



MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

November 1, 2021

The Honorable Marc Elrich
Montgomery County Executive
Council Office Building
101 Monroe Street
Rockville, Maryland 20850

Re: Capital Improvements Program Priorities for FY21-26

Dear Mr. Elrich:

On October 21, 2019, the Planning Board reviewed and approved recommendations regarding prioritization of the County's transportation capital improvement projects. Attached is Planning staff's report explaining the methodology behind the prioritization, as well as a finalized list of the top 100 transportation projects (Attachment A) for consideration in the preparation of your Recommended Capital Improvements Program (CIP) for FY23-28.

For review of the transportation projects, a focus was placed on prioritizing proposed county investments from both a social and racial equity lens and a vision zero lens. Our top two priorities remain as the MD 355 BRT and Veirs Mill Road BRT projects. New to this list are 19 projects, including the following highest ranked newcomers:

- #17 Trial Bikeway Demonstration Projects – Learning from the success of the University Boulevard bike lanes, more interim road diets/temporary bike lanes should be considered on county roads where the ultimate bicycle improvements may be much longer-term. One example recommended by the Planning Board for the White Flint Metro Access Mandatory Referral is Old Georgetown Road between Rockville Pike and Towne Road.
- #33 Level of Effort Sidewalk Retrofit Program – This is in support of the ongoing Pedestrian Master Plan. There is a need to significantly ramp up spending on sidewalk infrastructure to improve pedestrian connectivity and pedestrian level of comfort on county roads.
- #34 MD 355 Improvements – Milestone Manor to Little Seneca Parkway – A recent MDOT SHA transportation study identified intersection and road improvements along this section of MD 355. This is an important connection, in addition to Observation Drive, between Clarksburg and Germantown.

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We appreciate your consideration of our comments on the CIP and look forward to working with your staff. If you have any questions about the recommendations, please call Stephen Aldrich at 301-495-4528, or feel free to call me at 301-495-4605.

Sincerely,



Casey Anderson
Chair

CA:SA:aj

Attachment:

Staff report and CIP Priorities – Planning Board item 4 – October 21, 2021

cc: Executive Department Heads
Gwen Wright, Director, Montgomery Planning
Tanya Stern, Deputy Director, Montgomery Planning
Robert Kronenberg, Deputy Director, Montgomery Planning
Jason Sartori, Countywide Planning & Policy Chief, Montgomery Planning



Capital Improvements Program Transportation Priorities

☐ Steve Aldrich, Transportation Master Planner, CP&P, stephen.aldrich@montgomeryplanning.org, 301-495-4528

☐ Jason Sartori, Chief, CP&P, jason.sartori@montgomeryplanning.org, 301-495-2172

Completed: 10/14/21

Recommendation

Staff recommends transmitting a list of transportation project priorities to the County Executive for consideration by county agencies for inclusion in the FY2023-FY2028 Capital Improvements Program (CIP).

Background

This memorandum provides staff recommendations on priorities to forward to the County Executive as he prepares his biennial CIP for transportation investments. The transportation-related recommendations are the result of staff's ongoing effort to maintain an updated compilation of capital improvement projects recommended in approved and adopted master plans. Prioritization is based on a desire to keep capital projects in step with the development these plans engender.

The purpose of this process is to provide a way to objectively prioritize different types of projects as to how they best achieve the County's objectives as outlined in the Growth and Infrastructure Policy and other county policy documents, including the Vision Zero Action Plan. This list is intended to be a resource for the County in selecting projects to be included in the CIP. Projects that are expected to be the State's responsibility are also included because the County has contributed significant funds to such projects in recent years. A project is removed from this list once it is either under construction or fully funded and in the Right of Way acquisition process.

For this review, the methodology developed in 2019 has been continued as follows:

- 1) We started with the 2019 Transportation Priorities list as approved by the Planning Board and eliminated projects that were under construction/constructed.
- 2) Bicycle-related projects from the pending Bicycle Master Plan Monitoring Report have been reviewed and priorities modified. For this review, new bikeways have been advanced onto this list based on equity considerations.
- 3) We adjusted a project's ranking based on how well it addressed the County's Vision Zero goals and the extent to which it would improve safety within the County's High Injury Network (part of the Vision Zero Action Plan).

- 4) We adjusted a project's ranking if it was located in or planned to provide transportation benefits to Equity Focus Areas (EFAs)¹ as designated by Montgomery Planning. This is a change from the 2019 evaluation which used Equity Emphasis Areas as designated by the Metropolitan Washington Council of Governments.
- 5) We adjusted a project's ranking if it addressed the needs/capital improvement implementation plans in an adopted master plan.

New Master Plans Since Last Review

The Board last reviewed this priority list in September 2019. The list has been updated to reflect the addition of facilities recommended in master plans that have been approved and adopted since the Board's last review:

- Shady Grove Minor Master Plan Amendment (2021)
- Forest Glen/Montgomery Hills Sector Plan (2020)
- Germantown Plan for the Town Sector Zone (2020)

Transportation CIP Evaluation – Top 100 Project Priorities

The transportation candidates have been ranked in a matrix that is attached with this memo as Attachment A. For each project, the following information is provided:

- 2021 Priority Ranking
- 2019 Priority Ranking (if applicable)
- Improvement Category (road, transit, bikeway, pedestrian, etc.)
- Project Name, Description and Limits
- Relevant Master Plan(s)
- Positive contribution to an Equity Focus Area (yes/no)
- Positive contribution to roads located on the High Injury Network (HIN) in support of the Vision Zero Action Plan (yes/no)

Staff recommends that the Planning Board transmit the list of the top 100 transportation project priorities (see Attachment A) to the County Executive to provide guidance to Executive Branch agencies as projects are considered for inclusion in the FY2023-FY2028 Capital Improvements Program. This list (with any changes requested by the Board at the meeting) will show the County Executive where the Board believes capital resources for transportation purposes should be devoted to support implementation of master plan recommendations. The large number of projects, however, should not be understood to mean that all these projects need to be included in the CIP at this time.

¹ EFAs are parts of Montgomery County that are characterized by high concentrations of lower-income people of color who may also speak English less than very well. See <https://montgomeryplanning.org/planning/equity-agenda-for-planning/the-equity-focus-areas-analysis/>.

NOTE: The ranking does not include programmatic CIP projects that are ongoing efforts/services provided by the Montgomery County Department of Transportation (including traffic engineering, traffic signal maintenance and operation, streetlighting, and many others).

Planning staff also recommends that the County Executive improve the accountability of Vision Zero-related efforts by creating dedicated Vision Zero CIP projects, including recommendation #5 to conduct corridor assessments of the High Injury Network.

Summary of the Top 100 Priorities

The top 100 transportation project priorities for 2021 represent only minor changes from 2019, with 19 of the 100 projects being new to the list. These new entries reflect changing priorities from the Bicycle Master Plan Monitoring Report, recently completed Master and Sector Plans, and changing county priorities, including an increased emphasis on equity.

The projects present a wide diversity of transportation projects, fully consistent with current County policies. Figure 1 below shows the breakdown of top 100 transportation priorities by project type. The largest share of projects is the bikeways/bicycle facilities category (40 projects). The second highest category is transit projects (16 projects), followed by pedestrian projects (15 projects). Road-related projects are shown in several categories, but overall account for 26 of the 100 recommended projects.

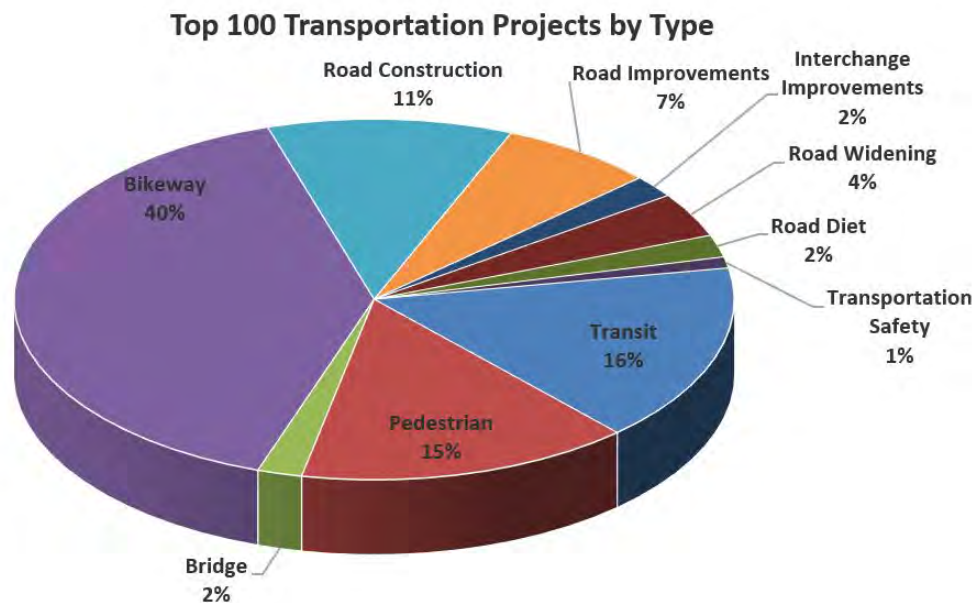


Figure 1 Top 100 Transportation Project Priorities by Type

Bicycle projects are typically programmed in three different methods by the Montgomery County Department of Transportation (MCDOT):

- 1) As part of a Bicycle-Pedestrian Priority Area (CIP item),
- 2) As a stand-alone CIP project,
- 3) As part of the Bicycle Program Minor Projects - CIP Project (P507596).

Of the 41 bicycle projects identified, the vast majority are located primarily within BiPPA boundaries of already funded BiPPA CIP projects. The CIP budget, however, may not be adequate to accommodate the addition of these recommended projects. MCDOT should review and seek budget modifications as necessary.

Within the proposed Top 100 transportation projects, there are 19 new entries as shown below:

- #17 - Trial Bikeway Demonstration Projects
- #33 - Level of Effort Sidewalk Retrofit Program
- #34 - MD 355 Improvements – Milestone Manor to Little Seneca Parkway
- #37 - Improve existing trail crossings on state and county roads and provide protect crossings
- #39 - Matthew Henson Trail Overpass at Veirs Mill Road
- #47 – Expand the consideration and application of road diets/open streets/multimodal access improvements on county roads (including park roads)
- #65 – North Bethesda Transitway - BRT
- #66 - Protected crossings along Veirs Mill Road and Twinbrook Parkway (9 locations)
- #77 - Briggs-Chaney Road (North Side) Sidepath between Old Columbia Pike and the ICC Trail
- #81 - Germantown Road (North Side) Sidepath between Clopper Road and Middlebrook Road
- #83 - Montgomery Village Avenue (East Side) Sidepath between Wrightman Road and Stedwick Road)
- #85 - Montgomery Village Avenue (East Side) Sidepath between Stedwick Road and the City of Gaithersburg)
- #87 - Piney Branch Road (MD 320) Separated Bike Lanes between University Blvd and the Prince George's County Line
- #89 - Scenery Drive Sidepath between Germantown Road and Frederick Road (MD 355)
- #95 - Sidewalk Gap on Shady Grove Road between Crabbs Branch Road and Midcounty Highway
- #97 - 13th Street/Burlington Avenue Separated Bike Lanes from the DC Line to Fenton Street
- #98 - Redesign Veirs Mill Road as a complete street/tree lined boulevard
- #99 - Advance the planning for a future Shady Grove MARC station
- #100 - Crabbs Branch Way Road Diet – Convert the existing center turn lane into a vegetated median

The majority of these new entries are bicycle and pedestrian facilities, some recommended in recent Master or Sector Plans, while others are being advanced as part of the Bicycle Master Plan Monitoring Report for equity reasons. The top new project, **Trial Bikeway Demonstration Projects**, was identified by Planning staff based on the success of the University Boulevard bike lane demonstration project, and the recent road diet/temporary bike lanes recommendation approved by the Planning Board for the White Flint Metro Access Mandatory Referral. The second highest new project (#33) titled **Level of Effort Sidewalk Retrofit Program** is a proposed budget expansion of the county's sidewalk program in support of the ongoing Pedestrian Master Plan. The third highest new project (#34) is a road improvement project for **MD 355 in Clarksburg between Milestone Manor Road and Little Seneca**

Parkway. These road improvements were identified in the MD 355 corridor study recently completed by MDOT SHA (see Attachment B). This study identified long-term improvement needs along this section of MD 355 both with and without Observation Drive in place. Note that the design and construction of Observation Drive between Waters Discovery Lane and Little Seneca Parkway is recommendation #38.

Vision Zero Considerations

To assess potential vision zero benefits of the top 100 transportation priorities, an evaluation was conducted to determine if the proposed project would improve the safety of road segments within Montgomery County's High Injury Network (HIN).² The HIN includes road segments with five or more severe or fatal collisions per year and one or more collisions per mile per year (excluding interstate highways). The HIN represents 54 road miles which is only five percent³ of the County's road network, but most of these road miles are on some of the heavier-traveled state and county-owned non-interstate roads in Montgomery County. Overall, 51 percent of the staff's recommended priority projects are expected to provide a safety benefit to road corridors on the Vision Zero Action Plan HIN. As we continue working toward the 10-Year Action Plan, the Planning Department and MCDOT will work to refine our analytical skills to expand this focus. This may include the implementation of a predictive safety analysis tool.

Equity Considerations

In addition to the project types, the locations of the recommended top 100 transportation project priorities are important to review. Unlike other CIP projects that may be point or parcel specific and have a defined area of benefit, however, it is difficult to identify the people who will benefit from a transportation project.

Equity has become a major focus within the Planning Department and is one of the core drivers behind the General Plan update, Thrive Montgomery. The Bicycle Master Plan completed in 2018 and the ongoing Bicycle Master Plan Monitoring Report include an equity evaluation, and it is hoped that Montgomery Planning can continue to make progress in the future in evaluating equity as an integral element of all our planning work. As part of this biennial review, equity remains a primary consideration in the prioritization of transportation CIP projects.

As a starting point, it is important to assess current capital improvement efforts. Equity Focus Areas represent seven percent of the County's land area and contain 26 percent of the County's population. By comparison, the top 100 transportation CIP project priorities recommended in this staff report present a significantly improved attention to equity, with 54 percent of the priority projects providing transportation benefits to Equity Focus Areas. This represents only projects that are locatable, so it ignores ongoing programmatic services provided by MCDOT including traffic engineering, RideOn

² **Vision Zero: No Deaths by 2030 in Montgomery County, Two-Year Action Plan**, November 2017, p6.

³ Per the Master Plan of Highways and Transitways road mileage. Excludes secondary and tertiary roads.

services, streetlighting and others. We will continue to work to improve this transportation CIP evaluation process in future biennial reviews.

Equity and Vision Zero Findings

Equity and Vision Zero are high priorities within Montgomery County, so providing positive transportation benefits to areas of concern regarding equity and road safety were prioritized. As indicated above, the top 100 transportation project priorities include 54 projects that are expected to provide a transportation benefit to Equity Focus Areas, and 51 projects that are expected to provide a transportation benefit to road corridors on the Vision Zero Action Plan High Injury Network. There are 39 recommended projects that are expected to accomplish both equity and Vision Zero benefits.

Next Steps

The identification of CIP transportation priorities is one tool that planners use to evaluate the extent to which the transportation elements of the County's multiple master plans have been built, offering guidance as to what remains to be completed and providing feedback to the County by identifying projects for consideration when CIP programs are under development. This information will be stored in a GIS format and maintained to facilitate tracking of what remains unbuilt in future years.

Attachments

- A.** Top 100 Transportation Project Priorities 2021
- B.** MD 355 Capacity Analysis report, MDOT SHA, June 2021

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
1	1	Transit	MD 355 BRT	CTCFMP, includes improved transit access	Multiple	Clarksburg, Clarksburg - Ten Mile Creek, Shady Grove, Gaithersburg Vic., Bethesda Downtown Plan, Woodmont Triangle, B-CC, NB-GP, WF, Twinbrook, CTCFMP	Countywide	Yes	Yes
2	2	Transit	Veirs Mill Road BRT Alternative 2.5	Intersection Improvements and queue jumps	Veirs Mill Corridor MP	Veirs Mills Corridor MP, CTCFMP	MCP	Yes	Yes
3	3	Road improvements	Georgia Ave Improvement Design - Montgomery Hills	Design of traffic signal improvements, addition of center median and elimination of reversible lane. May include improvements to the MD 97/I-495 ramps.	Forest Glen/Montgomery Hills	Forest Glen/Montgomery Hills, North and West Silver Spring, Kensington-Wheaton	DCP,MCP	No	No
4	4	Bikeway	Capital Crescent Trail Breezeway (Woodmont Ave to Elm Street Park)	Surface Routes and Tunnel Route	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	Yes
5	5	Transportation Safety	Vision Zero Projects - Design and implement safety countermeasures on identified high-risk and Vision Zero priority road segments and intersections. This includes state highways, county roads, and Park roads.	In coordination between MCDOT, MDOT SHA and M-NCPPC. Recommend creation of Vision Zero-focused CIP Project numbers to track these initiatives. Funding should be sufficient to study, design, and construct the projects listed in the 2030 Vision Zero Plan, Action Item S-1.	Countywide	Countywide	Countywide	Yes	Yes
6	6	Road Construction	White Flint East & West transportation network improvements	Rockville Pike, Executive Blvd Extended East, Nebel Street, Bridge across WMATA tracks, and future MacGrath Blvd	White Flint	White Flint	MCP	No	Yes
7	7	Transit	Forest Glen Pedestrian Tunnel	Existing CIP Project. Recommend advancing timeline to complete project construction within current 6 years Includes sidewalk improvements along Forest Glen Road east of Georgia Avenue to Dameron Drive/opposite Hospital entrance.	Forest Glen/Montgomery Hills	Forest Glen/Montgomery Hills	MCP	No	Yes
8	8	Transit	White Flint Metro North Entrance	Funding needed for construction	White Flint	White Flint	MCP	No	Yes
9	9	Bikeway	Montgomery Ave Separated Bike Lanes (Pearl St to East West Hwy)	Tier 0.5 Priority in Bicycle Master Plan. Project funded in CIP Project #P501532	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	Yes
10	11	Bikeway	Protected intersections	Recommended for all intersections with separated bike lanes and on-street parking.	Countywide	Bicycle Master Plan	Countywide	Yes	Yes
11	13	Bikeway	City of Rockville to Friendship Heights Breezeway (Old Georgetown Rd to Strathmore St)	Tier 0.5 Priority in Bicycle Master Plan. Project funded in CIP Project #P501532	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	Yes
12	14	Bikeway	Woodmont Ave Separated Bike Lanes (Strathmore St to Wisconsin Ave)	Tier 0.5 Priority in Bicycle Master Plan. Project funded in CIP Project #P501532	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	Yes

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
13	15	Road Construction	Burtonsville Rear Business Access Road (north of MD 198)	Phase I feasibility study completed. Phase II scheduled. New street with a narrow right of way, on-street parking, streetscape compatible with elementary school (see Master Plan, page 21)	Burtonsville Crossroads	Burtonsville Crossroads, Fairland	UCP	No	No
14	17/18	Bikeway	16th Street Road Diet and Separated Bike Lanes	Reduce 16th Street between Georgia Avenue and DC line from 6 travel lanes to 4. Project will reduce pedestrian crossing distance at future Woodside Purple Line Station and at Spring Street, reduce travel speeds and provide room for on-street separated bike lanes.	Greater Lyttonsville	Greater Lyttonsville Sector Plan 2016, Forest Glen/Montgomery Hills Sector Plan 2020	DCP	Yes	No
15	21	Pedestrian	16th Street/Woodside Station Pedestrian Crossing (Related to two 16th Street projects)	At the time the Purple Line Station opens, SHA should evaluate the designated pedestrian crossing site as a potential location of a traffic signal or other traffic control device.	Greater Lyttonsville	Greater Lyttonsville Sector Plan 2016	DCP	Yes	No
16	22	Pedestrian	Lyttonsville Station Brookville Road Entrance	At the time the Purple Line Station opens MCDOT should evaluate the designated pedestrian crossing site as a potential location of a traffic signal or another traffic control device. To further improve pedestrian safety between the future Purple Line station and the Forest Glen Annex, the sidewalk on the southwest side of Stewart Lane, between Brookville Rd and the CCT should be widened to a min width of 10'.	Greater Lyttonsville	Greater Lyttonsville Sector Plan 2016	DCP	Yes	No
17	--	Bikeway	Trial Bikeway Demonstration Projects	Create CIP project to advance road diet/bike lane demonstration projects, similar to the University Blvd project implemented by MDOT SHA.	Countywide	Bicycle Master Plan	Countywide	Yes	Yes
18	24	Pedestrian	Sidewalks access to transit along New Hampshire Ave	Pending Purple Line and Takoma/ Langley Crossroads plans	East Silver Spring	East Silver Spring	DCP	Yes	Yes
19	12	Road Construction	MD 355 Corridor Study Little Seneca Parkway to Shawnee Lane	MDOT SHA completed study requested by MCDOT on MD 355 between Milestone Manor Road and Little Seneca Parkway. Study for section between Little Seneca Parkway and Shawnee Lane still needed.	Clarksburg	Clarksburg	UCP	No	No
20	25	Transit	Corridor Cities Transitway	Acquire right-of-way for Corridor Cities Transitway. Planning and design underway. From CLRP.	Multiple	Clarksburg, Ten Mile Creek, GSSC, Shady Grove, Germantown, Germantown EASP, CTCFMP	MCP,UCP	Yes	Yes
21	26	Transit	New Hampshire Avenue BRT	CTCFMP, includes improved transit access Needed to support GSA FDA Expansion	Multiple	Takoma, T-L Crossroads, WOSG, CTCFMP	DCP	Yes	Yes
22	28	Bikeway	City of Rockville to Friendship Heights Breezeway (Battery Ln to Old Georgetown Rd)	Tier 0.5 Priority in Bicycle Master Plan. Project funded in CIP Project #P501532	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	No

* Note: DCP = Downcounty Planning, MCP = Midcounty planning UCP = Upcounty Planning

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
23	29	Bikeway	Fenton St Separated Bike Lanes (Ellsworth Dr to Wayne Ave)	Tier 0.5 Priority in Bicycle Master Plan. Project funded in CIP Project #P502001	Silver Spring CBD	Silver Spring CBD, Bicycle Master Plan	DCP	Yes	Yes
24	36	Bikeway	Glenmont to Silver Spring Breezeway (Arcola Ave to Blueridge Ave)	Tier 1 Priority in Bicycle Master Plan. Project funded in CIP Project #P502002	Wheaton CBD	Kensington-Wheaton, Bicycle Master Plan	MCP	Yes	Yes
25	30	Bikeway	Fenton St Separated Bike Lanes (Wayne Ave to King St)	Tier 0.5 Priority in Bicycle Master Plan. Project funded in CIP Project #P502001	Silver Spring CBD	Silver Spring CBD, Bicycle Master Plan	DCP	Yes	Yes
26	20/27	Road Widening	I-495 (Capital Beltway) HOV between the American Legion Bridge and the I-270 Western Spur	Extend HOV lanes south of I-270 West Spur. Under Study by MDOT SHA as part of Managed Lanes Study		Bethesda-Chevy Chase, Potomac	DCP,MCP	No	No
27	40	Bikeway	Glenmont to Silver Spring Breezeway (Blueridge Ave to University Blvd)	Tier 1 Priority in Bicycle Master Plan. Project funded in CIP Project #P502002	Wheaton CBD	Wheaton CBD, Bicycle Master Plan	MCP	Yes	Yes
28	16/32/38	Road Widening	I-270 Widening to 6 lanes from MD 121 to the County Line. Widen to 8 lanes from Little Seneca Creek to MD 121. Could be replaced by Phase 1B of Managed Lanes project (City of Frederick to I-370)	From CLRP. In 2017 joint priorities letter. Under Study by MDOT SHA as part of Managed Lanes Study	Clarksburg	Clarksburg, Clarksburg - Ten Mile Creek	UCP	No	No
29	33	Pedestrian	Dale Drive Sidewalk	Recommend advancement of project into Preliminary Design. Currently funded for Facility Planning only Project #P509337	North and West Silver Spring	North and West Silver Spring	DCP	No	No
30	34	Transit	Boyd's Station, Bus Loop, and Parking	Acquire the for-sale Anderson property north of the MARC station for station facilities, bus loop, and additional parking. MTA may help fund. Current funding for property acquisition only - Project #P501915	MARC Rail Communities	MARC Rail Communities Sector Plan	UCP	No	No
31	35	Road Improvements	Redesign Wisconsin Avenue as an urban boulevard	Redesign the road to conform to Urban Road Code and make room for BRT operations. Options included dedicated lanes (curb and median), stations (curb and median), and BAT lanes. Wider sidewalks and buffers are also included. For transportation purposes, the Urban Boulevard concept envisions a pedestrian through zone of 10-20ft with a planting/furnishing zone of 6-10ft.	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016	DCP	No	Yes
32	37	Road Diet	Middlebrook Road	Germantown Road to Great Seneca Highway. MCDOT implemented SB direction only	MARC Rail Communities	MARC Rail Communities Sector Plan	UCP	Yes	Yes
33	--	Pedestrian	Level-of-Effort Sidewalk Retrofit Program	Demand for sidewalk retrofits in the County far exceeds MCDOT's ability to construct. To improve countywide Pedestrian Level of Comfort and achieve Pedestrian Master Plan connectivity goals, the budget for this program should be greatly increased.	Countywide	Countywide	Countywide	Yes	Yes

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
34	--	Road Widening	MD 355 Improvements - Milestone Manor Road to Little Seneca Parkway	MDTO SHA completed study 2021	Clarksburg	Clarksburg	UCP	No	No
35	39	Road Construction	Pearl Street Connector	Supported as a connection in Bicycle Master Plan	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016	DCP	No	No
36	31	Bikeway	Glenmont to Silver Spring Breezeway (Georgia Ave to Arcola Ave)	Tier 1 Priority in Bicycle Master Plan. Project funded in CIP Project #P502002 between Arcola Ave and Dawson Ave	Wheaton CBD	Wheaton CBD, Kensington-Wheaton, Bicycle Master Plan	MCP	Yes	Yes
37	--	Pedestrian	Improve existing trail crossings on state and county roads and provide protected crossings where warranted. Create new CIP project at the county level for MCDOT trail crossing improvements.	Projects included have been identified in Montgomery Parks Trail Crossing Study.	Countywide	Countywide	Countywide	Yes	Yes
38	41	Road Construction	Observation Drive Extended (A-19) between Waters Discovery Lane and Little Seneca Parkway	Construction of this road up to Little Seneca Parkway found to have benefits in MDOT SHA MD 355 Corridor Study (2021)	Clarksburg	Clarksburg, Clarksburg - Ten Mile Creek, Germantown, Germantown EASP	UCP	No	No
39	--	Pedestrian	Matthew Henson Trail Overpass at Veirs Mill Road (MD 586)	Improve the Matthew Henson Trail crossing with a protected crossing that eliminates conflicts and has a high rate of compliance, a direct crosswalk and additional pedestrian-scale lighting.	Veirs Mill Corridor MP	Veirs Mill Corridor MP	MCP	Yes	Yes
40	42	Interchange Improvements	Georgia Avenue (MD97) at Norbeck Road (MD28)	Construct a grade-separated interchange at intersection of Georgia Ave and Norbeck Rd. SHA has completed a facility planning study; waiting for construction funding. From CLRPP. In 2017 joint priorities letter	Kensington/Wheaton	Olney, Aspen Hill	MCP,UCP	No	Yes
41	43	Transit	Georgia Avenue North BRT	Wheaton CBD to Olney	Multiple	Wheaton, Glenmont, Aspen Hill, Olney	MCP,UCP	Yes	Yes
42	44	Bridge	Dorsey Mill Bridge and Road (B-14)	Crystal Rock Drive to Observation Drive. Intended accommodate the CCT in the median. In design.	Germantown Employment Area	Germantown Employment Area, CTCFMP	UCP	No	No
43	45	Road Construction	Dorsey Mill CCT station - direct access from I-270	The Plan recommends direct access to the Dorsey Mill station to and from north I-270 through direct access ramps at the interchange or a revision to the Father Hurley Boulevard interchange.	Germantown Employment Area	Germantown Employment Area, CTCFMP	UCP	No	No
44	46	Interchange Improvements	Little Seneca Parkway Extended or Newcut Road/I-270 Interchange	Not programmed. In CLRPP.	Ten Mile Creek	Clarksburg, Ten Mile Creek	UCP	No	No
45	47	Transit	White Flint MARC Rail Station and Service	MDOT - conduct a feasibility study for an infill MARC station along the Brunswick Line and determine if a MARC station should be located in the plan area	White Flint	White Flint	MCP	Yes	No
46	48	Bikeway	Castle Blvd (Castle Ridge Cir to Briggs Chaney Rd)	Tier 1 Priority in Bicycle Master Plan.	Fairland	Bicycle Master Plan, Fairland	UCP	Yes	No

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
47	--	Road Diet	Expand the consideration and application of Road Diets/Open Streets/Multimodal Access Improvements on County roads (including Park roads)	Parks projects included have been identified in Montgomery Parks Countywide Park Trails Master Plan and on-going Vision Zero analysis.	Countywide	Countywide	Countywide	Yes	Yes
48	78/79	Bikeway	Grandview Ave Neighborhood Greenway (Arcola Ave to University Blvd)	Tier 1 Priority in Bicycle Master Plan.	Wheaton CBD	Wheaton CBD, Kensington-Wheaton, Bicycle Master Plan	MCP	Yes	Yes
49	52	Road Construction	New Road (B-25)	Seneca Meadows Pkwy to Milestone Center Court. This new road would also carry the eastern leg of the CCT over Ridge Road.	Germantown Employment Area	Germantown Employment Area, CTCFMP	UCP	No	No
50	53/55	Bikeway	Greenwood Ave Neighborhood Greenway (Wabash Ave to Piney Brnch)	Tier 1 Priority in Bicycle Master Plan.	Long Branch	Bicycle Master Plan, Takoma Park, Silver Spring East	DCP	Yes	No
51	54	Pedestrian	Oakview Drive pedestrian and transit access	Improve pedestrian and transit access along Oakview Drive	East Silver Spring	East Silver Spring	DCP	Yes	Yes
52	56	Bikeway	Germantown Town Center BiPPA	Advance planning for Germantown Town Center BiPPA . Add to current CIP Project # P501532.	Germantown Employment Area	Germantown/ Germantown Employment Area	UCP	Yes	Yes
53	57	Bridge	Old Columbia Pike Bridge at Paint Branch	Bridge and roadway reconstruction	White Oak Science Gateway	White Oak Science Gateway	MCP	Yes	Yes
54	58	Pedestrian	Sidewalk construction on "Community Connector Streets"	The streets identified should have sidewalk on at least one side of the street and wayfinding signs to guide pedestrians to their destinations	Greater Lyttonsville	Greater Lyttonsville Sector Plan 2016	DCP	Yes	No
55	59	Bikeway	Veirs Mill Rd (MD 586) Neighborhood Greenway (Glorus Pl to Veirs Mill Rd)	Tier 1 Priority in Bicycle Master Plan.	Veirs Mill Corridor MP	Veirs Mill Corridor Master Plan, Bicycle Master Plan,	MCP	Yes	Yes
56	60	Bikeway	Flower Ave to University Blvd Neighborhood Greenway (Flower Ave to University Blvd)	Tier 1 Priority in Bicycle Master Plan.	Long Branch	Long Branch Sector Plan, Bicycle Master Plan	DCP	Yes	Yes
57	61	Road Construction	Locbury Drive (B-5)	Wisteria Drive to Middlebrook Drive. Construct new road to connect existing Locbury Drive north of Middlebrook to Waters Road.	Germantown Employment Area	Germantown Employment Area, Germantown	UCP	Yes	Yes
58	62	Transit	Georgia Avenue South BRT	CTCFMP, includes improved transit access.	Multiple	SS CBD, North & West SS, Wheaton	DCP,MCP	Yes	Yes
59	63	Bikeway	Selfridge Rd Neighborhood Greenway (Aspen Hill Rd to Veirs Mill Rd)	Tier 1 Priority in Bicycle Master Plan.	Veirs Mill Corridor MP	Veirs Mill Corridor Master Plan, Bicycle Master Plan,	MCP	Yes	No
60	64/98	Pedestrian	Provide a sidewalk and bikeway along Redland Road between MD 200 and Briardale Road.	Currently, walking to Metro or nearby parks is challenging and unpleasant due to the lack of sidewalks and streetscape improvements.	Shady Grove	Shady Grove	MCP	Yes	No
61	65	Bikeway	Friendship Blvd Separated Bike Lanes (Willard Ave to District of Columbia)	Tier 0.5 Priority in Bicycle Master Plan.	Friendship Heights	Friendship Heights CBD, Bicycle Master Plan	DCP	No	No

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
62	66	Transit	University Boulevard BRT	CTCFMP, includes improved transit access	Multiple	Takoma Park, T-L Crossroads, Long Branch, Four Corners, K- W, Wheaton	DCP,MCP	Yes	Yes
63	67	Road Improvements	Burtonsville Road (MD198)	Widen Burtonsville Road (MD198) to 4-lane divided highway from Old Columbia Road to US29 and add bike and ped improvements. From CLRP and per Burtonsville Crossroads MP.	Burtonsville Crossroads	Burtonsville Crossroads	UCP	No	No
64	83	Transit	Randolph Road BRT	CTCFMP, includes improved transit access	Multiple	WOSG, Fairland-Briggs-Chaney, Glenmont, K-W, WF	MCP,UCP	Yes	Yes
65	--	Transit	North Bethesda Transitway	CTCFMP, Corridor Forward MP includes improved transit access	Rock Spring	Rock Spring, Potomac, NB-GP	MCP	No	No
66	68	Bikeway	Marinelli Rd Separated Bike Lanes (Executive Blvd to Woodglen Dr)	Tier 0.5 Priority in Bicycle Master Plan., Project funded in CIP Project # P507596	White Flint	White Flint, Bicycle Master Plan,	MCP	No	No
67	--	Pedestrian	Introduce additional protected crossings along Veirs Mill Road	Veirs Mill Road and Andrew Street; Veirs Mill Road and Norris Drive; Veirs Mill Road and Arbutus Avenue; Veirs Mill Road and Galt	Veirs Mill Corridor MP	Veirs Mill Corridor MP	MCP	Yes	Yes
68	69	Bikeway	Cherry Hill Rd Separated Bike Lanes (Prosperity Dr to Prince George's County)	Tier 1 Priority in Bicycle Master Plan.	White Oak Science Gateway	White Oak Science Gateway, Bicycle Master Plan,	MCP	No	No
69	70	Road Improvements	Redesign of River Rd with median	Median: to accommodate left turns and ped refuge area Separated bike lane: 11' two-way on north side,	Westbard	Westbard Sector Plan 2016	DCP	No	No
70	71	Bikeway	Arlington Rd Separated Bike Lanes (Old Georgetown Rd to Bradley Blvd)	Tier 0.5 Priority in Bicycle Master Plan.	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	Yes
71	72	Road Improvements	Reconfigure E-W Hwy, Montgomery Ln Old Georgetown Rd and Woodmont Ave into two-way street	Conversion would slow vehicular traffic, improve bicycle accommodation and enliven streets for pedestrians. Would also make car	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016	DCP	No	Yes

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
72	73/74	Bikeway	Edgemoor Ln Neighborhood Greenway (Exeter Rd to Bethesda Metro Station)	Tier 0.5 Priority in Bicycle Master Plan.	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016, Bicycle Master Plan	DCP	No	No
73	49	Bikeway	ICC Bikeway	Support extension of existing ICC bikeway with expansion of bikeway between Emory Lane and the Prince George's County line; would provide		Bicycle Master Plan	UCP	Yes	No
74	41	Road Construction	Observation Drive Extended (A-19) between Little Seneca Parkway and Shawnee Lane	Additional study needed per previous Planning Board recommendations with re-assessment of Clarksburg Bypass	Clarksburg	Clarksburg, Clarksburg - Ten Mile Creek, Germantown, Germantown EASP	UCP	No	No
75	75	Pedestrian	Redesign Norfolk Ave as a shared street	A portion of Norfolk Ave within the Woodmont Triangle be improved as a shared street with	Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016	DCP	No	No
76	76	Bikeway	Broadbirch Dr Separated Bike Lanes (Tech Rd to Cherry Hill Rd)	Tier 1 Priority in Bicycle Master Plan.	White Oak Science Gateway	Bicycle Master Plan, White Oak Science Gateway	MCP	No	No
77	--	Bikeway	Briggs-Chaney Rd (North Side) Sidepath (Old Columbia Pike to ICC	In Support of Fairland Briggs Chaney	Fairland/Briggs-Chaney		UCP	Yes	No
78	77	Transit	Circulator Bus Route - Downtown Bethesda		Bethesda Downtown Plan	Bethesda Downtown Sector Plan 2016	DCP	No	Yes
79	50	Road Construction	Midcounty Highway (M-83) from Ridge Road to Montgomery Village Avenue	No current plans by MCDOT to advance	Montgomery Village	Montgomery Village, Clarksburg, Clarksburg - Ten Mile Creek, Germantown,	UCP	No	No
80	80	Transit	Extend regional bus service to connect to Prince George's County	Extend regional bus service to include connections between major activity centers along US 29 and Prince George's County.	Fairland	Fairland	UCP	Yes	No
81	--	Bikeway	Germantown Road (North Side) Sidepath (Clopper Rd to Middlebrook Rd)	Advance for equity	Germantown Employment Area	Germantown Employment Area	UCP	Yes	No
82	81	Bikeway	Grandview Ave Separated Bike Lanes (University Blvd to Reddie Dr)	Tier 1 Priority in Bicycle Master Plan.	Wheaton CBD	Wheaton CBD, Bicycle Master Plan	MCP	Yes	Yes
83	--	Bikeway	Montgomery Village Ave (east Side Sidepath (Wrightman Rd to Stedwick	Advance for equity	Montgomery Village	Montgomery Village	MCP	Yes	No
84	82	Pedestrian	Olney Sandy Spring Rd	Improve pedestrian access within walking distance of the village centers.	Sandy Spring/Ashton	Sandy Spring/Ashton	UCP	No	No
85	--	Bikeway	Montgomery Village Ave (east Side Sidepath (Stedwick Rd to City of	Advance for equity	Montgomery Village	Montgomery Village	MCP	Yes	No
86	84	Road Construction	Crabbs Branch Way extension	Facility Planning Study to extend Crabbs Branch Way to Amity Drive	Shady Grove	Shady Grove	MCP	No	No
87	--	Bikeway	Piney Branch Rd (MD 320) Separated Bike Lanes (University Blvd to Prince George's Co Line)	Advance for equity	Long Branch	Long Branch, Silver Spring East	DCP	Yes	Yes

Attachment A: Top 100 Transportation CIP Priorities

2021 Priority	2019 Priority	Category	Project	Comments	Primary Master Plan	Master Plan	Area Team*	Positive Effect to Equity Focus Areas	Positive Effect to High Injury Network (Vision Zero)
88	85	Pedestrian	Construct shared-use path on Westbard Ave from Westbard Cir to	Median: 6' for ped refuge	Westbard	Westbard Sector Plan 2016	DCP	No	No
89	--	Bikeway	Scenery Drive Sidepath (Germantown Rd to Frederick Rd)	Advance for equity	Germantown Employment Area	Germantown Employment Area	UCP	Yes	Yes
90	86	Bikeway	Life Sciences Center Loop (Key West Ave to Great Seneca Hwy)	Trigger for Phase 2 GSSC Master Plan	Great Seneca Science Corridor	Great Seneca Science Corridor Master Plan, Bicycle Master Plan	MCP	No	No
91	89	Bikeway	Glenmont to Silver Spring Breezeway (Cameron St to Ellsworth Dr)	Tier 1 Priority in Bicycle Master Plan.	Silver Spring CBD	Silver Spring CBD, Bicycle Master Plan	DCP	Yes	Yes
92	90	Road Widening	Norbeck Road (MD 28)	Master Plan calls for 4-lane divided highway between Georgia Avenue and New Hampshire Avenue. From CLRP. (part of MD SHA	Kensington/Wheaton	Olney, Aspen Hill, Cloverly	MCP,UCP	No	No
93	92	Bikeway	Wayne Ave to Fenton St Neighborhood Greenway (Wayne Ave to Fenton St)	Tier 0.5 Priority in Bicycle Master Plan,. Project funded in CIP Project # P501532	Silver Spring CBD	Silver Spring CBD, Bicycle Master Plan	DCP	Yes	Yes
94	93	Bikeway	Glenmont to Silver Spring Breezeway (Columbia Blvd to Spring St)	Tier 1 Priority in Bicycle Master Plan.	Silver Spring CBD	North and West Silver Spring, Bicycle Master Plan	DCP	No	No
95	--	Pedestrian	Sidewalk gap on Shady Grove Road	Install a sidewalk on the north side of Shady Grove Road where gaps exist between Crabbs Branch and Midcounty Highway; this segment is	Shady Grove Minor MP	Shady Grove Minor MP	MCP	Yes	Yes
96	97	Bikeway	Frederick Rd Sidepath (Snowden Farm Pkwy to Stringtown Rd)	Currently under design. Tier 1 Priority in Bicycle Master Plan. Project funded in CIP Project #P501744	Clarksburg	Clarksburg, Ten-Mile Creek, Bicycle Master Plan	UCP	No	No
97	--	Bikeway	13th Street/Burlington Ave Separated Bike Lanes (DC Line to Fenton Street)	Tier 1 Priority in Bicycle Master Plan.	Silver Spring CBD	Silver Spring CBD, Bicycle Master Plan, SSDAC	DCP	Yes	Yes
98	--	Road Improvements	Veirs Mill Road - Complete Street	Redesign Veirs Mill Road as a multimodal complete street, tree-lined boulevard. Minimize crossing distances with elimination of	Veirs Mill Corridor MP	Veirs Mill Corridor MP	MCP	Yes	Yes
99	--	Transit	Shady Grove MARC Station		Shady Grove Minor MP	Shady Grove Minor MP	MCP	Yes	Yes
100	--	Road Improvements	Crabbs Branch Way Road Diet	Convert the existing center turn lane between Indianola Drive and Redland Road into a vegetated median to slow traffic. The median should extend into or through crosswalks at existing or future crosswalk locations; this segment is in the County's High Injury Network	Shady Grove Minor MP	Shady Grove Minor MP	MCP	No	No



MD 355 Capacity Analysis

Little Seneca Parkway to Milestone Manor Lane,
Montgomery County, MD

June 2021

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Appendix A: Traffic Count Data

Appendix B: Volume Calculations

Appendix C: Synchro/SimTraffic Reports

Appendix D: Bus Ridership Data

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1. PURPOSE

This report summarizes MDOT SHA's analysis to determine the need for potential improvements in the MD 355 (Frederick Road) corridor from Little Seneca Parkway to Milestone Manor Lane in Clarksburg. This analysis provides guidance for possible improvements to the corridor and analyzes the corridor both with and without the proposed section of the Observation Drive Extension¹ between Ridge Road and Little Seneca Parkway running parallel to and west of MD 355. This analysis was performed by MDOT SHA at the request of Montgomery County to assist in prioritizing transportation improvements in the Clarksburg area.

2. BASELINE ASSUMPTIONS

2.1. Scope of Study

This Study is a capacity analysis of MD 355 for the 1.3-mile segment of MD 355 from Little Seneca Parkway to Milestone Manor Lane in Clarksburg. The study includes:

- Development of 2019 Existing and forecasted 2040 No Build balanced traffic volumes. 2040 volumes are developed for both with and without the proposed Observation Drive Extension.
- Field review, including peak hour observations, travel time runs, transportation network geometry and condition survey, and review of gaps in the pedestrian and bicycle networks.
- Assessment of the multimodal facilities within the study area. This includes pedestrian and bicycle networks, and transit amenities and accessibility.
- Development and calibration of 2019 Existing and 2040 No Build Synchro/SimTraffic models for capacity analyses. 2040 models are developed for both with and without the proposed Observation Drive Extension.
- Development of proposed solutions to improve vehicular traffic operations for the corridor both with and without the proposed Observation Drive Extension based on capacity analyses.
- Summary of analysis and findings.

Between Little Seneca Parkway and Milestone Manor Lane, MD 355 is an undivided two-lane roadway. At Little Seneca Parkway, MD 355 widens to provide turn and auxiliary lanes. Farther north, MD 355 is a two-lane undivided roadway. South of Milestone Manor Lane, MD 355 is a four-lane divided roadway. All unsignalized intersections have stop sign control along the side streets.

¹ The Observation Drive Extension is a proposed extension of Observation Drive from its existing terminus north of MD 27 (Ridge Road) to Stringtown Road, north of Little Seneca Parkway. As this proposed roadway would run parallel to MD 355, its completion would provide an alternate route to MD 355 in this area.

Capacity analyses are included for the following intersections (see Figures 1 and 2):

1. MD 355 at Little Seneca Parkway (Signalized)
2. MD 355 at Newcut Road (Unsignalized)
3. MD 355 at Canterfield Way/Rosecrest Drive (Unsignalized)
4. MD 355 at West Old Baltimore Road (Signalized)
5. MD 355 at Greenbrook Drive (Unsignalized)
6. MD 355 at Brink Road (Unsignalized)
7. MD 355 at Milestone Manor Lane (Unsignalized)

All unsignalized intersections have stop sign control along the side streets. This analysis also includes an assessment of the multimodal facilities within the study area. This includes pedestrian networks, bicycle networks, and transit amenities and accessibility.

2.2. Alternatives

This study includes an evaluation of the AM and PM peak hours for multiple alternatives. The lane configurations of the alternatives are shown in Figures 2-6. MDOT SHA evaluated build alternatives with and without the Observation Drive Extension section between Ridge Road and Little Seneca Parkway. The Observation Drive Extension route is shown in Figures 4-6. Detailed descriptions of the alternatives are listed later in this report.

The list of alternatives includes:

- Existing Conditions
- 2040 No Build network without Observation Drive Extension
- 2040 Build 1 Alternative without Observation Drive Extension – includes smaller-scale/lower cost system improvements, including restriping of a turn lane and restricting left turns at Newcut Road
- 2040 Build 2 Alternative without Observation Drive Extension – includes larger-scale/higher cost system improvements, including widening MD 355 to two lanes per direction, adding exclusive turn lanes at the MD 355 at Little Seneca Parkway intersection, and restricting left turns at Newcut Road
- 2040 No Build network with Observation Drive Extension
- 2040 Build 1 Alternative with Observation Drive Extension – includes smaller-scale/lower cost system improvements, including restriping of a turn lane and restricting left turns at Newcut Road
- 2040 Build 2 Alternative with Observation Drive Extension – includes larger-scale/higher cost system improvements, including widening MD 355 to two lanes per direction, including widening MD 355 to two lanes per direction, adding exclusive turn lanes at the MD 355 at Little Seneca Parkway intersection, and restricting left turns at Newcut Road

All of the 2040 alternatives include one just completed improvement and one planned improvement to the existing roadway network:

- MD 355 at West Old Baltimore Road – In this MDOT SHA project, the northbound MD 355 approach has been widened to include an exclusive left-turn lane and a through lane, the southbound MD 355 approach was widened to include a channelized right-turn lane and a through lane, and the eastbound West Old Baltimore Road approach was widened to include an exclusive left-turn lane and a channelized right-turn lane. The northbound left-turn lane begins 75 feet south of the Greenbrook Drive intersection. This intersection previously consisted of one approach lane in each direction. This project was recently completed in Spring, 2021.
- MD 355 at Brink Road – Developer-related intersection improvements are planned at this intersection and are dependent on the number of submitted building permits. These improvements are assumed to be completed ahead of the 2040 analysis year given this commitment and the current congestion at this location. The southbound MD 355 approach will include an exclusive left-turn lane and a through lane and the westbound Brink Road approach will consist of an exclusive left-turn lane and an exclusive right-turn lane. The northbound MD 355 approach will consist of two lanes that will merge into one lane approximately 250 feet north of the intersection. This intersection currently consists of one approach lane and one departure lane in each direction. This intersection will remain unsignalized.

Additionally, there is a planned truncation of Newcut Road to no longer connect with MD 355 as part of another developer funded improvement. This truncation is not assumed to occur prior to implementation of Alternatives 1 or 2 for purposes of the operational analyses in this study. The Newcut Road intersection does not contribute to congestion on MD 355 to the extent that the Brink Road intersection does today, implementation of the truncation has received some opposition from the community, and the alternate route for this traffic, Little Seneca Parkway, is now open for those wishing to avoid Newcut Road.

2.3. Description of Corridor

The study corridor includes two signalized MD 355 intersections at Little Seneca Parkway and at West Old Baltimore Road, as well as five unsignalized intersections at Newcut Road, Rosecrest Drive/Canterfield Way, Greenbrook Drive, Brink Road, and Milestone Manor Lane (all side-street-only stop control). This section of MD 355, from MD 27 (Ridge Road) to MD 121 (Stringtown Road), is classified as an urban minor arterial. The posted speed limit is 45 mph from Milestone Manor Lane to Rosecrest Drive/Canterfield Way, and 40 mph from Rosecrest Drive/Canterfield Way to Little Seneca Parkway.

Figure 1: Study Intersections and Existing Lane Configurations

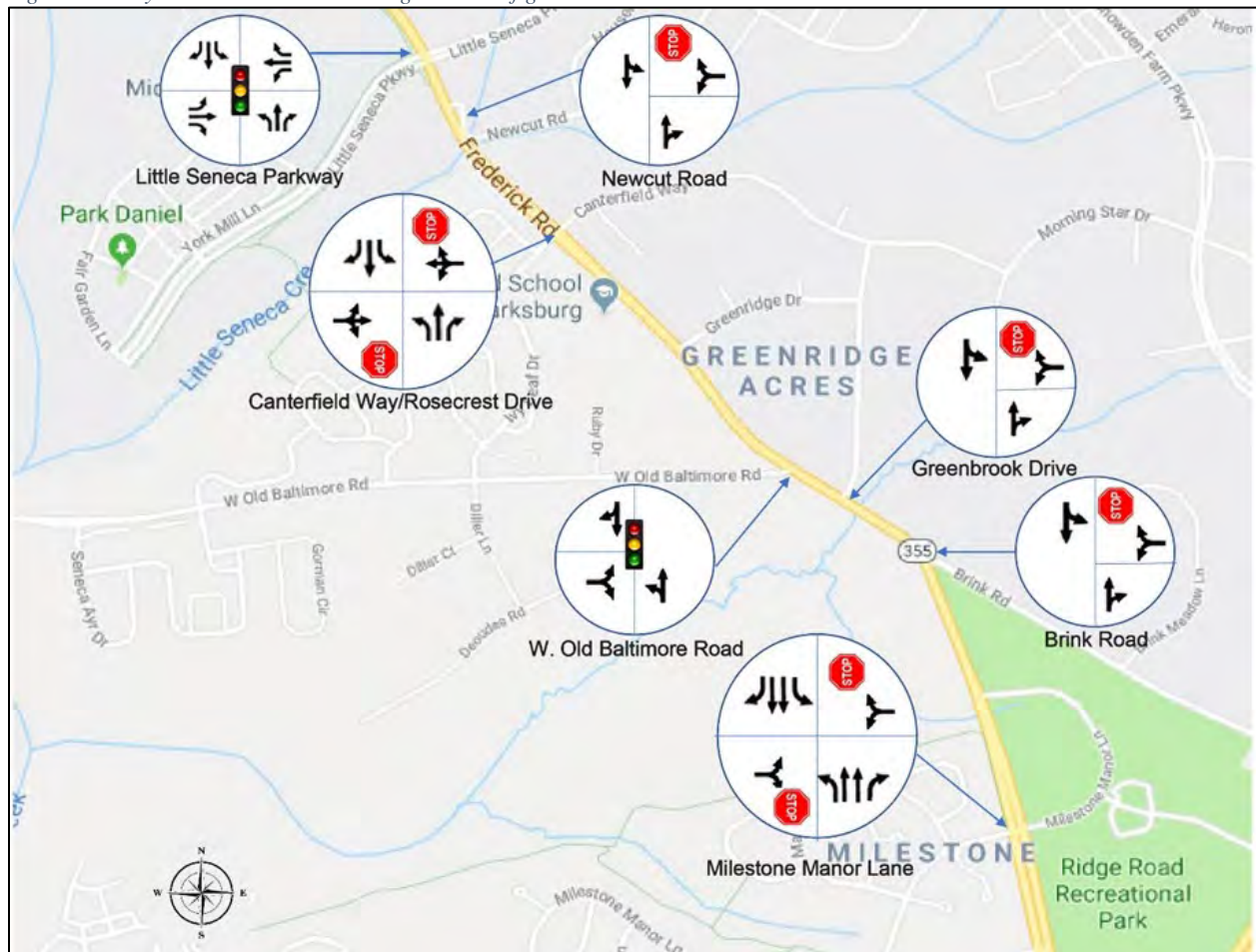


Figure 2: 2040 No Build without Observation Drive Extension/2040 Build 1 without Observation Drive Extension Lane Configurations

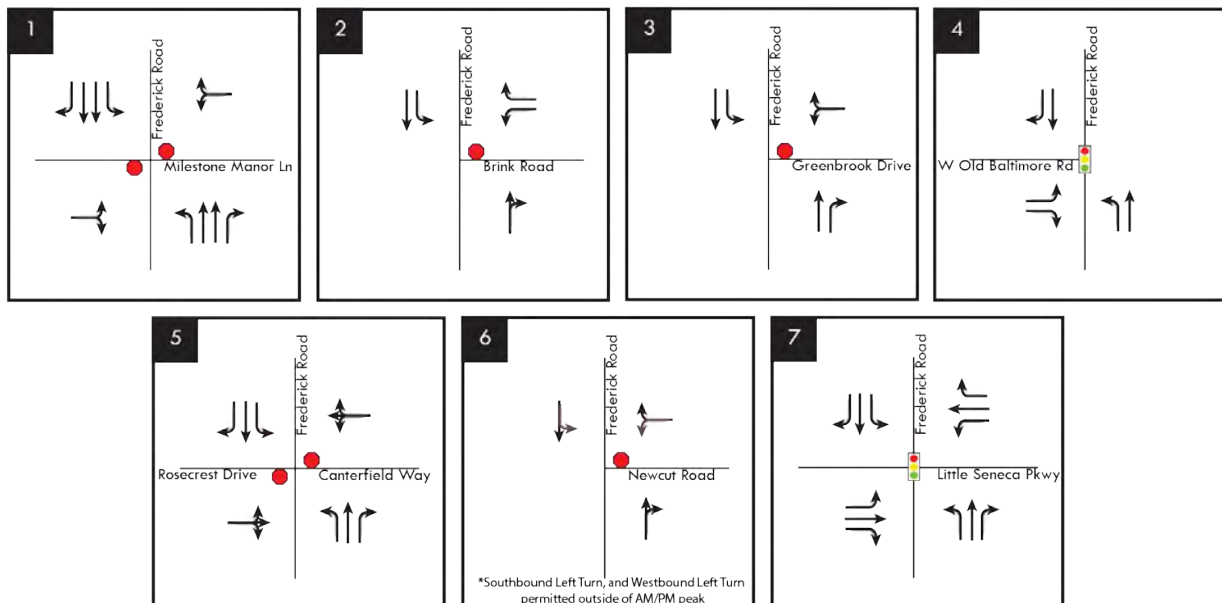
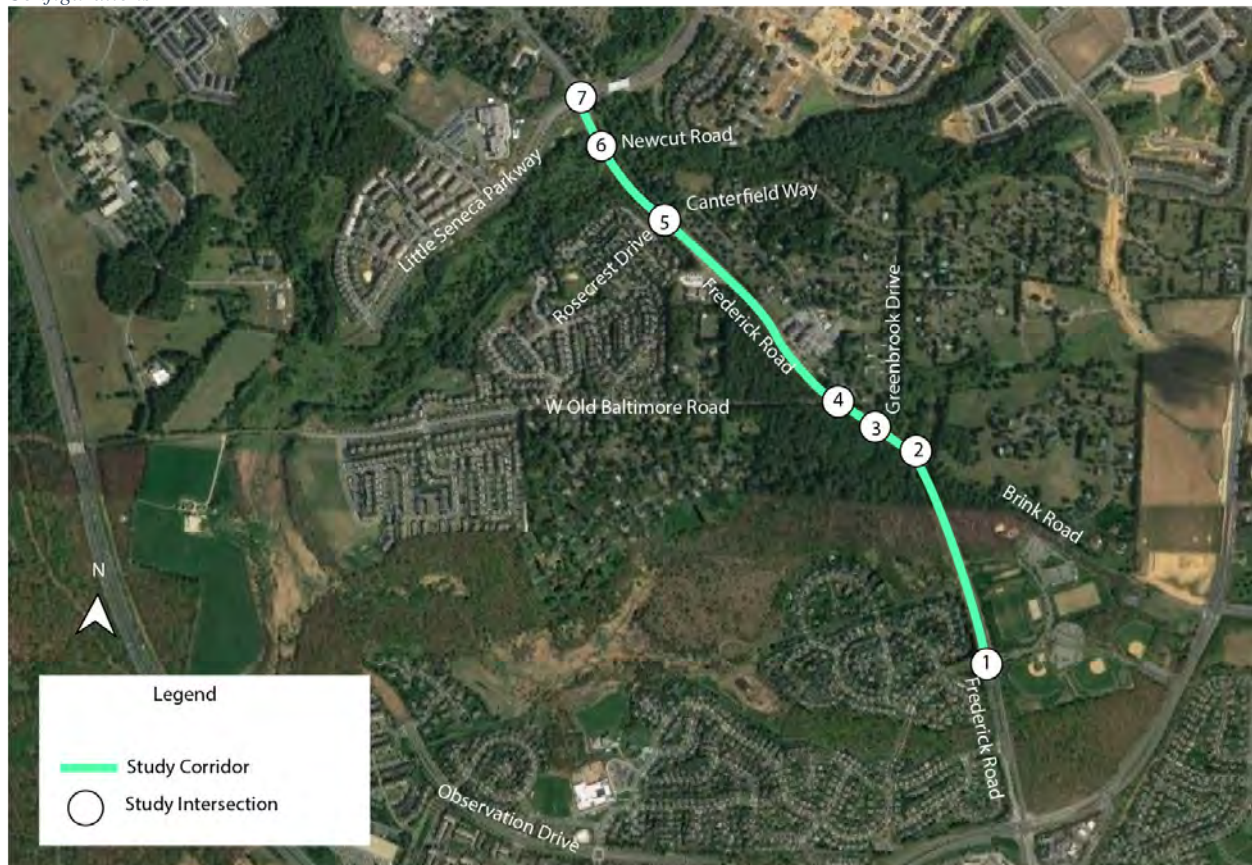


Figure 3: 2040 Build 2 without Observation Drive Extension Lane Configurations

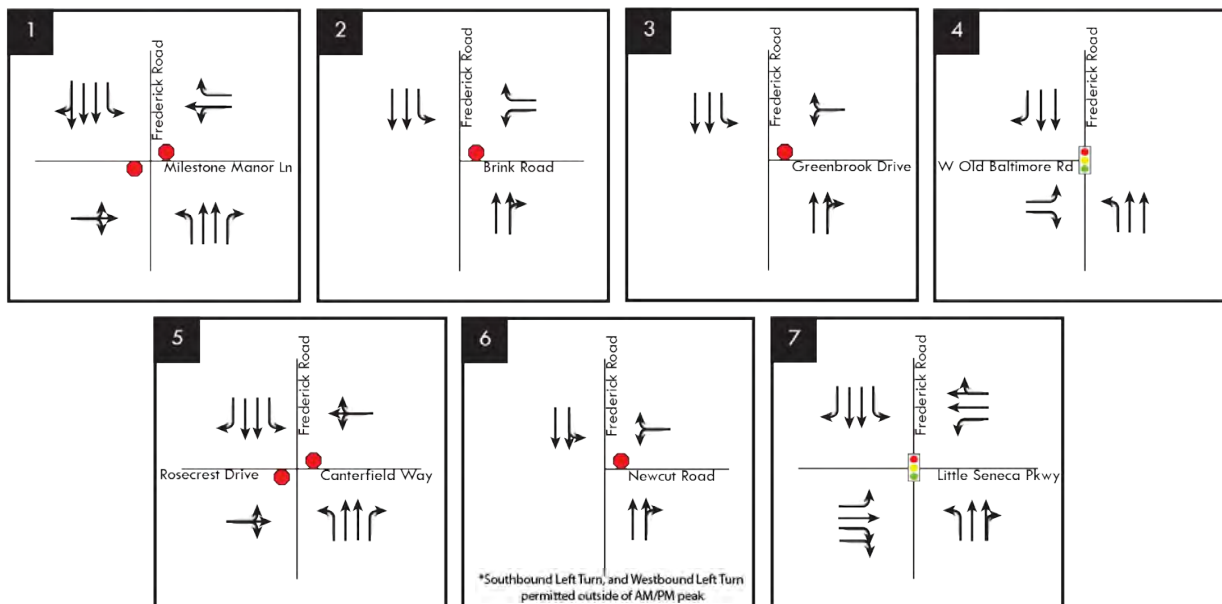
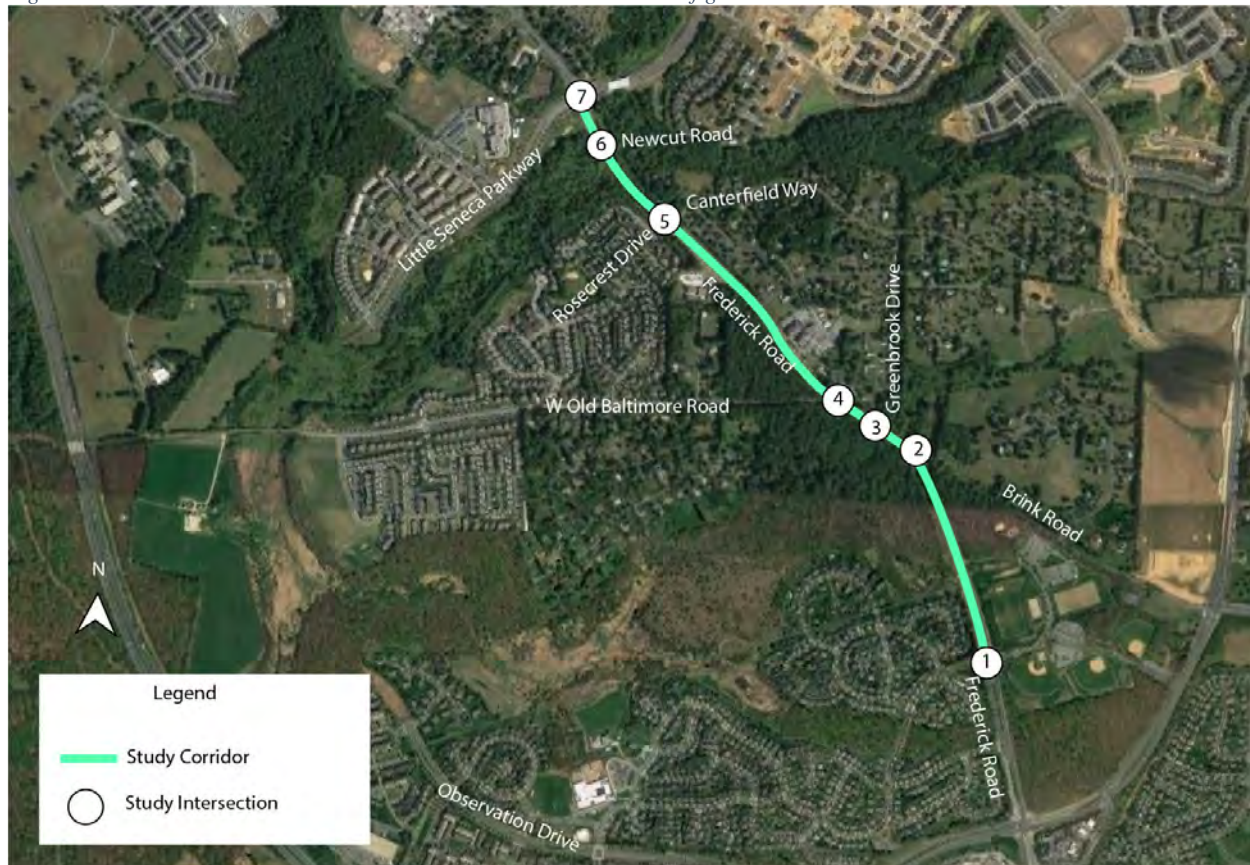


