). A 50 percent non-SOV trip credit was applied to the base trip generation rates in 2026 to estimate the anticipated vehicular trip generation from the proposed growth based on the goals established in the TMP (Table E-1). The 50 percent non-SOV trip credit is based on the National Capital Planning Commission (NCPC) parking requirements of 1 parking space per two employees.

The results of the capacity analysis show that the trips generated would increase movement delay by 10 or more seconds at seven of the study area intersections. Seven out of the 14 study area intersections would operate with one or more lane groups at LOS E or F in at least one peak hour.

PHASE 1/PHASE 2 ACTION WITH MITIGATION ALTERNATIVE

An Action with Mitigation Alternative was created to help reduce the delay times for both the 2026 and 2040 project years. However, it should be noted that the proposed Action Alternative condition only minimally increases delay at most of the critical study area intersections. Most of the intersections for which mitigation has been developed, with the exception of the intersection of Muirkirk Road and the MRC site driveway (Pasture Road), would experience significant delay and queuing in the No Action conditions. Thus, the mitigation measures are used to demonstrate what types of improvements could improve operations at these intersections. However, given that anticipated delays would also be produced by other proposed development within the study area, the cost and responsibility for the mitigation should not be solely placed on future projects associated with the MRC Master Plan.

The 2026/2040 Action with Mitigation Alternative provides mitigation measures at locations that would experience an increase in intersection delay of more than 10 seconds per vehicle and/or degradation of level of service to LOS E or F. The recommended mitigation measures include signal timing and coordination enhancements at all signalized intersections as well as the following physical improvements. It should be noted that all improvements are recommended for the 2026 future condition except as otherwise noted.

KONTERRA DRIVE AND MD 200 OFF-RAMP

- Provide a second eastbound right-turn lane from the MD 200 ramp onto southbound Konterra Drive. This would be required in the 2040 future condition.

VIRGINIA MANOR ROAD (MD 206)/KONTERRA DRIVE AND MUIRKIRK ROAD

- Provide a second southbound left-turn lane from Konterra Drive onto eastbound Muirkirk Road.

VIRGINIA MANOR ROAD/ RITZ WAY (MD 212) AND VIRGINIA MANOR ROAD (MD 206)

- Install a traffic signal that is coordinated with the other signals along Virginia Manor Road/Konterra Drive (MD 206). A roundabout could also be considered at this intersection but would require further investigation.

MUIRKIRK MEADOWS DRIVE AND MUIRKIRK ROAD

- Install a traffic signal that is coordinated with the other nearby traffic signals on Muirkirk Road.

OLD BALTIMORE PIKE/ CEDARHURST DRIVE AND MUIRKIRK ROAD

- Construct separate right-turn only lane from eastbound Muirkirk Road to southbound Old Baltimore Pike.

PASTURE ROAD/ SNOWDEN WOODS ROAD AND MUIRKIRK ROAD

- Install a traffic signal at the intersections. A roundabout could also be considered at this location. However, this would warrant further investigation as additional right-of-way (ROW) may be required.

POWDER MILL ROAD AND SPRINGFIELD ROAD

- Install a traffic signal at this intersection and provide separate right and left-turn lanes on westbound and eastbound Powder Mill Road, respectfully. This is also a recommendation contained in the *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group.

MUIRKIRK ROAD/CRYSTAL PLAZA AND LAUREL BOWIE ROAD (MD 197)

- Provide two northbound and southbound left-turn lanes from MD 197 to Muirkirk Road/Crystal Plaza.

In addition to the above mitigation measures, it is also recommended that FDA continue to engage in the update of a TMP that outlines transportation demand management (TDM) strategies to reduce single-occupancy vehicle trips in order to achieve the NCPC parking ratio requirements. A recent TMP, attached in Appendix D, has been prepared for the MRC that provides a variety of policy, service, and infrastructure strategies, which are anticipated to reduce single-occupancy vehicle trips

to and from the campus, which would help to mitigate the impacts to surrounding transportation network.

Furthermore, this study was conducted during the COVID-19 pandemic. COVID-19 has significantly changed commute patterns, and it is anticipated that these changes may have a long-term impact, even after the pandemic is over, that may include an increased number of employees working from home, as well as a reluctance for people to use mass transit or ride in carpool or vanpool vehicles. Therefore, it is recommended that the intersections identified as requiring mitigation be re-evaluated in the future, at the time of permitting for the new office buildings proposed in the Master Plan, to determine if the mitigation recommendations are still applicable.

CONCLUSION

The results of this traffic analysis show that an increase of 1,500 employees at the MRC by 2040 would have a moderate adverse impact on traffic conditions in the study area. An increase in delay of 10 seconds or more would occur at seven of the 14 study area intersections. It should be noted that other nearby developments and background traffic growth will have a significant adverse impact on many of the study area intersections. Mitigation measures were considered at all study intersections to address operational deficiencies that are present in the No Action as well as the Action Alternative. As traffic spreads out on the network from the site, the impact of the trips on the network are less notable. Many of the impacts that are experienced on the intersections that are over a mile from the site are largely due to conditions under the No Action Alternative. Thus, the full extent of the improvements needed in this area should not be solely attributable to future projects at the MRC. Furthermore, it is recommended that the intersections identified as requiring mitigation be re-evaluated in the future at the time of permitting for the new office buildings proposed in the Master Plan to determine if the mitigation recommendations are still applicable once the full impact of COVID-19's effects on travel behavior is understood.

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List of Acronyms

AADT	Annual Average Daily Traffic
AAWDT	Annual Average Weekday Traffic
BARC	Beltsville Agricultural Research Center
BEP	Bureau of Engraving and Printing
CFSAN	Center for Food Safety and Applied Science
CVM	Center for Veterinary Medicine
FDA	U.S. Food and Drug Administration
GIS	Geographic Information Systems
GSA	U.S. General Services Administration
GSF	Gross Square Footage
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
I-TMS	Internet Traffic Monitoring System
LOS	Level of Service
LUC	Land Use Code
MWCOG	Metropolitan Washington Council of Governments
MRC	Muirkirk Road Campus
NCPC	National Capital Planning Commission
NTS	Not to Scale
RTA	Regional Transportation Agency
SF	Square Feet
SHA	Maryland Department of Transportation State Highway Administration
SOV	Single Occupancy Vehicle
TDM	Transportation Demand Management
TMP	Transportation Management Plan
TIS	Traffic Impact Study
V/C	Volume to Capacity
VPD	Vehicles Per Day
WMATA	Washington Metropolitan Area Transit Authority

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CHAPTER 1: INTRODUCTION

The U.S. General Services Administration (GSA), National Capital Region (NCR), on behalf of and in cooperation with the U.S. Food and Drug Administration (FDA), is engaging in a master planning effort for the Muirkirk Road Campus (MRC), located at 8301 Muirkirk Road, Laurel, MD, to consolidate additional FDA employees to the MRC. The MRC is approximately 197 acres with approximately 300 employees including Center for Food Safety and Applied Nutrition (CFSAN) employees, Center for Veterinary Medicine (CVM) employees, and other support staff (Figure 1). The Master Plan will include additional office and shared use spaces to support a total population of 1,800 by 2040. An initial phase of growth is anticipated to occur around 2025 or 2026 with the consolidation of 700 additional employees, bringing the total site population to approximately 1,000. The timing of the additional 800 employees (total site population of 1,800) is not known at this time but is assumed to be a gradual increase to the future horizon year of 2040. The proposed action will result in an increase in vehicle trips to and from the MRC, particularly during the AM and PM peak commuter periods. Therefore, a traffic impact study (TIS) is required to assess and report potential transportation impacts resulting from the planned growth on the MRC.

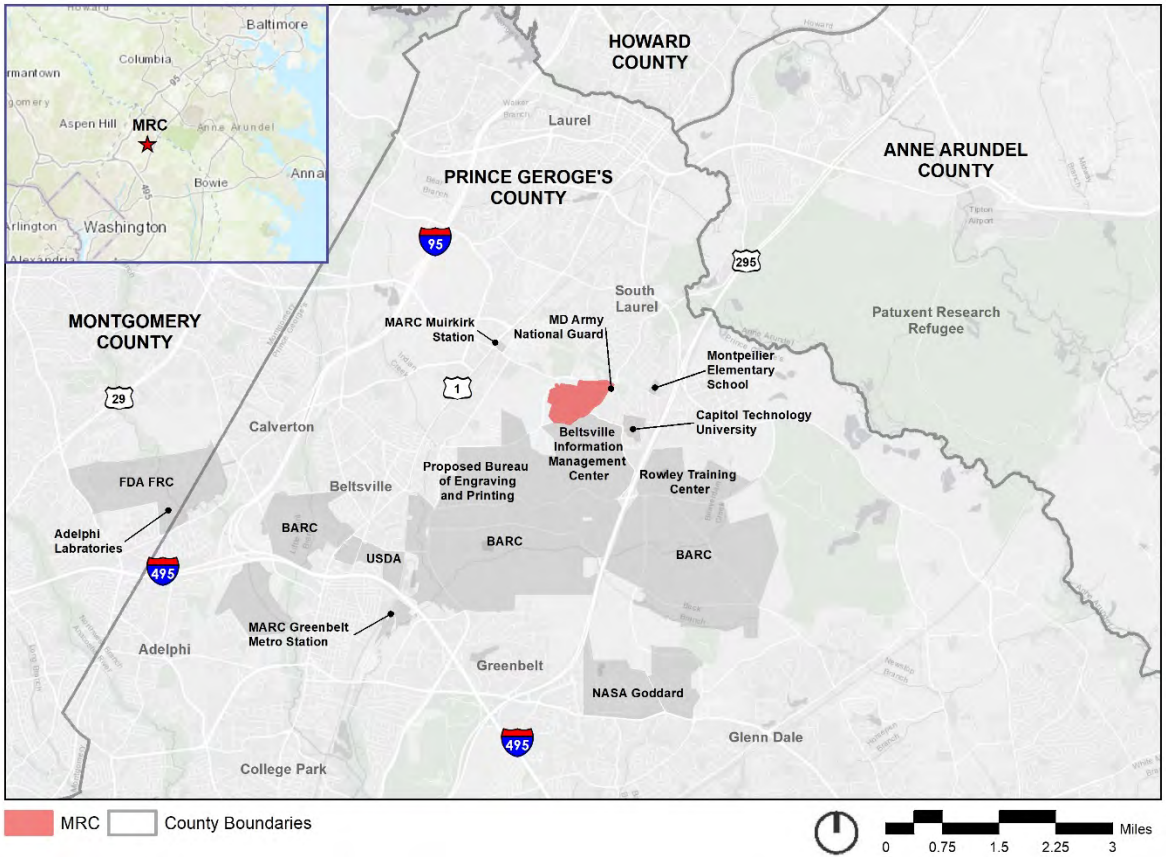

Figure 1: FDA Muirkirk Road Campus Regional Map

This TIS will assess and evaluate the potential transportation impacts resulting from the proposed additional employees at the MRC for the 2026 (1,000 total employees) and 2040 (1,800 total employees) horizon years. The No Action Alternative evaluates the future transportation network with future volumes, excluding MRC growth. It includes traffic growth due to nearby developments,

increases in background traffic, and any future development and infrastructure enhancements recommended by other transportation agencies. The Action Alternative examines future anticipated volumes on the study area roadway network, taking into consideration traffic volumes and infrastructure improvements under the No Action Alternative, as well as traffic that would be generated by the relocation of employees to the MRC.

It should also be noted that while the EIS evaluates three Master Plan action alternatives, each one is consistent in terms of number of additional employees and site access from the local roadway network. Therefore, only one Action Alternative is evaluated as part of this TIS. It is assumed that the results of the analysis would apply to all three of the Master Plan action alternatives.

The Action with Mitigation Alternative presents the results of additional analysis with roadway improvements and/or enhancements that would likely be required to address existing and future No Action congestion and queueing as well as mitigate the transportation impacts of the additional trips anticipated to be generated by the planned growth of the MRC for horizon years 2026 and 2040.

The report is divided into three sections. Chapter 1 provides an introduction to the project. Chapter 2 will discuss the transportation network and the capacity analysis conducted for the study. Chapter 3 will summarize the findings and conclusions. This TIS should also be reviewed in conjunction with the TMP that has been developed for the master planning effort, attached in Appendix D.

CHAPTER 2: TRANSPORTATION SYSTEM

This section describes the assessment of the existing transportation network and the potential transportation impacts resulting from the proposed increase of employees at the MRC.

The MRC is an FDA laboratory facility occupied by CFSAN and CVM and is located on approximately 197 acres in an exurban area adjacent to the Beltsville Agricultural Research Center (BARC). The MRC currently consists of 480,000 gross square footage (GSF) of office and laboratory space, with 320 surface parking spaces, and has a population of approximately 300 FDA employees and support staff. The remaining areas of the campus outside of the buildings and parking areas are largely forested with some pasture areas for animals. Employee and visitor access is provided via a secured access on Muirkirk Road. Two driveways exist along Odell Road. However, the northern driveway is permanently closed and the southern driveway is exclusively used for deliveries.

The site is located approximately three miles east of I-95 and MD 200 and approximately 2.5 miles west of the Baltimore-Washington Parkway (Parkway). The MRC has limited transit connections. It is approximately 1.5 miles east of the Muirkirk Maryland Area Regional Commuter (MARC) station, and Regional Transportation Agency (RTA) Route 302 runs along Muirkirk Road and has an end-line stop at the Muirkirk Road entrance.

EXISTING CONDITIONS

This section describes the existing transportation facilities in the vicinity of the MRC, including traffic conditions and the availability of public transportation facilities.

EXISTING PUBLIC TRANSPORTATION FACILITIES

METRORAIL

The Washington Metropolitan Area Transit Authority (WMATA) Metrorail system connects downtown Washington, DC to the adjoining areas in Maryland and Virginia. Six lines, including the Red, Blue, Orange, Green, Yellow, and Silver, interconnect within Washington, DC. Prior to the COVID-19 pandemic, the Metrorail system operated from 5:00 AM to 11:30 PM Monday through Thursday, from 5:00 AM to 1:00 AM on Fridays, 7:00AM to 1:00 AM on Saturdays, and 8:00 AM to 11:00 PM on Sundays. Trains arrived approximately every six minutes during the peak hours and every twelve minutes at other times. During the COVID-19 pandemic, the Metrorail system operates from 5:00 AM to 11:00 PM on weekdays, 7:00 AM to 11:00 PM on Saturdays, and 8:00 AM to 11:00 PM on Sundays. Trains arrive approximately every six minutes during the peak hours and every twelve minutes at other times.

The Campus is approximately 6.5 miles from the Greenbelt Metro station on Metrorail's Green Line. The Green Line operates between Branch Avenue and Greenbelt in Prince George's County and has 21 stations and three transfer points to other Metrorail lines (Figure 2: Metrorail System Map (Source: WMATA)). The line runs along the same path as the Yellow Line from L'Enfant Plaza to Fort Totten at all times, and from L'Enfant Plaza to Greenbelt only during rush hours. The line operates at an 8- to 12-minute headway during weekdays and Saturdays, a 15-minute headway on

Sundays, and 20-minute late-night headways. The Greenbelt station, the closest station to the MRC, has 3,875 parking spaces, 81 bike racks, 38 lockers, and numerous bus service connections, including Regional Transportation Agency of Central Maryland (RTA) Bus 302 to Laurel which stops at the MRC driveway on Muirkirk Road.

Figure 2: Metrorail System Map (Source: WMATA)

MARC

The MARC train system connects downtown Washington, DC and Baltimore, Maryland to adjoining areas in Maryland. Three lines, including the Brunswick, Camden, and Penn, interconnect within Washington, DC.

The Muirkirk station, approximately 1.5 miles from the MRC, is located along the Camden Line, (Figure 3). Camden Line service operates from 6:00 AM to 9:00 AM and from 3:30 PM to 9:00 PM on weekdays only. There is no weekend nor off-peak service. Trains arrive approximately every 30 minutes. Bus service to the station is provided through RTA Route 302 which stops at the station every hour on weekdays. The Muirkirk station has approximately 650 parking spaces.

Figure 3: MARC Rail System with Commuter Buses (Source: MDOT)

BUS

WMATA Bus Route 89M services the study area with connections to the South Laurel Park-and-Ride Lot and to the Greenbelt Metrorail station. The bus stop is located within the overall study area on Ritz Way west of Baltimore Avenue. Buses arrive approximately every 30 minutes during peak times and approximately every hour during weekday off-peak times. There is no service on weekends. The nearest stop is approximately two miles from the MRC.

As shown in Figure 4, the MRC (labeled as FDA Muirkirk Campus) is served by RTA Route 302. Route 302 operates at approximately one-hour headways and provides local service that connects the Towne Centre at Laurel to the Greenbelt Metro station.

Figure 4: RTA Route 302 Route Map (NTS)

PEDESTRIAN AND BICYCLE FACILITIES

The MRC has limited pedestrian facilities and no bicycle facilities on site. Onsite pedestrian facilities mainly consist of sidewalks around buildings and between buildings and the parking areas. There are no sidewalk connections between MODs 1 and 2, the two primary buildings on campus that house most of the staff and laboratory space, and the Beltsville Research Facility or the Animal Research Facility. In addition, there is no pedestrian sidewalk connection to the bus stop on Muirkirk Road. Curb ramps are provided along pedestrian facilities throughout the site; however, many do not meet current ADA accessibility standards.

Furthermore, there are no sidewalk or bicycle lane connections to the campus on the surrounding roadway network. Sidewalks are provided along the western part of Muirkirk Road from Virginia Manor Road to Old Baltimore Pike, as well as along the eastern portion of Muirkirk Road from Mount Pleasant Drive to MD 197. The lack of pedestrian and bicycle facilities connecting to the MRC is a significant barrier to pedestrian and bicycle commuting. However, the campus is also relatively isolated, and is not close to major transit or higher-density residential areas that could generate pedestrian and bicycle commuting trips.

Similar to on-site accessibility, there are curb ramps at intersections where sidewalk is provided. However, many appear to not meet current ADA standards. Therefore, wherever new or improved on or off-site infrastructure is provided, it should meet ADA accessibility standards that are in place at the time of design.

EXISTING ACCESS AND PARKING

Primary access for visitors and employees is provided by a gated driveway (Pasture Road) on Muirkirk Road. The driveway intersects with Muirkirk Road at an unsignalized intersection that also includes Snowden Woods Road (Figure 5). Separate left and right-turn lanes are provided on Muirkirk Road at the intersection.

There are also two access points on Odell Road. The northernmost access, located adjacent to the Beltsville Research Facility, is not active and the gate is permanently locked (Figure 6). The southernmost access to Pasture Drive is only used for employees with special access to the animal pasture area of the campus as well as for deliveries and emergency access (Figure 7). No turn lanes are provided on Odell Road at this location.

Figure 5: Primary Access on Muirkirk Road

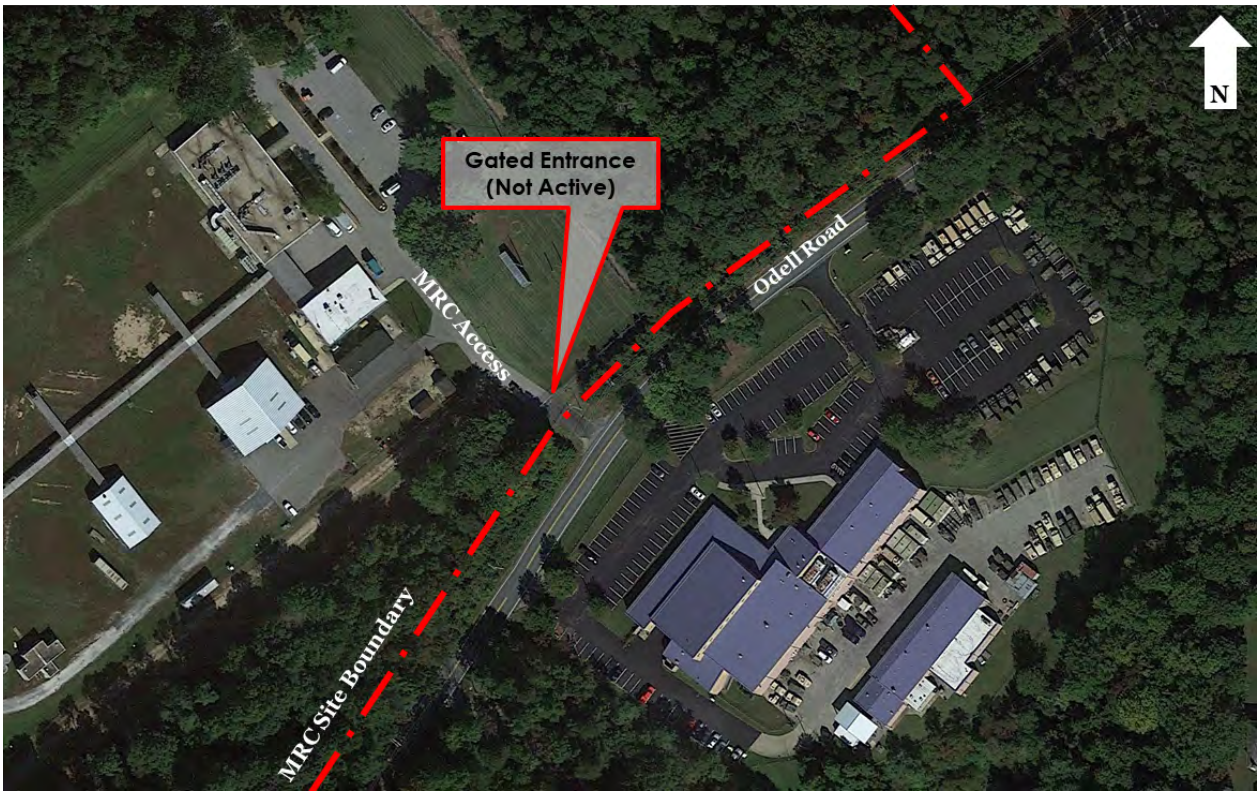

Figure 6: Northern Odell Road Access (Closed)

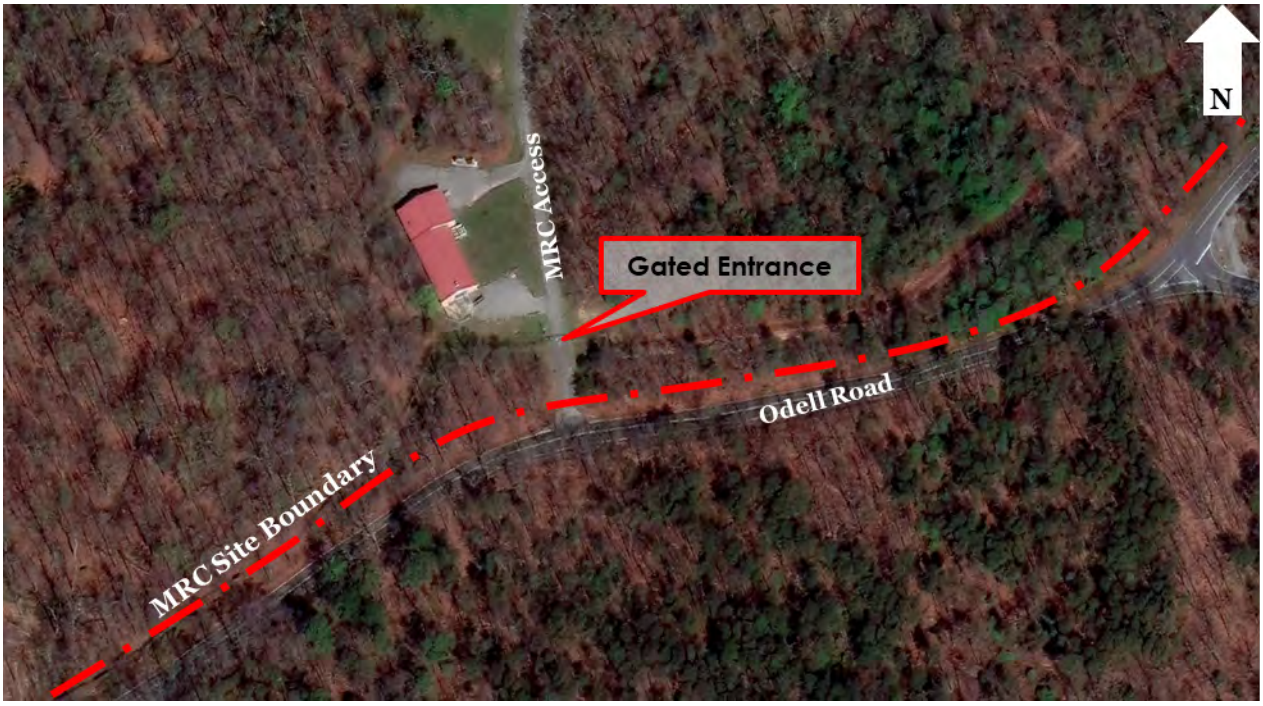

Figure 7: Southern Odell Road Access

Parking is not regulated at the MRC. Approximately 283 spaces serve the MOD 1 and MOD 2 Buildings, accessed through the main gate on Muirkirk Road. MOD 1 and MOD 2 are two buildings that serve as the primary laboratory and staff office space on the campus. They are located south of the main entrance from Muirkirk Road A separate 37-space parking lot is provided for the Beltsville Research Facility on the east side of the campus, accessed via a gate on Odell Road. The locations of the buildings and parking areas and their approximate capacities are shown in Figure 8.

It should also be noted that the Animal Research Facility and pasture areas on the south side of the campus have areas that can be used for loading or parking near the buildings. However, these areas are only accessible to the staff that is specifically assigned to these areas. Although many of the buildings have pavement around them that can be used for loading or parking, there are no striped parking spaces. Therefore, these areas are not considered as part of the overall total on-site parking count.

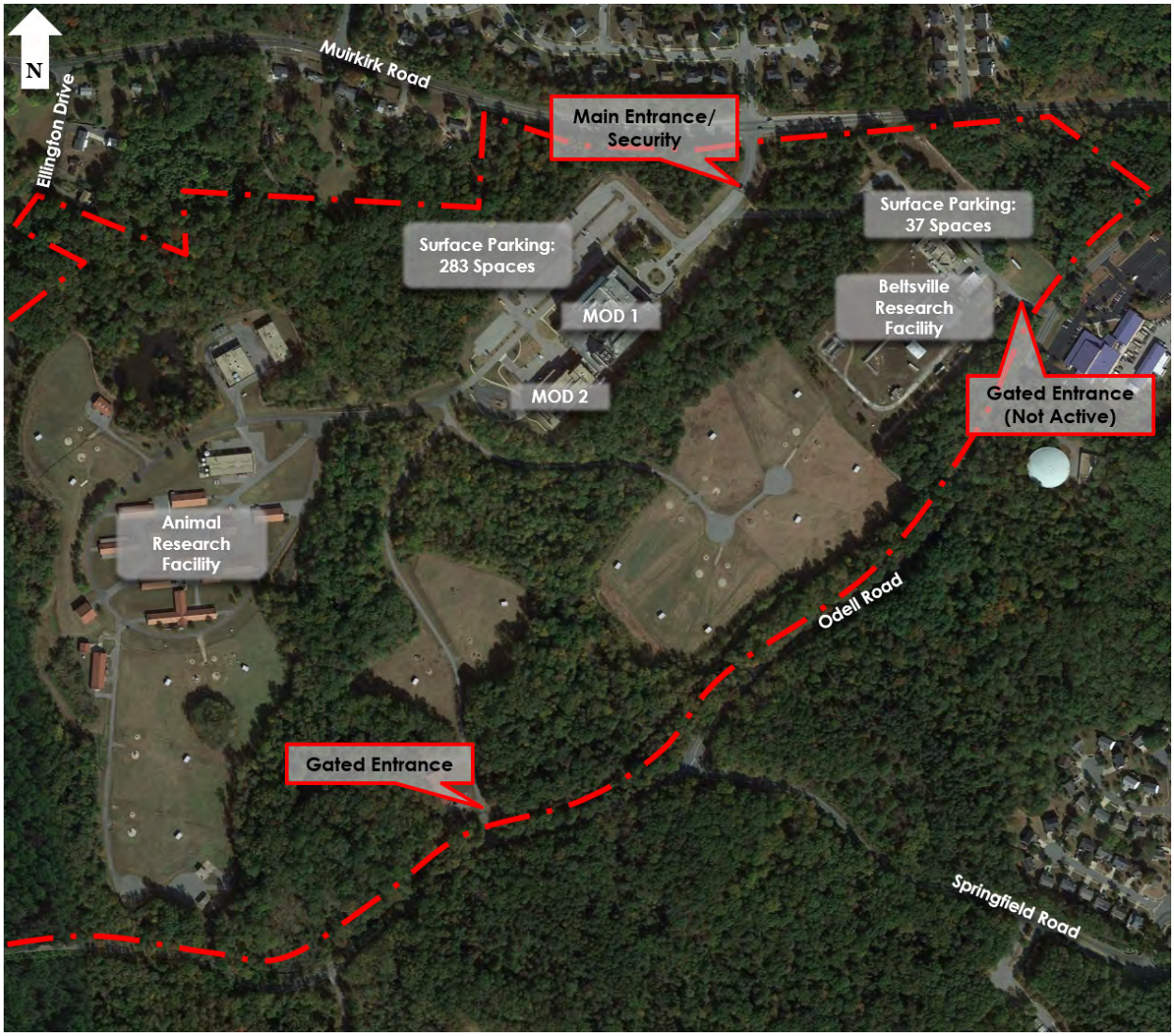

Figure 8: Building and Surface Parking Locations

EXISTING ROADWAY NETWORK

The vehicle study area for the MRC TIS is located primarily in Laurel which is in Prince George's County, Maryland. The vehicle study area limits are defined as primarily bounded by Muirkirk Road to the north, Powder Mill Road to the south, Laurel Bowie Road (MD 197) the east, and Virginia Manor Road (MD 206)/Konterra Drive to the west. Figure 9 shows the 13 existing intersections that were included in the capacity analysis.

Figure 9: TIS Study Area

Characteristics of the major corridors within the study area were obtained from the Maryland Annual Average Daily Traffic – Annual Average Daily Traffic (SHA Statewide AADT Lines) map[1] through the Maryland Geographical Information Services (GIS) Data Catalog denoting functional classification, 2018 AADT, 2018 Annual Average Weekday Traffic (AAWDT), 2018 Truck AADT, and number of lanes. This information is summarized in Table 1.

Table 1: Study Area Major Corridor Characteristics

Roadway	Functional Class	2018 AADT (1,000 vehicles per day, vpd)	2018 AAWDT (1,000 vpd)	2018 Truck AADT (vpd)	Number of Lanes
Muirkirk Road (east of Old Baltimore Pike)	Minor Arterial	10.7	11.5	297	Varies (2-4)
Muirkirk Road (west of Old Baltimore Pike)	Minor Arterial	23.1	24.7	905	Varies (2-4)
Virginia Manor Road	Major Collector	10.4	11.0	N/A	Varies (4-6)
MD 212 (Ritz Way)	Minor Arterial	17.1	18.3	531	6
MD 197	Principal Arterial Other	50.1	53.6	N/A	6
Konterra Drive	Major Collector	13.7	14.5	N/A	4

[1] https://data.imap.maryland.gov/datasets/maryland-annual-average-daily-traffic-annual-average-daily-traffic-sha-statewide-aadt-lines?geometry=-77.495%2C38.744%2C-76.440%2C38.932

Roadway	Functional Class	2018 AADT (1,000 vehicles per day, vpd)	2018 AAWDT (1,000 vpd)	2018 Truck AADT (vpd)	Number of Lanes
WB MD 200 On-Ramp	Principal Arterial Other Freeways	2.0	2.1	N/A	2
EB MD 200 Off-Ramp	Principal Arterial Other Freeways	2.8	3.0	N/A	2
Old Baltimore Pike	Minor Arterial	16.0	17.1	1720	2
Powder Mill Road	Minor Arterial	12.0	12.8	N/A	2

DATA COLLECTION AND HOURS OF ANALYSIS

At the time of this analysis, the global community was experiencing the effects of the COVID-19 pandemic which has significantly impacted typical traffic conditions. Therefore, a traditional traffic count data program was not possible. The project team reviewed historic traffic count data on the Maryland Department of Transportation State Highway Administration (SHA) Internet Traffic Monitoring System (I-TMS), as well as from other previous traffic studies. However, data was not available for all study area intersections, and some of the data exceeded ten years. Therefore, in coordination with Prince George's County, a data collection plan was developed. The plan consisted of collecting turning movement count data at all study intersections, listed in Table 2, and then comparing a few of the intersection counts with data obtained from I-TMS. The comparison of volumes was then used to develop factors in which to increase the 2021 field data to a pre-COVID condition. These factors are summarized in Table 3.

Table 2: Study Area Intersections

Study Area Intersection	Signalization
Konterra Drive & MD 200 On-Ramp	Signalized
Konterra Drive & Md 200 Off-Ramp	Signalized
Virginia Manor Road/ Konterra Drive & Muirkirk Road	Signalized
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	Unsignalized
Muirkirk Meadows Drive & Muirkirk Road	Unsignalized
Brickyard Boulevard/ Driveway) & Muirkirk Road	Signalized
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	Signalized
Pasture Road/ Snowden Woods Road & Muirkirk Road	Unsignalized
Odell Road/ Cedarbrook Lane & Muirkirk Road	Signalized
Laurel Bowie Road (MD 197) & Murirkirk Road/ Crystal Plaza Driveway	Signalized
Odell Road & Springfield Road	Unsignalized
Odell Road & Ellington Drive	Unsignalized
Powder Mill Road & Springfield Road	Unsignalized

Table 3: Intersection COVID-19 Factors

Study Area Intersection	AM Factor	PM Factor
Konterra Drive & MD 200 On-Ramp	2.2	1.4
Konterra Drive & Md 200 Off-Ramp	2.2	1.4
Virginia Manor Road/ Konterra Drive & Muirkirk Road	2.2	1.4
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	2.2	1.4
Muirkirk Meadows Drive & Muirkirk Road	2.2	1.4
Brickyard Boulevard/ Driveway) & Muirkirk Road	2.2	1.4
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	2.2	1.4
Pasture Road/ Snowden Woods Road & Muirkirk Road	2.5	1.8
Odell Road/ Cedarbrook Lane & Muirkirk Road	2.5	1.8
Laurel Bowie Road (MD 197) & Murirkirk Road/ Crystal Plaza Driveway	1.8	1.4
Odell Road & Springfield Road	2.5	1.8
Odell Road & Ellington Drive	2.5	1.8
Powder Mill Road & Springfield Road	2.5	1.8

Appendix B contains the raw count data and map of all the count locations. An analysis of the data revealed that the individual intersection AM and PM peak period hours varied throughout the study area. An AM peak hour of 7:15-8:15 AM and a PM peak hour of 4:00-5:00 PM were utilized. Volumes were balanced upwards between intersections, where appropriate, to account for the various time

periods that the data was collected. The balanced 2021 existing volumes with the COVID-19 factors applied are shown in Exhibits 1 and 2 in Appendix A.

Furthermore, the COVID-19 pandemic also affected the ability for the project team to collect other existing conditions data, such as travel time runs and queue length measurements. However, based on anecdotal information obtained by the project team for the study area, the signalized intersection of Muirkirk Road and MD 197 was the only intersection that regularly experienced high delays in the existing condition, and the delay is primarily on Muirkirk Road as well as the northbound MD 197 left-turn lane to Muirkirk Road. In addition, the unsignalized intersections of Muirkirk Road and Muirkirk Meadows Drive and Virginia Manor Road (MD 212/206) and Ritz Way (MD 212) were also noted to experience delay during the peak periods on the stop-controlled approaches. Therefore, the project team ensured that the capacity analysis results reflected these conditions.

ANALYSIS METHODOLOGY

Synchro 10 traffic analysis software was used to perform the capacity analyses for the signalized and unsignalized intersections in the study area. This software package provides average control delay, volume-to capacity ratio (v/c) queues, and LOS for each lane group and for the overall intersection.

The v/c ratio relates the demand at a particular intersection (traffic volume, v) to the available capacity (c). The available capacity for each movement varies depending on number of lanes, lane width, perception/reaction time, green time, and cycle length, among others. A v/c ratio of 1.0 indicates that the demand for a particular movement is equal to the capacity. A movement with a v/c ratio at or over 1.0 is considered undesirable because the movement volume exceeds the capacity, which results in queuing, indicating unmet demand along that approach.

LOS is an evaluation of the quality of operation of an intersection and is a measure of the average delay a driver experiences while traveling through the intersection. LOS is dependent on a range of defined operating conditions such as traffic demand, lane geometry, and traffic signal timing and phasing.

LOS can range from A to F and is based on the average control delay per vehicle in seconds. For a signalized intersection, LOS A indicates operations with an average control delay less than 10 seconds per vehicle, while LOS F describes operations with an average control delay in excess of 80 seconds per vehicle. For an unsignalized intersection, LOS A indicates operations with an average control delay less than 10 seconds per vehicle, while LOS F describes operations with an average control delay in excess of 50 seconds per vehicle. The delay criteria for signalized and unsignalized intersections are summarized in Table 4.

Table 4: LOS Thresholds

Level of Service	Average Control Delay (seconds/vehicle)	
	Signalized	Unsignalized
A	Less than or equal to 10.0	Less than or equal to 10.0
B	>10.0 and ≤20.0	>10.0 and ≤15.0
C	>20.0 and ≤35.0	>15.0 and ≤25.0
D	>35.0 and ≤55.0	>25.0 and ≤35.0
E	>55.0 and ≤80.0	>35.0 and ≤50.0
F	Greater than 80.0 or v/c greater than 1.0	Greater than 50.0 or v/c greater than 1.0
Source: Highway Capacity Manual, 6th Edition		

2021 EXISTING CONDITIONS CAPACITY ANALYSIS RESULTS

2021 Existing Condition volumes for the AM and PM peak hours, shown in Exhibits 1 and 2 in Appendix A, were modeled in Synchro 10 to produce capacity analysis results, summarized in Exhibits 26 and 27 in Appendix A. All Synchro capacity analysis output is in Appendix C. The results show that most intersections currently operate at an overall LOS D or better. Table 5 indicates the lane groups that would operate at LOS of E or F (failing condition) as well as shows overall intersection LOS. The table also notes delay in seconds per vehicle. Figure 10 also illustrates overall intersection LOS for each peak hour on a map.

Table 5: 2021 Existing Condition
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	Existing Condition	
		AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (9.9)	A (8.1)
Konterra Drive & MD 200 Off-Ramp	Intersection	B (17.5)	A (6.5)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	SB-L	F (146.9)	-
	Intersection	E (57.9)	B (18.3)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (374.0)	F (113.5)
	Intersection	E (39.3)	B (13.2)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (285.0)	F (86.7)
	SB-LTR	F (791.7)	F (142.7)
	Intersection	C (15.3)	A (6.3)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	A (9.4)	A (7.4)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	NB-L	E (57.5)	-
	Intersection	C (26.3)	C (28.1)
Pasture Road/ Snowden Woods Road & Muirkirk Road	Intersection	A (0.9)	A (1.0)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (13.6)	B (19.6)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (78.1)	F (82.0)
	EB-LT	E (76.6)	E (78.4)
	WB-LT	F (84.5)	F (99.3)
	NB-L	F (128.5)	F (117.3)
	SB-L	E (76.8)	F (82.6)
	Intersection	D (43.5)	D (50.8)
Odell Road & Springfield Road	Intersection	A (7.1)	A (6.8)
Odell Road & Ellington Drive	Intersection	A (4.6)	A (3.5)
Powder Mill Road & Springfield Road	SB-LR	E (45.9)	F (57.1)
	Intersection	A (7.9)	D (12.8)

Figure 10: 2021 Existing Condition Overall Intersection LOS

TRANSPORTATION IMPACTS

Based on information provided by GSA and FDA, it was assumed that the proposed growth would occur in two stages. The first phase would consist of the addition of 700 employees to the MRC, bringing the entire site population to 1,000 employees, and is anticipated to be complete by 2026. The full anticipated site population of 1,800 is anticipated to be reached by 2040 Therefore, this traffic analysis evaluates future years of 2026 and 2040.

PHASE 1/PHASE 2 (2025-26/ 2040) NO ACTION ALTERNATIVE

Utilizing information provided by the Metropolitan Washington Council of Governments (MWCOG), a population growth rate in Prince George's County of approximately 6.5 percent is anticipated between 2020 and 2040, which equates to an annual growth rate of 0.325 percent Over this same time period, the employment projections show a growth of 12.7 percent or 0.635 percent per year. Therefore, an average background growth rate of 0.5 percent per year on the study area roadway network was applied.

BACKGROUND DEVELOPMENTS

Three planned developments were identified within the project area that would impact the study area intersections. These planned developments include Konterra Town Center – East, The Brickyard, and the Bureau of Engraving and Printing (BEP). Konterra Town Center is a proposed mixed-use development located on the northern portion of Konterra Drive, north of the Konterra

Drive and MD-200 On-Ramp intersection, and will consist of 4,500 residential units, 600 hotel rooms, 1,500,000 square feet (SF) of retail space, and 3,800,000 SF of office space. Trip generation and trip distribution information for the development was available in a report entitled *Traffic Impact Analysis for Preliminary Plan of Subdivision #4-07108, Prince George's County, Maryland*, prepared by The Traffic Group and dated June 19, 2008. The project is separated into two phases, which Stantec has accommodated into the two project action years. The first phase is estimated to produce 2,585 total trips in the AM peak hour and 4,461 total trips in the PM peak hour. The second phase is estimated to produce 3,779 total trips in the AM peak hour and 6,253 total trips in the PM peak hour. The 2026 trip generation for the development can be seen in Exhibits 3 and 4, and 2040 trip generation for the development can be seen in Exhibits 13 and 14 in Appendix A.

The second planned development, called The Brickyard, was identified that would have an impact on the existing roadway network within the study area. The Brickyard is a proposed residential development, consisting of condominiums and townhomes, located along Brickyard Boulevard, north of the Brickyard Boulevard and Muirkirk Road intersection. Trip generation and trip distribution information for the development was available in a report entitled *Letter Report for Preliminary Plan Subdivision #4-07053, Prince George's County, Maryland*, prepared by The Traffic Group and dated January 29, 2008. The project is mostly complete, and the trips associated with the development were accounted for in the turning movement count data (Appendix B), with the exception of approximately 218 units. ITE Land Use Code (LUC), Multifamily Housing (Low-Rise) was utilized to estimate that the additional 218 would produce 100 total trips in the AM peak hour and 118 total trips in the PM peak hour. The trip distribution and generation for the development can be seen in Exhibits 5 through 8 in Appendix A.

The final planned development, called Bureau of Engraving and Printing, is anticipated to have a slight impact on the existing roadway network within the study area. The BEP would be located along Powder Mill Road, southwest of the Powder Mill Road and Springfield Road intersection. Trip generation and trip distribution information for the development was available in a report entitled *Bureau of Engraving and Printing Transportation Impact Study*, prepared by Alliance Consulting Group and dated June 2020. The only intersection that this TIS examines that overlaps with this study is at the intersection of Powder Mill Road and Springfield Road. The report estimates 365 additional westbound trips for the through movement in the AM peak hour and 366 additional eastbound trips for the through movement in the PM peak hour at this intersection. The trip generation for the development can be seen in Exhibits 9 and 10 in Appendix A.

PLANNED INFRASTRUCTURE

Prince George's County and SHA staff were contact during the project scoping to identify any planned infrastructure improvements in the study area that were not part of the developments discussed above. No planned improvements were noted within the study area.

PHASE 1 (2025-26) NO ACTION ALTERNATIVE CAPACITY ANALYSIS RESULTS

The projected volumes obtained by applying the growth rates to the 2021 volumes were added to the site-specific trip generation conducted for the three developments to develop 2026 No Action Alternative volumes for the AM and PM peak hours, shown in Exhibits 11 and 12 in Appendix A.

These volumes were modeled in Synchro 10 to produce capacity analysis results, summarized in Exhibits 26 and 27 in Appendix A.

All Synchro capacity analysis outputs are located in Appendix C.

The results show that ten intersections would continue to operate at an overall LOS D or better, while three would operate at LOS E or F in one or both peak hours. Table 6 shows the lane groups at study intersections that would operate at an overall LOS E or F (failing condition), as well as overall intersection LOS. Overall intersection delay in seconds per vehicle is noted in parentheses. Figure 11 also illustrates overall intersection LOS for each peak hour on a map.

Table 6: Phase 1 No Action Alternative
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	2026 No Action Condition	
		AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (7.8)	A (5.5)
Konterra Drive & MD 200 Off-Ramp	Intersection	C (21.3)	B (9.7)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	WB-R	-	F (44.1)
	SB-L	F (284.8)	F (235.8)
	Intersection	F (104.3)	F (85.2)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (-)	F (392.8)
	Intersection	F (60.4)	E (36.7)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (-)	F (-)
	SB-LTR	F (-)	F (341.1)
	Intersection	F (550.1)	F (777.6)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	B (10.5)	A (8.2)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	NB-L	E (66.3)	E (60.5)
	Intersection	C (28.7)	C (30.7)
Pasture Road/ Snowden Woods Road & Muirkirk Road	Intersection	A (0.9)	A (1.0)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (13.7)	C (20.3)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (78.7)	F (82.9)
	EB-LT	E (76.6)	E (78.9)
	WB-LT	F (85.7)	F (101.3)
	NB-L	F (137.6)	F (125.3)
	SB-L	E (76.9)	F (83.1)
	Intersection	D (45.2)	D (52.9)
Odell Road & Springfield Road	Intersection	A (7.2)	A (6.9)
Odell Road & Ellington Drive	Intersection	A (4.6)	A (3.5)
Powder Mill Road & Springfield Road	SB-LR	F (242.8)	F (295.7)
	Intersection	D (33.3)	F (52.2)

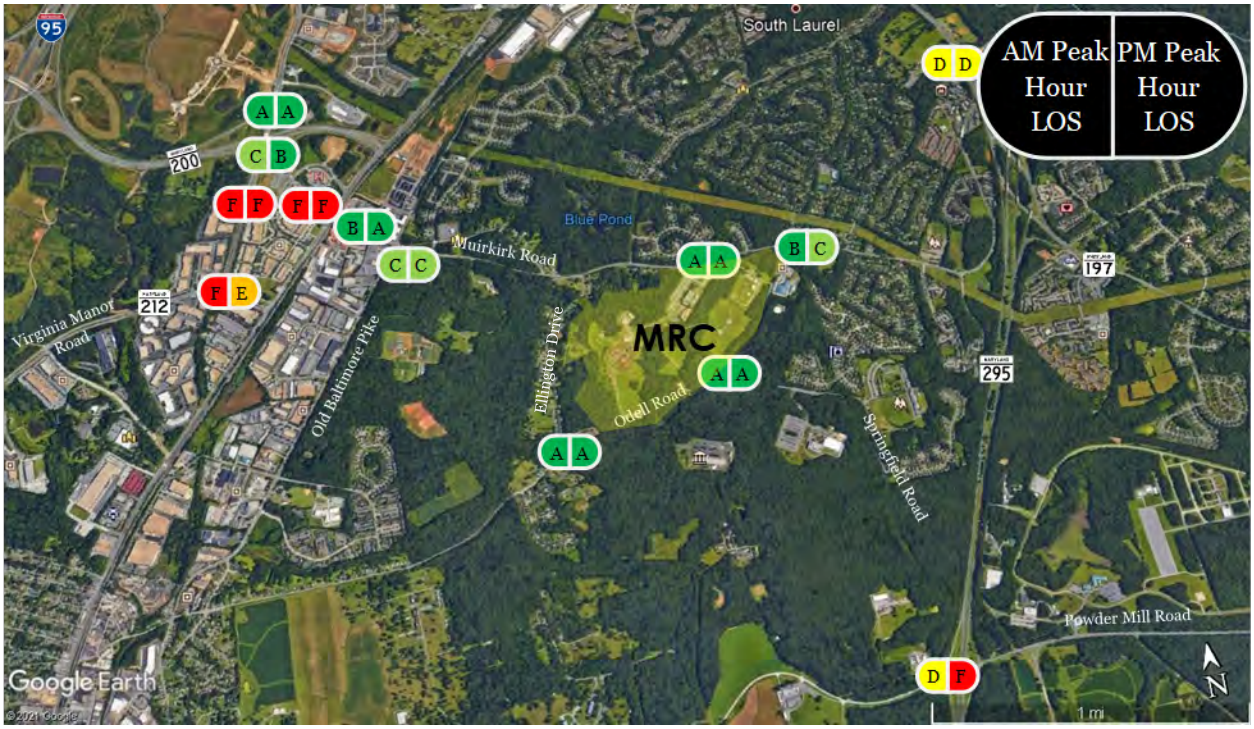

Figure 11: Phase 1 No Action Alternative Overall Intersection LOS

PHASE 2 (2040) NO ACTION ALTERNATIVE CAPACITY ANALYSIS RESULTS

The projected volumes obtained by applying the growth rates to the 2021 volumes were added to the site-specific trip generation conducted for the three developments to develop 2040 No Action Alternative volumes for the AM and PM peak hours, shown in Exhibits 15 and 16 in Appendix A. These volumes were modeled in Synchro 10 to produce capacity analysis results, summarized in Exhibits 26 and 27 in Appendix A.

All Synchro capacity analysis outputs are located in Appendix C.

The results show that eight intersections would continue to operate at an overall LOS D or better, while five would operate at LOS E or F in one or more peak hours. Table 7 indicates the lane groups at study intersections that would operate at an overall LOS of E or F (failing condition), as well as overall intersection LOS. Overall intersection delay in seconds per vehicle is noted in parentheses. Figure 12 also illustrates overall intersection LOS on a map.

Table 7: Phase 2 No Action Alternative
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	2040 No Action Condition	
		AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (8.8)	A (6.2)
Konterra Drive & MD 200 Off-Ramp	Intersection	C (24.3)	B (20.0)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	WB-R	F (53.6)	F (57.7)
	SB-L	F (345.6)	F (288.9)
	Intersection	F (128.3)	F (104.5)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (-)	F (-)
	Intersection	F (91.6)	F (56.8)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (-)	F (-)
	SB-LTR	F (-)	F (-)
	Intersection	F (558.0)	F (651.3)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	B (10.9)	A (8.3)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	NB-L	F (91.1)	F (82.6)
	Intersection	D (35.7)	D (37.6)
Pasture Road/ Snowden Woods Road & Muirkirk Road	Intersection	A (0.9)	A (1.2)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (14.3)	C (22.3)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (79.7)	F (84.4)
	EB-LT	E (77.4)	F (81.3)
	WB-LT	F (88.3)	F (116.1)
	NB-L	F (162.4)	F (144.5)
	SB-L	E (76.7)	F (86.6)
	SB-TR	-	E (59.9)
	Intersection	D (51.0)	E (61.1)
Odell Road & Springfield Road	Intersection	A (7.4)	A (9.0)
Odell Road & Ellington Drive	Intersection	A (4.7)	A (3.7)
Powder Mill Road & Springfield Road	SB-LR	F (-)	F (-)
	Intersection	E (49.1)	F (2236.9)

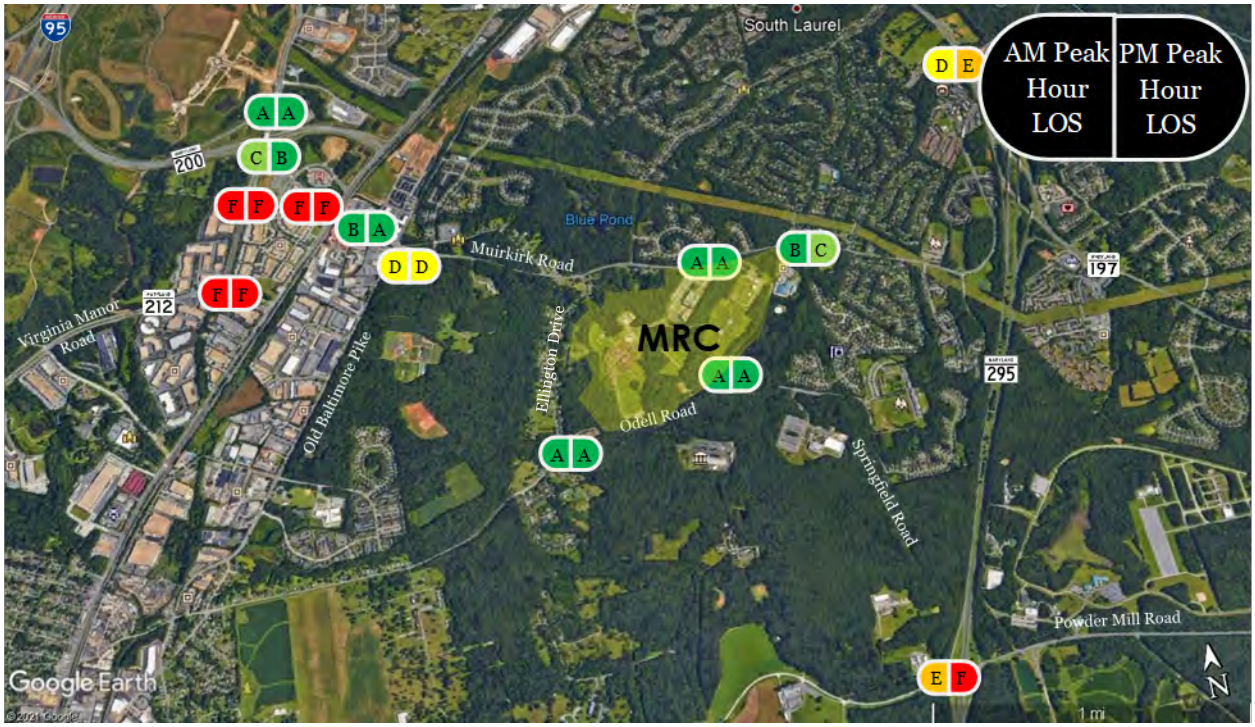

Figure 12: Phase 2 No Action Alternative Overall Intersection LOS

PHASE 1/PHASE 2 (2025-26)/ 2040 FUTURE ACTION ALTERNATIVE

The Action Alternative analysis examines future anticipated volumes, taking into consideration traffic under the No Action Alternative as well as traffic that would be generated by the proposed growth of MRC. An additional intersection has also been added to the action condition. A second driveway has been proposed on Odell Road, approximately 1,000 feet south of the intersection of Muirkirk Road and Odell Road. This driveway would provide secured access for employees and trucks. Primary vehicular access, including visitor access, would still be provided via the existing Muirkirk Road driveway.

It should also be noted that while the EIS evaluates three Master Plan action alternatives, each one is consistent in terms of number of additional employees and site access from the local roadway network. Therefore, only one Action Alternative is evaluated as part of this TIS. It is assumed that the results of the analysis would apply to all three of the Master Plan action alternatives.

SITE TRIP GENERATION

The MRC is a complex trip generator with many variables that relate directly to how many vehicles enter and exit the campus during an average weekday. Employees arrive and depart primarily during typical AM and PM peak hours. The ITE *Trip Generation Manual (*10th Edition*)* Land Use Code 710 (General Office Building) was utilized to estimate the number of AM peak hour, PM peak hour, and total daily trips that would be generated by the additional 1,500 MRC employees (Table 8). These daily trips include both auto trips and non-auto trips.

Information obtained from the commuter survey conducted in November 2020 found that 97 percent of employees currently drive to work. However, NCPC parking guidance requires a parking ratio of one parking space per two employees, which would require that 50 percent of employees arrive via modes other than driving alone. Furthermore, NCPC requires the development of a TMP to provide transportation demand management (TDM) strategies, an implementation plan, and performance monitoring guidance to help reduce SOV commute trips. A TMP has been developed in concert with this TIS as part of the master planning effort.

The TMP recognizes the exurban location of the MRC and the limited high-capacity transit services to the site. In addition, the results of the survey indicate that most employees that would relocate to the MRC live to the north and west of the MRC, making transit a challenging option. Furthermore, the relatively low site population would not likely support larger transit-related investments. Therefore, the TMP establishes an interim mode share goal of 25 percent non-SOV for the first phase of growth (2026) and a 50 percent non-SOV goal by 2040 to comply with the NCPC parking ratio requirement. Therefore, a 25% non-auto trip credit, which was applied to the base trip generation rates in 2026 and 50 percent in 2040 to estimate the anticipated vehicular trip generation from the proposed growth. The TMP can be found in Appendix D.

Table 8: Trip Generation Estimate

	Number of Employees	AM Peak Hour			PM Peak Hour			Total Daily
		In	Out	Tot	In	Out	Tot	
Existing (2021)	300	90	16	106	5	100	105	1,180
2026	1,000	315	55	370	20	380	400	3,091
With 25% Non-SOV Mode Share		**236**	**42**	**278**	**15**	**285**	**300**	**2,319**
2040	1,800	566	100	666	36	684	720	4,946
With 50% Non-SOV Mode Share		**283**	**50**	**333**	**18**	**342**	**360**	**2,473**

SITE TRIP DISTRIBUTION

A trip distribution analysis was conducted to estimate how the new vehicle trips would travel to and from the site. Employee home ZIP code data for off-campus employee data was obtained from a 2017 survey conducted for FDA's White Oak Campus. Utilizing typical weekday traffic conditions from Google Maps, a preferred route from off-campus was established for each given zip code. The following network entrance/exit points were established:

- Virginia Manor Road
- MD 200
- MD 212
- Laurel Bowie Road (MD 197)
- Muirkirk Meadows Drive
- Old Baltimore Pike
- Powder Mill Road

The designated routes were grouped by direction of arrival and departure to the study area network for the MRC employees. Utilizing the preferred routes of travel, percentages for each potential arrival/departure route were created for off-campus employees moving to the MRC. In general, most trips were oriented to/from I-95 via MD 200, MD 212, and Laurel Bowie Road (MD 197). The resulting trip distribution diagrams for the Action Alternative can be found in Exhibit 17 in Appendix A.

PHASE 1 (2025-26) ACTION ALTERNATIVE CAPACITY ANALYSIS RESULTS

The 2026 No Action Alternative traffic volumes and the proposed site-generated traffic volumes were summed to obtain 2026 Action Alternative volumes for the AM and PM peak hours, shown in Exhibits 18 and 19 in Appendix A. These volumes were modeled in Synchro 10 to produce capacity analysis results, summarized in Exhibits 26 and 27 in Appendix A. All Synchro capacity analysis outputs are located in Appendix C.

The results of the capacity analysis indicate that the proposed growth at the MRC would have a moderate impact on the study area roadway network when compared to the No Action Alternative. Overall intersection delay would increase by less than 10 seconds per vehicle at all intersections except for the intersections of:

- Konterra Drive and MD 200 Off-Ramp
- Virginia Manor Road/Konterra Drive and Muirkirk Road
- Virginia Manor Road and Ritz Way
- Old Baltimore Pike/Cedarhurst Road and Muirkirk Road
- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)

Table 9 below shows the lane groups at study intersections that would operate at an overall LOS of E or F (failing condition), as well as overall intersection LOS. Figure 13 also illustrates overall intersection LOS on an aerial map. However, it should also be noted that many of the intersections that are impacted outside of the immediate area of the site experience an increase in delay due to the already high delays that are present in the No Action Alternative. When traffic volume is added to already oversaturated intersection movements, Synchro-reported delay can increase exponentially. Therefore, it is likely that if the No Action Alternative conditions are addressed through other projects, the increase in delay attributed to MRC-generated traffic would be lower.

Table 9: Phase 1 Action Alternative
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	2026 No Action Condition		2026 Action Condition	
		AM	PM	AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (7.8)	A (5.5)	A (8.3)	A (8.0)
Konterra Drive & MD 200 Off Ramp	EB-R	-	-	F (78.8)	-
	Intersection	C (21.3)	B (9.7)	C (30.6)	C (21.5)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	WB-R	-	F (44.1)	-	F (112.2)
	SB-L	F (284.8)	F (235.8)	F (378.0)	F (243.5)
	Intersection	F (104.3)	F (85.2)	F (141.7)	F (109.4)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (-)	F (392.8)	F (-)	F (-)
	Intersection	F (60.4)	E (36.7)	F (76.8)	E (36.7)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (-)	F (-)	F (-)	F (-)
	SB-LTR	F (-)	F (341.1)	F (-)	F (743.2)
	Intersection	F (550.1)	F (777.6)	F (515.3)	F (719.1)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	B (10.5)	A (8.2)	B (10.4)	A (7.9)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	EB-TR	-	-	F (78.7)	-
	NB-L	E (66.3)	E (60.5)	E (66.3)	E (60.5)
	Intersection	C (28.7)	C (30.7)	E (56.6)	C (30.4)
Pasture Road/ Snowden Woods Road & Muirkirk Road	NB-L	-	-	-	F (258.7)
	Intersection	A (0.9)	A (1.0)	A (1.3)	E (37.7)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (13.7)	C (20.3)	B (13.9)	C (22.4)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (78.7)	F (82.9)	E (78.9)	F (84.3)
	EB-LT	E (76.6)	E (78.9)	E (76.8)	F (80.1)
	WB-LT	F (85.7)	F (101.3)	F (85.7)	F (101.3)
	NB-L	F (137.6)	F (125.3)	F (164.6)	F (126.1)
	SB-L	E (76.9)	F (83.1)	E (76.9)	F (83.1)
	Intersection	D (45.2)	D (52.9)	D (47.9)	D (53.7)
Odell Road & MRC Driveway	Intersection	-	-	A (0.5)	A (1.6)
Odell Road & Springfield Road	Intersection	A (7.2)	A (6.9)	A (7.3)	A (7.0)
Odell Road & Ellington Drive	Intersection	A (4.6)	A (3.5)	A (4.6)	A (3.5)
Powder Mill Road & Springfield Road	SB-LR	F (242.8)	F (295.7)	F (254.6)	F (325.8)
	Intersection	D (33.3)	F (52.2)	D (35.0)	F (59.6)

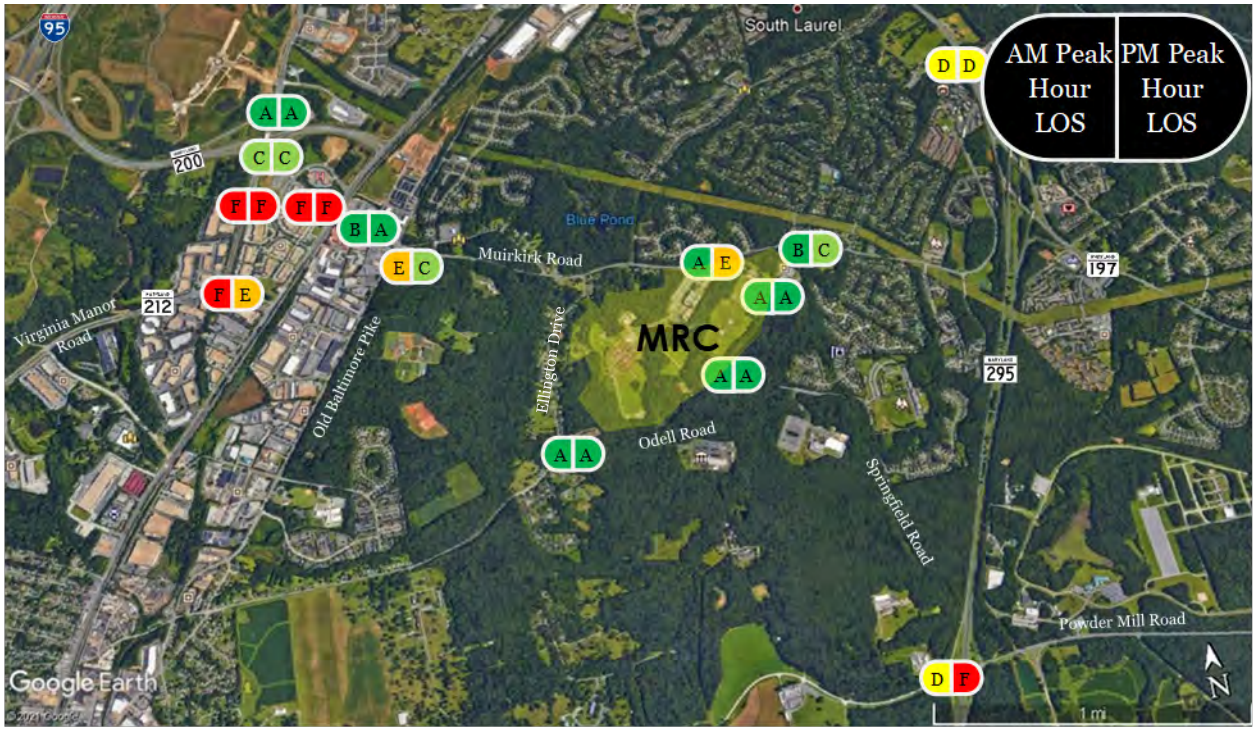

Figure 13: Phase 1 Action Condition Overall Intersection LOS

PHASE 2 (2040) ACTION ALTERNATIVE CAPACITY ANALYSIS RESULTS

The 2040 No Action Alternative traffic volumes and the proposed site-generated traffic volumes were summed to obtain 2040 Action Alternative volumes for the AM and PM peak hours, shown in Exhibits 24 and 25 in Appendix A. These volumes were modeled in Synchro 10 to produce capacity analysis results, summarized in Exhibits 26 and 27 in Appendix A. All Synchro capacity analysis outputs are located in Appendix C.

The results of the capacity analysis indicate that the planned growth at the MRC would have a moderate impact on the study area intersections. Overall intersection delay would increase by less than 10 seconds per vehicle at all intersections except for the intersections of:

- Konterra Drive and MD 200 Off-Ramp
- Virginia Manor Road/Konterra Drive and Muirkirk Road
- Virginia Manor Road and Ritz Way
- Old Baltimore Pike/Cedarhurst Road and Muirkirk Road
- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)
- Powder Mill Road and Springfield Road

All intersections would operate at an overall LOS D or better with the exception of the intersections of:

- Virginia Manor Road/ Konterra Drive and Muirkirk Road
- Virginia Manor Road/ Ritz Way (MD 212) and Virginia Manor Road

- Muirkirk Meadows Drive and Muirkirk Road
- Old Baltimore Pike/ Cedarhurst Drive and Muirkirk Road,
- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)
- Powder Mill Road & Springfield Road

These intersections would continue to operate at LOS E or F and experience an overall increase in delays. Table 10 below indicates the lane groups at study intersections that would operate at an overall LOS of E or F (failing condition), as well as overall intersection LOS. Figure 14 also illustrates overall intersection LOS on a map.

Table 10: Phase 2 Action Alternative
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	2040 No Action Condition		2040 Action Condition	
		AM	PM	AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (8.8)	A (6.2)	A (9.3)	A (9.0)
Konterra Drive & MD 200 Off Ramp	EB-R	-	-	F (116.8)	-
	Intersection	C (24.3)	B (20.0)	D (38.4)	C (21.9)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	WB-R	F (53.6)	F (57.7)	F (63.9)	F (131.7)
	SB-L	F (345.6)	F (288.9)	F (442.7)	F (296.8)
	Intersection	F (128.3)	F (104.5)	F (168.0)	F (129.8)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (-)	F (-)	F (-)	F (-)
	Intersection	F (91.6)	F (56.8)	F (893.2)	F (57.0)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (-)	F (-)	F (-)	F (-)
	SB-LTR	F (-)	F (-)	F (-)	F (-)
	Intersection	F (558.0)	F (651.3)	F (-)	F (611.2)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	B (10.9)	A (8.3)	B (11.0)	A (8.3)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	EB-TR	-	-	F (106.2)	-
	NB-L	F (91.1)	F (82.6)	F (91.1)	F (82.6)
	Intersection	D (35.7)	D (37.6)	E (73.6)	D (36.9)
Pasture Road/ Snowden Woods Road & Muirkirk Road	NB-L	-	-	-	F (-)
	Intersection	A (0.9)	A (1.2)	A (1.4)	E (49.1)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (14.3)	C (22.3)	B (14.6)	C (24.9)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (79.7)	F (84.4)	F (80.1)	F (86.2)
	EB-LT	E (77.4)	F (81.3)	E (77.0)	F (82.1)
	WB-LT	F (88.3)	F (116.1)	F (88.3)	F (116.1)
	NB-L	F (162.4)	F (144.5)	F (191.4)	F (146.7)
	SB-L	E (76.7)	F (86.6)	E (76.7)	F (86.6)
	SB-TR	-	E (59.9)	-	E (61.9)

	Intersection	D (51.0)	E (61.1)	D (54.1)	E (62.4)
Odell Road & MRC Driveway	Intersection	-	-	A (0.4)	A (1.5)
Odell Road & Springfield Road	Intersection	A (7.4)	A (9.0)	A (7.5)	A (9.2)
Odell Road & Ellington Drive	Intersection	A (4.7)	A (3.7)	A (4.7)	A (3.7)
Powder Mill Road & Springfield Road	SB-LR	F (-)	F (-)	F (365.1)	F (-)
	Intersection	E (49.1)	F (-)	F (50.7)	F (-)

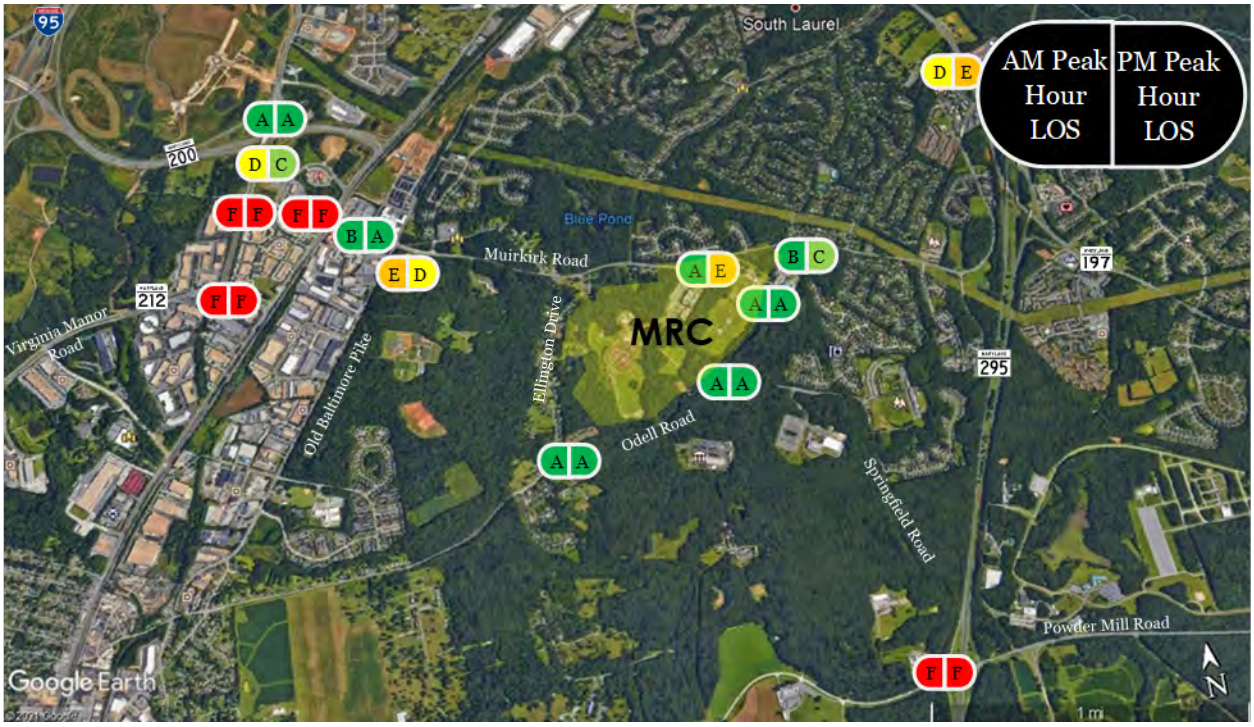

Figure 14: Phase 2 Action Condition Overall Intersection LOS

PHASE 1/PHASE 2 (2025-26/2040) FUTURE ACTION WITH MITIGATION ALTERNATIVE

The analysis of the 2026/2040 No Action and Action Alternatives indicates the need to provide intersection improvements to address deficiencies that would be present without the MRC growth, as well as deficiencies that are directly related to the planned MRC growth. The 2026/2040 Future Action with Mitigation Alternative analysis examines future anticipated volumes, taking into consideration traffic under the No Action Alternative, as well as traffic that would be generated by the proposed growth of MRC employees.

PHSAE 1 (2025-26) FUTURE ACTION WITH MITIGATION ALTERNATIVE

Given the built-out nature of the transportation network within the study area, emphasis was placed on improving overall intersection operations through adjustments rather than new construction, such as constructing signalized intersections and additional lanes for movements that would experience an increase in delay of at least ten seconds per vehicle.

Recommended mitigation measures include signal timing and coordination adjustments as well as the following physical improvements at the signalized intersections:

VIRGINIA MANOR ROAD (MD 206)/KONTERRA DRIVE AND MUIRKIRK ROAD

- Provide a second southbound left-turn lane from Konterra Drive onto eastbound Muirkirk Road.

VIRGINIA MANOR ROAD/ RITZ WAY (MD 212) AND VIRGINIA MANOR ROAD (MD 206)

- Install a traffic signal that is coordinated with the other signals along Virginia Manor Road/Konterra Drive (MD 206). A roundabout could also be considered at this intersection but would require further investigation.

MUIRKIRK MEADOWS DRIVE AND MUIRKIRK ROAD

- Install a traffic signal that is coordinated with the other nearby traffic signals on Muirkirk Road.

OLD BALTIMORE PIKE/ CEDARHURST DRIVE AND MUIRKIRK ROAD

- Construct separate right-turn only lane from eastbound Muirkirk Road to southbound Old Baltimore Pike.

PASTURE ROAD/ SNOWDEN WOODS ROAD AND MUIRKIRK ROAD

- Install a traffic signal at the intersections. A roundabout could also be considered at this location. However, this would warrant further investigation as additional right-of-way (ROW) may be required.

POWDER MILL ROAD AND SPRINGFIELD ROAD

- Install a traffic signal at this intersection and provide separate right and left-turn lanes on westbound and eastbound Powder Mill Road, respectfully. This is also a recommendation contained in the *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group.

MUIRKIRK ROAD/CRYSTAL PLAZA AND LAUREL BOWIE ROAD (MD 197)

- Provide two northbound and southbound left-turn lanes from MD 197 to Muirkirk Road/Crystal Plaza.

PHASE 1 (2025-26) FUTURE ACTION WITH MITIGATION ALTERNATIVE CAPACITY ANALYSIS RESULTS

The proposed enhancements would result in intersections that operate at similar, or better, levels of service when compared to the 2026 No Action Alternative (see Exhibits 26 and 27 in Appendix A). There would be no intersections that would continue operate at an overall LOS E or F. Lane groups

that would operate at an overall LOS of E or F (failing condition) at study intersections are shown in Table 11 in comparison to the Action Alternative, as well as overall intersection LOS. Figure 15 also illustrates overall intersection LOS on an aerial.

Table 11: Phase 1 Action with Mitigation Alternative
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	2026 No Action Condition		2026 Action Condition + Mitigation	
		AM	PM	AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (7.8)	A (5.5)	A (6.2)	A (6.3)
Konterra Drive & MD 200 Off-Ramp	EB-R	-	-	-	-
	Intersection	C (21.3)	B (9.7)	C (26.4)	B (19.6)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	EB-LT	-	-	E (75.6)	F (86.1)
	WB-L	-	-	E (70.6)	E (74.6)
	WB-TR	-	-	E (69.3)	E (62.4)
	WB-R	-	F (44.1)	-	-
	NB-T	-	-	E (57.6)	-
	SB-L	F (284.8)	F (235.8)	-	-
	Intersection	F (104.3)	F (85.2)	C (31.5)	D (36.8)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (-)	F (392.8)	-	-
	Intersection	F (60.4)	E (36.7)	B (17.7)	B (14.7)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (-)	F (-)	-	-
	SB-LTR	F (-)	F (341.1)	-	-
	Intersection	F (550.1)	F (777.6)	B (18.8)	B (11.3)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	B (10.5)	A (8.2)	B (12.1)	A (6.1)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	EB-TR	-	-	-	-
	NB-L	E (66.3)	E (60.5)	E (67.1)	-
	SB-TR	-	-	E (75.7)	-
	Intersection	C (28.7)	C (30.7)	C (30.7)	C (22.9)
Pasture Road/ Snowden Woods Road & Muirkirk Road	NB-L	-	-	-	-
	Intersection	A (0.9)	A (1.0)	A (3.5)	B (19.3)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (13.7)	C (20.3)	B (13.9)	C (22.4)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (78.7)	F (82.9)	E (78.0)	F (82.2)
	EB-LT	E (76.6)	E (78.9)	E (76.0)	E (78.2)
	WB-LT	F (85.7)	F (101.3)	E (79.2)	E (78.9)
	NB-L	F (137.6)	F (125.3)	E (78.7)	E (71.9))
	SB-L	E (76.9)	F (83.1)	E (76.5)	E (73.7)
	Intersection	D (45.2)	D (52.9)	D (38.0)	D (46.6)
Odell Road & MRC Driveway	Intersection	-	-	A (0.5)	A (1.6)

Intersection	Lane Group	2026 No Action Condition		2026 Action Condition + Mitigation	
		AM	PM	AM	PM
Odell Road & Springfield Road	Intersection	A (7.2)	A (6.9)	A (7.3)	A (7.0)
Odell Road & Ellington Drive	Intersection	A (4.6)	A (3.5)	A (4.6)	A (3.5)
Powder Mill Road & Springfield Road	SB-LR	F (242.8)	F (295.7)	-	-
	Intersection	D (33.3)	F (52.2)	B (14.7)	C (20.2)

Figure 15: Phase 1 Action with Mitigation Alternative Overall Intersection LOS

PHASE 2 (2040) ACTION WITH MITIGATION ALTERNATIVE

The 2040 Action with Mitigation alternative includes the same improvements identified in the 2026 Action with Mitigation alternative, as well as the following:

KONTERRA DRIVE AND MD 200 OFF-RAMP

- Provide a second eastbound right-turn lane from the MD 200 ramp onto southbound Konterra Drive.

PHASE 2 (2040) ACTION WITH MITIGATION ALTERNATIVE CAPACITY ANALYSIS RESULTS

The proposed enhancements would result in intersections that operate at similar, or better, levels of service when compared to the 2040 No Action Alternative (see Exhibits 26 and 27 in Appendix A). There would be no intersections that would continue operate at an overall LOS E or F. Lane groups

that would operate at an overall LOS of E or F (failing condition) at study intersections are shown in Table 12 in comparison to the Action Alternative, as well as overall intersection LOS. Figure 16 also illustrate overall intersection LOS on an aerial.

Table 12: Phase 2 Action with Mitigation Alternative
Lane Groups Operating at Overall LOS E or F
Overall Intersection LOS

Intersection	Lane Group	2040 No Action Condition		2040 Action Condition + Mitigation	
		AM	PM	AM	PM
Konterra Drive & MD 200 On-Ramp	Intersection	A (8.8)	A (6.2)	A (7.0)	A (7.6)
Konterra Drive & MD 200 Off-Ramp	EB-R	-	-	-	-
	Intersection	C (24.3)	B (20.0)	B (16.7)	B (17.9)
Virginia Manor Road/ Konterra Drive & Muirkirk Road	EB-LT	-	-	E (76.6)	E (75.6)
	WB-L	-	-	F (80.2)	E (77.8)
	WB-TR	-	-	E (78.8)	E (63.8)
	WB-R	F (53.6)	F (57.7)	F (81.5)	E (78.9)
	NB-L	-	-	E (56.4)	-
	SB-L	F (345.6)	F (288.9)	-	-
	Intersection	F (128.3)	F (104.5)	D (49.9)	D (51.7)
Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road	SB-L	F (-)	F (-)	-	-
	Intersection	F (91.6)	F (56.8)	C (21.5)	B (13.1)
Muirkirk Meadows Drive & Muirkirk Road	NB-LTR	F (-)	F (-)	-	-
	SB-LTR	F (-)	F (-)	-	-
	Intersection	F (558.0)	F (651.3)	C (28.0)	B (13.1)
Brickyard Boulevard/ Driveway & Muirkirk Road	Intersection	B (10.9)	A (8.3)	B (12.9)	A (7.2)
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road	EB-TR	-	-	-	-
	NB-L	F (91.1)	F (82.6)	E (60.9)	E (58.8)
	SB-TR	-	-	E (68.7)	-
	Intersection	D (35.7)	D (37.6)	C (31.6)	C (29.1)
Pasture Road/ Snowden Woods Road & Muirkirk Road	NB-L	-	-	-	-
	Intersection	A (0.9)	A (1.2)	A (3.7)	C (22.0)
Odell Road/ Cedarbrook Lane & Muirkirk Road	Intersection	B (14.3)	C (22.3)	B (14.6)	C (24.9)
Laurel Bowie Road (MD 197) & Muirkirk Road/ Crystal Plaza Driveway	EB-L	E (79.7)	F (84.4)	E (78.8)	F (85.2)
	EB-LT	E (77.4)	F (81.3)	E (75.9)	E (61.9)
	WB-LT	F (88.3)	F (116.1)	E (79.3)	F (104.1)
	NB-L	F (162.4)	F (144.5)	E (78.5)	E (75.8)
	SB-L	E (76.7)	F (86.6)	E (77.9)	E (75.2)
	SB-TR	-	E (59.9)	-	-

	Intersection	D (51.0)	E (61.1)	D (41.4)	D (53.2)
Odell Road & MRC Driveway	Intersection	-	-	A (0.4)	A (1.5)
Odell Road & Springfield Road	Intersection	A (7.4)	A (9.0)	A (7.5)	A (9.2)
Odell Road & Ellington Drive	Intersection	A (4.7)	A (3.7)	A (4.7)	A (3.7)
Powder Mill Road & Springfield Road	SB-LR	F (-)	F (-)	-	-
	Intersection	E (49.1)	F (2236.9)	B (16.3)	C (26.5)

Figure 16: Phase 2 Action with Mitigation Alternative Overall Intersection LOS

TRANSPORATION DEMAND MANAGEMENT

In addition to the proposed mitigation measures, it is recommended that FDA engage in the continual update of a robust TMP which outlines a variety of TDM strategies that can be used to reduce single occupancy vehicle trips, and thus reduce the overall impact to the study area roadway network. A TMP document has been prepared for the MRC as part of this overall analysis process, and is included in Appendix D. Recommendations include:

- Campus-wide Employee Transportation Coordinator(s)
- Improved communication with employees, including websites, apps, new employee transportation information package, raffles and competitions, etc.
- Improved carpool and vanpool incentives, including ride matching and establishing service corridors where many employees live.
- Transit incentives such as real-time transit information, transit subsidies, improved/safer transit facilities, additional commuter services.

- Telecommuting programs, including incentives to encourage telecommuting on peak commuting days (Tuesday – Thursday).
- Flexible work schedule program, including incentives to encourage flexible days off on peak commuting days (Tuesday – Thursday).
- Improvements to on and off-campus pedestrian and bicycle facilities.
- Parking policies, including preferential parking, parking reduction programs, smart parking, etc.
- Enhancing last-mile connectivity through shuttle services, improved pedestrian and bicycle connections, and bikeshare or scooters.
- A transportation center that can include areas for buses, shuttles, taxi's/TNCs, and future autonomous vehicles.

CHAPTER 3: CONCLUSIONS

The results of the study show that the addition of 1,500 employees to the MRC would have a moderate adverse impact on traffic conditions at some intersections within the study area. Given the congested nature of the study area corridors, the additional developments in the area, combined with trips generated by the proposed consolidation would require some mitigation measures. Recommended mitigation measures include signal timing and coordination improvements, as well as the following physical improvements:

KONTERRA DRIVE AND MD 200 OFF-RAMP

- Provide a second eastbound right-turn lane from the MD 200 ramp onto southbound Konterra Drive. This would be required in the 2040 future condition.

VIRGINIA MANOR ROAD (MD 206)/KONTERRA DRIVE AND MUIRKIRK ROAD

- Provide a second southbound left-turn lane from Konterra Drive onto eastbound Muirkirk Road.

VIRGINIA MANOR ROAD/ RITZ WAY (MD 212) AND VIRGINIA MANOR ROAD (MD 206)

- Install a traffic signal that is coordinated with the other signals along Virginia Manor Road/Konterra Drive (MD 206). A roundabout could also be considered at this intersection but would require further investigation.

MUIRKIRK MEADOWS DRIVE AND MUIRKIRK ROAD

- Install a traffic signal that is coordinated with the other nearby traffic signals on Muirkirk Road.

OLD BALTIMORE PIKE/ CEDARHURST DRIVE AND MUIRKIRK ROAD

- Construct separate right-turn only lane from eastbound Muirkirk Road to southbound Old Baltimore Pike.