Figure 4: 2040 No Build with Observation Drive Extension Lane Configurations

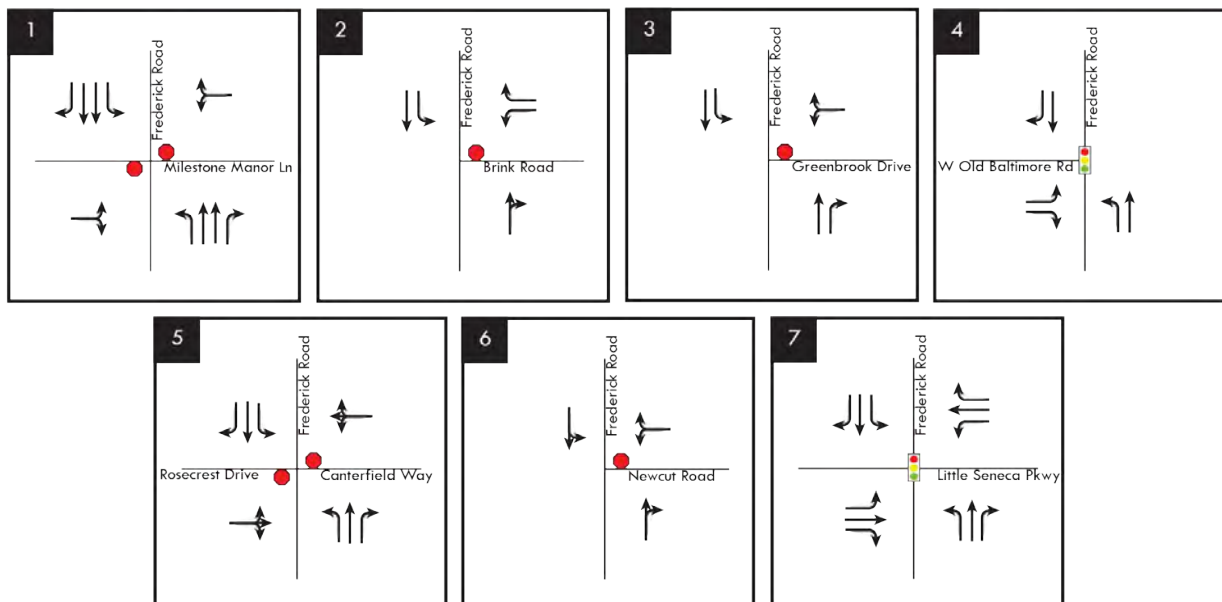
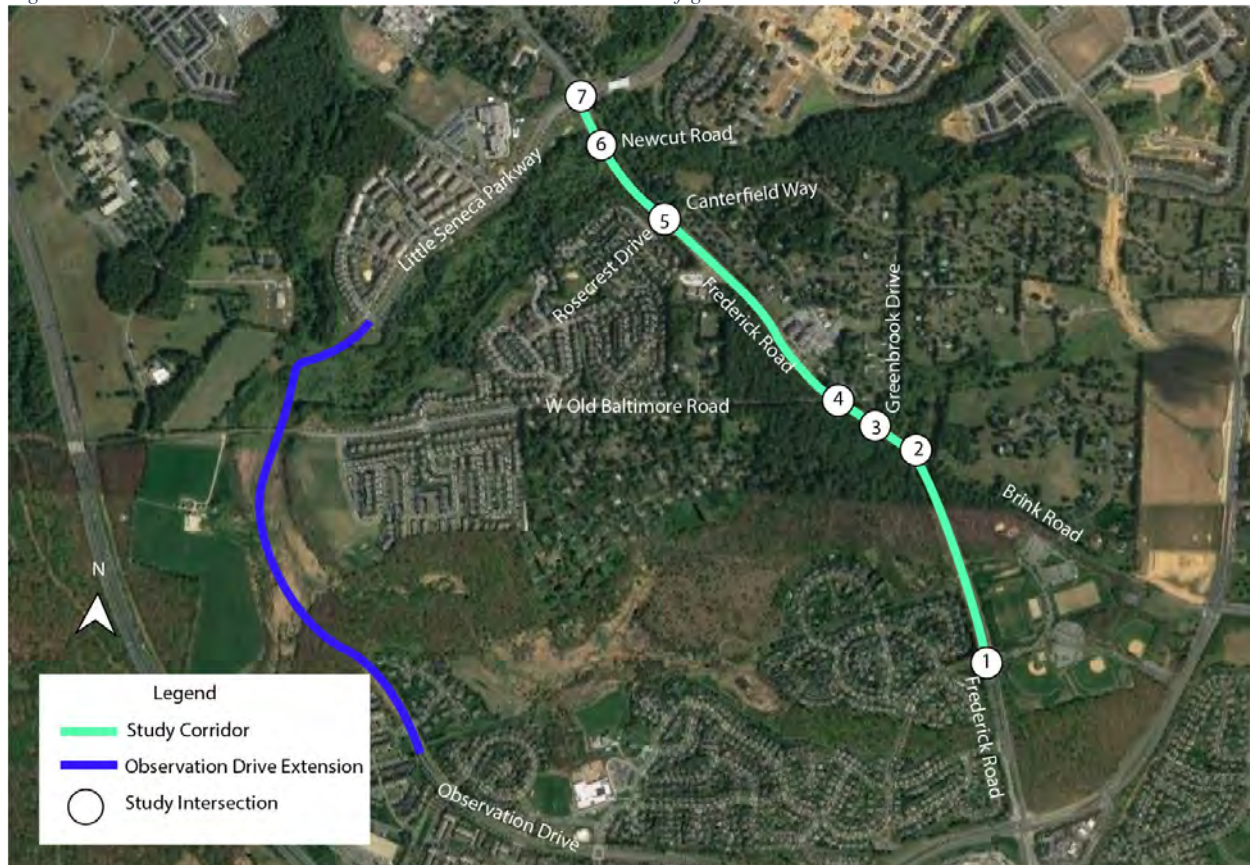


Figure 5: 2040 Build 1 with Observation Drive Extension Lane Configurations

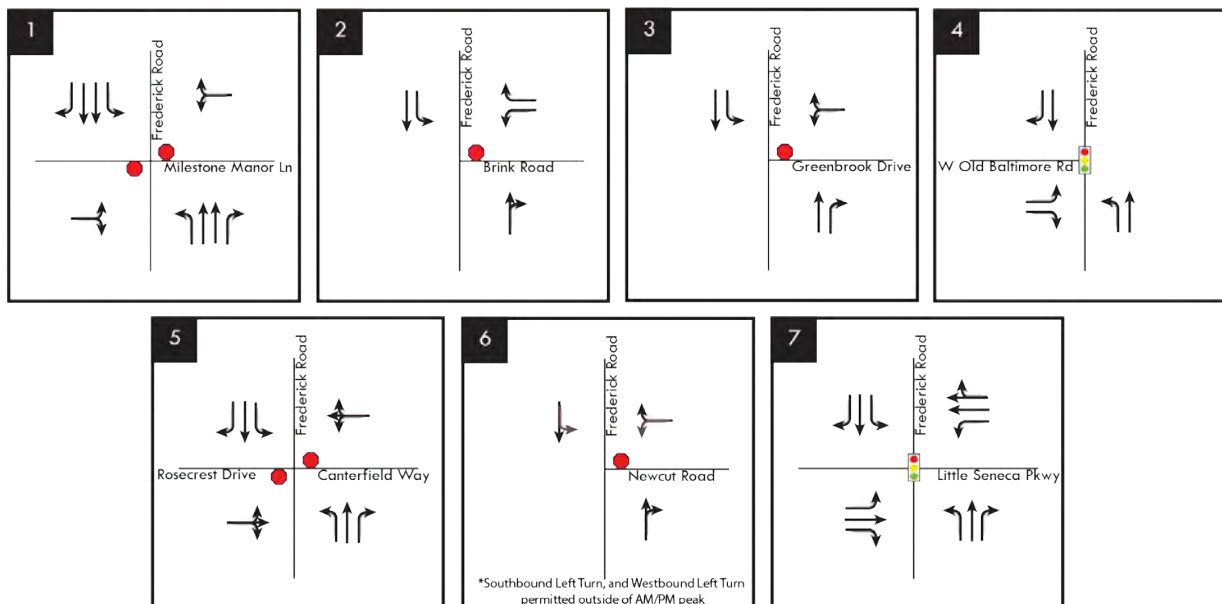
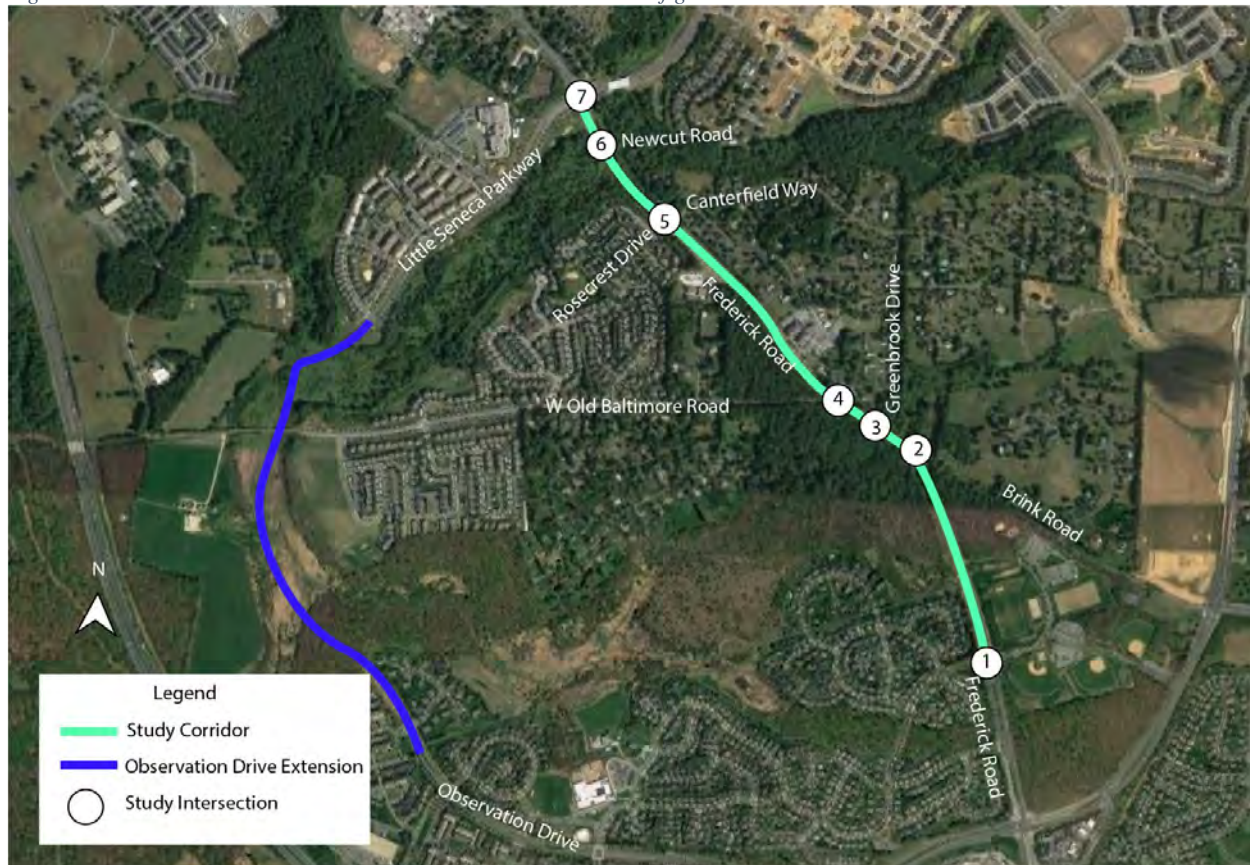
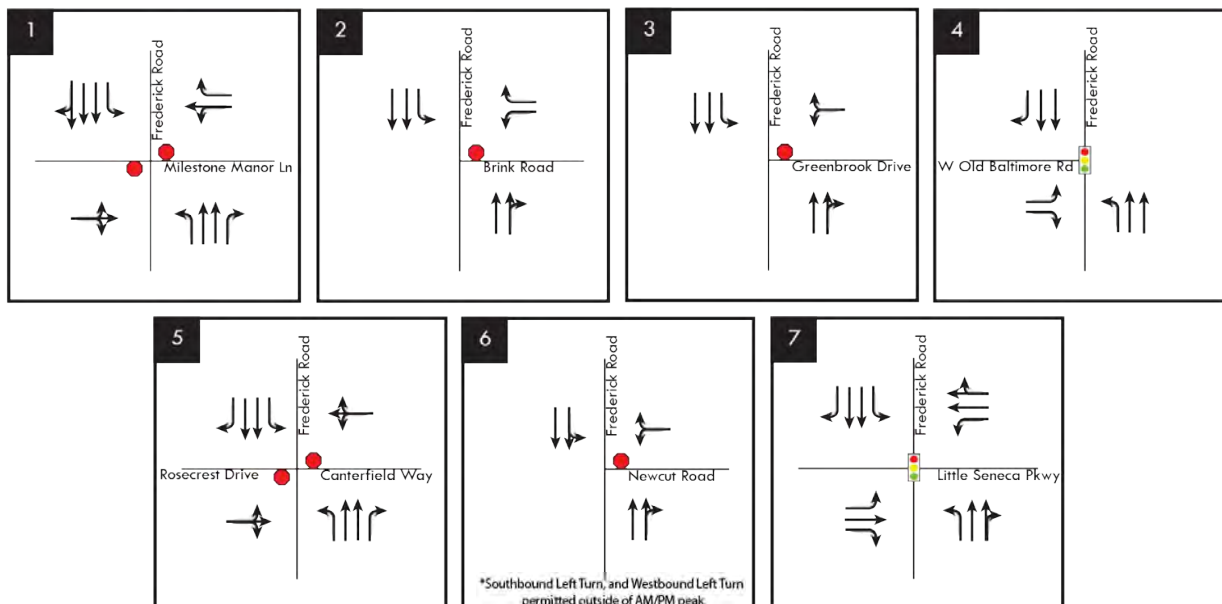
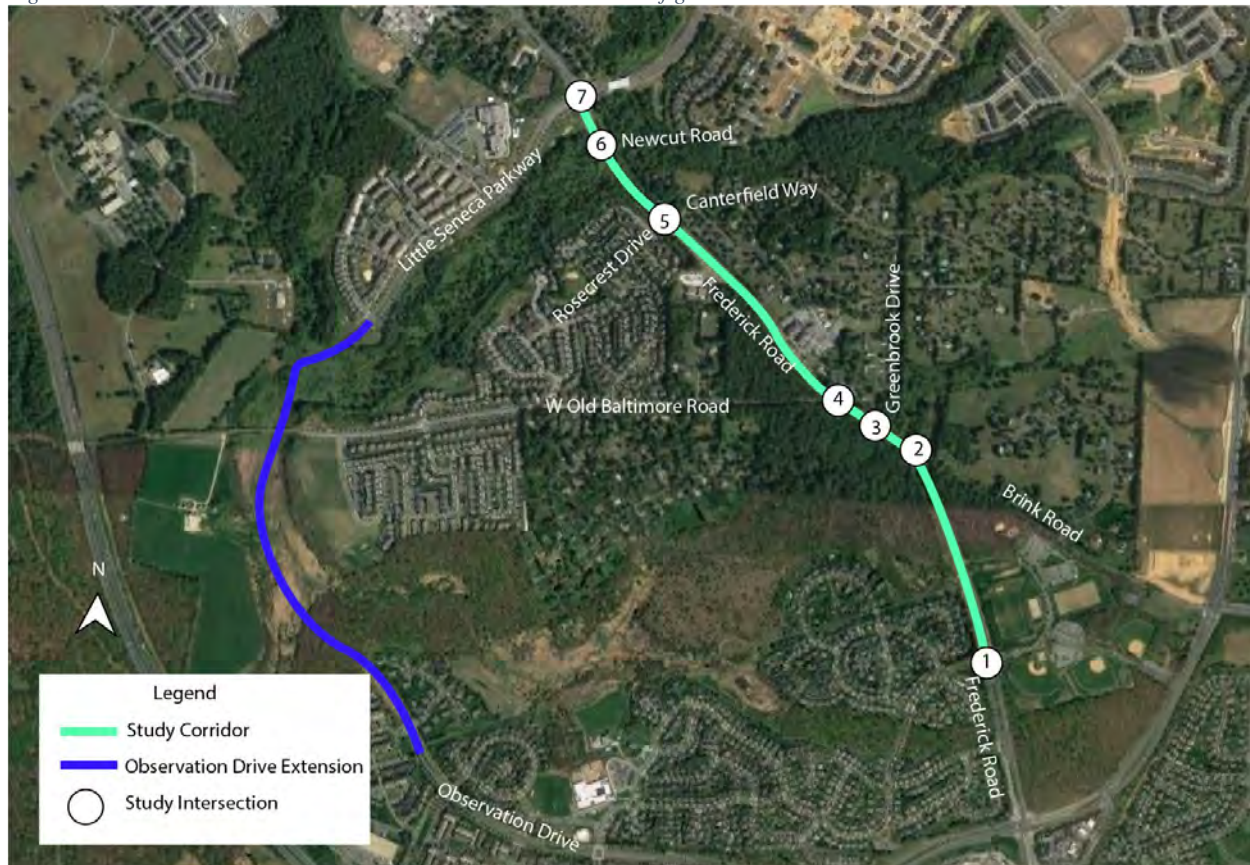


Figure 6: 2040 Build 2 with Observation Drive Extension Lane Configurations



2.4. Turning Movement Counts & 2019 Balanced Volumes

Turning movement counts (TMCs) were performed for the seven intersections included in the study. The traffic counts were conducted in March 2019 at all intersections except MD 355 at West Old Baltimore Road, where count data from February 2019 was available. Along with vehicular volumes, the counts also included pedestrian and bicycle volumes. The greatest volume of pedestrians and bicyclists occurred at the intersection of MD 355 at Little Seneca Parkway, where 16 pedestrians and 1 bicyclist traveled through the intersection during the AM peak hour. The vehicular volumes were balanced between the study intersections using the data from the TMCs. The existing condition balanced AM and PM peak hour volumes are provided in Figure 7. Turning movement counts are included in Appendix A. Volume balancing calculations are included in Appendix B.

Figure 7: Existing AM/PM Peak Hour Volumes



2.5. Travel Times

Travel time runs were conducted during the AM and PM peak periods (7:00 to 9:00 AM and 4:00 to 6:00 PM) along the entire network. As shown in Table 1, travel times through the 1.2-mile corridor range from slightly more than two minutes to slightly more than five minutes for an average speed of approximately 15 to 35 mph (including slowing down and stops at traffic signals).

The travel times for existing traffic recorded in *SimTraffic* (shown in Table 1) vary slightly from the field measured travel times but fall within ten percent (acceptable variance) of the field measured travel times. *Synchro/SimTraffic* reports are included in Appendix C.

Table 1: Field-Measured and Modeled MD 355 Travel Time

Time Period		Field-Recorded Travel Time (s)	<i>SimTraffic</i> Existing Model Arterial Travel Time (s)	% Difference
AM	NB	135.6	136.0	<1%
	SB	269.9	263.6	-2%
PM	NB	303.1	325.4	7%
	SB	165.5	166.6	<1%

2.6. Field Observations

Field observations, including queuing and travel time runs, were conducted on Tuesday, April 16, 2019 under clear weather conditions. During the field visit, the following conditions were observed:

- Traffic congestion was observed in the southbound direction during the AM peak period and the northbound direction during the PM peak period.
- Most of the congestion, for northbound traffic, occurred between the northernmost Milestone Manor Lane intersection and the Rosecrest Drive/Canterfield Way intersection. The corridor reduces from two lanes to one lane in the northbound direction between these intersections. For southbound traffic, most of the congestion occurred north of the West Old Baltimore Road intersection.
- Substantial northbound traffic queues (approximately 1,000 feet) were observed at the West Old Baltimore Road intersection during the PM peak period. Queues were associated with left-turning vehicles blocking the shared thru-left lane.
- The northbound queues at the West Old Baltimore Road intersection extended beyond the Brink Road intersection. Vehicles turned to and from Brink Road by maneuvering between queued vehicles creating a potential safety hazard.
- When northbound left-turning vehicles block the northbound shared left-through travel lane at West Old Baltimore Road, some of the vehicles were observed bypassing the turning vehicles using the right shoulder.
- Southbound traffic also experienced delays and queues at Brink Road associated with left-turning vehicles blocking the shared thru-left lane.
- There was also a lot of construction work being done along this corridor, including work associated with the previously mentioned West Old Baltimore Road construction. However, this was mostly construction off the road and did not impact traffic conditions.
- Queuing along southbound MD 355 at the West Old Baltimore Road intersection, particularly during the AM peak period, extends from this intersection back to the Goddard

School. Vehicles entered and exited the school driveway by maneuvering between queued vehicles creating a potential safety hazard.

2.7. Signal Timings

The existing signal timings for the signalized intersections of MD 355 at Little Seneca Parkway and MD 355 at West Old Baltimore Road were provided by the Montgomery County Department of Transportation (MCDOT). Each of the signals has a total cycle length of 150 seconds. These signal timings (splits and cycle lengths) were then confirmed during field observations. The signal timings provided by MCDOT were used for the existing conditions analysis at both signals, including the temporary signal that was in place during the 2019 field data collection at MD 355 at West Old Baltimore Road.

Signal timings are optimized in future conditions analysis using *Synchro*. For each future alternative, splits at both signals were optimized while maintaining the cycle length and keeping the minimum split time along the mainline consistent with those at adjacent signals to ensure no adverse impacts to progression along the MD 355 corridor. The signal phasings at both intersections were maintained in the future. The planned signal improvements at MD 355 at West Old Baltimore Road have the same phasings as with existing conditions.

2.8. Pedestrian and Bicycle Network

a) Existing Roadside Pedestrian Network

Intermittent pedestrian facilities exist along the corridor. As shown in Figure 8, sidewalk is present along the west side of MD 355 north of Little Seneca Parkway and along both sides of MD 355 for approximately 200 feet south of Little Seneca Parkway. Sidewalk is present along the west side of MD 355 from approximately 500 feet north to 750 feet south of Canterfield Way/Rosecrest Drive, and approximately 50 feet south of Canterfield Way/Rosecrest Drive on the east side. Approximately 50 feet of sidewalk is present along the east side of MD 355 north of Greenbrook Drive. A shared-use path is present along the west side of MD 355 for approximately 700 feet north of Milestone Manor Lane. However, the majority of the corridor currently lacks adequate pedestrian connections. The existing sidewalk and path network and planned segments associated with the current MDOT SHA improvements to the MD 355 at West Old Baltimore intersection are shown in Figure 8. These include sidewalk along the east side of MD 355 extending from the existing sidewalk near Greenbrook Drive to approximately 300 feet north of Old Baltimore Road, and a shared-use path along the west side of MD 355 from north of Brink Road to approximately 500 feet north of Old Baltimore Road.

b) Existing Crosswalks

Marked pedestrian crosswalks are provided at three of the intersections along this section of MD 355, including the intersections with Little Seneca Parkway, which is signalized, and the intersections of Canterfield Way/Rosecrest Drive and the T-intersection at the driveway to the Goddard School of Clarksburg, both of which are unsignalized.

During the field visit, the crosswalk at the west leg of the T-intersection at the driveway to the Goddard School was very faded. The faded crosswalk was brought to the attention of MDOT SHA

District 3. The District then refreshed the paint in early 2021. At Canterfield Way, an approximately 10-foot wide continental crosswalk is provided on the west leg of the intersection.

The intersection at MD 355 and Little Seneca Parkway provides crosswalks across the west, north, and east legs of the intersection. The west leg of Little Seneca Parkway is median-divided, where there is a pedestrian refuge for the 80-foot long crosswalk. The east leg crosswalk is about 83 feet long. The north leg crosswalk is 67 feet long. Each of the three crosswalks is approximately 11 feet wide. A pedestrian signal is installed at each corner of the intersection serving the three crosswalks, and each signal provides adequate crossing time. None of the pedestrian signals include a leading pedestrian interval (LPI).

c) Existing Bicycle Network

The bicycle network along the MD 355 corridor is limited. The presence of an existing bicycle network is noted by a sign north of Milestone Manor Lane which reads “Bicycles May Use Full Lane” indicating that this northbound segment of MD 355 is shared between vehicles and bicycles (see Figure 9). There are no designated bicycle lanes in the study corridor, except for a northbound bicycle lane which begins 280 feet south of the intersection of Little Seneca Parkway where the northbound lanes widen to accommodate right-turn and left-turn only traffic lanes (see Figure 10). The bicycle lane continues after Little Seneca Parkway marked as the road shoulder, though the shoulder varies in width from less than 1 foot to 12 feet. There are no other indicators marking bicycle pathways in the corridor study area.

d) Proposed Pedestrian/Bicycle Facilities

A shared use path along the west side of MD 355 (CIP# P501118), from north of the existing path near Milestone Manor Lane to Stringtown Road is currently under construction with an anticipated completion in Summer, 2021 (see Figure 11 – shown as “proposed”). A shared use path along the west side of MD 355 and a sidewalk along the east side of MD 355 near West Old Baltimore Road were recently completed as part of the MD 355 at West Old Baltimore Road improvements (MO5361) as noted in Section 2.8a. Finally, a separated bikeway is proposed but not funded for Brink Road in the 2018 M-NCPPC Bicycle Master Plan along the south side of the roadway near MD 355.

Figure 8: Existing Roadside Pedestrian Network with W. Old Baltimore Road Intersection Project Improvements



Figure 9: Existing Bicycle Signage on Northbound MD 355



Source: Google Streetview

Figure 10: Existing Bicycle Lane Begins at Northbound Approach to Little Seneca Parkway



Source: Google Streetview

Figure 11: Map of M-NCPPC Bicycle Network (Source: <https://mcatlas.org/bikeplan/>)



Note: Independent of West Old Baltimore Road improvements shown in Figure 8

2.9. Bus Stop Inventory

Nine bus stops are located along the study corridor. Bus stops along the study corridor, listed from north to south, are as follows:

Northbound MD 355

- MD 355 at Little Seneca Parkway (SE corner)
- MD 355 at Canterfield Way (SE corner)
- MD 355 at Greenridge Road (south of the intersection)
- MD 355 at Greenbrook Drive (NE corner)
- MD 355 at Milestone Manor Lane (SE corner)

Southbound MD 355

- MD 355 at Little Seneca Parkway (SW corner)
- MD 355 at Rosecrest Drive (SE corner)
- MD 355 at West Old Baltimore Road (north of the intersection)
- MD 355 at Milestone Manor Lane (SW corner)

Figure 12: Existing Bus Stop Map



All of the bus stops along MD 355 within the study area serve Montgomery County Ride On Bus Routes 73 and 75. There was very little activity observed at these bus stops during AM and PM peak period field observations in April 2019 under clear and warm weather conditions. This is consistent with the ridership data for Route 75, provided by the MCDOT. According to the data, each of the bus stops average between 0 to 12 people boarding and 0 to 14 people alighting daily, except for the northbound Frederick Road and Little Seneca Parkway bus stop, which averages 30 alightings. Higher bus stop usage at this location may be attributable to the Rocky Hill Middle School, which is located approximately 0.3 miles west of the intersection. Ridership data is available in Appendix D.

Many of the bus stops do not have sidewalks or crosswalks that lead to them, rather they have a small portion of a sidewalk surrounding the bus stop sign. An example of this is shown in Figure 13.

Figure 13: Existing Bus Stops on MD 355 at Greenridge Rd and at West Old Baltimore Rd



Source: Google Streetview

2.10. Future Year 2040 Volumes

To develop 2040 volumes, growth rates sourced from the MWCOG regional travel demand model (version 2.3.70) were utilized. The model used is the regionally calibrated base version of the model from MWCOG and was not refined or calibrated further for this project. The region of the model that includes this section of MD 355 is shown in Appendix B.

The 2016 base network and the 2040 future network from MWCOG both include the existing two-lane geometry along MD 355 and the proposed ultimate planned Observation Drive Extension connecting from Ridge Road up to Stringtown Road. For this study, the section of the Observation Drive Extension from Ridge Road to Little Seneca Parkway was removed from the 2016 network before running the model to represent existing conditions and the 2040 No Build and Build without Observation Drive Extension conditions. The section between Little Seneca Parkway and Stringtown Road was left in the existing and No Build network as portions of this section and the adjacent Gateway Center Drive exist and connect to some land uses in this area. The 2040 model includes the ultimate complete Observation Drive alignment between Ridge Road and Stringtown Road for the 2040 No Build and Build with Observation Drive Extension conditions. Additionally, the growth along model segment 22496-452 (zone centroid connector shown in Appendix B) was used to develop the growth along the east leg of the MD 355/Little Seneca Parkway intersection.

The 2040 forecast model network with the current two-lane section along MD 355 was run with and without Observation Drive Extension from Ridge Road to Little Seneca Parkway to develop the 2040 No Build and 2040 Build 1 volume sets. The 2016 without Observation Drive Extension model output volumes were compared to both the 2040 without Observation Drive Extension and 2040 with Observation Drive Extension volume sets to develop growth rates for the MD 355 corridor and most of the side streets included in the study for the 2040 No Build and 2040 Build 1

scenarios. For the side streets that are not included in the MWCOG model; Newcut Road and Milestone Manor Lane; the growth rates identified for the segments of MD 355 adjacent to these roads were used.

For the 2040 Build 2 alternatives, which include a four-lane section along MD 355, the 2040 networks with and without Observation Drive Extension were modified to include four lanes along MD 355 from their current terminus at Milestone Manor Lane to Little Seneca Parkway. The growth rates were derived using the same methodology as the two-lane scenarios (2040 No Build and 2040 Build 1).

NCHRP 255 methodologies were used to develop turning movement volumes for each alternative.

The MWCOG model outputs for the two-lane roadway alternatives showed negative or very small growth rates for the study area roadways between 2016 and 2040: annual growth rates for the two-lane scenarios without Observation Drive Extension ranged from 0.1% to 0.5%, and annual growth rates for the two-lane scenarios with Observation Drive Extension ranged from -0.1% to 0.5%. Therefore, minimum growth rates were established. Based on knowledge of the area and experience with similar projects, a conservative minimum annual growth rate of 0.5% was assumed for the 2040 two-lane roadway volumes without Observation Drive Extension. A minimum annual growth rate of 0.25% was assumed for the 2040 two-lane roadway volumes with Observation Drive Extension, as some vehicles along MD 355 may reroute to Observation Drive, but some growth along MD 355 is still possible. The volumes were then balanced between intersections.

Annual growth rates for the four-lane scenario without Observation Drive Extension ranged from 1.2% to 4.1%. Annual growth rates for the four-lane scenario with Observation Drive Extension ranged from 1.2% to 1.9%, with the exception of the links near Milestone Manor Lane, which had annual growth rates of 0.5% to 0.9%. The added capacity of the four-lane scenarios will likely attract drivers currently using parallel roadways. As all modeled growth rates for the four-lane scenarios were positive, no minimum growth rate was necessary.

The balanced AM and PM peak hour volumes for the 2040 Build 2 without Observation Drive Extension, 2040 No Build/2040 Build 1 with and without Observation Drive Extension and the 2040 Build 2 with Observation Drive Extension alternatives are provided in Figures 14 to 17.

Figure 14: 2040 No Build/Build 1 without Observation Drive Extension AM/PM Peak Hour Volumes



Note: minor change in volumes (not shown) with Build 1, where left turns would be restricted to/from Newcut Rd via Little Seneca Pkwy

Figure 15: 2040 Build 2 without Observation Drive Extension AM/PM Peak Hour Volumes



Figure 16: 2040 No Build/Build 1 with Observation Drive Extension AM/PM Peak Hour Volumes



Note: minor change in volumes (not shown) with Build 1, where left turns would be restricted to/from Newcut Rd via Little Seneca Pkwy

Figure 17: 2040 Build 2 with Observation Drive Extension AM/PM Peak Hour Volumes



3. OPERATIONAL ANALYSIS

3.1. Model Selection

Intersection level of service (LOS) and delay were developed using *Synchro/Simtraffic 10*. *Synchro* is a traffic modeling software based on Highway Capacity Manual (HCM) methodology. *SimTraffic* is microsimulation software that models individual vehicles traveling through the network and considers the impacts from one intersection to the next. *Synchro/SimTraffic* models were calibrated based on travel time runs, field observations, and verification of lane geometry and signal timings. Delays, travel times, and intersection queues along the corridor were reported in *SimTraffic 10*. Existing queues were verified in the field. Existing and forecasted travel times are shown in Table 2. LOS outputs are shown in Tables 3 and 4 and queues are shown in Tables 5 and 6. Some future year outputs are improved over existing model outputs due to the completion of planned improvements described earlier in this report. The *SimTraffic* outputs are included in Appendix D.

Table 2: SimTraffic MD 355 Travel Time and Delay

Time Period		SimTraffic Arterial Travel Time (s)						
		Existing Model	No Build w/o Observation Dr Extension	Build 1 w/o Observation Dr Extension	Build 2 w/o Observation Dr Extension	No Build With Observation Dr Extension	Build 1 With Observation Dr Extension	Build 2 With Observation Dr Extension
AM	NB	136.0	127.2	129.7	137.6	137.2	138.0	130.4
	SB	263.6	241.6	260.3	135.1	141.2	159.5	155.1
PM	NB	325.4	144.6	144.7	137.8	170.8	166.2	132.2
	SB	166.6	121.1	122.1	119.9	120.6	115.6	115.5

*Note: Improvements in travel times between Year 2019 and Year 2040 No Build Observation Drive Extension can be attributed to planned intersection improvements at Brink Road and West Old Baltimore Road

Table 3: SimTraffic Intersection Peak Hour Level of Service (LOS) and Delay (in seconds) – AM

Intersection	2019 AM	2040 AM					
	Existing Model	No Build w/o Obs. Dr. Extension	Build 1 w/o Obs. Dr. Extension	Build 2 w/o Obs. Dr. Extension	No Build With Obs. Dr. Extension	Build 1 With Obs. Dr. Extension	Build 2 With Obs. Dr. Extension
MD 355 at Little Seneca Pkwy	E 59.4	E 65.1	E 64.2	E 60.8	F 99.2	F 83.4	D 35.5
MD 355 at Newcut Rd*	F 169.8	F >500	D 30.7	D 31.0	F 247.0	C 15.4	A 9.3
MD 355 at Rosecrest Dr/Canterfield Way*	F >500	F >500	F >500	F >500	F 150.8	F >500	F >500
MD 355 at West Old Baltimore Rd	E 56.2	C 33.8	D 36.7	B 11.9	A 8.4	B 12.4	C 21.4
MD 355 at Greenbrook Dr*	F 62.9	F 96.4	F 172.2	F 62.2	F 56.4	F 82.2	F 148.7
MD 355 at Brink Rd*	C 20.2	A 7.7	A 8.6	A 9.9	A 5.5	A 6.6	A 8.4
MD 355 at Milestone Manor La*	C 16.6	E 46.6	D 28.7	F >500	C 15.2	D 30.0	F 189.2

*Stop-controlled intersection; delay and LOS for stop-controlled approach are shown

Yellow	LOS D
Orange	LOS E
Red	LOS F

Table 4: SimTraffic Intersection Peak Hour LOS and Delay (in seconds) – PM

Intersection	2019 PM	2040 PM					
	Existing Model	No Build w/o Obs. Dr. Extension	Build 1 w/o Obs. Dr. Extension	Build 2 w/o Obs. Dr. Extension	No Build With Obs. Dr. Extension	Build 1 With Obs. Dr. Extension	Build 2 With Obs. Dr. Extension
MD 355 at Little Seneca Pkwy	B 15.8	B 16.1	B 16.9	C 30.0	D 51.6	D 41.4	C 24.6
MD 355 at Newcut Rd*	F 100.7	F >500	F 190.6	E 47.5	F >500	F 333.1	E 44.7
MD 355 at Rosecrest Dr/Canterfield Way*	C 20.6	D 32.1	F 53.2	F 59.9	E 36.6	D 34.1	C 23.8
MD 355 at West Old Baltimore Rd	C 32.5	A 6.7	A 6.6	A 6.1	A 5.7	A 4.4	A 4.6
MD 355 at Greenbrook Dr*	F 110.9	F 89.6	F 202.5	F >500	F 69.5	E 36.0	F 279.9
MD 355 at Brink Rd*	F >500	D 32.2	C 23.7	F 226.0	B 13.2	B 12.2	E 48.7
MD 355 at Milestone Manor La*	F 343.8	D 34.3	C 24.6	F >500	C 19.6	D 25.6	F 125.3

*Stop-controlled intersection; delay and LOS for stop-controlled approach are shown

Yellow	LOS D
Orange	LOS E
Red	LOS F

Table 5: Summary of 95th Percentile Queue Length (ft) along MD 355 (SimTraffic) AM Peak Hour

Intersection	Approach	2019 AM	2040 AM						Storage Length ²
		Existing Model	No Build w/o Obs. Dr. Extension	Build 1 w/o Obs. Dr. Extension	Build 2 w/o Obs. Dr. Extension	No Build With Obs. Dr. Extension	Build 1 With Obs. Dr. Extension	Build 2 With Obs. Dr. Extension	
MD 355 at Little Seneca Pkwy	NB	286	247	256	348	315	318	247	270
	SB	790	878	774	787	759	764	800	865
	EB	125	165	203	904^	752^	941^	350	1,040
	WB	378	790	794	602^	646^	666^	314	1,410
MD 355 at Newcut Rd*	NB	25	0	<25	296	<25	<25	<25	1,075
	SB	352	495^^	487^^	31	179	399^^	<25	270
	WB	129	629	<25	<25	216	<25	<25	1,040
MD 355 at Rosecrest Dr/ Canterfield Way*	NB	<25	28	28	<25	27	30	<25	1,060
	SB	<25	<25	<25	<25	<25	<25	<25	1,075
	EB	542	724	688	763	298^^^	761	644	120**
	WB	177	713	737	225	67	414	95	260
MD 355 at West Old Baltimore Rd	NB	270	154	205	128	163	169	88	330
	SB	1,449	955	741	287	187	299	374	1,010
	EB	193	67	56	150	50	65	182	1,190
MD 355 at Greenbrook Dr*	NB	<25	0	0	0	0	0	0	630
	SB	34	<25	<25	<25	<25	<25	45	330
	WB	44	64	76	46	52	50	69	1,330
MD 355 at Brink Rd*	NB	0	<25	0	<25	<25	<25	<25	935
	SB	128	76	63	81	57	62	64	630
	WB	111	73	76	86	64	71	72	1,430
MD 355 at Milestone Manor La*	NB	<25	<25	<25	30	25	<25	28	720
	SB	<25	<25	<25	<25	<25	<25	<25	880
	EB	95	198	132	799^	106	169	510^	320
	WB	<25	<25	<25	25	<25	<25	26	505

*Stop-controlled intersection

** The distance to the major adjacent intersection is approximately 700 feet

^Longer queues are due to increased volumes along this approach ^^Queues caused by lefts and lane reduction

^^^Shorter queues in this scenario due to lower through volume along MD 355

Orange	Queue length exceeds storage
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² Storage lengths were measured back to the adjacent intersection

Table 6: Summary of 95th Percentile Queue Length (ft) along MD 355 (SimTraffic) PM Peak Hour

Intersection	Approach	2019 PM	2040 PM						Storage Length ³
		Existing Model	No Build w/o Obs. Dr. Extension	Build 1 w/o Obs. Dr. Extension	Build 2 w/o Obs. Dr. Extension	No Build With Obs. Dr. Extension	Build 1 With Obs. Dr. Extension	Build 2 With Obs. Dr. Extension	
MD 355 at Little Seneca Pkwy	NB	423	484	482	324	519	498	314	270
	SB	196	238	236	331	316	378	223	865
	EB	59	88	82	234	951	722	195	1,040
	WB	238	206	230	299	284	405	216	1,410
MD 355 at Newcut Rd*	NB	62	173	231	209	711	553	132	1,075
	SB	<25	<25	<25	0	<25	<25	0	270
	WB	72	301	42	35	447^	47	39	1,040
MD 355 at Rosecrest Dr/ Canterfield Way*	NB	33	39	43	42	42	47	33	1,060
	SB	<25	28	29	30	<25	<25	<25	1,075
	EB	56	66	74	87	64	66	59	120
	WB	<25	<25	29	<25	40	31	<25	260
MD 355 at West Old Baltimore Rd	NB	513	168	172	119	152	159	112	330
	SB	608	217	244	199	185	80	142	1,010
	EB	144	82	82	65	69	72	73	1,190
MD 355 at Greenbrook Dr*	NB	756	0	<25	0	0	0	0	630
	SB	273	<25	85	<25	69	<25	<25	330
	WB	50	55	88	160	59	36	90	1,330
MD 355 at Brink Rd*	NB	2,224	94	53	<25	<25	<25	<25	935
	SB	485	306	154	92	129	114	74	630
	WB	1,661	317	198	1,218^^	141	147	325	1,430
MD 355 at Milestone Manor La*	NB	436	36	34	61	31	34	47	720
	SB	42	<25	<25	<25	<25	<25	<25	880
	EB	438	120	91	734	83	74	308	320
	WB	245	47	43	173	44	49	129	505

*Stop-controlled intersection

^Long left-turn queues due to lack of gaps; movement is restricted in Build scenarios

^^Increase in queue due to increase in forecast volume in this scenario

^^^Longer queues are due to increased volumes along MD 355

Orange	Queue length exceeds storage
--------	------------------------------

³ Storage lengths were measured back to the adjacent intersection

3.2. Existing (2019) Traffic Conditions

Existing traffic conditions were evaluated using 2019 traffic volumes and existing geometry (i.e., the planned roadway improvements discussed in Section 2.2 were not included as they have not yet been built). Under existing conditions, all five unsignalized intersections operate at LOS “F” during one or both peak hours in the *SimTraffic* models. Additionally, the two signalized intersections operate at LOS “E” during the AM peak hour. At unsignalized intersections, the reported level of service is based on the worst side street approach at the intersection. The mainline through movements are generally considered to move freely through the unsignalized intersections unless blocked by movements downstream or by adjacent turning movements. Table 7 shows the unsignalized intersections that operate at LOS “F” with the queues of the failing movements.

Table 7: Intersections with Failing Peak Hour LOS by Delay (in seconds) and Queue Capacity

Intersection	Level of Service		Queue Length (ft.)		Storage Length (ft.)
	AM	PM	AM	PM	
Newcut Road	F 169.8	F 100.7	129	72	1,040
Rosecrest Drive/ Canterfield Way	F >500	C 20.6	542	56	120
Greenbrook Drive	F 62.9	F 110.9	44	50	1,330
Brink Road	C 20.2	F >500	111	1,661	1,430
Milestone Manor Lane (south)	C 16.6	F 343.8	95	438	320

While the reported intersection side street LOS is failing at these intersections, traffic volumes for the side street approaches at most of the intersections are relatively low. The MD 355 at Brink Road intersection is the only intersection with an unsignalized side street approach with greater than 100 vehicles during the peak hour.

As shown in Tables 5 and 6, the 95th percentile queue lengths along MD 355 were modeled in *SimTraffic* and were shown to extend greater than 1,000 feet along southbound MD 355 from the West Old Baltimore Road intersection during the AM peak hour. The 95th percentile queue lengths along northbound MD 355 extended south from West Old Baltimore Road to just north of the northernmost Milestone Manor Lane intersection in the PM peak hour (approximately 2,000 feet).

The 95th percentile queue lengths for the side street approaches were also modeled and were approximately 150 feet or less (approximately six vehicles assuming 25 feet per vehicle) for both AM and PM peak hours for the majority of the intersections. The exceptions were as follows:

- The westbound approach of the Brink Road intersection had a 95th percentile queue length of 1,661 feet (approximately 67 vehicles) during the PM peak hour.
- The eastbound approach of the Rosecrest Drive intersection had a 95th percentile queue length of 542 feet (approximately 22 vehicles) during the AM peak hour.

- The eastbound approach of the Milestone Manor Lane intersection (south) had a 95th percentile queue length of 438 feet (approximately 18 vehicles) during the PM peak hour.

For the Brink Road and Rosecrest Drive approaches to MD 355, the observed queue lengths corresponded with the average queue as shown in *SimTraffic*. However, the 95th percentile queue could not be replicated in *SimTraffic* due to software and field review limitations⁴.

3.3. 2040 No Build without Observation Drive Extension Traffic Conditions

With 2040 volumes added to the Existing condition *Synchro* network, the stop-controlled approaches at the unsignalized intersections are forecasted to continue to operate at LOS “E” or “F” except for the MD 355 at Brink Road intersection which is expected to improve to LOS “A” during the AM peak hour and LOS “D” during the PM peak hour resulting from the planned improvements for MD 355 to be built in the vicinity of the intersection. The MD 355 at Milestone Manor Lane intersection also improves to LOS “D” in the PM peak hour due to the reduction in queues at the MD 355 at Brink Road intersection. However, the MD 355 at Milestone Manor Lane intersection is expected to degrade from LOS “C” in 2019 to LOS “E” in 2040 during the AM peak hour.

Queue lengths along the side street approaches are expected to increase in the 2040 No Build scenario without Observation Drive Extension, but those approaches are expected to continue to have relatively low turning movement volumes. Queue lengths along MD 355 at West Old Baltimore Road and at Brink Road are expected to decrease, again due to planned improvements. Travel times along the MD 355 corridor are expected to decrease under the 2040 No Build without Observation Drive Extension conditions when compared to the Existing conditions (particularly northbound in the PM peak) due to the planned improvements at the intersections of MD 355 at West Old Baltimore Road and MD 355 at Brink Road.

3.4. 2040 Build 1 without Observation Drive Extension Traffic Conditions

This alternative includes smaller-scale/lower cost system improvements to MD 355, including restriping of a turn lane and restricting left turns at Newcut Road, without the Observation Drive Extension. Possible mitigation measures were explored in the attempt to improve the level of service, travel times and queues at the intersections along the MD 355 corridor in 2040, without the Observation Drive Extension. Because the unsignalized intersections along the study corridor have relatively low volumes on the side street approaches, no geometric improvements to these intersections were considered in the development of mitigation strategies. The following possible mitigation measures were incorporated:

- Convert the westbound Little Seneca Parkway exclusive right-turn lane to a shared through/right-turn lane to improve throughput along the westbound approach, allowing for more green time along the MD 355 approaches.
- Prohibit left turns to and from Newcut Road during the AM and PM peak periods to improve traffic flow along southbound MD 355 and improve traffic operations along the Newcut Road approach. Vehicles would use Little Seneca Parkway and Winding Woods

⁴ The PM 95th percentile queue at Brink Road is 1,661 feet versus 900 feet observed in the field. The AM 95th percentile queue at Rosecrest Drive is 542 feet versus 250 feet observed in the field. Note that observations are based upon a single day.

Way to access Newcut Road. This would impact approximately 35 vehicles during the AM peak hour and approximately 25 vehicles during the PM peak hour. As noted previously in this report, there is a planned developer improvement to close this section of Newcut Road and restrict all turns between MD 355 and Newcut Road. A sensitivity analysis indicates that this closure would not impact LOS at the intersection of MD 355 at Little Seneca Parkway. The left turn restrictions could serve as an interim improvement.

Application of these mitigation measures resulted in the following changes from the 2040 No Build without the Observation Drive Extension:

- LOS for the westbound Newcut Road approach to MD 355 improves during the AM peak hour and delay improves during the PM peak hour due to peak hour left-turn prohibitions.
- LOS at the MD 355 at Rosecrest Drive intersection degrades from LOS “D” to LOS “F” during the PM peak hour, but within 3.2 seconds of the LOS “E” / “F” threshold due to increased southbound throughput to the intersection.
- LOS at the MD 355 at Milestone Manor Lane intersection improves from LOS “E” to LOS “D” during the AM peak hour and from LOS “D” to LOS “C” during PM peak hour.
- LOS at the MD 355 at Brink Road intersection improves from LOS “D” to LOS “C” during the PM peak hour.
- LOS at the other unsignalized intersections included in the study were unchanged when compared to the No Build without Observation Drive Extension scenario, though delays at the Greenbrook Drive increase substantially.
- Queue lengths along the side street approaches to MD 355 are generally expected decrease in the 2040 Build (without Observation Drive Extension) scenario during both the AM and PM peak hours.
- Travel times and throughput along the MD 355 corridor are generally expected to be unchanged in the northbound lanes when compared to 2040 No Build without Observation Drive Extension.
- However, southbound MD 355 is expected to experience a 7% increase in travel times during the AM peak hour. Although travel times increase, the vehicle throughput in the southbound direction also increases slightly. An increase in delay in the southbound direction at the West Old Baltimore Road intersection contributes to the travel time increase.

The improvements in LOS and delay are shown in Table 8.

Table 8: Intersections with Improved Peak Hour LOS by Delay (2040 Build 1 w/o Observation Drive Extension vs 2040 No Build w/o Observation Drive Extension)

Intersection	Level of Service and Delay (s/veh)			
	No Build w/o Observation Dr Extension		Build 1 w/o Observation Dr Extension	
	AM	PM	AM	PM
Newcut Road	F >500	F >500	D 30.7	F 190.6
Brink Road	A 7.7	D 32.2	A 8.6	C 23.7
Milestone Manor Lane	E 46.6	D 34.3	D 28.7	C 24.6

3.5. 2040 Build 2 without Observation Drive Extension Traffic Conditions

This alternative includes larger-scale/higher cost system improvements for MD 355, including widening MD 355 to two lanes per direction, adding exclusive turn lanes at the MD 355 at Little Seneca Parkway intersection, and restricting left turns at Newcut Road without the Observation Drive Extension. Widening of MD 355 to double the number of through lanes to four was considered to improve the throughput, level of service, travel times, and queues at the intersections along the MD 355 corridor. Because the side street approaches to MD 355 at the unsignalized intersections have relatively low volumes, no additional geometric improvements were made to those intersections. The following potential mitigation measures were incorporated in the 2040 Build 2 without Observation Drive Extension scenario:

- Widen MD 355 to four lanes throughout the corridor from north of Milestone Manor Lane to Little Seneca Parkway to improve the overall capacity and throughput of the corridor.
- Change the lane configuration of southbound MD 355 at Little Seneca Parkway to provide one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane to improve capacity and reduce delay in the southbound direction.
- Convert the westbound Little Seneca Parkway right-turn lane from an exclusive right-turn lane to a shared through/right-turn lane to improve traffic operation on the westbound approach and allow more green signal time for the MD 355 approaches.
- Provide a second exclusive right-turn lane along the eastbound Little Seneca Parkway approach to MD 355 to improve traffic operations on Little Seneca Parkway and allow more green signal time for the MD 355 approaches. The installation of a second right-turn lane would require prohibiting right turns on red from this approach.
- Prohibit left turns to and from Newcut Road during the AM and PM peak periods to improve traffic flow along southbound MD 355 and reduce delay and queues along the Newcut Road approach. Vehicles would use Little Seneca Parkway and Winding Woods Way to access Newcut Road. As noted previously, there is a planned developer improvement to close this section of Newcut Road and restrict all turns between MD 355 and Newcut Road. A sensitivity analysis indicates that this closure would not impact LOS

at the intersection of MD 355 at Little Seneca Parkway. The left turn restrictions could serve as an interim improvement.

These mitigation measures when compared to No Build without Observation Drive Extension and Build 1 without Observation Drive Extension resulted in the following:

- LOS at the MD 355 at Little Seneca Parkway intersection is forecasted to continue to operate at LOS “E” in the AM peak hour though the delay per vehicle is slightly improved. This intersection is expected to operate at LOS “C” during the PM peak hour.
- Delay at the MD 355 at West Old Baltimore Road intersection improves in the AM and PM peak hours compared to No Build without Observation Drive Extension and Build 1 without Observation Drive Extension.
- Delay along the westbound Newcut Road approach to MD 355 improves in the PM peak hour compared to No Build without Observation Drive Extension and Build 1 without Observation Drive Extension.
- The delays along the side street approaches are expected to increase during both peak hours at the Brink Road, Milestone Manor Lane, Rosecrest Drive/Canterfield Way, and Greenbrook Drive (in the PM only) intersections when compared to 2040 No Build without Observation Drive Extension and Build 1 without Observation Drive Extension due to increased throughput along MD 355, resulting in fewer gaps for side street traffic.
- Queue lengths along southbound MD 355 at Newcut Road and West Old Baltimore Road are expected to decrease during the AM and PM peak hours compared to 2040 No Build without Observation Drive Extension and Build 1 without Observation Drive Extension.
- Queue lengths along most side street approaches and along MD 355 decrease or change little during the AM and PM peak hours when compared to 2040 No Build without Observation Drive Extension and Build 1 without Observation Drive Extension. The exceptions are along the side street approaches at the Milestone Manor Lane and Brink Road intersections which are longer.
- Travel times along the MD 355 corridor are generally expected to be unchanged when compared to 2040 No Build without Observation Drive Extension and Build 1 without Observation Drive Extension, with the exception of southbound MD 355 during the AM peak hour which is expected to experience a 44% decrease compared to 2040 No Build without Observation Drive Extension and a 48% decrease compared to Build 1 without Observation Drive Extension.

The improvements in LOS and/or delay are shown in Table 9.

Table 9: Intersections with Improved Peak Hour LOS by Delay (2040 Build 2 w/o Observation Drive Extension vs 2040 No Build w/o Observation Drive Extension and 2040 Build 1 w/o Observation Drive Extension)

Intersection	Level of Service and Delay (s/veh)					
	No Build w/o Observation Dr Extension		Build 1 w/o Observation Dr Extension		Build 2 w/o Observation Dr Extension	
	AM	PM	AM	PM	AM	PM
Little Seneca Parkway	E 65.1	B 16.1	E 64.2	B 16.9	E 60.8	C 30.0
Newcut Road	F >500	F >500	D 30.7	F 190.6	D 31.0	E 47.5
West Old Baltimore Road	C 33.8	A 6.7	D 36.7	A 6.6	B 11.9	A 6.1

3.6. 2040 No Build with Observation Drive Extension Traffic Conditions

With the addition of Observation Drive Extension to the local network, 2040 volumes were forecasted to reflect this new condition. As a result, the forecasted delay and LOS at the study intersections improved at all intersections from the No Build without Observation Drive Extension condition due to diversions of MD 355 traffic to Observation Drive, with the exception of the MD 355 at Little Seneca Parkway intersection. The Little Seneca Parkway intersection is forecasted to decrease from LOS “B” to LOS “D” during the PM peak hour. The LOS during the AM peak hour is expected to decrease from LOS “E” to LOS “F”. This is due to a substantial increase in traffic along both directions of Little Seneca Parkway during the AM and PM peak hours generated by the extension of Observation Drive to Little Seneca Parkway. This additional traffic, some of which uses Observation Drive as an alternative to MD 355, continues from Observation Drive onto Little Seneca Parkway.

Based on the models, queue lengths along MD 355 and the side street approaches are generally expected to decrease in the 2040 No Build with Observation Drive Extension scenario from the No Build without Observation Drive Extension condition. The side street approaches continue to have relatively low turning movement volumes while MD 355 volumes are lower with the Observation Drive Extension. Queue lengths on MD 355 near Little Seneca Parkway are expected to increase in the PM peak hour and on Little Seneca Parkway in both peaks.

Travel times along the MD 355 corridor decrease southbound in the AM peak hour under Observation Drive construction conditions by 2 minutes when compared to No Build without Observation Drive conditions. There is a forecasted northbound direction increase during the PM peak hour (approximately 26 seconds) due to increased volumes along Little Seneca Parkway resulting in lower effective green time along MD 355.

3.7. 2040 Build 1 with Observation Drive Extension Traffic Conditions

This alternative includes smaller scale/lower cost system improvements to MD 355, including restriping of a turn lane and restricting left turns at Newcut Road, with the Observation Drive Extension (same as with the Build 1 without Observation Drive Extension scenario). When compared to the 2040 No Build with

Observation Drive Extension outputs, application of the Build 1 strategies is forecasted to result in the following:

- Average delay at the MD 355 at Little Seneca Parkway intersection is expected to decrease by approximately 16 seconds during the AM peak hour and 10 seconds during the PM peak hour.
- LOS and queues along the westbound Newcut Road approach to MD 355 are expected to improve during the AM peak hour due to the proposed peak hour left-turn lanes restrictions.
- Queue lengths for many movements are consistent with the 2040 No Build. However, side street queues at the Rosecrest Drive/Canterfield Way intersection increase in the AM peak period due to the lack of gaps resulting from the increased through volume along MD 355.
- Travel times along the MD 355 corridor are expected to change little, as shown in Table 2.

The improvements in LOS and delay are shown in Table 10.

Table 10: Intersections with Improved Peak Hour LOS by Delay (2040 Build 1 w/ Observation Drive Extension vs 2040 No Build w/ Observation Drive Extension)

Intersection	Level of Service and Delay (s/veh)			
	No Build w/ Observation Dr Extension		Build 1 w/ Observation Dr Extension	
	AM	PM	AM	PM
Little Seneca Parkway	F 99.2	D 51.6	F 83.4	D 41.4
Newcut Road	F 247.0	F >500	C 15.4	F 333.1

3.8. 2040 Build 2 with Observation Drive Extension Traffic Conditions

This alternative includes larger scale/higher cost system improvements to MD 355, including widening MD 355 to two lanes per direction, adding exclusive turn lanes at the MD 355 at Little Seneca Parkway intersection, and restricting left turns at Newcut Road with the Observation Drive Extension (same as with the 2040 Build 2 without Observation Drive Extension scenario). Under the 2040 Build 2 with Observation Drive Extension scenario the following results are forecasted when compared to No Build with Observation Drive Extension and Build 1 with Observation Drive Extension:

- LOS at the MD 355 at Little Seneca Parkway intersection is expected to improve from LOS “F” during the AM peak hour and LOS “D” during the PM peak hour with No Build with Observation Drive Extension and Build 1 with Observation Drive Extension to LOS “D” during the AM peak hour and LOS “C” during the PM peak hour with Build 2 with Observation Drive Extension.

- LOS at the MD 355 at Newcut Road intersection is expected to improve during the AM peak hour from LOS “F” with No Build with Observation Drive Extension and LOS “C” with Build 1 with Observation Drive Extension to LOS “A” with Build 2 with Observation Drive Extension. During the PM peak hour, the LOS is expected to improve from LOS “F” with No Build with Observation Drive Extension and Build 1 with Observation Drive Extension to LOS “E” with Observation Drive Extension. As noted elsewhere in this report, there is a planned developer improvement to close this section of Newcut Road and restrict all turns between MD 355 and Newcut Road. A sensitivity analysis indicates that this closure would not impact LOS at the intersection of MD 355 at Little Seneca Parkway.
- LOS for the side street approaches at the Rosecrest Drive/Canterfield Way intersection are expected to improve during the PM peak hour from LOS “F” with No Build with Observation Drive Extension and LOS “D” with Build 1 with Observation Drive Extension to LOS “C” with Build 2 with Observation Drive Extension.
- LOS along the Greenbrook Drive approach is expected to remain at a LOS F during the AM peak hour and drop from “E” to “F” during the PM peak hour due to increased volume along MD 355 creating fewer gaps for turning traffic.
- LOS along the Brink Road approach is expected to be unchanged in the AM peak hour when compared to 2040 No Build with Observation Drive Extension and Build 1 with Observation Drive Extension, but is expected to degrade from LOS “B” to “E” during the PM peak hour due to increased volume along MD 355 creating fewer gaps for turning traffic.
- The delay on the side street approaches is expected to significantly increase at the Milestone Manor Lane intersection compared to 2040 No Build with Observation Drive Extension and Build 1 with Observation Drive Extension.
- Queue lengths along MD 355 and the side street approaches to MD 355 are generally expected to decrease in the northern section of the corridor (at Little Seneca Parkway and Newcut Road) compared to 2040 No Build with Observation Drive Extension and Build 1 with Observation Drive Extension. Some side street queues increase at other unsignalized intersections due to increased volume creating fewer gaps.
- Travel times along the MD 355 corridor are generally expected to decrease by approximately five percent to 23 percent compared to 2040 No Build with Observation Drive Extension and by less than one percent to 20 percent compared to 2040 Build 1 with Observation Drive Extension.

The improvements in LOS and delay are shown in Table 11.

Table 11: Intersections with Improved Peak Hour LOS by Delay (2040 Build 2 w/ Observation Drive Extension vs 2040 No Build w/ Observation Drive Extension and 2040 Build 1 w/ Observation Drive Extension)

Intersection	Level of Service and Delay (s/veh)					
	No Build w/ Observation Dr Extension		Build 1 w/ Observation Dr Extension		Build 2 w/ Observation Dr Extension	
	AM	PM	AM	PM	AM	PM
Little Seneca Parkway	F 99.2	D 51.6	F 83.4	D 41.4	D 35.5	C 24.6
Newcut Road	F 247.0	F >500	C 15.4	F 333.1	A 9.3	E 44.7
Rosecrest Drive/ Canterfield Way	F 150.8	E 36.6	F >500	D 34.1	F >500	C 23.8

4. COSTS/CONCEPTS

A concept plan and costs were developed for the Build 2 alternatives. The concept plan is shown in Figure 18 and the costs are shown in Table 12. The costs and concepts are included in Appendix E. The Build 1 alternatives include lane designation changes and turning restrictions, which have costs likely to be under \$500,000. Therefore, costs and concepts were not developed for the Build 1 alternatives. The Build 2 alternatives have the same improvements both with and without the Observation Drive Extension, so the costs and concepts are the same for both Build 2 alternatives. It is estimated that the improvements associated with the Build 2 alternatives will have a total construction cost of approximately \$18 million (not including right of way or utilities).

The following assumptions were made in developing the costs and concepts for the Build 2 scenarios:

- With widening, Newcut Road will no longer connect to MD 355 due to the prohibitive cost of realigning Newcut Road and a previous commitment by area developers to construct the truncation. As discussed previously, vehicles now have numerous options to access Newcut Road due to the new connections to the east including using Little Seneca Parkway and Winding Woods Way, Grey Squirrel Street, or Snowden Farm Parkway to access Newcut Road due to the new connections to the east. As the operational analysis in this report assumed a restriction to allow right turns only at Newcut Road, supplemental sensitivity analysis was performed with the Newcut Road right turns removed and rerouted consistent with the cost estimate assumption. As this volume is low, the impact on operations of closing the Newcut Road access to MD 355 is negligible and is not reflected in earlier sections and figures.
- The prohibitive cost for realigning Newcut Road is related to:
 - The need for another significant new bridge on Newcut Road over Little Seneca Creek.