PASTURE ROAD/ SNOWDEN WOODS ROAD AND MUIRKIRK ROAD

- Install a traffic signal at the intersections. A roundabout could also be considered at this location. However, this would warrant further investigation as additional right-of-way (ROW) may be required.

POWDER MILL ROAD AND SPRINGFIELD ROAD

- Install a traffic signal at this intersection and provide separate right and left-turn lanes on westbound and eastbound Powder Mill Road, respectfully. This is also a recommendation

contained in the *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group.

MUIRKIRK ROAD/CRYSTAL PLAZA AND LAUREL BOWIE ROAD (MD 197)

- Provide two northbound and southbound left-turn lanes from MD 197 to Muirkirk Road/Crystal Plaza.

It should be noted that other nearby developments and background traffic growth will have a significant adverse impact on many of the study area intersections. Mitigation measures were considered at all study intersections to address operational deficiencies that are present in the No Action Alternative and Action Alternative. As traffic spreads out on the network from the site, the impact of the trips on the network are less notable. Many of the impacts that are experienced on the intersections that are over one mile from the site are largely due to the No Action Alternative. Thus, the full extent of the improvements needed in this area should not be the sole responsibility of future projects at the MRC.

Furthermore, this study was conducted utilizing data that was collected prior to the COVID-19 pandemic. COVID-19 has significantly changed commute patterns, and it is anticipated that these changes will have a long-term impact, even after the pandemic is over, that may include an increased number of employees working from home, as well as a reluctance for people to use mass transit or ride in carpool or vanpool vehicles. Therefore, it is recommended that the intersections identified as requiring mitigation be re-evaluated in the future at the time of permitting for the new office buildings proposed in the Master Plan, to determine if the mitigation recommendations are still applicable.

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The Traffic Group, 2008. Letter Report for Preliminary Plan Subdivision #4-07053 (The Brickyard), Prince George's County, Maryland. January 29, 2008.

Appendix A: Exhibits

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Appendix B: SHA Traffic Data

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Appendix C: Synchro Output

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Appendix D: Transportation Management Plan

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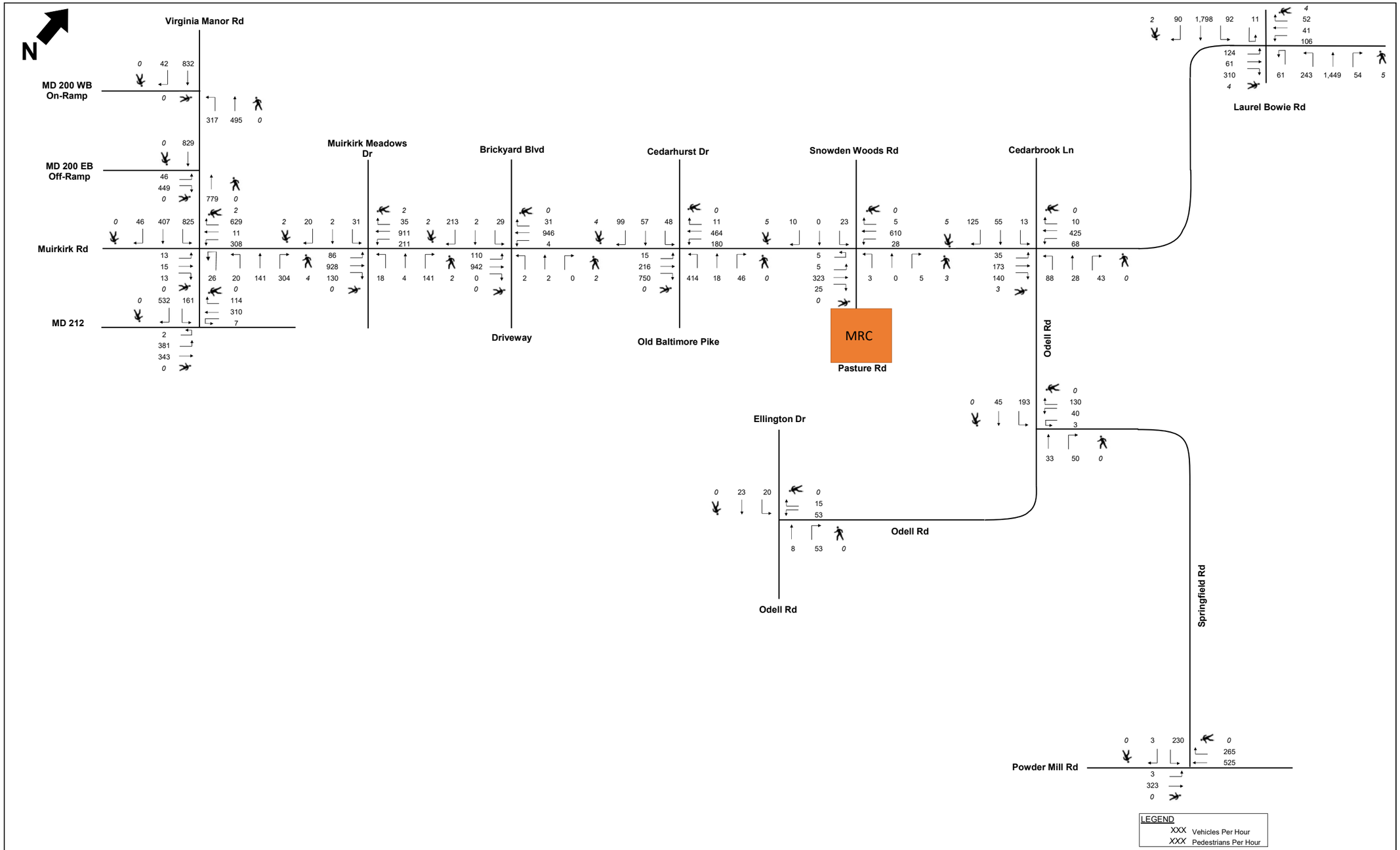
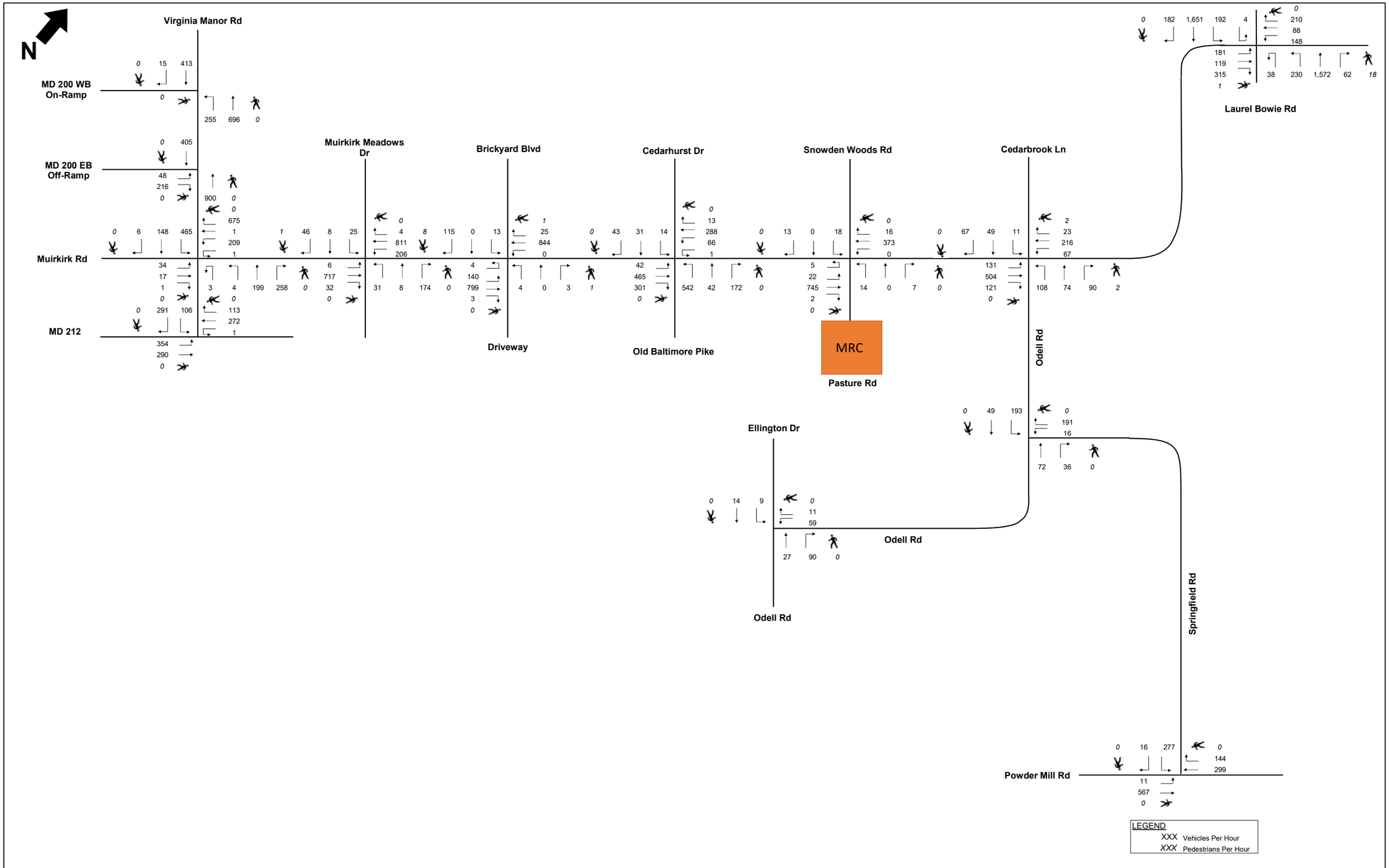
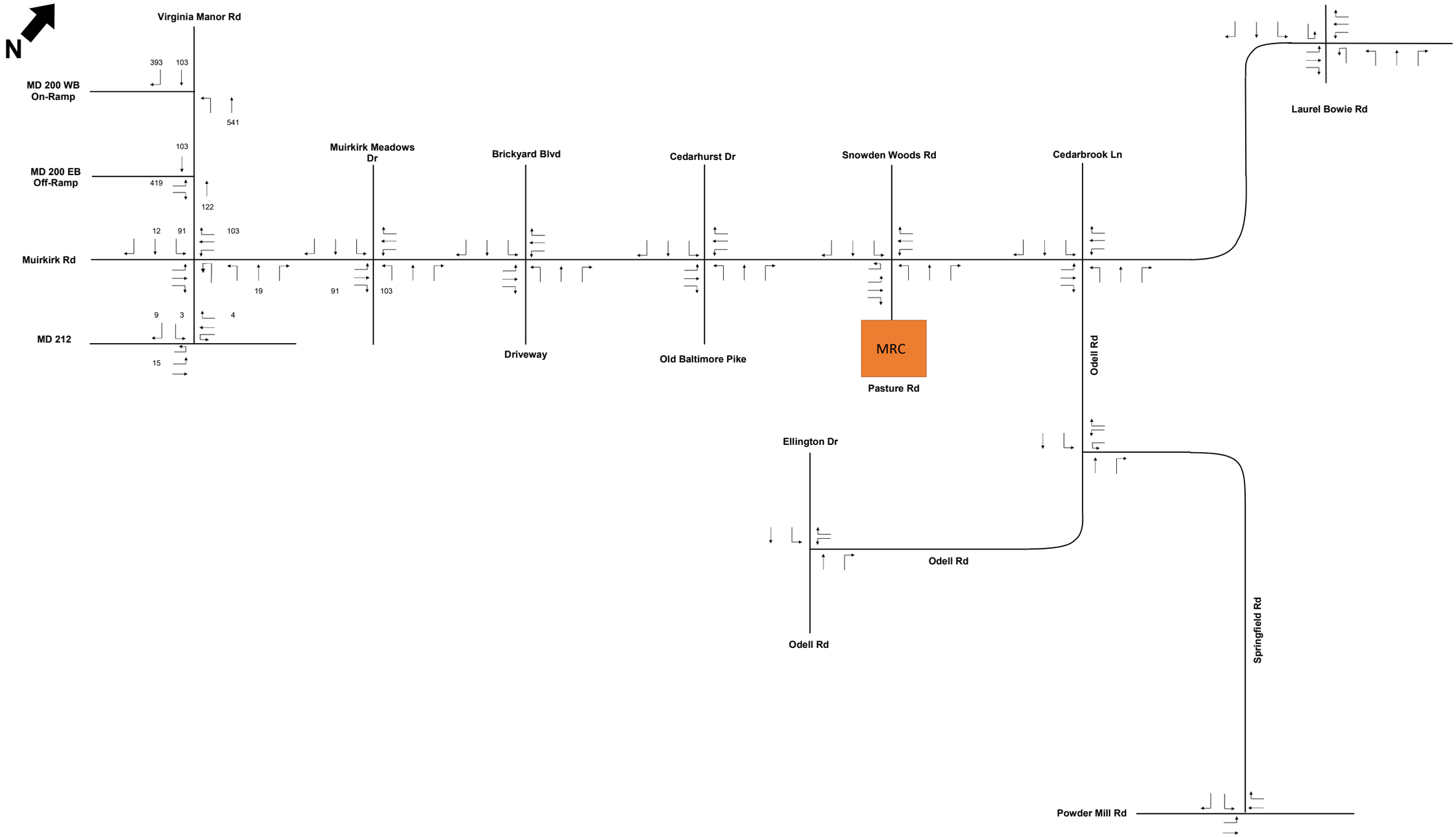
Appendix A: Exhibits



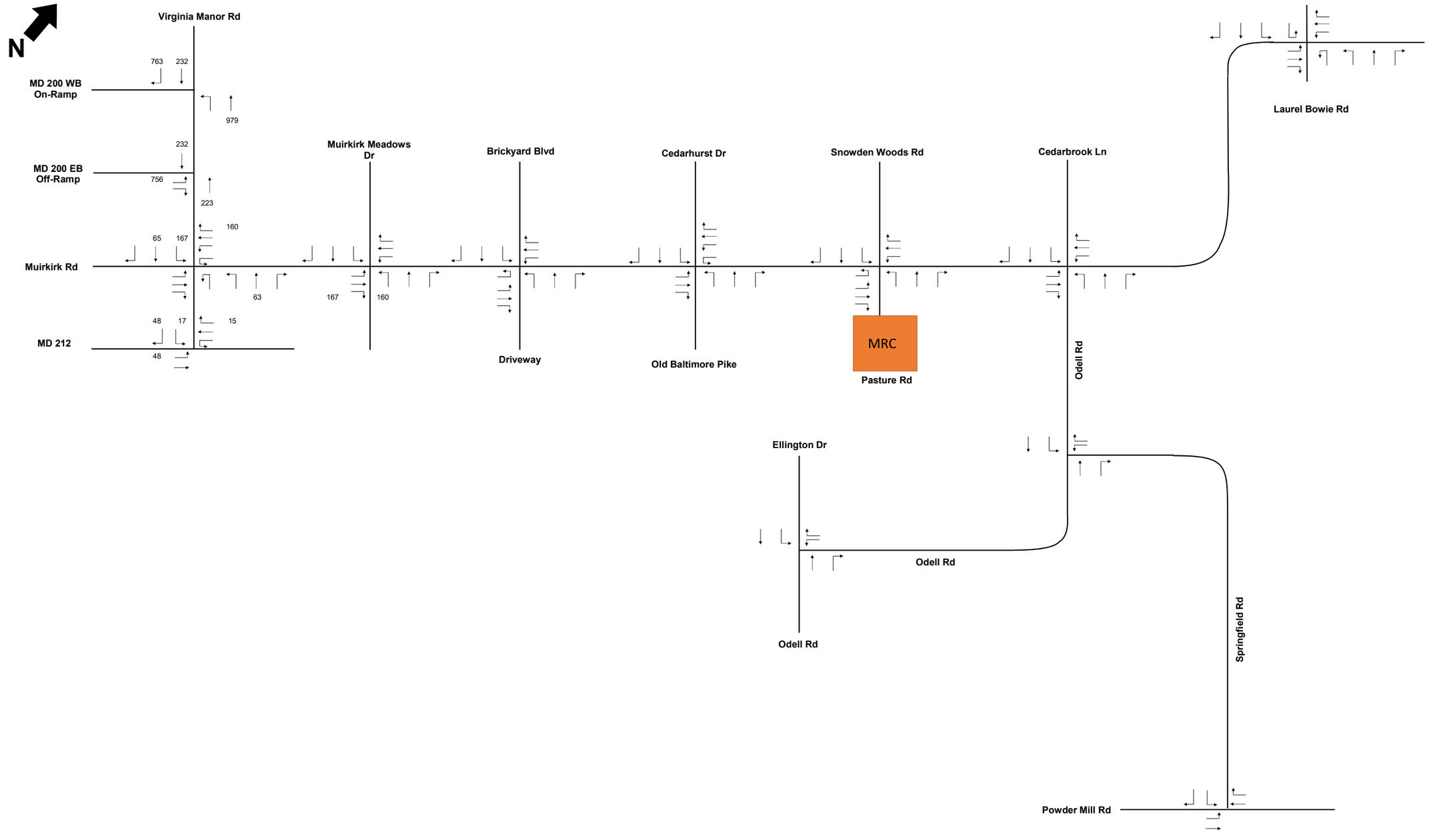
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 1 2021 Existing Condition AM Peak Hour (7:15 AM-8:15 AM)



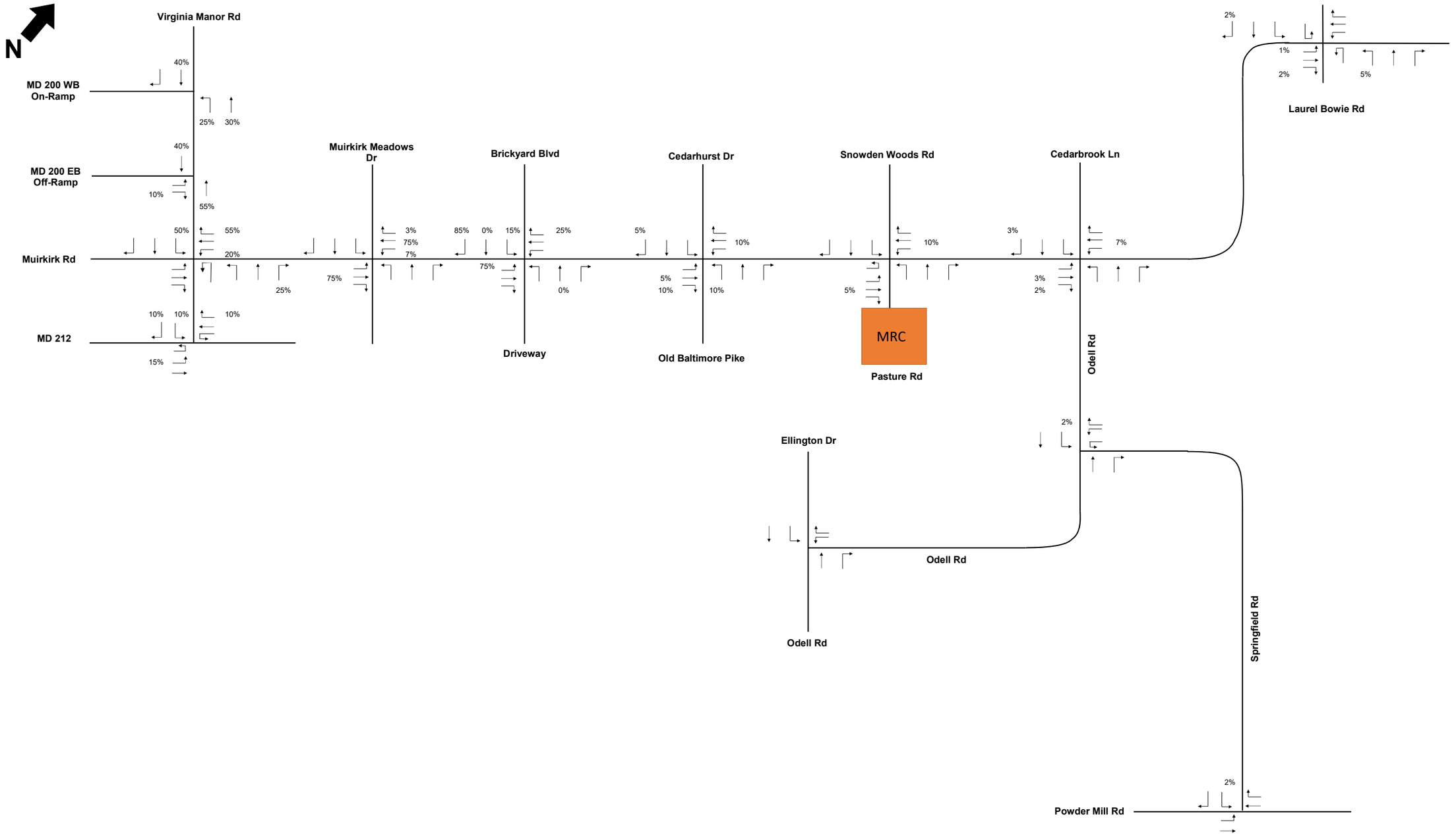
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 2 2021 Existing Condition PM Peak Hour (4:00 PM-5:00 PM)



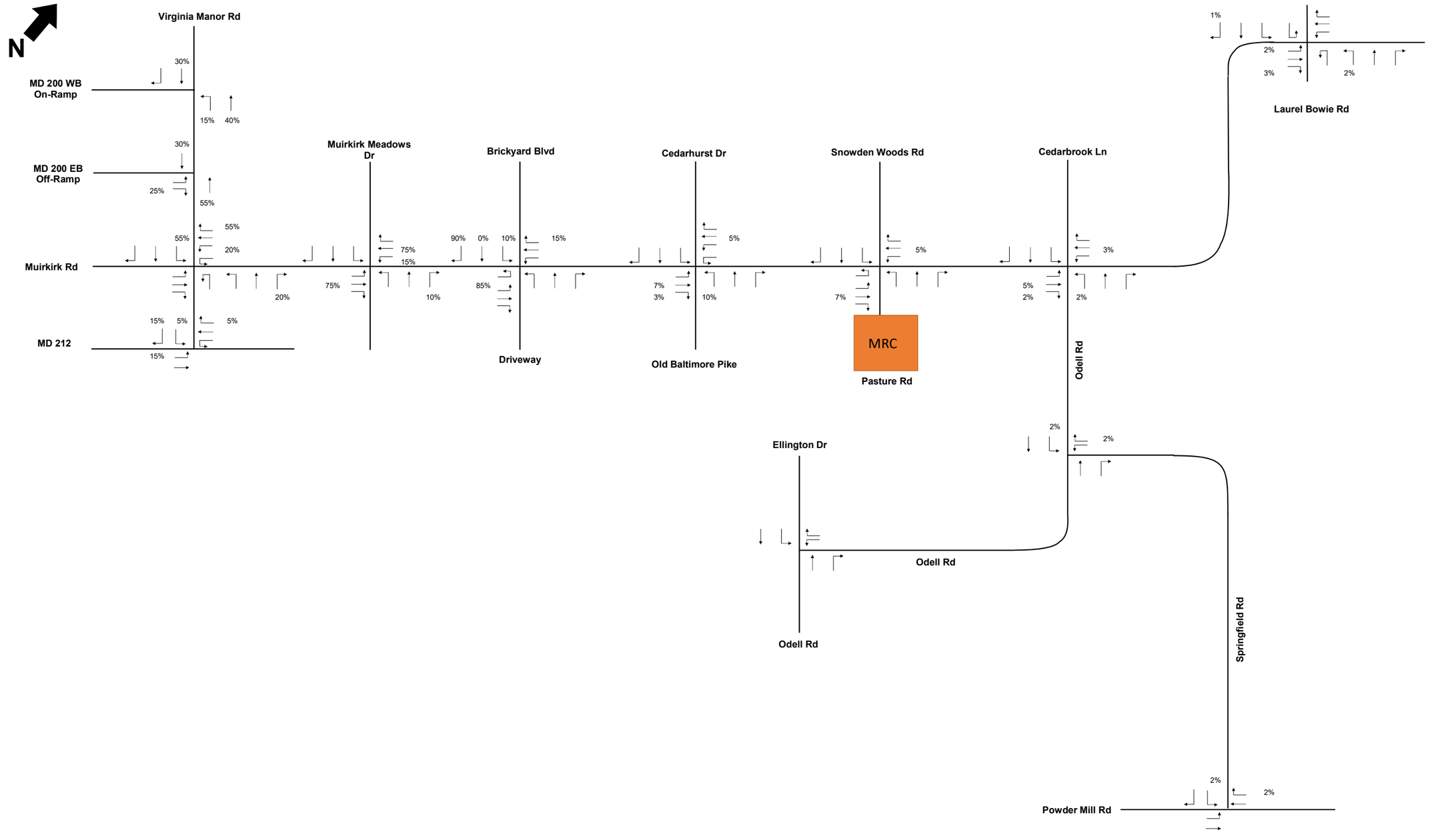
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 3 2026 Konterra Town Center Trip Generation AM Peak Hour (7:15 AM-8:15 AM)



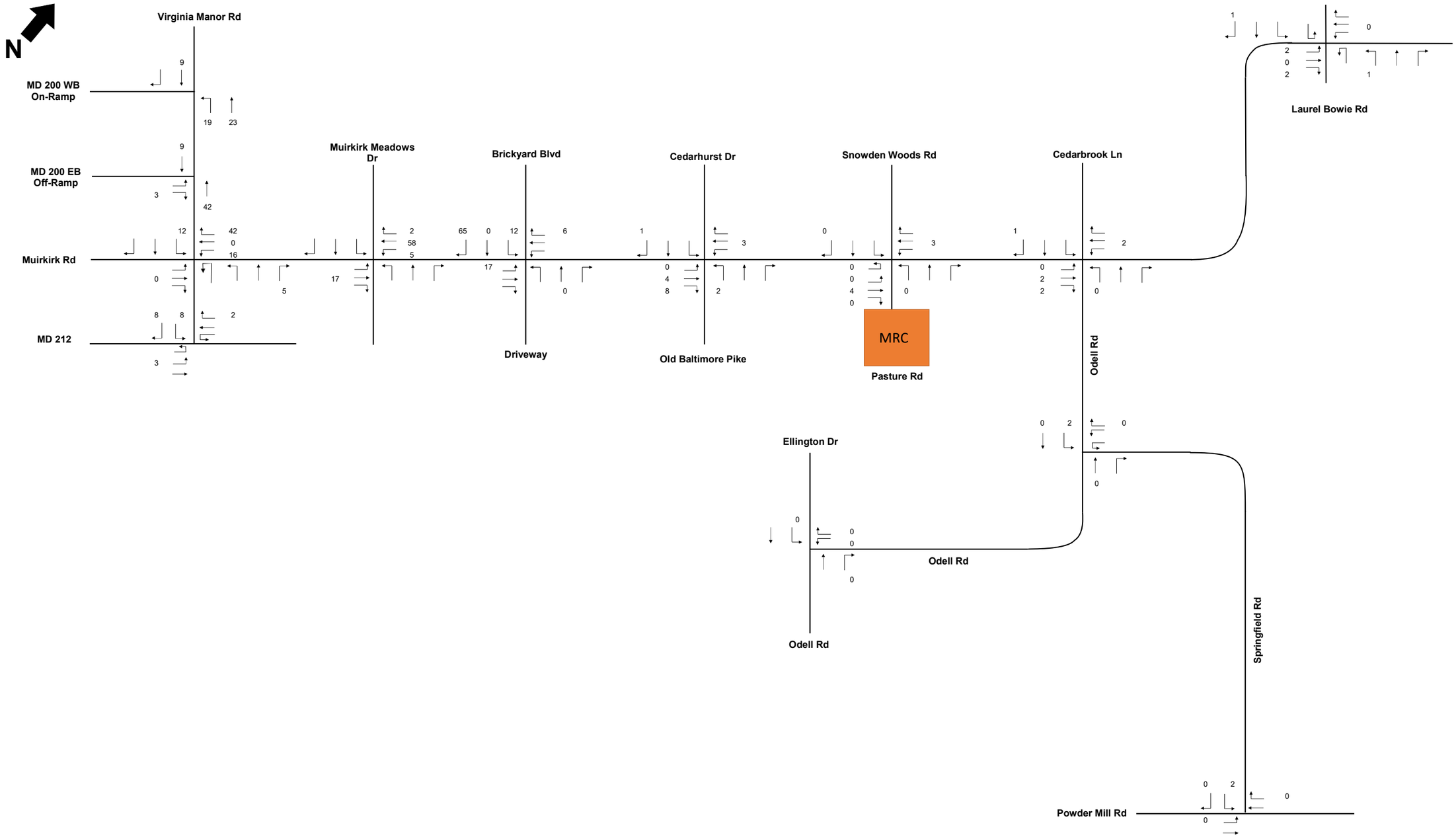
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 4 2026 Konterra Town Center Trip Generation PM Peak Hour (4:00 PM-5:00 PM)



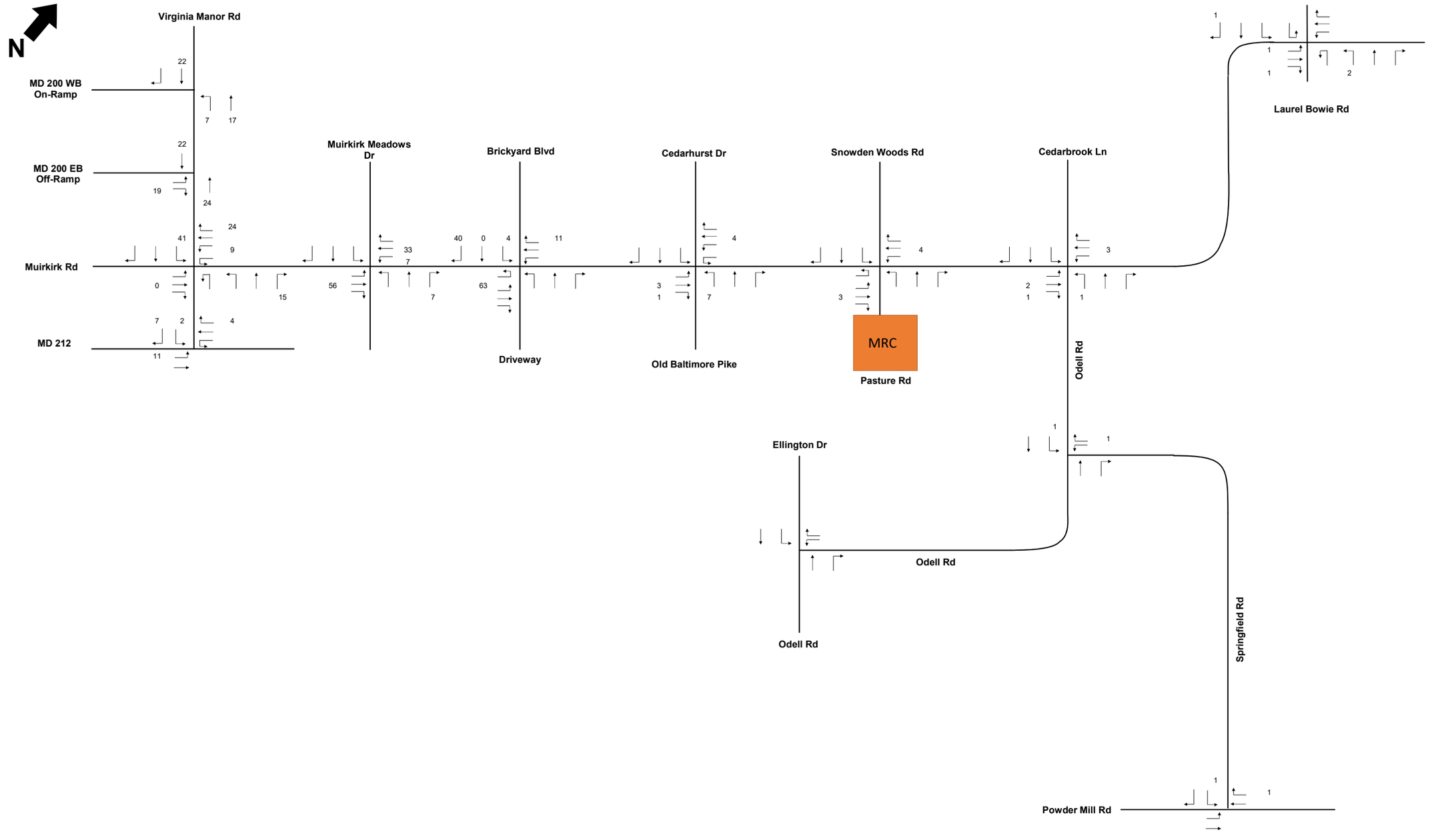
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 5 Brickyard Trip Distribution AM Peak Hour (7:15 AM-8:15 AM)



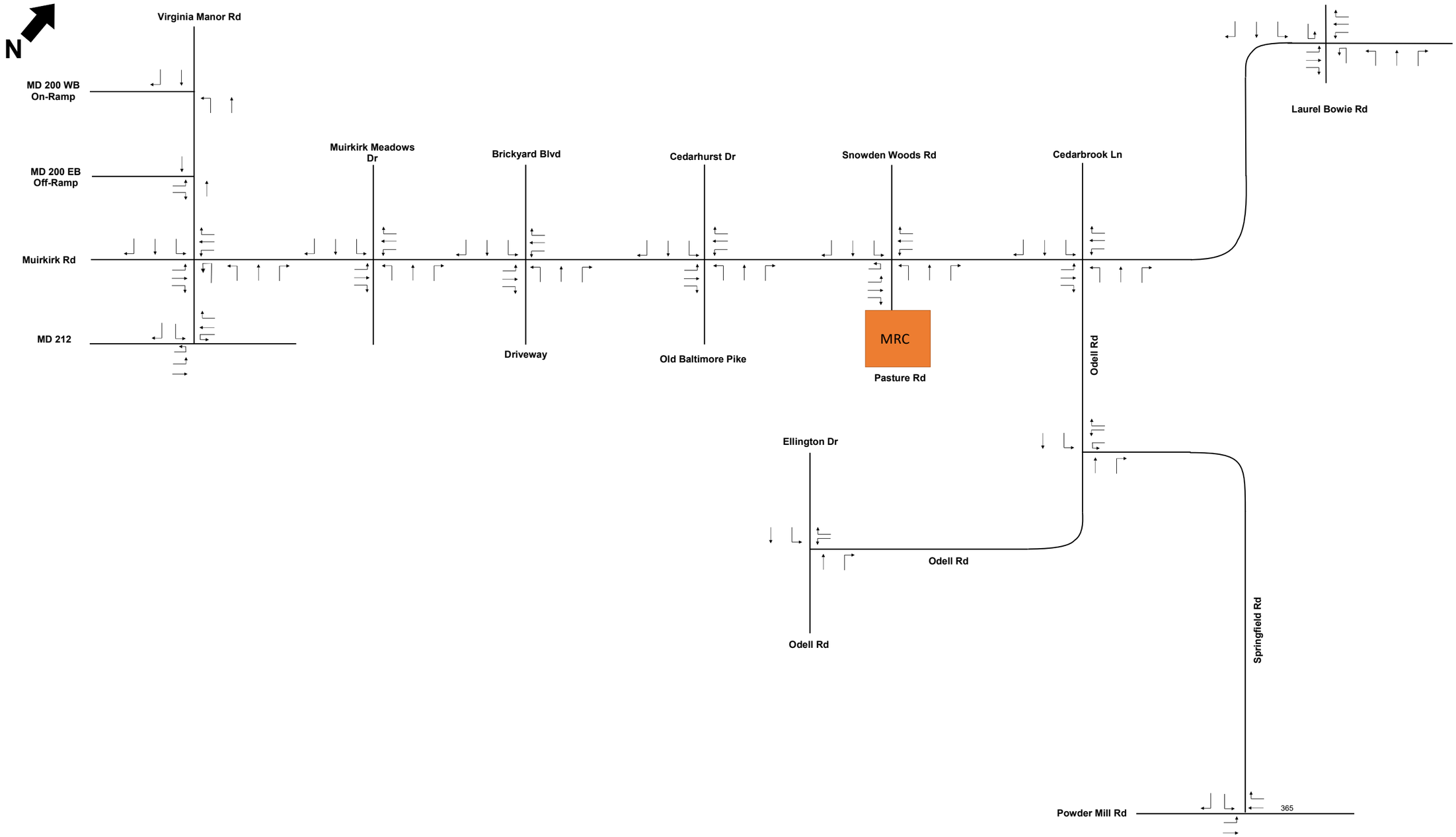
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 6 Brickyard Trip Distribution PM Peak Hour (4:00 PM-5:00 PM)



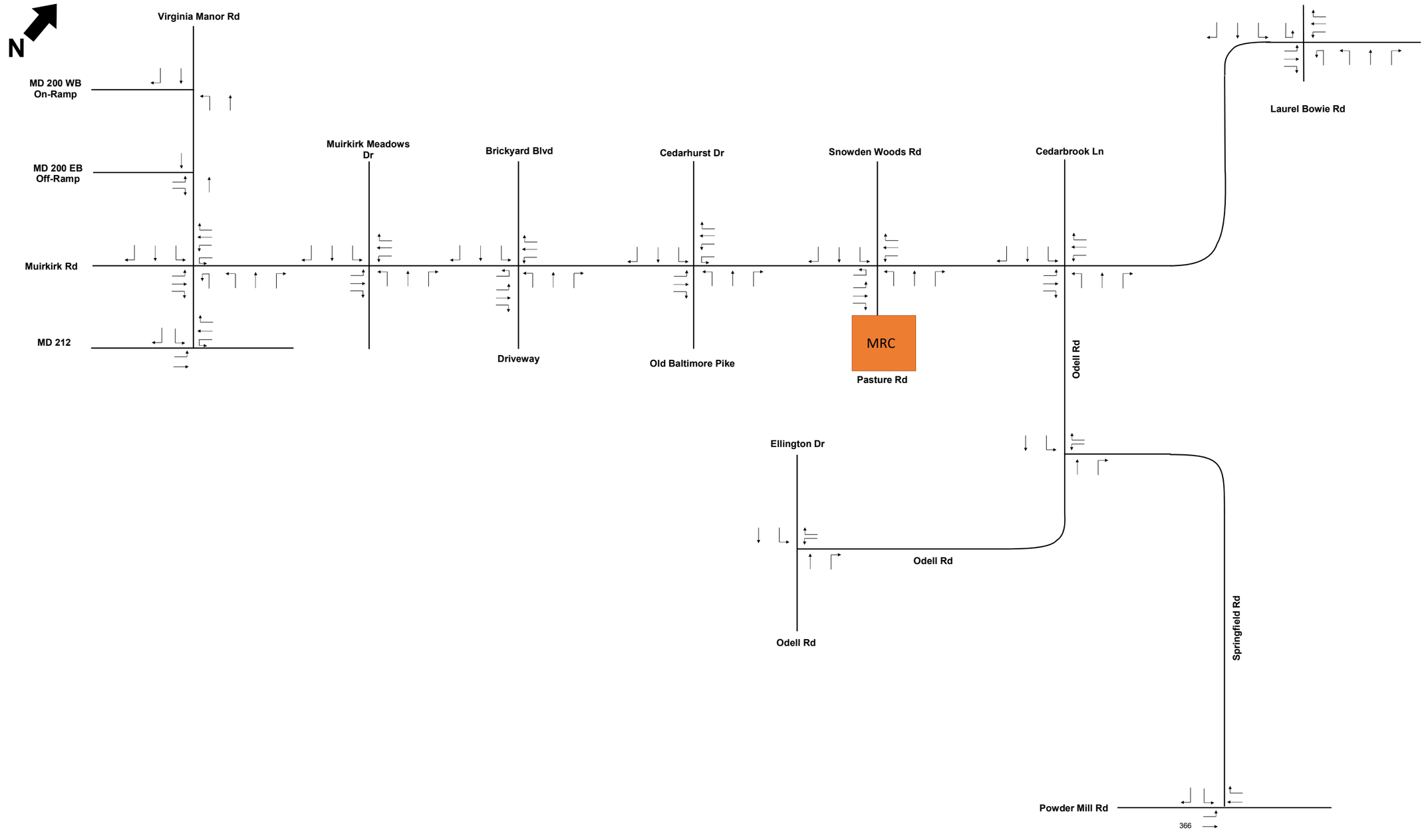
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 7 Brickyard Trip Generation AM Peak Hour (7:15 AM-8:15 AM)



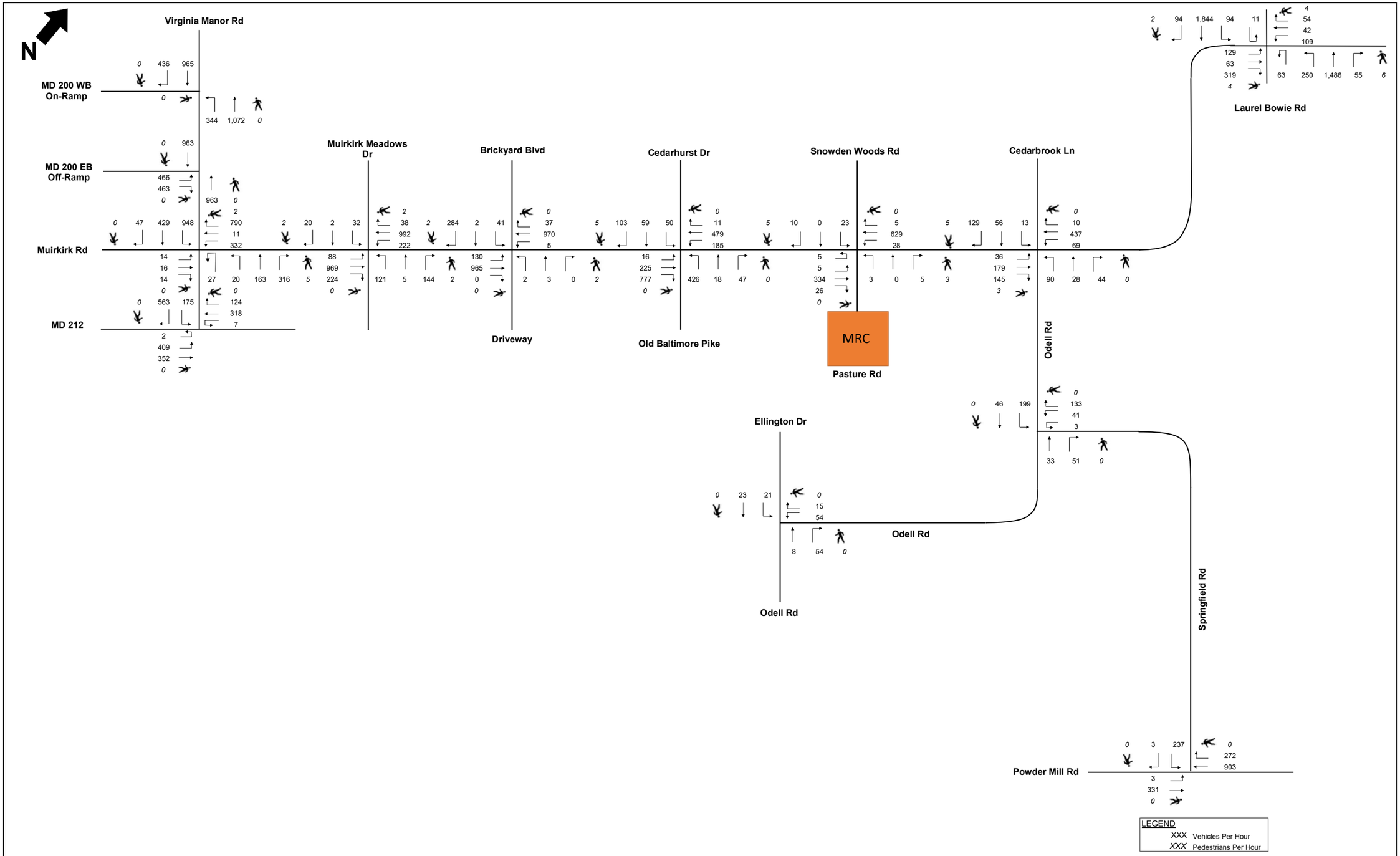
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 8 Brickyard Trip Generation PM Peak Hour (4:00 PM-5:00 PM)