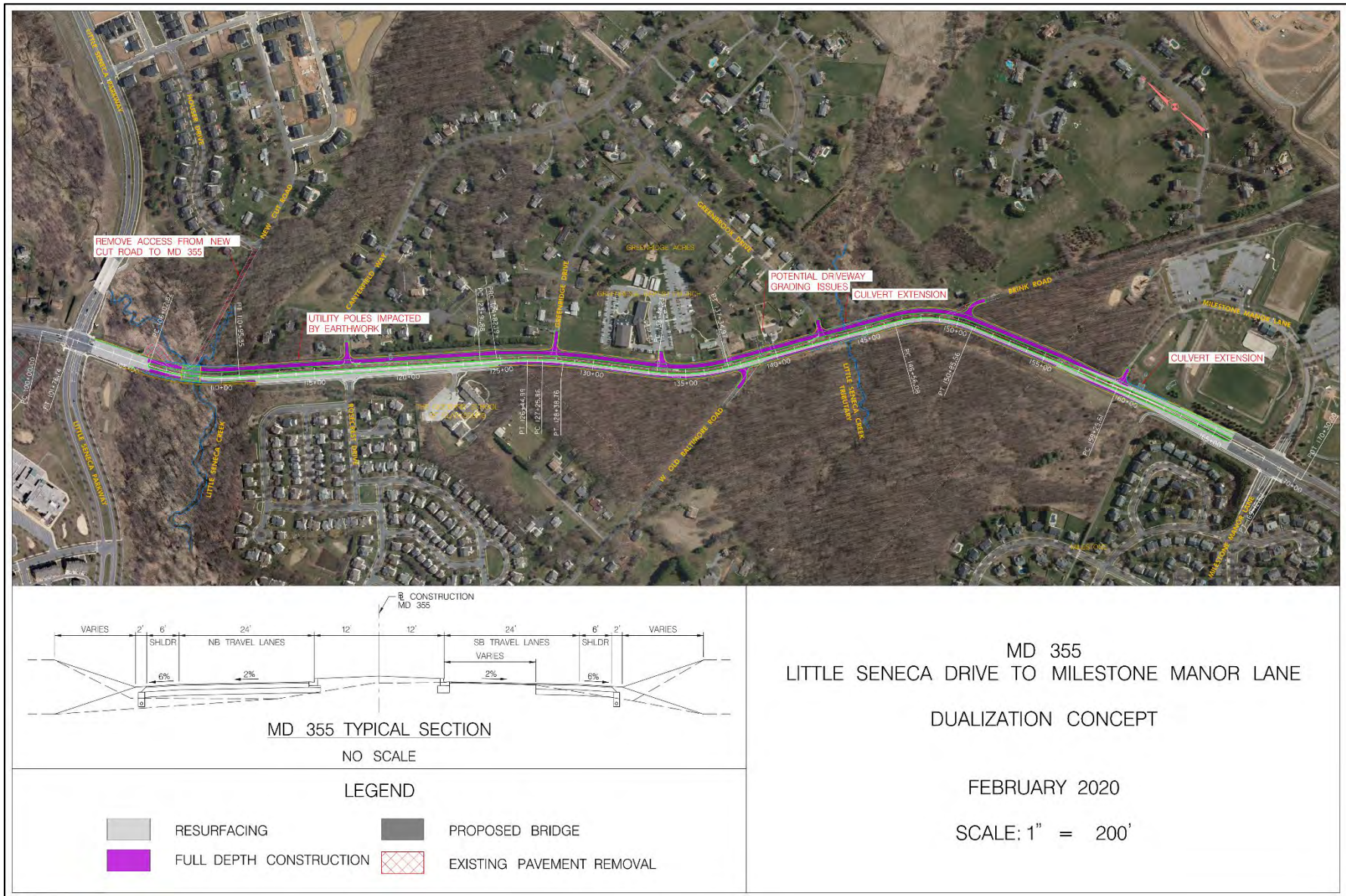
- A conservative estimate of the cost of this bridge is approximately \$5 million.
 - Potentially significant environmental impacts including to floodplain, forest, and waters of the US.
 - Significant earthwork to provide clearance for the new bridge over Little Seneca Creek and to tie to MD 355.
- The widening of MD 355 over Little Seneca Creek will require either widening the existing bridge or full replacement of the bridge. The cost estimate conservatively assumes that the bridge will be fully replaced as this would cost more than widening.
- Drainage items will include extension of the box culverts near Greenbrook Drive and Milestone Manor Lane.
- Utility costs are not included in the estimate. However, there are existing overhead and underground utilities that will be impacted including utility pole impacts at the north end of the corridor that are confirmed.
- Right of way costs are not included in the estimate. Along this corridor of MD 355 there is a wide existing right of way available for the roadway widening. However, there will still be impacts to properties and the need for some right of way and temporary construction easement purchases.

Table 12: Conceptual Cost Estimate – Build 2 Alternatives

Description	Total Cost	Notes
Category 1: Preliminary	\$1,710,000	35% of Categories 2,5,6
Category 1: Maintenance of Traffic	\$490,000	10% of Categories 2,5,6
Category 2: Grading	\$1,850,000	Based on quantities
Category 3: Drainage	\$1,470,000	30% of Categories 2,5,6
Category 4: Structures	\$3,700,000	Based on quantities
Category 5: Paving	\$2,550,000	Based on quantities
Category 6: Shoulders	\$490,000	Based on quantities
Category 7: Landscape	\$490,000	10% of Categories 2,5,6
Category 8: Traffic	\$450,000	Based on quantities
Subtotal 1	\$13,200,000	
Contingency	\$4,620,000	35% of Subtotal 1
Total	\$17,820,000	

Note: does not include right of way or utility costs

Figure 18: Build 2 Concept Plan



5. CONCLUSIONS/RECOMMENDATIONS

The study results suggest the following:

- With Build 1, the construction cost will likely be under \$500,000 as the improvements include signal timing improvements, lane designation changes, and turning restrictions only.
- With Build 2, the estimated construction cost will be approximately \$18 million, not including right of way and utilities.
- The alternative with the best overall operational results is Build 2 with Observation Drive Extension, which includes widening MD 355 to four lanes between the Little Seneca Parkway and Milestone Manor Lane intersections along with the addition of the Observation Drive Extension (to be built by others) between Ridge Road and Little Seneca Parkway. This alternative is projected to provide the best intersection levels of service, shortest overall MD 355 corridor travel times, and lowest queue lengths along the study corridor.
- It is also recommended that the signal timing optimization be implemented at the MD 355 at Little Seneca Parkway and West Old Baltimore Road intersections in future years as traffic changes, with any of the future geometric conditions. These improvements will allow the increased east/west traffic volume along Little Seneca Parkway to travel more efficiently and is expected to improve the level of service at the intersections along the MD 355 corridor compared to without optimization. It should be noted that any changes to signal timings will need to be coordinated with upstream and downstream intersections, such as MD 355 at MD 27/Ridge Road.
- It is also recommended at the intersection of MD 355 at Newcut Road to restrict the southbound MD 355 and westbound Newcut Road left-turn movements to improve operations along southbound MD 355 and alleviate queuing along Newcut Road with the Build 1 and Build 2 conditions. Due to constructability issues, this intersection will need to be removed with Build 2 conditions with all turning movements restricted. There is a planned developer improvement that includes removing this intersection. Vehicles currently performing these movements would have the option to use Little Seneca Parkway and Winding Woods Way to access Newcut Road. Removal of this intersection and the redistribution of turning movements to the intersection of MD 355 at Little Seneca Parkway will not impact LOS at the Little Seneca Parkway intersection as the impacted volume is low.
- Increasing throughput by accommodating higher volumes or improving efficiency on MD 355 may result in longer delays and queues on some unsignalized side streets when gaps in MD 355 traffic are reduced.
- Construction of the Observation Drive Extension between Ridge Road and Little Seneca Parkway results in overall lower through volumes along MD 355 south of Little Seneca Parkway. However, there is an increase in through movements and some turning

movements along Little Seneca Parkway at its intersection with MD 355. Turning volumes to/from other side streets are generally similar to or slightly lower with the Observation Drive Extension. Widening MD 355 results in higher volumes due to the increased capacity of the roadway.

Appendix A

Traffic Count Data

Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2000150214

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Milestone Manor La

Weather: Cloudy/Cold

Interval 15 min
(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36

Hour Ending	MD 355					MD 355					Milestone Manor La					Milestone Manor La					Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Throug	Right	TOTAL	U.Turn	Left	Throug	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
0:15	0	0	9	0	9	0	1	10	0	11	0	0	0	0	0	0	0	0	0	0	20
0:30	0	0	11	0	11	0	2	13	0	15	0	1	0	0	1	0	0	0	1	1	28
0:45	0	0	2	0	2	0	1	6	0	7	0	0	0	0	0	0	0	0	1	1	10
1:00	0	0	4	0	4	0	1	13	0	14	0	0	0	0	0	0	0	0	0	0	18
1:15	0	0	3	0	3	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	15
1:30	0	0	1	0	1	0	1	10	1	12	0	0	0	0	0	0	0	0	0	0	13
1:45	0	0	3	0	3	0	0	9	0	9	0	1	0	0	1	0	0	0	0	0	13
2:00	0	0	4	0	4	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	7
2:15	0	0	1	0	1	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	4
2:30	0	0	3	0	3	0	0	2	1	3	0	1	0	0	1	0	0	0	0	0	7
2:45	0	0	4	0	4	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	11
3:00	0	0	7	0	7	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	11
3:15	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
3:30	0	0	2	0	2	0	0	3	0	3	0	0	0	0	0	0	0	0	2	2	7
3:45	0	0	2	0	2	0	0	3	0	3	0	0	0	0	0	0	1	0	0	1	6
4:00	0	0	11	0	11	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	15
4:15	0	0	9	0	9	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	13
4:30	0	0	5	0	5	0	0	4	0	4	0	0	0	0	0	0	0	0	1	1	10
4:45	0	0	26	0	26	0	0	8	0	8	0	0	0	0	0	0	0	0	1	1	35
5:00	0	0	34	0	34	0	0	9	0	9	0	0	0	0	0	0	0	0	2	2	45

Station ID: S2000150214

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Milestone Manor La

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:00	08:00	1596	A	0.34			15:45	16:45	1620	A	0.36

5:15	0	0	41	0	41	0	0	7	0	7	0	0	0	0	0	0	0	0	1	1	49	
5:30	0	0	61	1	62	0	0	13	0	13	0	0	0	0	0	0	0	0	5	5	80	
5:45	0	0	88	0	88	0	0	20	0	20	0	0	0	0	0	0	0	0	7	7	115	
6:00	0	0	114	0	114	0	0	20	0	20	0	0	0	0	0	0	0	0	7	7	141	
6:15	1	0	179	1	181	0	2	31	0	33	0	0	0	0	0	0	0	0	9	10	224	
6:30	0	0	236	0	236	0	1	42	0	43	0	0	0	0	0	0	0	0	12	13	292	
6:45	0	0	274	3	277	0	2	50	0	52	0	0	0	0	0	0	0	0	15	17	346	
7:00	0	0	281	1	282	0	1	62	0	63	0	0	0	0	0	0	0	0	3	8	353	
7:15	0	1	263	0	264	0	4	97	2	103	0	1	1	0	2	0	10	0	15	25	394	
7:30	0	0	239	6	245	0	1	125	0	126	0	0	0	0	0	0	0	14	0	16	30	401
7:45	0	1	241	9	251	0	2	101	1	104	0	0	0	1	1	0	9	0	22	31	387	
8:00	0	0	283	4	287	0	4	100	0	104	0	1	0	0	1	0	4	1	17	22	414	
8:15	2	0	270	3	275	0	2	88	2	92	0	0	0	0	0	1	5	0	12	18	385	
8:30	0	0	255	2	257	0	2	77	0	79	0	0	0	0	0	0	4	0	10	14	350	
8:45	0	0	283	3	286	0	3	69	1	73	0	1	0	0	1	0	2	0	11	13	373	
9:00	0	0	275	1	276	0	5	82	0	87	0	0	0	0	0	0	5	0	11	16	379	
9:15	0	0	266	7	273	0	2	73	2	77	0	1	0	0	1	0	2	0	16	18	369	
9:30	0	0	223	1	224	0	3	95	0	98	0	0	0	0	0	0	6	0	5	11	333	
9:45	0	0	188	1	189	0	3	62	0	65	0	0	1	0	1	0	0	0	13	13	268	
10:00	0	0	166	1	167	0	3	71	3	77	0	0	0	0	0	0	0	0	10	10	254	
10:15	0	0	119	1	120	0	4	71	1	76	0	1	0	1	2	0	0	0	6	6	204	
10:30	0	0	111	0	111	0	6	63	3	72	0	0	0	0	0	0	2	0	4	6	189	
10:45	0	1	114	3	118	0	3	78	3	84	0	1	0	0	1	0	1	0	4	5	208	
11:00	0	0	112	1	113	0	2	99	1	102	0	2	0	1	3	0	2	0	5	7	225	
11:15	0	0	113	1	114	1	3	82	5	91	0	2	0	1	3	0	4	0	4	8	216	
11:30	0	2	127	1	130	0	2	108	2	112	0	3	0	0	3	0	0	1	12	13	258	

Station ID: S2000150214

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Milestone Manor La

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:00	08:00	1596	A	0.34			15:45	16:45	1620	A	0.36

11:45	0	0	151	3	154	0	5	114	1	120	0	0	0	1	1	0	1	0	6	7	282
12:00	0	0	122	3	125	1	4	115	0	120	0	1	0	0	1	0	1	0	7	8	254
12:15	0	2	133	3	138	2	7	103	4	116	0	2	0	0	2	0	2	0	6	8	264
12:30	1	0	126	0	127	0	3	135	2	140	0	1	0	0	1	0	1	0	4	5	273
12:45	0	1	122	1	124	1	2	119	1	123	0	3	0	1	4	0	0	0	2	2	253
13:00	1	0	112	3	116	0	5	133	2	140	0	0	1	0	1	0	1	0	3	4	261
13:15	0	0	111	1	112	0	6	113	2	121	0	1	0	1	2	0	2	0	5	7	242
13:30	0	0	94	4	98	0	3	112	3	118	0	0	0	1	1	0	1	0	4	5	222
13:45	0	0	113	0	113	0	7	145	2	154	1	3	0	2	6	0	1	0	3	4	277
14:00	0	0	87	2	89	0	7	145	1	153	0	0	0	1	1	0	2	0	3	5	248
14:15	0	0	86	4	90	1	3	131	2	137	0	2	0	0	2	0	2	0	4	6	235
14:30	0	2	76	1	79	0	8	128	3	139	0	0	0	1	1	0	1	0	4	5	224
14:45	0	0	141	7	148	0	10	140	1	151	0	1	0	0	1	0	3	0	2	5	305
15:00	2	0	155	8	165	0	9	173	3	185	0	1	0	2	3	0	3	0	5	8	361
15:15	0	0	110	1	111	1	7	176	2	186	0	1	0	0	1	0	5	0	6	11	309
15:30	0	1	119	2	122	0	6	217	1	224	0	0	0	0	0	0	2	0	3	5	351
15:45	0	0	112	5	117	1	8	212	4	225	0	4	0	1	5	0	0	0	4	4	351
16:00	0	1	122	5	128	0	9	247	1	257	0	2	0	2	4	0	3	0	2	5	394
16:15	0	1	138	2	141	0	14	258	5	277	0	0	0	0	0	0	9	0	9	18	436
16:30	0	1	138	4	143	0	9	230	2	241	0	2	0	0	2	0	7	0	2	9	395
16:45	0	0	152	4	156	0	9	213	4	226	0	0	0	0	0	0	4	0	9	13	395
17:00	0	1	117	6	124	1	10	239	1	251	0	2	0	0	2	0	3	0	3	6	383
17:15	0	0	139	7	146	1	8	239	1	249	0	1	0	1	2	0	4	0	5	9	406
17:30	0	2	134	7	143	1	7	227	4	239	0	2	0	0	2	0	7	0	9	16	400
17:45	0	0	118	4	122	2	6	224	4	236	0	2	0	0	2	0	3	0	11	14	374
18:00	0	0	119	7	126	1	9	243	1	254	0	9	0	1	10	0	4	0	8	12	402

Station ID: S2000150214

County: Montqomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Milestone Manor La

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:00	08:00	1596	A	0.34			15:45	16:45	1620	A	0.36

18:15	0	0	139	3	142	0	19	239	2	260	0	1	0	0	1	0	0	0	7	7	410
18:30	0	0	127	1	128	0	15	228	0	243	0	2	0	1	3	0	3	0	11	14	388
18:45	0	0	132	2	134	0	17	249	1	267	0	4	0	0	4	0	5	0	6	11	416
19:00	0	0	112	3	115	0	14	229	1	244	0	0	0	0	0	0	2	0	6	8	367
19:15	0	0	87	2	89	0	7	175	1	183	0	0	0	0	0	0	5	0	6	11	283
19:30	1	0	58	0	59	5	8	188	0	201	0	0	0	0	0	0	3	0	5	8	268
19:45	0	0	83	2	85	28	7	120	0	155	0	0	0	0	0	0	0	0	8	8	248
20:00	0	0	82	0	82	31	10	85	0	126	0	0	0	0	0	0	0	0	5	5	213
20:15	0	0	83	4	87	17	14	117	0	148	0	0	0	0	0	0	0	0	9	9	244
20:30	0	0	62	1	63	0	9	104	0	113	0	0	0	0	0	0	0	0	2	2	178
20:45	0	0	97	5	102	6	10	106	1	123	0	1	0	0	1	0	0	0	5	5	231
21:00	0	0	63	2	65	1	5	94	0	100	0	0	0	0	0	0	0	0	3	3	168
21:15	0	0	33	2	35	0	8	82	0	90	0	1	0	0	1	0	0	0	3	3	129
21:30	1	0	56	0	57	0	14	86	0	100	0	2	0	0	2	0	0	0	2	2	161
21:45	0	0	27	2	29	0	7	76	1	84	0	0	0	0	0	0	1	0	4	5	118
22:00	0	0	26	1	27	0	3	56	0	59	0	0	0	0	1	1	0	0	2	2	89
22:15	0	0	29	0	29	0	0	68	5	73	0	0	0	0	0	0	0	1	0	1	103
22:30	0	0	32	0	32	0	1	48	4	53	0	0	0	0	0	0	0	2	0	2	87
22:45	0	0	20	0	20	1	0	45	6	52	0	0	0	0	0	0	0	0	2	2	74
23:00	0	0	24	0	24	0	0	36	1	37	0	0	0	0	0	0	0	0	0	0	61
23:15	0	0	12	0	12	0	0	26	0	26	0	0	0	0	0	0	0	0	0	0	38
23:30	0	0	16	0	16	0	0	26	0	26	0	0	1	0	1	0	0	0	0	0	43
23:45	0	0	7	0	7	0	0	26	4	30	0	0	0	0	0	0	0	0	0	0	37
0:00	0	0	14	0	14	0	0	23	0	23	0	0	0	0	0	0	0	0	2	2	39

Station ID:
Date:
Location:
Interval (dd):

S2000150214
Wednesday 03/06/2019
MD 355 at Milestone Manor La
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36

TOTAL:	9	17	9634	175	9835	103	416	8976	112	9607	1	67	4	21	93	1	172	2	479	654	20189
AM Peak:	0	2	1026	19	1047	0	11	423	3	437	0	2	1	1	4	0	37	1	70	108	1596
PM Peak:	0	3	550	15	568	0	41	948	12	1001	0	4	0	2	6	0	23	0	22	45	1620

Station ID: S2000150214

County: Montqomery

Comments:

Date: Wednesday 03/06/2019

Town: none

Location: MD 355 at Milestone Manor La

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36

Hour Ending	MD 355 North Leg			MD 355 South Leg			Milestone Manor La East Leg			Milestone Manor La West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrains	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
0:15	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	1	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID:

S2000150214

County:

Montgomery

Comments:

Date:

Wednesday 03/06/2019

Town:

none

Location:

MD 355 at Milestone Manor La

Weather:

Cloudy/Cold

Interval (dd):

15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM			Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P			Start	End	Volume	LOS	V/C
				07:00	08:00	1596	A	0.34				15:45	16:45	1620	A	0.36

7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2000150214
Date: Wednesday 03/06/2019
Location: MD 355 at Milestone Manor La

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36

15:15	0	0	0	0	0	0	0	0	0	0	1	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	1	0	0
16:00	0	0	0	0	0	0	0	1	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	2	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	1	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	1	0	0	0	0	1	1	1
18:30	0	0	0	0	0	0	0	0	0	1	0	0
18:45	0	0	0	0	0	0	0	0	0	1	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	2	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID:

S2000150214

County:

Montgomery

Comments:

Date:

Wednesday 03/06/2019

Town:

none

Location:

MD 355 at Milestone Manor La

Weather:

Cloudy/Cold

Interval (dd):

15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36

23:15	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:30	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:45	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
0:00	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
Total:	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>3</div>	<div>0</div>	<div>0</div>	<div>2</div>	<div>0</div>	<div>0</div>	<div>15</div>	<div>1</div>
AM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>2</div>	<div>0</div>
PM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>2</div>	<div>0</div>

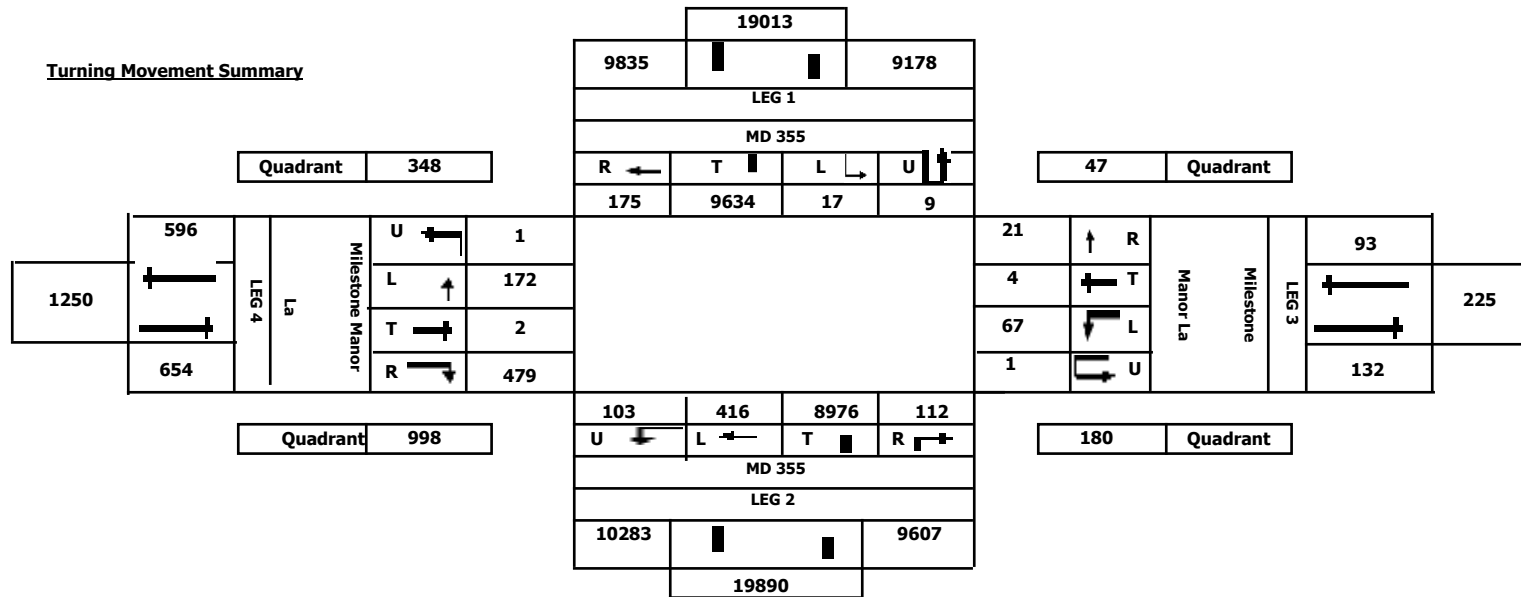
Station ID: S2000150214
Date: Wednesday 03/06/2019
Location: MD 355 at Milestone Manor La
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

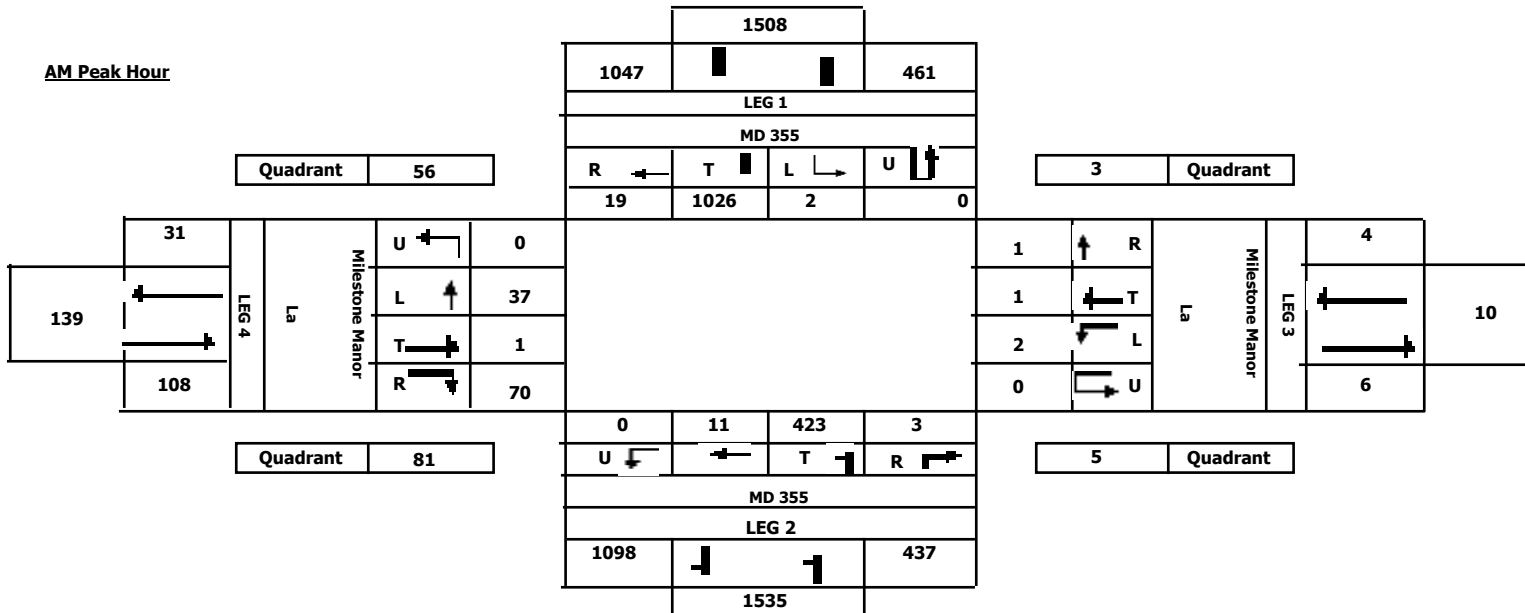
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36

Turning Movement Summary



AM Peak Hour



Station ID:

S2000150214

Date:

Wednesday 03/06/2019

Location:

MD 355 at Milestone Manor La

Interval (dd):

15 min

County:

Montgomery

Town:

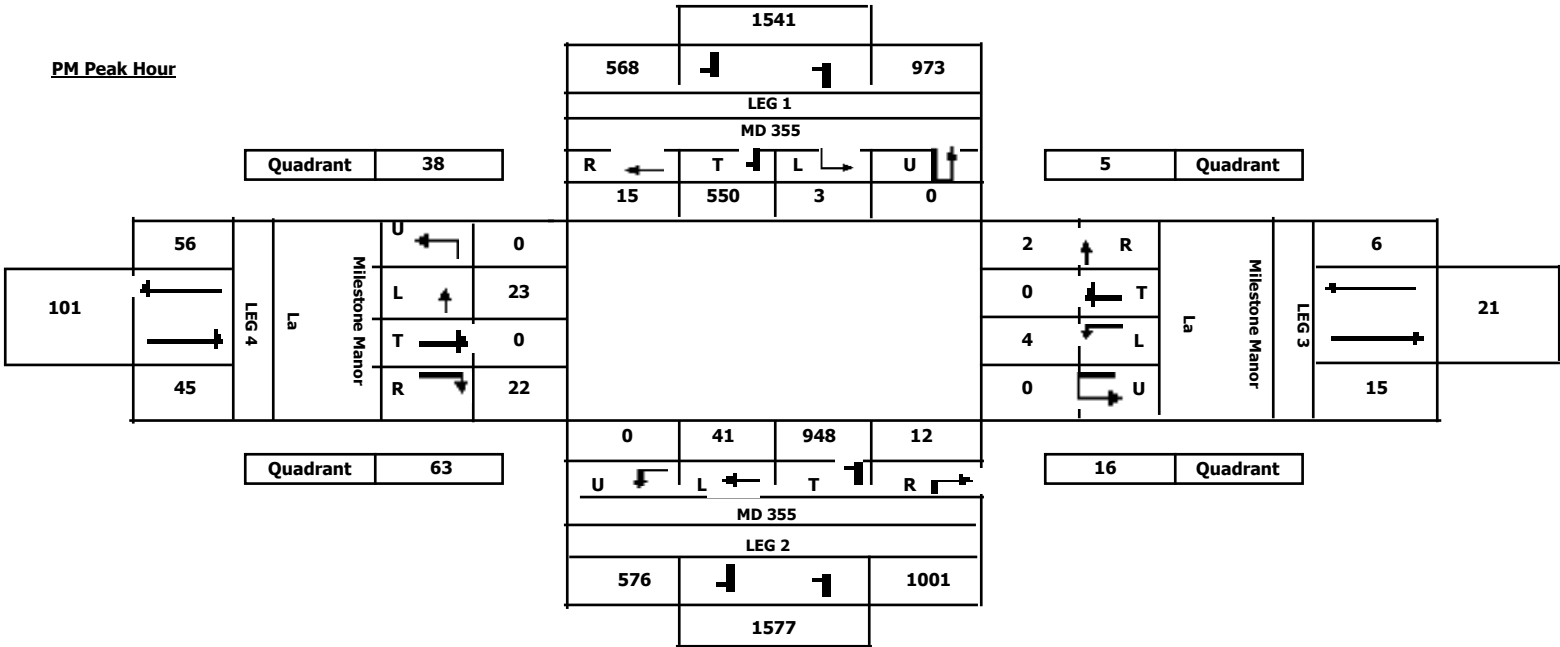
none

Weather:

Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:00	08:00	1596	A	0.34		15:45	16:45	1620	A	0.36



Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2011150803

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at BRINK RD

Weather: Cloudy/Cold

Interval 15 min
(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

Hour Ending	MD 355					MD 355					BRINK RD										Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Throug	Right	TOTAL	U.Turn	Left	Throug	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
0:15	0	0	11	0	11	0	0	9	0	9	0	0	0	2	2	0	0	0	0	0	22
0:30	0	2	11	0	13	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	27
0:45	0	0	1	0	1	0	0	6	0	6	0	0	0	1	1	0	0	0	0	0	8
1:00	0	0	4	0	4	0	0	14	0	14	0	0	0	4	4	0	0	0	0	0	22
1:15	0	0	3	0	3	0	0	11	0	11	0	0	0	1	1	0	0	0	0	0	15
1:30	0	1	1	0	2	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	11
1:45	0	1	3	0	4	0	0	10	0	10	0	0	0	1	1	0	0	0	0	0	15
2:00	0	1	4	0	5	0	0	4	0	4	0	0	0	1	1	0	0	0	0	0	10
2:15	0	0	1	0	1	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	4
2:30	0	1	3	0	4	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	6
2:45	0	0	4	0	4	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	9
3:00	0	0	7	0	7	0	0	5	0	5	0	0	0	1	1	0	0	0	0	0	13
3:15	0	0	3	0	3	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	6
3:30	0	1	2	0	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	6
3:45	0	1	2	0	3	0	0	3	0	3	0	0	0	1	1	0	0	0	0	0	7
4:00	0	2	10	0	12	0	0	5	0	5	0	0	0	1	1	0	0	0	0	0	18
4:15	0	1	7	0	8	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	11
4:30	0	1	7	0	8	0	0	5	0	5	0	0	0	2	2	0	0	0	0	0	15
4:45	0	6	25	0	31	0	0	7	0	7	0	0	0	1	1	0	0	0	0	0	39
5:00	0	3	36	0	39	0	0	8	0	8	0	0	0	4	4	0	0	0	0	0	51

Station ID: S2011150803

County: Montqomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at BRINK RD

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM					Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P					Start	End	Volume	LOS	V/C
						07:15	08:15	1756	D	0.90						17:30	18:30	1822	D	0.81

5:15	0	10	41	0	51	0	0	9	0	9	0	0	0	1	1	0	0	0	0	0	61
5:30	0	8	58	0	66	0	0	12	0	12	0	0	0	3	3	0	0	0	0	0	81
5:45	0	20	86	0	106	0	0	17	0	17	0	0	0	9	9	0	0	0	0	0	132
6:00	0	21	120	0	141	0	0	23	0	23	0	0	0	7	7	0	0	0	0	0	171
6:15	0	25	164	0	189	0	0	25	1	26	0	1	0	21	22	0	0	0	0	0	237
6:30	0	32	227	0	259	0	0	50	0	50	0	0	0	18	18	0	0	0	0	0	327
6:45	0	23	284	0	307	0	0	48	0	48	0	0	0	12	12	0	0	0	0	0	367
7:00	0	41	280	0	321	0	0	62	1	63	0	0	0	22	22	0	0	0	0	0	406
7:15	0	41	266	0	307	0	0	91	2	93	0	0	0	30	30	0	0	0	0	0	430
7:30	0	46	237	0	283	0	0	143	1	144	0	0	0	21	21	0	0	0	0	0	448
7:45	0	33	247	0	280	0	0	117	2	119	0	1	0	35	36	0	0	0	0	0	435
8:00	0	30	282	0	312	0	0	97	0	97	0	1	0	18	19	0	0	0	0	0	428
8:15	0	40	277	0	317	0	0	104	1	105	0	0	0	23	23	0	0	0	0	0	445
8:30	0	38	255	0	293	0	0	69	1	70	0	0	0	21	21	0	0	0	0	0	384
8:45	0	40	268	0	308	0	0	83	1	84	0	0	0	21	21	0	0	0	0	0	413
9:00	0	30	277	0	307	0	0	82	1	83	0	0	0	21	21	0	0	0	0	0	411
9:15	0	44	271	0	315	0	0	73	1	74	0	0	0	28	28	0	0	0	0	0	417
9:30	0	36	213	0	249	0	0	90	2	92	0	0	0	23	23	0	0	0	0	0	364
9:45	0	16	204	0	220	0	0	77	0	77	0	0	0	15	15	0	0	0	0	0	312
10:00	0	15	175	0	190	0	0	61	1	62	0	0	0	17	17	0	0	0	0	0	269
10:15	0	16	120	0	136	0	0	80	0	80	0	0	0	17	17	0	0	0	0	0	233
10:30	0	12	103	0	115	0	0	72	0	72	0	0	0	18	18	0	0	0	0	0	205
10:45	0	12	123	0	135	0	0	63	0	63	0	1	0	9	10	0	0	0	0	0	208
11:00	0	14	113	0	127	0	0	102	0	102	0	0	0	14	14	0	0	0	0	0	243
11:15	0	18	117	0	135	0	0	97	0	97	0	0	0	13	13	0	0	0	0	0	245
11:30	0	12	124	0	136	0	0	109	0	109	0	0	0	13	13	0	0	0	0	0	258

Station ID: S2011150803**County:** Montqomery**Comments:****Date:** Tuesday 03/05/2019**Town:** none**Location:** MD 355 at BRINK RD**Weather:** Cloudy/Cold**Interval
(dd):** 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1756	D	0.90			17:30	18:30	1822	D	0.81

11:45	0	12	156	0	168	0	0	103	1	104	0	1	0	22	23	0	0	0	0	0	295
12:00	0	16	124	0	140	0	0	116	0	116	0	1	0	16	17	0	0	0	0	0	273
12:15	0	6	131	0	137	0	0	109	1	110	0	0	0	17	17	0	0	0	0	0	264
12:30	0	12	136	0	148	0	0	126	4	130	0	0	0	19	19	0	0	0	0	0	297
12:45	0	13	123	0	136	0	0	122	0	122	0	0	0	20	20	0	0	0	0	0	278
13:00	0	21	119	0	140	0	0	144	0	144	0	0	0	17	17	0	0	0	0	0	301
13:15	0	11	113	0	124	0	0	121	0	121	0	1	0	16	17	0	0	0	0	0	262
13:30	0	13	97	0	110	0	0	111	0	111	0	1	0	20	21	0	0	0	0	0	242
13:45	0	14	115	0	129	0	0	104	1	105	0	0	0	21	21	0	0	0	0	0	255
14:00	0	16	86	0	102	0	0	150	0	150	0	0	0	24	24	0	0	0	0	0	276
14:15	0	18	88	0	106	0	0	125	0	125	0	0	0	15	15	0	0	0	0	0	246
14:30	0	19	81	0	100	0	0	137	0	137	0	0	0	16	16	0	0	0	0	0	253
14:45	0	28	147	0	175	0	0	146	1	147	0	1	0	32	33	0	0	0	0	0	355
15:00	0	24	165	0	189	0	0	178	0	178	0	0	0	25	25	0	0	0	0	0	392
15:15	0	18	112	0	130	1	0	178	1	180	0	0	0	42	42	0	0	0	0	0	352
15:30	0	20	118	0	138	0	0	210	0	210	0	0	0	41	41	0	0	0	0	0	389
15:45	0	16	119	0	135	0	0	210	1	211	0	0	0	57	57	0	0	0	0	0	403
16:00	0	20	126	0	146	0	0	232	1	233	0	0	0	52	52	0	0	0	0	0	431
16:15	0	17	138	0	155	0	0	252	1	253	0	0	0	41	41	0	0	0	0	0	449
16:30	0	22	135	0	157	0	0	237	1	238	0	0	0	51	51	0	0	0	0	0	446
16:45	0	28	160	0	188	0	0	212	0	212	0	0	0	45	45	0	0	0	0	0	445
17:00	0	23	130	0	153	0	0	250	0	250	0	0	0	40	40	0	0	0	0	0	443
17:15	0	26	144	0	170	0	0	237	0	237	0	0	0	52	52	0	0	0	0	0	459
17:30	0	23	139	0	162	0	0	223	2	225	0	0	0	54	54	0	0	0	0	0	441
17:45	0	23	122	0	145	0	0	231	0	231	0	0	0	73	73	0	0	0	0	0	449
18:00	0	20	128	0	148	0	0	247	0	247	0	2	0	60	62	0	0	0	0	0	457

Station ID: S2011150803

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at BRINK RD

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM					Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P					Start	End	Volume	LOS	V/C
						07:15	08:15	1756	D	0.90						17:30	18:30	1822	D	0.81

18:15	0	27	139	0	166	0	0	239	0	239	0	1	0	55	56	0	0	0	0	0	461
18:30	0	18	132	0	150	0	0	269	0	269	0	0	0	36	36	0	0	0	0	0	455
18:45	0	14	128	0	142	0	0	257	0	257	0	1	0	34	35	0	0	0	0	0	434
19:00	0	12	117	0	129	0	0	249	1	250	0	1	0	28	29	0	0	0	0	0	408
19:15	0	12	92	0	104	0	0	180	0	180	0	0	0	35	35	0	0	0	0	0	319
19:30	0	7	61	0	68	0	0	162	0	162	0	0	0	20	20	0	0	0	0	0	250
19:45	0	6	81	0	87	0	0	100	1	101	0	0	0	22	22	0	0	0	0	0	210
20:00	0	6	77	0	83	0	0	106	0	106	0	0	0	12	12	0	0	0	0	0	201
20:15	0	7	68	0	75	0	0	96	1	97	0	0	0	8	8	0	0	0	0	0	180
20:30	0	5	67	0	72	0	0	129	1	130	0	0	0	16	16	0	0	0	0	0	218
20:45	0	7	93	0	100	0	0	78	0	78	0	0	0	5	5	0	0	0	0	0	183
21:00	0	0	55	0	55	0	0	109	4	113	0	0	0	8	8	0	0	0	0	0	176
21:15	0	10	41	0	51	0	0	94	0	94	0	0	0	7	7	0	0	0	0	0	152
21:30	0	4	59	0	63	0	0	90	0	90	0	0	0	8	8	0	0	0	0	0	161
21:45	0	4	29	0	33	0	0	80	1	81	0	0	0	7	7	0	0	0	0	0	121
22:00	0	3	27	0	30	0	0	52	0	52	0	0	0	8	8	0	0	0	0	0	90
22:15	0	4	29	0	33	0	0	72	0	72	0	0	0	8	8	0	0	0	0	0	113
22:30	0	1	32	0	33	0	0	52	0	52	0	0	0	7	7	0	0	0	0	0	92
22:45	0	2	20	0	22	0	0	47	0	47	0	0	0	1	1	0	0	0	0	0	70
23:00	0	1	24	0	25	0	0	36	0	36	0	0	0	2	2	0	0	0	0	0	63
23:15	0	0	11	0	11	0	0	28	0	28	0	0	0	2	2	0	0	0	0	0	41
23:30	0	3	16	0	19	0	0	28	0	28	0	0	0	2	2	0	0	0	0	0	49
23:45	0	2	8	0	10	0	0	26	0	26	0	0	0	3	3	0	0	0	0	0	39
0:00	0	0	14	0	14	0	0	20	0	20	0	0	0	3	3	0	0	0	0	0	37

Station ID:
Date:
Location:
Interval (dd):

S2011150803
Wednesday 03/06/2019
MD 355 at BRINK RD
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

TOTAL:	0	1328	9749	0	11077	1	0	9093	39	9133	0	14	0	1697	1711	0	0	0	0	0	21921
AM Peak:	0	149	1043	0	1192	0	0	461	4	465	0	2	0	97	99	0	0	0	0	0	1756
PM Peak:	0	88	521	0	609	0	0	986	0	986	0	3	0	224	227	0	0	0	0	0	1822

Station ID: S2011150803
Date: Wednesday 03/06/2019
Location: MD 355 at BRINK RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

Hour Ending	MD 355 North Leg			MD 355 South Leg			BRINK RD East Leg			West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrains	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
0:15	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2011150803
Date: Wednesday 03/06/2019
Location: MD 355 at BRINK RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

7:15	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2011150803
Date: Wednesday 03/06/2019
Location: MD 355 at BRINK RD

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	1	0	0	0
16:00	0	0	0	0	0	0	0	1	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	1	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2011150803
Date: Wednesday 03/06/2019
Location: MD 355 at BRINK RD

County: Montgomery
Town: none
Weather: Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

23:15	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:30	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:45	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
0:00	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
Total:	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>2</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>0</div>
AM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
PM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>

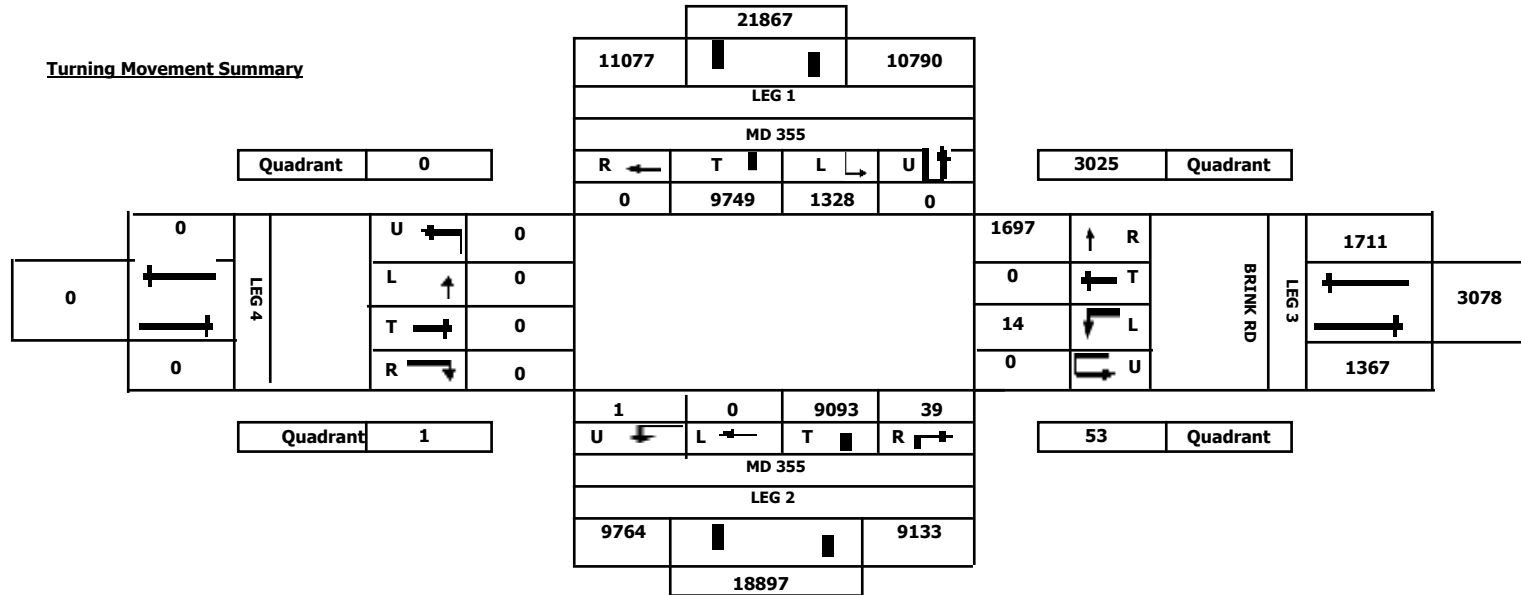
Station ID: S2011150803
Date: Wednesday 03/06/2019
Location: MD 355 at BRINK RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

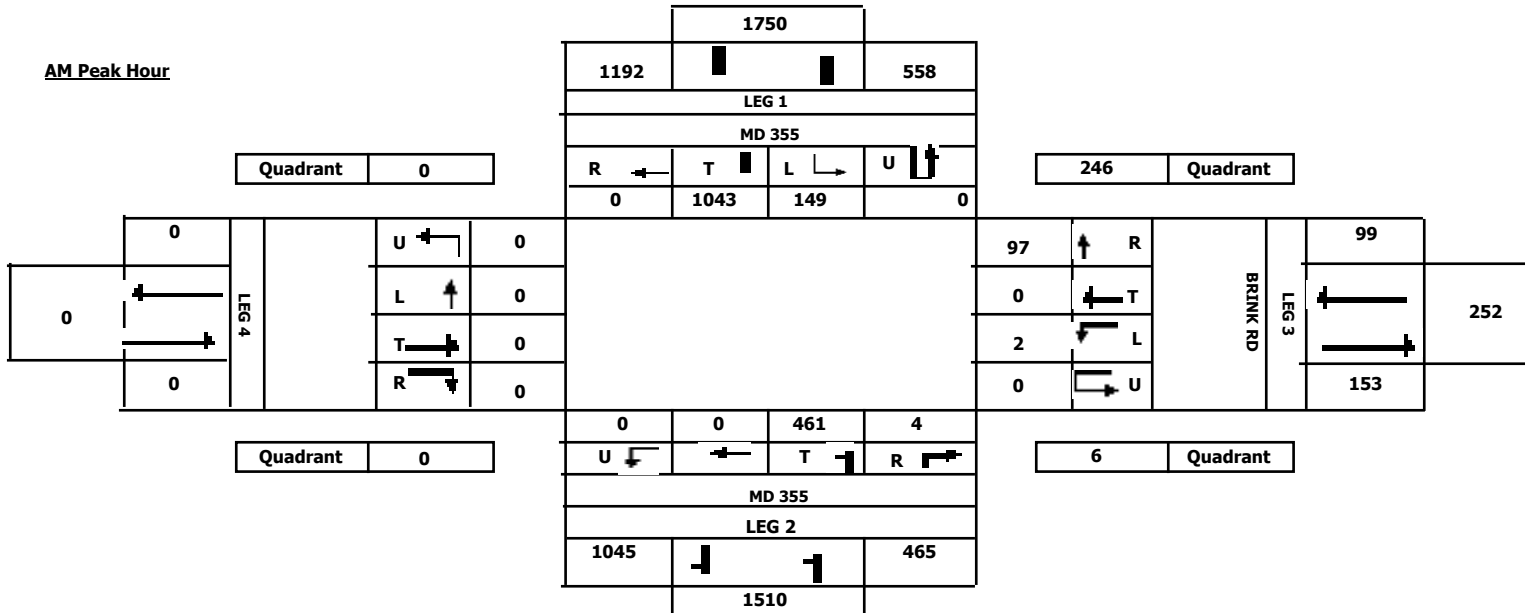
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81

Turning Movement Summary



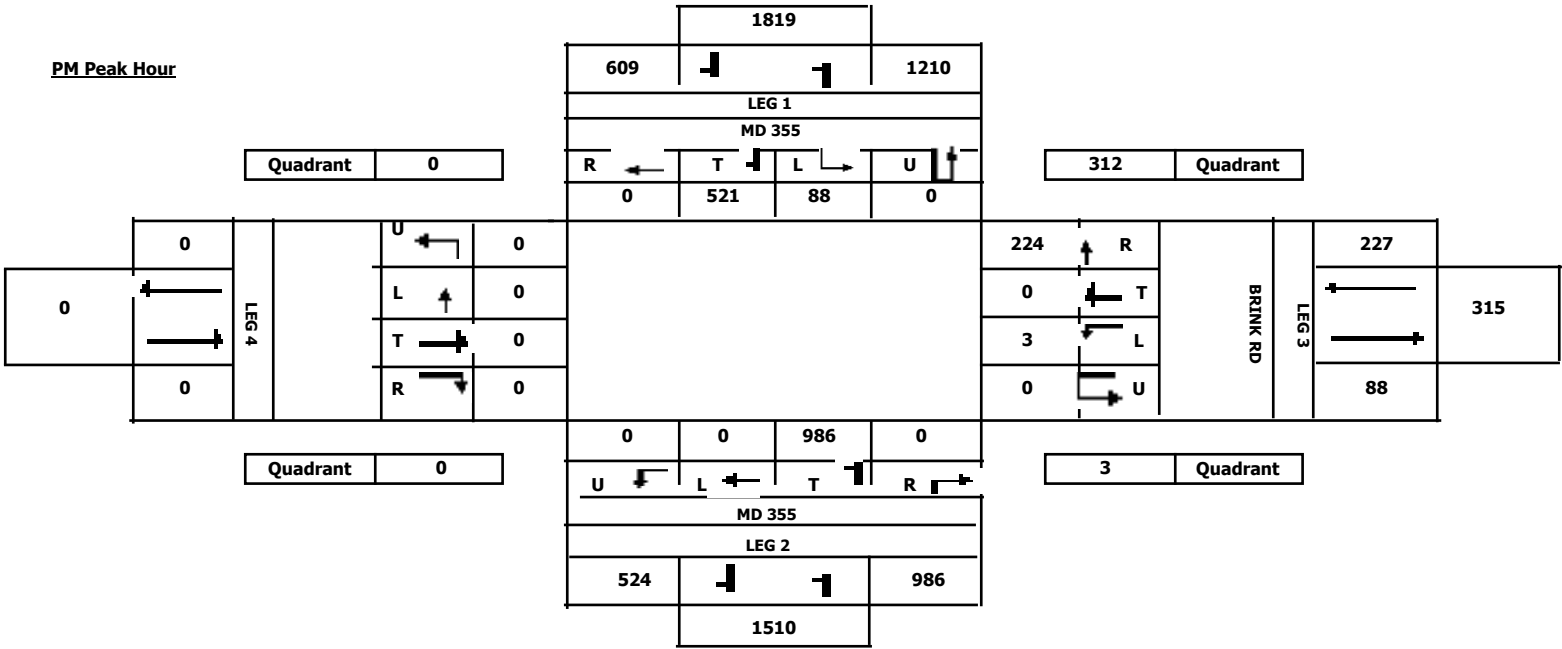
AM Peak Hour



Station ID: S2011150803
Date: Wednesday 03/06/2019
Location: MD 355 at BRINK RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1756	D	0.90		17:30	18:30	1822	D	0.81



Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2014150397

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at GREENBROOK DR

Weather: Cloudy/Cold

Interval 15 min
(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

Hour Ending	MD 355					MD 355					GREENBROOK DR										Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Through	Right	TOTAL	U.Turn	Left	Through	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
0:15	0	0	9	0	9	0	0	12	0	12	0	1	0	0	1	0	0	0	0	0	22
0:30	0	0	12	0	12	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	27
0:45	0	1	2	0	3	0	0	6	0	6	0	0	0	1	1	0	0	0	0	0	10
1:00	0	0	3	0	3	0	0	18	0	18	0	1	0	0	1	0	0	0	0	0	22
1:15	0	0	2	0	2	0	0	11	1	12	0	0	0	0	0	0	0	0	0	0	14
1:30	0	0	3	0	3	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	13
1:45	0	0	3	0	3	0	0	9	1	10	0	0	0	0	0	0	0	0	0	0	13
2:00	0	0	5	0	5	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	10
2:15	0	0	1	0	1	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	4
2:30	0	0	4	0	4	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	6
2:45	0	0	3	0	3	0	0	5	0	5	0	1	0	0	1	0	0	0	0	0	9
3:00	0	0	6	0	6	0	0	5	0	5	0	1	0	0	1	0	0	0	0	0	12
3:15	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	6
3:30	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	6
3:45	0	0	3	0	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	6
4:00	0	0	13	0	13	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	19
4:15	0	0	9	0	9	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	13
4:30	0	0	12	0	12	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	18
4:45	0	0	27	0	27	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	35
5:00	0	0	38	0	38	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	50

Station ID: S2014150397

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at GREENBROOK DR

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1749	C	0.75			17:00	18:00	1827	C	0.74

5:15	0	1	50	0	51	0	0	10	0	10	0	1	0	0	1	0	0	0	0	0	62
5:30	0	0	70	0	70	0	0	15	0	15	0	2	0	0	2	0	0	0	0	0	87
5:45	0	0	107	0	107	0	0	26	0	26	0	2	0	0	2	0	0	0	0	0	135
6:00	0	0	139	0	139	0	0	29	0	29	0	2	0	0	2	0	0	0	0	0	170
6:15	0	1	203	0	204	0	0	49	0	49	0	5	0	0	5	0	0	0	0	0	258
6:30	0	2	261	0	263	0	0	68	2	70	0	1	0	1	2	0	0	0	0	0	335
6:45	0	0	304	0	304	0	0	58	0	58	0	5	0	0	5	0	0	0	0	0	367
7:00	0	0	314	0	314	0	0	96	0	96	0	4	0	0	4	0	0	0	0	0	414
7:15	0	0	305	0	305	0	0	113	1	114	0	2	0	1	3	0	0	0	0	0	422
7:30	0	1	277	0	278	0	0	168	2	170	0	1	0	0	1	0	0	0	0	0	449
7:45	0	0	289	0	289	0	0	146	0	146	0	1	0	0	1	0	0	0	0	0	436
8:00	0	1	313	0	314	0	0	123	2	125	0	1	0	0	1	0	0	0	0	0	440
8:15	0	0	302	0	302	0	0	117	0	117	0	5	0	0	5	0	0	0	0	0	424
8:30	0	0	293	0	293	0	0	93	1	94	0	2	0	0	2	0	0	0	0	0	389
8:45	0	0	328	0	328	0	0	102	0	102	0	0	0	0	0	0	0	0	0	0	430
9:00	0	0	298	0	298	0	0	103	2	105	0	2	0	1	3	0	0	0	0	0	406
9:15	0	0	319	0	319	0	0	105	2	107	0	2	0	1	3	0	0	0	0	0	429
9:30	0	0	245	0	245	0	0	107	3	110	0	2	0	1	3	0	0	0	0	0	358
9:45	0	0	206	0	206	0	0	86	3	89	0	1	0	1	2	0	0	0	0	0	297
10:00	0	0	186	0	186	0	0	79	2	81	0	0	0	0	0	0	0	0	0	0	267
10:15	0	0	132	0	132	0	0	87	4	91	0	0	0	1	1	0	0	0	0	0	224
10:30	0	1	121	0	122	0	0	85	3	88	0	1	0	0	1	0	0	0	0	0	211
10:45	0	0	128	0	128	0	0	79	1	80	0	0	0	0	0	0	0	0	0	0	208
11:00	0	0	128	0	128	0	0	107	2	109	0	0	0	0	0	0	0	0	0	0	237
11:15	0	0	130	0	130	0	0	113	1	114	0	2	0	0	2	0	0	0	0	0	246
11:30	0	0	138	0	138	0	0	120	0	120	0	2	0	0	2	0	0	0	0	0	260

Station ID: S2014150397

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at GREENBROOK DR

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1749	C	0.75			17:00	18:00	1827	C	0.74

11:45	0	0	160	0	160	0	0	123	3	126	0	4	0	0	4	0	0	0	0	0	290
12:00	0	1	136	0	137	0	0	138	1	139	0	1	0	1	2	0	0	0	0	0	278
12:15	0	0	148	0	148	0	0	114	3	117	0	1	0	1	2	0	0	0	0	0	267
12:30	0	0	135	0	135	0	0	143	2	145	0	1	0	0	1	0	0	0	0	0	281
12:45	0	0	133	0	133	0	0	152	1	153	0	2	0	0	2	0	0	0	0	0	288
13:00	0	0	135	0	135	0	0	152	4	156	0	1	0	0	1	0	0	0	0	0	292
13:15	0	2	125	0	127	0	0	134	3	137	0	2	0	1	3	0	0	0	0	0	267
13:30	0	1	110	0	111	0	0	128	3	131	0	0	0	0	0	0	0	0	0	0	242
13:45	0	0	123	0	123	0	0	160	1	161	0	2	0	0	2	0	0	0	0	0	286
14:00	0	2	101	0	103	0	0	166	1	167	0	1	0	0	1	0	0	0	0	0	271
14:15	0	0	109	0	109	0	0	151	1	152	0	1	0	0	1	0	0	0	0	0	262
14:30	0	0	97	0	97	0	0	148	2	150	0	1	0	2	3	0	0	0	0	0	250
14:45	0	0	184	0	184	0	0	174	2	176	0	0	0	0	0	0	0	0	0	0	360
15:00	0	0	179	0	179	0	0	209	4	213	0	2	0	0	2	0	0	0	0	0	394
15:15	0	0	128	0	128	0	0	212	4	216	0	0	0	0	0	0	0	0	0	0	344
15:30	0	1	142	0	143	0	0	250	7	257	0	0	0	0	0	0	0	0	0	0	400
15:45	0	0	135	0	135	0	0	265	4	269	0	2	0	0	2	0	0	0	0	0	406
16:00	0	0	146	0	146	0	0	281	3	284	0	1	0	0	1	0	0	0	0	0	431
16:15	0	0	164	0	164	0	0	294	4	298	0	0	0	0	0	0	0	0	0	0	462
16:30	0	0	167	0	167	0	0	280	3	283	0	0	0	0	0	0	0	0	0	0	450
16:45	0	0	179	0	179	0	0	261	3	264	0	1	0	0	1	0	0	0	0	0	444
17:00	0	1	138	0	139	0	0	288	5	293	0	3	0	1	4	0	0	0	0	0	436
17:15	0	0	172	0	172	0	0	284	3	287	0	1	0	0	1	0	0	0	0	0	460
17:30	0	2	167	0	169	0	0	280	4	284	0	1	0	1	2	0	0	0	0	0	455
17:45	0	0	146	0	146	0	0	296	4	300	0	0	0	0	0	0	0	0	0	0	446
18:00	0	0	151	0	151	0	0	306	8	314	0	1	0	0	1	0	0	0	0	0	466

Station ID: S2014150397

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at GREENBROOK DR

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1749	C	0.75			17:00	18:00	1827	C	0.74

18:15	0	0	163	0	163	0	0	282	7	289	0	0	0	0	0	0	0	0	0	452
18:30	0	0	141	0	141	0	0	296	9	305	0	2	0	0	2	0	0	0	0	448
18:45	0	0	146	0	146	0	0	285	9	294	0	0	0	1	1	0	0	0	0	441
19:00	0	0	127	0	127	0	0	272	8	280	0	2	0	0	2	0	0	0	0	409
19:15	0	1	102	0	103	0	0	200	5	205	0	2	0	2	4	0	0	0	0	312
19:30	0	1	59	0	60	0	0	183	2	185	0	2	0	0	2	0	0	0	0	247
19:45	0	0	93	0	93	0	0	111	1	112	0	1	0	2	3	0	0	0	0	208
20:00	0	1	84	0	85	0	0	113	6	119	0	0	0	0	0	0	0	0	0	204
20:15	0	0	82	0	82	0	0	100	2	102	0	0	0	2	2	0	0	0	0	186
20:30	0	0	56	0	56	0	0	145	3	148	0	3	0	0	3	0	0	0	0	207
20:45	0	0	107	0	107	0	0	79	1	80	0	1	0	0	1	0	0	0	0	188
21:00	0	0	55	0	55	0	0	114	4	118	0	0	0	1	1	0	0	0	0	174
21:15	0	0	53	0	53	0	0	102	3	105	0	1	0	1	2	0	0	0	0	160
21:30	0	1	54	0	55	0	0	98	2	100	0	2	0	1	3	0	0	0	0	158
21:45	0	0	28	0	28	0	0	85	3	88	0	1	0	0	1	0	0	0	0	117
22:00	0	1	28	0	29	0	0	61	1	62	0	1	0	0	1	0	0	0	0	92
22:15	0	0	34	0	34	0	0	75	3	78	0	0	0	0	0	0	0	0	0	112
22:30	0	1	36	0	37	0	0	56	1	57	0	1	0	0	1	0	0	0	0	95
22:45	0	0	18	0	18	0	0	49	0	49	0	0	0	0	0	0	0	0	0	67
23:00	0	0	24	0	24	0	0	40	0	40	0	0	0	0	0	0	0	0	0	64
23:15	0	2	13	0	15	0	0	26	0	26	0	1	0	0	1	0	0	0	0	42
23:30	0	0	17	0	17	0	0	30	0	30	0	0	0	0	0	0	0	0	0	47
23:45	0	0	8	0	8	0	0	29	0	29	0	1	0	0	1	0	0	0	0	38
0:00	0	0	15	0	15	0	0	21	2	23	0	0	0	0	0	0	0	0	0	38

Station ID:

S2014150397

Date:

Wednesday 03/06/2019

Location:

MD 355 at GREENBROOK DR

Interval (dd):

15 min

County:

Montgomery

Town:

none

Weather:

Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

TOTAL:	0	26	11000	0	11026	0	0	10670	188	10858	0	101	0	25	126	0	0	0	0	0	22010
AM Peak:	0	2	1181	0	1183	0	0	554	4	558	0	8	0	0	8	0	0	0	0	0	1749
PM Peak:	0	2	636	0	638	0	0	1166	19	1185	0	3	0	1	4	0	0	0	0	0	1827

Station ID: S2014150397

County: Montqomery

Comments:

Date: Wednesday 03/06/2019

Town: none

Location: MD 355 at GREENBROOK DR

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

Hour Ending	MD 355 North Leg			MD 355 South Leg			GREENBROOK DR East Leg			West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
0:15	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	2	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0

Comments:

Weather: Cloudy/Cold

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

[illegible]

Station ID: S2014150397

County: Montqomery

Comments:

Date: Wednesday 03/06/2019

Town: none

Location: MD 355 at GREENBROOK DR

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	1	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	1	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	1	0	0	2	0	0	0	0
19:00	0	0	0	0	0	0	0	1	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2014150397**County:** Montgomery**Comments:****Date:** Wednesday 03/06/2019**Town:** none**Location:** MD 355 at GREENBROOK DR**Weather:** Cloudy/Cold**Interval
(dd):** 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

23:15	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
23:30	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
23:45	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
0:00	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Total:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="3"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="6"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
AM Pe	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
PM Pe	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

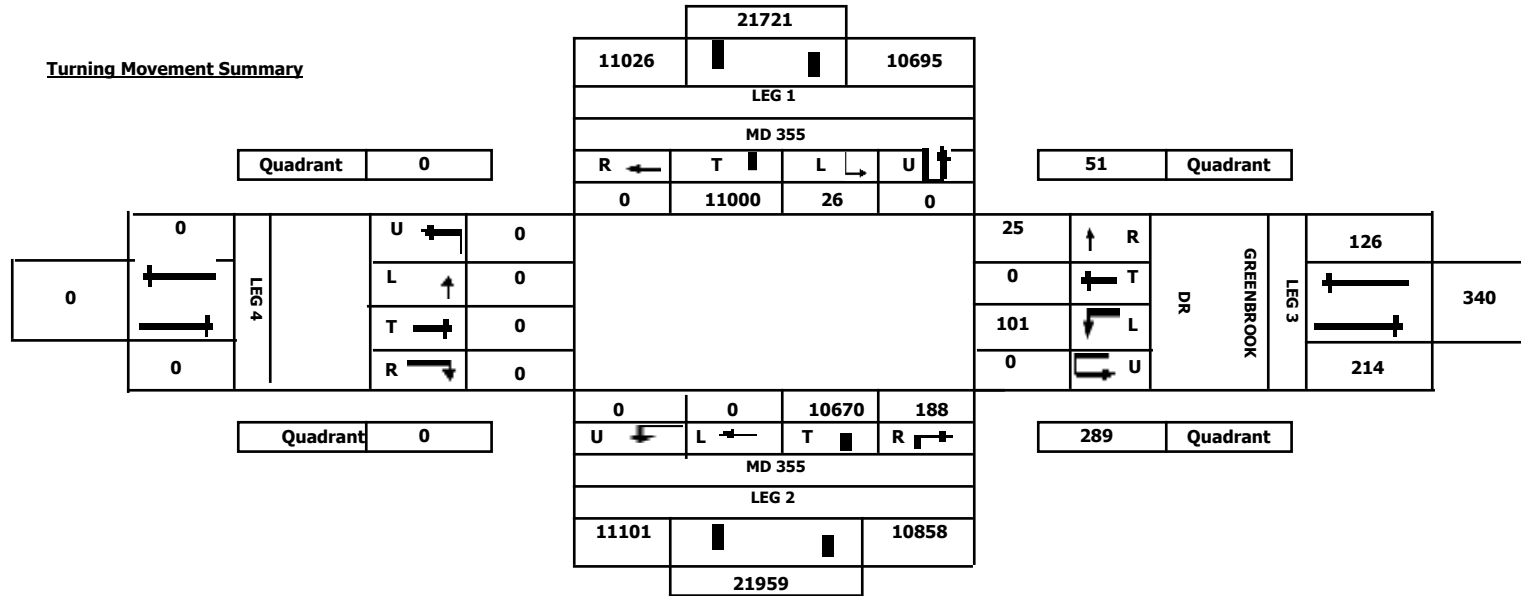
Station ID: S2014150397
Date: Wednesday 03/06/2019
Location: MD 355 at GREENBROOK DR
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

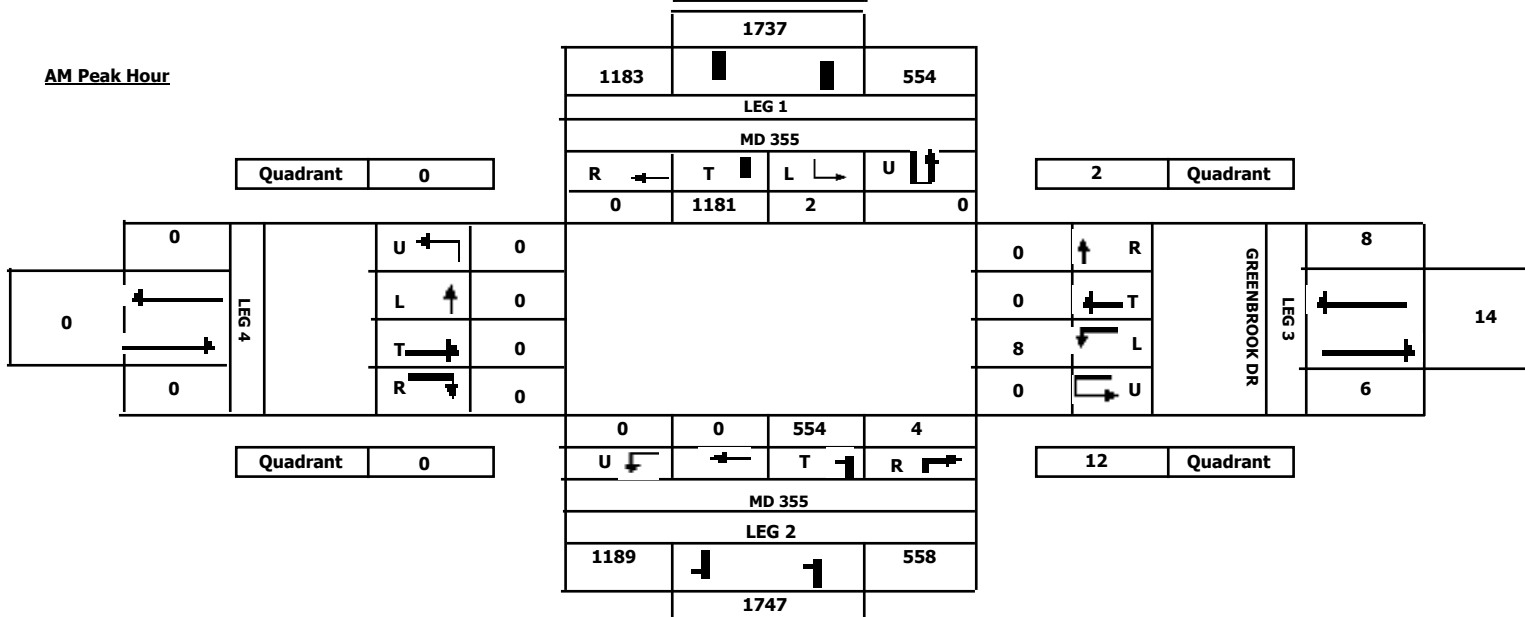
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74

Turning Movement Summary



AM Peak Hour



Station ID:

S2014150397

Date:

Wednesday 03/06/2019

Location:

MD 355 at GREENBROOK DR

Interval (dd):

15 min

County:

Montgomery

Town:

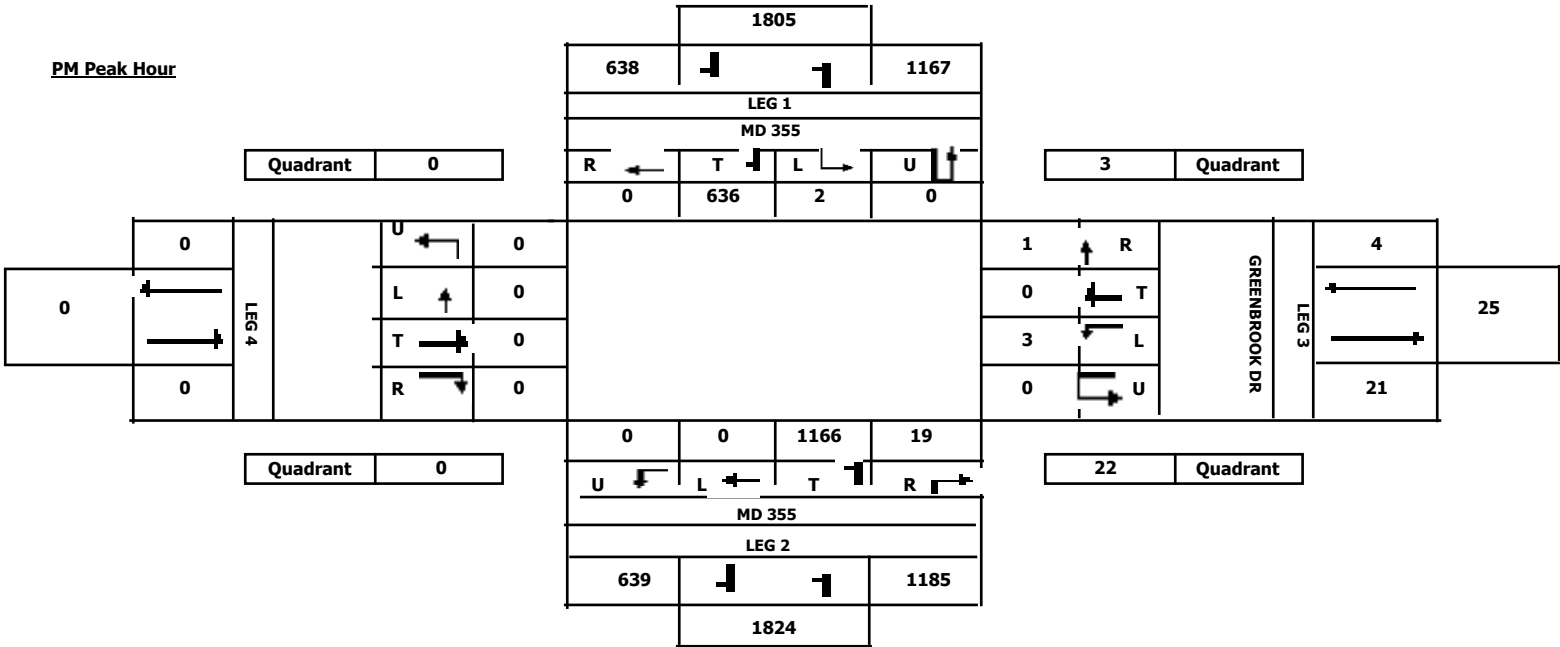
none

Weather:

Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1749	C	0.75		17:00	18:00	1827	C	0.74



Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2006150099

County: Montgomery

Comments:

Date: Wednesday 02/13/2019

Town: none

Location: MD 355 at WEST OLD BALTIMORE

Weather: Cloudy/Cold

Interval 15 min
(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		06:45	Montg	1609	C	0.77		17:00	Montg	1892	E	0.93

Hour Ending	MD 355					MD 355										West Old Baltimore Rd					Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Throug	Right	TOTAL	U.Turn	Left	Throug	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
6:15	0	0	151	0	151	0	4	38	0	42	0	0	0	0	0	0	2	0	21	23	216
6:30	0	0	225	3	228	0	9	52	0	61	0	0	0	0	0	0	1	0	21	22	311
6:45	0	0	296	2	298	0	4	52	0	56	0	0	0	0	0	0	0	0	27	27	381
7:00	0	0	283	1	284	0	5	65	0	70	0	0	0	0	0	0	1	0	32	33	387
7:15	0	0	268	2	270	0	6	85	0	91	0	0	0	0	0	0	6	0	39	45	406
7:30	0	0	216	2	218	0	6	171	0	177	0	0	0	0	0	0	7	0	33	40	435
7:45	0	0	180	2	182	0	10	145	0	155	0	0	0	0	0	0	3	0	37	40	377
8:00	0	0	212	2	214	0	8	109	0	117	0	0	0	0	0	0	2	0	42	44	375
8:15	0	0	220	1	221	0	0	96	0	96	0	0	0	0	0	0	1	0	32	33	350
8:30	0	0	232	4	236	0	5	81	0	86	0	0	0	0	0	0	3	0	39	42	364
8:45	0	0	198	2	200	0	9	73	0	82	0	0	0	0	0	0	1	0	39	40	322
9:00	0	0	244	6	250	0	14	99	0	113	0	0	0	0	0	0	1	0	33	34	397
9:15	0	0	192	1	193	0	10	98	0	108	0	0	0	0	0	0	3	0	45	48	349
9:30	0	0	251	6	257	0	11	83	0	94	0	0	0	0	0	0	2	0	37	39	390
9:45	0	0	206	3	209	0	5	98	0	103	0	0	0	0	0	0	4	0	32	36	348
10:00	0	0	179	3	182	0	14	75	0	89	0	0	0	0	0	0	1	0	19	20	291
10:15	0	0	137	0	137	0	10	85	0	95	0	0	0	0	0	0	5	0	22	27	259
10:30	0	0	128	0	128	0	10	87	0	97	0	0	0	0	0	0	1	0	20	21	246
10:45	0	0	121	3	124	0	17	89	0	106	0	0	0	0	0	0	1	0	13	14	244
11:00	0	0	125	2	127	0	8	90	0	98	0	0	0	0	0	0	4	0	27	31	256

Station ID: S2006150099

County: Montgomery

Comments:

Date: Wednesday 02/13/2019

Town: none

Location: MD 355 at WEST OLD BALTIMORE

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			06:45	Montg	1609	C	0.77			17:00	Montg	1892	E	0.93

11:15	0	0	123	4	127	0	15	114	0	129	0	0	0	0	0	0	0	3	0	16	19	275
11:30	0	0	124	4	128	0	17	117	0	134	0	0	0	0	0	0	0	1	0	19	20	282
11:45	0	0	124	0	124	0	21	104	0	125	0	0	0	0	0	0	0	3	0	22	25	274
12:00	0	0	112	2	114	0	20	122	0	142	0	0	0	0	0	0	0	3	0	17	20	276
12:15	0	0	125	1	126	0	17	114	0	131	0	0	0	0	0	0	0	1	0	23	24	281
12:30	0	0	130	4	134	0	17	111	0	128	0	0	0	0	0	0	0	1	0	17	18	280
12:45	0	0	114	1	115	0	18	149	0	167	0	0	0	0	0	0	0	1	0	19	20	302
13:00	0	0	120	1	121	0	23	131	0	154	0	0	0	0	0	0	0	3	0	15	18	293
13:15	0	0	103	6	109	0	12	128	0	140	0	0	0	0	0	0	0	1	0	12	13	262
13:30	0	0	111	2	113	0	20	140	0	160	0	0	0	0	0	0	0	7	0	14	21	294
13:45	0	0	108	1	109	0	21	140	0	161	0	0	0	0	0	0	0	2	0	29	31	301
14:00	1	0	73	4	78	0	11	160	0	171	0	0	0	0	0	0	0	3	0	14	17	266
14:15	0	0	105	0	105	0	17	135	0	152	0	0	0	0	0	0	0	3	0	17	20	277
14:30	0	0	99	5	104	0	25	162	0	187	0	0	0	0	0	0	0	1	0	22	23	314
14:45	0	0	156	3	159	0	23	166	0	189	0	0	0	0	0	0	0	11	0	8	19	367
15:00	0	0	175	3	178	0	16	200	0	216	0	0	0	0	0	0	0	5	0	19	24	418
15:15	0	0	132	6	138	0	30	208	0	238	0	0	0	0	0	0	0	4	0	24	28	404
15:30	0	0	114	4	118	0	23	228	0	251	0	0	0	0	0	0	0	8	0	20	28	397
15:45	0	0	115	3	118	0	28	238	0	266	0	0	0	0	0	0	0	6	0	19	25	409
16:00	0	0	126	2	128	0	28	236	0	264	0	0	0	0	0	0	0	3	0	12	15	407
16:15	0	0	108	2	110	0	25	244	0	269	0	0	0	0	0	0	0	7	0	14	21	400
16:30	0	0	143	2	145	0	31	249	0	280	0	0	0	0	0	0	0	7	0	13	20	445
16:45	0	0	160	6	166	0	35	235	0	270	0	0	0	0	0	0	0	4	0	25	29	465
17:00	0	0	127	5	132	0	45	251	0	296	0	0	0	0	0	0	0	8	0	16	24	452
17:15	0	0	150	6	156	0	40	258	0	298	0	0	0	0	0	0	0	5	0	20	25	479
17:30	0	0	158	3	161	0	45	254	0	299	0	0	0	0	0	0	0	8	0	26	34	494

Station ID: S2006150099

Date: Wednesday 02/13/2019

Location: MD 355 at WEST OLD BALTIMORE

Interval (dd): 15 min

County: Montqomery

Town: none

Weather: Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		06:45	Montg	1609	C	0.77		17:00	Montg	1892	E	0.93

17:45	0	0	125	2	127	0	37	272	0	309	0	0	0	0	0	0	6	0	25	31	467
18:00	0	0	127	5	132	0	32	252	0	284	0	0	0	0	0	0	4	0	23	27	443
18:15	0	0	115	8	123	0	35	281	0	316	0	0	0	0	0	0	4	0	20	24	463
18:30	0	0	128	4	132	0	47	249	0	296	0	0	0	0	0	0	1	0	15	16	444
18:45	0	0	135	4	139	0	39	257	0	296	0	0	0	0	0	0	2	0	26	28	463
19:00	0	0	97	3	100	0	45	222	0	267	0	0	0	0	0	0	4	0	18	22	389
TOTAL:	1	0	8026	151	8178	0	1023	7898	0	8921	0	0	0	0	0	0	179	0	1209	1388	18487
AM Peak:	0	0	1063	7	1070	0	21	373	0	394	0	0	0	0	0	0	14	0	131	145	1609
PM Peak:	0	0	560	16	576	0	167	1035	0	1202	0	0	0	0	0	0	27	0	87	114	1892

Station ID: S2006150099

County: Montqomery

Comments:

Date: Wednesday 02/13/2019

Town: none

Location: MD 355 at WEST OLD BALTIMORE

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		06:45	Montg	1609	C	0.77		17:00	Montg	1892	E	0.93

Hour Ending	MD 355 North Leg			MD 355 South Leg			East Leg			West Old Baltimore Rd West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
6:15	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	1	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2006150099 **County:** Montqomery

Comments:

Date: Wednesday 02/13/2019

Town: none

Location: MD 355 at WEST OLD BALTIMORE

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		06:45	Montg	1609	C	0.77		17:00	Montg	1892	E	0.93

13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0
Total:	0	0	0	0	0	0	0	0	0	0	1	0
AM Pe	0	0	0	0	0	0	0	0	0	0	0	0
PM Pe	0	0	0	0	0	0	0	0	0	0	0	0

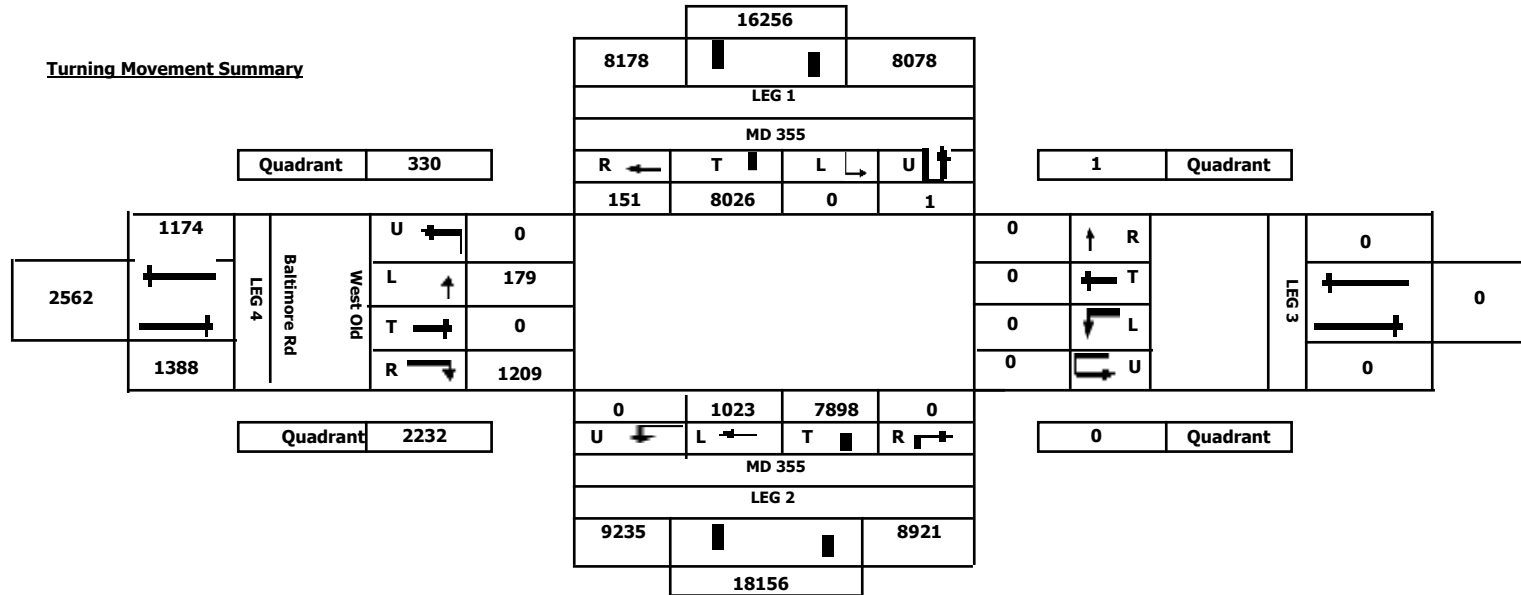
Station ID: S2006150099
Date: Wednesday 02/13/2019
Location: MD 355 at WEST OLD BALTIMORE
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

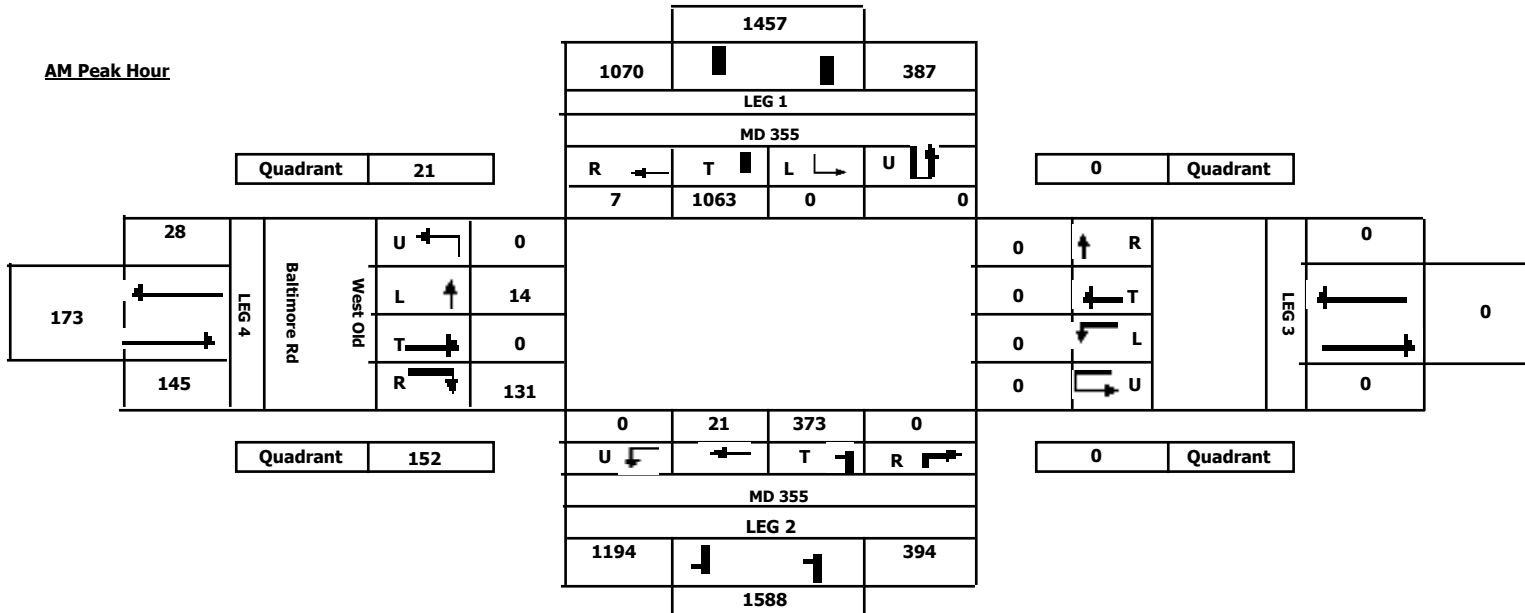
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		06:45	Montg	1609	C	0.77		17:00	Montg	1892	E	0.93

Turning Movement Summary



AM Peak Hour



Station ID:
Date:
Location:
Interval (dd):

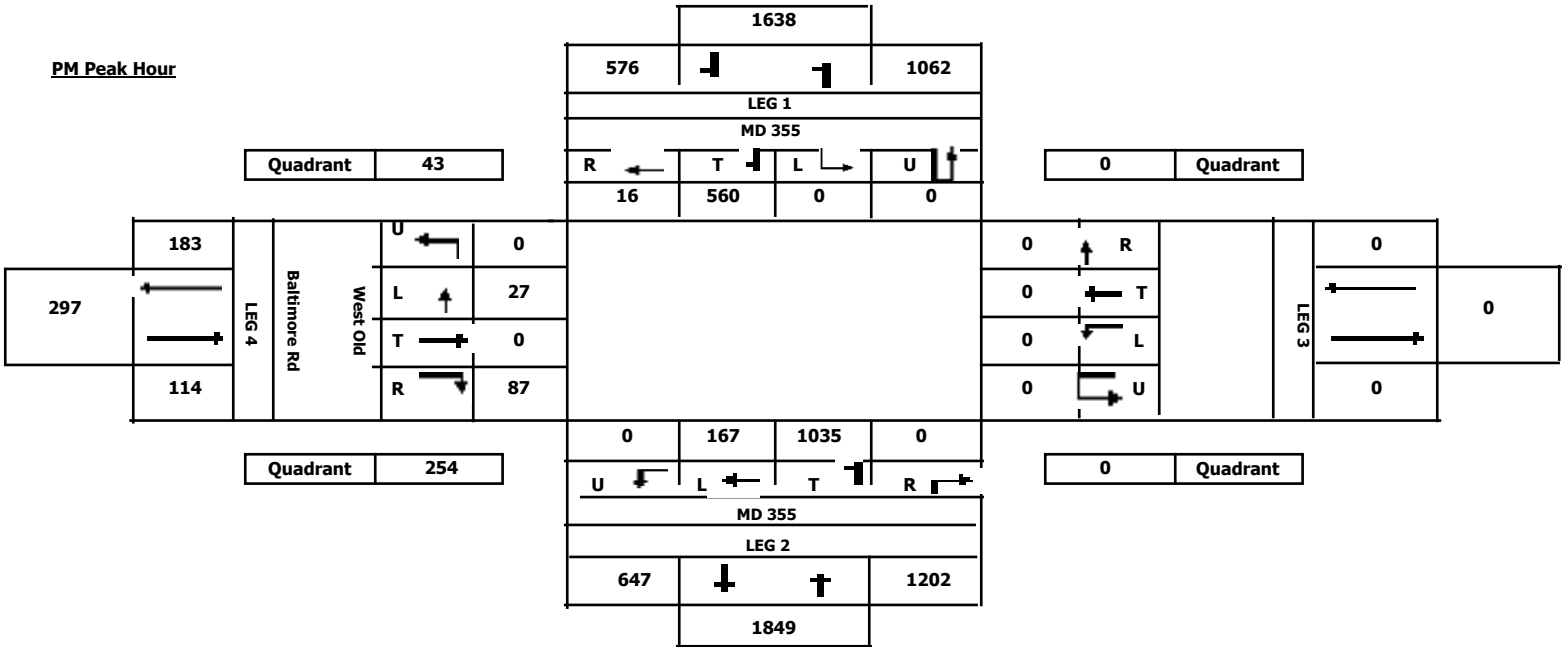
S2006150099
Wednesday 02/13/2019
MD 355 at WEST OLD BALTIMORE
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		06:45	Montg	1609	C	0.77		17:00	Montg	1892	E	0.93



Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2014150398

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at CANTERFIELD WAY/ROS

Weather: Cloudy/Cold

Interval 15 min
(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

Hour Ending	MD 355					MD 355					CANTERFIELD WAY					ROSECREST DR					Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Throug	Right	TOTAL	U.Turn	Left	Throug	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
0:15	0	0	11	0	11	0	0	12	0	12	0	0	0	0	0	0	1	0	0	1	24
0:30	0	0	9	0	9	0	3	10	1	14	0	0	0	1	1	0	0	0	0	0	24
0:45	0	0	4	0	4	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	11
1:00	0	0	3	1	4	0	0	17	0	17	0	0	0	0	0	0	2	0	0	2	23
1:15	0	0	2	0	2	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	12
1:30	0	0	4	0	4	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	11
1:45	0	0	1	0	1	0	0	8	0	8	0	0	0	0	0	0	0	0	1	1	10
2:00	0	0	3	0	3	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	6
2:15	0	0	1	0	1	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	4
2:30	0	0	3	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
2:45	0	0	4	0	4	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	8
3:00	0	0	5	1	6	0	0	5	0	5	0	0	0	0	0	0	0	1	0	1	12
3:15	0	0	2	0	2	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	5
3:30	0	0	2	0	2	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	5
3:45	0	0	4	0	4	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	8
4:00	0	0	11	0	11	0	0	4	0	4	0	0	0	0	0	0	0	0	1	1	16
4:15	0	0	8	0	8	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	12
4:30	0	0	12	0	12	0	0	6	0	6	0	1	0	0	1	0	0	0	1	1	20
4:45	0	0	23	0	23	0	0	8	0	8	0	1	0	0	1	0	0	0	1	1	33
5:00	0	0	32	0	32	0	0	11	0	11	0	0	0	1	1	0	0	0	1	1	45

Station ID: S2014150398

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at CANTERFIELD WAY/ROS

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM					Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P					Start	End	Volume	LOS	V/C
						07:15	08:15	1682	B	0.70						17:00	18:00	1737	B	0.67

5:15	0	0	44	0	44	0	0	10	0	10	0	0	0	0	0	0	0	0	3	3	57	
5:30	0	1	62	0	63	0	1	15	0	16	0	1	0	1	2	0	1	0	6	7	88	
5:45	0	0	101	0	101	0	0	28	0	28	0	1	0	0	1	0	1	0	4	5	135	
6:00	0	0	112	0	112	0	0	24	0	24	0	6	0	1	7	0	3	0	2	5	148	
6:15	0	1	183	0	184	0	0	52	0	52	0	2	0	1	3	0	2	0	12	14	253	
6:30	0	0	263	2	265	0	0	57	0	57	0	0	0	0	0	0	2	0	7	9	331	
6:45	0	1	267	1	269	0	1	52	0	53	0	2	0	1	3	0	6	0	4	10	335	
7:00	0	1	306	3	310	0	1	89	0	90	0	0	0	0	3	3	0	1	0	6	7	410
7:15	0	1	232	4	237	0	0	117	0	117	0	3	0	3	6	0	5	0	12	17	377	
7:30	0	1	246	1	248	0	2	166	0	168	0	1	0	7	8	0	13	0	7	20	444	
7:45	0	1	261	11	273	0	0	139	0	139	0	3	0	2	5	0	10	0	7	17	434	
8:00	0	0	268	10	278	0	2	118	0	120	0	2	0	4	6	0	7	0	5	12	416	
8:15	0	1	256	6	263	0	2	103	0	105	0	5	0	1	6	0	2	0	12	14	388	
8:30	0	0	277	2	279	0	1	92	0	93	0	2	0	2	4	0	6	0	3	9	385	
8:45	0	1	293	6	300	0	3	95	0	98	0	0	1	3	4	0	7	0	6	13	415	
9:00	0	0	288	2	290	0	0	92	3	95	0	1	0	1	2	0	4	0	6	10	397	
9:15	0	0	238	4	242	0	4	97	2	103	0	3	0	1	4	0	5	0	6	11	360	
9:30	0	2	196	4	202	0	3	108	1	112	0	0	0	0	0	0	1	0	9	10	324	
9:45	0	0	166	2	168	0	1	80	0	81	0	3	0	1	4	0	2	1	4	7	260	
10:00	0	0	150	1	151	0	1	70	1	72	0	1	0	0	1	0	0	0	3	3	227	
10:15	0	0	119	0	119	1	4	73	0	78	0	2	0	2	4	0	3	0	5	8	209	
10:30	0	0	108	3	111	0	3	64	0	67	0	0	0	0	0	0	3	0	2	5	183	
10:45	0	0	107	2	109	0	1	67	2	70	0	2	0	1	3	0	4	0	2	6	188	
11:00	0	1	99	0	100	0	4	101	0	105	0	3	0	0	3	0	3	0	2	5	213	
11:15	1	0	112	3	116	0	2	96	2	100	0	0	0	0	0	0	2	0	2	4	220	
11:30	0	3	134	3	140	0	2	102	1	105	0	0	0	1	1	0	3	0	3	6	252	

Station ID: S2014150398

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at CANTERFIELD WAY/ROS

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1682	B	0.70			17:00	18:00	1737	B	0.67

11:45	0	0	135	0	135	0	2	117	0	119	0	1	0	0	1	0	2	0	3	5	260
12:00	0	1	118	1	120	0	6	103	1	110	0	3	0	1	4	0	3	0	3	6	240
12:15	0	0	114	2	116	0	3	113	3	119	0	1	0	3	4	0	2	0	5	7	246
12:30	0	1	102	4	107	0	5	118	2	125	0	1	0	0	1	0	3	0	3	6	239
12:45	0	0	112	4	116	0	3	127	0	130	0	0	0	0	0	0	0	0	2	2	248
13:00	0	0	104	1	105	0	3	131	0	134	0	0	0	0	0	0	4	0	2	6	245
13:15	0	0	107	6	113	0	5	110	0	115	0	4	0	2	6	0	4	0	2	6	240
13:30	0	0	91	1	92	0	1	115	1	117	0	1	0	1	2	0	5	0	2	7	218
13:45	0	1	99	3	103	1	2	143	0	146	1	1	1	1	4	0	2	0	2	4	257
14:00	0	1	79	3	83	0	1	134	2	137	0	2	0	1	3	0	3	0	2	5	228
14:15	0	0	91	3	94	0	2	144	0	146	0	0	0	0	0	0	2	0	1	3	243
14:30	0	1	84	4	89	0	4	135	0	139	0	0	0	1	1	0	3	0	1	4	233
14:45	0	3	208	5	216	0	3	155	0	158	0	0	0	0	0	0	1	0	5	6	380
15:00	1	0	124	0	125	0	8	167	1	176	0	1	0	2	3	0	5	0	6	11	315
15:15	0	2	116	8	126	0	3	206	3	212	0	0	0	1	1	0	5	0	6	11	350
15:30	0	0	114	3	117	0	6	225	1	232	0	2	0	2	4	0	5	0	2	7	360
15:45	0	0	119	6	125	0	5	237	1	243	0	4	1	1	6	0	4	0	1	5	379
16:00	0	1	120	8	129	0	8	242	1	251	0	2	0	2	4	0	2	0	4	6	390
16:15	0	1	163	8	172	0	7	239	3	249	0	0	0	1	1	0	3	0	5	8	430
16:30	0	2	146	6	154	0	5	241	1	247	0	0	0	3	3	0	6	0	3	9	413
16:45	0	0	156	6	162	0	5	225	0	230	0	1	0	0	1	0	4	0	1	5	398
17:00	0	3	119	1	123	0	5	257	0	262	0	0	0	2	2	0	4	0	4	8	395
17:15	0	1	161	5	167	0	8	231	4	243	0	1	0	2	3	0	3	0	3	6	419
17:30	0	2	144	11	157	0	7	277	0	284	0	0	0	1	1	0	5	0	5	10	452
17:45	0	5	145	7	157	0	11	247	0	258	0	0	0	2	2	1	3	0	4	8	425
18:00	0	0	136	9	145	0	9	276	2	287	0	1	0	1	2	0	6	0	2	8	442

Station ID: S2014150398

County: Montqomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at CANTERFIELD WAY/ROS

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1682	B	0.70			17:00	18:00	1737	B	0.67

18:15	0	1	134	7	142	0	8	229	2	239	0	2	0	1	3	0	5	0	5	10	394
18:30	0	0	123	8	131	0	14	258	1	273	0	3	0	1	4	0	2	0	5	7	415
18:45	0	5	128	4	137	0	8	220	2	230	0	1	0	4	5	0	3	0	4	7	379
19:00	0	0	90	2	92	1	7	219	4	231	0	0	1	1	2	0	5	0	7	12	337
19:15	0	1	81	5	87	0	5	160	5	170	0	4	0	2	6	0	2	0	3	5	268
19:30	0	0	79	4	83	0	8	141	0	149	0	0	0	1	1	0	6	0	3	9	242
19:45	0	3	66	8	77	0	3	94	0	97	0	1	0	0	1	0	4	0	9	13	188
20:00	0	0	64	4	68	0	6	77	2	85	0	0	0	0	0	0	3	0	0	3	156
20:15	0	1	45	5	51	0	4	83	3	90	0	1	1	0	2	0	1	0	0	1	144
20:30	0	0	69	7	76	0	4	105	2	111	0	4	0	1	5	0	1	0	0	1	193
20:45	0	1	92	3	96	0	4	88	0	92	0	0	0	0	0	0	2	1	2	5	193
21:00	0	3	30	3	36	0	5	84	3	92	0	0	0	1	1	0	1	1	3	5	134
21:15	0	1	45	3	49	0	4	73	1	78	0	0	0	0	0	0	3	0	2	5	132
21:30	0	0	32	5	37	0	1	85	1	87	0	0	1	0	1	0	0	1	3	4	129
21:45	0	0	26	1	27	0	3	86	4	93	0	0	1	0	1	0	0	1	1	2	123
22:00	0	0	32	2	34	0	4	45	0	49	0	0	0	0	0	0	1	0	1	2	85
22:15	0	0	25	2	27	0	3	67	0	70	0	0	0	0	0	0	1	0	1	2	99
22:30	0	0	33	1	34	0	3	44	2	49	0	1	0	0	1	0	0	0	1	1	85
22:45	0	0	18	0	18	0	0	35	1	36	0	0	0	1	1	0	0	0	0	0	55
23:00	0	0	21	2	23	0	1	28	2	31	0	0	0	0	0	0	2	0	0	2	56
23:15	0	1	14	0	15	0	3	19	0	22	0	0	0	0	0	0	0	0	0	0	37
23:30	0	0	12	1	13	0	1	23	0	24	0	0	0	0	0	0	0	0	0	0	37
23:45	1	0	10	0	11	0	0	24	0	24	0	0	0	0	0	0	0	0	0	0	35
0:00	0	0	8	0	8	0	1	22	0	23	0	0	0	0	0	0	2	0	0	2	33

Station ID:
Date:
Location:
Interval (dd):

S2014150398
Wednesday 03/06/2019
MD 355 at CANTERFIELD WAY/ROS
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

TOTAL:	3	57	9516	264	9840	3	269	9260	74	9606	1	88	7	81	177	1	232	6	274	513	20136
AM Peak:	0	3	1031	28	1062	0	6	526	0	532	0	11	0	14	25	0	32	0	31	63	1682
PM Peak:	0	8	586	32	626	0	35	1031	6	1072	0	2	0	6	8	1	17	0	14	31	1737

Station ID: S2014150398 **County:** Montqomery

Date: Wednesday 03/06/2019 **Town:** none

Location: MD 355 at CANTERFIELD WAY/ROS **Weather:** Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

Hour Ending	MD 355 North Leg			MD 355 South Leg			CANTERFIELD WAY East Leg			ROSECREST DR West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrains	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
0:15	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2014150398

County: Montqomery

Comments:

Date: Wednesday 03/06/2019

Town: none

Location: MD 355 at CANTERFIELD WAY/ROS

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

7:15	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	1	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	1	0	0	1	0	0	0	0
11:45	0	0	0	0	1	0	0	0	0	0	0	0
12:00	0	0	0	0	2	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	1	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	1	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	2	0	0
14:30	0	0	0	0	0	0	0	0	0	1	0	0
14:45	0	1	0	0	0	0	0	0	0	2	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2014150398**County:** Montqomery**Comments:****Date:** Wednesday 03/06/2019**Town:** none**Location:** MD 355 at CANTERFIELD WAY/ROS**Weather:** Cloudy/Cold**Interval** 15 min**(dd):**

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID:
Date:
Location:
Interval (dd):

S2014150398
Wednesday 03/06/2019
MD 355 at CANTERFIELD WAY/ROS
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

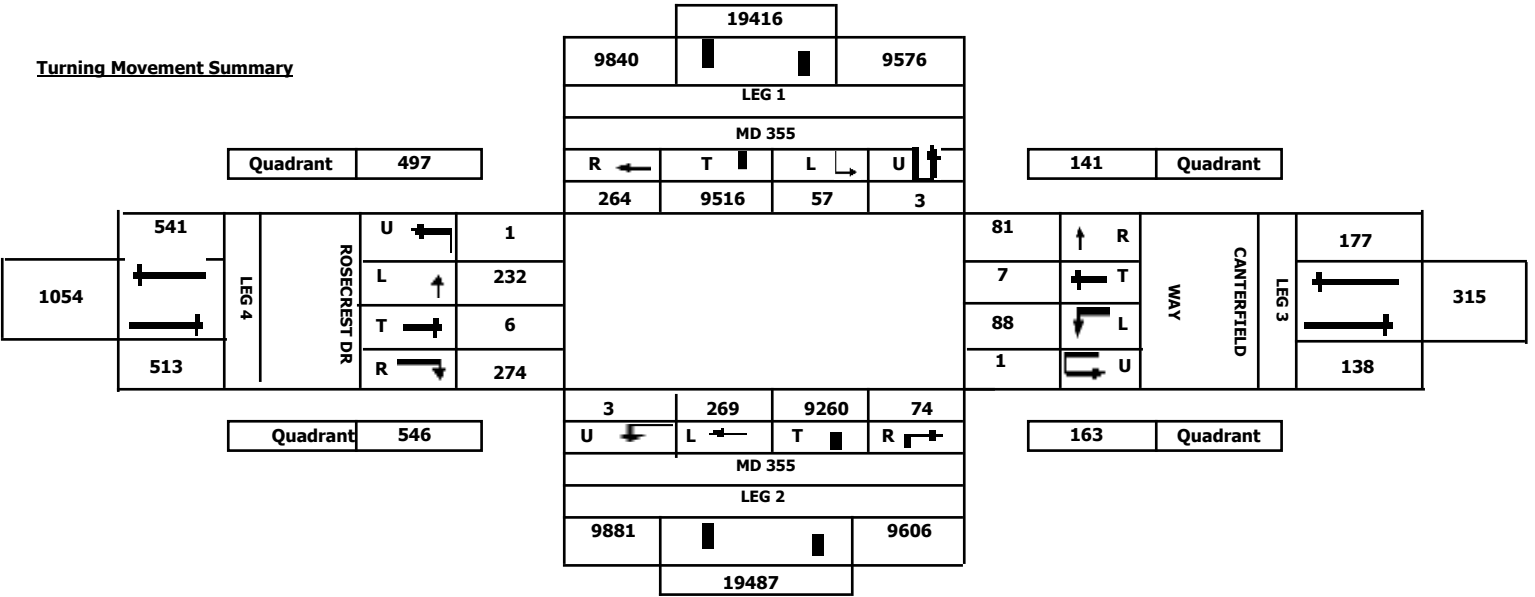
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

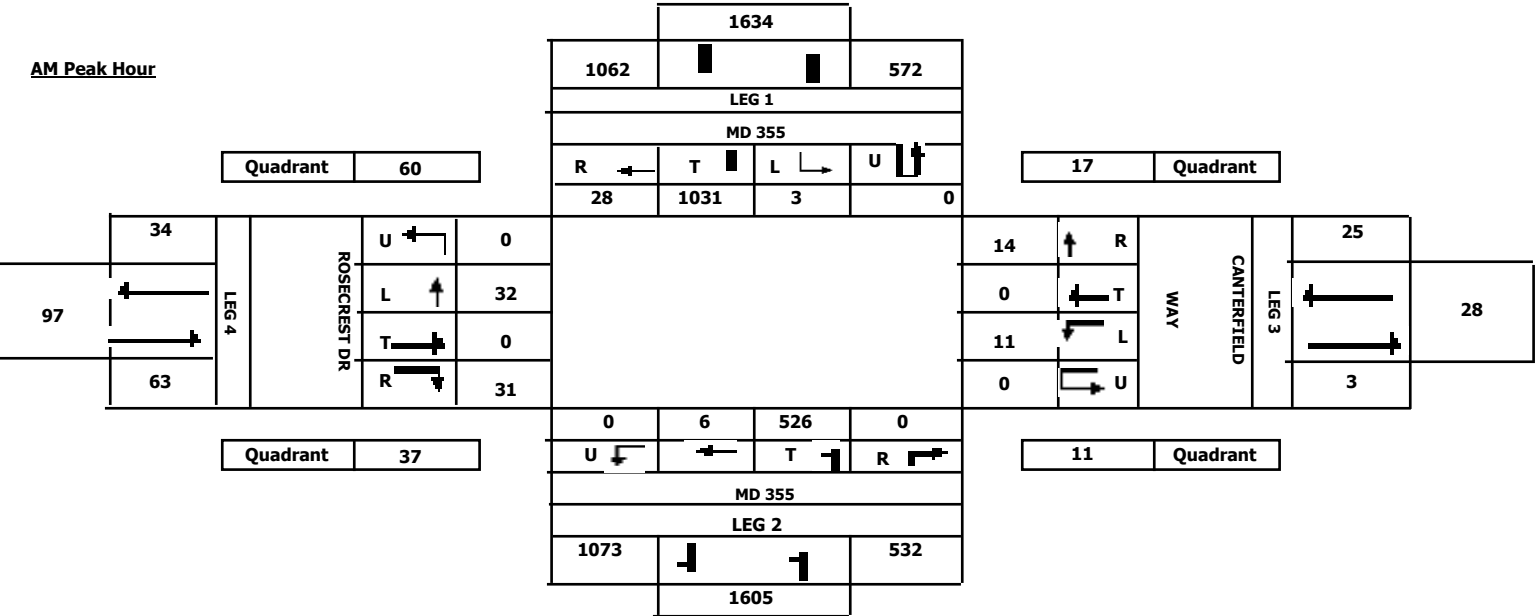
23:15	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:30	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:45	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
0:00	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
Total:	<div>0</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>6</div>	<div>0</div>	<div>0</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>6</div>	<div>0</div>
AM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
PM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67

Turning Movement Summary



AM Peak Hour



Station ID:
Date:
Location:
Interval (dd):

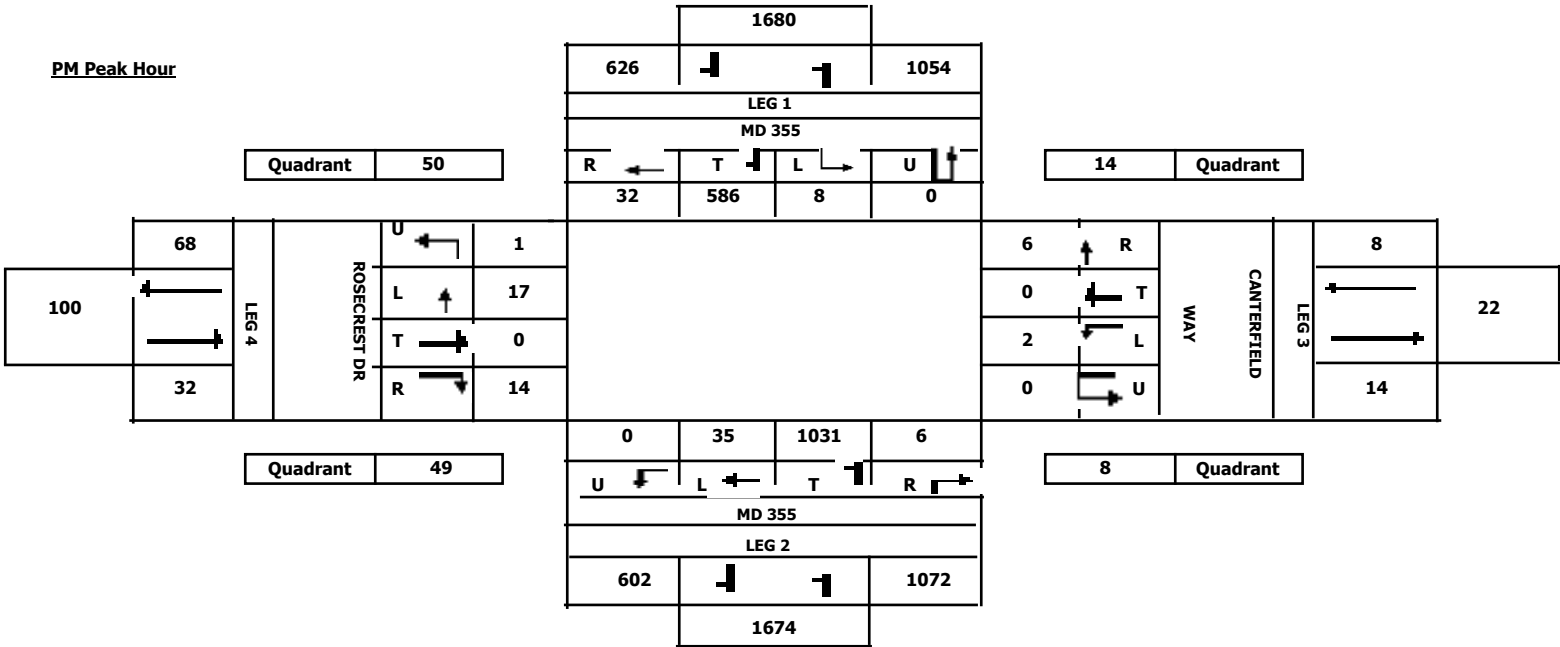
S2014150398
Wednesday 03/06/2019
MD 355 at CANTERFIELD WAY/ROS
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1682	B	0.70		17:00	18:00	1737	B	0.67



Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2007150032
Date: Tuesday 03/05/2019
Location: MD 355 at NEWCUT RD
Interval (dd): 15 min

County: Montgomery
Town: none
Weather: Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67

Hour Ending	MD 355					MD 355					NEWCUT RD										Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Throug	Right	TOTAL	U.Turn	Left	Throug	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
0:15	0	0	10	0	10	0	0	12	0	12	0	1	0	0	1	0	0	0	0	0	23
0:30	0	0	10	0	10	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	20
0:45	0	0	3	0	3	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	12
1:00	0	0	4	0	4	0	0	19	1	20	0	0	0	0	0	0	0	0	0	0	24
1:15	0	0	3	0	3	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	13
1:30	0	0	2	0	2	0	0	6	1	7	0	1	0	0	1	0	0	0	0	0	10
1:45	0	1	2	0	3	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	9
2:00	0	0	3	0	3	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	7
2:15	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3
2:30	0	0	3	0	3	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	5
2:45	0	0	2	0	2	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	6
3:00	0	0	5	0	5	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	10
3:15	0	0	3	0	3	0	0	1	1	2	0	0	0	1	1	0	0	0	0	0	6
3:30	0	0	2	0	2	0	0	4	0	4	0	0	0	1	1	0	0	0	0	0	7
3:45	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
4:00	0	0	10	0	10	0	0	6	0	6	0	1	0	0	1	0	0	0	0	0	17
4:15	0	0	8	0	8	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	11
4:30	0	0	8	0	8	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	14
4:45	0	0	16	0	16	0	0	9	0	9	0	5	0	0	5	0	0	0	0	0	30
5:00	0	0	26	0	26	0	0	12	0	12	0	5	0	0	5	0	0	0	0	0	43

Station ID: S2007150032

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at NEWCUT RD

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM					Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P					Start	End	Volume	LOS	V/C
						07:15	08:15	1645	B	0.66						17:00	18:00	1675	B	0.67

5:15	0	0	38	0	38	0	0	11	0	11	0	4	0	0	4	0	0	0	0	0	53
5:30	0	0	47	0	47	0	0	13	0	13	0	7	0	0	7	0	0	0	0	0	67
5:45	0	0	87	0	87	0	0	25	0	25	0	9	0	0	9	0	0	0	0	0	121
6:00	0	0	100	0	100	0	0	33	1	34	0	13	0	0	13	0	0	0	0	0	147
6:15	0	0	152	0	152	0	0	45	1	46	0	10	0	0	10	0	0	0	0	0	208
6:30	0	1	249	0	250	0	0	64	1	65	0	4	0	0	4	0	0	0	0	0	319
6:45	0	0	283	0	283	0	0	55	4	59	0	7	0	1	8	0	0	0	0	0	350
7:00	0	0	284	0	284	0	0	80	0	80	0	7	0	0	7	0	0	0	0	0	371
7:15	0	0	238	0	238	0	0	107	3	110	0	5	0	0	5	0	0	0	0	0	353
7:30	0	0	233	0	233	0	0	181	1	182	0	7	0	3	10	0	0	0	0	0	425
7:45	0	1	264	0	265	0	0	161	2	163	0	6	0	2	8	0	0	0	0	0	436
8:00	0	0	270	0	270	0	0	132	1	133	0	8	0	0	8	0	0	0	0	0	411
8:15	0	1	252	0	253	0	0	116	0	116	0	4	0	0	4	0	0	0	0	0	373
8:30	0	0	269	0	269	0	0	93	3	96	0	7	0	0	7	0	0	0	0	0	372
8:45	0	1	307	0	308	0	0	96	0	96	0	11	0	0	11	0	0	0	0	0	415
9:00	0	3	268	0	271	0	0	97	1	98	0	10	0	0	10	0	0	0	0	0	379
9:15	0	2	244	0	246	0	0	98	5	103	0	9	0	1	10	0	0	0	0	0	359
9:30	0	0	195	0	195	0	0	99	4	103	0	6	0	0	6	0	0	0	0	0	304
9:45	0	0	174	0	174	0	0	96	3	99	0	9	0	0	9	0	0	0	0	0	282
10:00	0	0	152	0	152	0	0	66	1	67	0	6	0	0	6	0	0	0	0	0	225
10:15	0	0	113	0	113	0	0	78	2	80	0	3	0	0	3	0	0	0	0	0	196
10:30	0	0	93	0	93	0	0	70	3	73	0	14	0	2	16	0	0	0	0	0	182
10:45	0	0	108	0	108	0	0	63	3	66	0	3	0	0	3	0	0	0	0	0	177
11:00	0	1	98	0	99	0	0	96	3	99	0	5	0	1	6	0	0	0	0	0	204
11:15	0	1	107	0	108	0	0	85	2	87	0	8	0	1	9	0	0	0	0	0	204
11:30	0	0	125	0	125	0	0	118	2	120	0	1	0	2	3	0	0	0	0	0	248

Station ID: S2007150032
Date: Tuesday 03/05/2019
Location: MD 355 at NEWCUT RD

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1645	B	0.66			17:00	18:00	1675	B	0.67

11:45	0	2	134	0	136	0	0	106	2	108	0	5	0	1	6	0	0	0	0	0	250
12:00	0	2	123	0	125	0	0	113	3	116	0	4	0	1	5	0	0	0	0	0	246
12:15	0	0	116	0	116	0	0	110	0	110	0	3	0	1	4	0	0	0	0	0	230
12:30	0	0	104	0	104	0	0	116	3	119	0	3	0	1	4	0	0	0	0	0	227
12:45	0	1	115	0	116	0	0	130	2	132	0	2	0	1	3	0	0	0	0	0	251
13:00	0	0	108	0	108	0	0	136	5	141	0	3	0	0	3	0	0	0	0	0	252
13:15	0	2	105	0	107	0	0	116	2	118	0	4	0	2	6	0	0	0	0	0	231
13:30	0	0	91	0	91	0	0	120	4	124	0	1	0	2	3	0	0	0	0	0	218
13:45	0	0	96	0	96	0	0	116	3	119	0	5	0	1	6	0	0	0	0	0	221
14:00	0	1	82	0	83	0	0	146	1	147	0	6	0	1	7	0	0	0	0	0	237
14:15	0	2	82	0	84	0	0	137	1	138	0	4	0	1	5	0	0	0	0	0	227
14:30	0	1	88	0	89	0	0	150	3	153	0	4	0	1	5	0	0	0	0	0	247
14:45	0	0	195	0	195	1	0	142	2	145	0	5	0	4	9	0	0	0	0	0	349
15:00	0	2	138	0	140	0	0	171	4	175	0	3	0	2	5	0	0	0	0	0	320
15:15	0	0	122	0	122	0	0	193	4	197	0	0	0	0	0	0	0	0	0	0	319
15:30	0	0	114	0	114	0	0	233	6	239	0	3	0	0	3	0	0	0	0	0	356
15:45	0	1	117	0	118	0	0	230	3	233	0	4	0	0	4	0	0	0	0	0	355
16:00	0	0	130	0	130	0	0	248	3	251	0	1	0	2	3	0	0	0	0	0	384
16:15	0	1	155	0	156	0	0	246	2	248	0	4	0	0	4	0	0	0	0	0	408
16:30	0	0	166	0	166	0	0	248	4	252	0	1	0	0	1	0	0	0	0	0	419
16:45	0	0	156	0	156	0	0	221	3	224	0	3	0	2	5	0	0	0	0	0	385
17:00	0	0	128	0	128	0	0	252	6	258	0	3	0	0	3	0	0	0	0	0	389
17:15	0	0	162	0	162	0	0	243	3	246	0	3	0	2	5	0	0	0	0	0	413
17:30	1	0	160	0	161	0	0	245	6	251	0	5	0	0	5	0	0	0	0	0	417
17:45	0	0	148	0	148	0	0	268	9	277	0	3	0	1	4	0	0	0	0	0	429
18:00	0	1	142	0	143	0	0	264	4	268	0	5	0	1	6	0	0	0	0	0	417

Station ID: S2007150032

County: Montqomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at NEWCUT RD

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM		Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P		Start	End	Volume	LOS	V/C
			07:15	08:15	1645	B	0.66			17:00	18:00	1675	B	0.67

18:15	0	1	142	0	143	0	0	240	9	249	0	4	0	1	5	0	0	0	0	0	397
18:30	0	0	120	0	120	0	0	251	8	259	0	6	0	1	7	0	0	0	0	0	386
18:45	0	0	128	0	128	0	0	233	11	244	0	3	0	0	3	0	0	0	0	0	375
19:00	0	0	106	0	106	0	0	196	6	202	0	3	0	0	3	0	0	0	0	0	311
19:15	0	0	84	0	84	0	0	184	5	189	0	5	0	1	6	0	0	0	0	0	279
19:30	0	0	78	0	78	0	0	138	5	143	0	1	0	0	1	0	0	0	0	0	222
19:45	0	2	80	0	82	0	0	114	6	120	0	5	0	2	7	0	0	0	0	0	209
20:00	0	0	69	0	69	0	0	84	1	85	0	0	0	0	0	0	0	0	0	0	154
20:15	0	0	46	0	46	0	0	88	2	90	0	3	0	1	4	0	0	0	0	0	140
20:30	0	0	60	0	60	0	0	97	1	98	0	3	0	2	5	0	0	0	0	0	163
20:45	0	1	102	0	103	0	0	99	5	104	0	3	0	0	3	0	0	0	0	0	210
21:00	0	0	36	0	36	0	0	69	6	75	0	0	0	2	2	0	0	0	0	0	113
21:15	0	0	45	0	45	0	0	78	4	82	0	2	0	0	2	0	0	0	0	0	129
21:30	0	0	44	0	44	0	0	84	2	86	0	2	0	0	2	0	0	0	0	0	132
21:45	0	0	25	0	25	0	0	55	1	56	0	2	0	0	2	0	0	0	0	0	83
22:00	0	0	28	0	28	0	0	46	3	49	0	0	0	0	0	0	0	0	0	0	77
22:15	0	0	29	0	29	0	0	58	2	60	0	1	0	0	1	0	0	0	0	0	90
22:30	0	0	34	0	34	0	0	35	1	36	0	2	0	0	2	0	0	0	0	0	72
22:45	0	1	17	0	18	0	0	52	1	53	0	0	0	1	1	0	0	0	0	0	72
23:00	0	0	26	0	26	0	0	27	1	28	0	1	0	0	1	0	0	0	0	0	55
23:15	0	0	12	0	12	0	0	23	0	23	0	0	0	0	0	0	0	0	0	0	35
23:30	0	1	12	0	13	0	0	24	0	24	0	4	0	0	4	0	0	0	0	0	41
23:45	0	0	9	0	9	0	0	26	0	26	0	2	0	1	3	0	0	0	0	0	38
0:00	0	1	9	0	10	0	0	17	1	18	0	0	0	0	0	0	0	0	0	0	28

Station ID:
Date:
Location:
Interval (dd):

S2007150032
Wednesday 03/06/2019
MD 355 at NEWCUT RD
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67

TOTAL:	1	35	9491	0	9527	1	0	9324	219	9544	0	338	0	54	392	0	0	0	0	0	19463
AM Peak:	0	2	1019	0	1021	0	0	590	4	594	0	25	0	5	30	0	0	0	0	0	1645
PM Peak:	1	1	612	0	613	0	0	1020	22	1042	0	16	0	4	20	0	0	0	0	0	1675

Station ID: S2007150032

Date: Wednesday 03/06/2019

Location: MD 355 at NEWCUT RD

Interval (dd): 15 min

County: Montqomery

Town: none

Weather: Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67

Hour Ending	MD 355 North Leg			MD 355 South Leg			NEWCUT RD East Leg			West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrains	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
0:15	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2007150032
Date: Wednesday 03/06/2019
Location: MD 355 at NEWCUT RD

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67

15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID: S2007150032
Date: Wednesday 03/06/2019
Location: MD 355 at NEWCUT RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67

23:15	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:30	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:45	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
0:00	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
Total:	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
AM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
PM Pe	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>

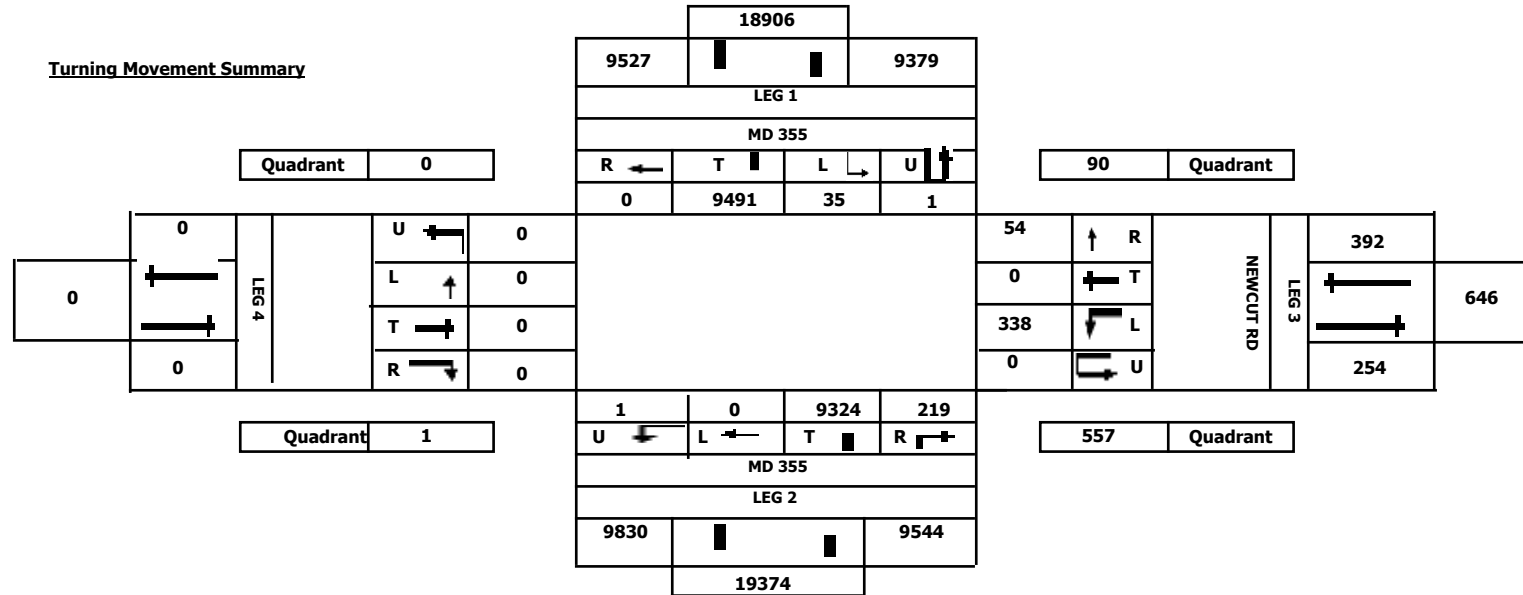
Station ID: S2007150032
Date: Wednesday 03/06/2019
Location: MD 355 at NEWCUT RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

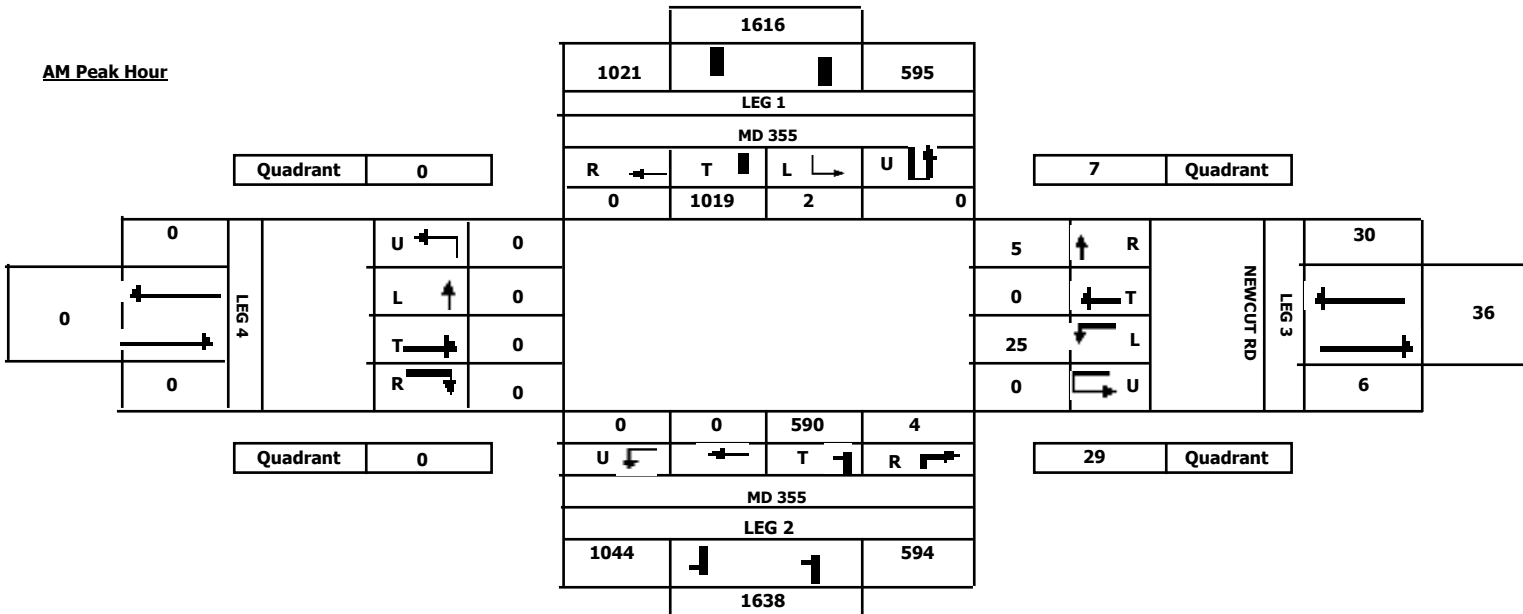
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67