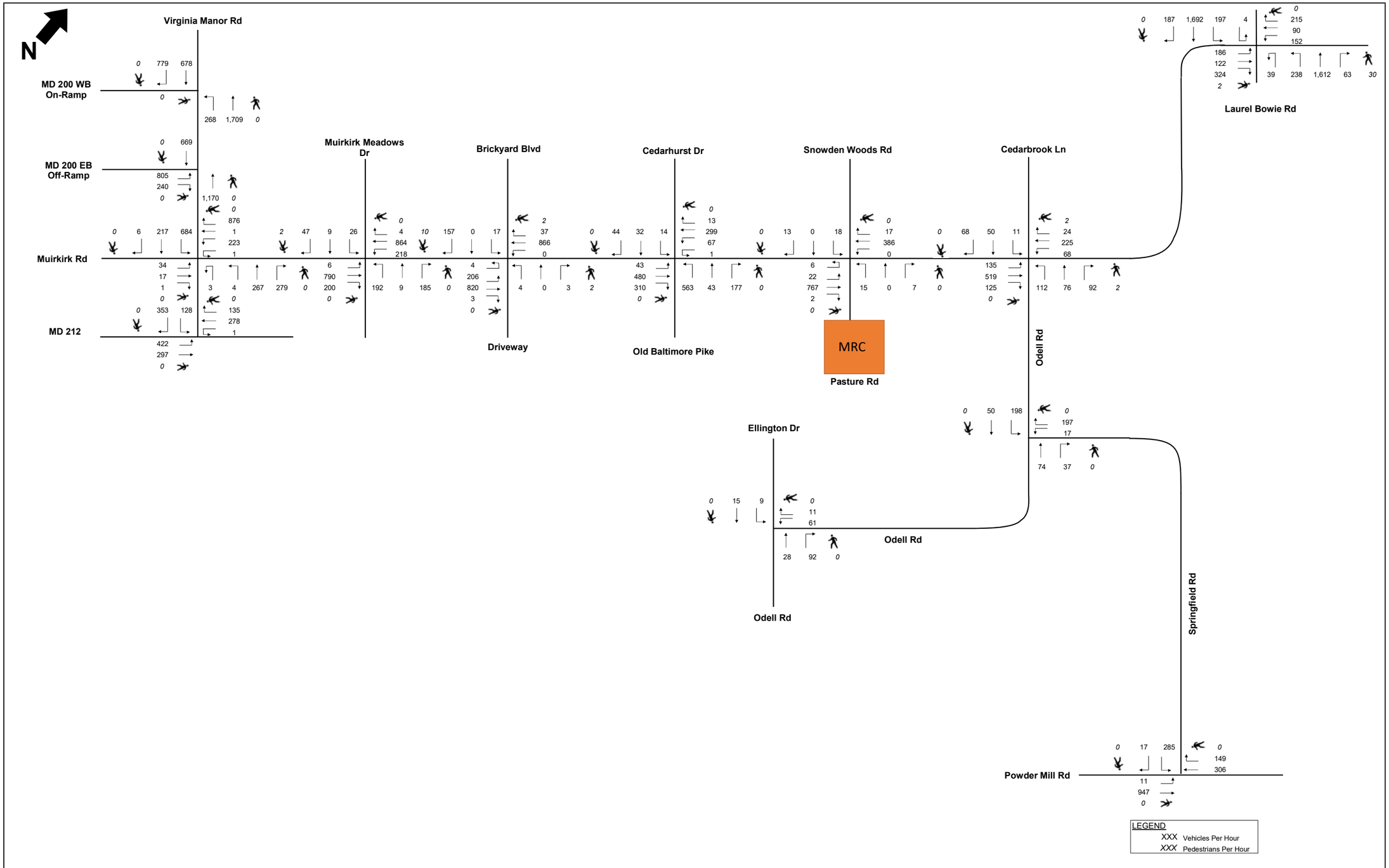
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 9 Powder Mill Road Trip Generation AM Peak Hour (7:15 AM-8:15 AM)



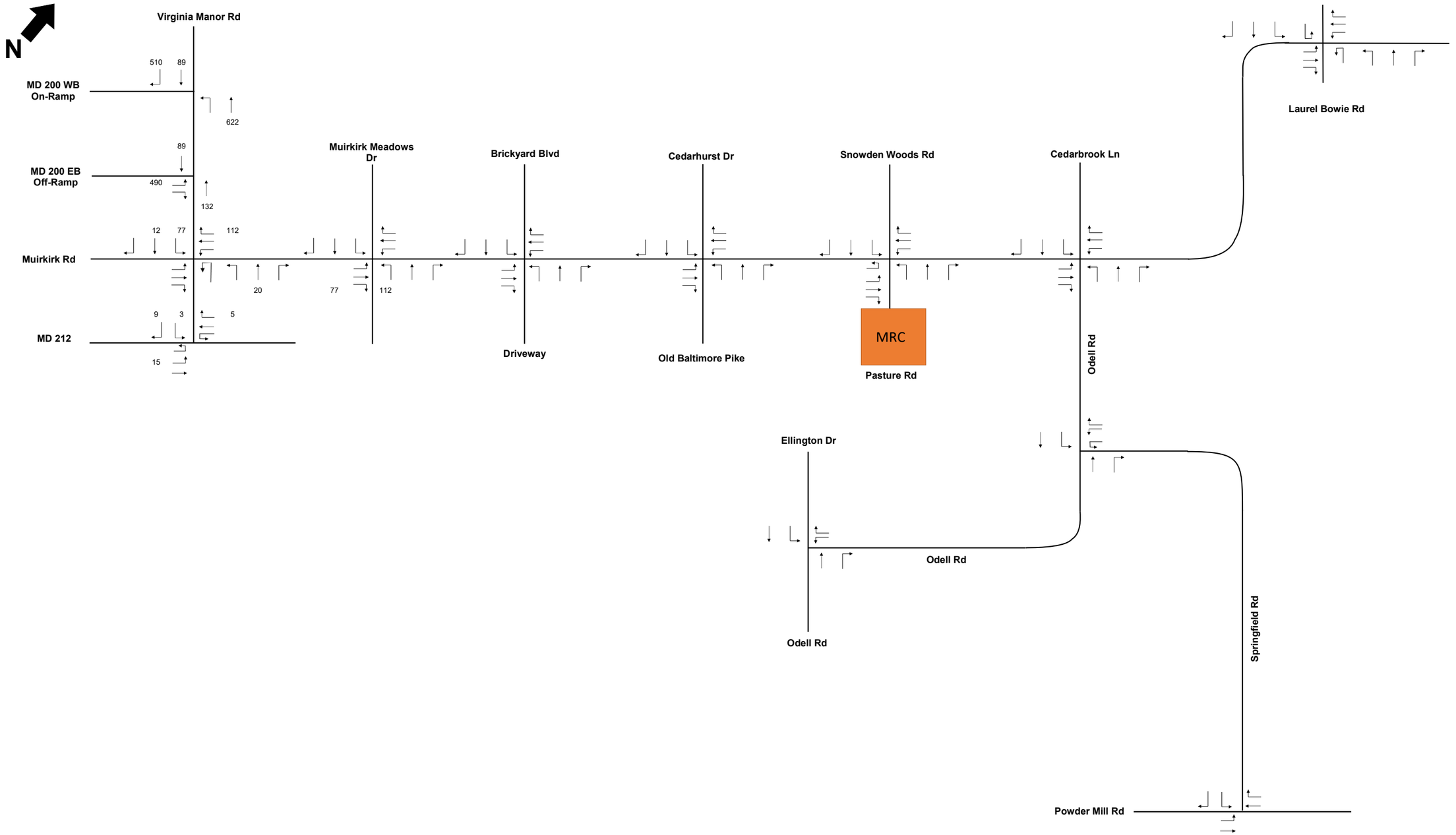
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 10 Powder Mill Road Trip Generation PM Peak Hour (4:00 PM-5:00 PM)



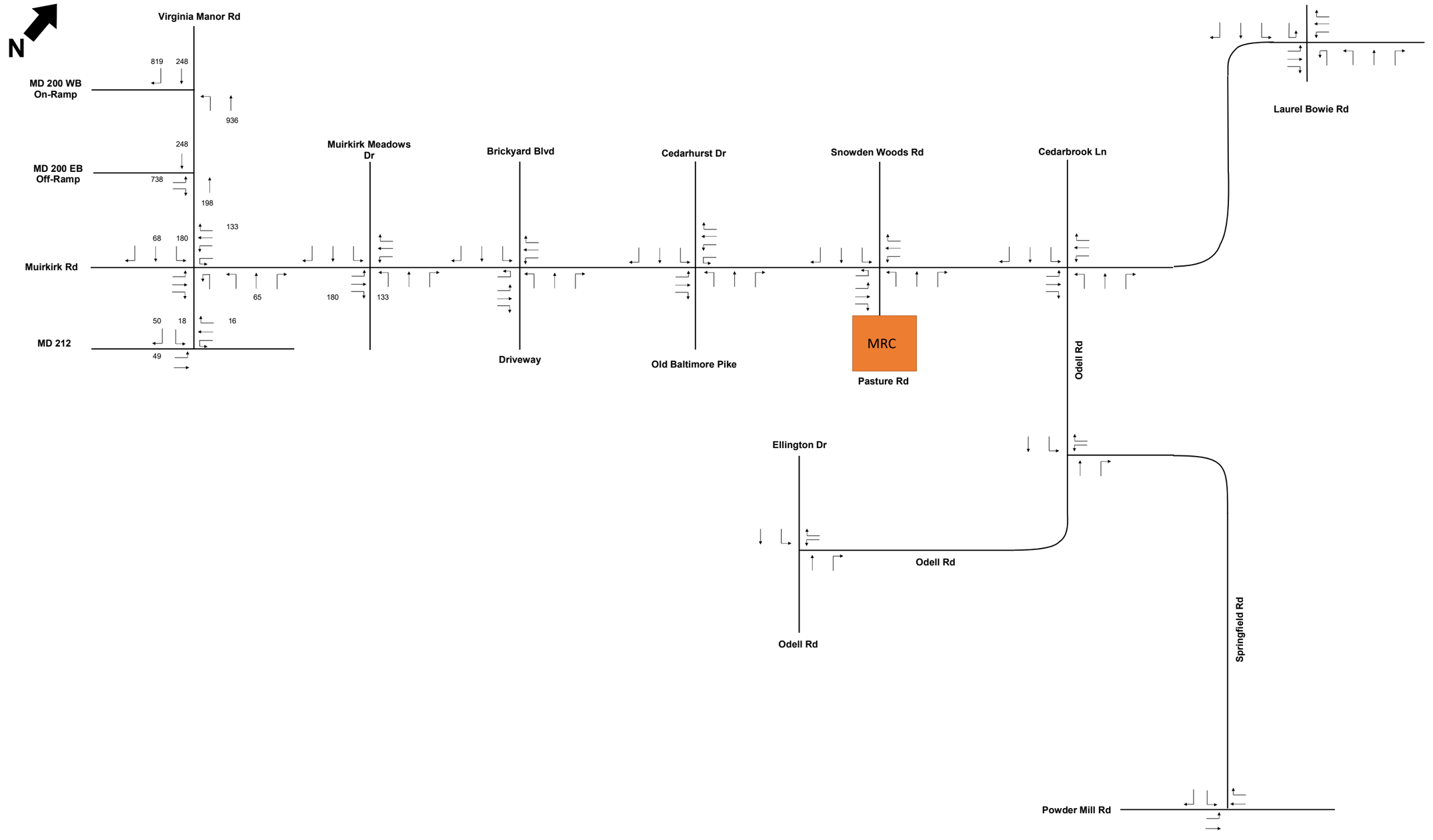
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 11 2026 No Action Condition AM Peak Hour (7:15 AM-8:15 AM)



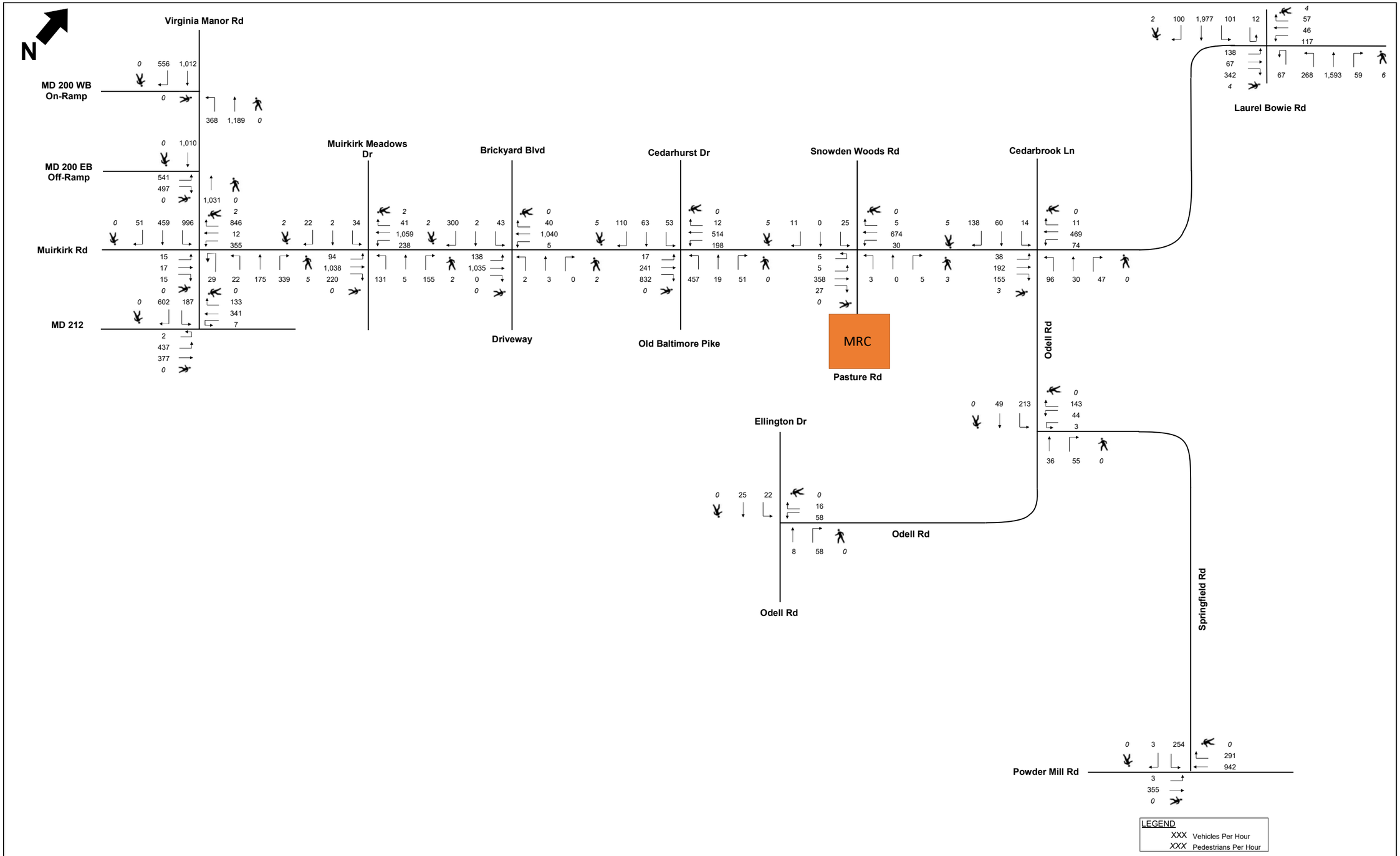
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 12 2026 No Action Condition PM Peak Hour (4:00 PM-5:00 PM)



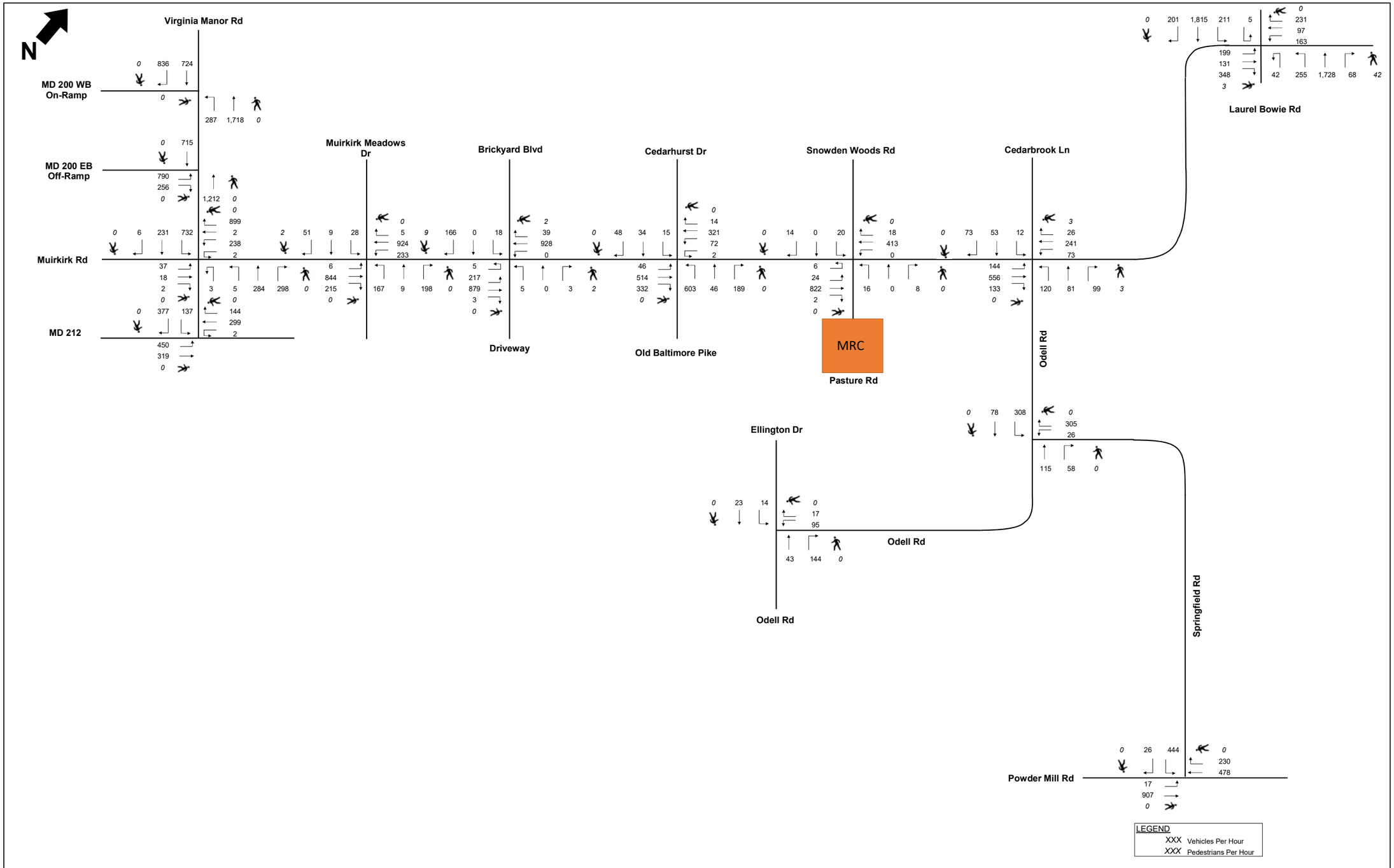
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 13 2040 Konterra Town CenterTrip Generation AM Peak Hour (7:15 AM-8:15 AM)



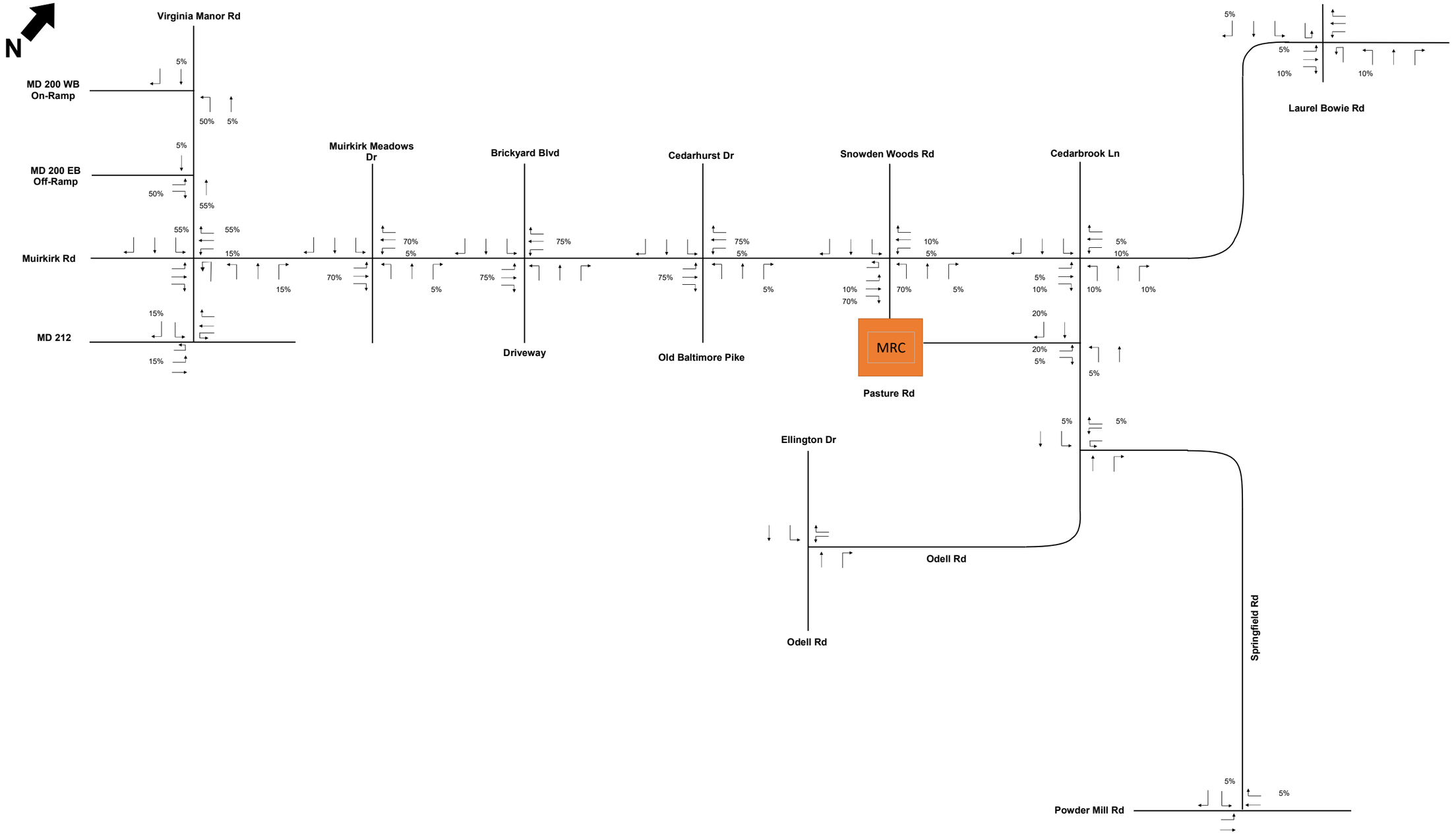
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 14 2040 Konterra Town Center Trip Generation PM Peak Hour (4:00 PM-5:00 PM)

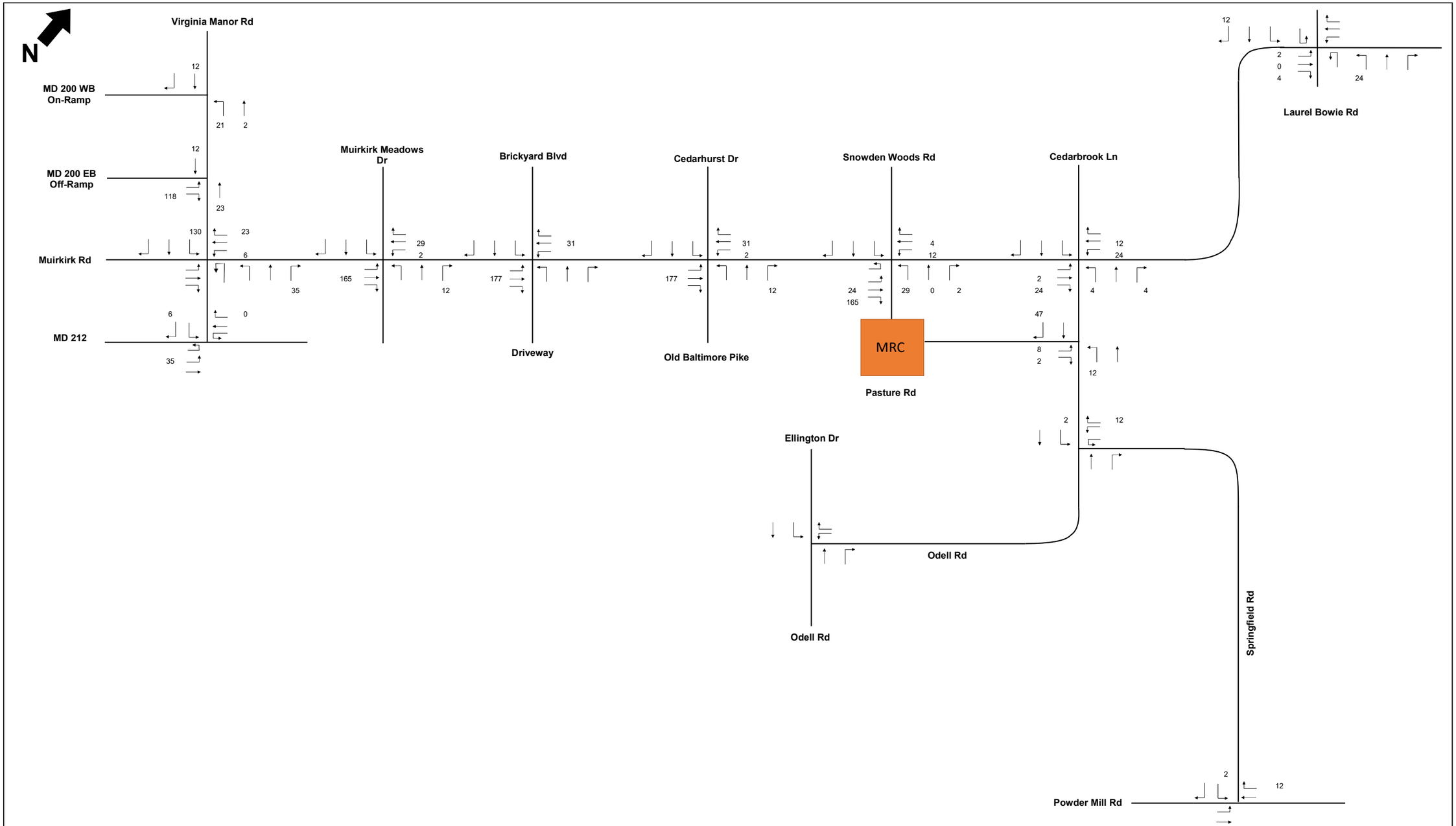


Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 15 2040 No Action Condition AM Peak Hour (7:15 AM-8:15 AM)

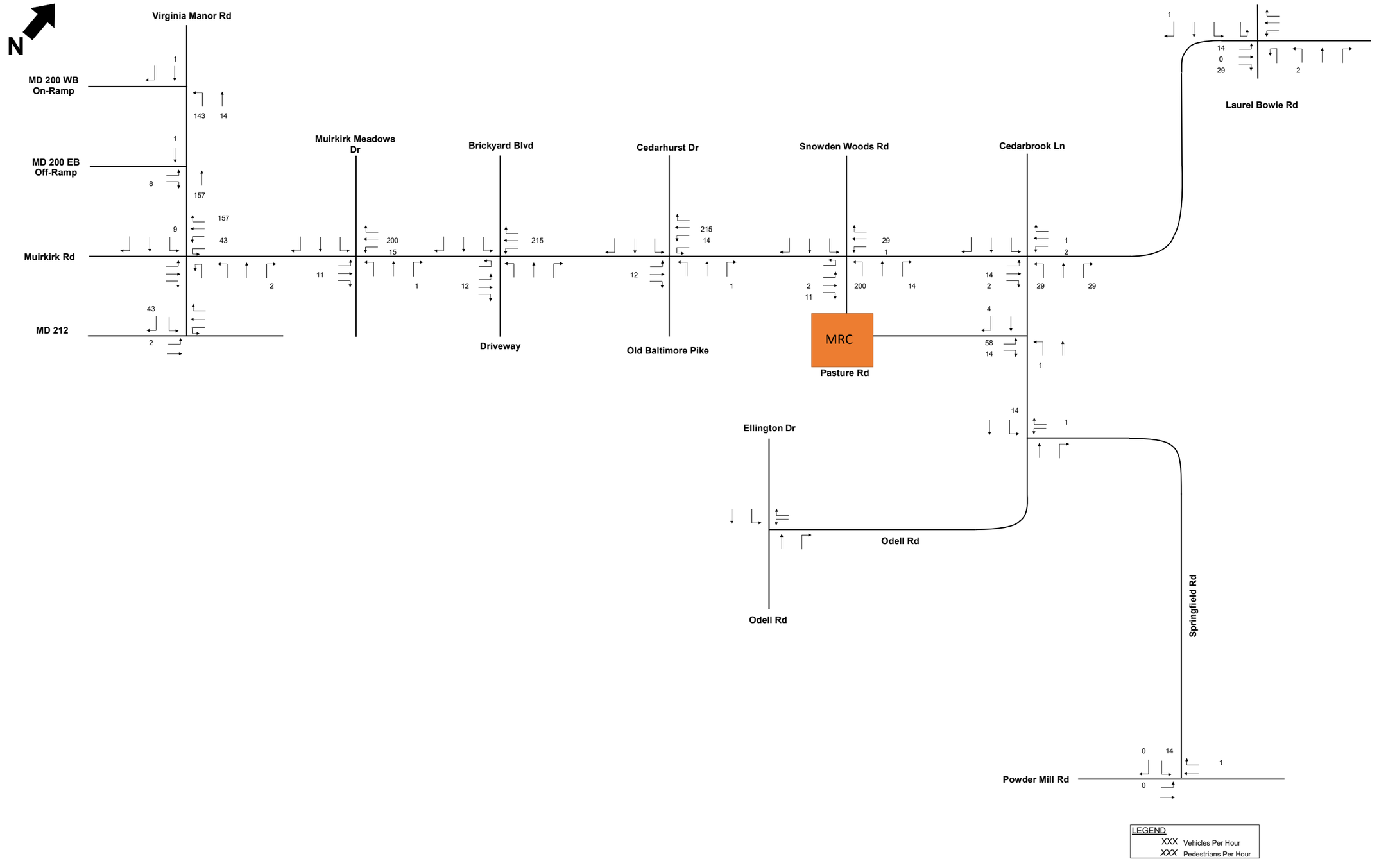


Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 16 2040 No Action Condition PM Peak Hour (4:00 PM-5:00 PM)

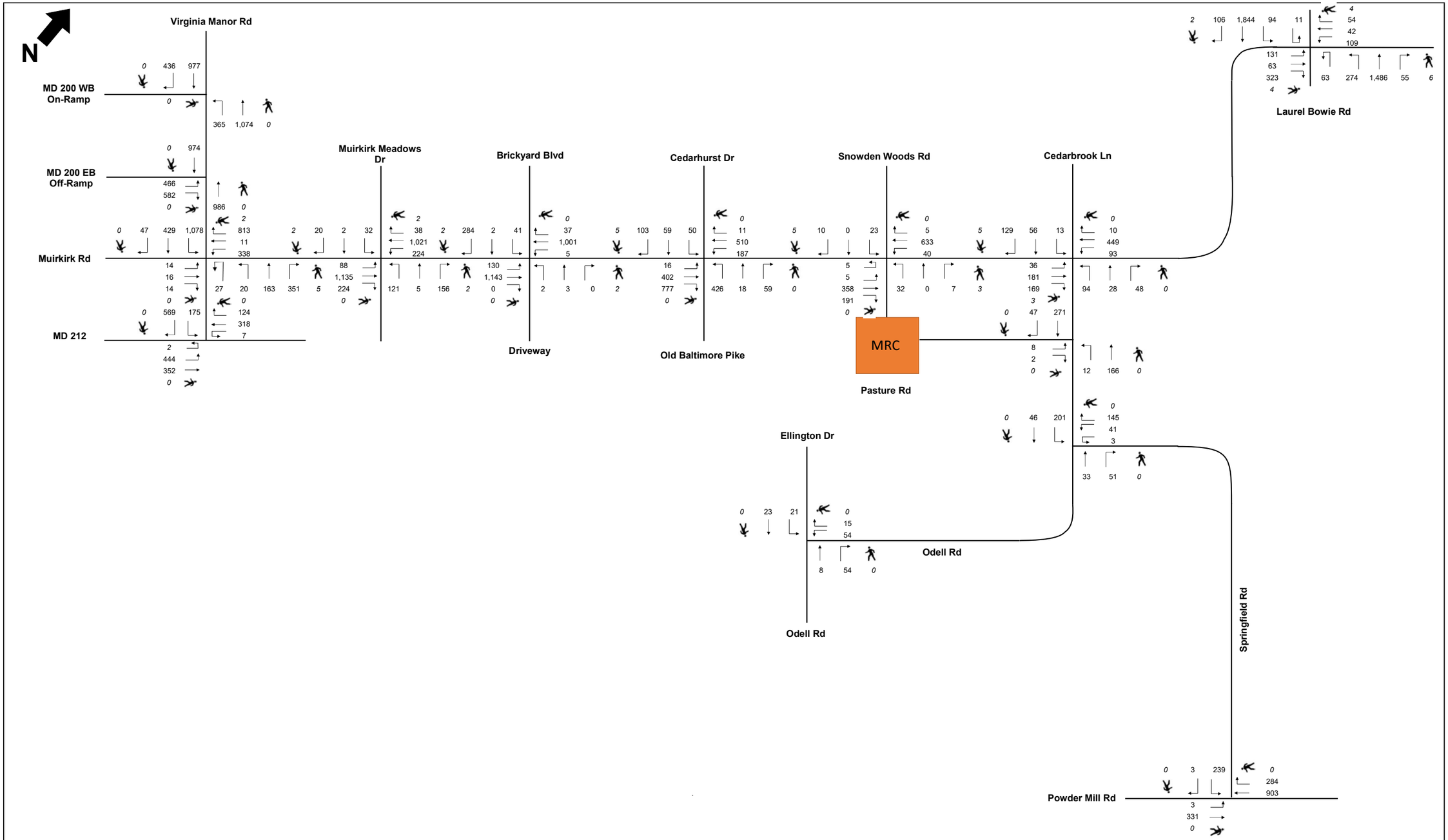

N
Virginia Manor Rd
MD 200 WB On-Ramp
MD 200 EB Off-Ramp
Muirkirk Rd
MD 212
Muirkirk Meadows Dr
Brickyard Blvd
Driveway
Cedarhurst Dr
Old Baltimore Pike
Snowden Woods Rd
MRC
Pasture Rd
Cedarbrook Ln
Laurel Bowie Rd
Ellington Dr
Odell Rd
Odell Rd
Springfield Rd
Powder Mill Rd



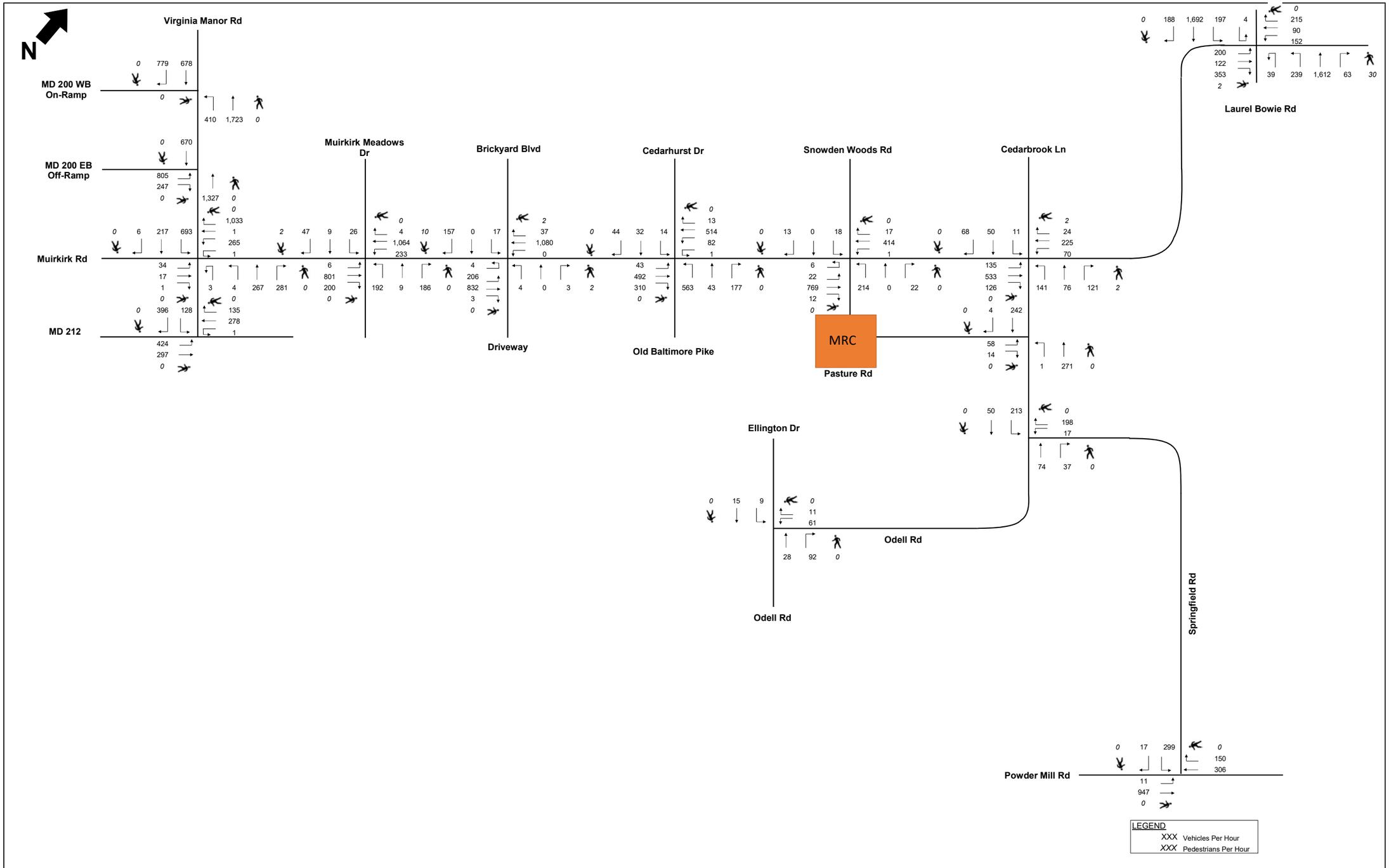
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 18 2026 MRC Trip Generation AM Peak Hour (7:15 AM-8:15 AM)



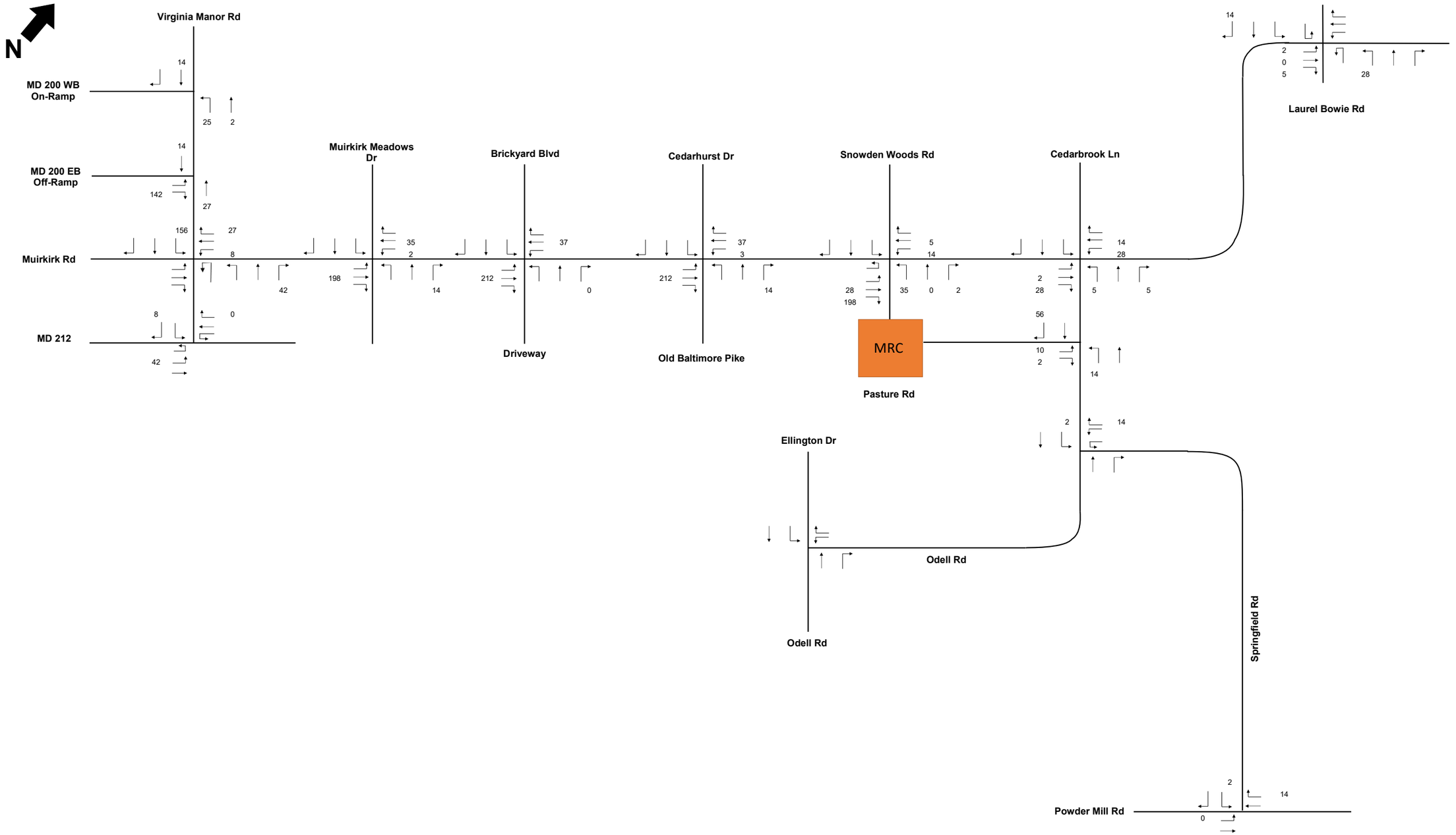
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 19 2026 MRC Trip Generation PM Peak Hour (4:00 PM-5:00 PM)



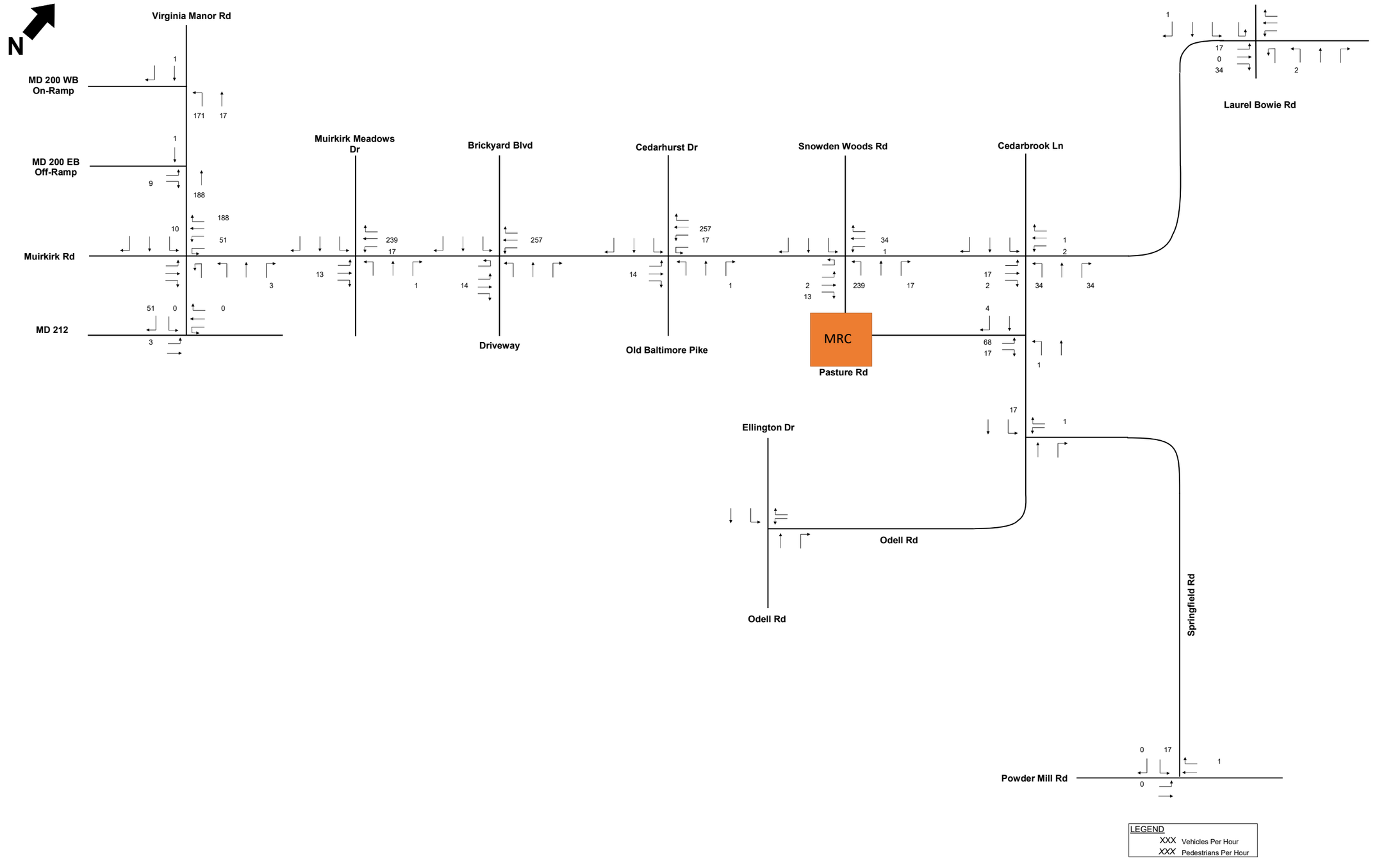
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 20 2026 Action Condition AM Peak Hour (7:15 AM-8:15 AM)



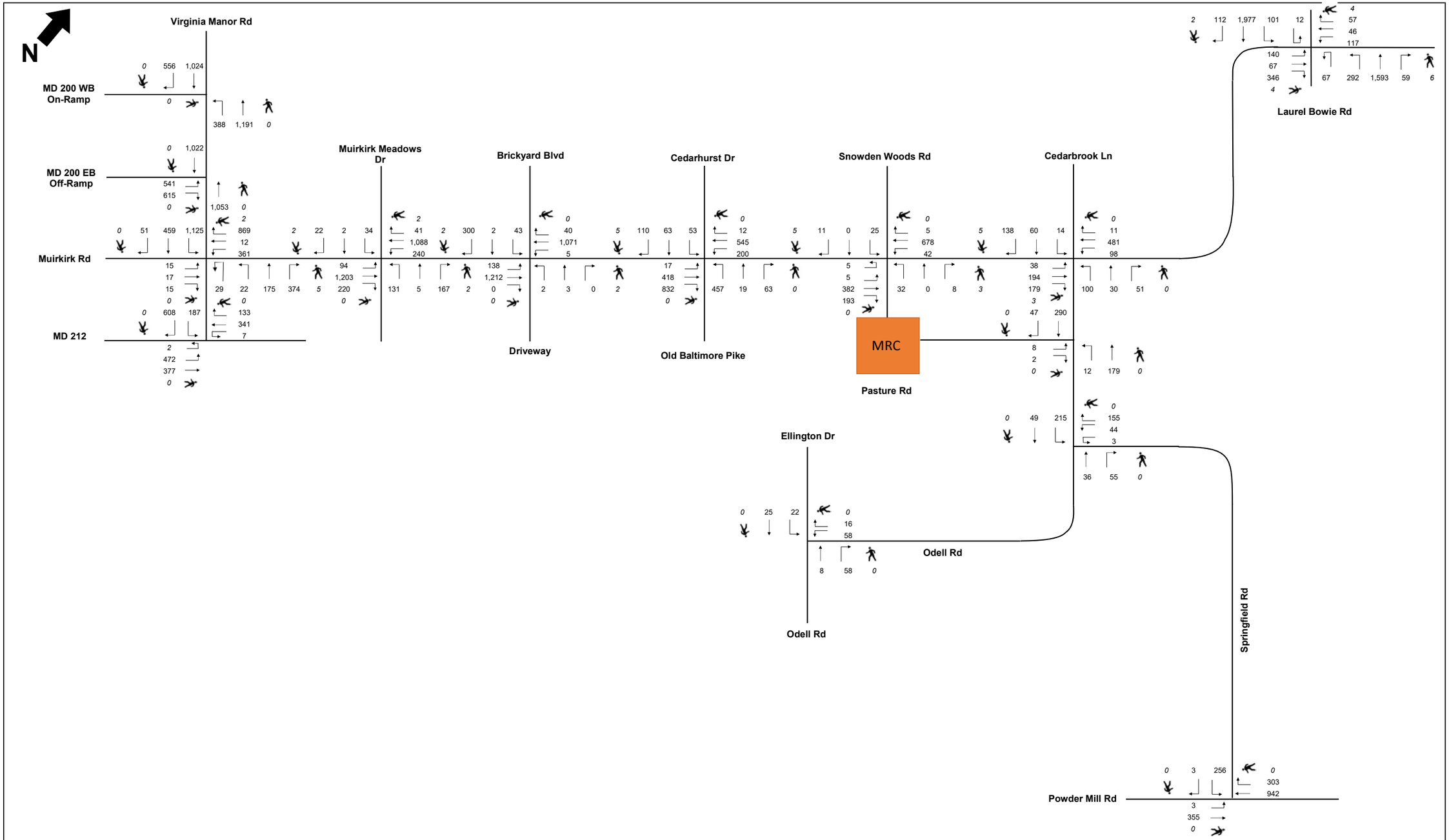
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 21 2026 Action Condition PM Peak Hour (4:00 PM-5:00 PM)



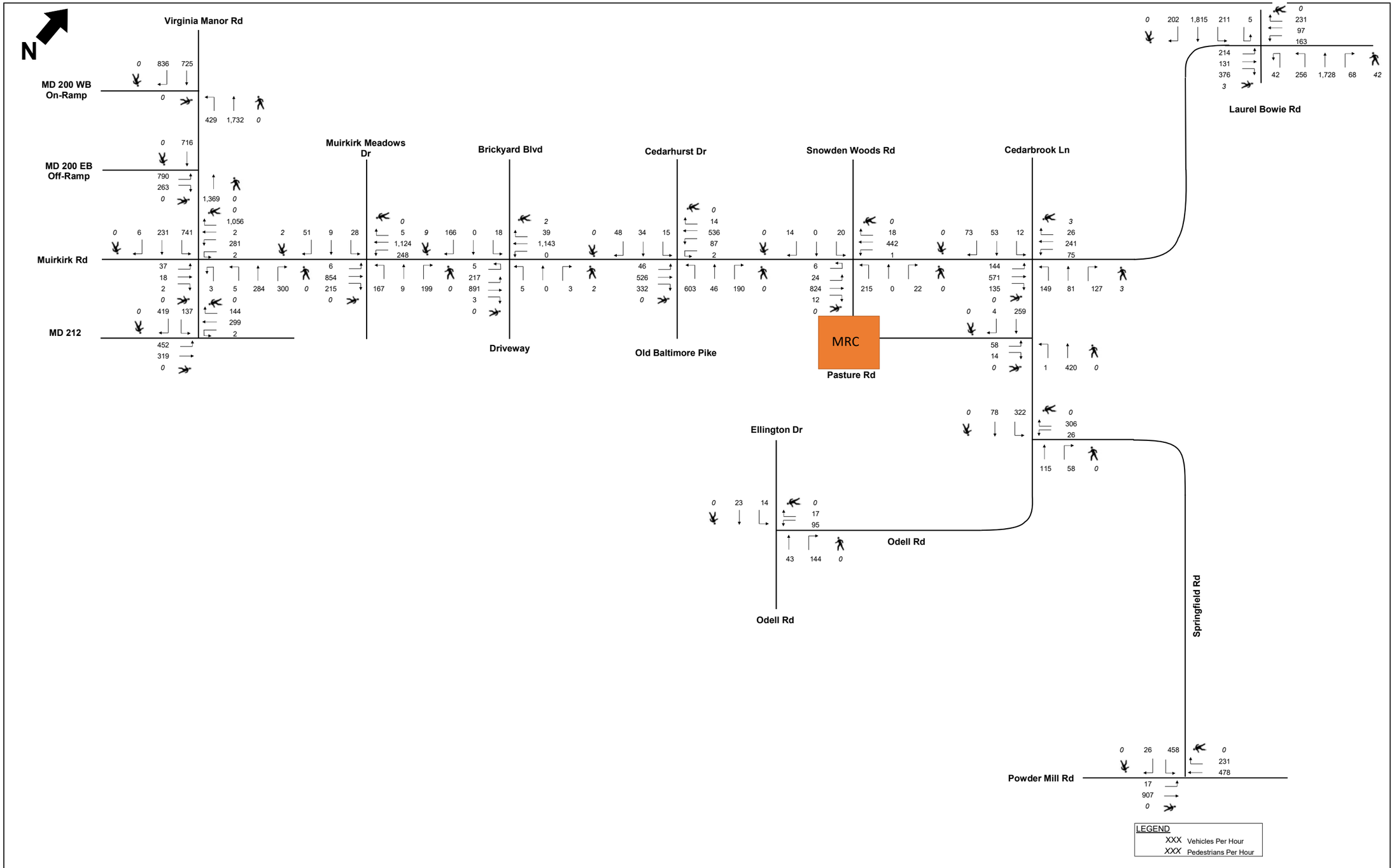
Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 22 2040 MRC Trip Generation AM Peak Hour (7:15 AM-8:15 AM)



Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 23 2040 MRC Trip Generation PM Peak Hour (4:00 PM-5:00 PM)



Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 24 2040 Action Condition AM Peak Hour (7:15 AM-8:15 AM)



Stantec	Traffic Impact Study MRC Master Plan Laurel, Maryland	Exhibit 25 2040 Action Condition PM Peak Hour (4:00 PM-5:00 PM)

EXHIBIT 26
AM PEAK HOUR
INTERSECTION CAPACITY ANALYSIS

Intersection	LANE GROUP	2021 Existing Condition					2026 No Action Condition					2040 No Action Condition					2026 Action Condition					2040 Action Condition					2026 Action Condition w/ Mitigation					2040 Action Condition w/ Mitigation				
		V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)
Konterra Drive & MD 200 On-Ramp *Signalized*	**NB-L**	0.59	36.7	D	97	131	0.60	36.1	D	105	140	0.62	35.9	D	112	147	0.62	35.9	D	111	146	0.63	35.3	D	118	152	0.56	20.5	C	71	86	0.57	23.8	C	92	103
	NB-T	0.17	0.1	A	0	0	0.37	0.3	A	0	0	0.41	0.4	A	0	0	0.37	0.3	A	0	0	0.41	0.4	A	0	0	0.37	0.2	A	0	0	0.41	0.3	A	0	0
	SB-T	0.38	5.9	A	92	154	0.45	7.0	A	119	198	0.48	7.7	A	133	220	0.46	7.5	A	126	208	0.49	8.3	A	141	237	0.49	7.8	A	109	192	0.52	8.7	A	122	220
	SB-R	0.05	1.8	A	0	11	0.54	5.7	A	40	133	0.70	10.9	B	103	300	0.55	6.4	A	47	149	0.71	12.2	B	116	333	0.55	5.2	A	23	98	0.72	11.2	B	63	341
	Intersection	-	9.9	A	-	-	-	7.8	A	-	-	-	8.8	A	-	-	-	8.3	A	-	-	-	9.3	A	-	-	-	6.2	A	-	-	-	7.8	A	-	-
Konterra Drive & MD 200 Off-Ramp *Signalized*	**EB-L**	0.05	14.3	B	6	19	0.51	22.7	C	98	181	0.60	25.8	C	127	222	0.51	23.2	C	101	186	0.61	26.4	C	132	222	0.45	16.4	B	85	123	0.67	25.2	C	119	170
	EB-R	0.79	25.0	C	129	321	0.85	35.1	D	190	455	0.93	47.6	D	236	530	1.06	78.8	F	334	652	1.16	116.8	F	415	717	0.99	54.4	D	277	496	0.79	29.8	C	157	223
	NB-T	0.60	15.7	B	143	207	0.72	18.5	B	211	272	0.76	19.5	B	235	302	0.74	19.1	B	219	281	0.77	19.6	B	243	312	0.84	24.8	C	251	311	0.74	13.4	B	214	282
	SB-T	0.59	15.3	B	151	214	0.66	16.8	B	201	256	0.68	17.1	B	216	273	0.67	17.0	B	204	260	0.68	17.0	B	220	278	0.76	16.2	B	216	287	0.66	7.8	A	194	6
	Intersection	-	17.5	B	-	-	-	21.3	C	-	-	-	24.3	C	-	-	-	30.6	C	-	-	-	38.4	D	-	-	-	26.4	C	-	-	-	16.7	B	-	-
Virginia Manor Road/ Konterra Drive & Muirkirk Road *Signalized*	**EB-LT**	0.23	45.9	D	19	50	0.26	48.0	D	22	52	0.28	49.9	D	24	56	0.26	48.6	D	22	53	0.28	50.1	D	24	56	0.36	75.6	E	33	68	0.39	76.6	E	36	72
	EB-R	0.05	0.4	A	0	0	0.06	0.4	A	0	0	0.07	0.5	A	0	0	0.06	0.4	A	0	0	0.07	0.5	A	0	0	0.07	0.6	A	0	0	0.08	0.7	A	0	0
	WB-L	0.56	40.9	D	109	185	0.48	37.6	D	120	201	0.54	40.7	D	130	218	0.49	38.3	D	123	209	0.55	41.2	D	132	225	0.74	70.6	E	211	291	0.75	80.2	F	227	278
	WB-TR	0.55	40.5	D	108	184	0.47	37.3	D	118	198	0.53	40.4	D	128	215	0.48	38.0	D	121	205	0.53	40.8	D	130	222	0.72	69.3	E	207	286	0.73	78.8	E	224	274
	WB-R	0.85	13.2	B	0	71	0.97	29.3	C	77	355	1.05	53.6	F	290	472	1.00	36.3	D	128	399	1.08	63.9	F	328	514	0.85	25.3	C	407	444	0.92	81.5	F	883	1034
	NB-L	0.16	15.7	B	15	35	0.18	16.7	B	17	36	0.20	17.3	B	18	38	0.18	16.5	B	17	36	0.20	17.2	B	18	38	0.28	30.0	C	23	21	0.50	56.4	E	52	61
	NB-T	0.28	36.4	D	47	80	0.35	38.9	D	59	91	0.38	40.2	D	64	97	0.34	38.6	D	59	91	0.38	40.1	D	64	97	0.44	57.6	E	85	96	0.45	48.1	D	92	97
	NB-R	0.58	8.3	A	0	60	0.60	8.7	A	0	60	0.63	8.8	A	0	61	0.63	8.6	A	0	61	0.66	8.9	A	0	61	0.69	15.7	B	86	134	0.70	16.5	B	101	128
	SB-L	1.26	146.9	F	669	1093	1.57	284.8	F	945	1313	1.71	345.6	F	1030	1418	1.78	378.0	F	1157	1551	1.93	442.7	F	1242	1648	0.84	31.8	C	460	745	0.91	44.5	D	594	836
	SB-T	0.30	18.7	B	103	157	0.34	20.9	C	121	167	0.38	22.5	C	132	181	0.34	20.7	C	121	167	0.38	22.4	C	132	181	0.25	15.8	B	124	162	0.25	11.3	B	104	160
	SB-R	0.07	0.2	A	0	0	0.08	0.2	A	0	0	0.08	0.2	A	0	0	0.07	0.2	A	0	0	0.08	0.2	A	0	0	0.06	1.4	A	0	0	0.06	0.5	A	0	1
	Intersection	-	57.9	E	-	-	-	104.3	F	-	-	-	128.3	F	-	-	-	141.7	F	-	-	-	168.0	F	-	-	-	31.5	C	-	-	-	49.9	D	-	-
Virginia Manor Road/ Ritz Way & Virginia Manor Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.41	10.8	B	-	51	0.45	11.3	B	-	59	0.49	12.0	B	-	70	0.49	11.7	B	-	68	0.53	12.6	B	-	81	0.80	24.0	C	129	298	0.92	39.8	D	157	355
	EB-T	0.08	0.0	A	-	0	0.08	0.0	A	-	0	0.08	0.0	A	-	0	0.08	0.0	A	-	0	0.08	0.0	A	-	0	0.17	9.1	A	30	46	0.19	9.9	A	34	50
	WB-LTR	0.12	0.0	A	-	0	0.13	0.0	A	-	0	0.13	0.0	A	-	0	0.13	0.0	A	-	0	0.13	0.0	A	-	0	0.58	22.6	C	57	80	0.60	22.7	C	63	86
	SB-L	1.60	374.0	F	-	341	2.07	-	F	-	431	2.79	-	F	-	-	2.48	-	F	-	470	3.36	-	F	-	-	0.35	18.9	B	82	122	0.36	18.0	B	81	138
	SB-R	0.63	15.1	C	-	117	0.68	16.4	C	-	138	0.74	18.9	C	-	172	0.69	16.7	C	-	142	0.74	19.3	C	-	177	0.69	14.0	B	236	294	0.74	14.4	B	168	39
	Intersection	-	39.3	E	-	-	-	60.4	F	-	-	-	91.6	F	-	-	-	76.8	F	-	-	-	893.2	F	-	-	-	17.7	B	-	-	-	21.5	C	-	-
Muirkirk Meadows Drive & Muirkirk Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.14	11.4	B	-	13	0.16	12.1	B	-	14	0.18	12.8	B	-	17	0.16	12.3	B	-	15	0.19	13.1	B	-	17	0.24	4.4	A	14	38	0.27	6.3	A	21	40
	EB-TR	0.40	0.0	A	-	0	0.42	0.0	A	-	0	0.45	0.0	A	-	0	0.49	0.0	A	-	0	0.52	0.0	A	-	0	0.88	23.7	C	339	597	0.95	42.9	D	700	981
	WB-L	0.41	15.5	C	-	49	0.49	18.8	C	-	66	0.56	21.9	C	-	84	0.58	24.5	C	-	89	0.66	30.1	D	-	116	0.66	23.4	C	51	173	0.69	25.4	C	58	202
	WB-TR	0.39	0.0	A	-	0	0.43	0.0	A	-	0	0.46	0.0	A	-	0	0.44	0.0	A	-	0	0.47	0.0	A	-	0	0.61	13.1	B	172	297	0.66	14.7	B	194	335
	NB-LTR	0.75	285.0	F	-	61	6.60	-	F	-	-	11.41	-	F	-	-	11.58	-	F	-	-	26.70	-	F	-	-	0.61	17.9	B	30	63	0.63	18.0	B	33	67
	SB-LTR	1.79	791.7	F	-	118	3.47	-	F	-	-	10.14	-	F	-	-	11.77	-	F	-	-	-	-	F	-	-	0.16	18.6	B	7	22	0.17	18.1	B	8	22
	Intersection	-	15.3	C	-	-	-	550.1	F	-	-	-	558.0	F	-	-	-	515.3	F	-	-	-	-	F	-	-	-	18.8	B	-	-	-	28.0	C	-	-
Brickyard Boulevard/ Driveway & Muirkirk Road *Signalized*	**EB-L**	0.31	5.1	A	9	47	0.38	6.4	A	11	59	0.43	7.3	A	12	63	0.39	6.6	A	11	59	0.44	7.6	A	12	63	0.43	7.8	A	14	58	0.46	8.3	A	15	60
	EB-TR	0.42	6.2	A	58	283	0.44	7.0	A	65	313	0.47	7.4	A	74	351	0.52	7.9	A	86	405	0.55	8.5	A	96	452	0.53	8.5	A	107	403	0.56	8.8	A	118	433
	WB-L	0.01	3.5	A	0	2	0.01	4.2	A	1	3	0.01	4.4	A	0	2	0.02	4.0	A	0	2	0.02	4.2	A	0	2	0.02	4.4	A	1	3	0.02	4.8	A	1	5
	WB-TR	0.53	10.6	B	156	246	0.56	11.9	B	170	250	0.60	12.4	B	190	258	0.58	11.2	B	172	251	0.62	12.1	B	190	260	0.57	12.3	B	217	306	0.62	13.8	B	205	416
	NB-LTR	0.04	43.5	D	2	13	0.05	43.8	D	3	15	0.05	43.8	D	3	15	0.05	43.8	D	3	15	0.05	43.8	D	3	15	0.06	45.5	D	3	15	0.06	45.5	D	3	15
	SB-LT	0.21	42.3	D	21	46	0.26	42.2	D	30	58	0.27	42.1	D	31	59	0.26	42.2	D	30	58	0.27	42.1	D	31	59	0.22	38.7	D	29	57	0.23	39.3	D	30	59
	SB-R	0.66	14.3	B	0	61	0.71	13.9	B	0	68	0.73	13.9	B	0	69	0.71	13.9	B	0	68	0.73	13.9	B	0	69	0.78	23.6	C	42	121	0.79	23.8	C	41	124
	Intersection	-	9.4	A	-	-	-	10.5	B	-	-	-	10.9	B	-	-	-	10.4	B	-	-	-	11.0	B	-	-	-	12.1	B	-	-	-	12.9	B	-	-
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road *Signalized*	**EB-L**	0.05	11.7	B	6	6	0.05	11.5	B	6	6	0.06	12.8	B	7	7	0.05	14.0	B	6	8	0.06	14.7	B	7	9	0.05	12.9	B	5	13	0.06	16.9	B	7	20
	EB-TR	0.87	13.0	B	112	329	0.91	14.6	B	131	357	0.98	19.0	B	167	408	1.16	78.7	F	400	490	1.23	106.2	F	452	543	Movement Does Not Exist					Movement Does Not Exist				
	EB-T	Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					0.34	22.7	C	93	206	0.38	26.7	C	128	168
	EB-R																										0.83	18.4	B	85	467	0.90	17.2	B	40	415
	WB-L	0.75	38.9	D	79	174	0.77	40.7	D	82	184	0.82	45.7	D	93	206	0.78	41.7	D	85	188	0.82	46.6	D	94	211	0.57	22.3	C	75	119	0.71	35.3	D	99	164
	WB-TR	0.36	21.1	C	110	176	0.38	21.2	C	114	182	0.40	21.7	C	125	196	0.40	21.6	C	123	195	0.43	22.1	C	134	209	0.37	18.9	B	113	181	0.43	24.4	C	151	227
	NB-L	0.96	57.5	E	232	415	0.99	66.3	E	249	440	1.08	91.1	F	316	502	0.99	66.3	E	249	440	1.08	91.1	F	316	502	0.99	67.1	E	261	453	0.96	60.9	E	311	509
	NB-TR	0.16	10.8	B	8	39	0.16	10.8	B	8	39	0.18	10.6	B	9	42	0.19	9.8	A	9	42	0.21	9.8	A	9	44	0.20	9.9	A	9	42	0.20	9.5	A	10	44
	SB-L	0.14	18.6	B	19	40	0.14	18.7	B	19	41	0.15	18.7	B	21	43	0.14	18.7	B	19	41	0.15	18.7	B	21	43	0.18	22.8	C	21	45	0.16	21.5	C	22	45
	SB-TR	0.66	36.8	D	63	132	0.68	38.0	D	67	136	0.72	42.1	D	76	165	0.68	38.0	D	67	136	0.72	42.1	D	76	165	0.92	75.7	E	74	198	0.88	68.7	E	95	220
	Intersection	-	26.3	C	-	-	-	28.7	C	-	-	-	35.7	D	-	-	-	56.6	E	-	-	-	73.6	E	-	-	-	30.7	C	-	-	-	31.6	C	-	-
Pasture Road/ Snowden Woods Road & Muirkirk Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.01	8.9	A	-	0	0.01	8.9	A	-	0	0.01	9.1	A	-	0	0.01	8.9	A	-	0	0.01	9.1	A	-	0	0.02	2.7	A	0	5	0.02	2.7	A	0	5
	EB-T	0.20	0.0	A	-	0	0.21	0.0	A	-	0	0.22	0.0	A	-	0	0.22	0.0	A	-	0	0.24	0.0	A	-	0	0.24	2.6	A	0	77	0.26	2.6	A	0	84
	EB-R	0.02	0.0	A	-	0	0.02	0.0	A	-	0	0.02	0.0	A	-	0	0.12	0.0	A	-	0	0.12	0.0	A	-	0	0.18	1.0	A	0	15	0.18	1.0	A	0	15
	WB-L	0.02	8.1	A	-	2	0.02	8.1	A	-	2	0.03	8.2	A	-	2	0.04	8.8	A	-	3	0.05	8.9	A	-	4	0.05	2.5	A	0	12	0.05	2.5	A	0	12
	WB-T	0.38	0.0	A	-	0	0.39	0.0	A	-	0	0.42	0.0	A	-	0	0.39	0.0	A	-	0	0.42	0.0	A	-	0	0.42	3.6	A	0	168	0.45	3.9	A	0	191
	WB-R	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	0	0	0.00	0.0	A	0	0
	NB-L	0.01	17.5	C	-	1	0.01	18.0	C	-	1	0.01	19.6	C	-	1	0.13	21.2	C	-	11	0.15	23.4	C	-	13	0.16	25.7	C	12	33	0.16	25.6	C	12	33
	NB-TR	0.01	9.7	A	-	0	0.01	9.7	A		0	0.01	9.9	A		1	0.01	9.9	A	-	1	0.01	10.1	B	-	1	0.01	0.0	A	0	0	0.02	0.0	A	0	0
	SB-LTR	0.10	16.7	C	-	8	0.11	17.2	C	-	9	0.13	18.7	C	-	11	0.11	18.3	C	-	10	0.14	20.0	C	-	12	0.13	9.0	A	0	19	0.14	9.6	A	0	21
	Intersection	-	0.9	A	-	-	-	0.9	A	-	-	-	0.9	A	-	-	-	1.3	A	-	-	-	1.4	A	-	-	-	3.5	A	-	-	-	3.7	A	-	-
Odell Road/ Cedarbrook Lane & Muirkirk Road *Signalized*	**EB-L**	0.07	4.5	A	5	15	0.07	4.6	A	5	16	0.08	4.9	A	5	17	0.07	4.8	A	5	16	0.08	5.1	A	5	18	0.07	4.8	A	5	16	0.08	5.1	A	5	18
	EB-TR	0.35	10.2	B	73	153	0.36	10.5	B	77	162	0.39	11.3	B	87	182	0.40	11.2	B	87	183	0.43	12.1	B	99	206	0.40	11.2	B	87	183	0.43	12.1	B	99	206
	WB-L	0.10	4.5	A	9	25	0.11	4.6	A	9	26	0.12	4.9	A	10	28	0.15	4.9	A	13	34	0.16	5.2	A	14	37	0.15	4.9	A	13	34	0.16	5.2	A	14	37
	WB-TR	0.43	11.4	B	128	240	0.44	11.7	B	134	251	0.48	12.6	B	151	283	0.45	12.0	B	141	264	0.49	13.0	B	158	298	0.45	12.0	B	141	264	0.49	13.0	B	158	298
	NB-LT	0.51	38.1	D	58	113	0.51	38.2	D	59	115	0.53	38.5	D	64	121	0.52	38.5	D	62	119	0.54	38.9	D	67	127	0.52	38.5	D	62	119	0.54	38.9	D	67	127
	NB-R	0.14	2.3	A	0	7	0.14	24.4	C	0	8	0.15	3.0	A	0	11	0.15	3.1	A	0	11	0.16	3.5	A	0	13	0.15	3.1	A	0	11	0.16	3.5	A	0	13
	SB-LT	0.25	31.2	C	32	70	0.25	31.1	C	33	71	0.26	31.2	C	36	75	0.25	31.2	C	33	71	0.26	31.2	C	36	76	0.25	31.2	C	33	71	0.26	31.2	C	36	76
	SB-R	0.36	8.4	A	0	45	0.36	8.4	A	0	46	0.37	8.2	A	0	47	0.36	8.3	A	0	46	0.37	8.1	A	0	47	0.36	8.3	A	0	46	0.37	8.1	A	0	47
	Intersection	-	13.6	B	-	-	-	13.7	B	-	-	-	14.3	B	-	-	-	13.9	B	-	-	-	14.6	B	-	-	-	13.9	B	-	-	-	14.6	B	-	-
Laurel Bowie Road (MD 197) & Murikirk Road/ Crystal Plaza Driveway *Signalized*	**EB-L**	0.59	78.1	E	95	160	0.60	78.7	E	100	165	0.63	79.7	E	106	174	0.60	78.9	E	101	166	0.63	80.1	F	108	177	0.60	78.0	E	101	165	0.62	78.8	E	108	176
	EB-LT	0.57	76.6	E	101	165	0.58	76.6	E	103	168	0.60	77.4	E	110	178	0.59	76.8	E	104	171	0.60	77.0	E	110	178	0.58	76.0	E	104	169	0.59	75.9	E	110	177
	EB-R	0.68	42.9	D	218	317	0.70	44.4	D	229	332	0.75	48.6	D	259	371	0.71	45.1	D	234	339	0.76	49.0	D	263	378	0.78	50.0	D	228	335	0.81	51.6	D	248	363
	WB-LT	0.74	84.5	F	149	230	0.75	85.7	F	153	238	0.79	88.3	F	166	271	0.75	85.7	F	153	238	0.79	88.3	F	266	271	0.70	79.2	E	153	230	0.72	79.3	E	164	244
	WB-R	0.20	1.7	A	0	0	0.21	1.8	A	0	1	0.22	2.8	A	0	6	0.21	1.8	A	0	1	0.22	2.8	A	0	6	0.18	1.2	A	0	0	0.19	1.3	A	0	0
	NB-L	1.07	128.5	F	348	547	1.10	137.6	F	369	570	1.18	162.4	F	417	622	1.19	164.6	F	421	628	1.26	191.4	F	468	679	0.81	78.7	E	178	245	0.83	78.5	E	189	260
	NB-TR	0.60	24.8	C	381	495	0.62	25.6	C	400	515	0.67	28.0	C	456	579	0.62	25.6	C	400	515	0.67	28.1	C	457	579	0.58	21.2	C	360	452	0.63	23.3	C	413	509
	SB-L	0.61	76.8	E	104	166	0.62	76.9	E	106	167	0.63	76.7	E	113	176	0.62	76.9	E	106	167	0.63	76.7	E	113	176	0.53	76.5	E	55	89	0.56	77.9	E	59	94
	SB-TR	0.84	37.5	D	628	730	0.87	39.2	D	660	763	0.94	45.9	D	755	909	0.88	39.7	D	668	771	0.95	47.1	D	766	920	0.82	34.0	C	615	751	0.91	40.4	D	726	920
	Intersection	-	43.5	D	-	-	-	45.2	D	-	-	-	51.0	D	-	-	-	47.9	D	-	-	-	54.1	D	-	-	-	38.0	D	-	-	-	41.4	D	-	-
Odell Road & MRC Driveway *Unsignalized*	**EB-LR**	Movement Does Not Exist															0.02	11.9	B	-	2	0.02	12.2	B	-	2	0.02	11.9	B	-	2	0.02	12.2	B	-	2
	NB-LT																0.01	0.6	A	-	1	0.01	0.6	A	-	1	0.01	0.6	A	-	1	0.01	0.6	A	-	1
	SB-TR																0.20	0.0	A	-	0	0.22	0.0	A	-	0	0.20	0.0	A	-	0	0.22	0.0	A	-	0
	Intersection																-	0.5	A	-	-	-	0.4	A	-	-	-	0.5	A	-	-	-	0.4	A	-	-
Odell Road & Springfield Road *Unsignalized*	**WB-LTR**	0.26	11.5	B	-	26	0.27	11.6	B	-	27	0.30	12.1	B	-	32	0.29	11.7	B	-	29	0.31	12.2	B	-	34	0.29	11.7	B	-	29	0.31	12.2	B	-	34
	NB-TR	0.06	0.0	A	-	0	0.06	0.0	A	-	0	0.06	0.0	A	-	0	0.06	0.0	A	-	0	0.06	0.0	A	-	0	0.06	0.0	A	-	0	0.06	0.0	A	-	0
	SB-LT	0.14	6.4	A	-	12	0.14	6.4	A	-	12	0.15	6.5	A	-	14	0.14	6.5	A	-	13	0.15	6.5	A	-	14	0.14	6.5	A	-	13	0.15	6.5	A	-	14
	Intersection	-	7.1	A	-	-	-	7.2	A	-	-	-	7.4	A	-	-	-	7.3	A	-	-	-	7.5	A	-	-	-	7.3	A	-	-	-	7.5	A	-	-
Odell Road & Ellington Drive *Unsignalized*	**WB-LR**	0.09	9.4	A	-	8	0.10	9.5	A	-	8	0.10	9.5	A	-	9	0.10	9.5	A	-	8	0.10	9.5	A	-	9	0.10	9.5	A	-	8	0.10	9.5	A	-	9
	NB-TR	0.04	0.0	A	-	0	0.05	0.0	A	-	0	0.05	0.0	A	-	0	0.05	0.0	A	-	0	0.05	0.0	A	-	0	0.05	0.0	A	-	0	0.05	0.0	A	-	0
	SB-LT	0.02	3.5	A	-	1	0.02	3.6	A	-	1	0.02	3.5	A	-	1	0.02	3.6	A	-	1	0.02	3.5	A	-	1	0.02	3.6	A	-	1	0.02	3.5	A	-	1
	Intersection	-	4.6	A	-	-	-	4.6	A	-	-	-	4.7	A	-	-	-	4.6	A	-	-	-	4.7	A	-	-	-	4.6	A	-	-	-	4.7	A	-	-
Powder Mill Road & Springfield Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.00	9.2	A	-	0	0.01	11.3	B	-	0	0.01	11.7	B	-	0	0.01	11.4	B	-	0	0.01	11.8	B	-	0	0.02	6.0	A	0	4	0.02	6.3	A	0	4
	EB-T	0.20	0.0	A	-	0	0.20	0.0	A	-	0	0.22	0.0	A	-	0	0.20	0.0	A	-	0	0.22	0.0	A	-	0	0.30	7.1	A	57	112	0.33	7.5	A	65	121
	WB-TR	0.49	0.0	A	-	0	0.73	0.0	A	-	0	0.76	0.0	A	-	0	0.74	0.0	A	-	0	0.77	0.0	A	-	0	Movement Does Not Exist					Movement Does Not Exist				
	WB-T	Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					0.80	17.5	B	257	580	0.85	20.3	C	290	620
	WB-R																										0.27	2.3	A	8	39	0.29	2.6	A	11	43
	SB-LR	0.77	45.9	E	-	151	1.36	242.8	F	-	370	1.62	-	F	-	-	1.39	254.6	F	-	381	1.65	365.1	F	-	469	0.62	29.7	C	91	158	0.64	30.2	C	99	169
	Intersection	-	7.9	A	-	-	-	33.3	D	-	-	-	49.1	E	-	-	-	35.0	D	-	-	-	50.7	F	-	-	-	14.7	B	-	-	-	16.3	B	-	-