Turning Movement Summary



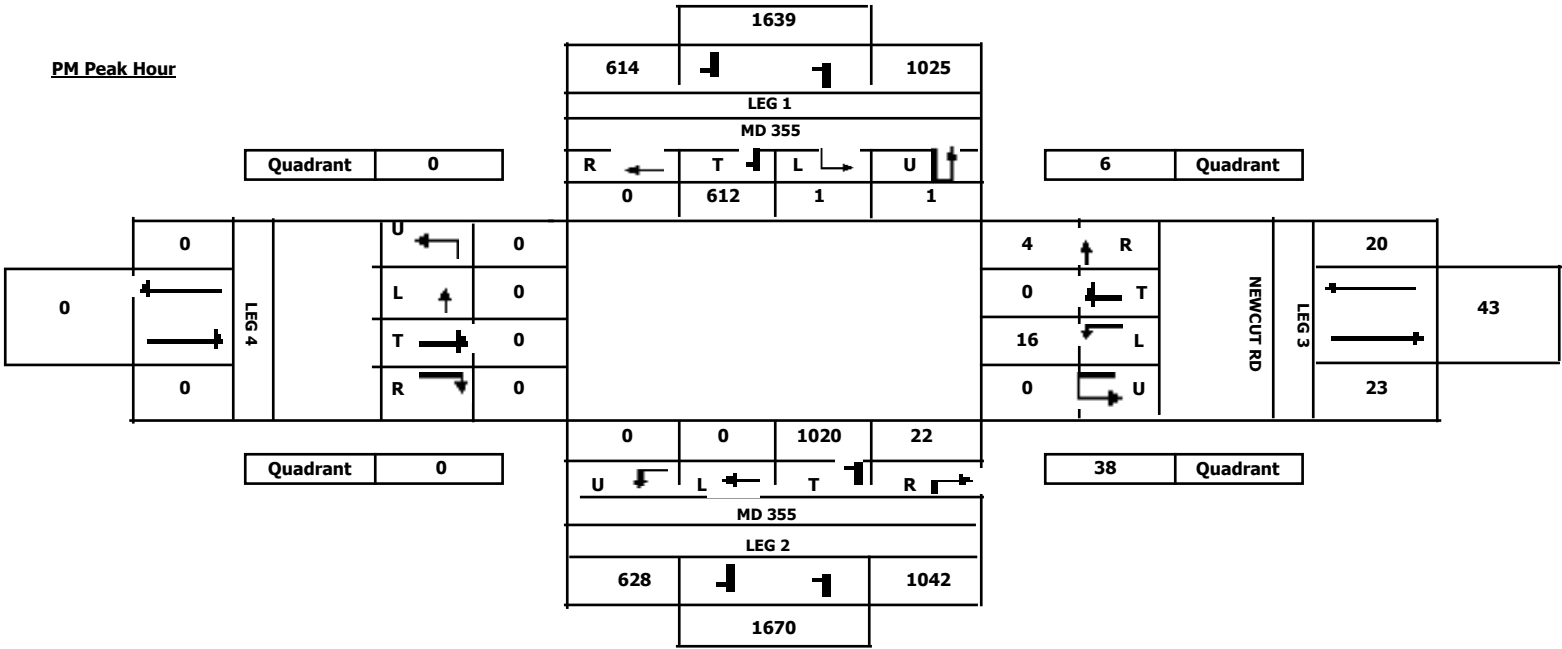
AM Peak Hour



Station ID: S2007150032
Date: Wednesday 03/06/2019
Location: MD 355 at NEWCUT RD
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	1645	B	0.66		17:00	18:00	1675	B	0.67



Maryland Department of Transportation
State Highway Administration Data Services Engineering Division
Turning Movement Count Study - Field Sheet

Station ID: S2004150096

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Little Seneca Pkwy

Weather: Cloudy/Cold

Interval 15 min
(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

Hour Ending	MD 355					MD 355					Little Seneca Pkwy					Little Senca Pkwy					Grand Total
	From North					From South					From East					From West					
	U.Tur	Left	Through	Right	TOTAL	U.Turn	Left	Throug	Right	TOTAL	U.Turn	Left	Throug	RIGHT	TOTAL	U.Turn	Left	Through	Right	TOTAL	
0:15	0	1	4	0	5	0	2	7	7	16	0	4	1	1	6	0	0	0	0	0	27
0:30	0	3	9	0	12	0	0	4	5	9	0	2	1	0	3	0	0	0	1	1	25
0:45	0	0	2	0	2	0	0	7	2	9	0	1	0	1	2	0	0	1	0	1	14
1:00	0	2	2	1	5	0	2	13	1	16	0	1	1	0	2	0	1	0	1	2	25
1:15	0	1	3	0	4	0	0	9	5	14	0	0	0	0	0	0	0	0	0	0	18
1:30	0	0	2	0	2	0	0	4	1	5	0	0	1	1	2	0	0	0	0	0	9
1:45	0	0	2	0	2	0	0	5	2	7	0	0	0	0	0	0	0	0	1	1	10
2:00	0	1	0	0	1	0	1	2	0	3	0	3	0	0	3	0	0	0	0	0	7
2:15	0	0	0	1	1	0	0	1	1	2	0	1	0	0	1	0	0	0	0	0	4
2:30	0	0	3	0	3	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	6
2:45	0	1	2	0	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	6
3:00	0	0	3	0	3	0	0	4	1	5	0	2	0	0	2	0	0	0	0	0	10
3:15	0	1	2	1	4	0	0	2	0	2	0	0	0	0	0	0	0	0	1	1	7
3:30	0	0	1	0	1	0	1	4	0	5	0	0	0	0	0	0	1	0	1	2	8
3:45	0	0	2	0	2	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4
4:00	0	0	6	0	6	0	0	4	1	5	0	1	0	0	1	0	1	0	3	4	16
4:15	0	0	6	0	6	0	0	1	0	1	0	1	0	1	2	0	0	0	0	0	9
4:30	0	1	4	0	5	0	0	7	0	7	0	2	0	1	3	0	0	0	2	2	17
4:45	0	3	13	0	16	0	0	8	1	9	0	3	0	1	4	0	2	0	2	4	33
5:00	0	6	18	0	24	0	0	9	4	13	0	7	0	5	12	0	0	2	3	5	54

Station ID: S2004150096

County: Montgomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Little Seneca Pkwy

Weather: Cloudy/Cold

Interval 15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM					Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P					Start	End	Volume	LOS	V/C
						07:15	08:15	2113	B	0.64						17:00	18:00	1839	A	0.61

5:15	0	2	28	1	31	0	0	8	1	9	0	5	0	1	6	0	0	0	3	3	49
5:30	0	2	28	0	30	0	0	11	2	13	0	14	1	3	18	0	0	0	4	4	65
5:45	0	1	70	0	71	0	2	23	1	26	0	12	0	4	16	0	0	0	2	2	115
6:00	0	3	76	0	79	0	1	20	4	25	0	21	0	4	25	0	0	0	9	9	138
6:15	0	8	102	4	114	0	0	37	6	43	0	35	2	6	43	0	2	0	15	17	217
6:30	0	5	187	1	193	0	4	56	6	66	0	43	2	8	53	0	0	1	9	10	322
6:45	0	5	221	5	231	0	1	51	6	58	1	49	5	6	61	0	2	5	12	19	369
7:00	0	4	243	3	250	0	5	55	18	78	0	34	2	12	48	0	0	2	9	11	387
7:15	0	8	195	5	208	0	7	82	14	103	0	38	5	29	72	0	3	2	16	21	404
7:30	0	15	174	12	201	0	11	152	13	176	0	44	8	42	94	0	5	3	16	24	495
7:45	0	26	188	17	231	0	18	125	30	173	0	39	27	57	123	0	10	6	31	47	574
8:00	0	23	193	34	250	0	26	71	27	124	0	37	37	16	90	0	22	13	46	81	545
8:15	0	6	145	20	171	0	38	62	26	126	0	39	29	18	86	0	30	17	69	116	499
8:30	0	6	181	5	192	0	9	62	17	88	0	53	4	8	65	0	5	5	31	41	386
8:45	0	5	231	2	238	0	6	64	27	97	0	56	2	17	75	0	2	3	14	19	429
9:00	0	11	201	5	217	0	5	70	30	105	0	61	1	8	70	0	3	3	15	21	413
9:15	0	10	168	3	181	0	10	62	23	95	0	54	2	16	72	1	8	3	30	42	390
9:30	0	10	141	2	153	0	8	71	24	103	0	42	2	3	47	0	3	0	9	12	315
9:45	0	6	139	3	148	0	7	66	24	97	0	22	0	8	30	0	3	3	12	18	293
10:00	0	12	105	1	118	0	5	42	18	65	0	36	1	7	44	0	3	3	14	20	247
10:15	0	5	84	1	90	0	11	55	16	82	0	19	1	9	29	0	2	0	11	13	214
10:30	0	10	62	3	75	0	5	51	11	67	0	24	1	13	38	0	3	0	7	10	190
10:45	0	11	74	2	87	0	4	55	10	69	0	22	0	8	30	0	0	2	12	14	200
11:00	0	9	64	2	75	0	8	70	18	96	0	19	1	7	27	0	3	4	12	19	217
11:15	0	6	88	4	98	0	3	66	20	89	0	20	2	7	29	0	3	3	5	11	227
11:30	0	18	98	2	118	0	5	86	23	114	0	17	3	4	24	0	2	2	6	10	266

Station ID: S2004150096

County: Montqomery

Comments:

Date: Tuesday 03/05/2019

Town: none

Location: MD 355 at Little Seneca Pkwy

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

11:45	0	9	100	1	110	0	7	84	22	113	0	26	4	7	37	0	1	3	12	16	276
12:00	0	10	93	0	103	0	9	80	15	104	0	26	4	8	38	0	5	1	6	12	257
12:15	0	16	78	2	96	0	7	76	32	115	0	22	2	8	32	0	2	3	15	20	263
12:30	0	12	76	3	91	0	4	77	34	115	0	26	1	7	34	0	0	0	5	5	245
12:45	0	9	87	3	99	0	11	94	26	131	0	18	2	7	27	0	2	0	13	15	272
13:00	0	10	67	2	79	0	8	95	26	129	0	24	0	10	34	0	3	1	17	21	263
13:15	0	5	68	3	76	0	4	95	29	128	0	27	1	8	36	0	4	0	6	10	250
13:30	0	8	65	2	75	0	4	78	29	111	0	23	2	5	30	1	1	1	8	11	227
13:45	0	11	67	2	80	0	7	91	27	125	0	21	1	9	31	0	4	0	7	11	247
14:00	0	13	58	1	72	0	8	110	25	143	0	13	1	13	27	0	2	0	8	10	252
14:15	0	6	57	1	64	0	8	106	27	141	0	15	1	15	31	0	3	2	7	12	248
14:30	0	8	68	3	79	0	7	110	25	142	0	17	2	21	40	0	5	3	9	17	278
14:45	0	32	145	10	187	0	13	104	29	146	0	16	4	17	37	0	3	2	22	27	397
15:00	0	16	122	12	150	0	25	116	34	175	0	12	7	14	33	0	2	0	12	14	372
15:15	0	17	61	9	87	0	30	112	51	193	0	23	5	8	36	0	28	12	34	74	390
15:30	0	14	70	8	92	0	15	171	42	228	1	26	1	13	41	0	12	9	16	37	398
15:45	0	12	75	5	92	0	11	172	44	227	0	26	5	13	44	0	13	9	18	40	403
16:00	0	20	94	3	117	0	12	187	48	247	0	31	3	13	47	0	7	5	7	19	430
16:15	0	15	112	12	139	0	17	185	52	254	0	26	5	11	42	0	6	4	12	22	457
16:30	0	25	125	14	164	0	19	187	34	240	0	28	8	12	48	0	15	11	14	40	492
16:45	0	20	114	3	137	0	10	175	41	226	0	29	3	7	39	0	17	6	11	34	436
17:00	0	13	103	3	119	0	21	188	39	248	0	23	1	9	33	0	4	1	12	17	417
17:15	0	22	120	3	145	0	17	186	47	250	0	31	5	22	58	0	8	2	8	18	471
17:30	0	18	119	4	141	0	11	179	47	237	0	33	2	7	42	0	7	2	7	16	436
17:45	0	23	104	6	133	0	14	197	61	272	0	32	3	4	39	0	4	2	8	14	458
18:00	0	22	106	5	133	0	20	192	53	265	0	38	10	20	68	0	1	2	5	8	474

Station ID:

S2004150096

Date:

Tuesday 03/05/2019

Location:

MD 355 at Little Seneca Pkwy

County:

Montgomery

Town:

none

Weather:

Cloudy/Cold

Comments:

Interval

15 min

(dd):

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

18:15	0	28	94	6	128	0	19	172	45	236	0	35	6	13	54	1	4	8	11	24	442
18:30	0	12	79	5	96	0	24	179	56	259	0	35	11	13	59	0	4	2	10	16	430
18:45	0	20	78	7	105	0	19	150	60	229	0	36	3	3	42	0	5	6	12	23	399
19:00	0	14	69	6	89	0	18	142	46	206	0	28	6	20	54	0	3	6	11	20	369
19:15	0	9	53	1	63	0	15	115	52	182	0	27	5	15	47	0	4	8	9	21	313
19:30	0	16	50	0	66	0	11	88	48	147	0	15	3	8	26	0	4	4	13	21	260
19:45	0	8	52	2	62	0	12	64	33	109	0	22	3	8	33	0	1	0	7	8	212
20:00	0	10	52	3	65	0	12	53	18	83	0	15	7	10	32	0	1	2	5	8	188
20:15	0	22	31	4	57	0	11	48	24	83	0	14	5	8	27	0	3	1	4	8	175
20:30	0	14	41	4	59	0	18	64	30	112	0	11	4	15	30	0	3	4	3	10	211
20:45	0	22	90	2	114	0	10	49	31	90	0	12	4	10	26	0	0	1	3	4	234
21:00	0	7	31	3	41	0	9	39	24	72	0	8	3	4	15	0	3	0	1	4	132
21:15	0	3	33	1	37	0	12	42	33	87	0	6	2	3	11	0	1	1	4	6	141
21:30	0	7	27	2	36	0	10	45	26	81	0	13	2	5	20	0	0	1	5	6	143
21:45	0	3	19	0	22	0	9	25	19	53	0	7	2	7	16	0	1	3	0	4	95
22:00	0	3	23	0	26	0	6	29	18	53	0	1	0	0	1	0	2	3	5	10	90
22:15	0	1	11	1	13	0	7	25	25	57	0	13	2	2	17	0	0	0	2	2	89
22:30	0	3	21	0	24	0	6	26	7	39	0	12	2	2	16	0	1	0	2	3	82
22:45	0	3	15	0	18	0	8	23	21	52	0	4	1	1	6	0	1	0	0	1	77
23:00	0	1	12	0	13	0	5	10	13	28	0	6	1	0	7	0	2	0	8	10	58
23:15	0	0	9	0	9	0	1	11	11	23	0	0	0	0	0	0	0	0	1	1	33
23:30	0	0	8	0	8	0	2	14	7	23	0	5	0	1	6	0	0	0	2	2	39
23:45	0	2	5	0	7	0	3	17	7	27	0	2	0	0	2	0	0	1	1	2	38
0:00	0	1	7	0	8	0	3	10	4	17	0	3	1	0	4	0	1	0	0	1	30

Station ID:
Date:
Location:
Interval (dd):

S2004150096
Wednesday 03/06/2019
MD 355 at Little Seneca Pkwy
15 min

County:
Town:
Weather:

Montgomery
none
Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

TOTAL:	0	842	6834	307	7983	0	774	6557	2044	9375	2	1845	298	768	2913	3	322	216	852	1393	21664
AM Peak:	0	70	700	83	853	0	93	410	96	599	0	159	101	133	393	0	67	39	162	268	2113
PM Peak:	0	85	449	18	552	0	62	754	208	1024	0	134	20	53	207	0	20	8	28	56	1839

Station ID: S2004150096

County: Montqomery

Comments:

Date: Wednesday 03/06/2019

Town: none

Location: MD 355 at Little Seneca Pkwy

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

Hour Ending	MD 355 North Leg			MD 355 South Leg			Little Seneca Pkwy East Leg			Little Senca Pkwy West Leg		
	School Children	Pedestrians	Bicycles	School Children	Pedestrains	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
0:15	0	0	0	0	0	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	1	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	1
5:45	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	1	0	0	0	0	0	0	0	0	0	0

Station ID: S2004150096
Date: Wednesday 03/06/2019
Location: MD 355 at Little Seneca Pkwy

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

Interval (dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

7:15	0	0	0	0	0	0	0	1	0	0	0	0
7:30	0	4	0	0	0	0	0	1	0	0	0	0
7:45	0	8	1	0	0	0	0	1	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	1	0
8:15	0	1	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	1	0	0	1	0
9:00	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	1	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	1	0
10:15	0	0	0	0	0	0	0	0	0	0	4	0
10:30	0	2	0	0	0	0	0	2	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	1	0	0	0	0	0	2	0	0	0	0
11:30	0	2	0	0	0	0	0	1	0	0	1	0
11:45	0	1	0	0	0	0	0	1	0	0	1	0
12:00	0	0	0	0	0	0	0	0	0	0	2	0
12:15	0	0	0	0	0	0	0	0	0	0	2	0
12:30	0	0	0	0	0	0	0	0	0	0	1	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	2	0
13:15	0	1	0	0	0	0	0	0	0	0	0	0
13:30	0	2	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	2	0
14:00	0	1	0	0	0	0	0	0	0	0	0	0
14:15	0	2	0	0	0	0	0	2	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	9	0	0	0	0	0	3	0	0	5	0
15:00	0	14	0	0	0	0	0	6	0	0	2	0

Station ID: S2004150096

County: Montqomery

Comments:

Date: Wednesday 03/06/2019

Town: none

Location: MD 355 at Little Seneca Pkwy

Weather: Cloudy/Cold

Interval
(dd): 15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

15:15	0	1	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	2	0	0	0	0	0	1	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	3	0	0	0	0	0	1	0	0	3	0
16:30	0	1	0	0	0	0	0	1	0	0	1	0
16:45	0	7	0	0	0	0	0	0	0	0	0	0
17:00	0	4	0	0	0	0	0	0	0	0	2	0
17:15	0	1	0	0	0	0	0	1	0	0	5	0
17:30	0	0	0	0	0	0	0	0	0	0	2	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	1	0
18:15	0	2	1	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	1	0
19:15	0	0	0	0	0	0	0	1	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	1	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0

Station ID:

S2004150096

County:

Montgomery

Comments:

Date:

Wednesday 03/06/2019

Town:

none

Location:

MD 355 at Little Seneca Pkwy

Weather:

Cloudy/Cold

Interval (dd):

15 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

23:15	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:30	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
23:45	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
0:00	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>
Total:	<div>0</div>	<div>70</div>	<div>2</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>27</div>	<div>1</div>	<div>0</div>	<div>41</div>	<div>1</div>
AM Pe	<div>0</div>	<div>13</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>2</div>	<div>0</div>	<div>0</div>	<div>1</div>	<div>0</div>
PM Pe	<div>0</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>0</div>	<div>1</div>	<div>0</div>	<div>0</div>	<div>8</div>	<div>0</div>

Station ID: S2004150096

Date: Wednesday 03/06/2019

Location: MD 355 at Little Seneca Pkwy

Interval (dd): 15 min

County: Montqomery

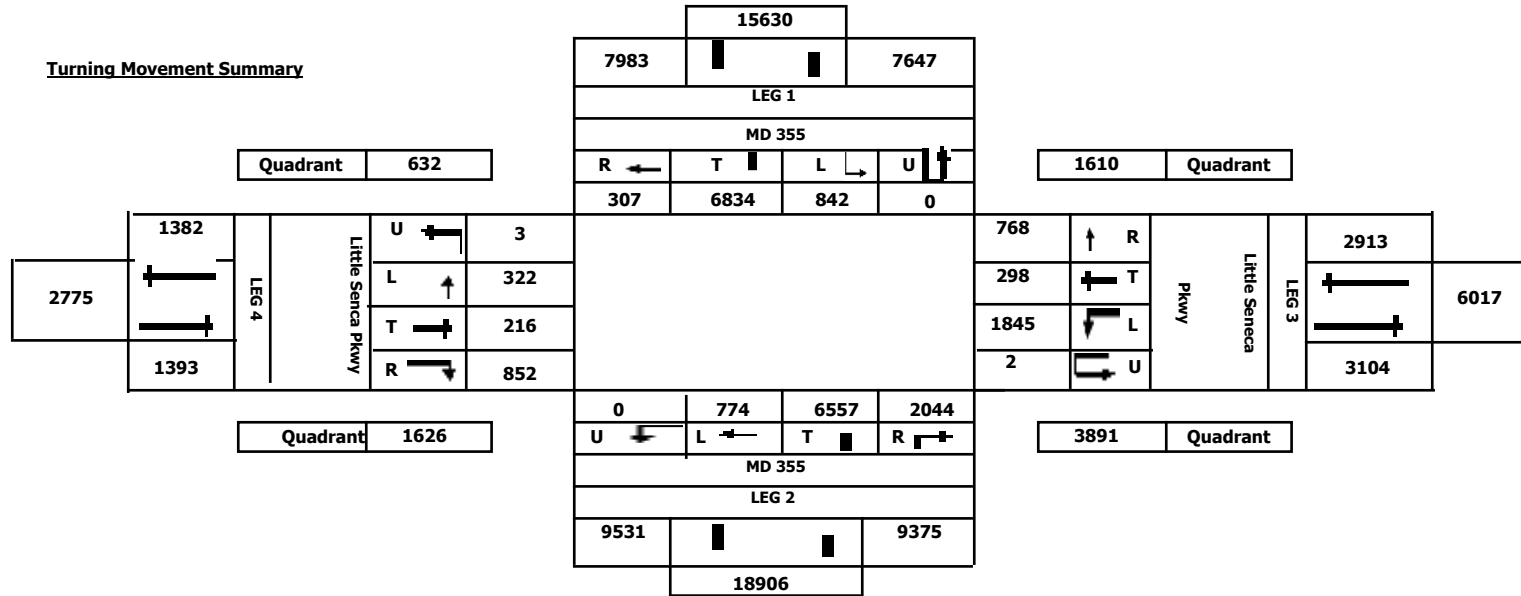
Town: none

Weather: Cloudy/Cold

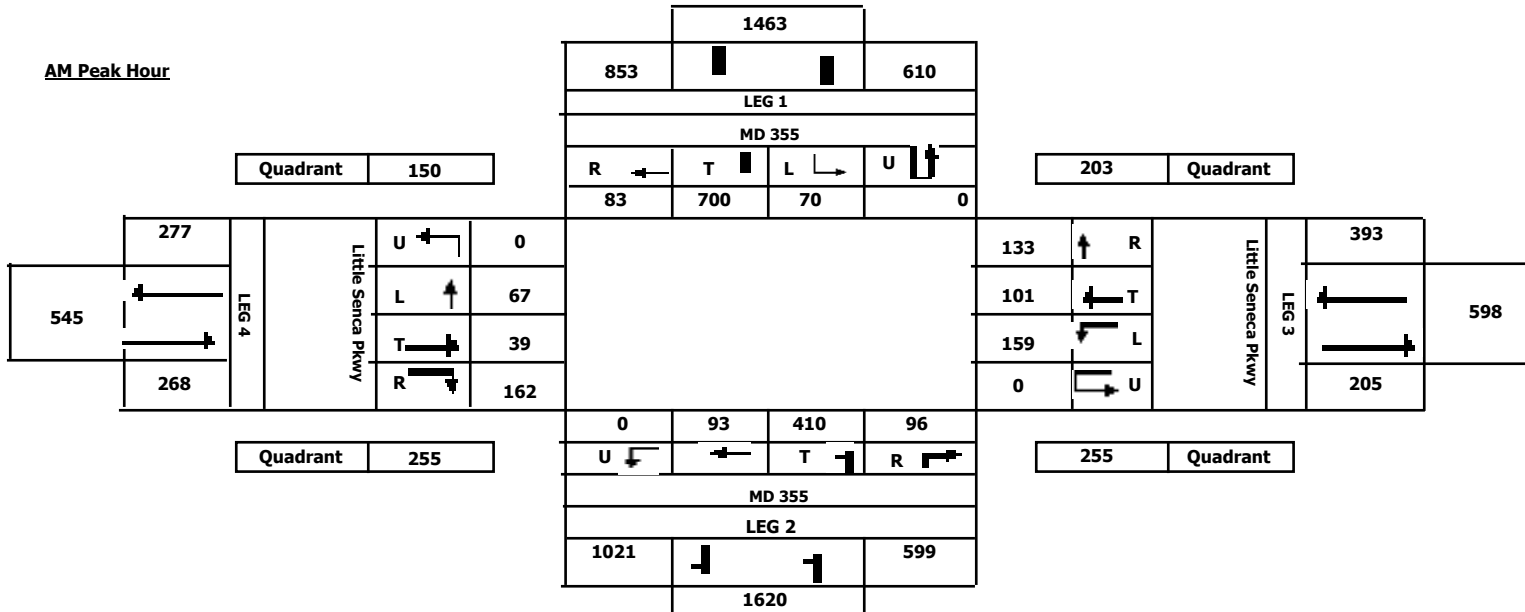
Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

Turning Movement Summary



AM Peak Hour

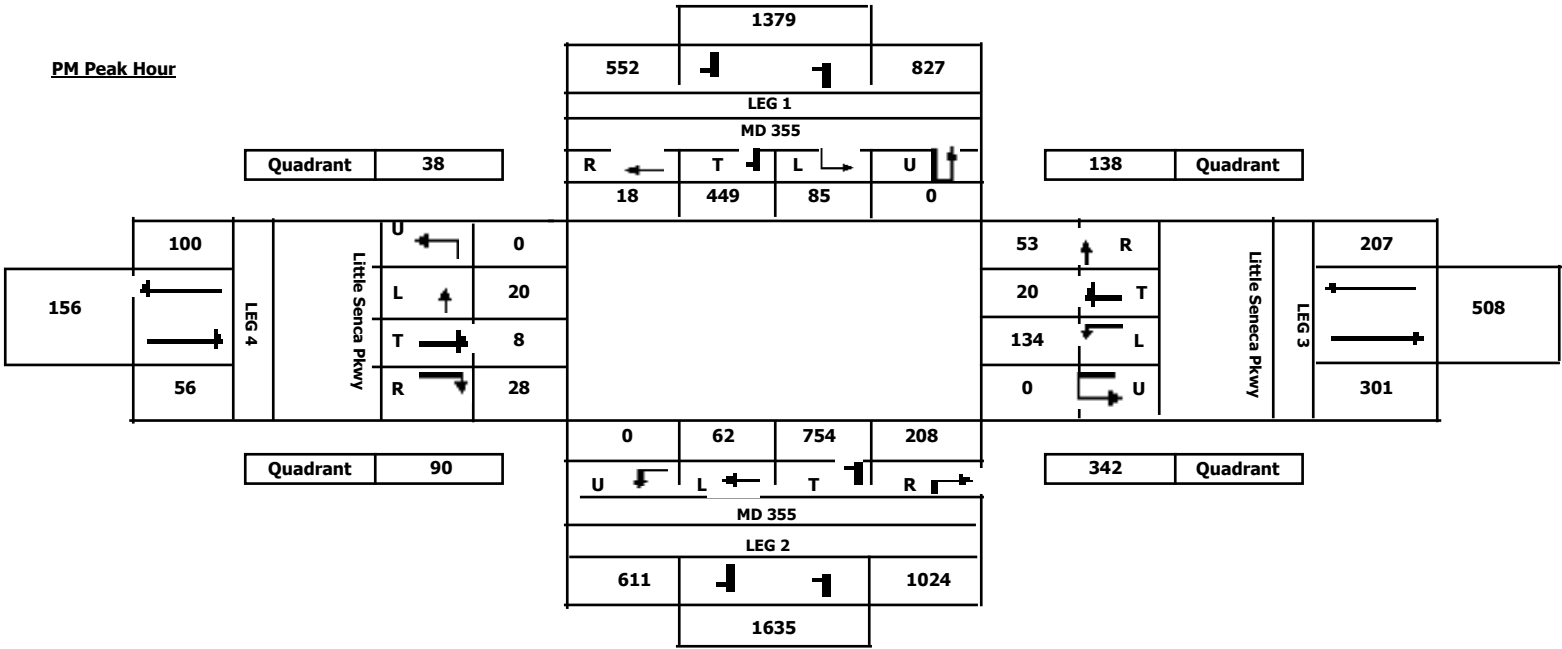


Station ID: S2004150096
Date: Wednesday 03/06/2019
Location: MD 355 at Little Seneca Pkwy
Interval (dd): 15 min

County: Montqomery
Town: none
Weather: Cloudy/Cold

Comments:

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	LOS	V/C	PM PERIOD 12:00PM-19:00P	Start	End	Volume	LOS	V/C
		07:15	08:15	2113	B	0.64		17:00	18:00	1839	A	0.61

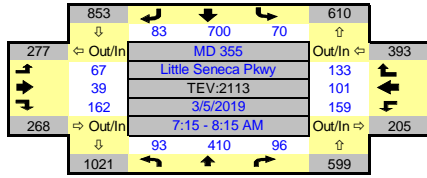


Appendix B

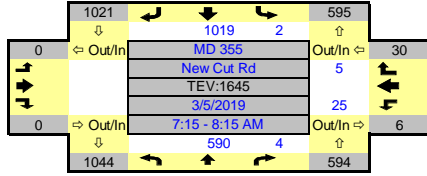
Volume Calculations

The map displays the proposed Observation Dr Extension (thick blue line) and its intersection with West Old Baltimore Rd. Other roads shown include Stringtown Rd, Little Seneca Pkwy, Ridge Rd, Brink Rd, and MD 27. The map also shows various lot numbers and a north arrow.

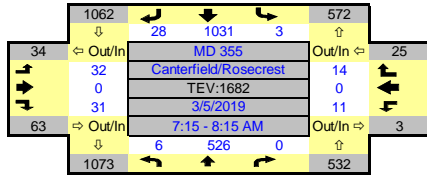




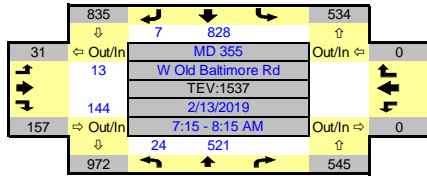
0 ↕ 4



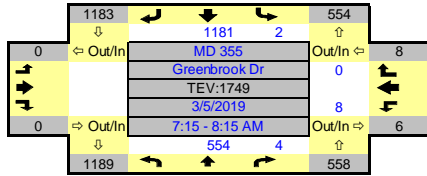
18 ↕ 22



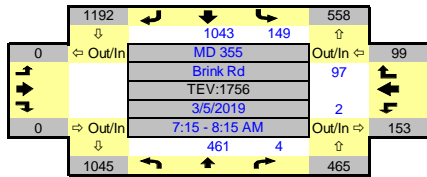
-238 ↕ -2



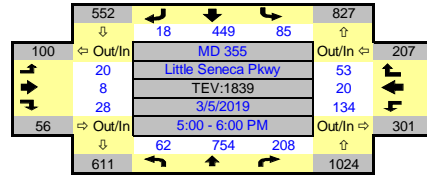
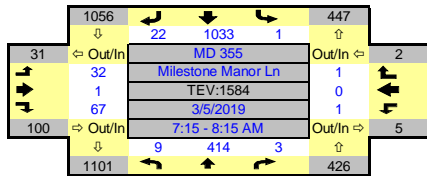
211 ↕ -9



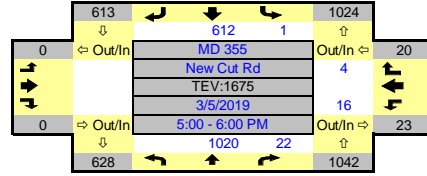
3 ↕ 0



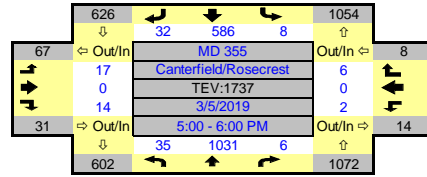
11 ↕ 18



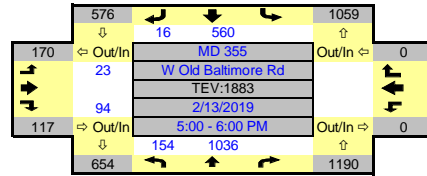
2 ↕ 0



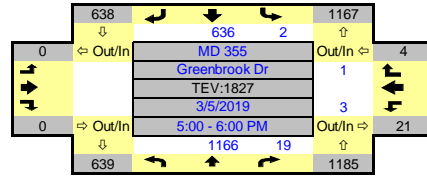
-2 ↕ -12



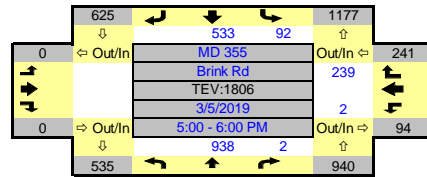
-26 ↕ 13



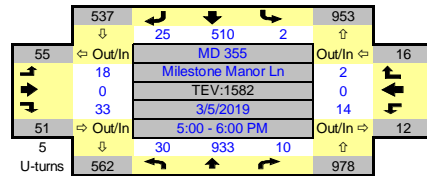
-16 ↕ 23



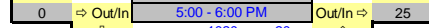
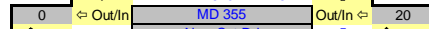
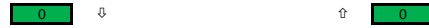
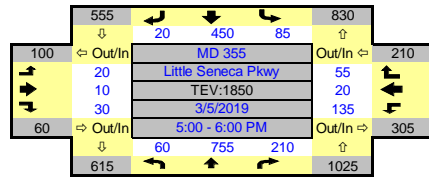
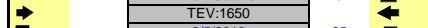
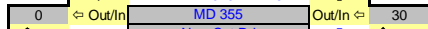
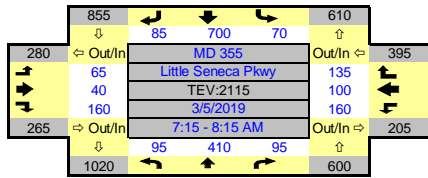
-14 ↕ 8



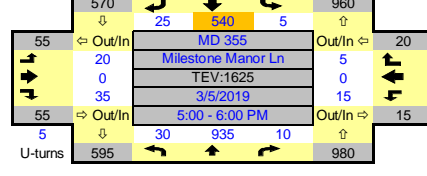
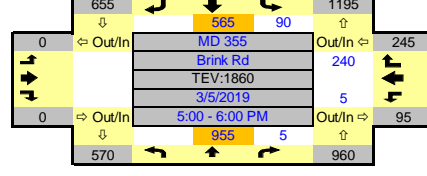
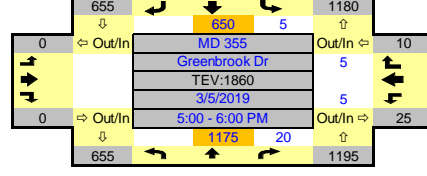
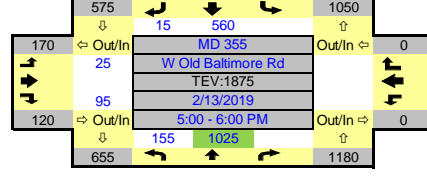
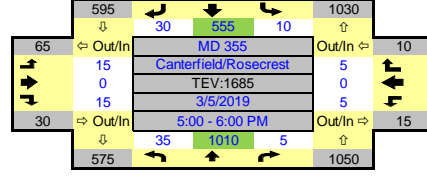
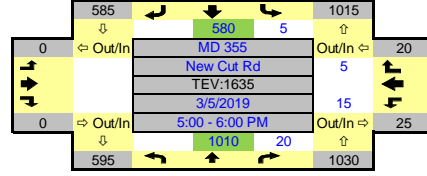
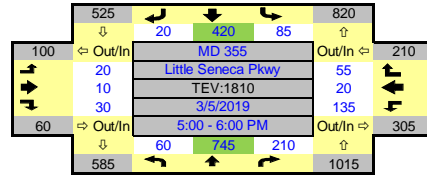
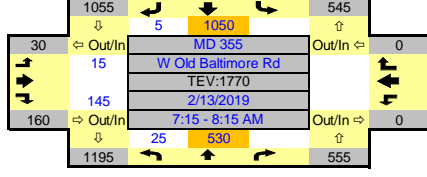
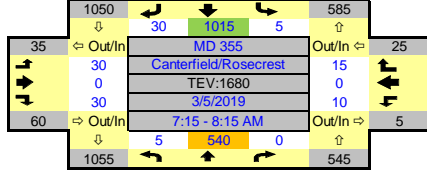
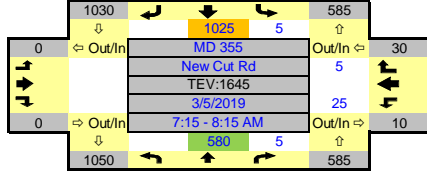
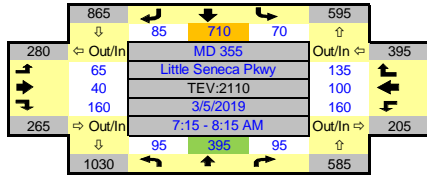
2 ↕ -13



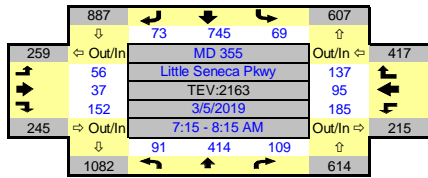
U-turns



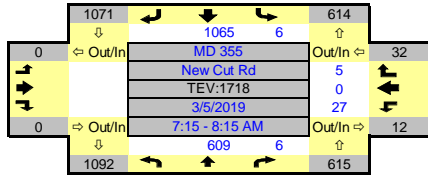
Balanced up
Balanced down



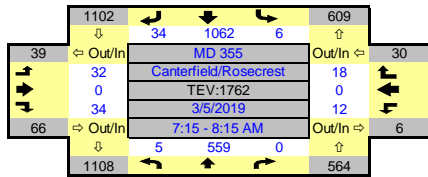
U-turns



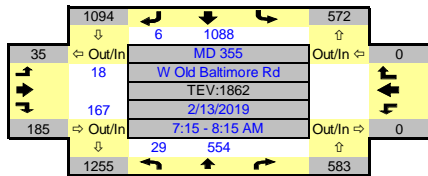
-11 ↓ ↑ 0



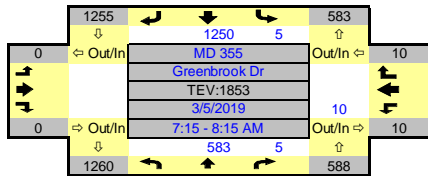
10 ↓ ↑ 6



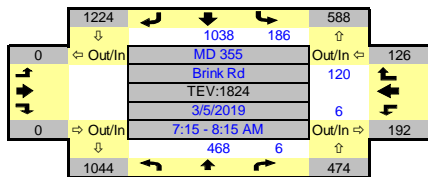
-14 ↓ ↑ -8



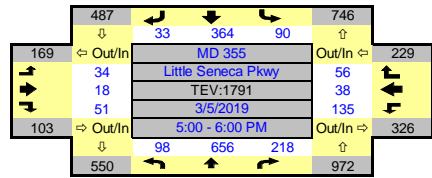
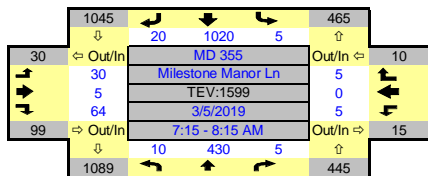
0 ↓ ↑ 0



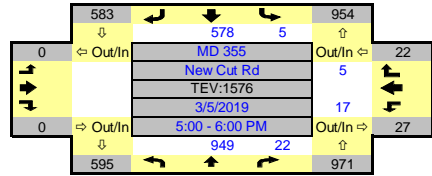
-36 ↓ ↑ 0



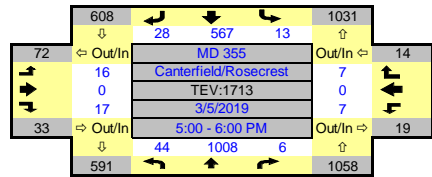
1 ↓ ↑ 9



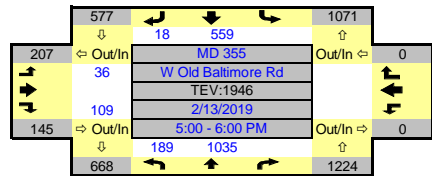
33 ↓ ↑ 18



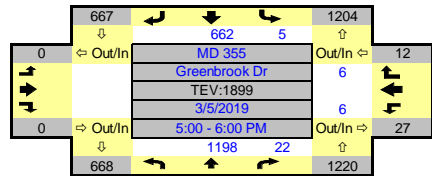
13 ↓ ↑ -60



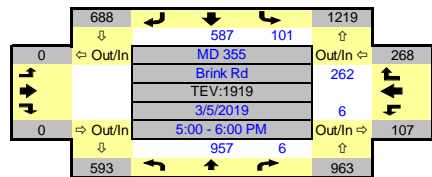
-14 ↓ ↑ -13



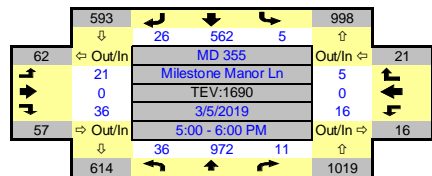
-1 ↓ ↑ 20

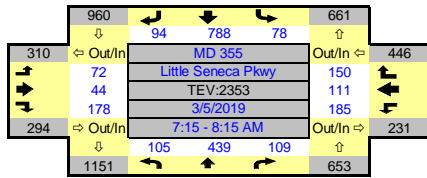


20 ↓ ↑ 1

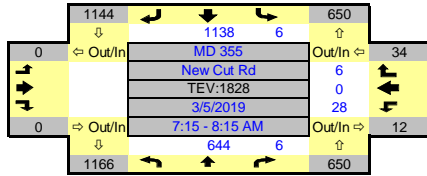


0 ↓ ↑ -35

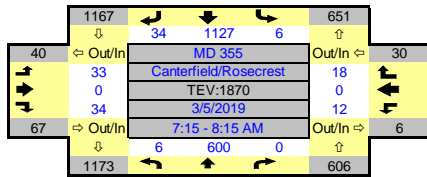




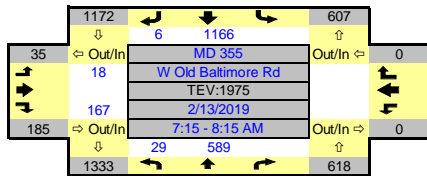
-7 ⇌ 3



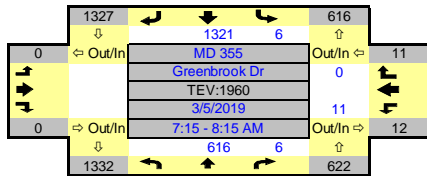
1 ⇌ -1



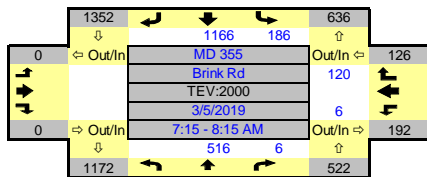
-1 ⇌ -1



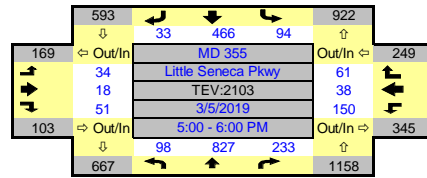
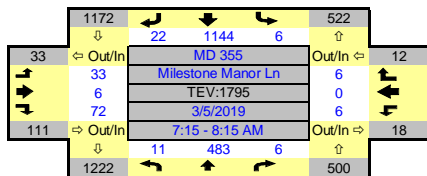
-6 ⇌ 2



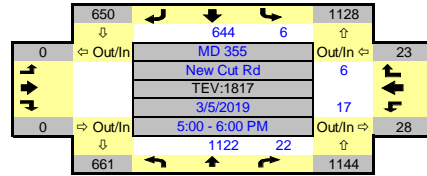
20 ⇌ -14



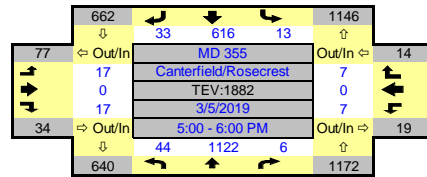
0 ⇌ 0



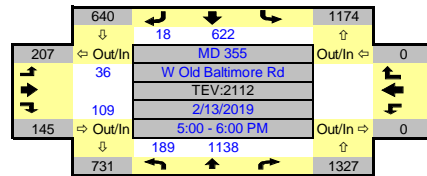
-17 ⇌ 30



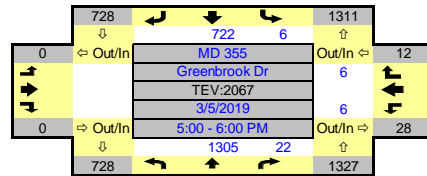
1 ⇌ -2



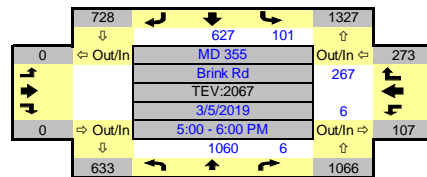
0 ⇌ -2



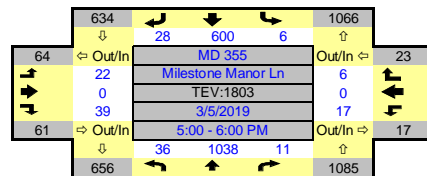
-3 ⇌ 16

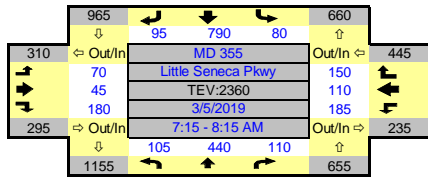


0 ⇌ 0

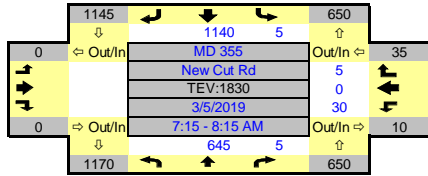


1 ⇌ 0

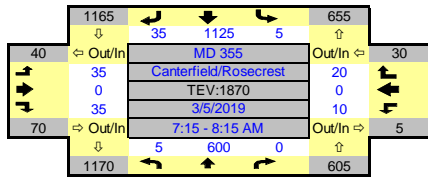




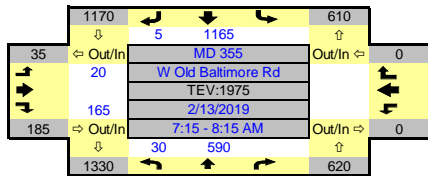
-10 5



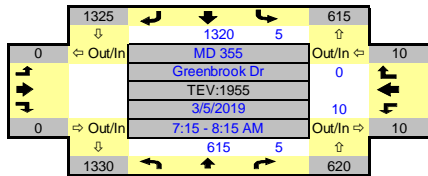
-5 -5



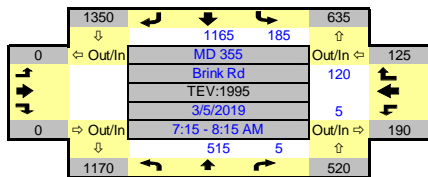
0 -5



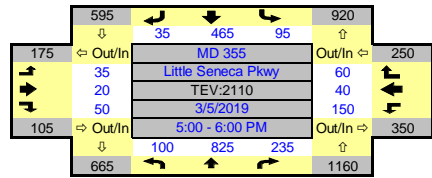
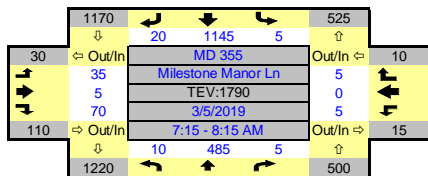
-5 5



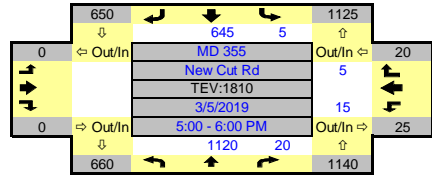
20 -15



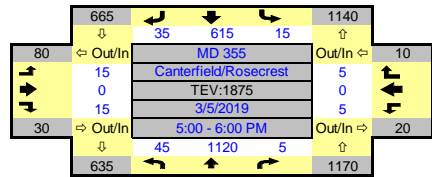
0 -5



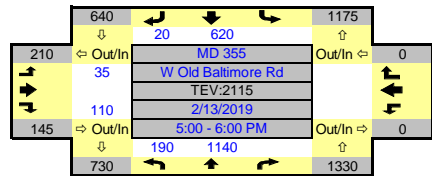
-15 35



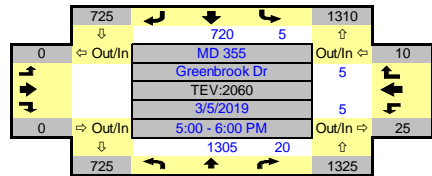
5 0



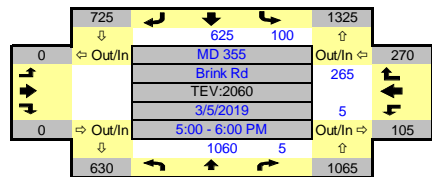
5 -5



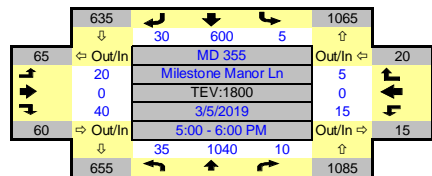
-5 20



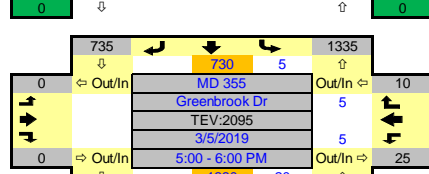
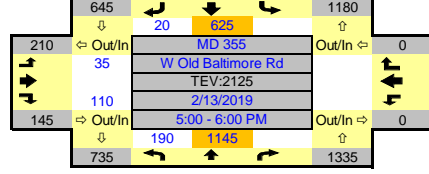
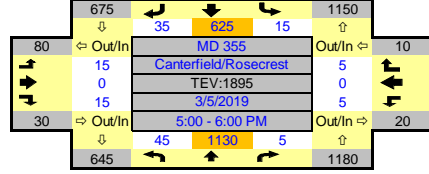
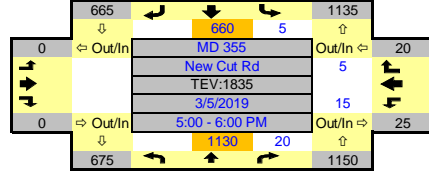
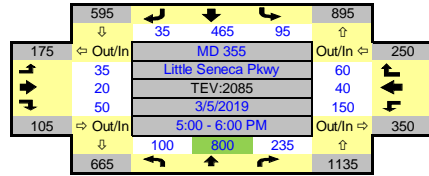
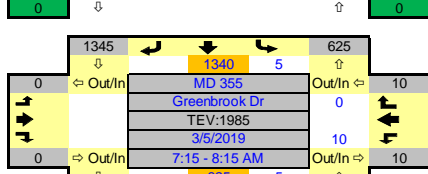
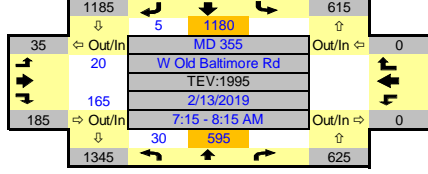
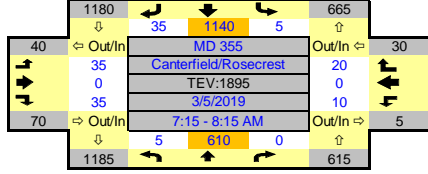
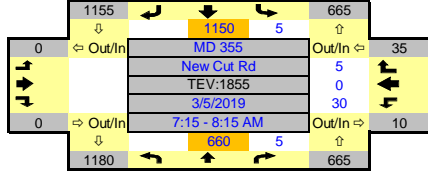
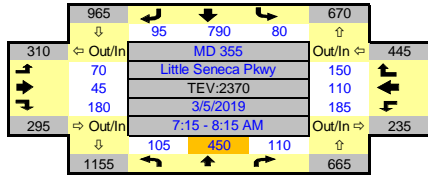
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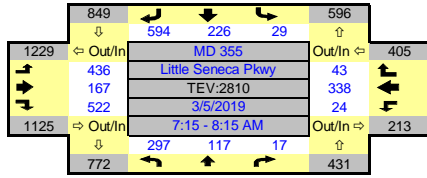


5 0

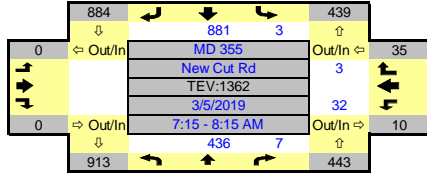


Balanced up
Balanced down

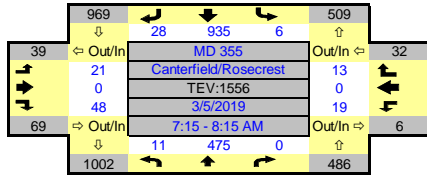




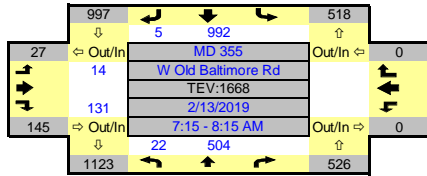
112 ↓ ↑ -8



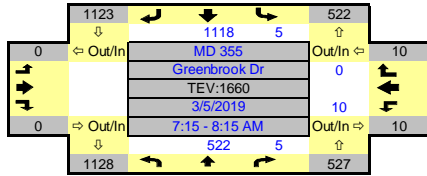
56 ↓ ↑ -66



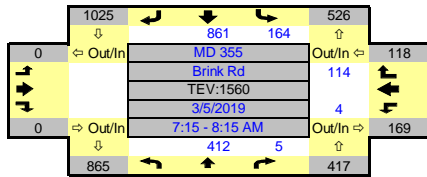
-5 ↓ ↑ -32



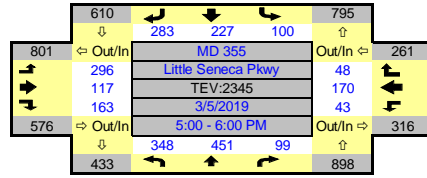
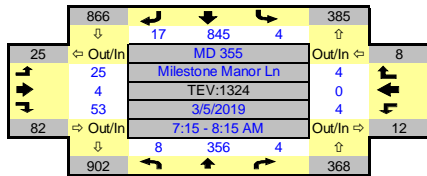
0 ↓ ↑ 4



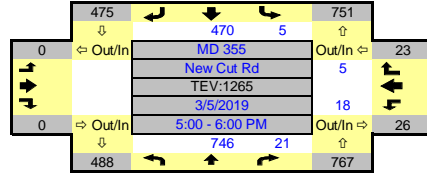
-103 ↓ ↑ 1



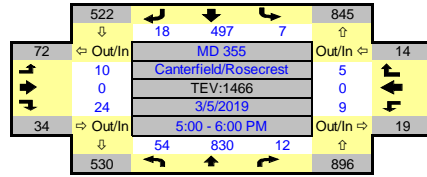
1 ↓ ↑ 32



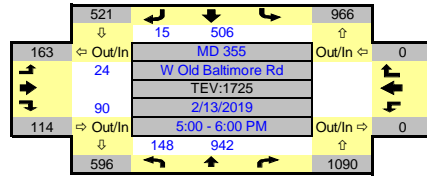
42 ↓ ↑ 147



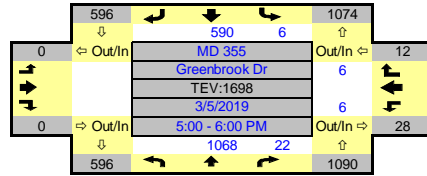
34 ↓ ↑ -78



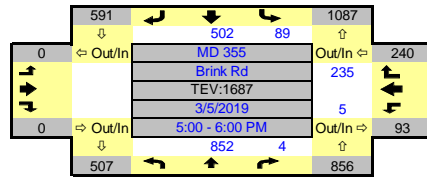
-9 ↓ ↑ -70



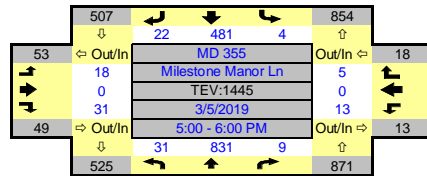
0 ↓ ↑ 16

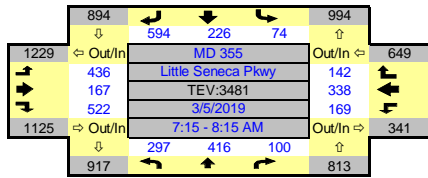


-5 ↓ ↑ 3

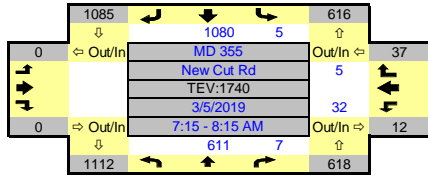


0 ↓ ↑ 2

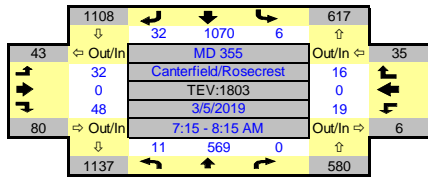




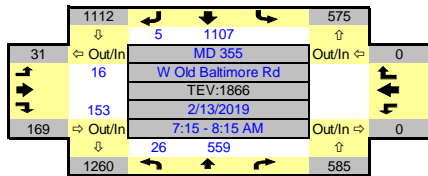
168 197



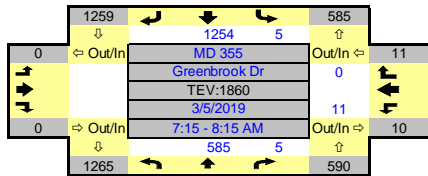
-4 1



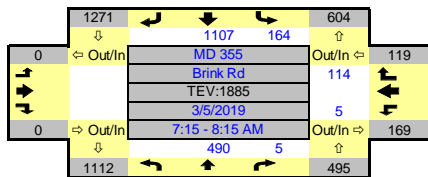
-25 5



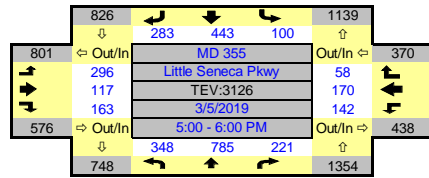
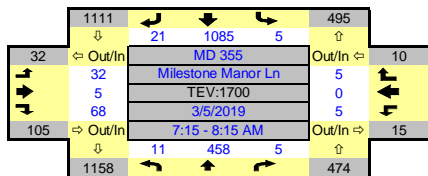
-1 0



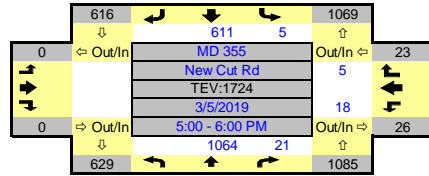
6 -14



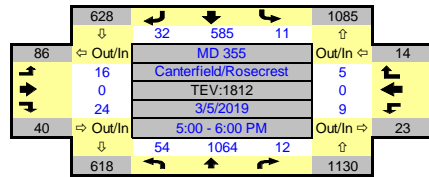
-1 0



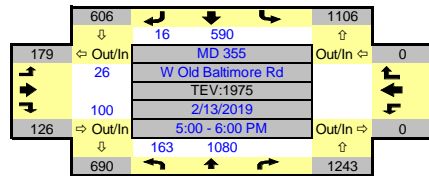
-132 285



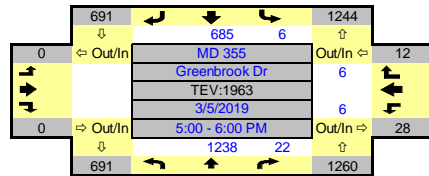
-1 0



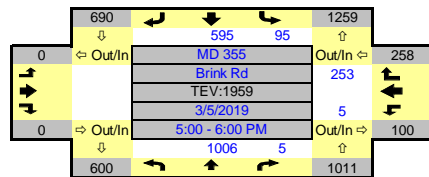
-12 24



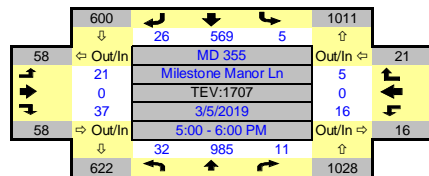
1 -1

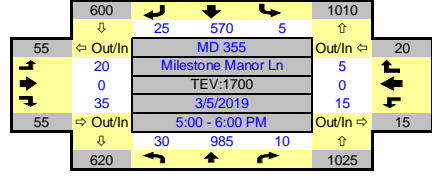
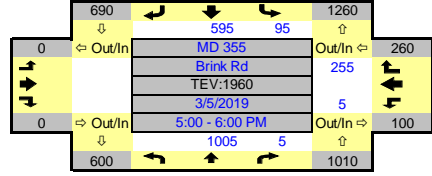
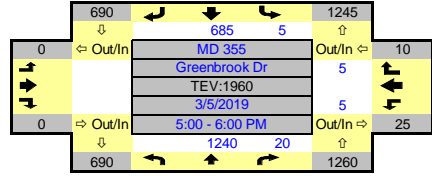
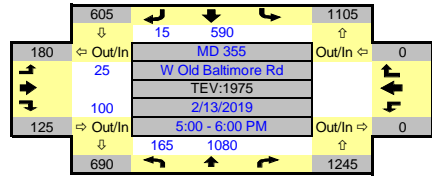
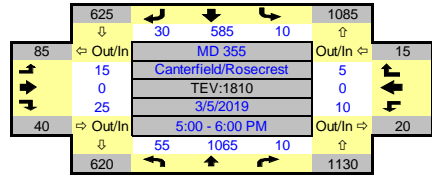
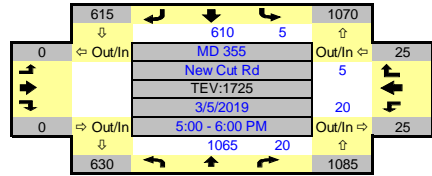
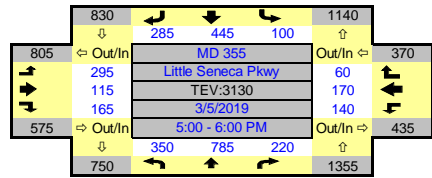
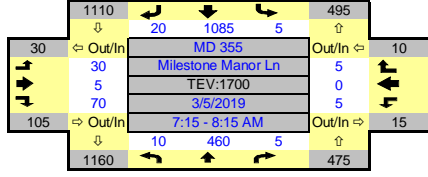
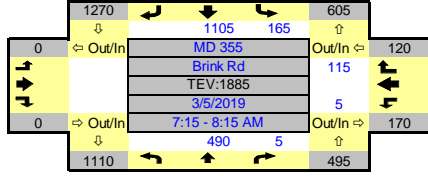
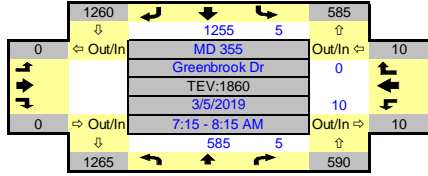
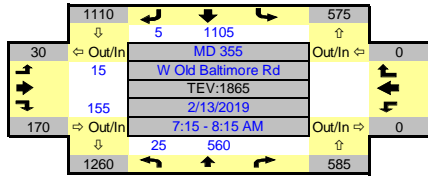
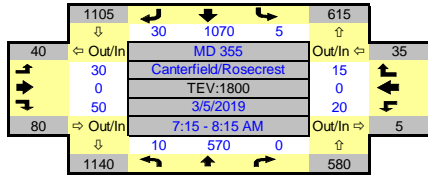
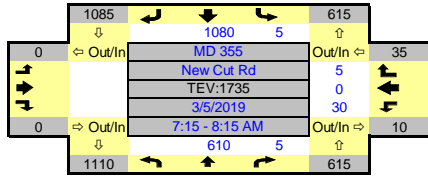
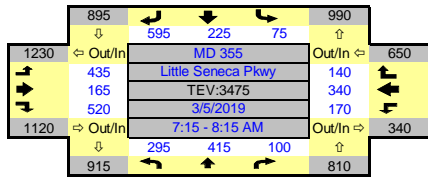