Source: Synchro 10

EXHIBIT 27
PM PEAK HOUR
INTERSECTION CAPACITY ANALYSIS

Intersection	LANE GROUP	2021 Existing Condition					2026 No Action Condition					2040 No Action Condition					2026 Action Condition					2040 Action Condition					2026 Action Condition w/ Mitigation					2040 Action Condition w/ Mitigation				
		V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)	V/C Ratio	Delay	Level of Service	50th Queue (ft)	95th Queue (ft)
Konterra Drive & MD 200 On-Ramp *Signalized*	**NB-L**	0.50	37.7	D	79	113	0.51	37.5	D	84	118	0.52	37.0	D	89	123	0.60	35.0	C	125	161	0.61	34.8	C	131	168	0.54	20.6	C	85	89	0.55	22.9	C	95	108
	NB-T	0.23	0.2	A	0	0	0.57	0.7	A	0	0	0.57	0.7	A	0	0	0.57	0.7	A	0	0	0.57	0.7	A	0	0	0.57	0.4	A	0	0	0.57	0.4	A	0	0
	SB-T	0.19	3.5	A	31	55	0.31	4.2	A	60	98	0.33	4.6	A	67	115	0.33	6.3	A	79	131	0.36	6.7	A	89	146	0.35	6.6	A	69	121	0.38	7.0	A	77	135
	SB-R	0.01	1.6	A	0	5	0.66	6.0	A	97	244	0.72	8.1	A	140	351	0.72	11.5	B	208	448	0.79	14.8	B	265	613	0.74	11.4	B	146	391	0.81	15.0	B	192	559
	Intersection	-	8.1	A	-	-	-	5.5	A	-	-	-	6.2	A	-	-	-	8.0	A	-	-	-	9.0	A	-	-	-	6.3	A	-	-	-	7.6	A	-	-
Konterra Drive & MD 200 Off-Ramp *Signalized*	**EB-L**	0.09	16.9	B	6	17	0.82	32.7	C	203	371	0.82	33.6	C	205	359	0.86	38.0	D	240	371	0.86	38.7	D	246	359	0.74	23.7	C	170	222	0.82	30.4	C	181	252
	EB-R	0.52	7.6	A	0	44	0.42	8.1	A	17	85	0.47	11.1	B	32	112	0.45	9.1	A	23	90	0.50	12.5	B	43	119	0.44	10.7	B	44	97	0.35	19.6	B	54	88
	NB-T	0.47	6.4	A	65	124	0.72	17.2	B	255	325	0.73	17.3	B	270	343	0.78	18.7	B	314	401	0.79	19.0	B	332	424	0.89	24.0	C	254	495	0.84	16.7	B	313	346
	SB-T	0.22	4.9	A	24	50	0.43	12.5	B	116	155	0.45	12.6	B	127	168	0.41	12.0	B	117	155	0.43	12.1	B	127	168	0.47	9.5	A	115	173	0.46	5.6	A	112	2
	Intersection	-	6.5	A	-	-	-	19.7	B	-	-	-	20.0	B	-	-	-	21.5	C	-	-	-	21.9	C	-	-	-	19.6	B	-	-	-	17.9	B	-	-
Virginia Manor Road/ Konterra Drive & Muirkirk Road *Signalized*	**EB-LT**	0.23	34.4	C	23	64	0.27	39.8	D	27	65	0.28	40.5	D	30	71	0.27	39.8	D	27	65	0.28	40.5	D	30	71	0.52	86.1	F	52	102	0.44	75.6	E	55	103
	EB-R	0.00	0.0	A	0	0	0.00	0.0	A	0	0	0.01	0.0	A	0	0	0.00	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0
	WB-L	0.41	30.8	C	48	103	0.31	28.3	C	52	113	0.34	29.4	C	57	125	0.37	29.4	C	64	133	0.40	30.6	C	70	146	0.70	74.6	E	145	222	0.73	77.8	E	149	220
	WB-TR	0.31	27.7	C	47	98	0.24	26.5	C	51	109	0.26	27.2	C	56	120	0.28	27.0	C	62	126	0.31	27.8	C	68	137	0.53	62.4	E	141	212	0.55	63.8	E	145	210
	WB-R	0.80	10.5	B	3	112	1.01	44.1	F	221	535	1.05	57.7	F	313	595	1.19	112.2	F	463	758	1.24	131.7	F	511	823	0.91	41.5	D	838	1208	0.97	78.9	E	852	1306
	NB-L	0.02	13.4	B	2	10	0.02	14.7	B	2	10	0.03	14.8	B	2	10	0.02	14.7	B	2	10	0.03	14.8	B	2	10	0.04	16.3	B	3	3	0.07	48.9	D	7	11
	NB-T	0.26	26.4	C	44	87	0.40	31.9	C	72	114	0.41	32.1	C	77	121	0.40	31.9	C	72	114	0.41	32.1	C	77	121	0.50	48.0	D	128	156	0.55	54.7	D	138	182
	NB-R	0.43	6.4	A	0	63	0.49	6.8	A	0	64	0.50	6.7	A	0	65	0.49	6.8	A	0	65	0.50	6.7	A	0	66	0.55	14.6	B	56	115	0.57	13.4	B	45	112
	SB-L	0.79	27.5	C	161	492	1.45	235.8	F	557	829	1.57	288.9	F	626	919	1.47	243.5	F	568	841	1.59	296.8	F	636	931	0.50	26.3	C	206	395	0.55	32.2	C	323	426
	SB-T	0.10	14.8	B	20	59	0.18	18.1	B	40	83	0.19	18.2	B	43	88	0.18	18.1	B	40	83	0.19	18.2	B	43	88	0.11	13.9	B	47	66	0.12	8.2	A	32	54
	SB-R	0.01	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0	0.01	0.0	A	0	0
	Intersection	-	18.3	B	-	-	-	85.2	F	-	-	-	104.5	F	-	-	-	109.4	F	-	-	-	129.8	F	-	-	-	36.8	D	-	-	-	51.7	D	-	-
Virginia Manor Road/ Ritz Way & Virginia Manor Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.38	10.3	B	-	44	0.46	11.2	B	-	62	0.51	12.0	B	-	74	0.46	11.3	B	-	62	0.51	12.0	B	-	74	0.74	19.7	B	113	261	0.74	14.4	B	85	211
	EB-T	0.07	0.0	A	-	0	0.07	0.0	A	-	0	0.07	0.0	A	-	0	0.07	0.0	A	-	0	0.07	0.0	A	-	0	0.13	8.5	A	23	39	0.11	4.9	A	18	36
	WB-LTR	0.11	0.0	A	-	0	0.13	0.0	A	-	0	0.14	0.0	A	-	0	0.13	0.0	A	-	0	0.14	0.0	A	-	0	0.56	21.0	C	50	70	0.28	11.6	B	38	65
	SB-L	0.90	113.5	F	-	149	1.60	392.8	F	-	293	2.14	-	F	-	-	1.61	-	F	-	-	2.17	-	F	-	-	0.26	13.8	B	53	76	0.48	24.5	C	53	84
	SB-R	0.35	10.7	B	-	39	0.43	11.6	B	-	55	0.47	12.2	B	-	64	0.48	12.3	B	-	6.7	0.52	13.0	B	-	77	0.56	7.7	A	65	105	0.70	15.7	B	225	98
	Intersection	-	13.2	B	-	-	-	36.7	E	-	-	-	56.8	F	-	-	-	36.7	E	-	-	-	57.0	F	-	-	-	14.7	B	-	-	-	13.1	B	-	-
Muirkirk Meadows Drive & Muirkirk Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.01	9.6	A	-	1	0.01	9.9	A	-	1	0.01	10.1	B	-	1	0.01	10.9	B	-	1	0.01	11.2	B	-	1	0.01	2.8	A	1	2	0.01	4.2	A	1	4
	EB-TR	0.30	0.0	A	-	0	0.33	0.0	A	-	0	0.35	0.0	A	-	0	0.33	0.0	A	-	0	0.36	0.0	A	-	0	0.62	10.4	B	127	234	0.66	15.6	B	194	274
	WB-L	0.27	11.0	B	-	27	0.35	13.4	B	-	40	0.40	14.7	B	-	49	0.38	13.9	B	-	45	0.43	15.3	C	-	55	0.56	11.9	B	30	115	0.61	14.8	B	31	147
	WB-TR	0.34	0.0	A	-	0	0.36	0.0	A	-	0	0.39	0.0	A	-	0	0.44	0.0	A	-	0	0.47	0.0	A	-	0	0.49	8.9	A	104	276	0.51	8.7	A	108	294
	NB-LTR	0.48	86.7	F	-	49	4.35	-	F	-	-	5.56	-	F	-	-	6.69	-	F	-	-	9.99	-	F	-	-	0.67	19.8	B	47	84	0.66	18.2	B	42	78
	SB-LTR	0.59	142.7	F	-	58	1.01	341.1	F	-	88	1.58	-	F	-	113	1.68	743.2	F	-	111	2.90	-	F	-	133	0.19	13.2	B	7	24	0.21	13.7	B	8	25
	Intersection	-	6.3	A	-	-	-	777.6	F	-	-	-	651.3	F	-	-	-	719.1	F	-	-	-	611.2	F	-	-	-	11.3	B	-	-	-	13.1	B	-	-
Brickyard Boulevard/ Driveway & Muirkirk Road *Signalized*	**EB-L**	0.28	3.6	A	9	46	0.41	4.8	A	14	68	0.46	5.5	A	15	73	0.49	6.3	A	14	68	0.54	9.2	A	15	94	0.53	7.3	A	14	67	0.51	7.5	A	15	86
	EB-TR	0.30	3.1	A	35	127	0.31	3.3	A	37	138	0.34	3.4	A	42	152	0.32	3.3	A	38	141	0.34	3.4	A	42	155	0.32	3.2	A	38	138	0.33	3.0	A	43	145
	WB-L	-	0.0	A	-	-	-	0.0	A	-	-	-	0.0	A	-	-	-	0.0	A	-	-	-	0.0	A	-	-	-	0.0	A	-	-	-	0.0	A	0	0
	WB-TR	0.39	10.6	B	152	252	0.42	11.7	B	180	255	0.45	11.7	B	190	261	0.52	10.3	B	192	263	0.55	10.4	B	202	271	0.49	6.3	A	62	269	0.55	8.6	A	97	302
	NB-LTR	0.03	0.1	A	0	0	0.03	0.1	A	0	0	0.03	0.2	A	0	0	0.03	0.1	A	0	0	0.03	0.2	A	0	0	0.03	0.3	A	0	0	0.03	0.2	A	0	0
	SB-LT	0.09	41.8	D	8	27	0.11	41.6	D	11	31	0.12	41.6	D	12	32	0.11	41.6	D	11	31	0.12	41.6	D	12	32	0.11	41.6	D	11	31	0.13	47.2	D	13	35
	SB-R	0.49	14.9	B	0	51	0.56	14.5	B	0	58	0.57	14.4	B	0	59	0.56	14.5	B	0	58	0.57	14.4	B	0	59	0.56	14.5	B	0	58	0.60	16.1	B	0	63
	Intersection	-	7.4	A	-	-	-	8.2	A	-	-	-	8.3	A	-	-	-	7.9	A	-	-	-	8.3	A	-	-	-	6.1	A	-	-	-	7.2	A	-	-
Old Baltimore Pike/ Cedarhurst Drive & Muirkirk Road *Signalized*	**EB-L**	0.09	12.4	B	15	17	0.10	12.5	B	15	14	0.11	12.6	B	17	15	0.13	12.9	B	15	14	0.14	13.1	B	17	15	0.14	15.6	B	18	19	0.15	15.2	B	19	28
	EB-TR	0.64	22.5	C	197	289	0.66	23.2	C	208	305	0.71	25.1	C	235	371	0.68	24.5	C	218	344	0.73	26.5	C	246	388	Movement Does Not Exist					Movement Does Not Exist				
	EB-T	Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					0.40	23.6	C	144	195	0.42	24.4	C	159	211
	EB-R																										0.46	7.7	A	0	134	0.48	8.3	A	0	144
	WB-L	0.29	17.7	B	24	51	0.30	18.0	B	25	52	0.34	18.9	B	27	55	0.36	19.0	B	30	61	0.41	20.3	C	33	65	0.30	20.8	C	35	68	0.33	20.6	C	38	71
	WB-TR	0.21	19.3	B	72	108	0.22	19.4	B	75	112	0.25	20.6	C	81	119	0.37	21.2	C	138	191	0.40	22.7	C	146	200	0.41	24.9	C	154	208	0.42	25.4	C	165	217
	NB-L	0.95	52.1	D	302	447	0.99	60.5	E	320	481	1.07	82.6	F	371	552	0.99	60.5	E	320	481	1.07	82.6	F	371	552	0.86	34.9	C	277	413	0.98	58.8	E	375	601
	NB-TR	0.37	7.8	A	19	73	0.38	7.8	A	20	74	0.40	7.8	A	21	78	0.38	7.8	A	20	74	0.40	7.8	A	21	78	0.34	6.1	A	17	64	0.37	7.4	A	22	80
	SB-L	0.06	18.5	B	5	16	0.06	18.5	B	5	16	0.07	18.5	B	6	17	0.06	18.5	B	5	16	0.07	18.5	B	6	17	0.08	20.1	C	5	15	0.08	21.1	C	6	18
	SB-TR	0.34	24.0	C	19	62	0.35	24.1	C	20	63	0.37	24.2	C	22	67	0.35	24.1	C	20	63	0.37	24.2	C	22	67	0.49	33.0	C	21	68	0.43	29.5	C	25	75
	Intersection	-	28.1	C	-	-	-	30.7	C	-	-	-	37.6	D	-	-	-	30.4	C	-	-	-	36.9	D	-	-	-	22.9	C	-	-	-	29.1	C	-	-
Pasture Road/ Snowden Woods Road & Muirkirk Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.02	8.3	A	-	2	0.02	8.3	A	-	2	0.03	8.4	A	-	2	0.02	8.4	A	-	2	0.03	8.5	A	-	2	0.07	8.1	A	5	20	0.08	8.3	A	6	21
	EB-T	0.51	0.0	A	-	0	0.52	0.0	A	-	0	0.56	0.0	A	-	0	0.53	0.0	A	-	0	0.56	0.0	A	-	0	0.83	22.1	C	287	605	0.89	27.2	C	334	674
	EB-R	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.01	0.0	A	-	0	0.01	0.0	A	-	0	0.01	0.5	A	0	1	0.01	0.5	A	0	1
	WB-L	-	0.0	A	-	-	-	0.0	A	-	-	-	0.0	A	-	0	0.00	9.8	A	-	0	0.00	10.0	A	-	0	0.01	8.0	A	0	2	0.01	8.0	A	0	2
	WB-T	0.26	0.0	A	-	0	0.26	0.0	A	-	0	0.28	0.0	A	-	0	0.28	0.0	A	-	0	0.30	0.0	A	-	0	0.45	10.5	B	105	204	0.48	11.0	B	115	222
	WB-R	0.01	0.0	A	-	0	0.01	0.0	A	-	0	0.01	0.0	A	-	0	0.01	0.0	A	-	0	0.01	0.0	A	-	0	0.02	1.2	A	0	4	0.02	1.3	A	0	5
	NB-L	0.08	24.8	C	-	7	0.09	26.1	D	-	7	0.12	29.9	D	-	10	1.40	258.7	F	-	376	1.62	-	F	-	433	0.69	34.2	C	99	161	0.69	34.3	C	99	162
	NB-TR	0.02	14.2	B	-	2	0.02	14.6	B		2	0.03	15.4	C	-	2	0.07	15.1	C	-	5	0.07	16.0	C	-	6	0.05	0.2	A	0	0	0.05	0.2	A	0	0
	SB-LTR	0.13	19.5	C	-	11	0.13	20.3	C	-	11	0.16	23.1	C	-	14	0.15	22.4	C	-	13	0.18	25.8	D	-	16	0.07	6.1	A	0	16	0.08	6.6	A	0	17
	Intersection	-	1.0	A	-	-	-	1.0	A	-	-	-	1.2	A	-	-	-	37.7	E	-	-	-	49.1	E	-	-	-	19.3	B	-	-	-	22.0	C	-	-
Odell Road/ Cedarbrook Lane & Muirkirk Road *Signalized*	**EB-L**	0.20	6.5	A	24	57	0.21	6.7	A	25	60	0.24	7.2	A	28	67	0.22	7.7	A	28	67	0.24	8.3	A	31	75	0.22	7.7	A	28	67	0.24	8.3	A	31	75
	EB-TR	0.71	21.6	C	269	571	0.73	23.0	C	287	612	0.80	26.8	C	336	711	0.77	26.5	C	323	686	0.84	31.4	C	378	792	0.77	26.5	C	323	686	0.84	31.4	C	378	792
	WB-L	0.19	7.1	A	12	33	0.20	7.4	A	12	34	0.24	8.3	A	14	37	0.22	8.7	A	14	39	0.27	9.9	A	16	43	0.22	8.7	A	14	39	0.27	9.9	A	16	43
	WB-TR	0.30	14.2	B	75	159	0.31	14.7	B	80	168	0.34	15.9	B	91	191	0.32	16.3	B	86	183	0.35	17.6	B	98	207	0.32	16.3	B	86	183	0.35	17.6	B	98	207
	NB-LT	0.64	41.5	D	101	176	0.65	41.8	D	105	183	0.59	42.3	D	114	197	0.70	43.1	D	125	213	0.71	43.7	D	135	229	0.70	43.1	D	125	213	0.71	43.7	D	135	229
	NB-R	0.24	7.6	A	0	38	0.24	7.5	A	0	38	0.25	7.2	A	0	40	0.28	6.6	A	0	43	0.29	6.4	A	0	44	0.28	6.6	A	0	43	0.29	6.4	A	0	44
	SB-LT	0.18	29.2	C	30	65	0.18	29.1	C	30	66	0.19	29.0	C	32	70	0.17	28.2	C	31	66	0.17	28.1	C	33	69	0.17	28.2	C	31	66	0.17	28.1	C	33	69
	SB-R	0.19	6.0	A	0	26	0.19	6.0	A	0	27	0.20	6.6	A	0	30	0.18	5.6	A	0	26	0.19	6.1	A	0	29	0.18	5.6	A	0	26	0.19	6.1	A	0	29
	Intersection	-	19.6	B	-	-	-	20.3	C	-	-	-	22.3	C	-	-	-	22.4	C	-	-	-	24.9	C	-	-	-	22.4	C	-	-	-	24.9	C	-	-
Laurel Bowie Road (MD 197) & Murikirk Road/ Crystal Plaza Driveway *Signalized*	**EB-L**	0.73	82.0	F	153	237	0.74	82.9	F	157	244	0.77	84.4	F	167	260	0.76	84.3	F	166	254	0.79	86.2	F	176	286	0.75	82.2	F	166	252	0.83	85.2	F	213	334
	EB-LT	0.70	78.4	E	158	243	0.71	78.9	E	163	248	0.75	81.3	F	175	267	0.73	80.1	F	169	258	0.76	82.1	F	183	280	0.72	78.2	E	169	256	0.46	61.9	E	122	194
	EB-R	0.64	38.7	D	211	311	0.66	40.3	D	222	325	0.70	43.4	D	247	360	0.71	43.5	D	252	365	0.75	46.9	D	278	400	0.73	39.6	D	212	323	0.80	51.7	D	283	408
	WB-LT	0.92	99.3	F	243	406	0.93	101.3	F	250	422	1.00	116.1	F	272	463	0.93	101.3	F	250	422	1.00	116.1	F	272	463	0.80	78.9	E	241	339	0.95	104.1	F	270	450
	WB-R	0.52	11.3	B	0	78	0.52	11.2	B	0	78	0.54	11.2	B	0	82	0.52	11.2	B	0	78	0.54	11.2	B	0	82	0.50	12.5	B	15	92	0.58	19.2	B	40	132
	NB-L	1.01	117.3	F	283	477	1.05	125.3	F	309	501	1.12	144.5	F	349	546	1.05	126.1	F	311	503	1.13	146.7	F	353	550	0.70	71.9	E	141	193	0.76	75.8	E	154	208
	NB-TR	0.77	37.8	D	531	610	0.79	39.2	D	556	633	0.87	43.4	D	630	705	0.80	39.6	D	561	633	0.87	44.0	D	633	705	0.75	35.7	D	530	625	0.82	38.4	D	594	662
	SB-L	0.79	82.6	F	194	290	0.80	83.1	F	199	306	0.84	86.6	F	216	343	0.80	83.1	F	199	306	0.84	86.6	F	216	343	0.63	73.7	E	103	148	0.67	75.2	E	111	158
	SB-TR	0.89	44.8	D	637	726	0.92	47.4	D	667	794	0.99	59.9	E	805	901	0.92	48.2	D	673	794	1.00	61.9	E	810	902	0.90	45.1	D	678	844	0.97	54.4	D	798	890
	Intersection	-	50.8	D	-	-	-	52.9	D	-	-	-	61.1	E	-	-	-	53.7	D	-	-	-	62.4	E	-	-	-	46.6	D	-	-	-	53.2	D	-	-
Odell Road & MRC Driveway *Unsignalized*	**EB-LR**	Movement Does Not Exist															0.15	13.0	B	-	13	0.18	15.4	C	-	17	0.15	13.0	B	-	13	0.18	15.4	C	-	17
	NB-LT																0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	-	0	0.00	0.0	A	-	0
	SB-TR																0.16	0.0	A	-	0	0.17	0.0	A	-	0	0.16	0.0	A	-	0	0.17	0.0	A	-	0
	Intersection																-	1.6	A	-	-	-	1.5	A	-	-	-	1.6	A	-	-	-	1.5	A	-	-
Odell Road & Springfield Road *Unsignalized*	**WB-LTR**	0.28	10.8	B	-	29	0.29	11.0	B	-	31	0.54	16.0	C	-	83	0.30	11.1	B	-	31	0.55	16.4	C	-	86	0.30	11.1	B	-	31	0.55	16.4	C	-	86
	NB-TR	0.07	0.0	A	-	0	0.08	0.0	A	-	0	0.12	0.0	A	-	0	0.08	0.0	A	-	0	0.12	0.0	A	-	0	0.08	0.0	A	-	0	0.12	0.0	A	-	0
	SB-LT	0.15	6.5	A	-	13	0.15	6.5	A	-	14	0.25	7.1	A	-	25	0.17	6.7	A	-	15	0.26	7.2	A	-	26	0.17	6.7	A	-	15	0.26	7.2	A	-	26
	Intersection	-	6.8	A	-	-	-	6.9	A	-	-	-	9.0	A	-	-	-	7.0	A	-	-	-	9.2	A	-	-	-	7.0	A	-	-	-	9.2	A	-	-
Odell Road & Ellington Drive *Unsignalized*	**WB-LR**	0.09	9.4	A	-	7	0.09	9.5	A	-	7	0.15	10.2	B	-	13	0.09	9.5	A	-	7	0.15	10.2	B	-	13	0.09	9.5	A	-	7	0.15	10.2	B	-	13
	NB-TR	0.08	0.0	A	-	0	0.08	0.0	A	-	0	0.12	0.0	A	-	0	0.08	0.0	A	-	0	0.12	0.0	A	-	0	0.08	0.0	A	-	0	0.12	0.0	A	-	0
	SB-LT	0.01	3.0	A	-	1	0.01	2.9	A	-	1	0.01	2.9	A	-	1	0.01	2.9	A	-	1	0.01	2.9	A	-	1	0.01	2.9	A	-	1	0.01	2.9	A	-	1
	Intersection	-	3.5	A	-	-	-	3.5	A	-	-	-	3.7	A	-	-	-	3.5	A	-	-	-	3.7	A	-	-	-	3.5	A	-	-	-	3.7	A	-	-
Powder Mill Road & Springfield Road *Unsignalized (Existing, No Action, Action)* *Signalized (Action w/ Mitigation)*	**EB-L**	0.01	8.3	A	-	1	0.01	8.3	A	-	1	0.02	9.2	A	-	2	0.01	8.3	A	-	1	0.02	9.2	A	-	2	0.02	6.0	A	2	7	0.04	8.9	A	4	14
	EB-T	0.34	0.0	A	-	0	0.57	0.0	A	-	0	0.55	0.0	A	-	0	0.57	0.0	A	-	0	0.55	0.0	A	-	0	0.87	23.2	C	324	617	0.88	28.7	C	435	726
	WB-TR	0.27	0.0	A	-	0	0.28	0.0	A	-	0	0.43	0.0	A	-	0	0.28	0.0	A	-	0	0.43	0.0	A	-	0	Movement Does Not Exist					Movement Does Not Exist				
	WB-T	Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					Movement Does Not Exist					0.28	7.3	A	58	99	0.46	12.6	B	152	227
	WB-R																										0.15	1.6	A	0	20	0.23	1.8	A	0	30
	SB-LR	0.87	57.1	F	-	207	1.51	295.7	F	-	482	3.07	-	F	-	-	1.58	325.8	F	-	522	3.17	-	F	-	-	0.72	32.9	C	122	205	0.89	48.4	D	262	440
	Intersection	-	12.8	B	-	-	-	52.2	F	-	-	-	2236.9	F	-	-	-	59.6	F	-	-	-	2285.7	F	-	-	-	20.2	C	-	-	-	26.5	C	-	-

*Source Synchro 10

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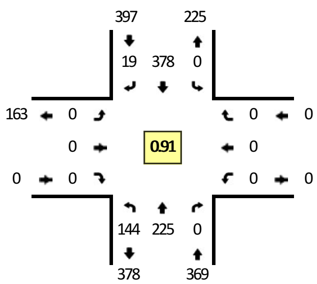
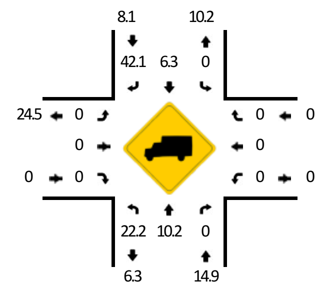
Appendix B: SHA Traffic Data

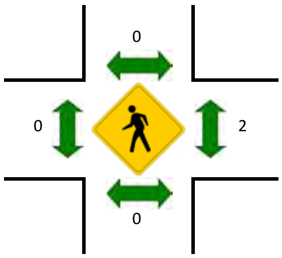
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

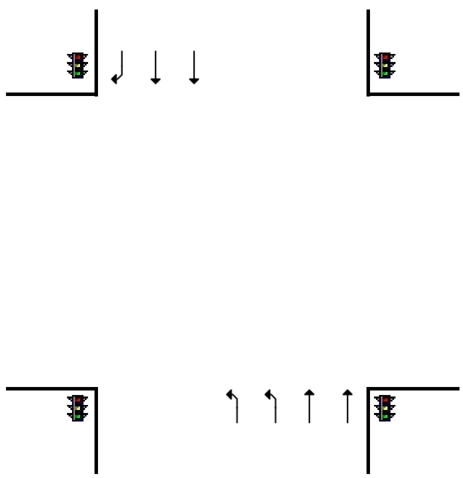
LOCATION: Konterra Dr -- MD 200 On Ramp | **QC JOB #:** 15313003
CITY/STATE: Beltsville, MD | **DATE:** Tue, Jan 5 2021

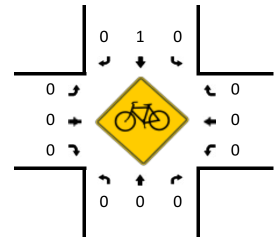


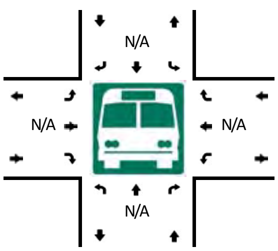
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

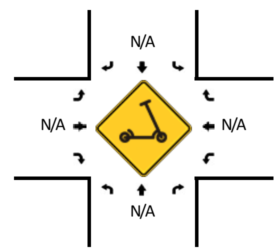












15-Min Count Period Beginning At	Konterra Dr (Northbound)				Konterra Dr (Southbound)				MD 200 On Ramp (Eastbound)				MD 200 On Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	31	46	0	0	0	86	2	0	0	0	0	0	0	0	0	0	165	
6:45 AM	34	47	0	0	0	123	3	0	0	0	0	0	0	0	0	0	207	
7:00 AM	32	44	0	1	0	81	3	0	0	0	0	0	0	0	0	0	161	
7:15 AM	33	53	0	0	0	86	9	0	0	0	0	0	0	0	0	0	181	714
7:30 AM	30	54	0	0	0	101	3	0	0	0	0	0	0	0	0	0	188	737
7:45 AM	48	59	0	0	0	100	3	0	0	0	0	0	0	0	0	0	210	740
8:00 AM	33	59	0	0	0	91	4	0	0	0	0	0	0	0	0	0	187	766
8:15 AM	37	72	0	0	0	67	1	0	0	0	0	0	0	0	0	0	177	762
8:30 AM	32	74	0	0	0	71	2	0	0	0	0	0	0	0	0	0	179	753
8:45 AM	38	73	0	0	0	96	2	0	0	0	0	0	0	0	0	0	209	752
9:00 AM	31	58	0	0	0	69	4	0	0	0	0	0	0	0	0	0	162	727
9:15 AM	24	55	0	0	0	65	3	0	0	0	0	0	0	0	0	0	147	697

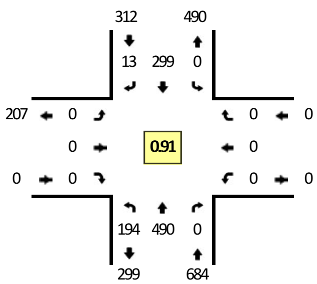
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	192	236	0	0	0	400	12	0	0	0	0	0	0	0	0	0	840
Heavy Trucks	40	28	0		0	24	0		0	0	0		0	0	0		92
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

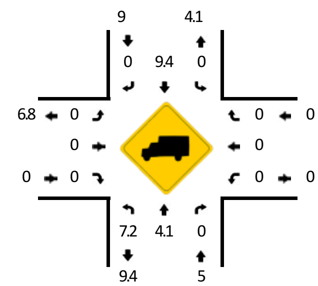
Report generated on 1/14/2021 10:31 AM
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

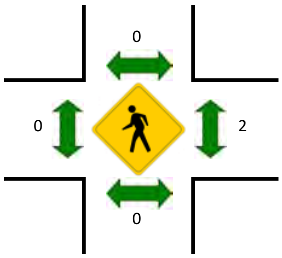
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

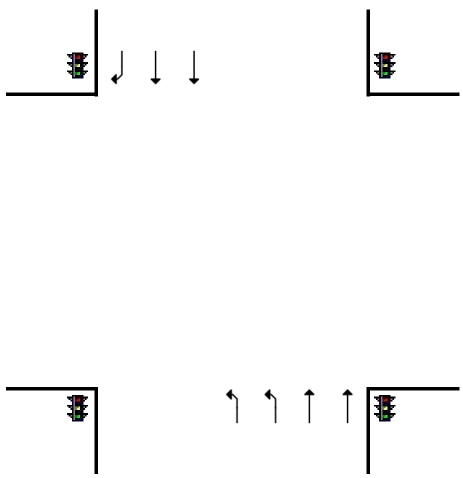
LOCATION: Konterra Dr -- MD 200 On Ramp | **QC JOB #:** 15313004
CITY/STATE: Beltsville, MD | **DATE:** Tue, Jan 5 2021

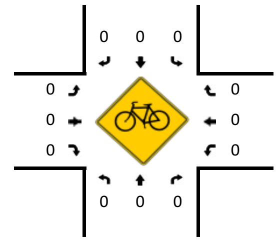


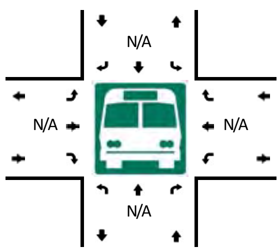
Peak-Hour: 3:45 PM -- 4:45 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

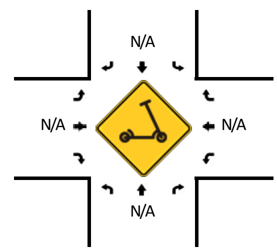












15-Min Count Period Beginning At	Konterra Dr (Northbound)				Konterra Dr (Southbound)				MD 200 On Ramp (Eastbound)				MD 200 On Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	36	119	0	0	0	80	16	0	0	0	0	0	0	0	0	0	251	
3:15 PM	45	100	0	0	0	79	4	1	0	0	0	0	0	0	0	0	229	
3:30 PM	30	151	0	0	0	57	0	0	0	0	0	0	0	0	0	0	238	
3:45 PM	48	116	0	0	0	65	4	0	0	0	0	0	0	0	0	0	233	951
4:00 PM	47	143	0	0	0	81	3	0	0	0	0	0	0	0	0	0	274	974
4:15 PM	53	113	0	0	0	72	3	0	0	0	0	0	0	0	0	0	241	986
4:30 PM	46	118	0	0	0	81	3	0	0	0	0	0	0	0	0	0	248	996
4:45 PM	36	123	0	0	0	61	2	0	0	0	0	0	0	0	0	0	222	985
5:00 PM	38	126	0	0	0	73	4	0	0	0	0	0	0	0	0	0	241	952
5:15 PM	46	101	0	0	0	82	0	0	0	0	0	0	0	0	0	0	229	940
5:30 PM	43	140	0	0	0	77	5	0	0	0	0	0	0	0	0	0	265	957
5:45 PM	42	96	0	0	0	54	4	0	0	0	0	0	0	0	0	0	196	931
6:00 PM	30	89	0	0	0	44	2	0	0	0	0	0	0	0	0	0	165	855
6:15 PM	27	67	0	0	0	43	2	0	0	0	0	0	0	0	0	0	139	765
6:30 PM	16	64	0	0	0	52	1	0	0	0	0	0	0	0	0	0	133	633
6:45 PM	20	53	0	0	0	33	2	0	0	0	0	0	0	0	0	0	108	545

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	188	572	0	0	0	324	12	0	0	0	0	0	0	0	0	0	1096
Heavy Trucks	4	20	0		0	40	0		0	0	0		0	0	0		64
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

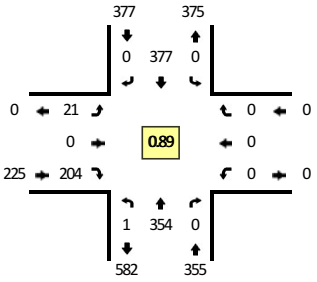
Type of peak hour being reported: Intersection Peak

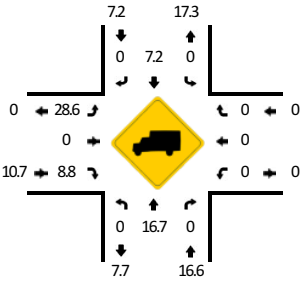
Method for determining peak hour: Total Entering Volume

LOCATION: Konterra Dr -- MD 200 Off Ramp
CITY/STATE: Beltsville, MD

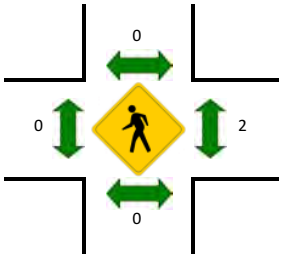
QC JOB #: 15313001
DATE: Tue, Jan 5 2021

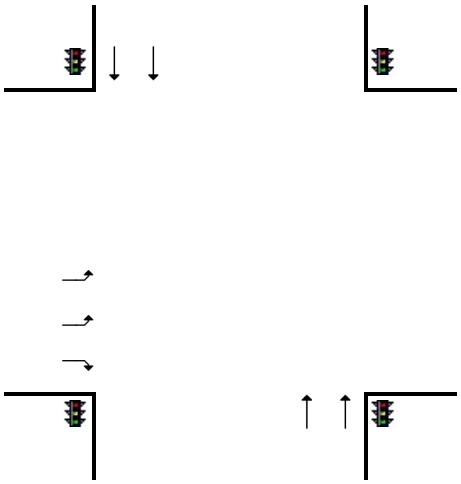
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

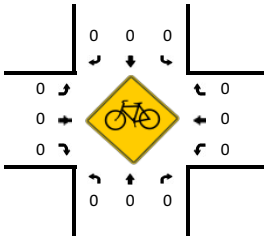


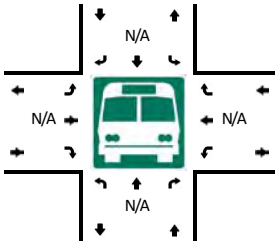


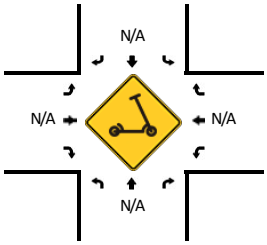
Quality Counts
DATA THAT DRIVES COMMUNITIES











15-Min Count Period Beginning At	Konterra Dr (Northbound)				Konterra Dr (Southbound)				MD 200 Off Ramp (Eastbound)				MD 200 Off Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	71	0	0	0	85	0	0	4	0	44	0	0	0	0	0	204	
6:45 AM	0	82	0	0	0	124	0	0	0	0	58	0	0	0	0	0	264	
7:00 AM	0	71	0	0	0	82	0	0	3	0	57	0	0	0	0	0	213	
7:15 AM	0	84	0	0	0	85	0	0	2	0	49	0	0	0	0	0	220	901
7:30 AM	0	75	0	0	0	100	0	0	8	0	47	0	0	0	0	0	230	927
7:45 AM	0	105	0	1	0	101	0	0	4	0	59	0	0	0	0	0	270	933
8:00 AM	0	90	0	0	0	91	0	0	7	0	49	0	0	0	0	0	237	957
8:15 AM	0	103	0	0	0	69	0	0	3	0	35	0	0	0	0	0	210	947
8:30 AM	0	98	0	0	0	69	0	0	9	0	48	0	0	0	0	0	224	941
8:45 AM	0	107	0	0	0	101	0	0	5	0	45	0	0	0	0	0	258	929
9:00 AM	0	84	0	0	0	67	0	0	3	0	52	0	0	0	0	0	206	898
9:15 AM	0	78	0	0	0	64	0	0	3	0	30	0	0	0	0	0	175	863

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	420	0	4	0	404	0	0	16	0	236	0	0	0	0	0	1080
Heavy Trucks	0	64	0		0	28	0		8	0	16		0	0	0		116
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

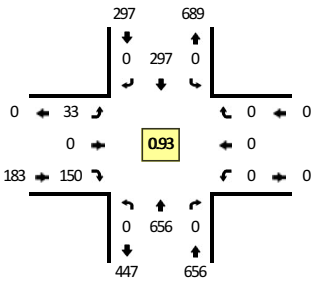
Type of peak hour being reported: Intersection Peak

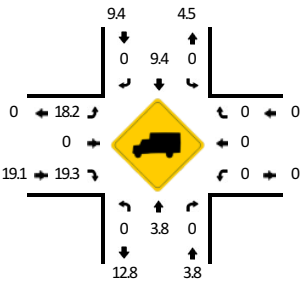
Method for determining peak hour: Total Entering Volume

LOCATION: Konterra Dr -- MD 200 Off Ramp
CITY/STATE: Beltsville, MD

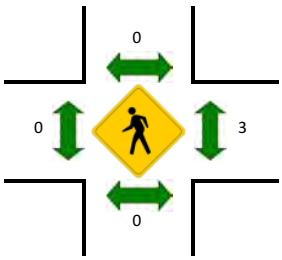
QC JOB #: 15313002
DATE: Tue, Jan 5 2021

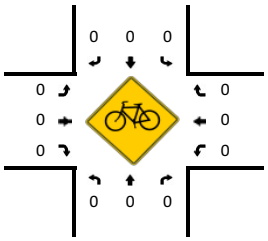
Peak-Hour: 3:45 PM -- 4:45 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

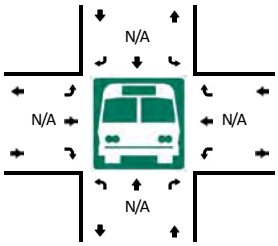


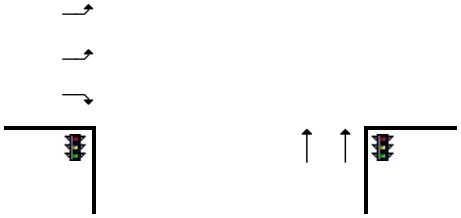


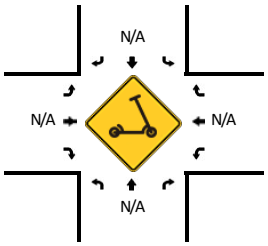
Quality Counts
DATA THAT DRIVES COMMUNITIES











15-Min Count Period Beginning At	Konterra Dr (Northbound)				Konterra Dr (Southbound)				MD 200 Off Ramp (Eastbound)				MD 200 Off Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	153	0	1	0	77	0	0	3	0	43	0	0	0	0	0	277	
3:15 PM	0	135	0	0	0	78	0	0	8	0	30	0	0	0	0	0	251	
3:30 PM	0	168	0	0	0	58	0	0	10	0	43	0	0	0	0	0	279	
3:45 PM	0	162	0	0	0	69	0	0	6	0	37	0	0	0	0	0	274	1081
4:00 PM	0	181	0	0	0	76	0	0	12	0	35	0	0	0	0	0	304	1108
4:15 PM	0	158	0	0	0	71	0	0	6	0	32	0	0	0	0	0	267	1124
4:30 PM	0	155	0	0	0	81	0	0	9	0	46	0	0	0	0	0	291	1136
4:45 PM	0	149	0	0	0	61	0	0	7	0	41	0	0	0	0	0	258	1120
5:00 PM	0	157	0	0	0	73	0	0	4	0	27	0	0	0	0	0	261	1077
5:15 PM	0	141	0	0	0	89	0	0	4	0	45	0	0	0	0	0	279	1089
5:30 PM	0	173	0	0	0	72	0	0	10	0	25	0	0	0	0	0	280	1078
5:45 PM	0	128	0	0	0	53	0	0	7	0	39	0	0	0	0	0	227	1047
6:00 PM	0	116	0	0	0	45	0	0	3	0	30	0	0	0	0	0	194	980
6:15 PM	0	91	0	0	0	40	0	0	5	0	29	0	0	0	0	0	165	866
6:30 PM	0	75	0	0	0	52	0	0	8	0	20	0	0	0	0	0	155	741
6:45 PM	0	70	0	0	0	31	0	0	5	0	8	0	0	0	0	0	114	628

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	724	0	0	0	304	0	0	48	0	140	0	0	0	0	0	1216
Heavy Trucks	0	20	0		0	40	0		0	0	12		0	0	0		72
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

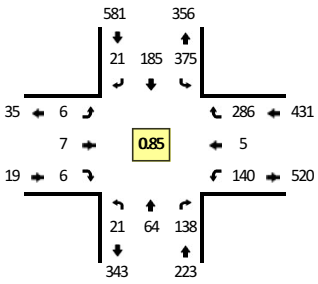
Type of peak hour being reported: Intersection Peak

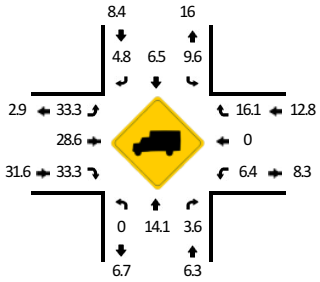
Method for determining peak hour: Total Entering Volume

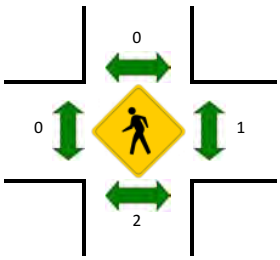
LOCATION: Konterra Dr/Virginia Manor Rd -- Muirkirk Rd
CITY/STATE: Beltsville, MD

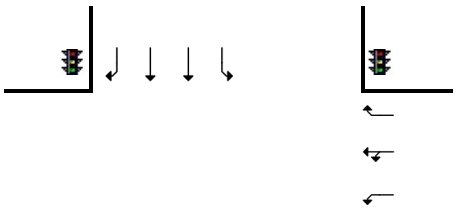
QC JOB #: 15313005
DATE: Tue, Jan 5 2021

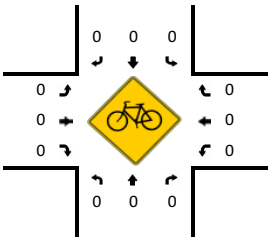
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

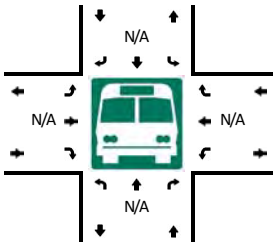


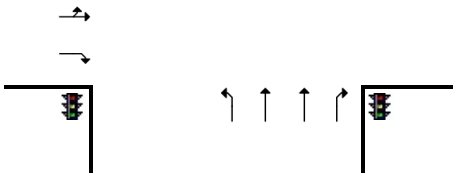


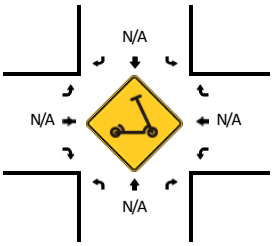












15-Min Count Period Beginning At	Konterra Dr/Virginia Manor Rd (Northbound)				Konterra Dr/Virginia Manor Rd (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	1	16	27	1	94	32	8	0	0	0	0	0	30	2	56	0	267	
6:45 AM	3	17	37	3	120	54	1	0	1	1	2	0	31	3	60	0	333	
7:00 AM	0	12	30	0	85	43	7	0	2	1	1	0	30	5	63	1	280	
7:15 AM	2	17	26	4	89	49	4	0	1	1	0	0	28	2	66	0	289	1169
7:30 AM	3	12	38	2	90	45	4	0	4	3	3	0	45	0	64	0	313	1215
7:45 AM	4	21	47	4	106	54	8	0	1	2	0	0	36	1	87	0	371	1253
8:00 AM	0	14	27	2	90	37	5	0	0	1	3	0	31	2	69	0	281	1254
8:15 AM	1	17	37	1	60	48	3	0	1	1	0	0	35	0	82	1	287	1252
8:30 AM	2	19	26	4	74	37	2	0	0	1	0	0	39	1	84	0	289	1228
8:45 AM	0	16	31	1	86	55	3	0	4	1	0	0	26	2	88	0	313	1170
9:00 AM	3	22	35	0	70	45	2	0	0	0	0	0	28	1	57	1	264	1153
9:15 AM	4	17	30	5	59	38	1	0	0	1	0	0	18	2	64	0	239	1105

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	84	188	16	424	216	32	0	4	8	0	0	144	4	348	0	1484
Heavy Trucks	0	16	8		40	16	0		0	4	0		0	0	56		140
Buses																	
Pedestrians		4				0				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

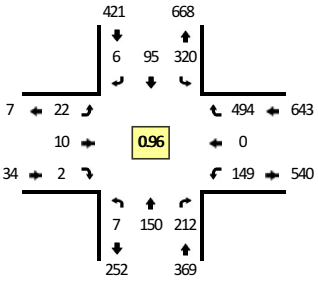
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

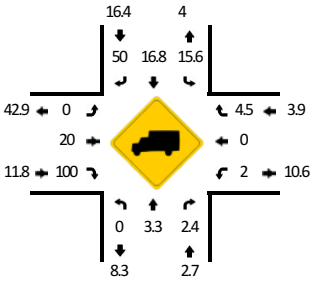
LOCATION: Konterra Dr/Virginia Manor Rd -- Muirkirk Rd
CITY/STATE: Beltsville, MD

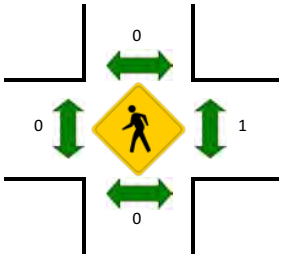
QC JOB #: 15313006
DATE: Tue, Jan 5 2021

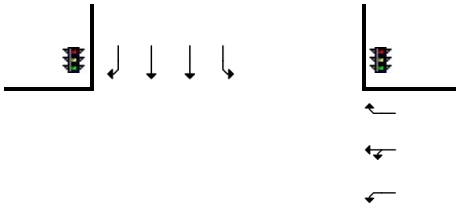
Peak-Hour: 3:30 PM -- 4:30 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

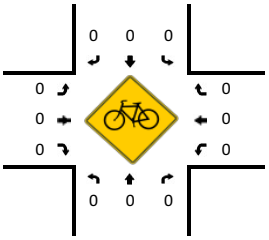


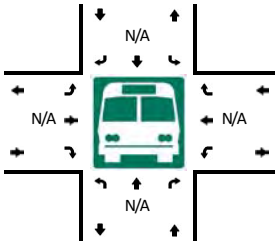
Quality Counts
DATA THAT DRIVES COMMUNITIES

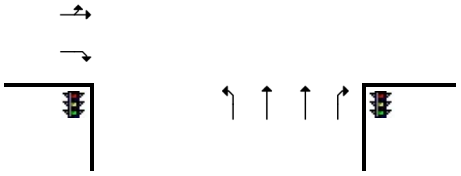


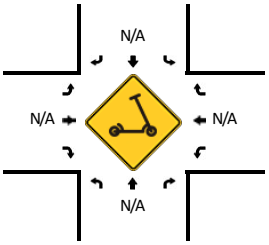












15-Min Count Period Beginning At	Konterra Dr/Virginia Manor Rd (Northbound)				Konterra Dr/Virginia Manor Rd (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	1	37	38	0	87	27	0	0	4	1	1	0	47	1	118	0	362	
3:15 PM	4	36	39	2	77	24	1	2	1	2	1	0	36	2	91	1	319	
3:30 PM	0	39	59	1	79	23	2	1	4	3	2	0	29	0	129	0	371	
3:45 PM	0	40	52	3	80	21	0	1	6	1	0	0	38	0	119	0	361	1413
4:00 PM	1	45	48	1	84	28	2	0	3	2	0	0	34	0	136	0	384	1435
4:15 PM	0	26	53	1	75	23	2	0	9	4	0	0	48	0	110	0	351	1467
4:30 PM	1	42	46	0	93	31	0	0	6	2	1	0	31	1	109	0	363	1459
4:45 PM	1	29	37	0	80	24	0	0	6	4	0	0	36	0	127	1	345	1443
5:00 PM	1	49	47	0	78	18	0	0	8	6	2	0	35	1	99	0	344	1403
5:15 PM	0	37	59	0	105	27	0	0	6	3	0	0	42	1	105	1	386	1438
5:30 PM	0	48	46	0	64	23	4	1	7	3	0	0	32	2	112	1	343	1418
5:45 PM	1	32	51	0	67	25	1	0	8	1	0	0	22	0	88	1	297	1370
6:00 PM	2	21	32	0	57	17	2	0	8	2	0	0	34	2	86	0	263	1289
6:15 PM	0	26	40	0	53	23	2	0	5	0	0	0	29	1	57	0	236	1139
6:30 PM	1	12	38	0	51	14	0	0	2	2	0	0	27	0	58	0	205	1001
6:45 PM	1	11	28	0	26	11	0	1	4	0	2	0	14	0	60	0	158	862

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	180	192	4	336	112	8	0	12	8	0	0	136	0	544	0	1536
Heavy Trucks	0	0	8		48	12	8		0	0	0		4	0	12		92
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

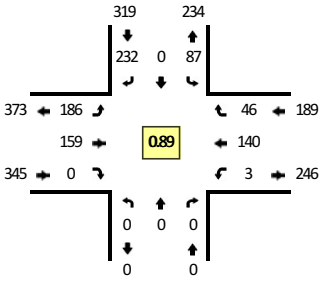
Report generated on 1/14/2021 10:31 AM

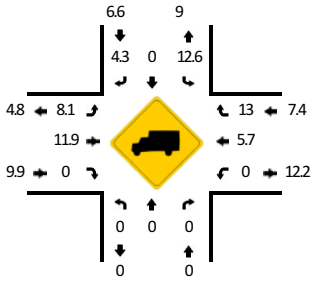
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

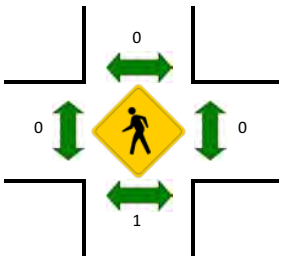
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

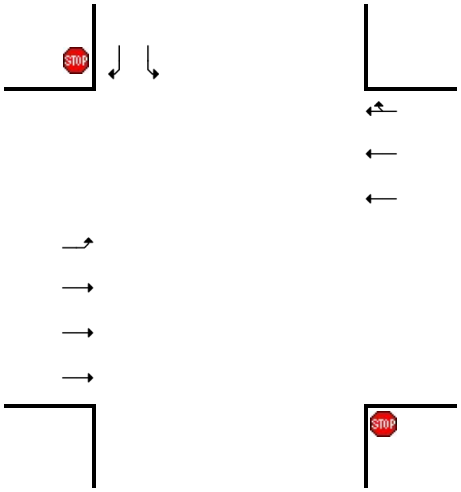
LOCATION: Virginia Manor Rd/MD 206 -- MD 212 | **QC JOB #:** 15313007
CITY/STATE: Beltsville, MD | **DATE:** Tue, Jan 5 2021

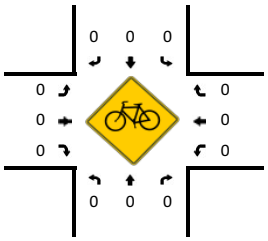
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

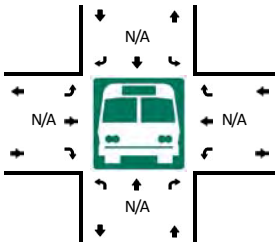


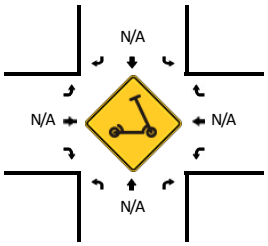












15-Min Count Period Beginning At	Virginia Manor Rd/MD 206 (Northbound)				Virginia Manor Rd/MD 206 (Southbound)				MD 212 (Eastbound)				MD 212 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	0	0	18	0	38	0	39	29	0	1	0	32	8	0	165	
6:45 AM	0	0	0	0	20	0	66	1	47	25	0	0	0	30	11	0	200	
7:00 AM	0	0	0	0	15	0	53	0	36	27	0	0	0	34	6	0	171	
7:15 AM	0	0	0	0	10	0	62	0	35	29	0	0	0	28	15	0	179	715
7:30 AM	0	0	0	0	20	0	70	1	49	39	0	1	0	38	6	2	226	776
7:45 AM	0	0	0	0	20	0	57	0	57	44	0	0	0	42	20	0	240	816
8:00 AM	0	0	0	0	23	0	53	2	32	44	0	0	0	33	11	1	199	844
8:15 AM	0	0	0	0	21	0	52	0	47	32	0	0	0	27	9	0	188	853
8:30 AM	0	0	0	0	21	0	45	0	43	41	0	1	0	31	9	0	191	818
8:45 AM	0	0	0	0	27	0	48	1	39	44	0	1	0	36	9	0	205	783
9:00 AM	0	0	0	0	20	0	46	1	48	39	0	0	0	29	11	0	194	778
9:15 AM	0	0	0	0	18	0	37	0	44	37	0	0	0	21	11	0	168	758

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	80	0	228	0	228	176	0	0	0	168	80	0	960
Heavy Trucks	0	0	0		8	0	4		8	12	0		0	12	12		56
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

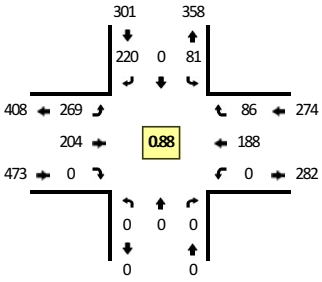
Type of peak hour being reported: Intersection Peak

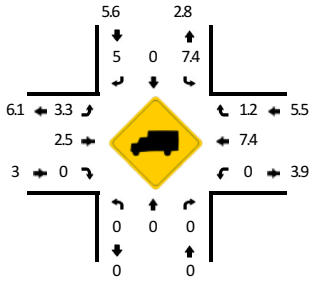
Method for determining peak hour: Total Entering Volume

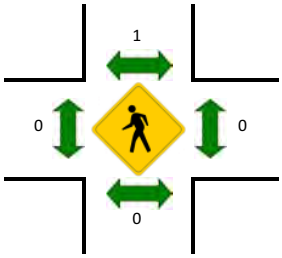
LOCATION: Virginia Manor Rd/MD 206 -- MD 212
CITY/STATE: Beltsville, MD

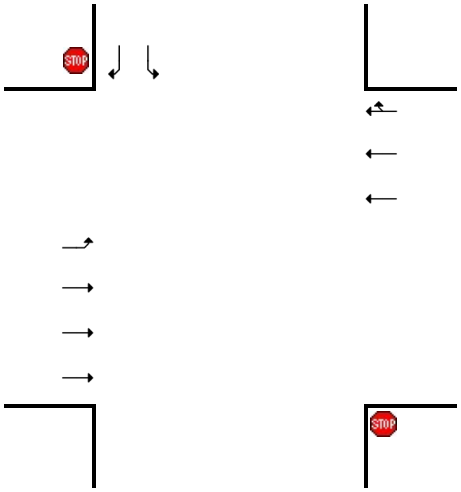
QC JOB #: 15313008
DATE: Tue, Jan 5 2021

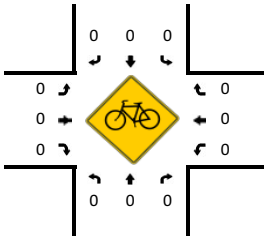
Peak-Hour: 3:45 PM -- 4:45 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

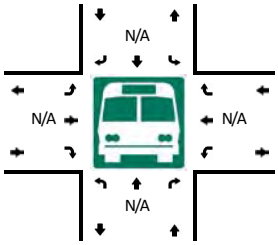


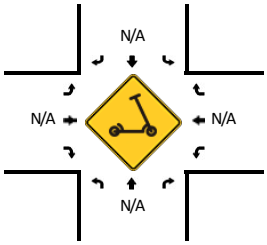












15-Min Count Period Beginning At	Virginia Manor Rd/MD 206 (Northbound)				Virginia Manor Rd/MD 206 (Southbound)				MD 212 (Eastbound)				MD 212 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	0	0	0	17	0	60	0	52	52	0	0	0	46	22	0	249	
3:15 PM	0	0	0	0	18	0	47	0	61	37	0	0	0	47	20	3	233	
3:30 PM	0	0	0	0	15	0	42	1	80	51	0	0	0	30	18	1	238	
3:45 PM	0	0	0	0	19	0	46	1	70	38	0	0	0	34	20	0	228	948
4:00 PM	0	0	0	0	17	0	50	0	74	48	0	0	0	46	23	0	258	957
4:15 PM	0	0	0	0	21	0	73	1	66	61	0	0	0	56	21	0	299	1023
4:30 PM	0	0	0	0	21	0	51	1	59	57	0	0	0	52	22	0	263	1048
4:45 PM	0	0	0	0	17	0	34	1	54	41	0	0	0	40	15	1	203	1023
5:00 PM	0	0	0	0	17	0	56	0	65	45	0	0	0	46	32	0	261	1026
5:15 PM	0	0	0	0	22	0	50	2	72	54	0	0	0	56	24	1	281	1008
5:30 PM	0	0	0	0	14	0	46	0	66	44	0	0	0	57	31	1	259	1004
5:45 PM	0	0	0	0	11	0	39	0	68	42	0	0	0	37	13	1	211	1012
6:00 PM	0	0	0	0	15	0	45	0	41	37	0	0	0	34	12	0	184	935
6:15 PM	0	0	0	0	15	0	37	3	49	33	0	0	0	38	14	1	190	844
6:30 PM	0	0	0	0	13	0	36	0	37	36	0	0	0	34	14	1	171	756
6:45 PM	0	0	0	0	10	0	20	0	34	26	0	0	0	31	7	0	128	673

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	84	0	292	4	264	244	0	0	0	224	84	0	1196
Heavy Trucks	0	0	0		8	0	12		12	12	0		0	12	4		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

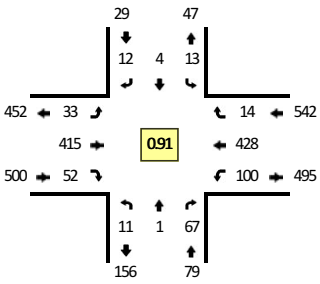
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

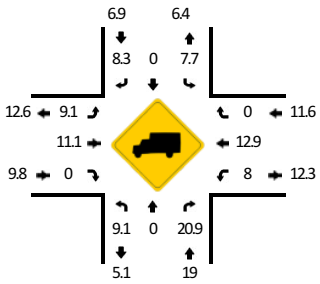
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: Muirkirk Meadows Dr -- Muirkirk Rd
CITY/STATE: Beltsville, MD

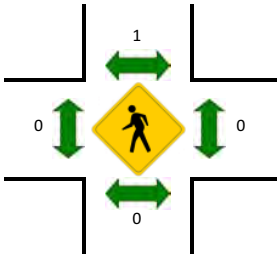
QC JOB #: 15313009
DATE: Tue, Jan 5 2021

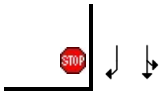
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

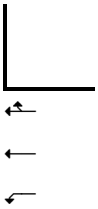


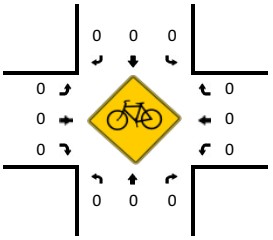


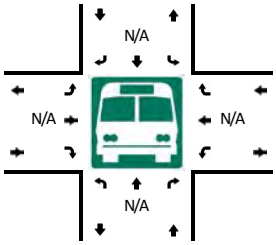
Quality Counts
DATA THAT DRIVES COMMUNITIES

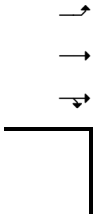


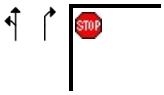


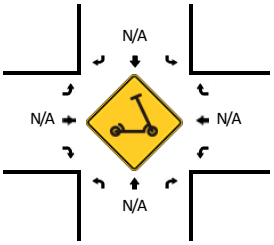












15-Min Count Period Beginning At	Muirkirk Meadows Dr (Northbound)				Muirkirk Meadows Dr (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	2	4	0	0	0	0	0	6	109	13	0	15	85	3	0	237	
6:45 AM	2	2	16	0	1	0	4	0	8	126	28	0	21	90	0	0	298	
7:00 AM	2	0	8	0	2	0	2	0	7	99	9	0	7	87	0	0	223	
7:15 AM	0	1	14	0	3	0	1	0	13	86	18	0	26	99	3	0	264	1022
7:30 AM	1	1	16	0	4	0	3	0	6	112	16	0	21	105	3	0	288	1073
7:45 AM	2	0	10	0	3	1	3	0	13	119	10	0	28	118	9	0	316	1091
8:00 AM	5	0	24	0	4	0	2	0	7	105	15	0	21	92	1	0	276	1144
8:15 AM	3	0	17	0	2	3	4	0	6	79	11	1	30	113	1	0	270	1150
8:30 AM	6	1	17	0	2	0	6	0	1	91	11	2	27	104	2	0	270	1132
8:45 AM	3	2	16	0	3	1	6	0	7	100	6	0	25	112	2	0	283	1099
9:00 AM	3	1	19	0	2	0	4	0	5	90	12	0	32	81	1	0	250	1073
9:15 AM	6	0	28	0	0	0	2	0	2	89	2	0	18	78	2	0	227	1030

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	40	0	12	4	12	0	52	476	40	0	112	472	36	0	1264
Heavy Trucks	4	0	16		4	0	0		0	52	0		16	60	0		152
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

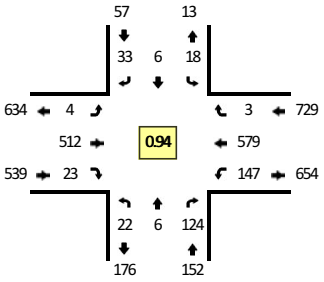
Type of peak hour being reported: Intersection Peak

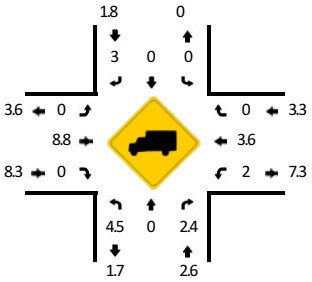
Method for determining peak hour: Total Entering Volume

LOCATION: Muirkirk Meadows Dr -- Muirkirk Rd
CITY/STATE: Beltsville, MD

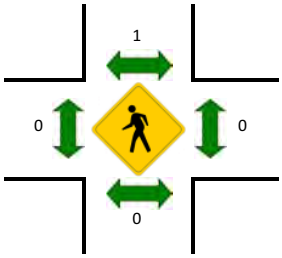
QC JOB #: 15313010
DATE: Tue, Jan 5 2021

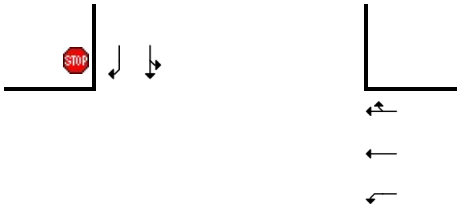
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

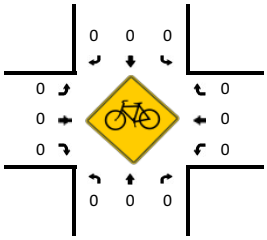


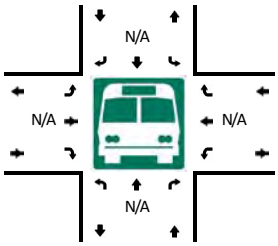


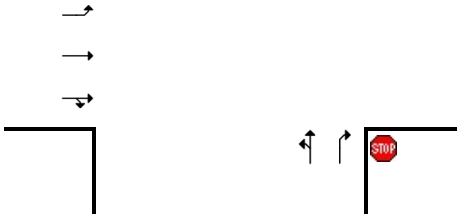
Quality Counts
DATA THAT DRIVES COMMUNITIES

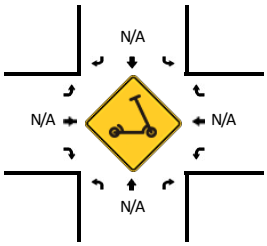












15-Min Count Period Beginning At	Muirkirk Meadows Dr (Northbound)				Muirkirk Meadows Dr (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	14	1	39	0	4	1	5	0	2	116	10	0	32	149	1	0	374	
3:15 PM	5	2	36	0	7	0	6	0	4	101	11	0	35	119	0	0	326	
3:30 PM	5	2	28	0	3	1	5	0	4	122	10	0	43	148	1	0	372	
3:45 PM	10	1	24	0	7	1	6	0	3	118	9	0	29	136	4	0	348	1420
4:00 PM	12	1	33	0	4	1	12	0	1	132	5	0	40	152	0	0	393	1439
4:15 PM	5	2	26	0	4	1	7	0	0	122	4	0	42	147	2	0	362	1475
4:30 PM	4	3	26	0	6	2	9	0	2	130	7	0	32	129	0	0	350	1453
4:45 PM	1	0	39	0	4	2	5	0	1	128	7	0	33	151	1	0	372	1477
5:00 PM	13	0	35	0	4	0	4	0	0	124	2	0	37	121	1	0	341	1425
5:15 PM	8	0	34	0	5	0	5	0	4	150	11	0	29	132	1	0	379	1442
5:30 PM	4	0	33	0	6	1	6	0	0	112	4	0	32	138	0	0	336	1428
5:45 PM	3	0	38	0	5	2	3	0	0	115	3	0	34	109	0	0	312	1368
6:00 PM	7	0	36	0	5	0	5	0	0	91	4	0	33	106	1	2	290	1317
6:15 PM	1	0	42	0	4	0	0	0	0	92	1	0	26	89	1	0	256	1194
6:30 PM	3	1	24	0	6	1	2	0	0	88	1	0	26	83	1	0	236	1094
6:45 PM	3	0	32	0	4	0	2	0	0	60	3	0	26	62	0	0	192	974

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	4	132	0	16	4	48	0	4	528	20	0	160	608	0	0	1572
Heavy Trucks	0	0	0		0	0	4		0	44	0		4	12	0		64
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

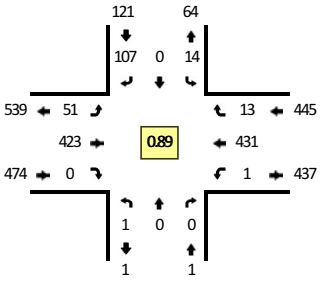
Type of peak hour being reported: Intersection Peak

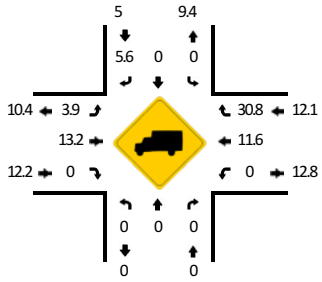
Method for determining peak hour: Total Entering Volume

LOCATION: Brickyard Blvd -- Muirkirk Rd
CITY/STATE: Beltsville, MD

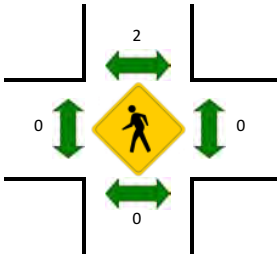
QC JOB #: 15313011
DATE: Tue, Jan 5 2021

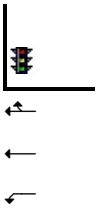
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

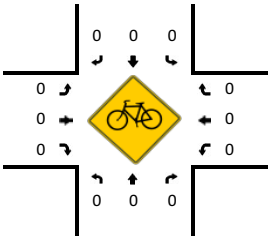


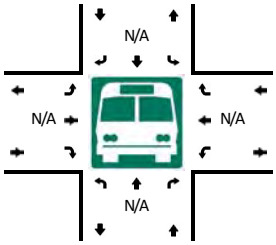


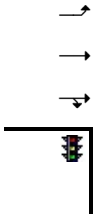
Quality Counts
DATA THAT DRIVES COMMUNITIES

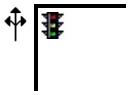


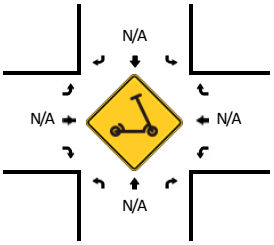












15-Min Count Period Beginning At	Brickyard Blvd (Northbound)				Brickyard Blvd (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	0	0	1	0	12	0	5	104	0	0	0	86	2	0	210	
6:45 AM	0	0	0	0	0	0	10	0	13	124	1	0	0	96	1	0	245	
7:00 AM	0	0	0	0	1	0	15	0	11	93	0	0	0	83	0	0	203	
7:15 AM	0	1	0	0	3	1	17	0	15	86	0	0	1	105	4	0	233	891
7:30 AM	0	0	0	0	1	0	26	0	10	117	0	0	0	108	3	0	265	946
7:45 AM	1	0	0	0	3	0	25	0	11	119	0	0	1	130	4	0	294	995
8:00 AM	0	0	0	0	6	0	29	0	14	106	0	0	0	87	3	0	245	1037
8:15 AM	0	0	0	0	4	0	27	0	16	81	0	0	0	106	3	0	237	1041
8:30 AM	0	0	1	0	2	0	22	0	15	87	0	0	2	111	6	1	247	1023
8:45 AM	0	0	0	0	3	0	27	0	20	97	0	1	1	101	1	0	251	980
9:00 AM	0	0	1	0	8	0	15	0	15	90	0	0	0	87	6	0	222	957
9:15 AM	1	0	0	0	4	0	12	0	16	96	0	0	0	83	6	0	218	938

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	0	0	12	0	100	0	44	476	0	0	4	520	16	0	1176
Heavy Trucks	0	0	0		0	0	4		4	56	0		0	48	4		116
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

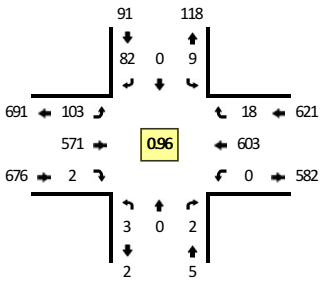
Type of peak hour being reported: Intersection Peak

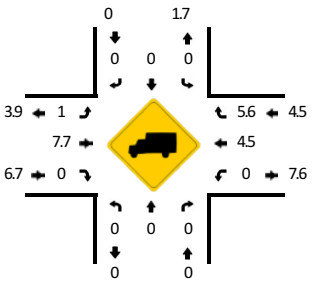
Method for determining peak hour: Total Entering Volume

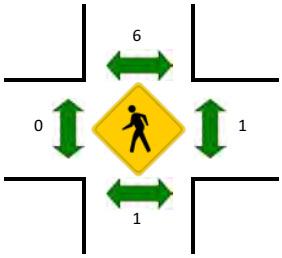
LOCATION: Brickyard Blvd -- Muirkirk Rd
CITY/STATE: Beltsville, MD

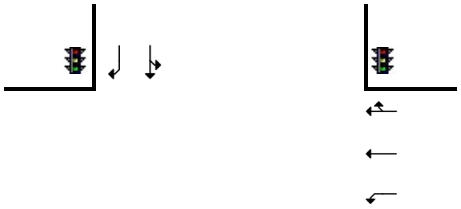
QC JOB #: 15313012
DATE: Tue, Jan 5 2021

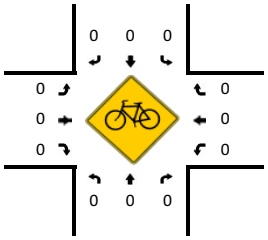
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

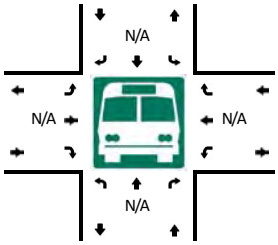


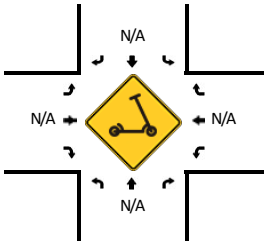












15-Min Count Period Beginning At	Brickyard Blvd (Northbound)				Brickyard Blvd (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	0	2	0	0	0	19	1	27	131	0	0	0	146	2	0	328	
3:15 PM	1	0	1	0	3	0	15	0	24	117	0	0	0	137	3	0	301	
3:30 PM	0	0	7	0	6	0	21	0	22	150	0	0	0	147	0	0	353	
3:45 PM	2	0	0	0	2	0	20	0	28	116	0	0	0	138	3	0	309	1291
4:00 PM	0	0	1	0	4	0	18	0	25	147	0	1	0	160	7	0	363	1326
4:15 PM	1	0	0	0	1	0	21	0	20	146	0	0	0	149	7	0	345	1370
4:30 PM	2	0	0	0	4	0	15	0	22	138	0	0	0	143	1	0	325	1342
4:45 PM	0	0	1	0	0	0	28	0	33	140	2	2	0	151	3	0	360	1393
5:00 PM	0	0	1	0	7	0	20	0	29	138	0	0	0	121	5	0	321	1351
5:15 PM	1	0	1	0	1	0	22	0	36	158	0	0	0	131	6	0	356	1362
5:30 PM	0	0	0	0	7	0	20	0	41	122	0	0	0	128	4	0	322	1359
5:45 PM	0	0	0	0	3	0	26	0	38	117	0	0	0	107	10	0	301	1300
6:00 PM	0	0	0	0	3	0	29	1	32	109	0	0	0	123	5	0	302	1281
6:15 PM	1	0	1	0	1	0	25	0	29	108	0	0	0	81	7	0	253	1178
6:30 PM	0	0	0	0	2	0	15	0	31	93	0	0	0	92	11	0	244	1100
6:45 PM	1	0	1	0	3	0	23	0	29	73	0	0	0	64	7	0	201	1000

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	4	0	16	0	72	0	100	588	0	4	0	640	28	0	1452
Heavy Trucks	0	0	0		0	0	0		0	36	0		0	28	0		64
Buses																	
Pedestrians		4				8				0				4			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

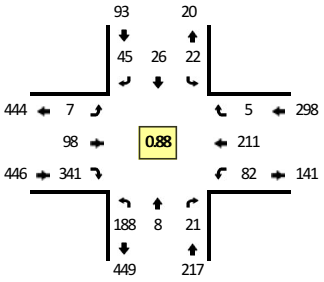
Report generated on 1/14/2021 10:31 AM

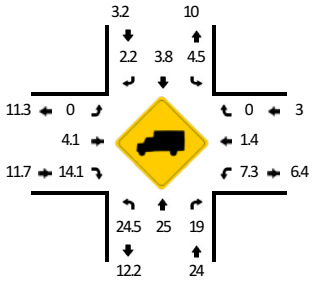
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

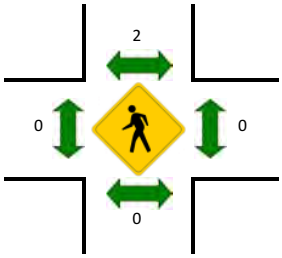
LOCATION: Old Baltimore Pike/Cedarhurst Dr -- Muirkirk Rd | **QC JOB #:** 15313013
CITY/STATE: Beltsville, MD | **DATE:** Tue, Jan 5 2021

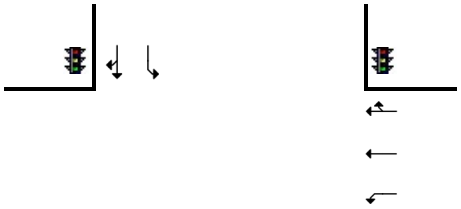
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

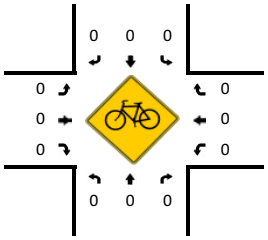


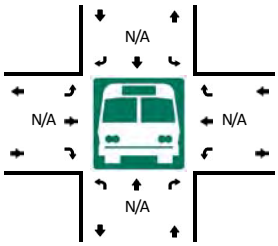


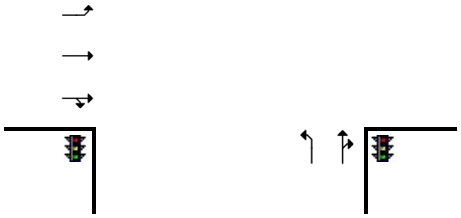
Quality Counts
DATA THAT DRIVES COMMUNITIES

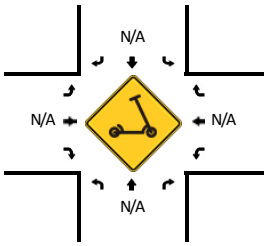












15-Min Count Period Beginning At	Old Baltimore Pike/Cedarhurst Dr (Northbound)				Old Baltimore Pike/Cedarhurst Dr (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	53	0	5	0	5	7	5	0	0	20	74	0	20	31	1	0	221	
6:45 AM	48	1	4	0	2	3	6	0	3	29	93	0	34	49	0	0	272	
7:00 AM	41	1	10	0	2	3	4	0	2	22	80	0	31	36	1	0	233	
7:15 AM	46	1	5	0	8	8	13	0	2	18	69	0	20	49	0	0	239	965
7:30 AM	43	4	6	0	4	9	12	0	1	27	86	0	20	56	2	0	270	1014
7:45 AM	63	3	5	0	4	6	13	0	1	32	91	0	24	58	0	0	300	1042
8:00 AM	36	0	5	0	6	3	7	0	3	21	95	0	18	48	3	0	245	1054
8:15 AM	54	1	7	0	2	6	15	0	3	33	41	0	17	46	3	0	228	1043
8:30 AM	53	3	7	0	4	3	6	0	6	35	58	0	18	63	0	0	256	1029
8:45 AM	56	1	7	0	1	5	7	0	5	33	62	0	18	45	4	0	244	973
9:00 AM	38	0	6	0	3	6	7	0	3	35	58	0	13	40	0	0	209	937
9:15 AM	41	2	8	0	4	7	7	0	2	28	77	0	10	38	3	0	227	936

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	252	12	20	0	16	24	52	0	4	128	364	0	96	232	0	0	1200
Heavy Trucks	52	8	8		0	4	4		0	0	60		8	4	0		148
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

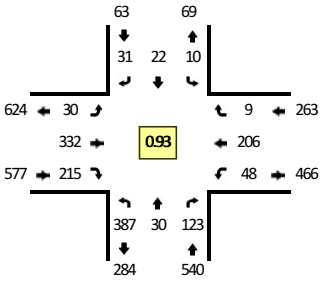
Type of peak hour being reported: Intersection Peak

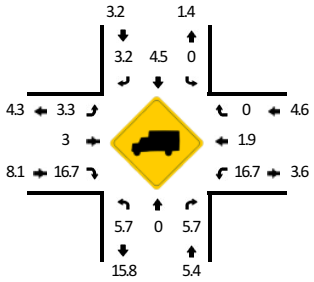
Method for determining peak hour: Total Entering Volume

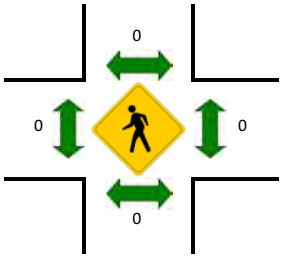
LOCATION: Old Baltimore Pike/Cedarhurst Dr -- Muirkirk Rd
CITY/STATE: Beltsville, MD

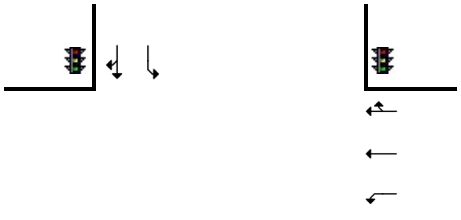
QC JOB #: 15313014
DATE: Tue, Jan 5 2021

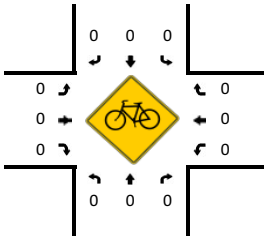
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

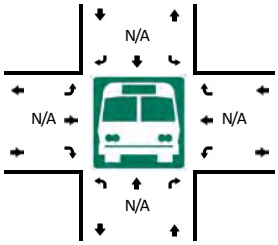


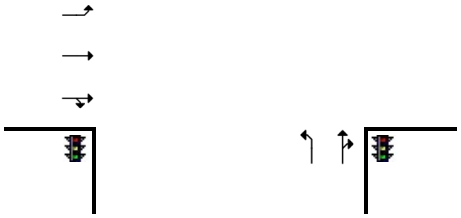


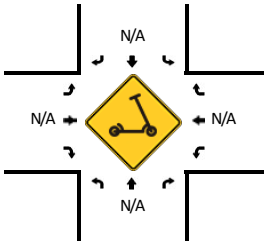












15-Min Count Period Beginning At	Old Baltimore Pike/Cedarhurst Dr (Northbound)				Old Baltimore Pike/Cedarhurst Dr (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	97	2	23	0	0	6	9	0	6	57	68	0	10	46	1	0	325	
3:15 PM	78	2	28	0	5	2	11	0	5	50	62	0	10	48	2	0	303	
3:30 PM	93	4	15	0	2	4	4	0	6	79	72	0	16	51	2	0	348	
3:45 PM	78	7	29	0	3	6	5	0	9	60	57	0	13	61	0	0	328	1304
4:00 PM	93	7	37	0	1	7	10	0	8	90	58	0	12	60	3	1	387	1366
4:15 PM	91	8	27	0	3	5	11	0	9	80	52	0	17	60	1	0	364	1427
4:30 PM	97	3	29	0	2	2	3	0	5	85	54	0	10	43	2	0	335	1414
4:45 PM	106	12	30	0	4	8	7	0	8	77	51	0	8	43	3	0	357	1443
5:00 PM	80	6	34	0	2	5	4	0	13	74	56	0	13	46	3	0	336	1392
5:15 PM	83	4	29	0	2	3	8	0	6	80	64	0	11	44	5	0	339	1367
5:30 PM	74	7	29	0	1	2	11	0	12	71	61	0	8	50	5	0	331	1363
5:45 PM	75	7	27	0	1	3	3	0	11	65	44	0	10	44	6	0	296	1302
6:00 PM	65	6	18	0	1	7	7	0	11	66	39	0	10	54	3	0	287	1253
6:15 PM	41	5	15	0	4	8	12	0	12	61	26	0	5	32	0	0	221	1135
6:30 PM	54	8	14	0	4	3	8	0	9	69	36	0	13	40	3	0	261	1065
6:45 PM	28	3	10	0	0	1	7	0	7	46	20	0	9	34	2	0	167	936

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	372	28	148	0	4	28	40	0	32	360	232	0	48	240	12	4	1548
Heavy Trucks	20	0	4		0	4	0		4	16	20		16	8	0		92
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

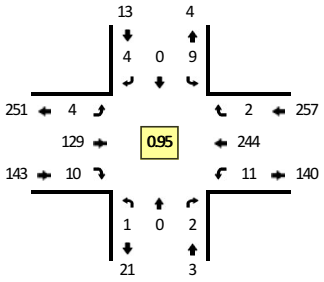
Report generated on 1/14/2021 10:31 AM

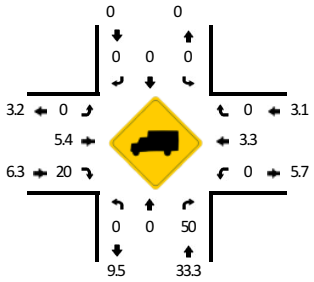
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

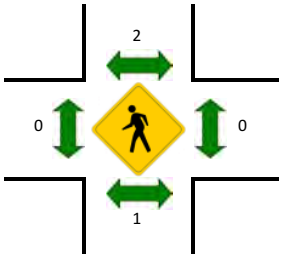
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

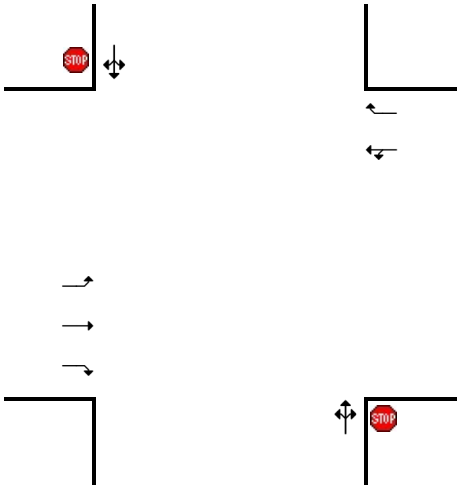
LOCATION: Snowden Woods Rd/Pasture Rd -- Muirkirk Rd | **QC JOB #:** 15313015
CITY/STATE: Beltsville, MD | **DATE:** Tue, Jan 5 2021

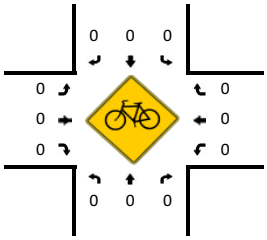
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

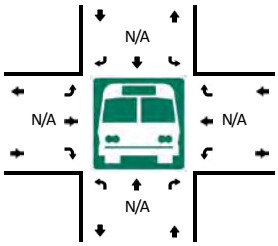


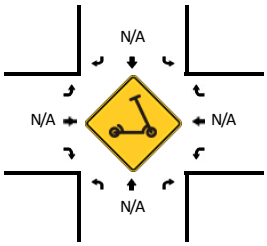












15-Min Count Period Beginning At	Snowden Woods Rd/Pasture Rd (Northbound)				Snowden Woods Rd/Pasture Rd (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	1	0	2	0	0	0	1	31	0	0	2	48	0	0	85	
6:45 AM	0	0	1	0	1	0	2	0	0	28	3	0	4	72	1	0	112	
7:00 AM	0	0	1	0	1	0	0	0	0	22	2	0	4	49	0	0	79	
7:15 AM	0	0	0	0	3	0	2	0	1	26	4	1	3	61	1	0	102	378
7:30 AM	0	0	1	0	2	0	0	0	0	33	3	0	3	65	1	0	108	401
7:45 AM	1	0	0	0	2	0	2	0	1	38	2	1	2	60	0	0	109	398
8:00 AM	0	0	1	0	2	0	0	0	0	32	1	0	3	58	0	0	97	416
8:15 AM	0	0	0	0	2	0	3	0	1	43	0	1	1	51	0	0	102	416
8:30 AM	1	0	1	0	2	0	3	0	0	39	2	0	2	56	2	0	108	416
8:45 AM	0	0	1	0	1	0	2	0	0	35	1	1	0	52	0	0	93	400
9:00 AM	1	0	0	0	0	0	6	0	3	33	0	1	2	48	1	0	95	398
9:15 AM	0	0	1	0	1	0	2	0	0	25	4	0	0	35	1	0	69	365