-1 1

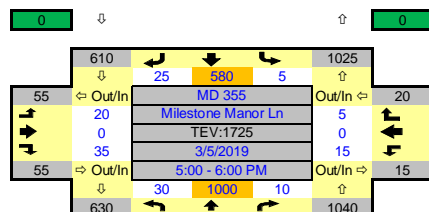
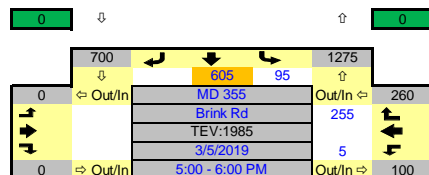
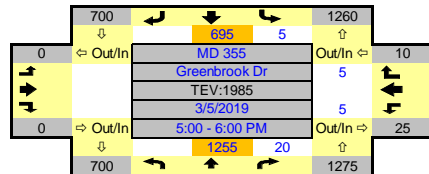
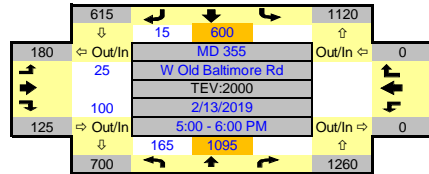
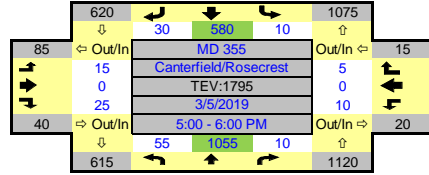
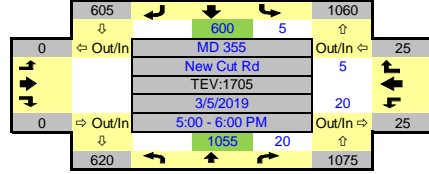
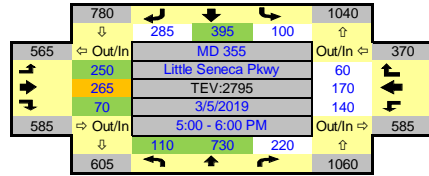
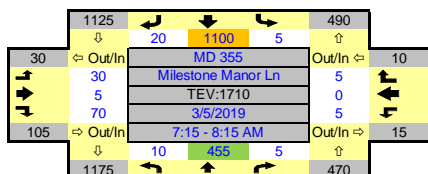
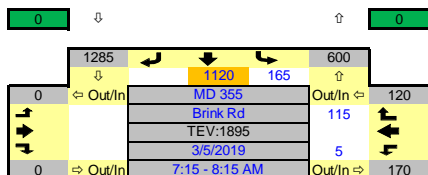
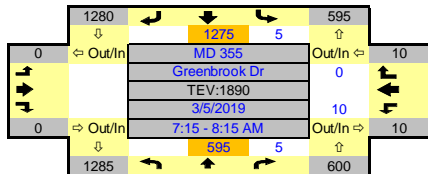
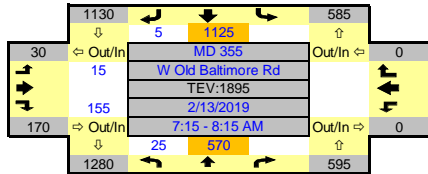
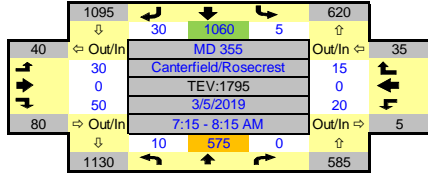
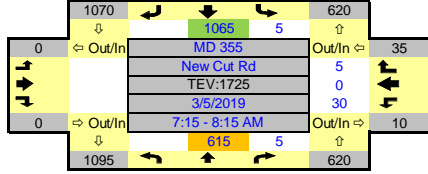
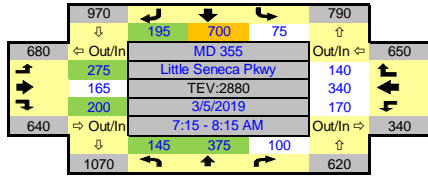


0 0

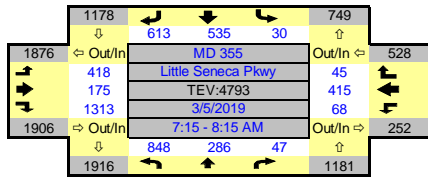




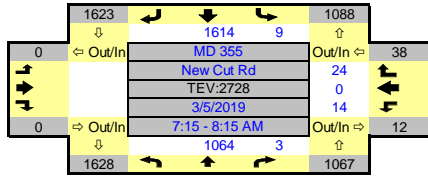
Balanced up
Balanced down



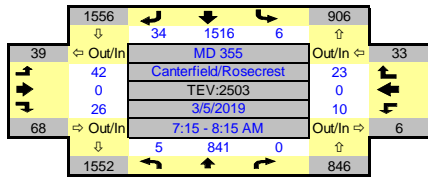
SBR: decreased by 400 in AM to account for increase of 475 in SBT
EBL: decreased in both peaks by half of the decrease in EBR
EBT: increased in PM to more closely match reverse volume in AM



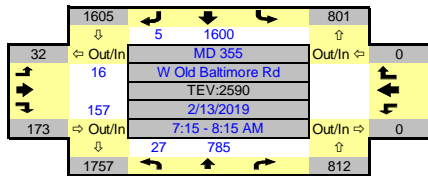
-293 93



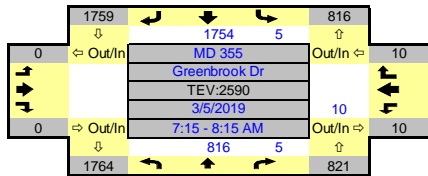
-72 161



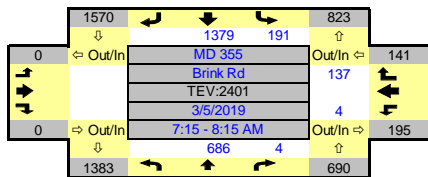
53 45



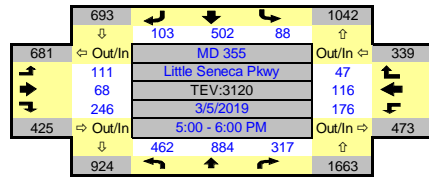
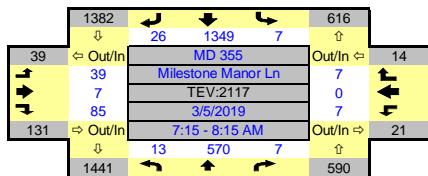
2 -4



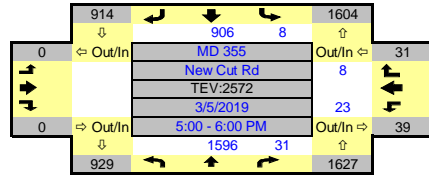
-194 -2



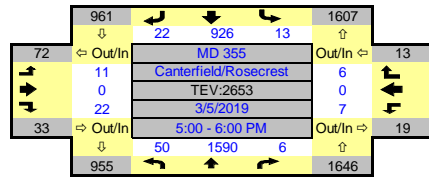
-1 74



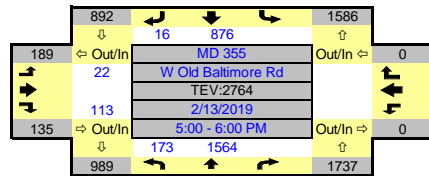
-10 59



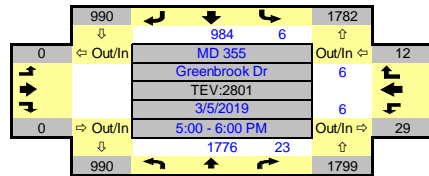
32 20



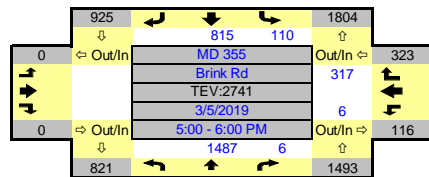
-63 60



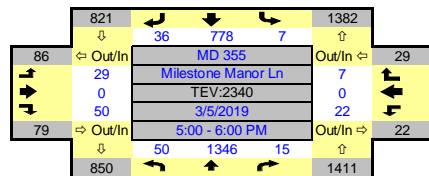
1 -45

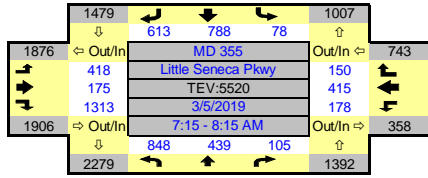


-65 -5

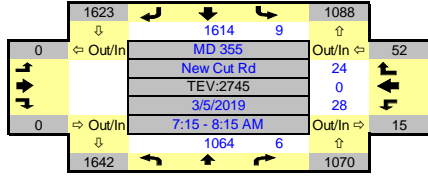


0 111

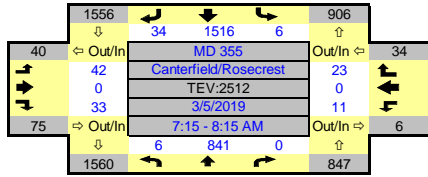




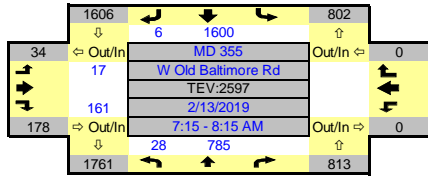
-656 304



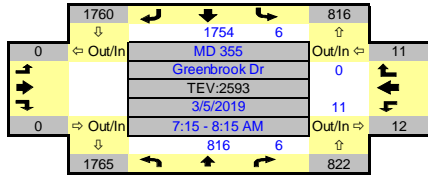
-86 164



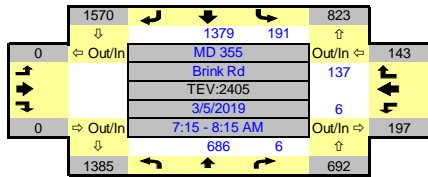
46 45



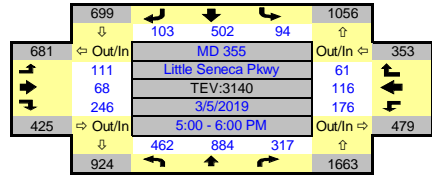
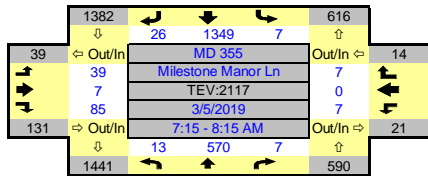
-1 -3



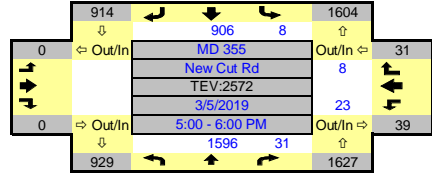
-195 -1



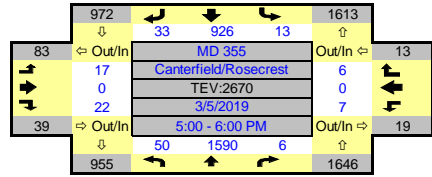
-3 76



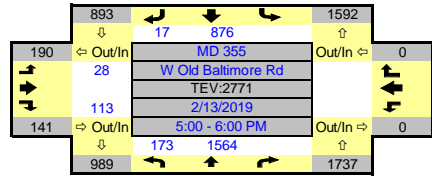
-10 59



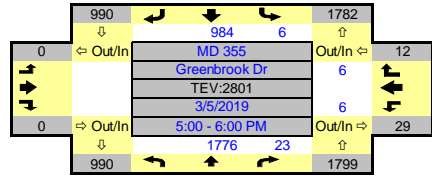
43 14



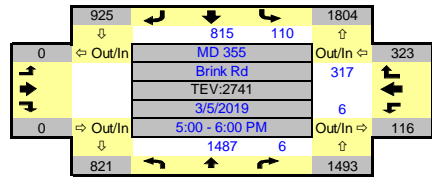
-62 54



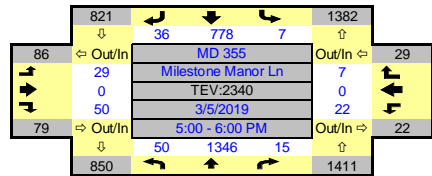
1 -45

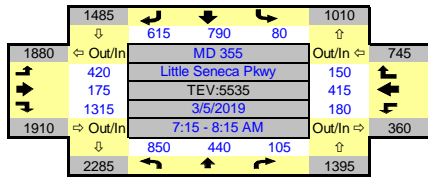


-65 -5

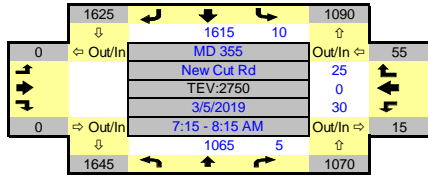


0 111

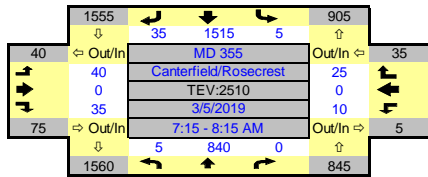




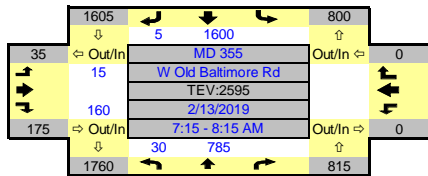
-660 ↓ ↑ 305



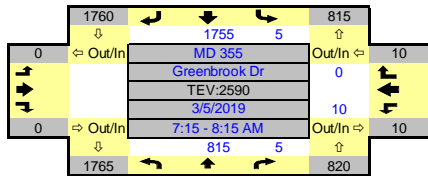
-90 ↓ ↑ 165



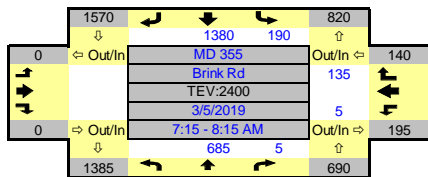
45 ↓ ↑ 45



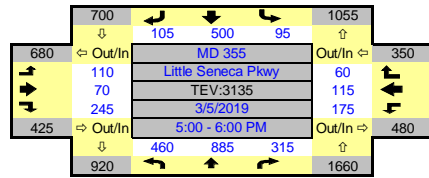
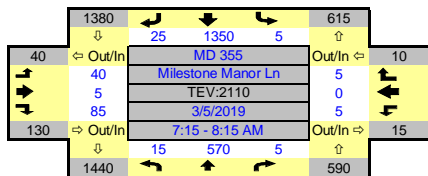
0 ↓ ↑ 0



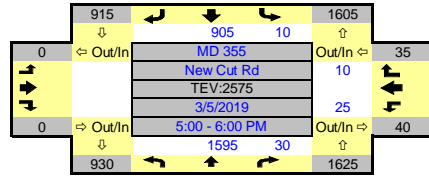
-195 ↓ ↑ 0



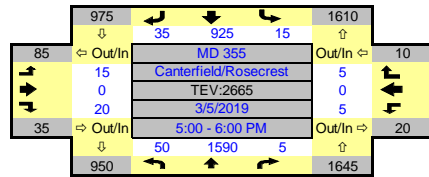
-5 ↓ ↑ 75



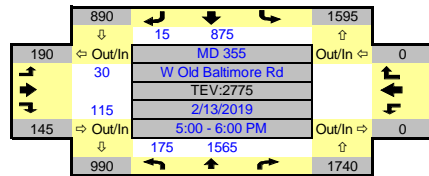
-5 ↓ ↑ 55



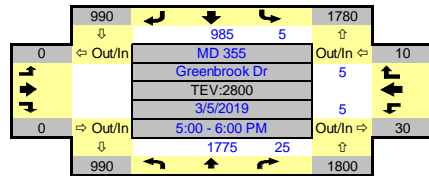
45 ↓ ↑ 15



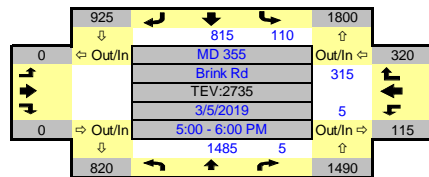
-60 ↓ ↑ 50



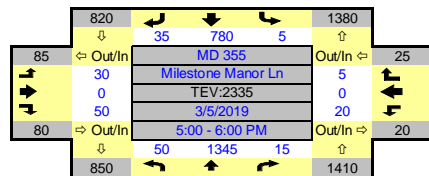
0 ↓ ↑ -40



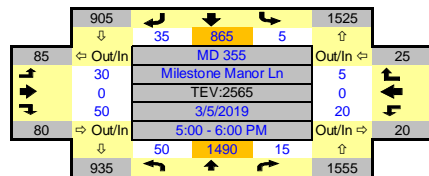
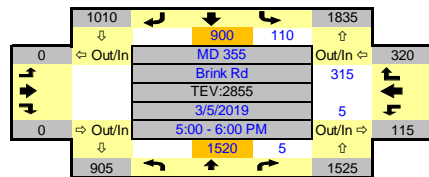
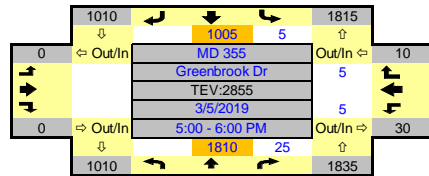
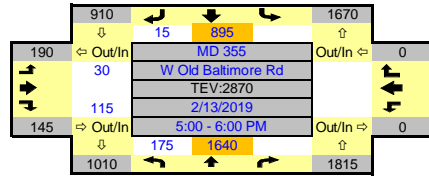
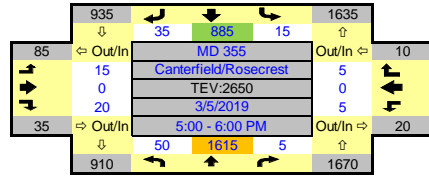
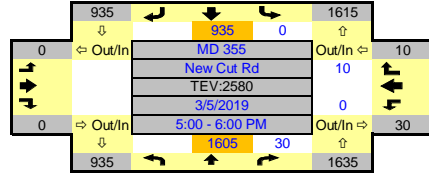
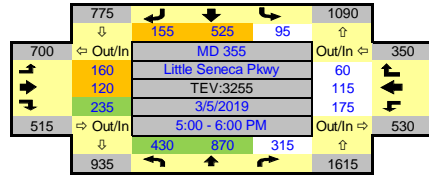
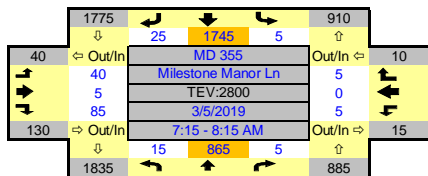
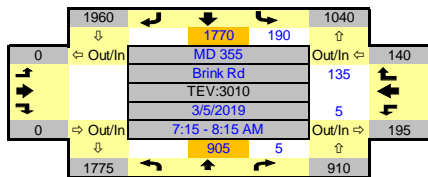
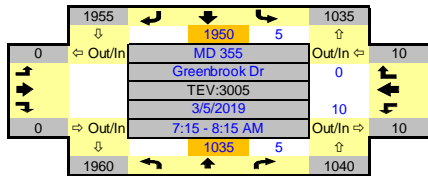
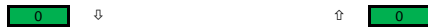
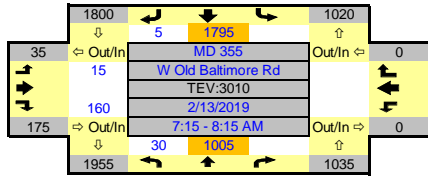
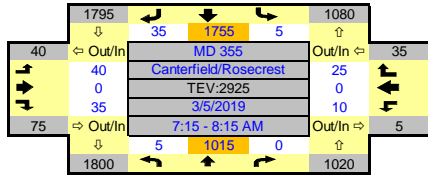
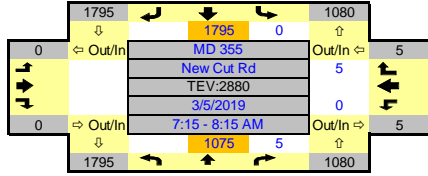
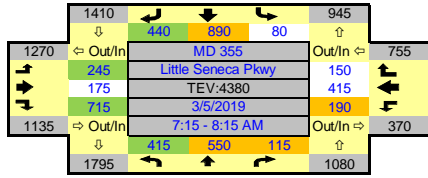
-65 ↓ ↑ 0



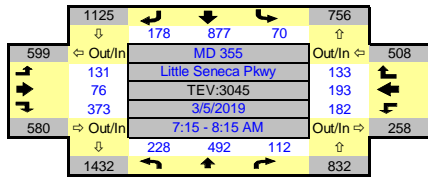
0 ↓ ↑ 110



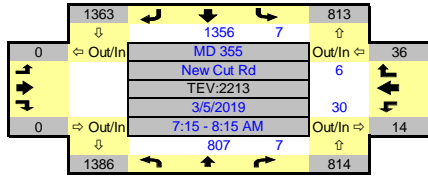
Balanced up
Balanced down



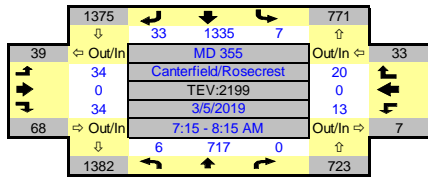
Note: WBL to be restricted



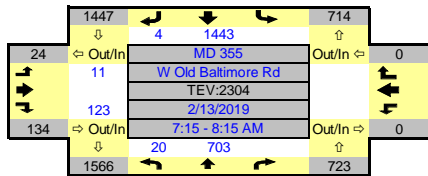
-69 ↓ ↑ 19



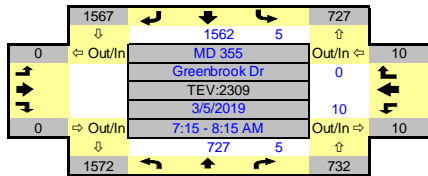
-11 ↓ ↑ 43



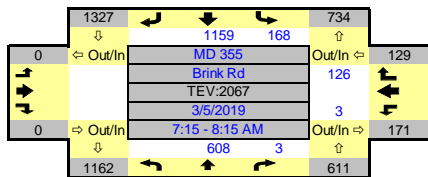
65 ↓ ↑ 9



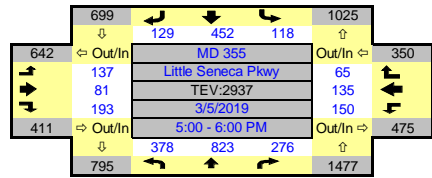
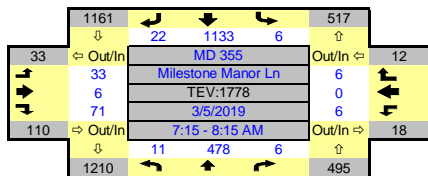
1 ↓ ↑ -4



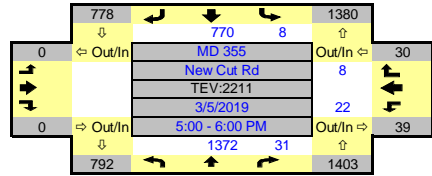
-245 ↓ ↑ -2



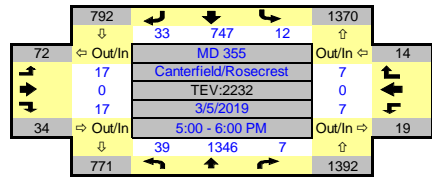
-1 ↓ ↑ 94



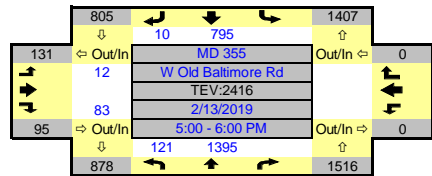
-17 ↓ ↑ 97



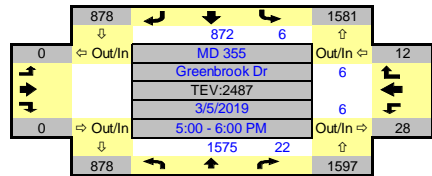
0 ↓ ↑ 33



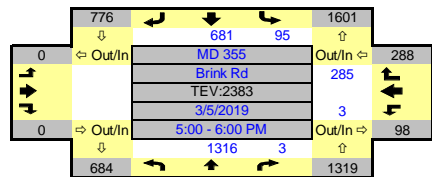
34 ↓ ↑ -15



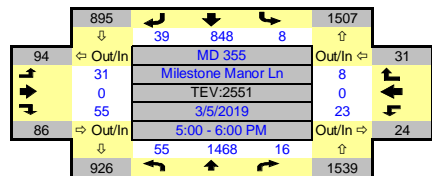
0 ↓ ↑ -65

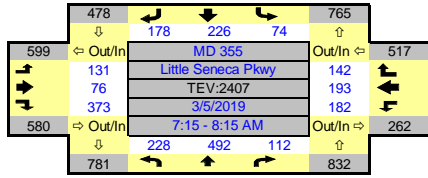


-102 ↓ ↑ -4

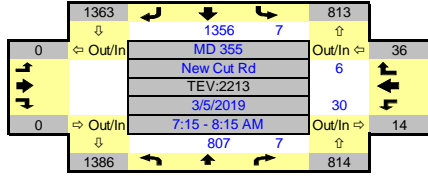


211 ↓ ↑ -188

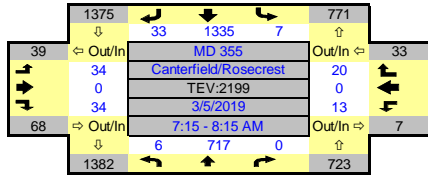




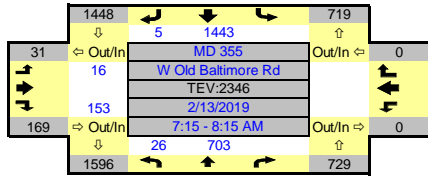
582 19



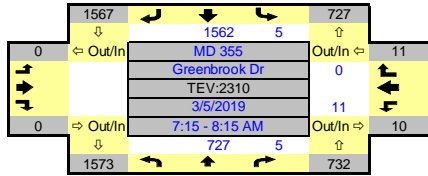
-11 43



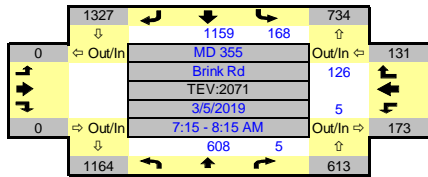
66 4



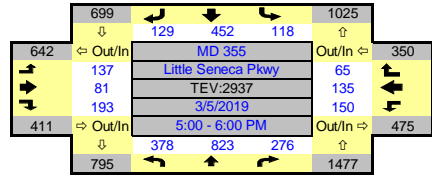
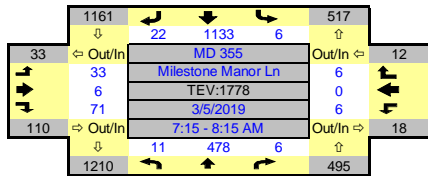
-29 2



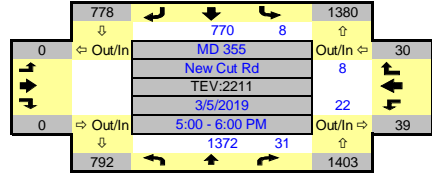
-246 -2



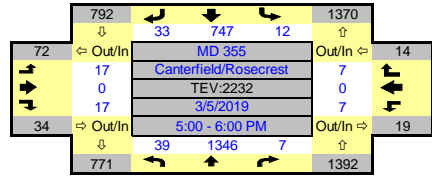
-3 96



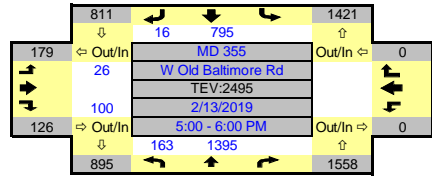
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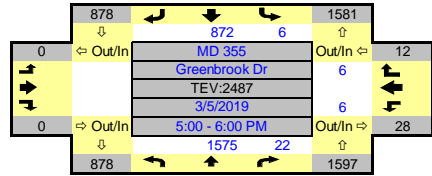
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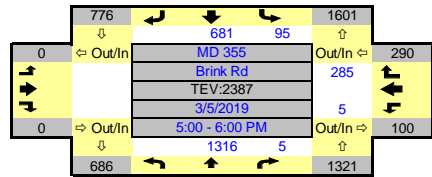
40 -29



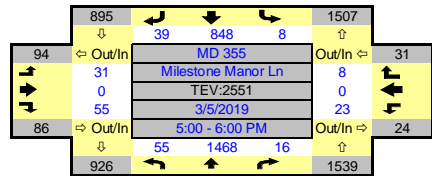
-17 -23

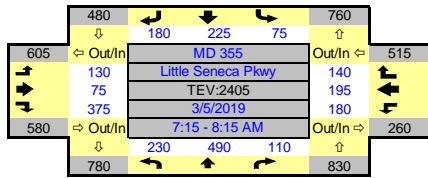


-102 -4

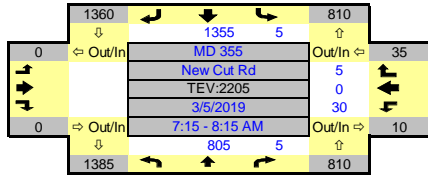


209 -186

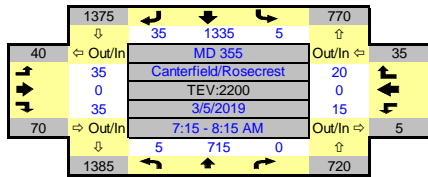




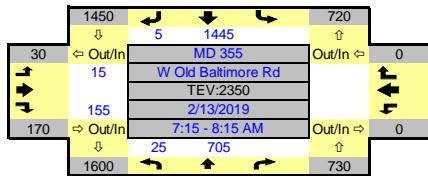
580 ↓ ↑ 20



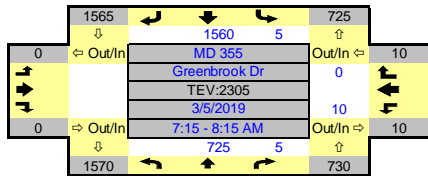
-10 ↓ ↑ 40



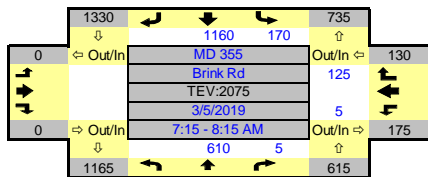
65 ↓ ↑ 0



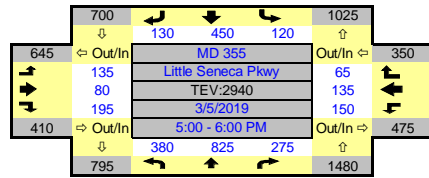
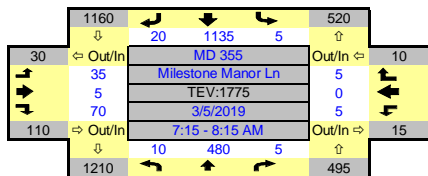
-35 ↓ ↑ 5



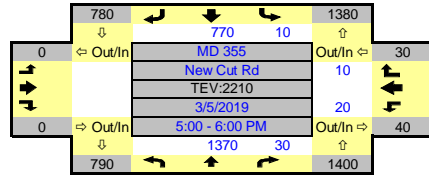
-240 ↓ ↑ -5



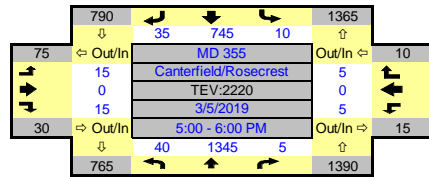
-5 ↓ ↑ 95



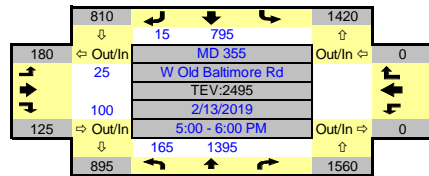
-15 ↓ ↑ 100



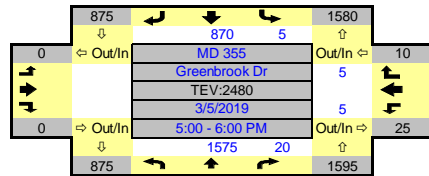
0 ↓ ↑ 35



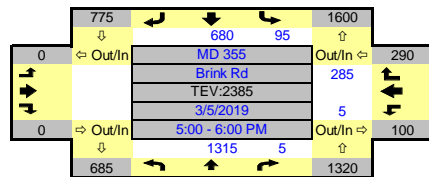
45 ↓ ↑ -30



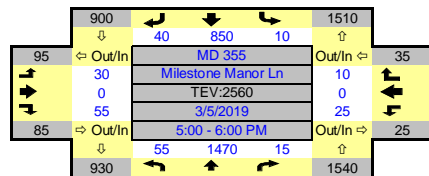
-20 ↓ ↑ -20



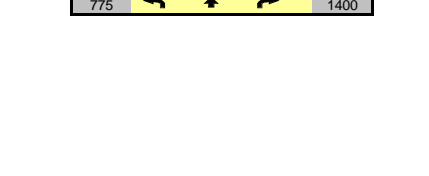
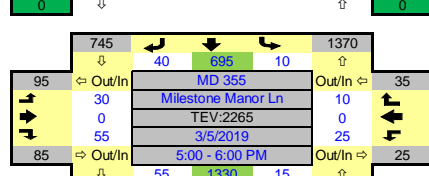
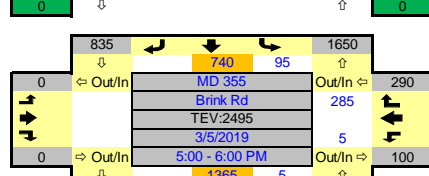
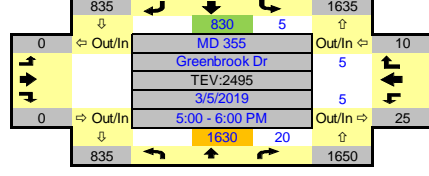
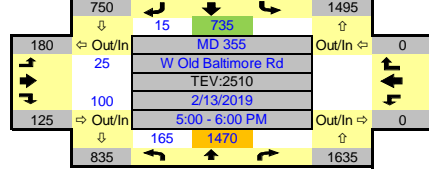
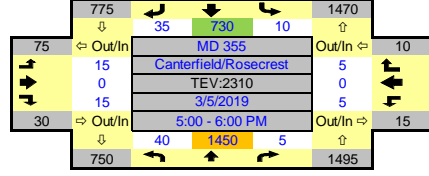
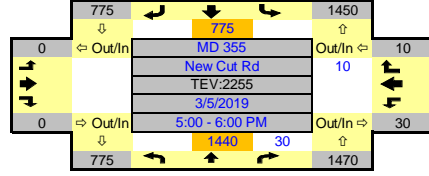
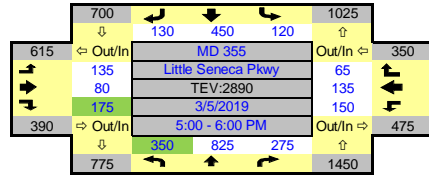
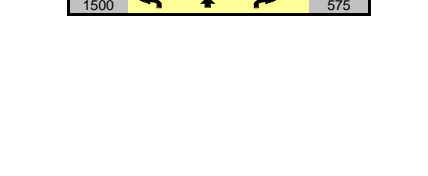
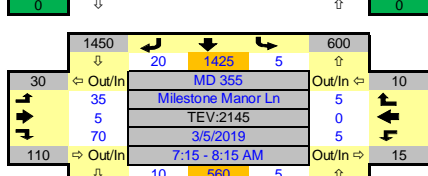
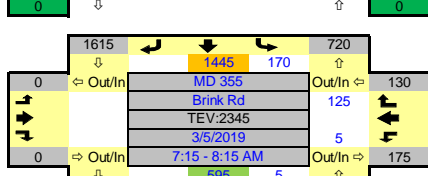
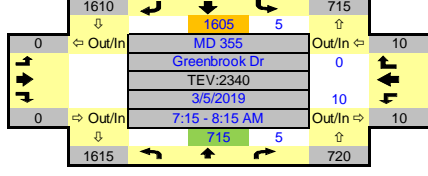
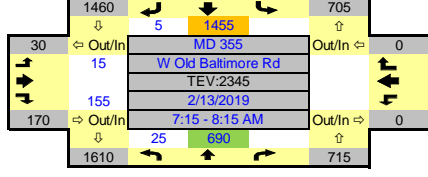
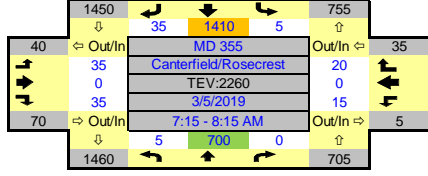
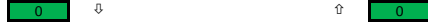
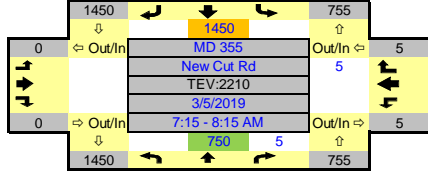
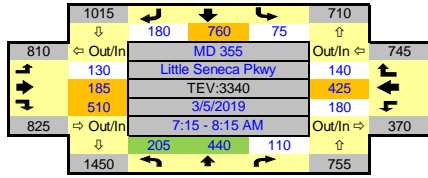
-100 ↓ ↑ -5



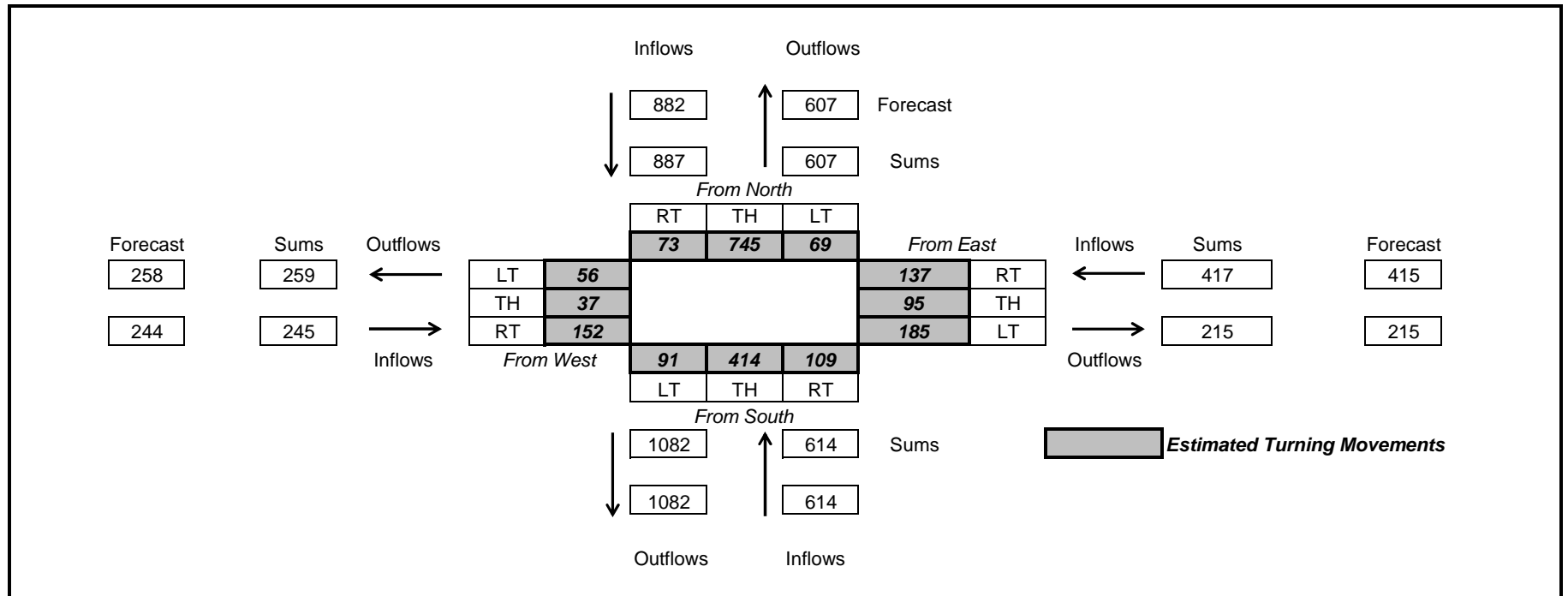
215 ↓ ↑ -190



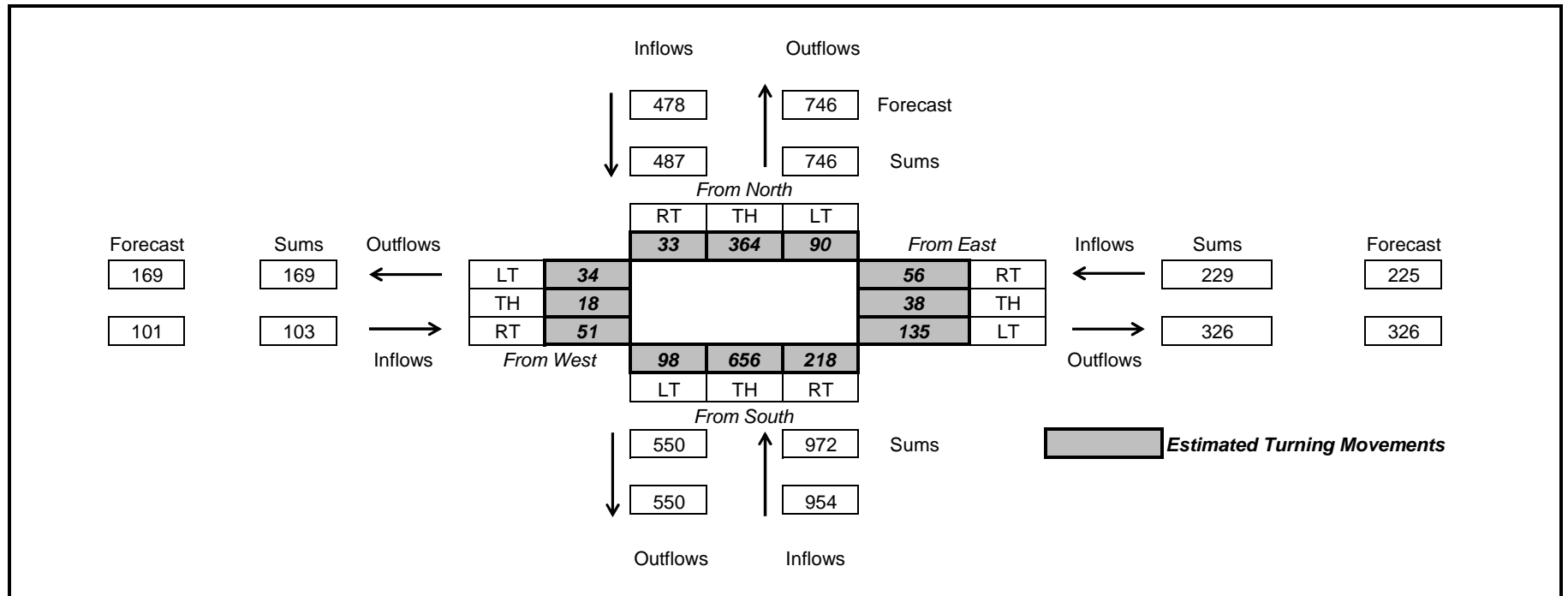
Balanced up
Balanced down



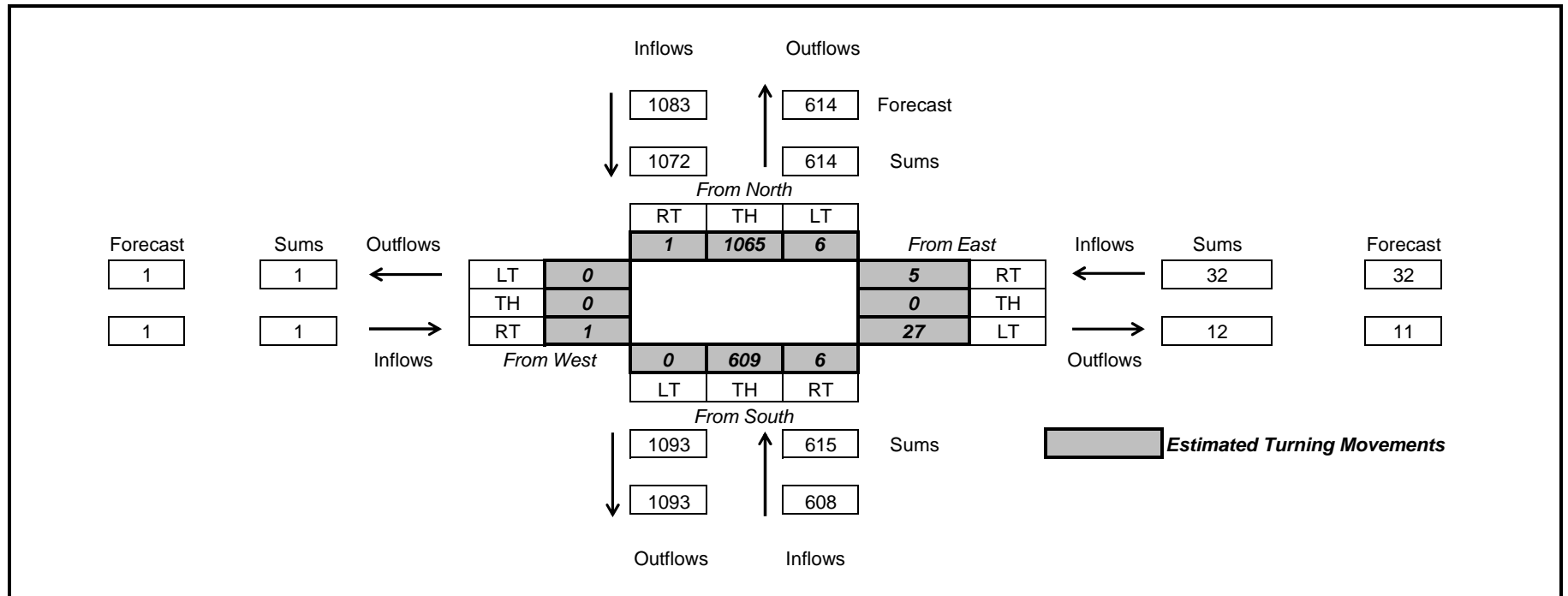
Iterative Method Estimated Turning Movements



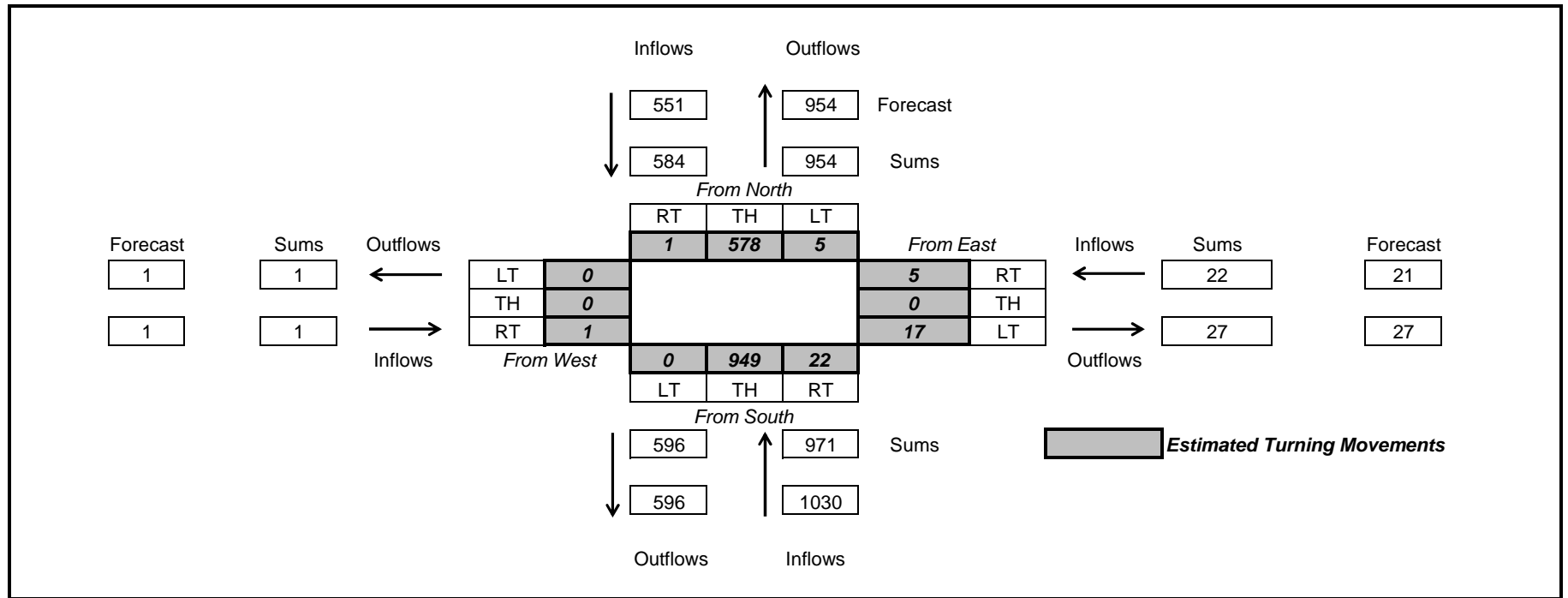
Iterative Method Estimated Turning Movements



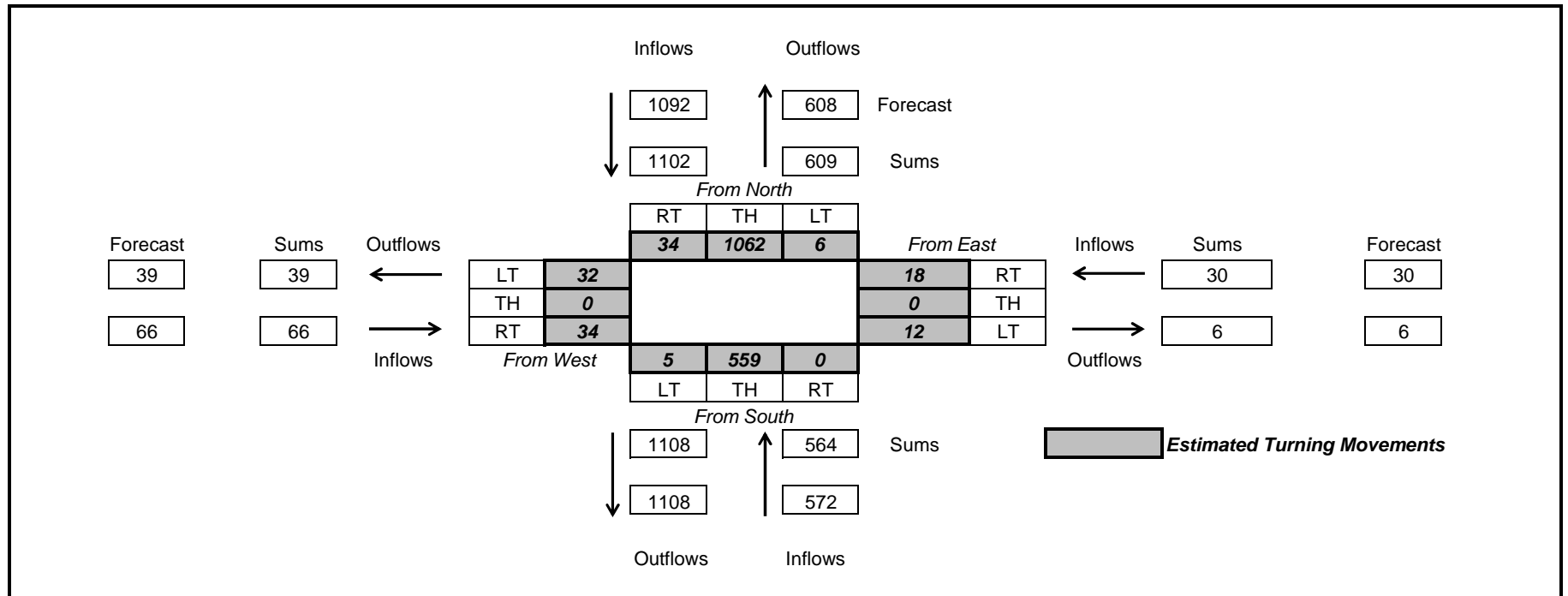
Iterative Method Estimated Turning Movements



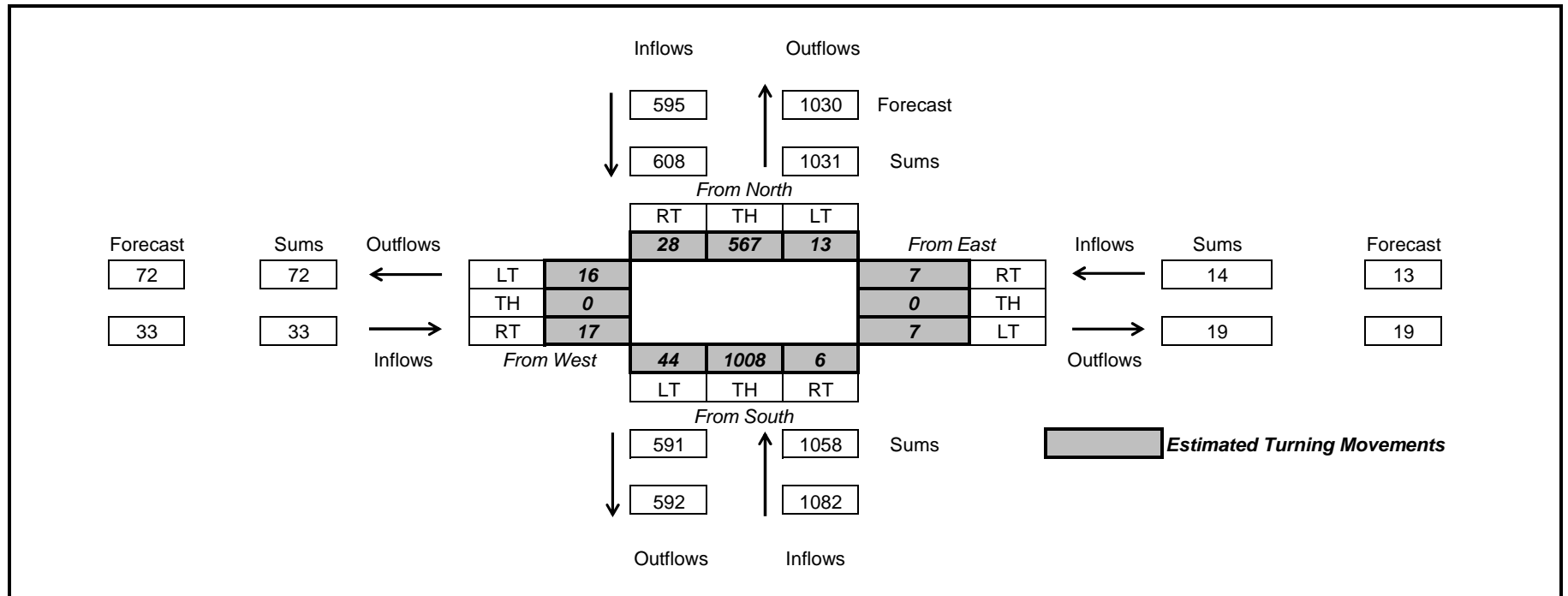
Iterative Method Estimated Turning Movements



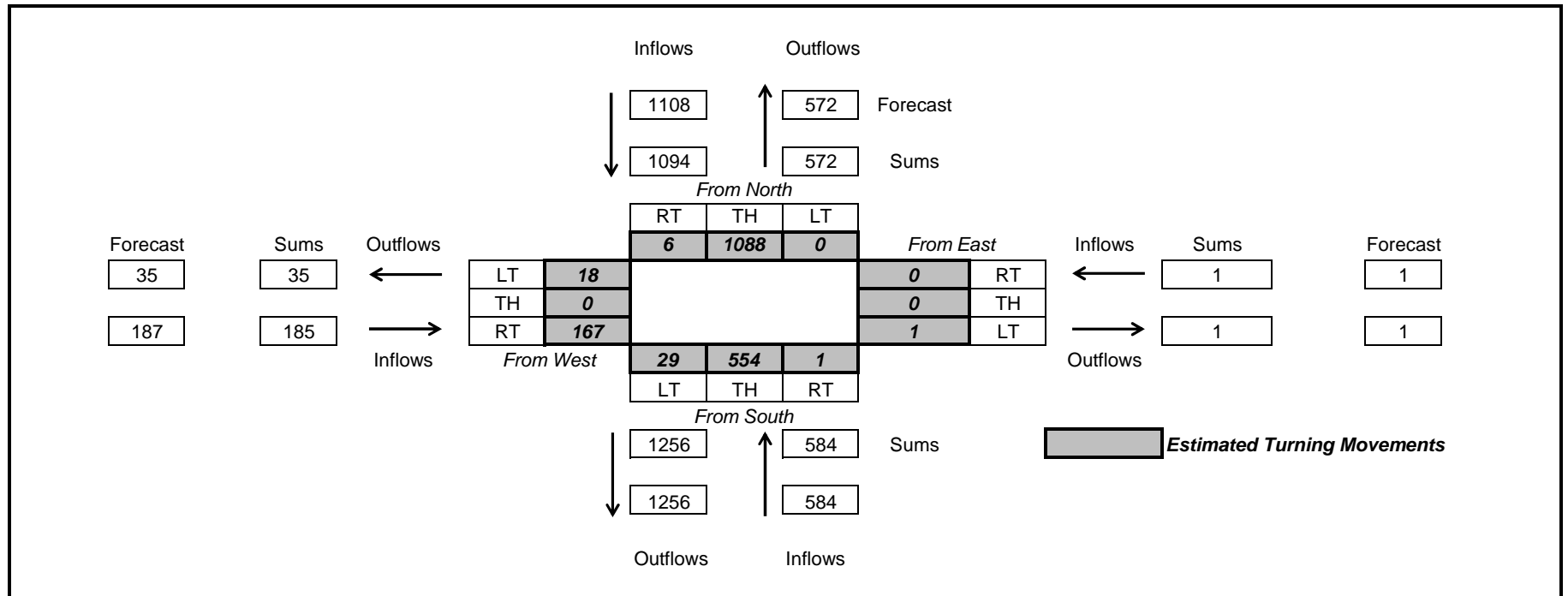
Iterative Method Estimated Turning Movements



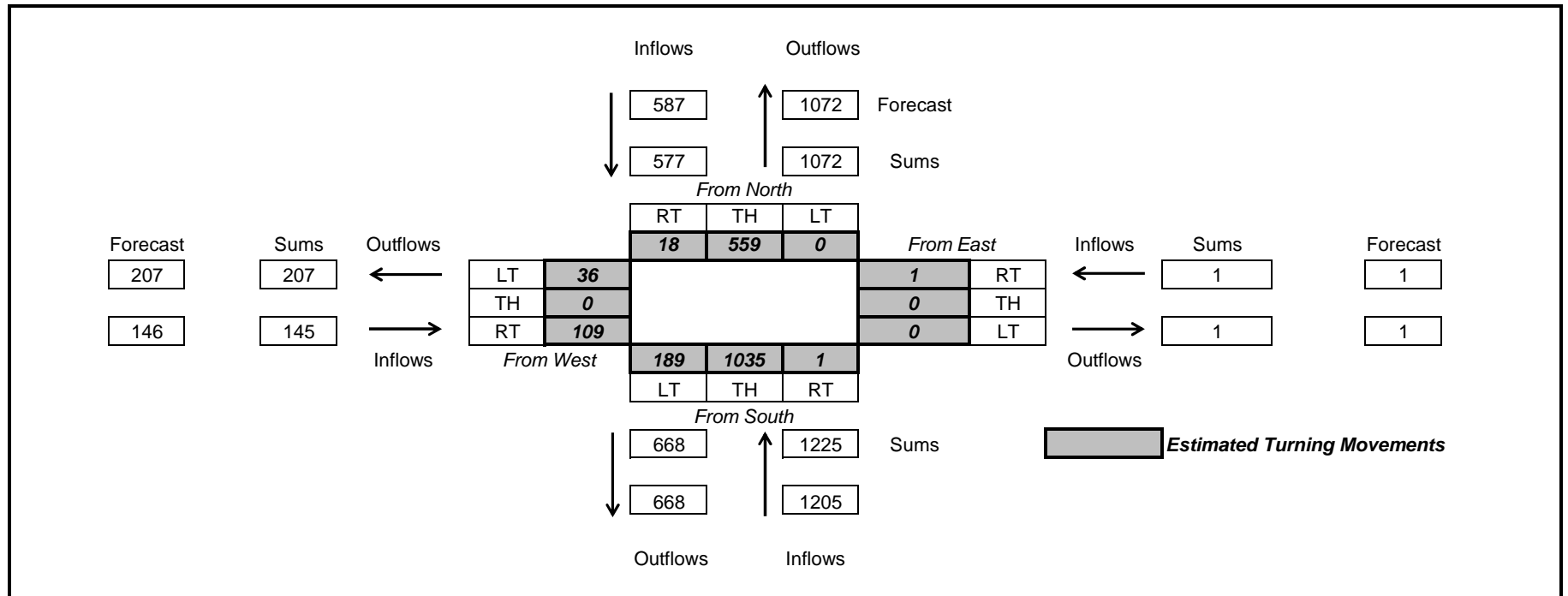
Iterative Method Estimated Turning Movements



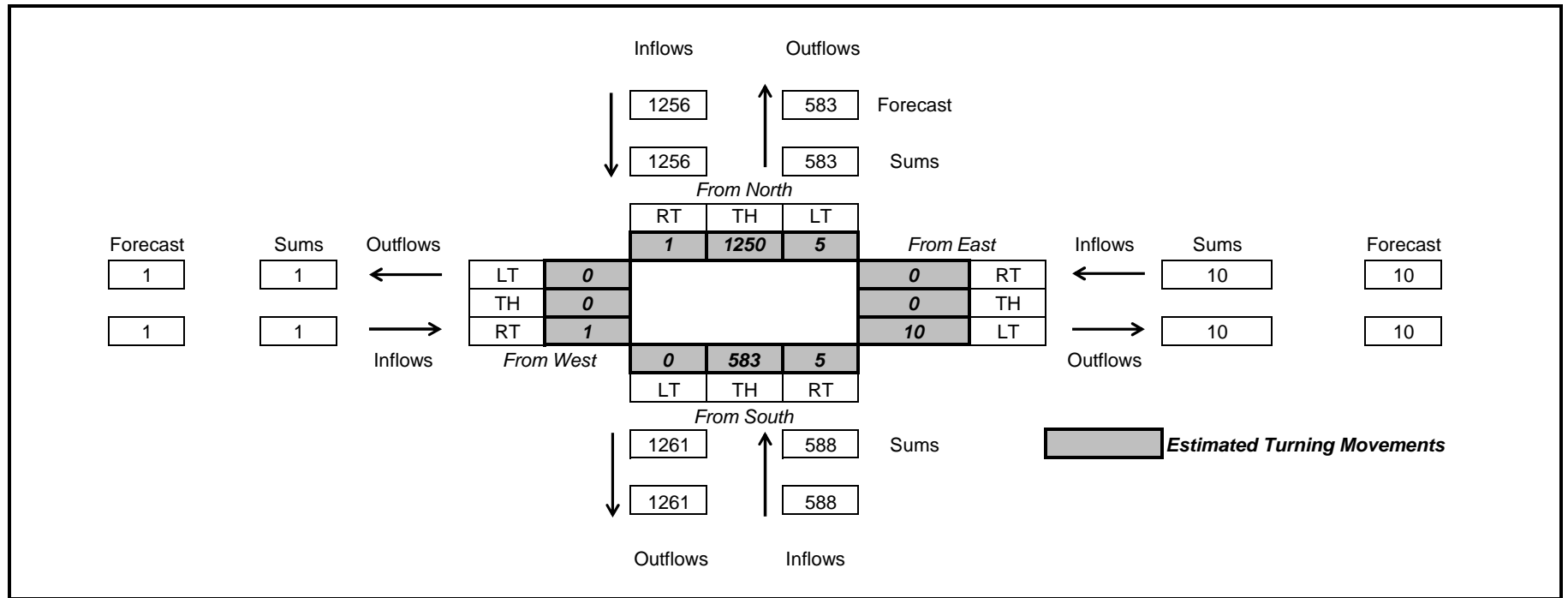
Iterative Method Estimated Turning Movements



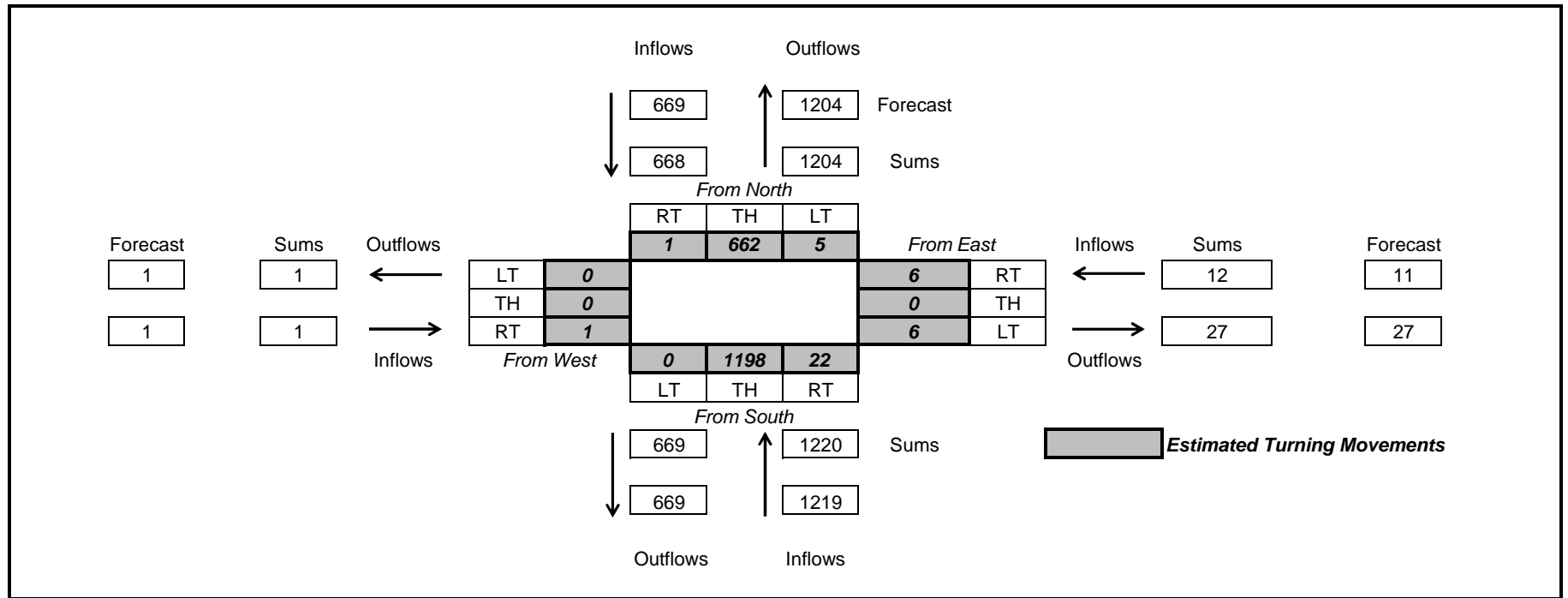
Iterative Method Estimated Turning Movements



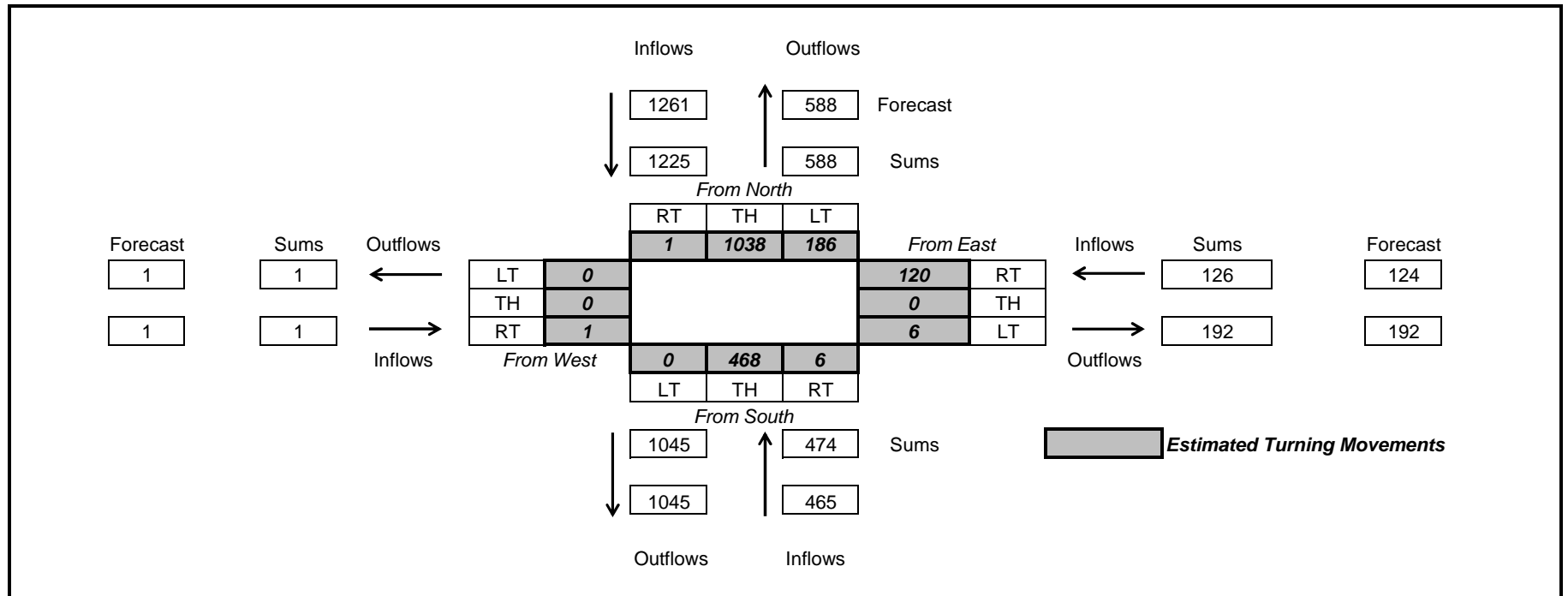
Iterative Method Estimated Turning Movements



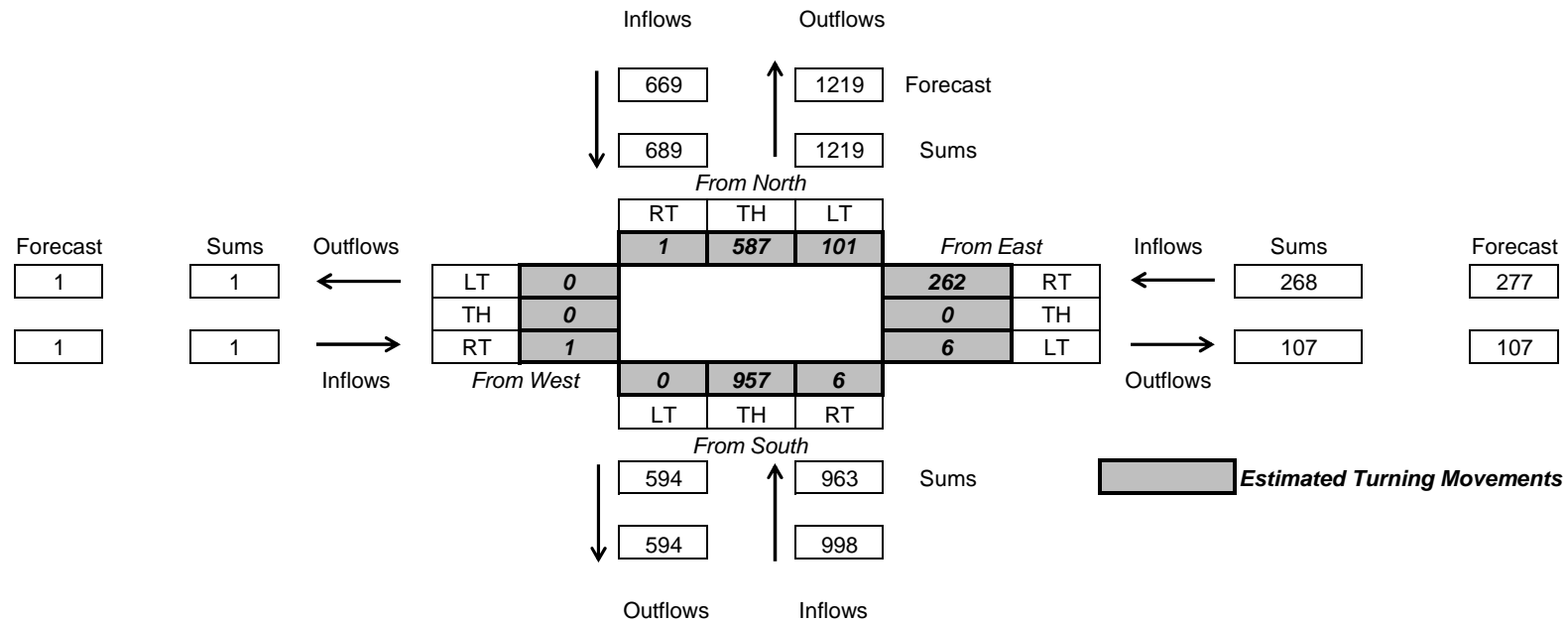
Iterative Method Estimated Turning Movements



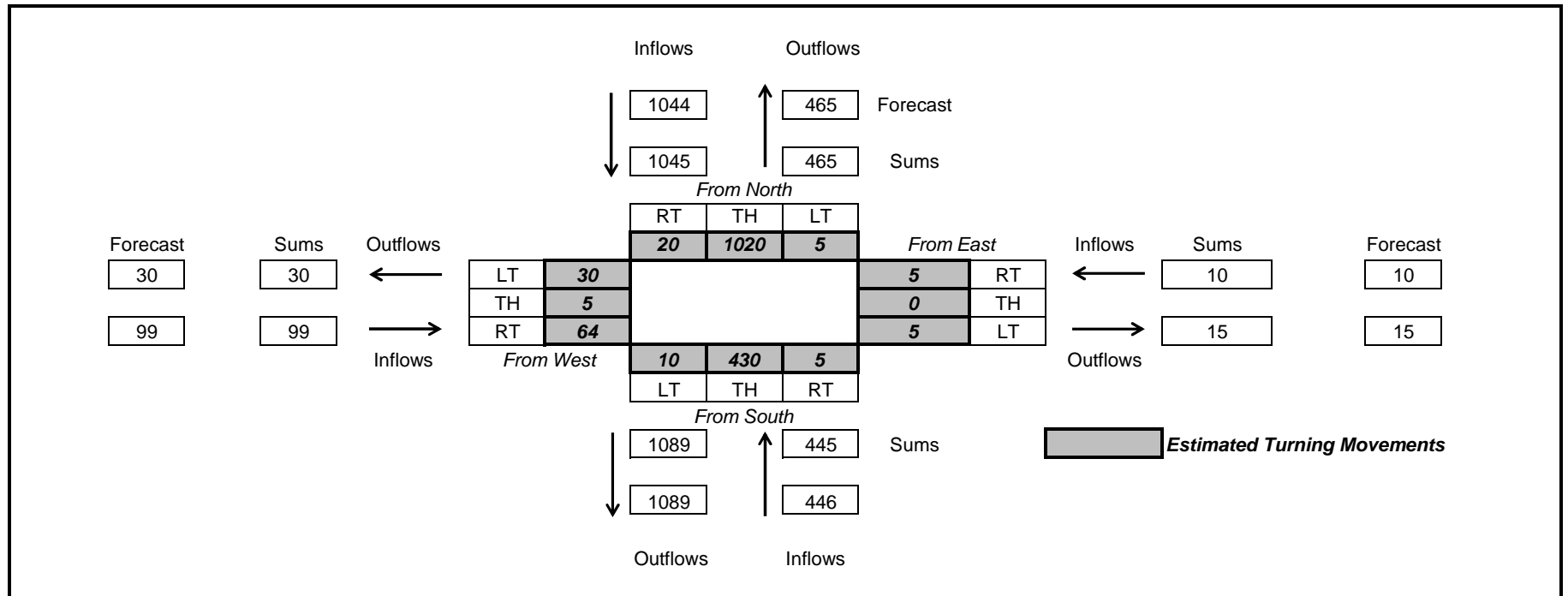
Iterative Method Estimated Turning Movements



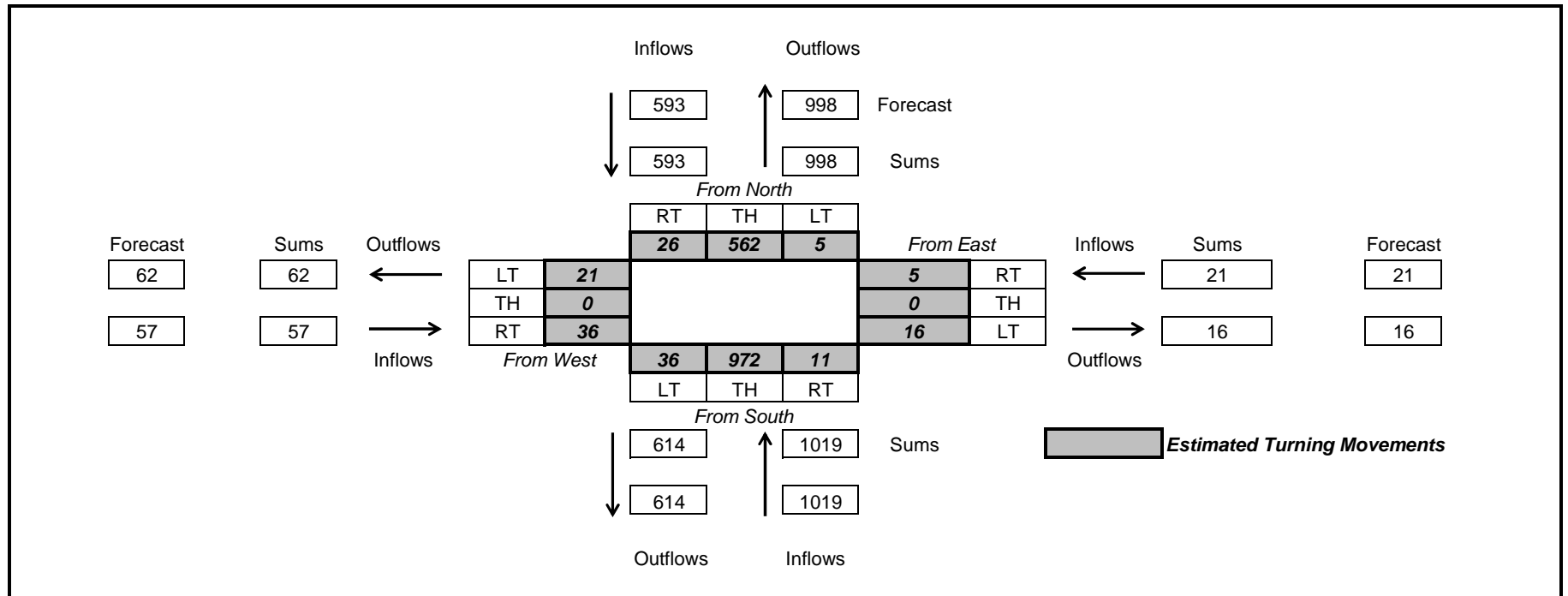
Iterative Method Estimated Turning Movements



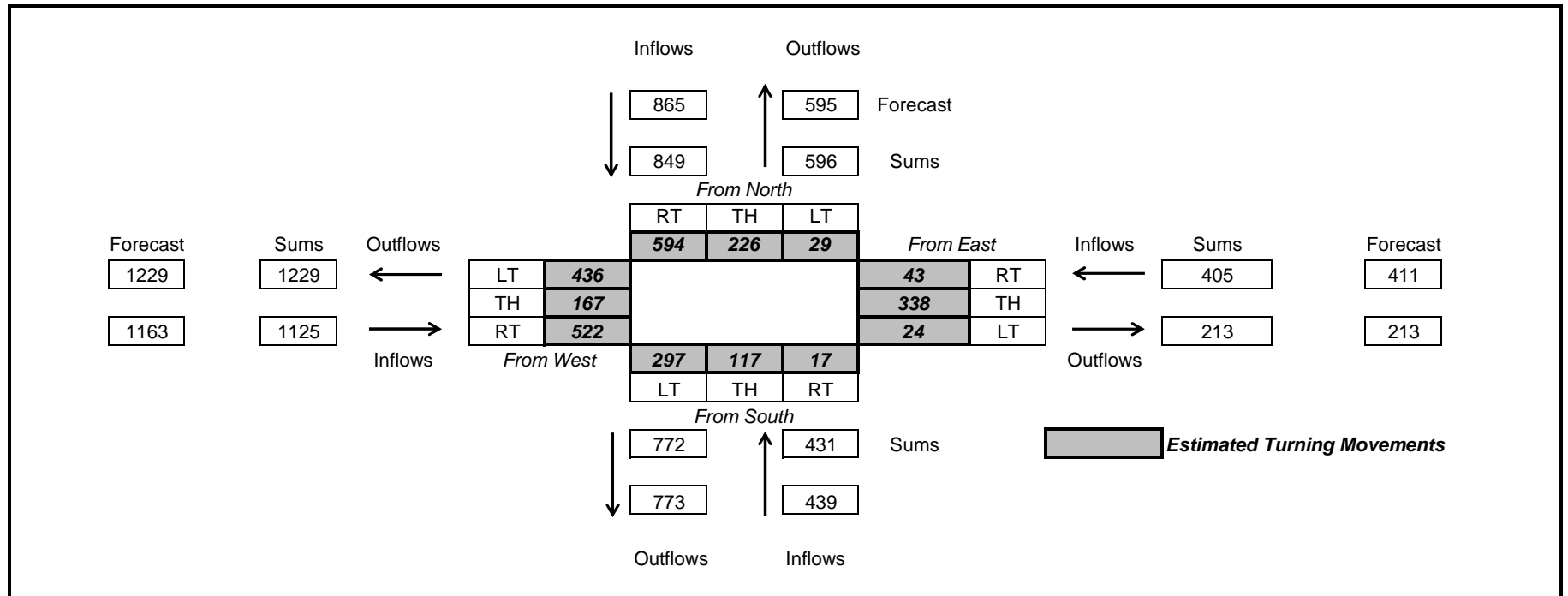
Iterative Method Estimated Turning Movements



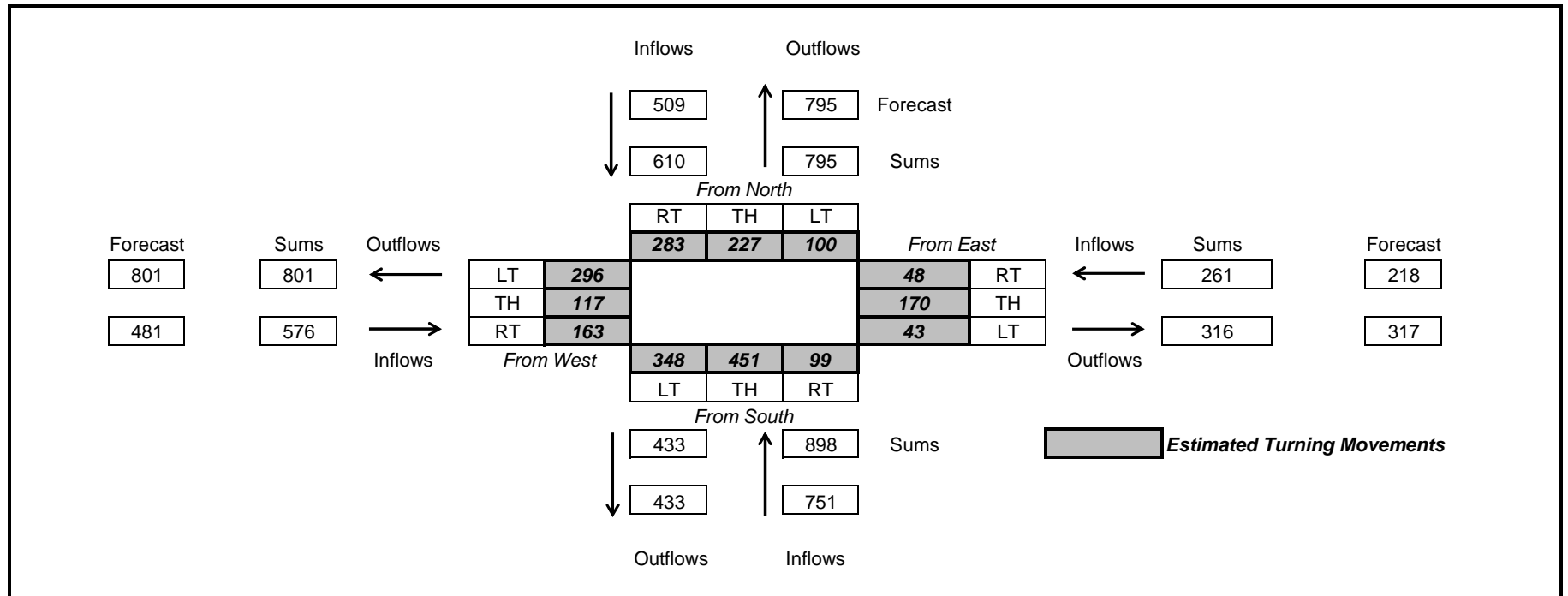
Iterative Method Estimated Turning Movements



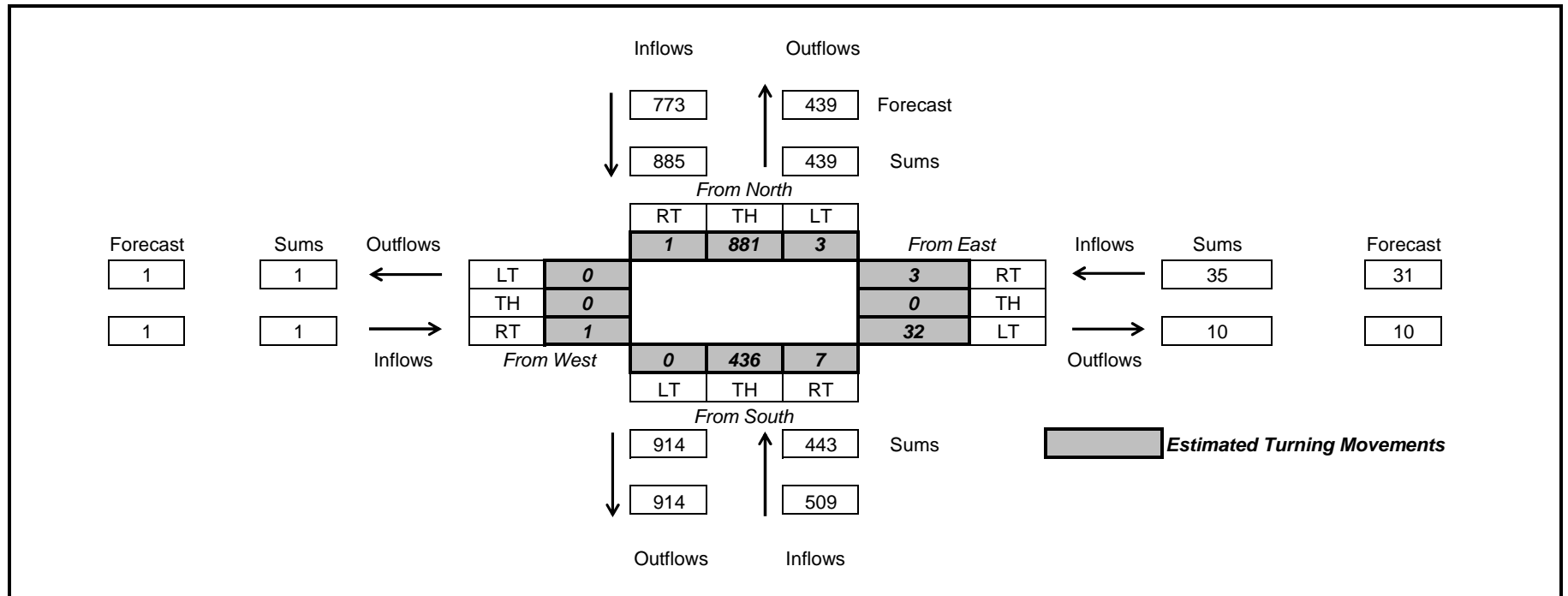
Iterative Method Estimated Turning Movements



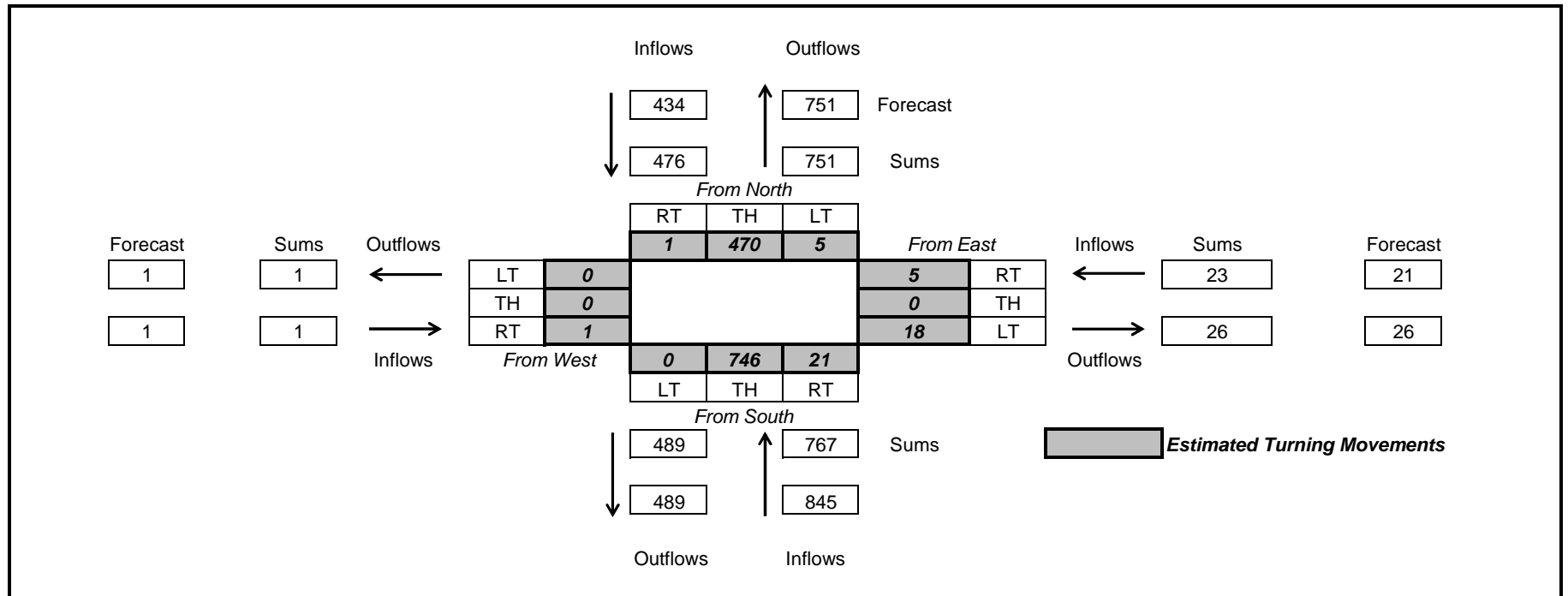
Iterative Method Estimated Turning Movements



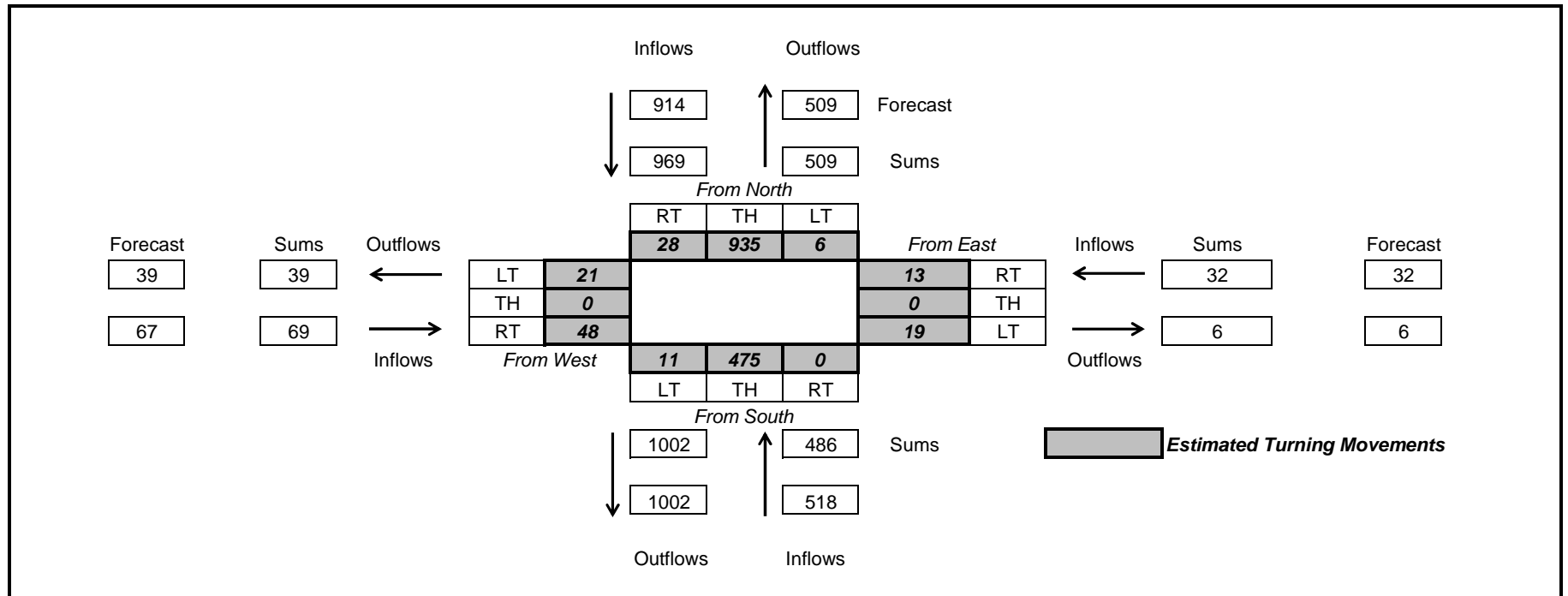
Iterative Method Estimated Turning Movements



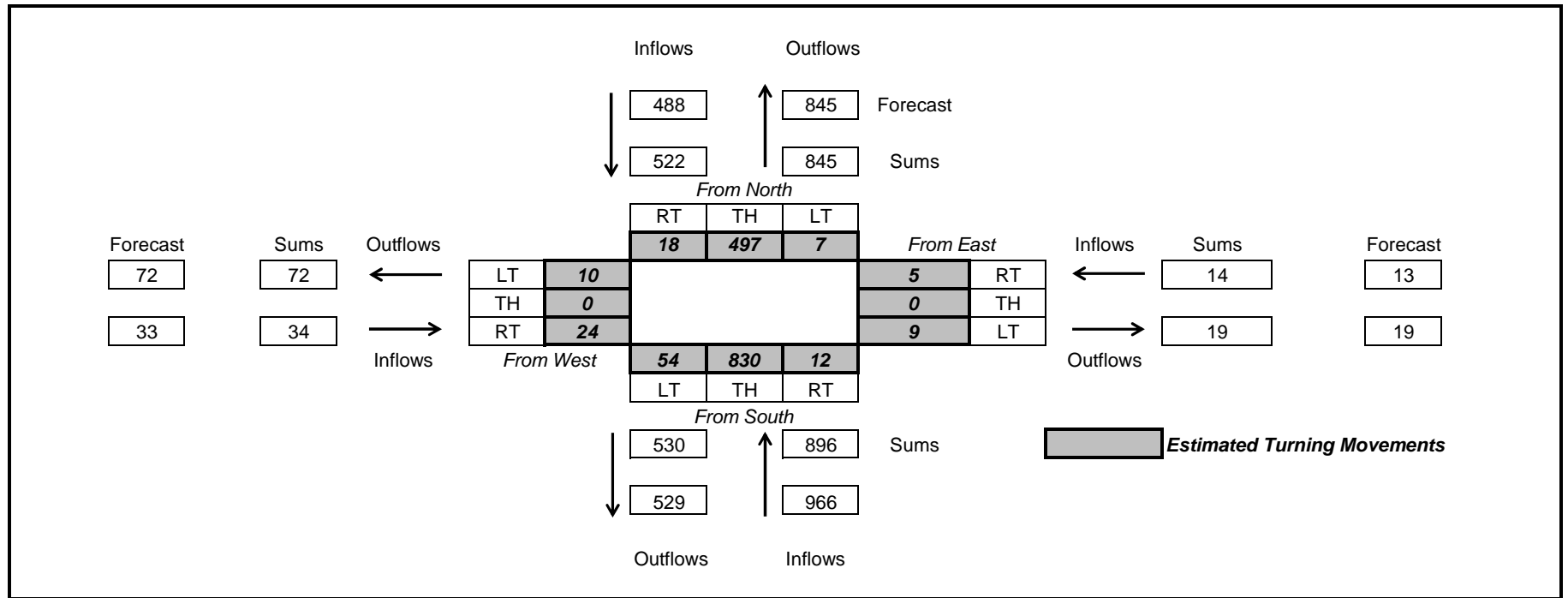
Iterative Method Estimated Turning Movements



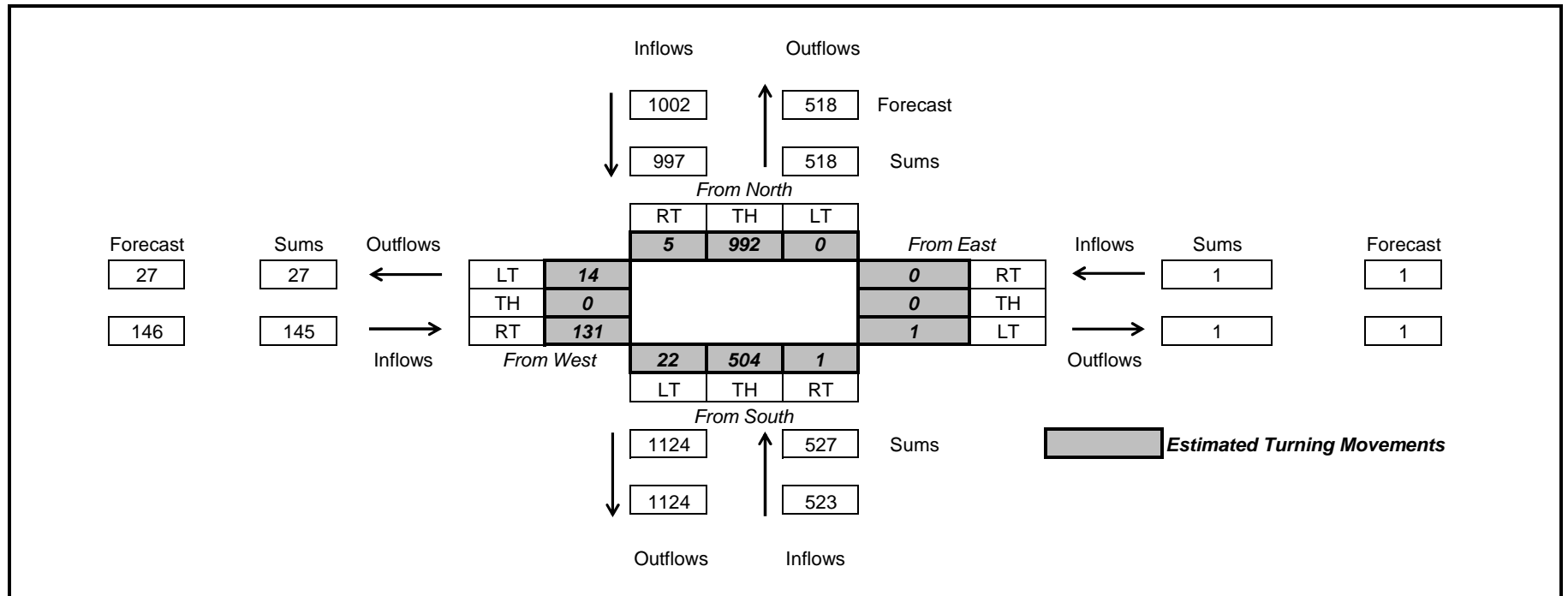
Iterative Method Estimated Turning Movements



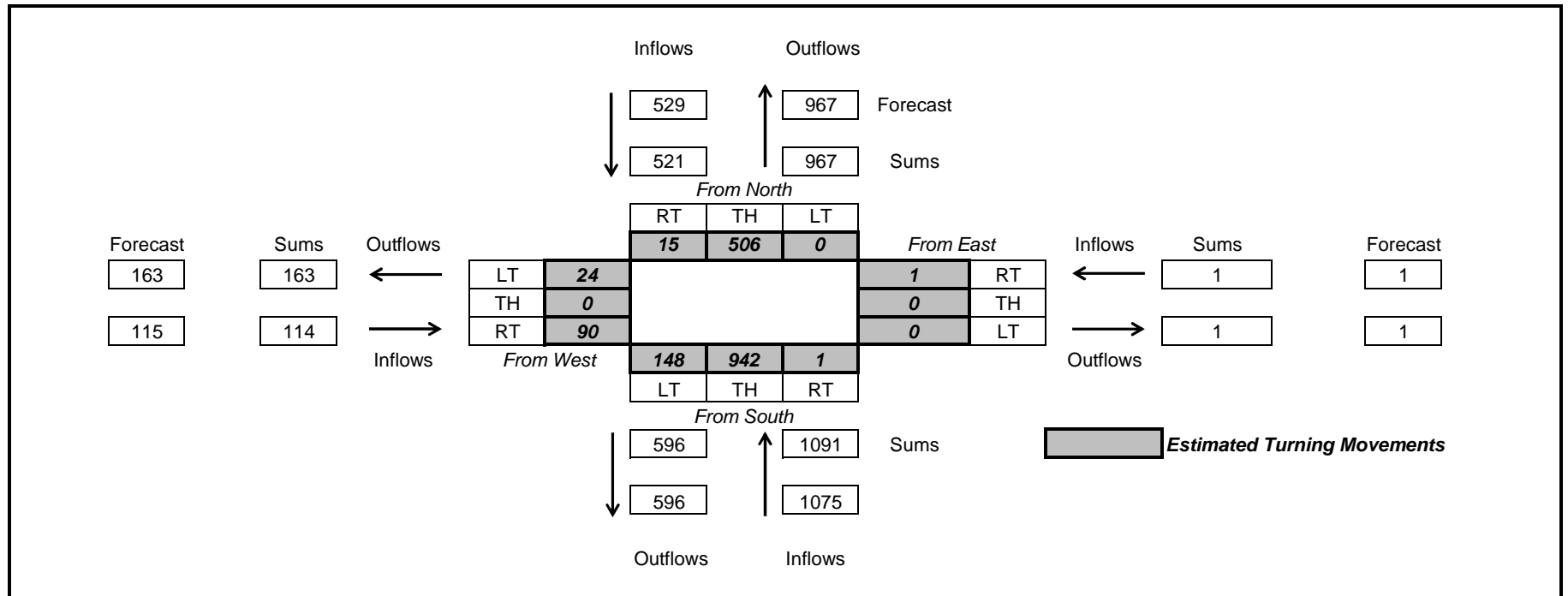
Iterative Method Estimated Turning Movements



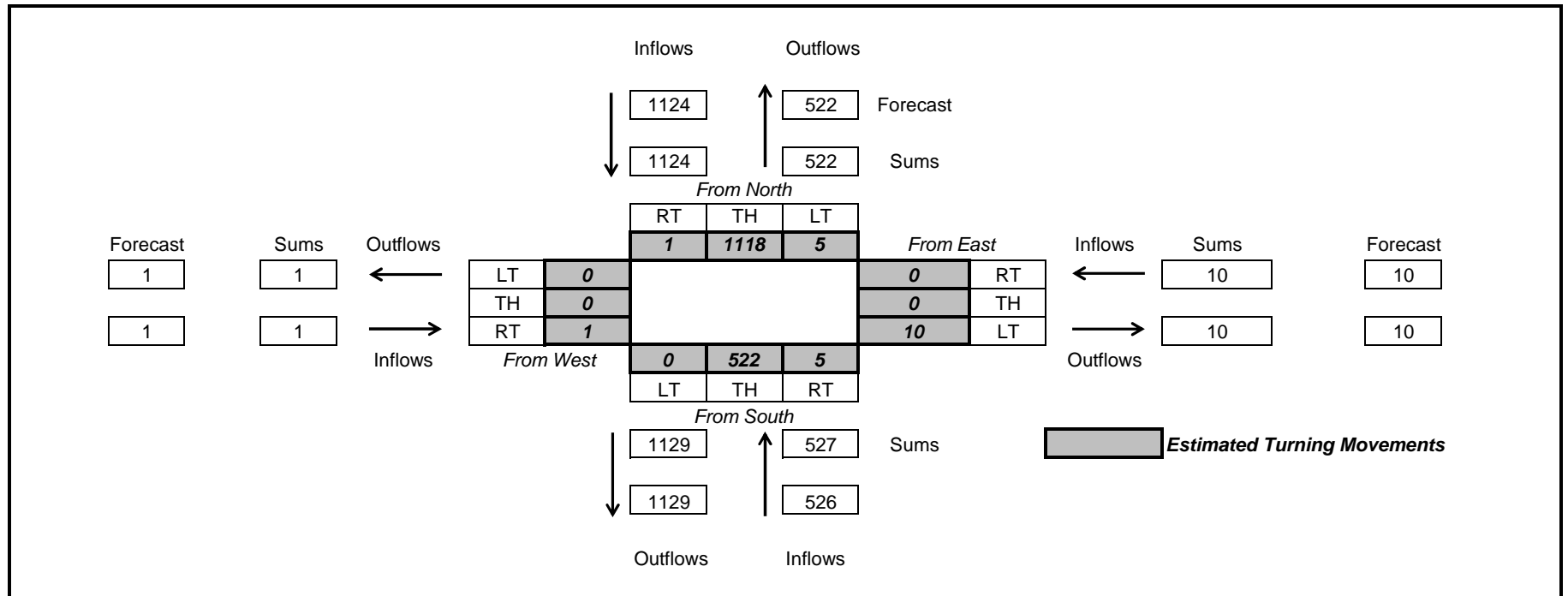
Iterative Method Estimated Turning Movements



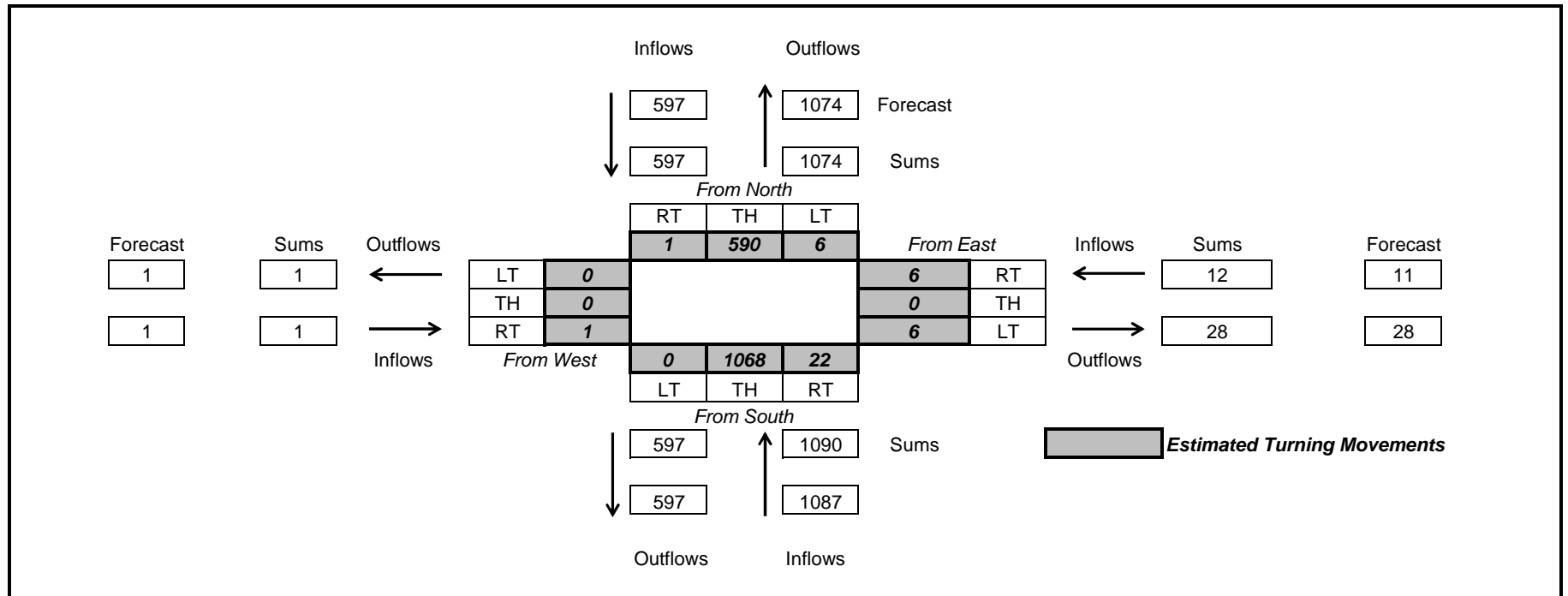
Iterative Method Estimated Turning Movements



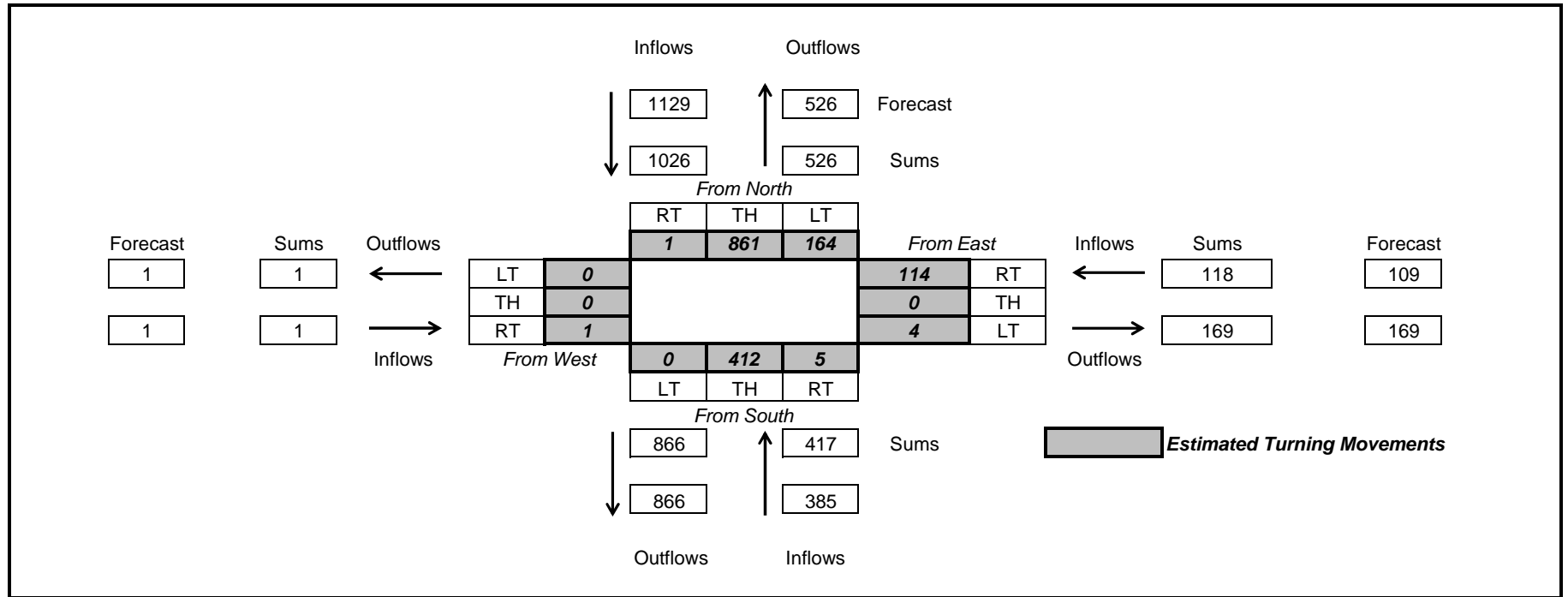
Iterative Method Estimated Turning Movements



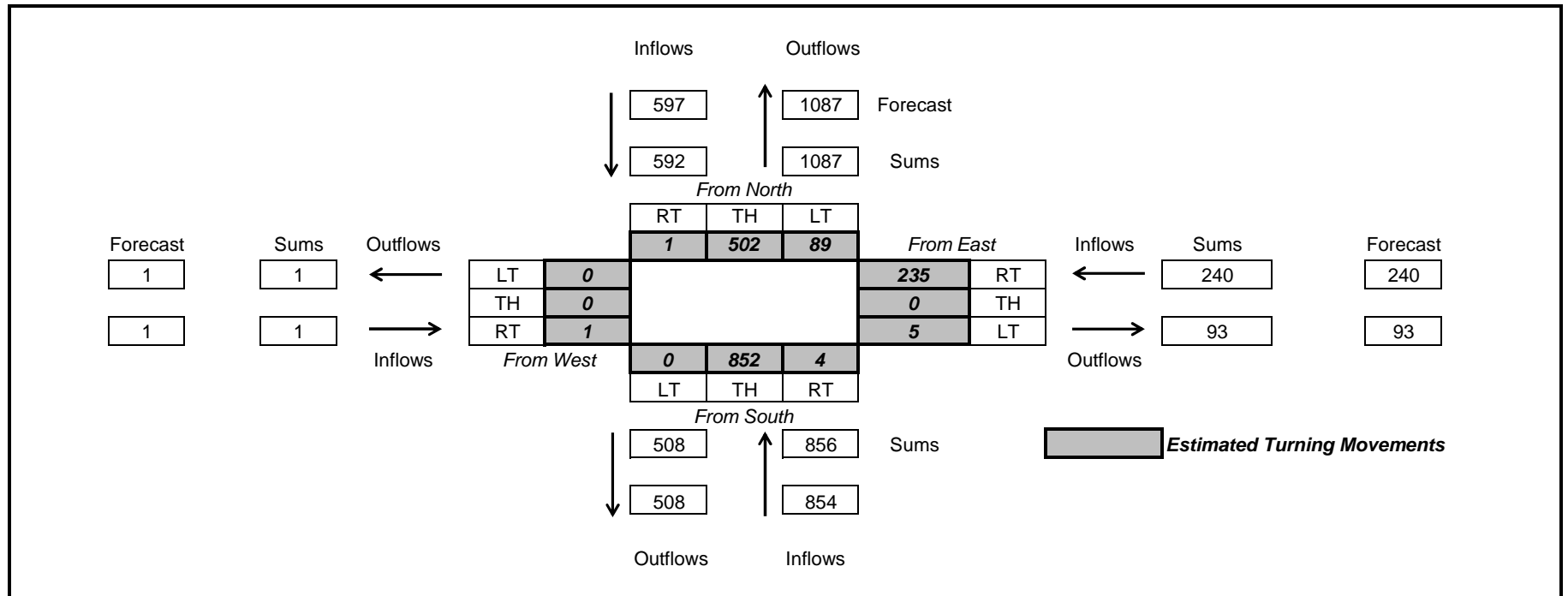
Iterative Method Estimated Turning Movements



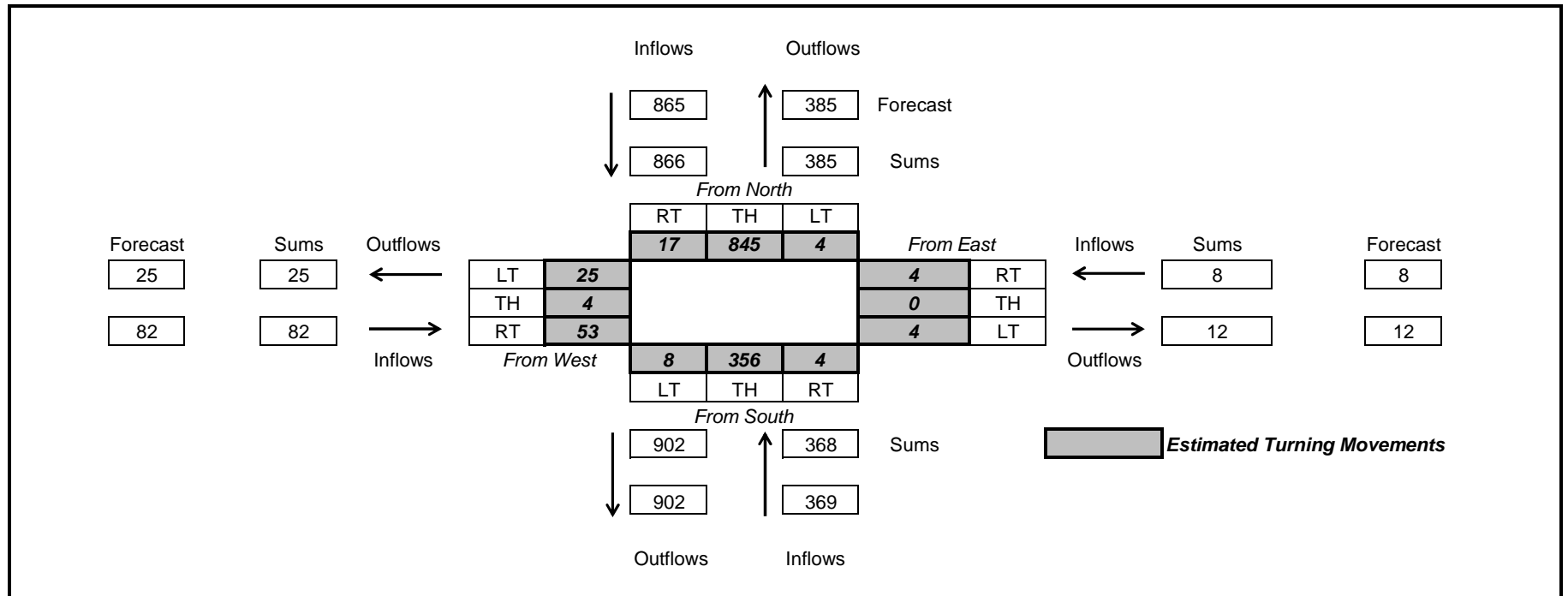
Iterative Method Estimated Turning Movements



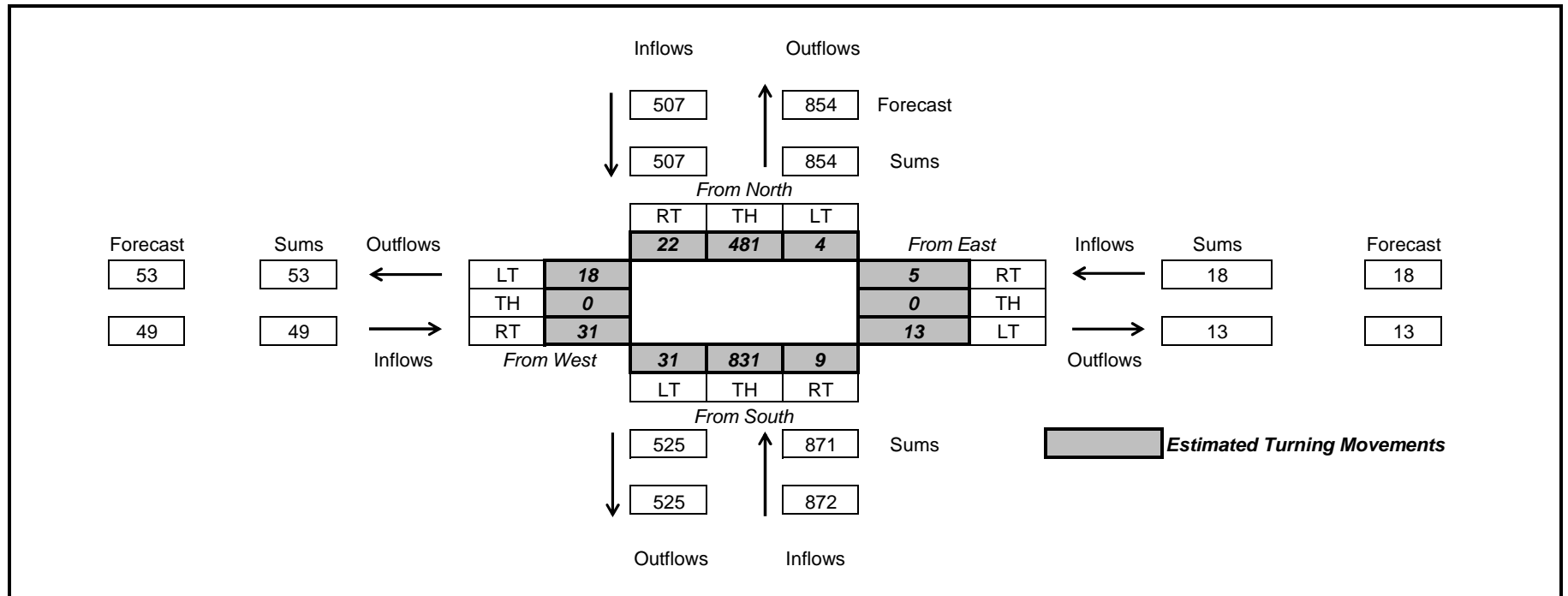
Iterative Method Estimated Turning Movements



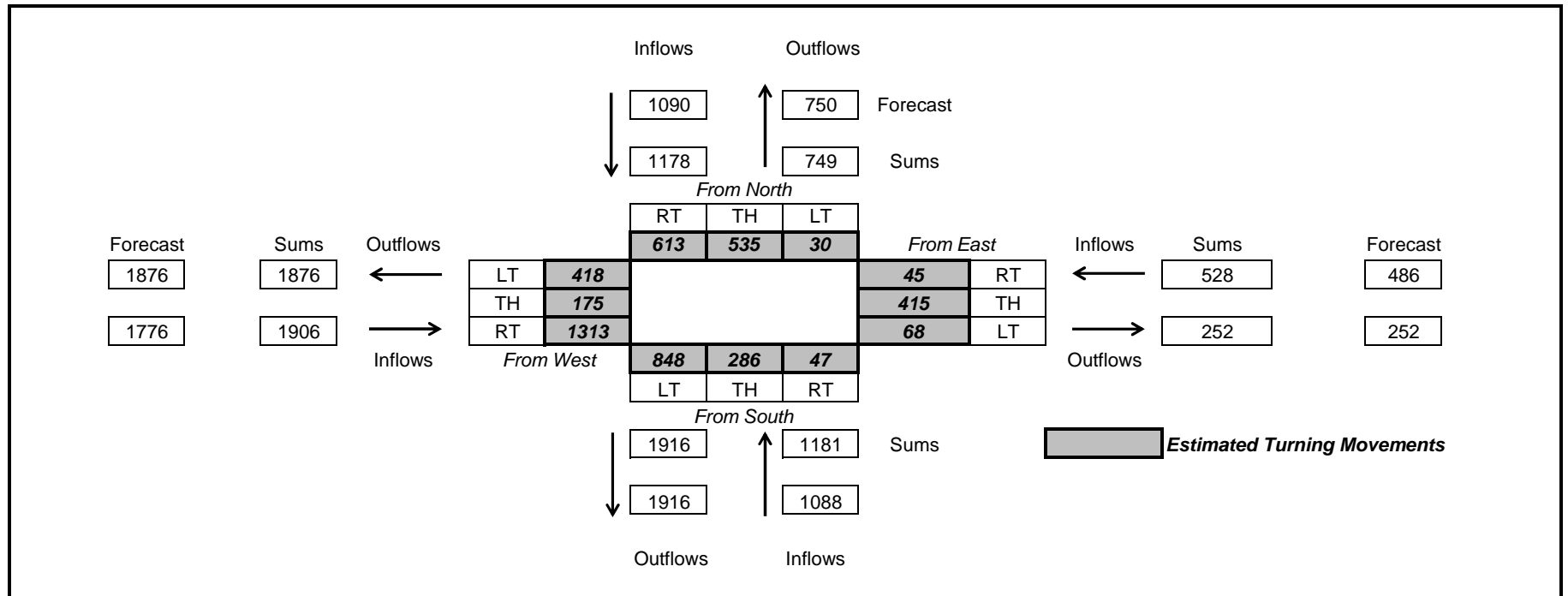
Iterative Method Estimated Turning Movements



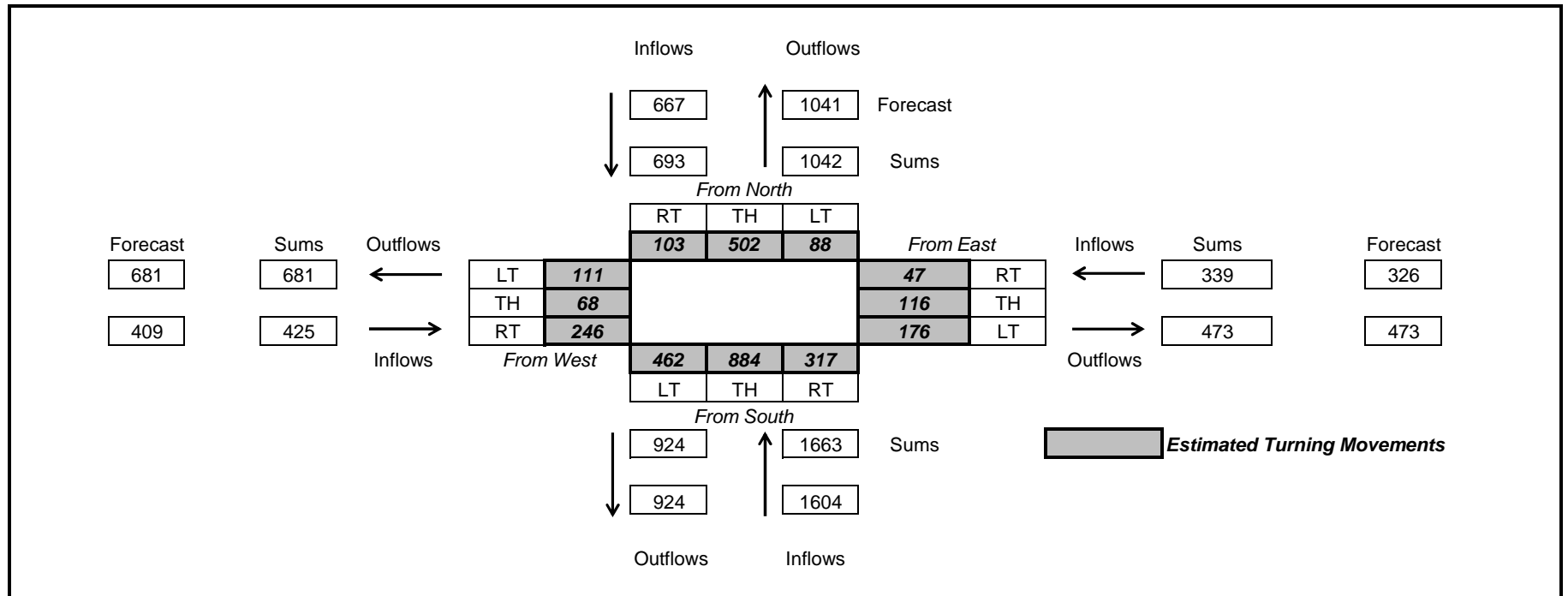
Iterative Method Estimated Turning Movements