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	0	0	8	0	8	0	4	152	8	4	8	240	0	0	436
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	12	0		16
Buses																	
Pedestrians		4				4				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

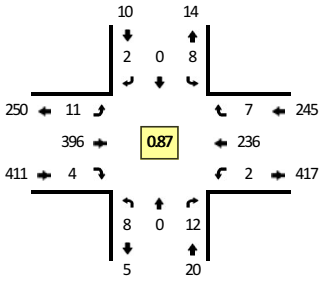
Report generated on 1/14/2021 10:31 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

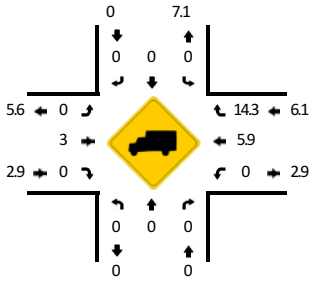
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: Snowden Woods Rd/Pasture Rd -- Muirkirk Rd
CITY/STATE: Beltsville, MD

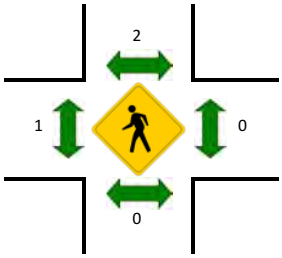
QC JOB #: 15313016
DATE: Tue, Jan 5 2021

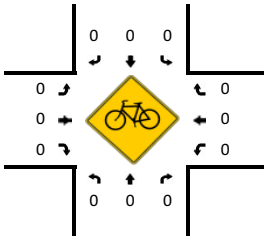
Peak-Hour: 3:30 PM -- 4:30 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

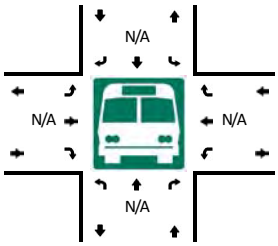


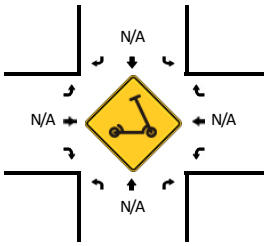


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	Snowden Woods Rd/Pasture Rd (Northbound)				Snowden Woods Rd/Pasture Rd (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	1	0	2	0	2	0	1	0	4	68	1	0	1	45	3	0	128	
3:15 PM	2	0	1	0	1	0	3	0	1	66	1	1	1	40	1	0	118	
3:30 PM	1	0	5	0	3	0	1	0	1	91	1	0	0	61	3	1	168	
3:45 PM	2	0	3	0	1	0	0	0	1	87	2	1	1	53	2	0	153	567
4:00 PM	3	0	4	0	1	0	0	0	3	118	1	1	0	65	1	0	197	636
4:15 PM	2	0	0	0	3	0	1	0	2	100	0	2	0	57	1	0	168	686
4:30 PM	1	0	0	0	2	0	2	0	2	103	0	0	0	38	2	0	150	668
4:45 PM	2	0	0	0	4	0	4	0	5	93	0	0	0	47	5	0	160	675
5:00 PM	1	0	0	0	3	0	1	0	1	100	0	1	0	51	4	0	162	640
5:15 PM	1	0	1	0	1	0	1	0	1	92	0	1	0	46	2	0	146	618
5:30 PM	0	0	1	0	0	0	2	0	2	79	0	0	0	46	3	0	133	601
5:45 PM	2	0	2	0	1	0	0	0	2	83	0	1	0	56	3	0	150	591
6:00 PM	1	0	1	0	0	0	0	0	1	75	0	1	0	45	2	1	127	556
6:15 PM	0	0	0	0	1	0	1	0	4	52	0	1	0	36	0	0	95	505
6:30 PM	0	0	1	0	0	0	3	0	0	69	0	0	0	43	3	0	119	491
6:45 PM	0	0	0	0	0	0	0	0	2	39	0	0	0	25	0	0	66	407

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	0	16	0	4	0	0	0	12	472	4	4	0	260	4	0	788
Heavy Trucks	0	0	0		0	0	0		0	20	0		0	28	0		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

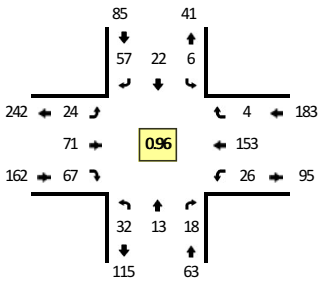
Report generated on 1/14/2021 10:31 AM

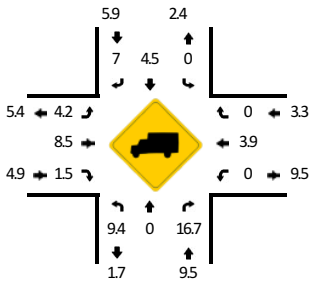
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

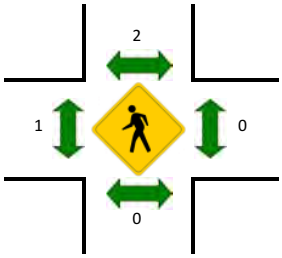
LOCATION: Odell Rd/Cedarbrook Ln -- Muirkirk Rd | **QC JOB #:** 15313017
CITY/STATE: Beltsville, MD | **DATE:** Tue, Jan 5 2021

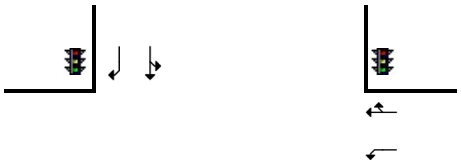
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

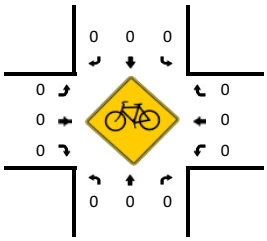


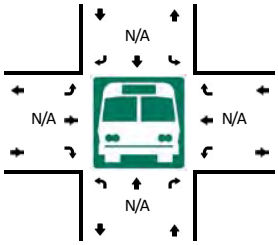


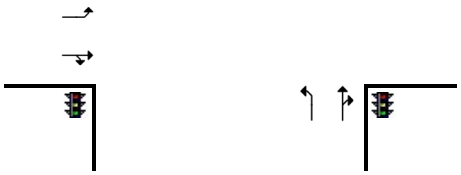
Quality Counts
DATA THAT DRIVES COMMUNITIES

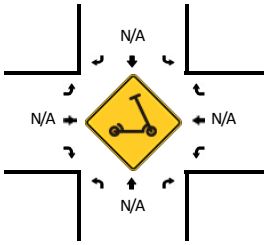












15-Min Count Period Beginning At	Odell Rd/Cedarbrook Ln (Northbound)				Odell Rd/Cedarbrook Ln (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	3	2	7	0	1	4	10	0	3	12	13	0	9	37	0	0	101	
6:45 AM	7	2	4	0	0	4	18	0	2	17	12	0	3	54	0	0	123	
7:00 AM	7	3	2	0	0	2	10	0	1	18	9	0	6	36	0	0	94	
7:15 AM	11	3	5	0	0	1	8	0	4	14	12	0	7	44	1	0	110	428
7:30 AM	10	1	3	0	0	8	15	0	4	21	11	0	8	40	1	0	122	449
7:45 AM	7	2	4	0	3	8	16	0	5	20	17	0	6	40	1	0	129	455
8:00 AM	7	5	5	0	2	5	11	0	1	14	16	0	6	46	1	0	119	480
8:15 AM	9	5	4	0	1	4	13	0	6	20	17	0	8	30	1	0	118	488
8:30 AM	9	1	5	0	0	5	17	0	12	17	17	0	6	37	1	0	127	493
8:45 AM	7	0	5	0	0	10	12	0	9	15	13	0	7	36	1	0	115	479
9:00 AM	13	3	2	0	1	4	11	0	3	18	14	0	3	27	1	0	100	460
9:15 AM	6	5	4	0	0	5	5	0	6	15	4	0	7	24	3	0	84	426

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	8	16	0	12	32	64	0	20	80	68	0	24	160	4	0	516
Heavy Trucks	0	0	4		0	4	4		0	4	0		0	8	0		24
Buses																	
Pedestrians		0				4				4				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

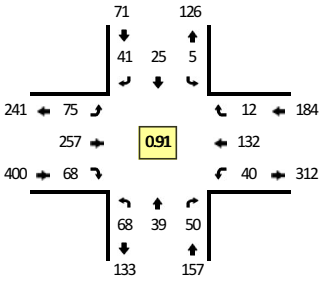
Report generated on 1/14/2021 10:31 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

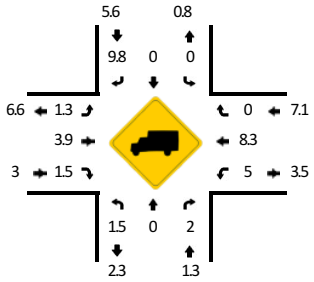
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

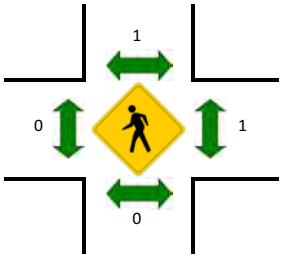
LOCATION: Odell Rd/Cedarbrook Ln -- Muirkirk Rd
CITY/STATE: Beltsville, MD

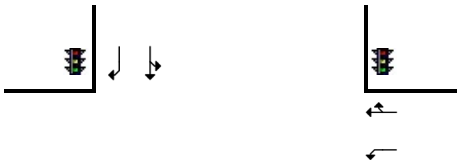
QC JOB #: 15313018
DATE: Tue, Jan 5 2021

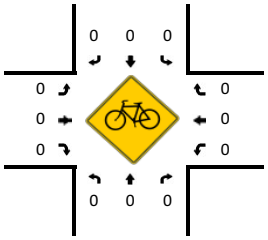
Peak-Hour: 3:30 PM -- 4:30 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

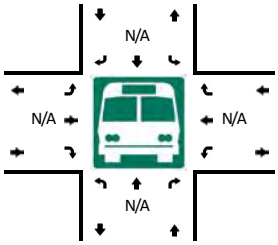


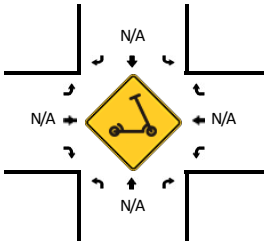












15-Min Count Period Beginning At	Odell Rd/Cedarbrook Ln (Northbound)				Odell Rd/Cedarbrook Ln (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	7	9	13	0	0	7	10	0	11	49	11	0	5	36	0	0	158	
3:15 PM	16	12	10	0	3	7	11	0	12	39	11	0	8	18	3	0	150	
3:30 PM	15	11	11	0	1	7	11	0	22	62	18	0	10	37	0	0	205	
3:45 PM	17	7	14	0	1	5	10	0	16	53	14	0	8	31	2	0	178	691
4:00 PM	18	7	13	0	2	3	11	0	16	70	17	0	8	36	5	0	206	739
4:15 PM	18	14	12	0	1	10	9	0	21	72	19	0	14	28	5	0	223	812
4:30 PM	6	8	10	0	1	10	8	0	19	69	14	0	6	29	2	0	182	789
4:45 PM	18	12	15	0	2	4	9	0	17	69	17	0	9	27	1	0	200	811
5:00 PM	10	8	8	0	6	6	12	0	19	65	11	1	8	34	4	0	192	797
5:15 PM	14	10	14	0	1	9	9	0	19	62	19	0	9	26	3	0	195	769
5:30 PM	13	12	9	0	4	9	14	0	20	54	13	0	12	21	1	0	182	769
5:45 PM	7	12	11	0	0	7	12	0	16	61	9	0	6	37	6	0	184	753
6:00 PM	10	10	10	0	2	8	11	0	16	50	13	0	6	33	4	0	173	734
6:15 PM	10	8	10	0	0	4	5	0	13	32	7	0	3	18	0	0	110	649
6:30 PM	18	11	7	0	0	8	5	0	13	39	12	0	3	24	3	0	143	610
6:45 PM	6	8	4	0	4	8	5	0	7	25	8	0	5	17	5	0	102	528

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	56	48	0	4	40	36	0	84	288	76	0	56	112	20	0	892
Heavy Trucks	0	0	0		0	0	4		0	20	4		4	0	0		32
Buses																	
Pedestrians		0				4				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

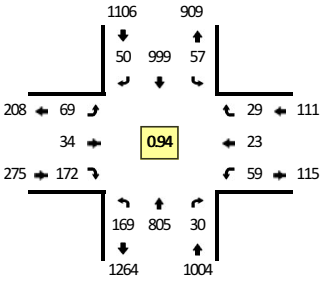
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

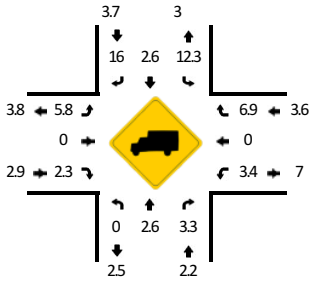
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: MD 197 -- Muirkirk Rd
CITY/STATE: Beltsville, MD

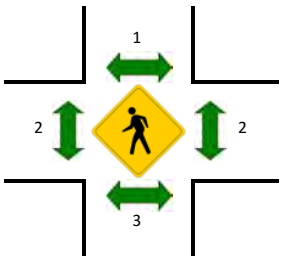
QC JOB #: 15313019
DATE: Tue, Jan 5 2021

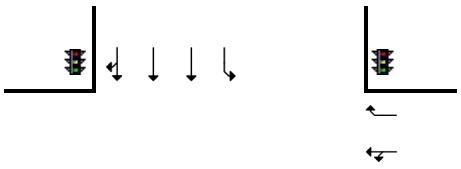
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

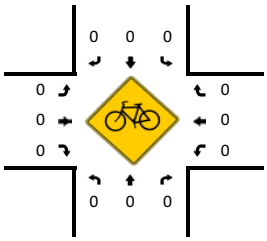


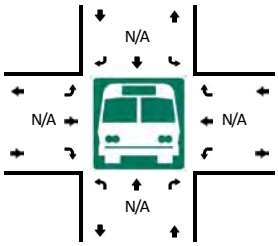


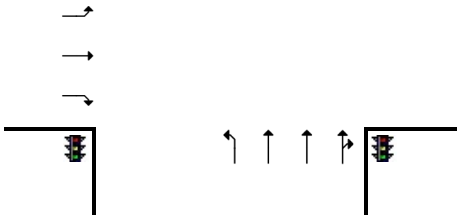
Quality Counts
DATA THAT DRIVES COMMUNITIES

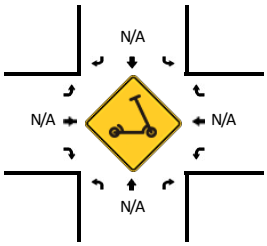












15-Min Count Period Beginning At	MD 197 (Northbound)				MD 197 (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	33	145	5	3	7	179	7	1	11	3	38	0	4	4	4	0	444	
6:45 AM	39	173	4	12	11	187	15	0	10	6	36	0	5	3	4	0	505	
7:00 AM	27	141	3	7	8	182	11	1	9	4	35	0	9	2	0	0	439	
7:15 AM	39	196	3	6	10	252	9	1	17	12	41	0	13	5	6	0	610	1998
7:30 AM	23	168	9	6	16	267	16	3	17	6	55	0	18	4	8	0	616	2170
7:45 AM	43	255	8	13	13	237	10	0	19	9	36	0	10	6	7	0	666	2331
8:00 AM	30	186	10	9	12	243	15	2	16	7	40	0	18	8	8	0	604	2496
8:15 AM	32	205	8	11	14	226	18	1	20	5	22	0	18	1	14	0	595	2481
8:30 AM	21	220	9	6	15	228	12	0	24	9	37	0	13	8	9	0	611	2476
8:45 AM	31	212	5	8	17	180	15	1	22	7	29	0	22	10	6	0	565	2375
9:00 AM	20	185	4	7	21	231	14	1	17	8	26	0	14	10	17	0	575	2346
9:15 AM	23	186	11	10	23	172	13	1	14	9	31	0	18	2	12	0	525	2276

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	172	1020	32	52	52	948	40	0	76	36	144	0	40	24	28	0	2664
Heavy Trucks	0	32	0		4	28	8		4	0	0		8	0	4		88
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

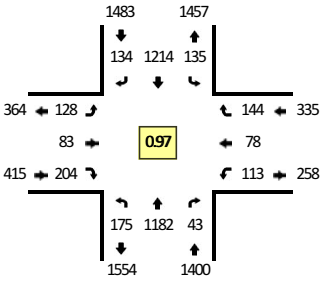
Type of peak hour being reported: Intersection Peak

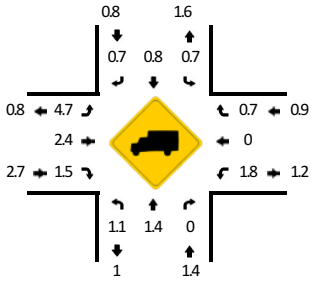
Method for determining peak hour: Total Entering Volume

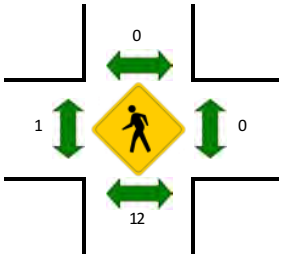
LOCATION: MD 197 -- Muirkirk Rd
CITY/STATE: Beltsville, MD

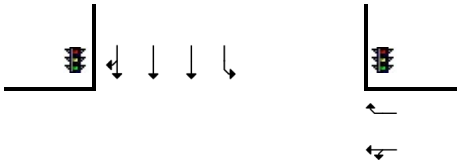
QC JOB #: 15313020
DATE: Tue, Jan 5 2021

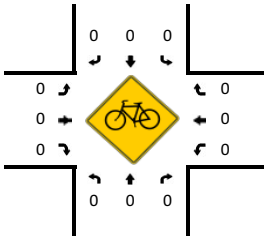
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

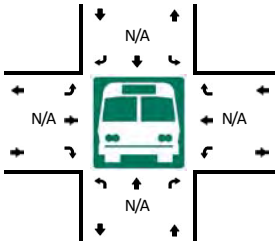


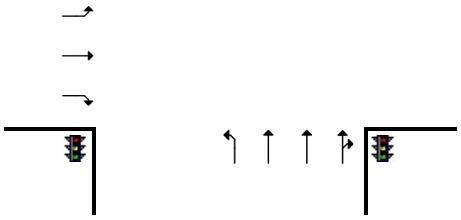


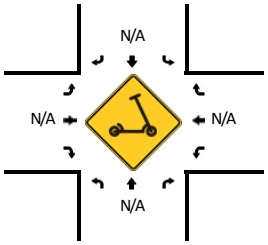












15-Min Count Period Beginning At	MD 197 (Northbound)				MD 197 (Southbound)				Muirkirk Rd (Eastbound)				Muirkirk Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	38	240	18	5	28	242	21	2	27	8	54	0	25	10	40	0	758	
3:15 PM	24	254	8	8	38	272	38	1	26	19	29	0	36	16	43	0	812	
3:30 PM	35	299	12	4	44	255	41	4	39	10	53	0	16	15	43	0	870	
3:45 PM	32	289	11	9	34	230	31	3	38	19	60	0	27	14	40	0	837	3277
4:00 PM	51	237	9	7	34	280	31	0	34	22	66	0	21	15	41	0	848	3367
4:15 PM	42	295	13	4	42	310	31	2	40	19	62	0	28	13	39	0	940	3495
4:30 PM	26	300	9	7	35	271	36	0	26	16	46	0	33	20	36	0	861	3486
4:45 PM	45	291	13	9	26	318	32	1	29	28	51	0	24	15	34	0	916	3565
5:00 PM	39	296	8	3	29	315	35	0	33	20	45	0	28	30	35	0	916	3633
5:15 PM	38	259	15	12	39	310	35	2	37	21	50	0	30	20	31	0	899	3592
5:30 PM	40	270	7	15	38	294	48	2	32	22	43	0	32	20	34	0	897	3628
5:45 PM	54	231	13	5	25	239	40	1	29	11	41	0	40	22	22	0	773	3485
6:00 PM	35	284	9	6	21	227	36	0	23	13	35	0	31	17	33	0	770	3339
6:15 PM	47	244	9	11	24	237	41	0	26	8	35	0	32	15	22	0	751	3191
6:30 PM	34	243	9	13	21	203	37	1	17	5	33	0	24	17	29	0	686	2980
6:45 PM	44	206	11	5	29	189	27	2	23	14	33	0	25	14	19	0	641	2848

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	168	1180	52	16	168	1240	124	8	160	76	248	0	112	52	156	0	3760
Heavy Trucks	4	20	0		4	8	0		8	8	4		4	0	0		60
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

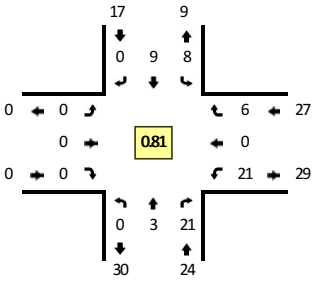
Type of peak hour being reported: Intersection Peak

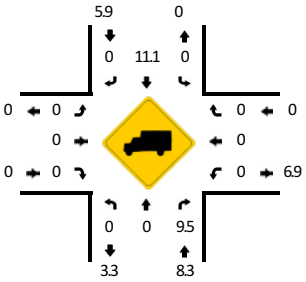
Method for determining peak hour: Total Entering Volume

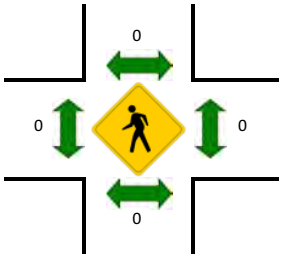
LOCATION: Ellington Dr -- Odell Rd
CITY/STATE: Beltsville, MD

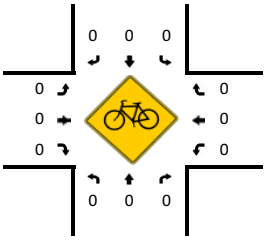
QC JOB #: 15313021
DATE: Tue, Jan 5 2021

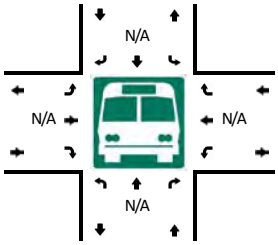
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

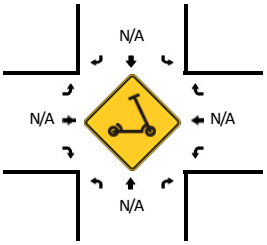












15-Min Count Period Beginning At	Ellington Dr (Northbound)				Ellington Dr (Southbound)				Odell Rd (Eastbound)				Odell Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	2	0	1	0	9	
6:45 AM	0	0	3	0	5	4	0	0	0	0	0	0	3	0	0	0	15	
7:00 AM	0	1	5	0	2	0	0	0	0	0	0	0	4	0	1	0	13	
7:15 AM	0	2	6	0	3	1	0	0	0	0	0	0	3	0	3	0	18	55
7:30 AM	0	0	2	0	1	3	0	0	0	0	0	0	8	0	1	0	15	61
7:45 AM	0	1	9	0	2	2	0	0	0	0	0	0	6	0	1	0	21	67
8:00 AM	0	0	4	0	2	3	0	0	0	0	0	0	4	0	1	0	14	68
8:15 AM	0	2	5	0	1	0	0	0	0	0	0	0	4	0	1	0	13	63
8:30 AM	0	1	6	0	2	0	0	0	0	0	0	0	7	0	2	0	18	66
8:45 AM	0	0	6	0	2	0	0	0	0	0	0	0	10	0	0	0	18	63
9:00 AM	0	1	7	0	0	3	0	0	0	0	0	0	5	0	0	0	16	65
9:15 AM	0	0	0	0	3	1	0	0	0	0	0	0	9	0	1	0	14	66

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	4	36	0	8	8	0	0	0	0	0	0	24	0	4	0	84
Heavy Trucks	0	0	4		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

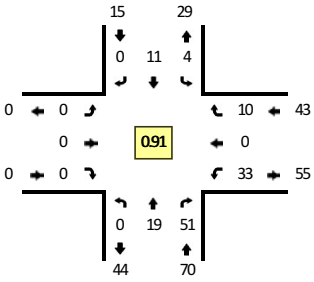
Type of peak hour being reported: Intersection Peak

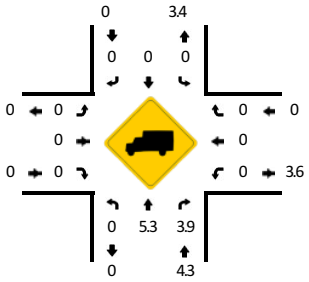
Method for determining peak hour: Total Entering Volume

LOCATION: Ellington Dr -- Odell Rd
CITY/STATE: Beltsville, MD

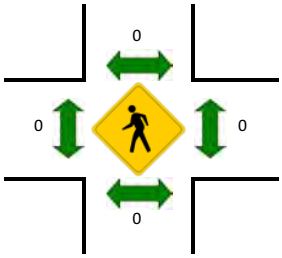
QC JOB #: 15313022
DATE: Tue, Jan 5 2021

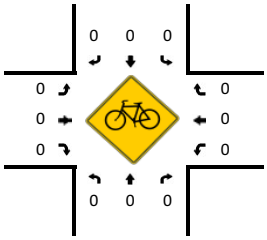
Peak-Hour: 5:15 PM -- 6:15 PM
Peak 15-Min: 5:30 PM -- 5:45 PM

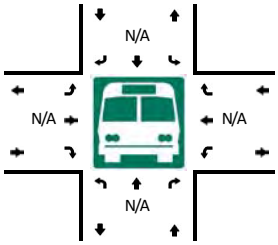


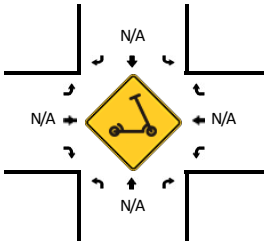


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	Ellington Dr (Northbound)				Ellington Dr (Southbound)				Odell Rd (Eastbound)				Odell Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	3	15	0	1	4	0	0	0	0	0	0	0	0	6	0	29	
3:15 PM	0	6	10	0	1	2	0	0	0	0	0	0	10	0	2	0	31	
3:30 PM	0	2	14	0	2	2	0	0	0	0	0	0	7	0	2	0	29	
3:45 PM	0	3	7	0	1	1	0	0	0	0	0	0	5	0	4	0	21	110
4:00 PM	0	5	13	0	1	2	0	0	0	0	0	0	8	0	3	0	32	113
4:15 PM	0	2	15	0	1	1	0	0	0	0	0	0	10	0	1	0	30	112
4:30 PM	0	5	9	0	1	2	0	0	0	0	0	0	8	0	2	0	27	110
4:45 PM	0	3	13	0	2	3	0	0	0	0	0	0	7	0	0	0	28	117
5:00 PM	0	5	11	0	1	4	0	0	0	0	0	0	5	0	1	0	27	112
5:15 PM	0	4	12	0	0	4	0	0	0	0	0	0	9	0	3	0	32	114
5:30 PM	0	5	12	0	3	2	0	0	0	0	0	0	11	0	2	0	35	122
5:45 PM	0	5	14	0	0	2	0	0	0	0	0	0	6	0	4	0	31	125
6:00 PM	0	5	13	0	1	3	0	0	0	0	0	0	7	0	1	0	30	128
6:15 PM	0	7	14	0	2	2	0	0	0	0	0	0	4	0	0	0	29	125
6:30 PM	0	4	7	0	2	3	0	0	0	0	0	0	7	0	0	0	23	113
6:45 PM	0	3	2	0	1	1	0	0	0	0	0	0	6	0	1	0	14	96

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	20	48	0	12	8	0	0	0	0	0	0	44	0	8	0	140
Heavy Trucks	0	0	4		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

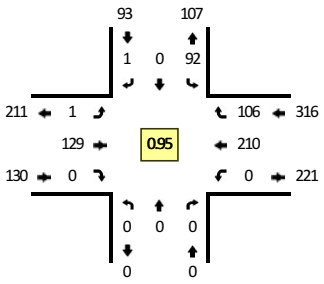
Type of peak hour being reported: Intersection Peak

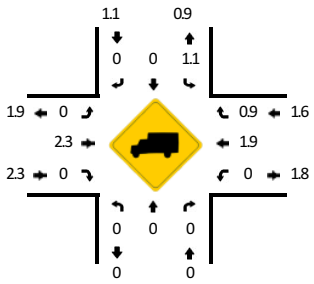
Method for determining peak hour: Total Entering Volume

LOCATION: Springfield Rd -- Powder Mill Rd
CITY/STATE: Beltsville , MD

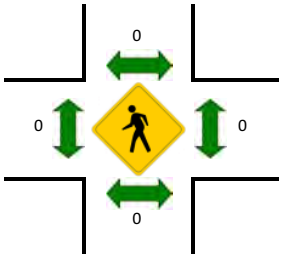
QC JOB #: 15313023
DATE: Tue, Jan 5 2021

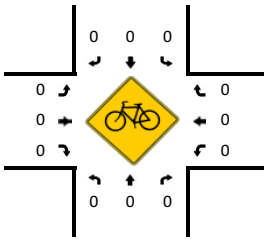
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:15 AM -- 7:30 AM

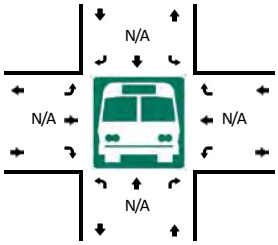


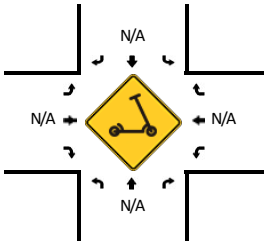


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	Springfield Rd (Northbound)				Springfield Rd (Southbound)				Powder Mill Rd (Eastbound)				Powder Mill Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	0	0	0	18	0	0	0	0	16	0	0	0	36	22	0	92	
6:45 AM	0	0	0	0	16	0	3	0	0	16	0	0	0	50	35	0	120	
7:00 AM	0	0	0	0	23	0	0	0	0	20	0	0	0	42	25	0	110	
7:15 AM	0	0	0	0	19	0	0	0	0	31	0	0	0	63	29	0	142	464
7:30 AM	0	0	0	0	30	0	1	0	1	39	0	0	0	26	19	0	116	488
7:45 AM	0	0	0	0	23	0	0	0	0	27	0	0	0	63	27	0	140	508
8:00 AM	0	0	0	0	20	0	0	0	0	32	0	0	0	58	31	0	141	539
8:15 AM	0	0	0	0	30	0	0	0	1	32	0	0	0	43	28	0	134	531
8:30 AM	0	0	0	0	19	0	0	0	1	26	0	0	0	47	23	0	116	531
8:45 AM	0	0	0	0	18	0	1	0	0	27	0	0	0	40	31	1	118	509
9:00 AM	0	0	0	0	19	0	1	0	0	19	0	0	0	45	15	0	99	467
9:15 AM	0	0	0	0	9	0	0	0	0	21	0	0	0	30	14	0	74	407

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	76	0	0	0	0	124	0	0	0	252	116	0	568
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

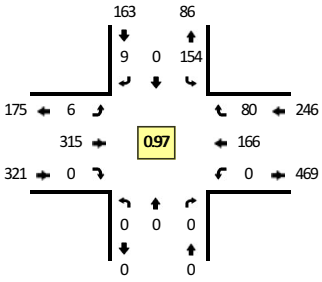
Type of peak hour being reported: Intersection Peak

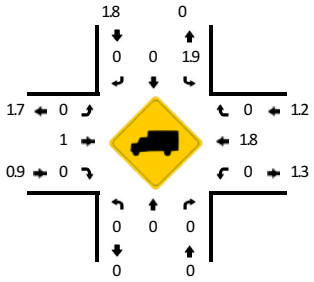
Method for determining peak hour: Total Entering Volume

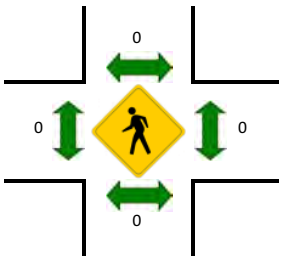
LOCATION: Springfield Rd -- Powder Mill Rd
CITY/STATE: Beltsville , MD

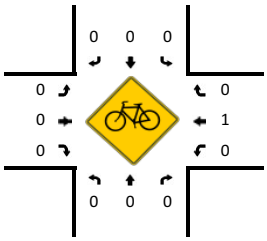
QC JOB #: 15313024
DATE: Tue, Jan 5 2021

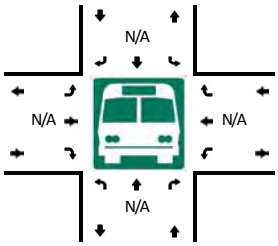
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

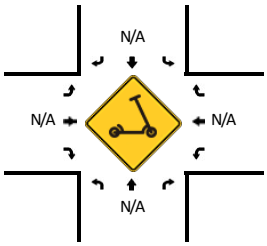












15-Min Count Period Beginning At	Springfield Rd (Northbound)				Springfield Rd (Southbound)				Powder Mill Rd (Eastbound)				Powder Mill Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	0	0	0	34	0	0	0	1	68	0	0	0	37	11	0	151	
3:15 PM	0	0	0	0	32	0	1	0	3	63	0	0	0	41	20	0	160	
3:30 PM	0	0	0	0	48	0	1	0	3	62	0	0	0	36	27	0	177	
3:45 PM	0	0	0	0	34	0	0	0	2	75	0	0	0	37	16	0	164	652
4:00 PM	0	0	0	0	42	0	1	0	2	87	0	0	0	35	22	0	189	690
4:15 PM	0	0	0	0	40	0	1	0	1	64	0	0	0	53	26	0	185	715
4:30 PM	0	0	0	0	45	0	4	0	2	84	0	0	0	34	17	0	186	724
4:45 PM	0	0	0	0	27	0	3	0	1	80	0	0	0	44	15	0	170	730
5:00 PM	0	0	0	0	32	0	0	0	0	77	0	0	0	25	18	0	152	693
5:15 PM	0	0	0	0	35	0	0	0	5	87	0	0	0	23	18	0	168	676
5:30 PM	0	0	0	0	35	0	1	0	2	60	0	0	0	33	16	0	147	637
5:45 PM	0	0	0	0	25	0	0	0	2	66	0	0	0	31	14	0	138	605
6:00 PM	0	0	0	0	25	0	0	0	2	70	0	0	0	23	13	0	133	586
6:15 PM	0	0	0	0	18	0	0	0	2	37	0	0	0	17	13	0	87	505
6:30 PM	0	0	0	0	40	0	0	0	4	37	0	0	0	31	14	0	126	484
6:45 PM	0	0	0	0	24	0	0	0	1	35	0	0	0	24	18	0	102	448

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	168	0	4	0	8	348	0	0	0	140	88	0	756
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	4	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

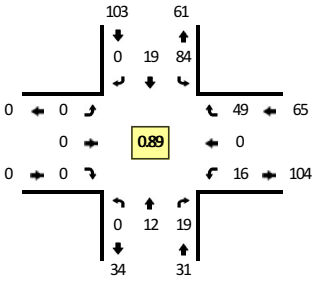
Report generated on 1/14/2021 10:31 AM

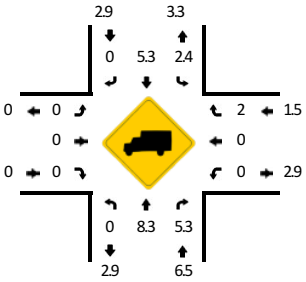
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

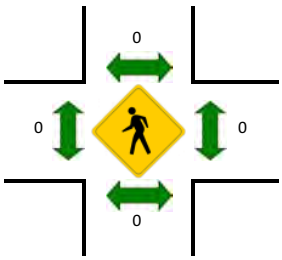
LOCATION: Odell Rd -- Springfield Rd | **QC JOB #:** 15313025
CITY/STATE: Beltsville , MD | **DATE:** Tue, Jan 5 2021

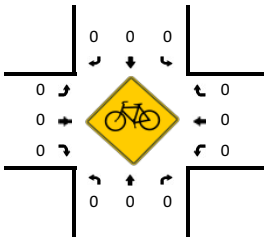
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

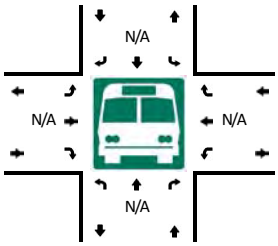


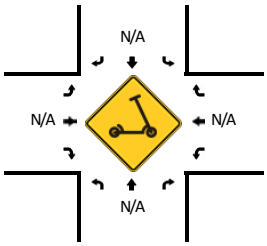


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	Odell Rd (Northbound)				Odell Rd (Southbound)				Springfield Rd (Eastbound)				Springfield Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:30 AM	0	1	3	0	20	2	0	0	0	0	0	0	3	0	11	1	41	
6:45 AM	0	1	4	0	15	2	0	0	0	0	0	0	6	0	9	0	37	
7:00 AM	0	2	8	0	11	3	0	0	0	0	0	0	6	0	10	0	40	
7:15 AM	0	4	4	0	15	4	0	0	0	0	0	0	3	0	14	0	44	162
7:30 AM	0	3	9	0	18	6	0	0	0	0	0	0	6	0	14	0	56	177
7:45 AM	0	5	4	0	20	6	0	0	0	0	0	0	5	0	10	1	51	191
8:00 AM	0	1	3	0	24	2	0	0	0	0	0	0	2	0	14	0	46	197
8:15 AM	0	3	3	0	22	5	0	0	0	0	0	0	2	0	11	0	46	199
8:30 AM	0	3	5	0	25	1	0	0	0	0	0	0	7	0	11	0	52	195
8:45 AM	0	3	2	0	21	6	0	0	0	0	0	0	6	0	12	0	50	194
9:00 AM	0	4	3	0	17	5	0	0	0	0	0	0	3	0	13	0	45	193
9:15 AM	0	1	3	0	9	7	0	0	0	0	0	0	3	0	11	1	35	182

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	12	36	0	72	24	0	0	0	0	0	0	24	0	56	0	224
Heavy Trucks	0	0	4		0	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

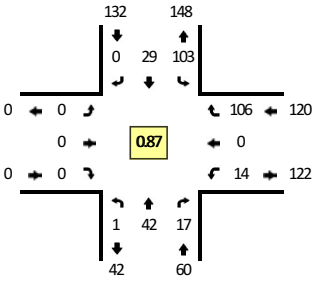
Type of peak hour being reported: Intersection Peak

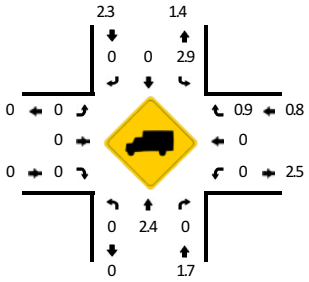
Method for determining peak hour: Total Entering Volume

LOCATION: Odell Rd -- Springfield Rd
CITY/STATE: Beltsville , MD

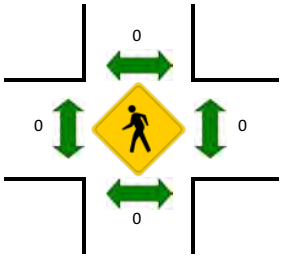
QC JOB #: 15313026
DATE: Tue, Jan 5 2021

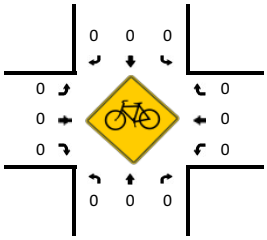
Peak-Hour: 3:30 PM -- 4:30 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

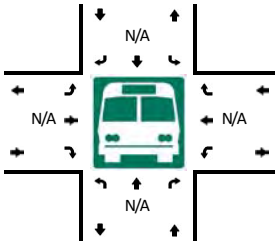


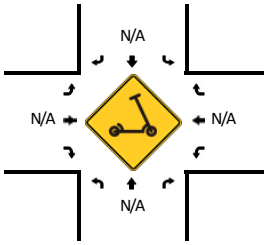


Quality Counts
DATA THAT DRIVES COMMUNITIES









15-Min Count Period Beginning At	Odell Rd (Northbound)				Odell Rd (Southbound)				Springfield Rd (Eastbound)				Springfield Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	11	8	0	20	1	0	0	0	0	0	0	2	0	18	0	60	
3:15 PM	0	8	10	0	21	5	0	0	0	0	0	0	3	0	26	0	73	
3:30 PM	0	10	9	0	28	8	0	0	0	0	0	0	4	0	25	0	84	
3:45 PM	0	9	0	1	20	4	0	0	0	0	0	0	5	0	21	2	62	279
4:00 PM	0	9	7	0	21	8	0	0	0	0	0	0	0	0	31	0	76	295
4:15 PM	0	14	1	0	34	9	0	0	0	0	0	0	3	0	29	0	90	312
4:30 PM	0	6	6	0	24	7	0	0	0	0	0	0	3	0	19	0	65	293
4:45 PM	0	11	6	0	28	3	0	0	0	0	0	0	3	0	27	0	78	309
5:00 PM	0	4	10	0	20	5	0	0	0	0	0	0	1	0	21	0	61	294
5:15 PM	0	10	6	0	30	7	0	0	0	0	0	0	3	0	27	0	83	287
5:30 PM	0	11	6	0	24	10	0	0	0	0	0	0	4	0	19	0	74	296
5:45 PM	0	10	2	0	19	3	0	0	0	0	0	0	5	0	20	0	59	277
6:00 PM	0	9	7	0	19	8	0	0	0	0	0	0	0	0	18	0	61	277
6:15 PM	0	13	4	0	9	4	0	0	0	0	0	0	1	0	18	0	49	243
6:30 PM	0	6	1	0	18	3	0	0	0	0	0	0	3	0	26	0	57	226
6:45 PM	0	4	2	0	13	8	0	0	0	0	0	0	1	0	14	0	42	209

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	56	4	0	136	36	0	0	0	0	0	0	12	0	116	0	360
Heavy Trucks	0	0	0		8	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 1/14/2021 10:31 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

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Appendix C: Synchro Output

Available upon request