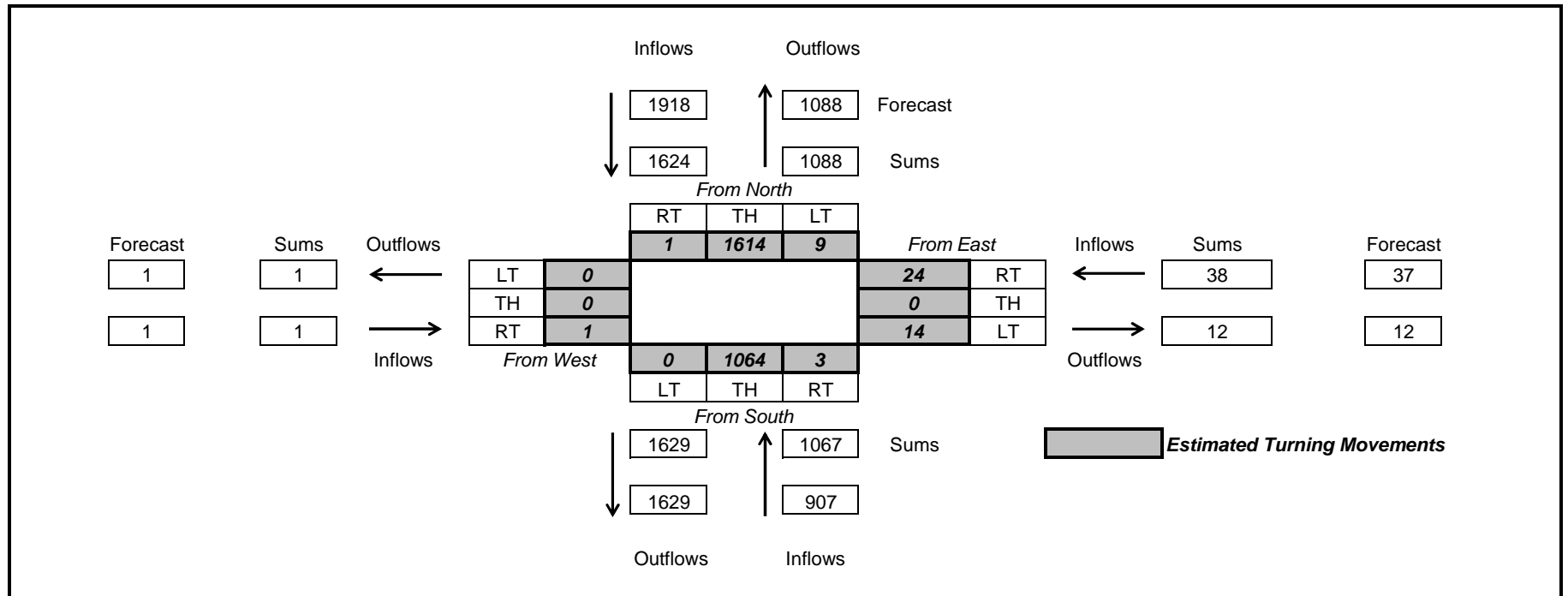
Iterative Method Estimated Turning Movements



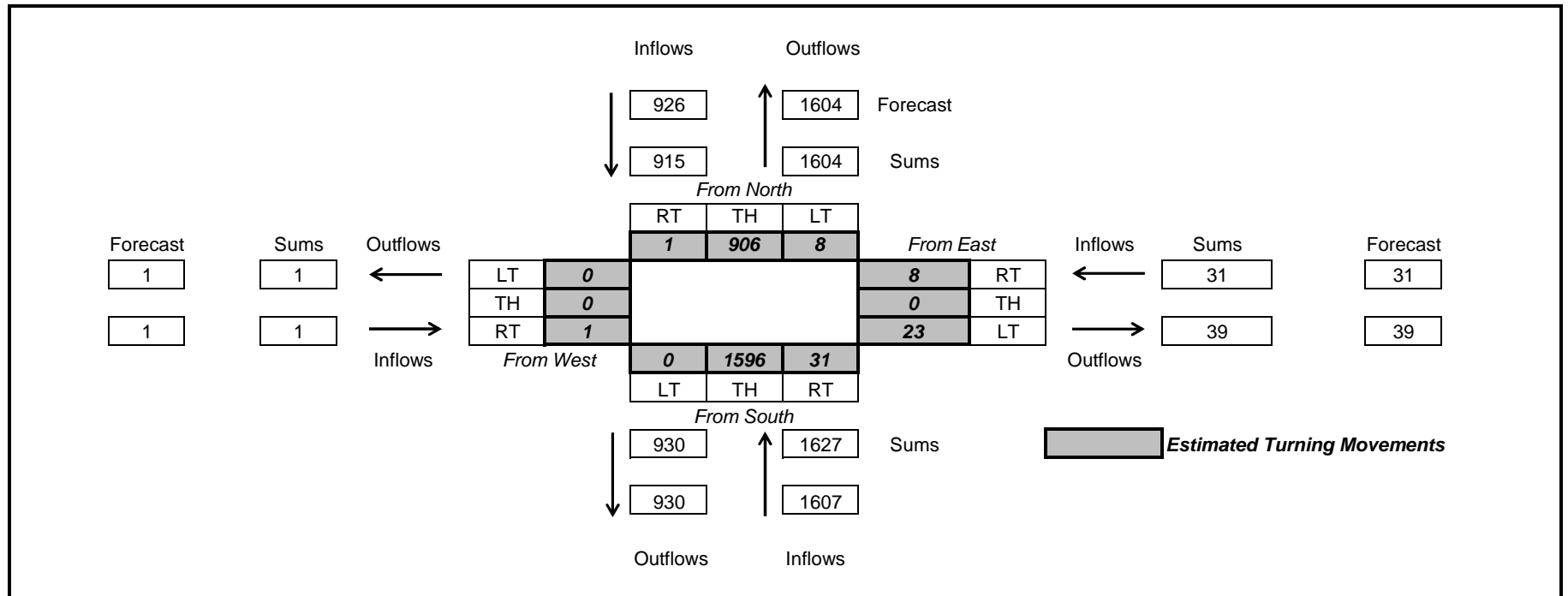
Iterative Method Estimated Turning Movements



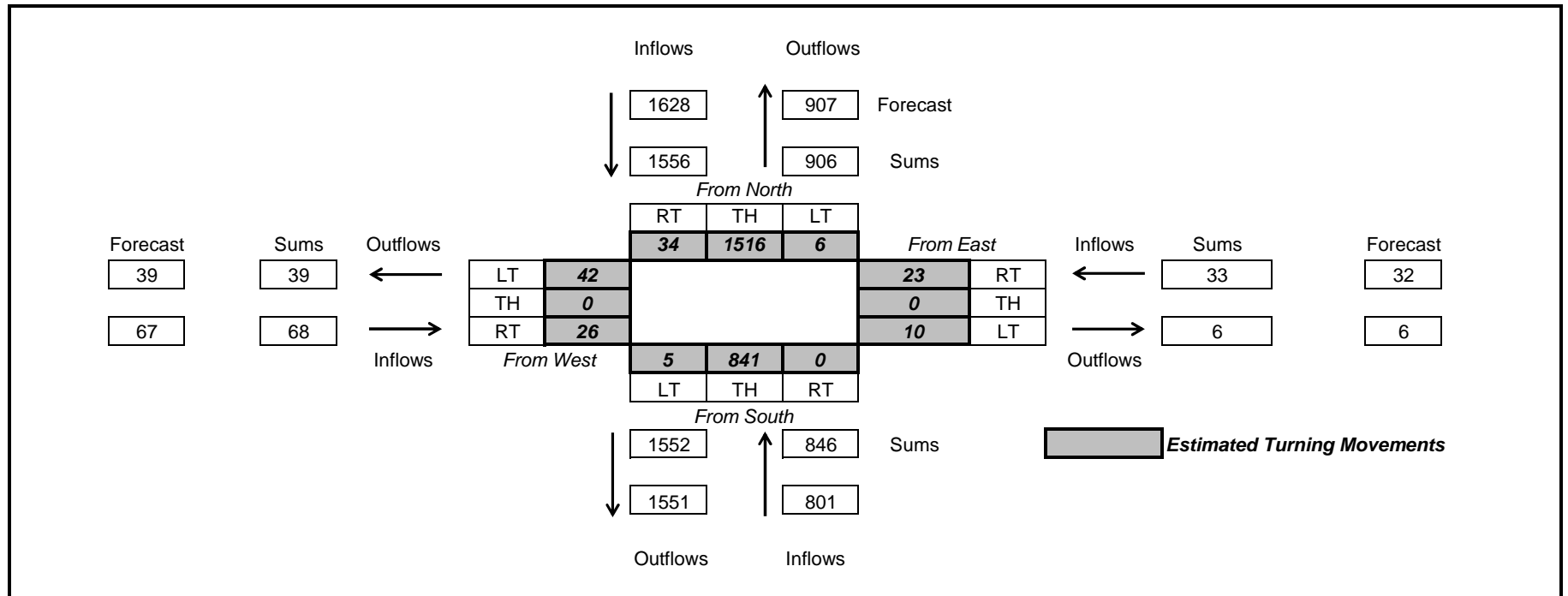
Iterative Method Estimated Turning Movements



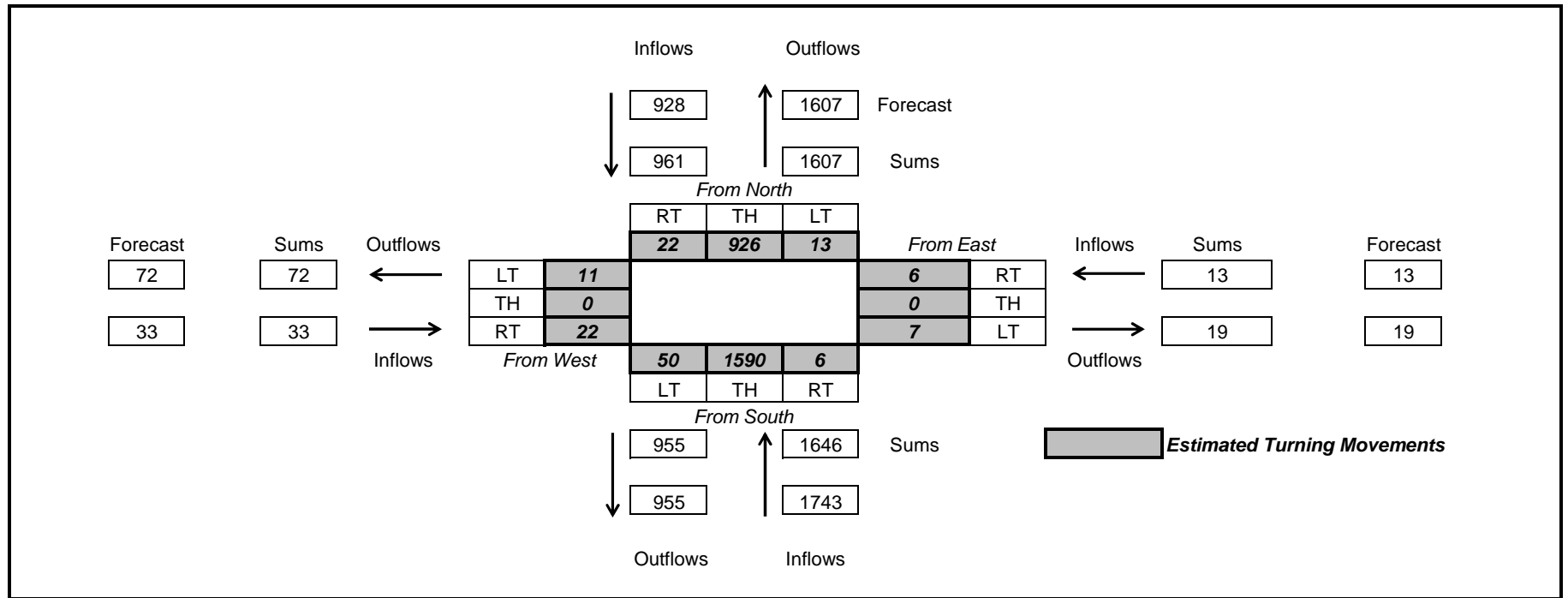
Iterative Method Estimated Turning Movements



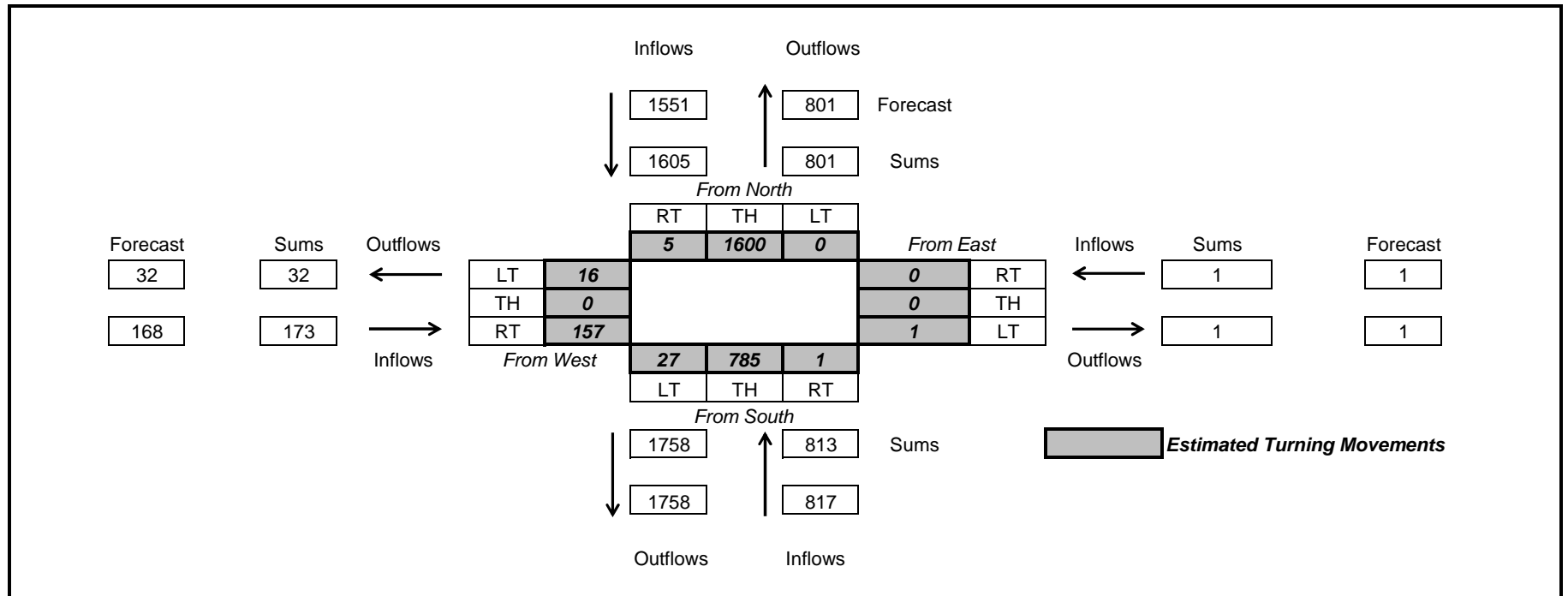
Iterative Method Estimated Turning Movements



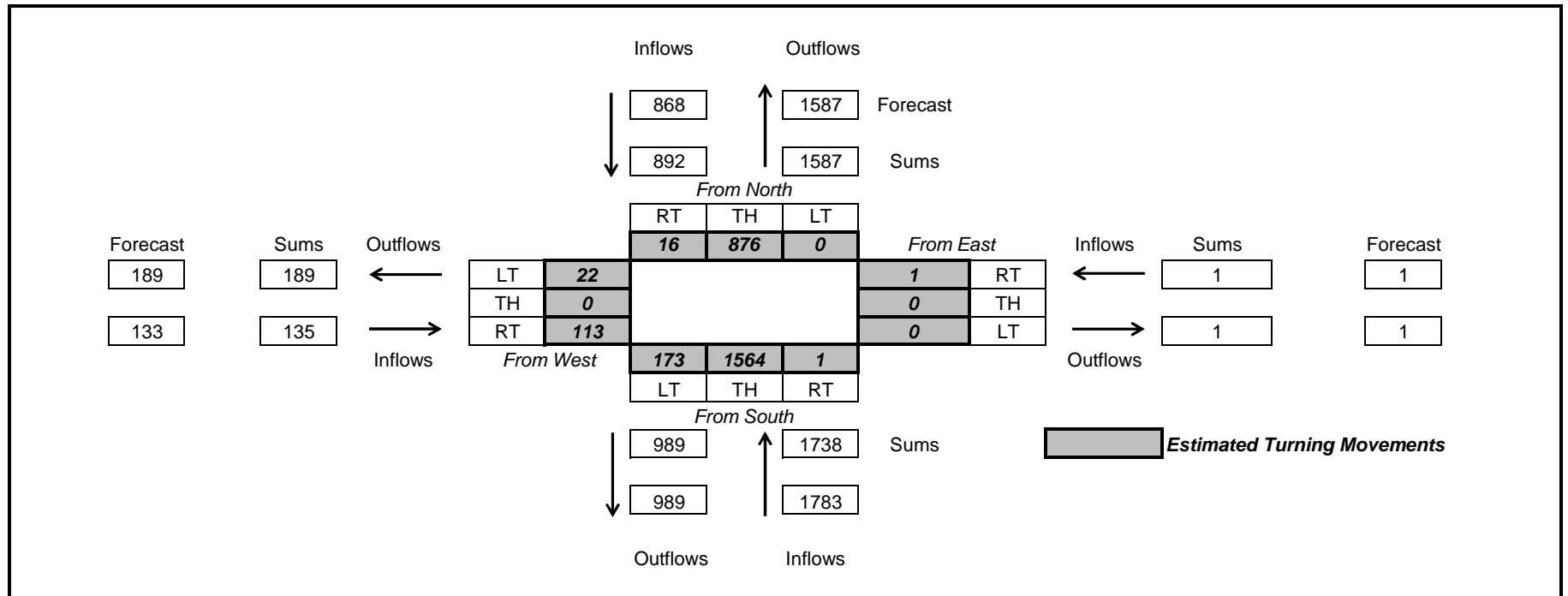
Iterative Method Estimated Turning Movements



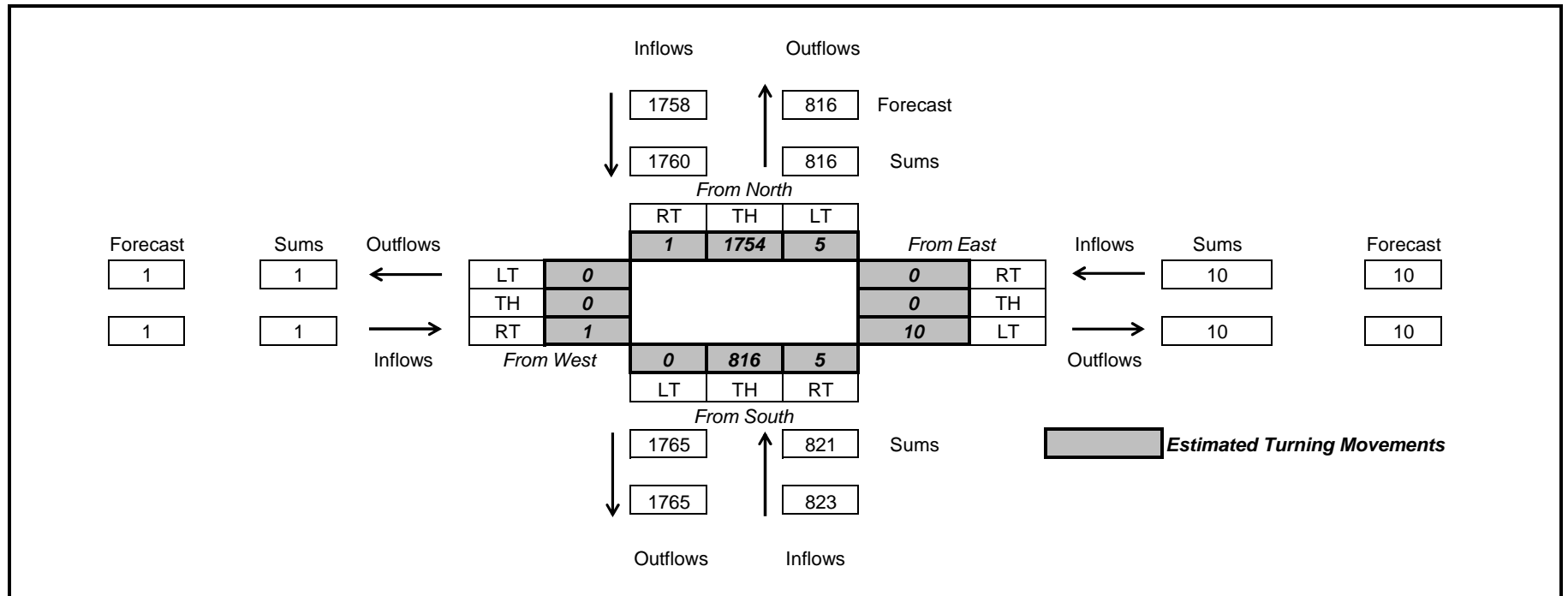
Iterative Method Estimated Turning Movements



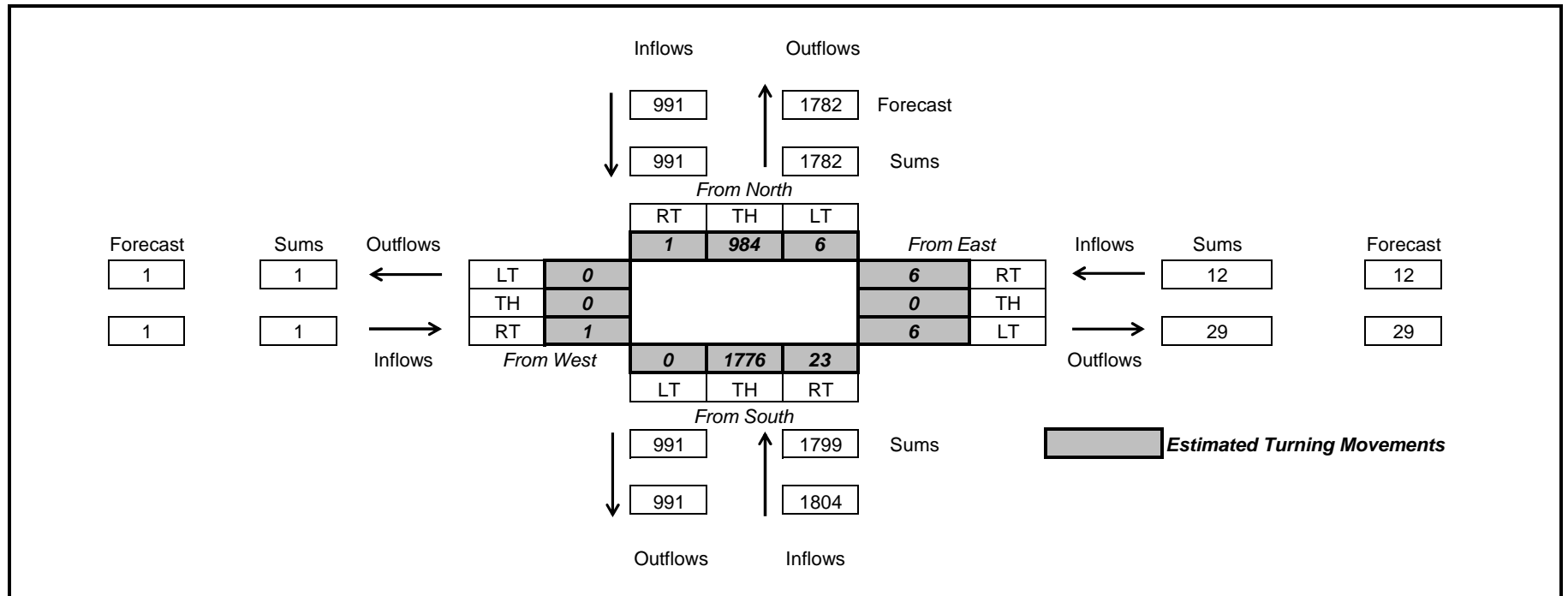
Iterative Method Estimated Turning Movements



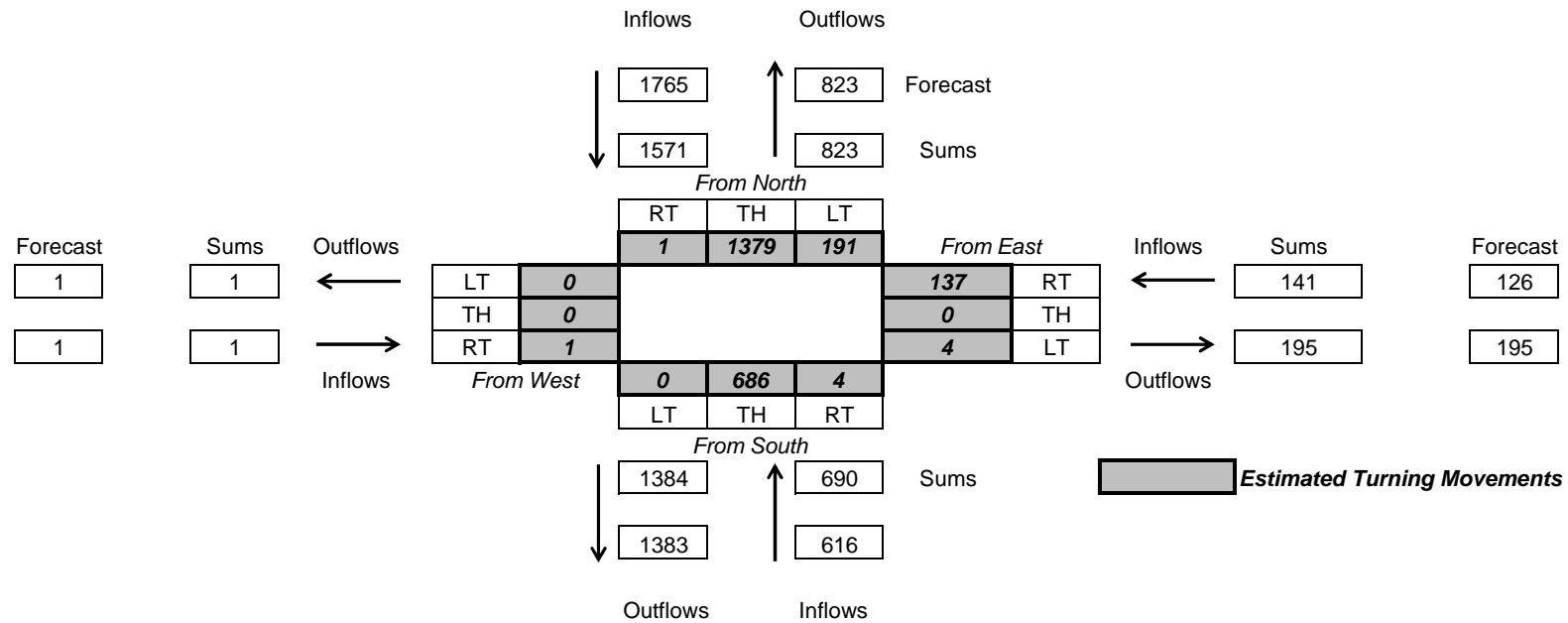
Iterative Method Estimated Turning Movements



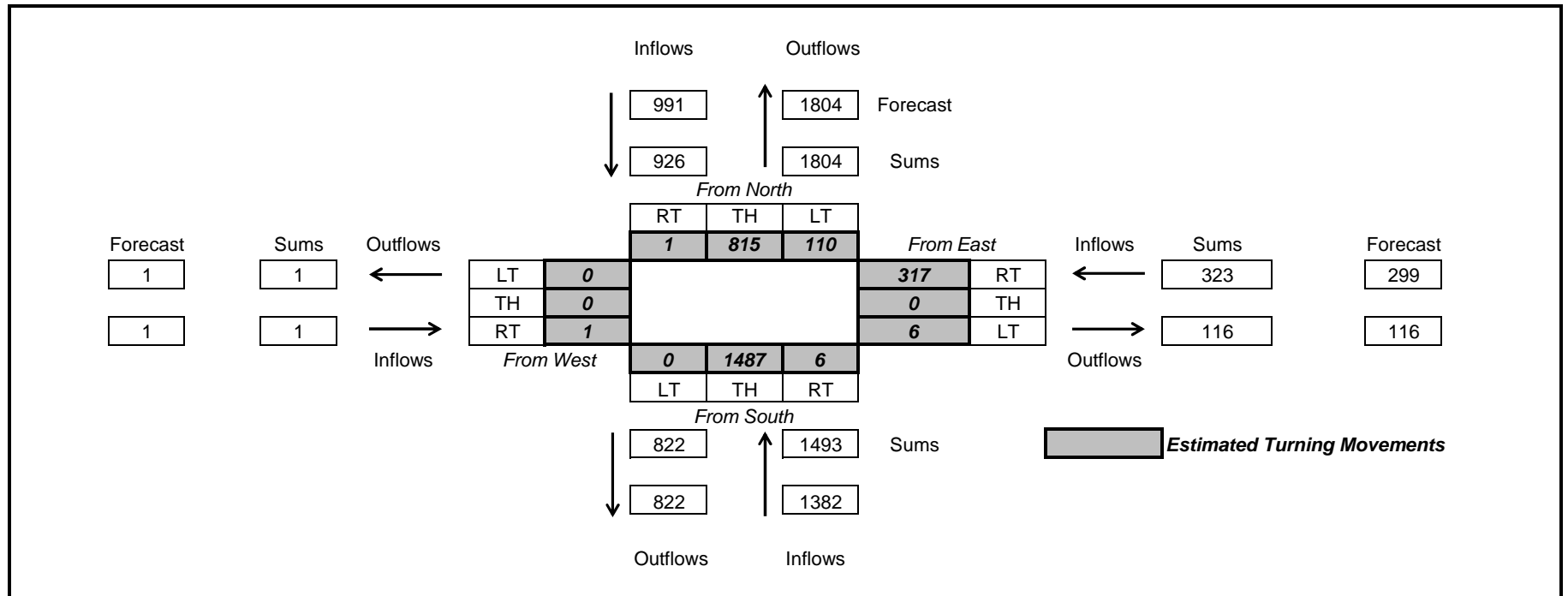
Iterative Method Estimated Turning Movements



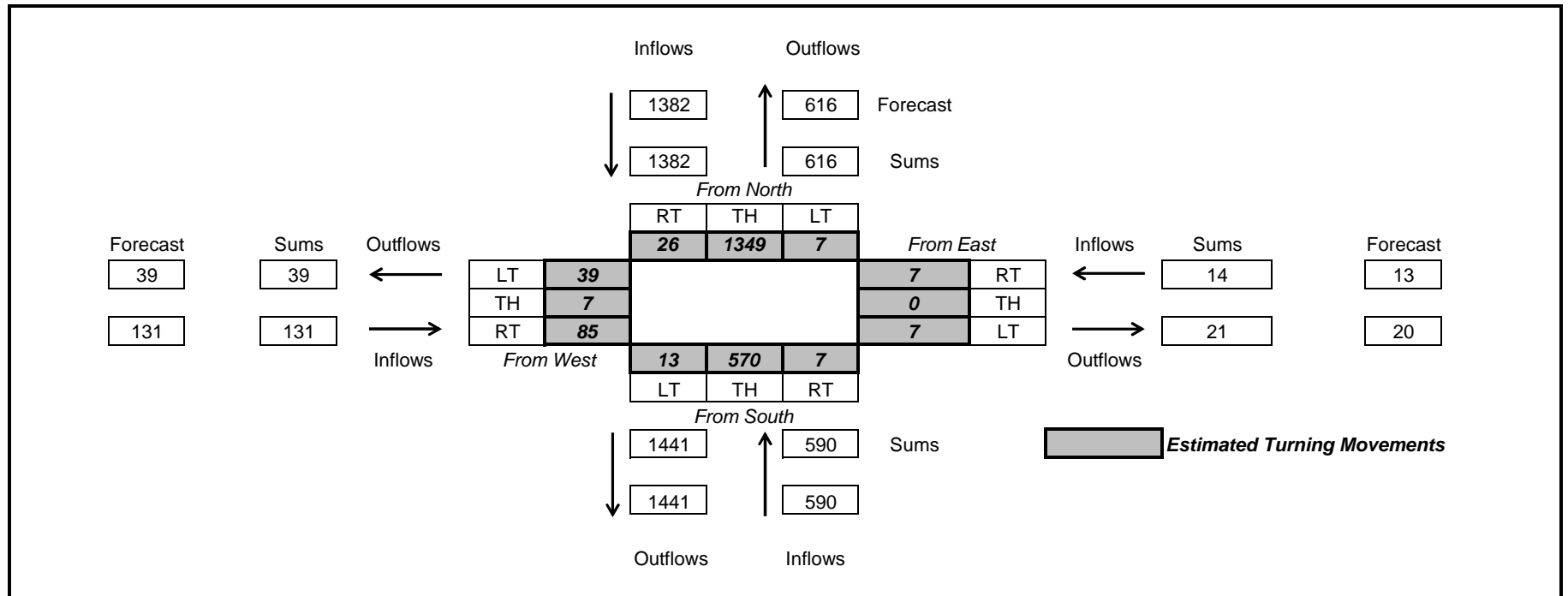
Iterative Method Estimated Turning Movements



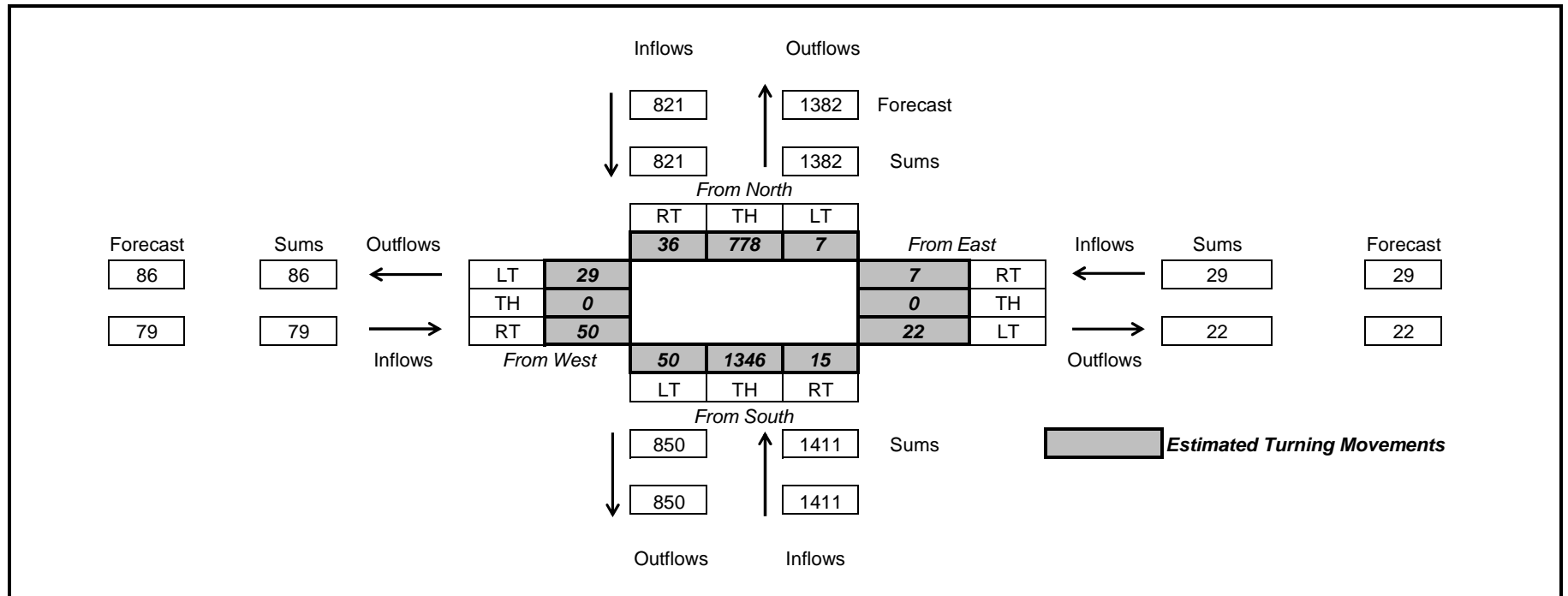
Iterative Method Estimated Turning Movements



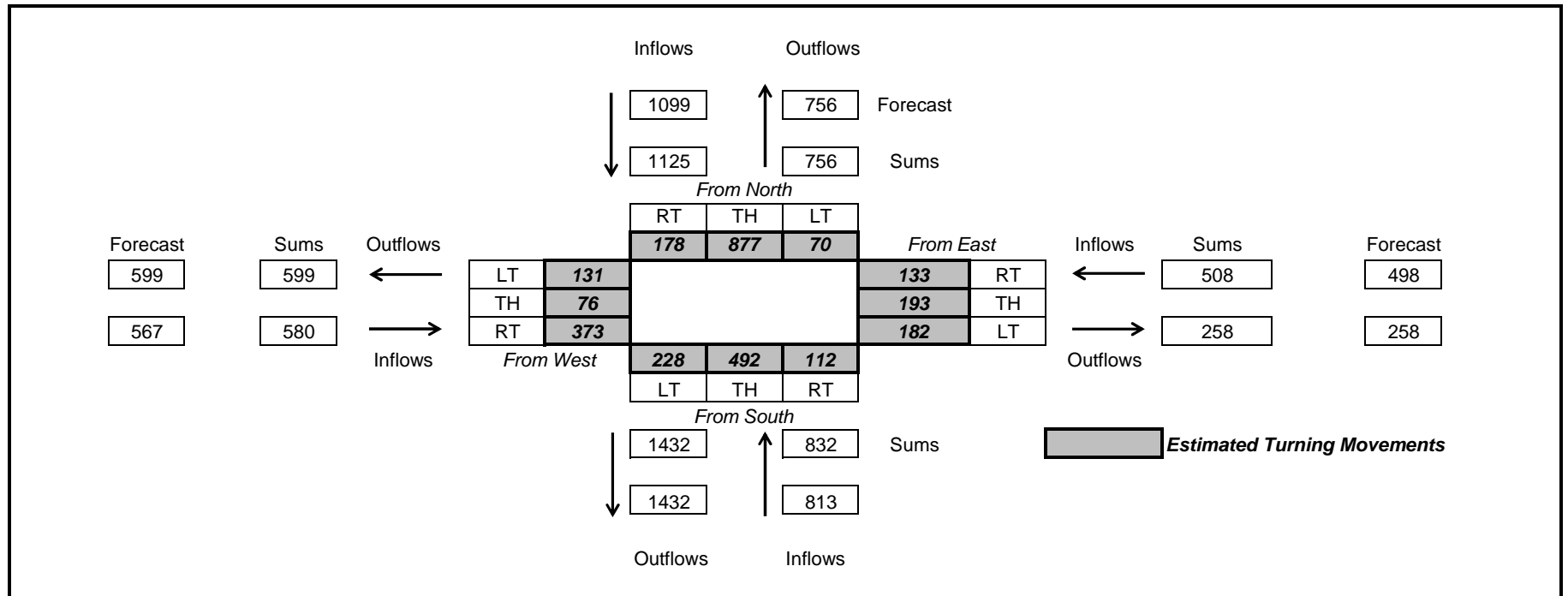
Iterative Method Estimated Turning Movements



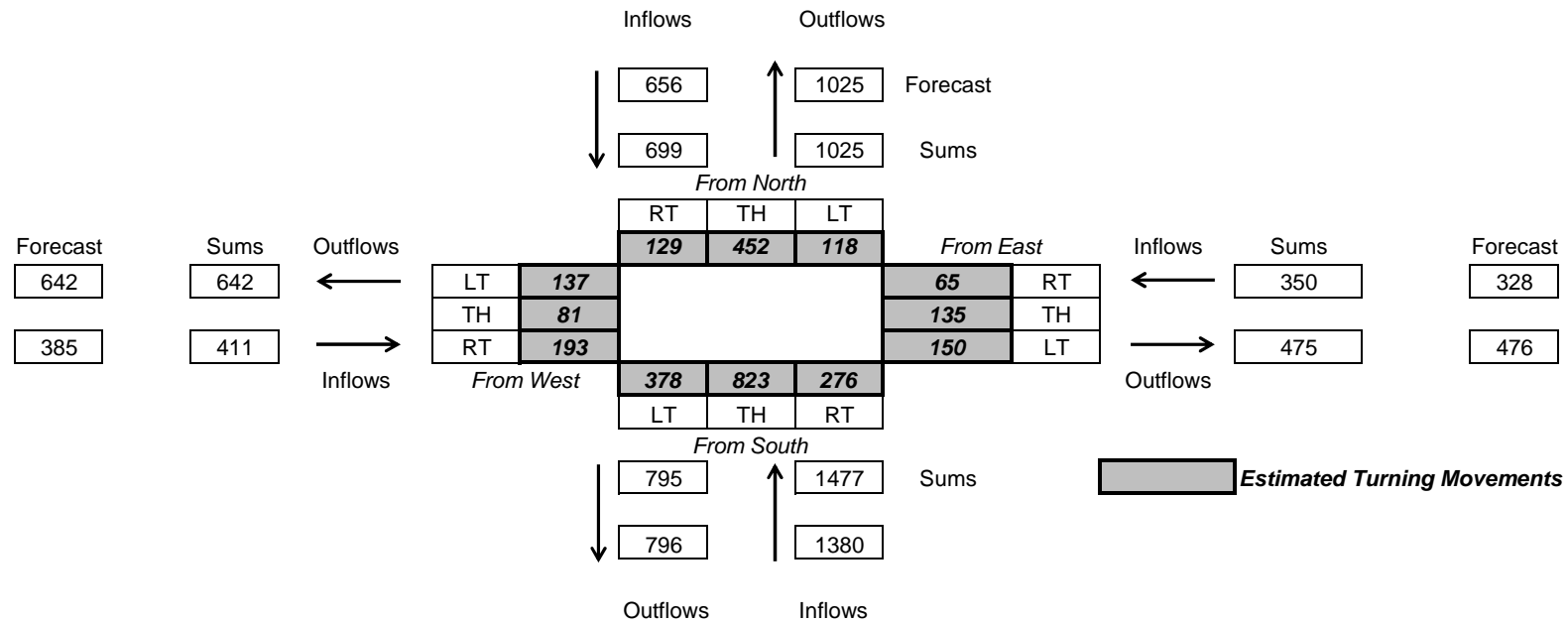
Iterative Method Estimated Turning Movements



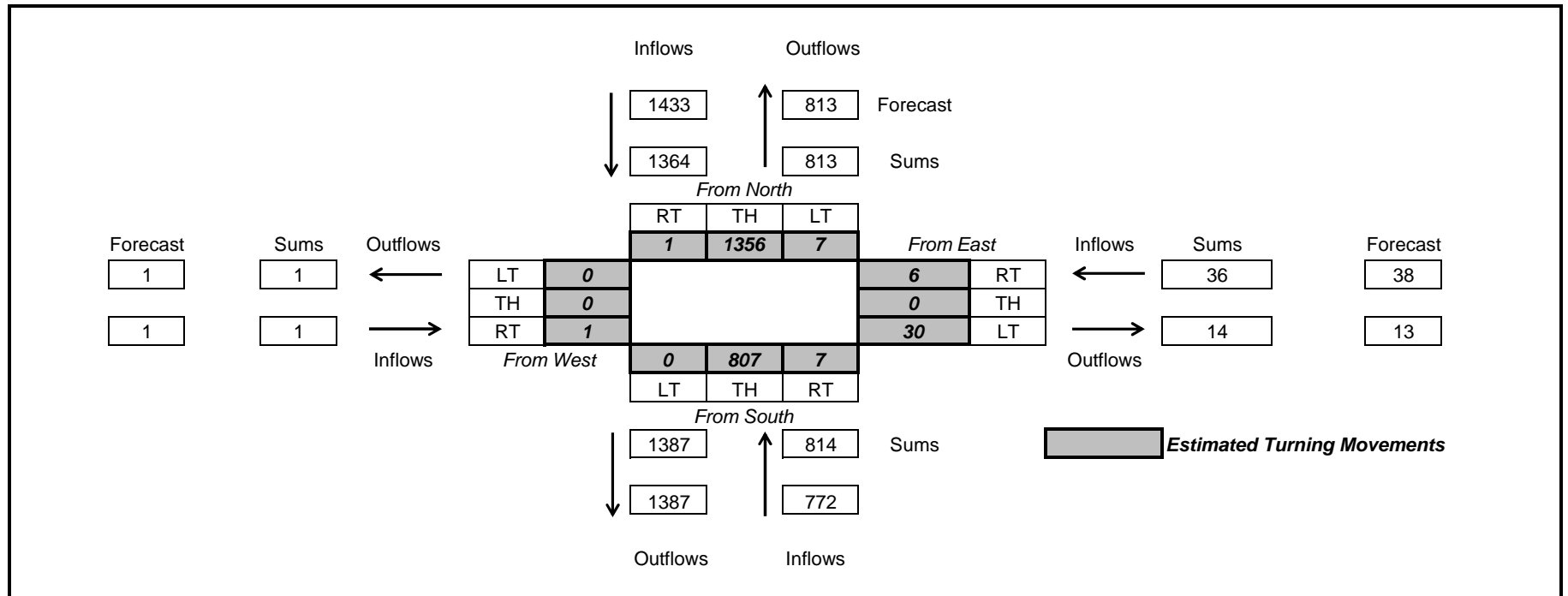
Iterative Method Estimated Turning Movements



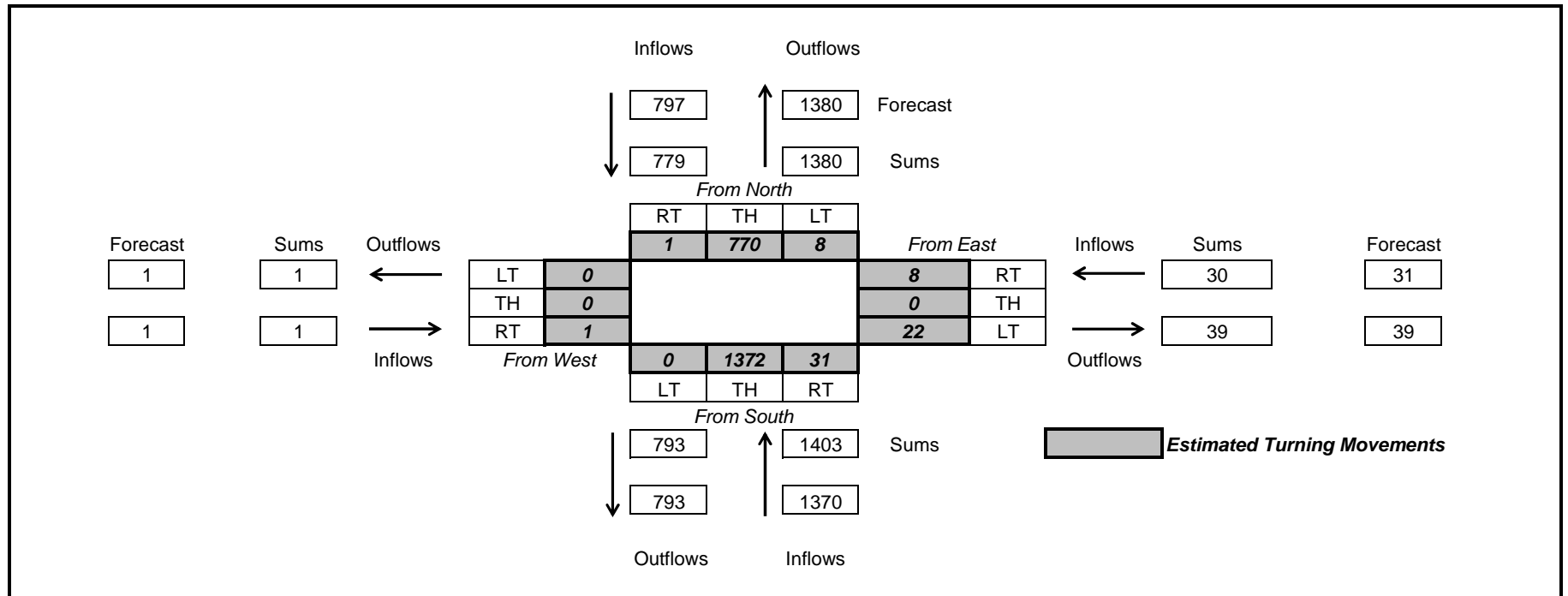
Iterative Method Estimated Turning Movements



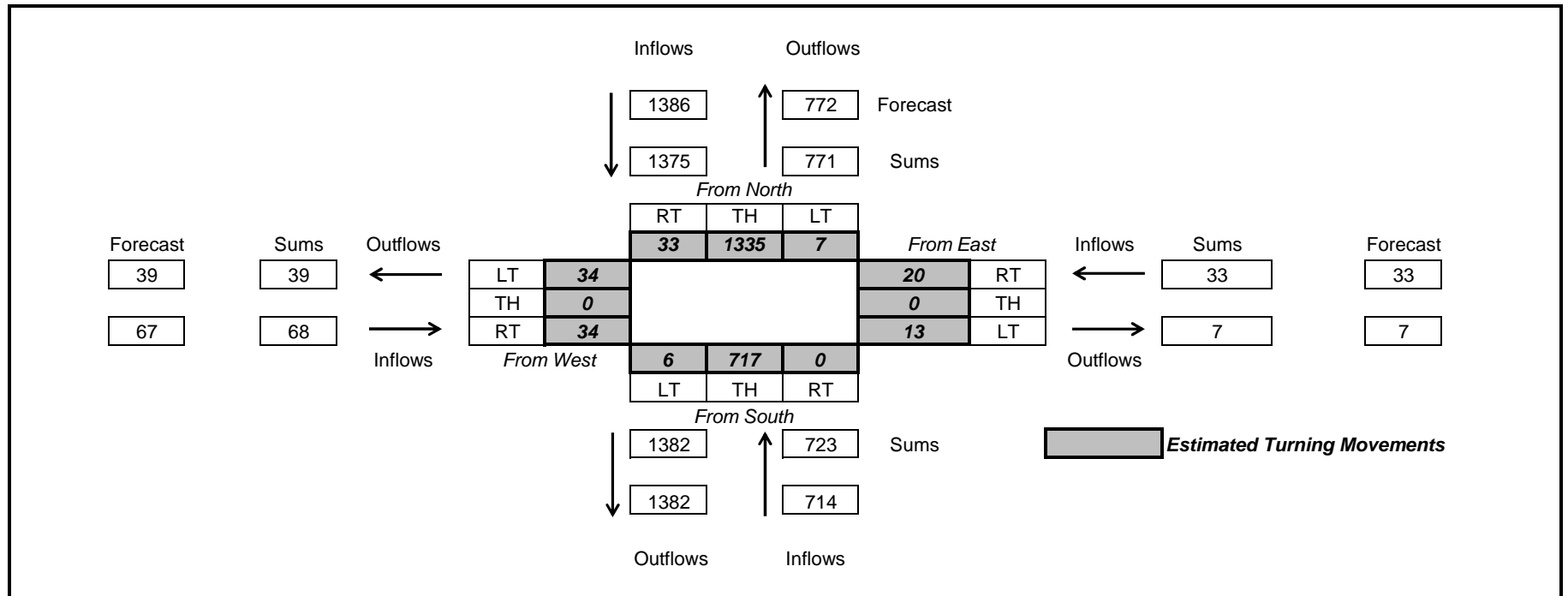
Iterative Method Estimated Turning Movements



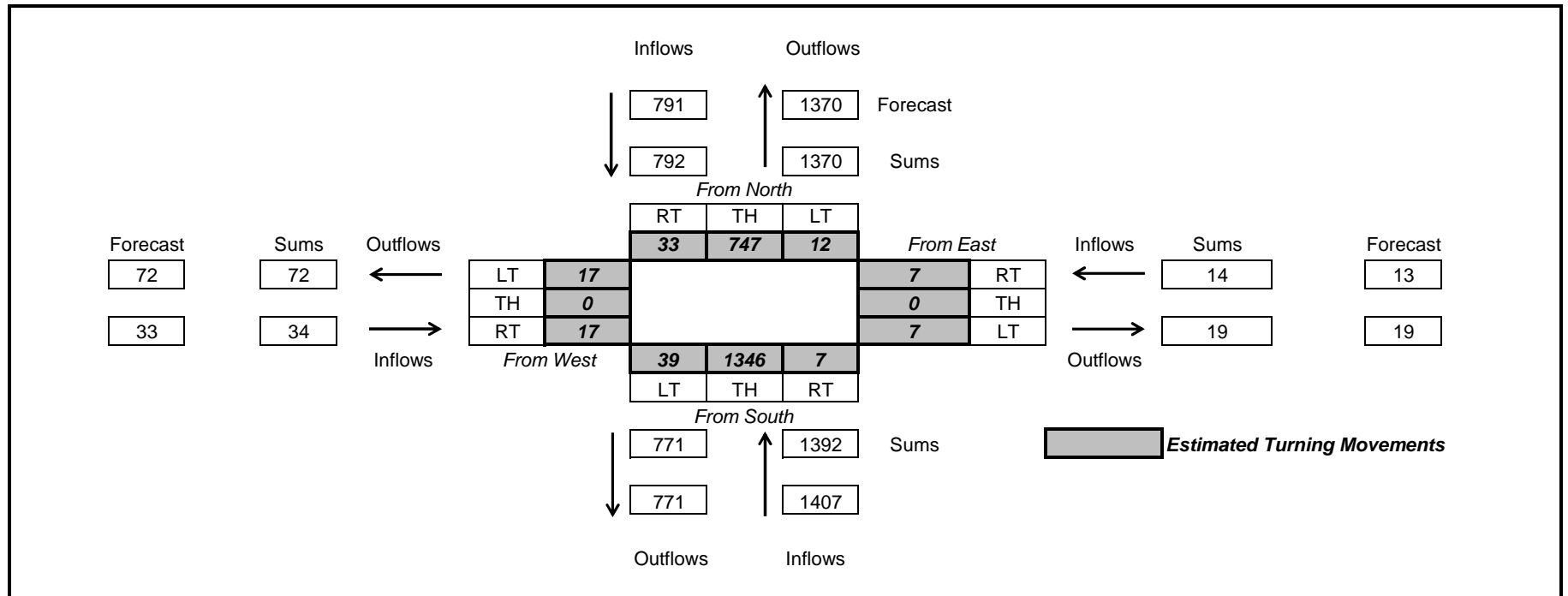
Iterative Method Estimated Turning Movements



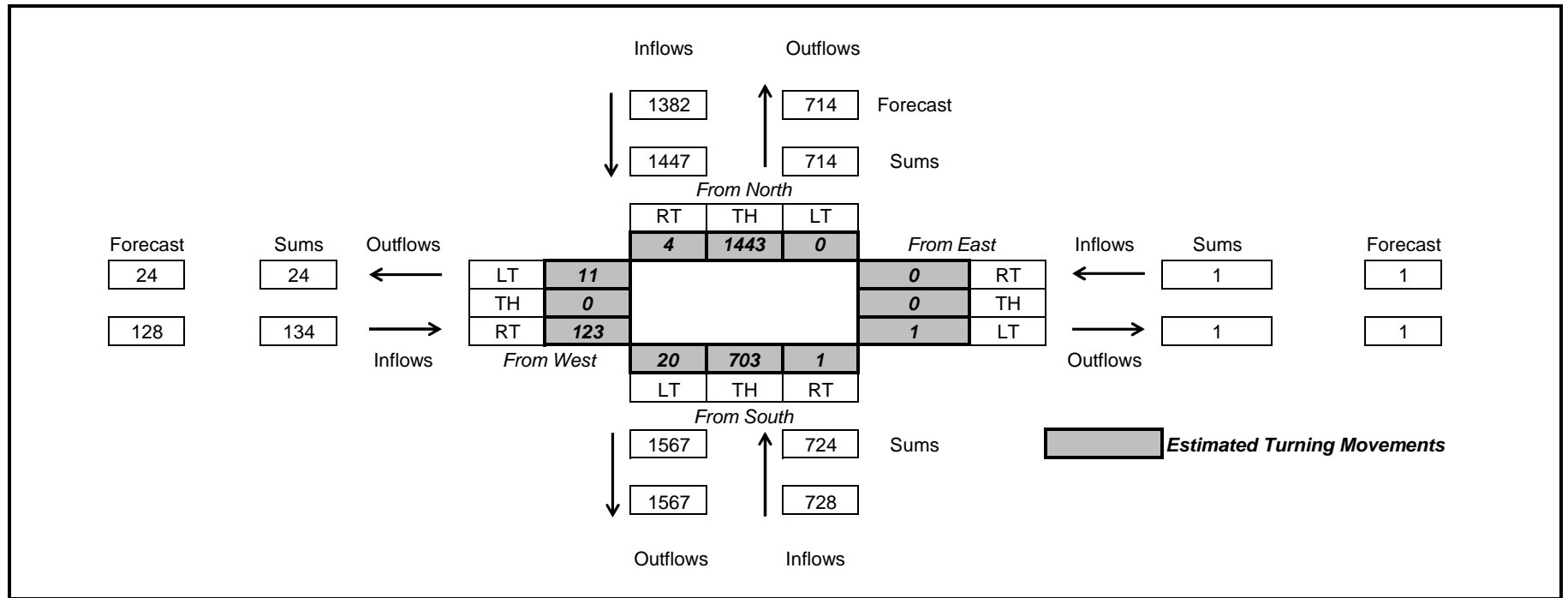
Iterative Method Estimated Turning Movements



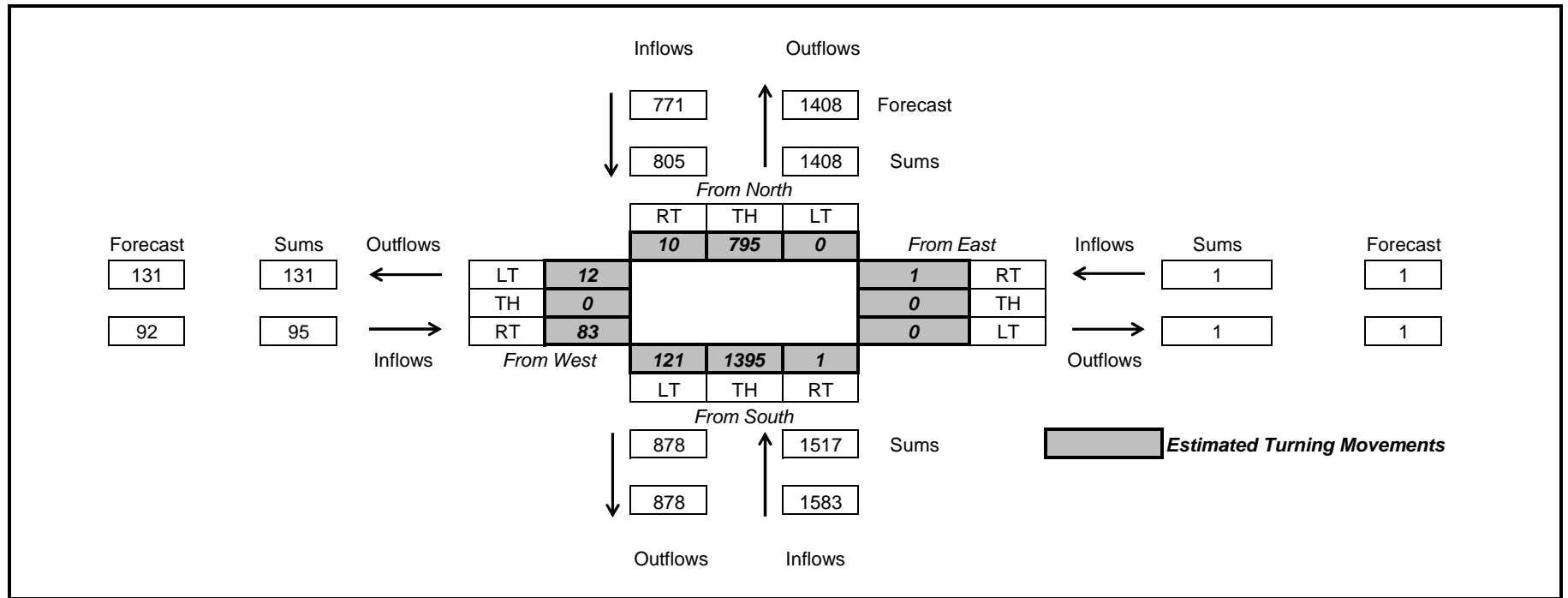
Iterative Method Estimated Turning Movements



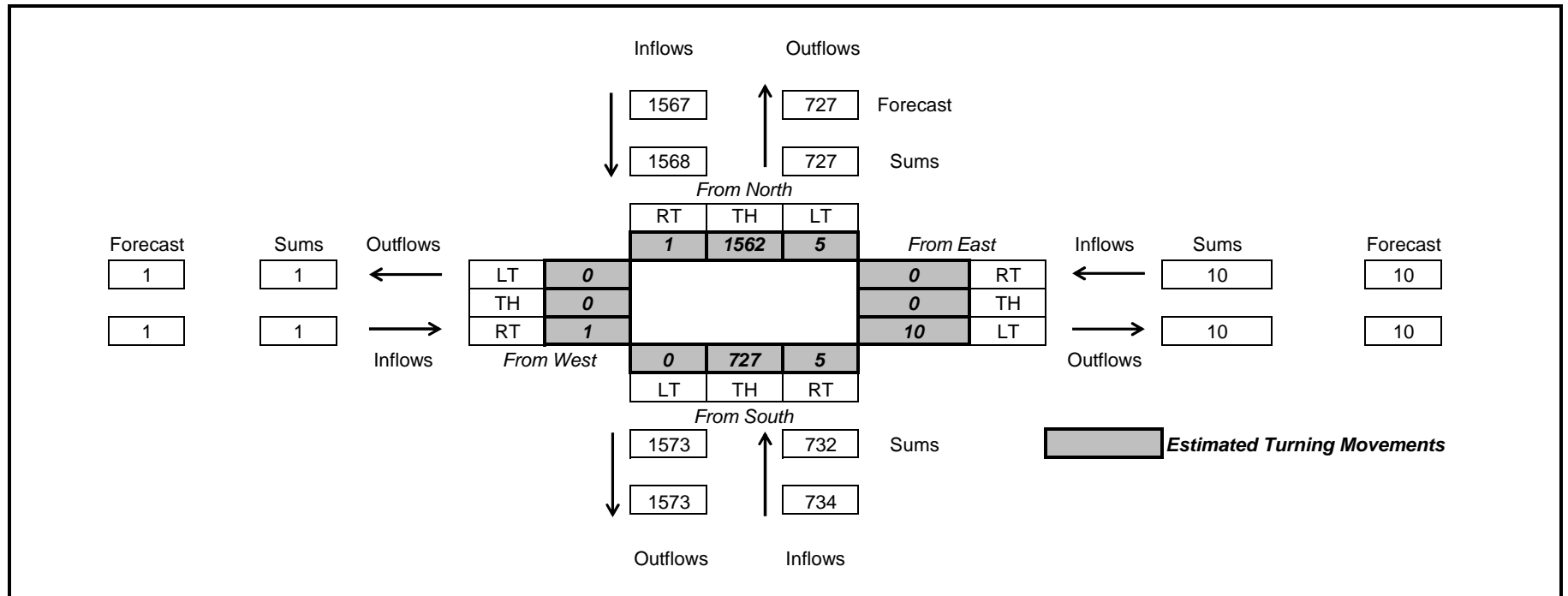
Iterative Method Estimated Turning Movements



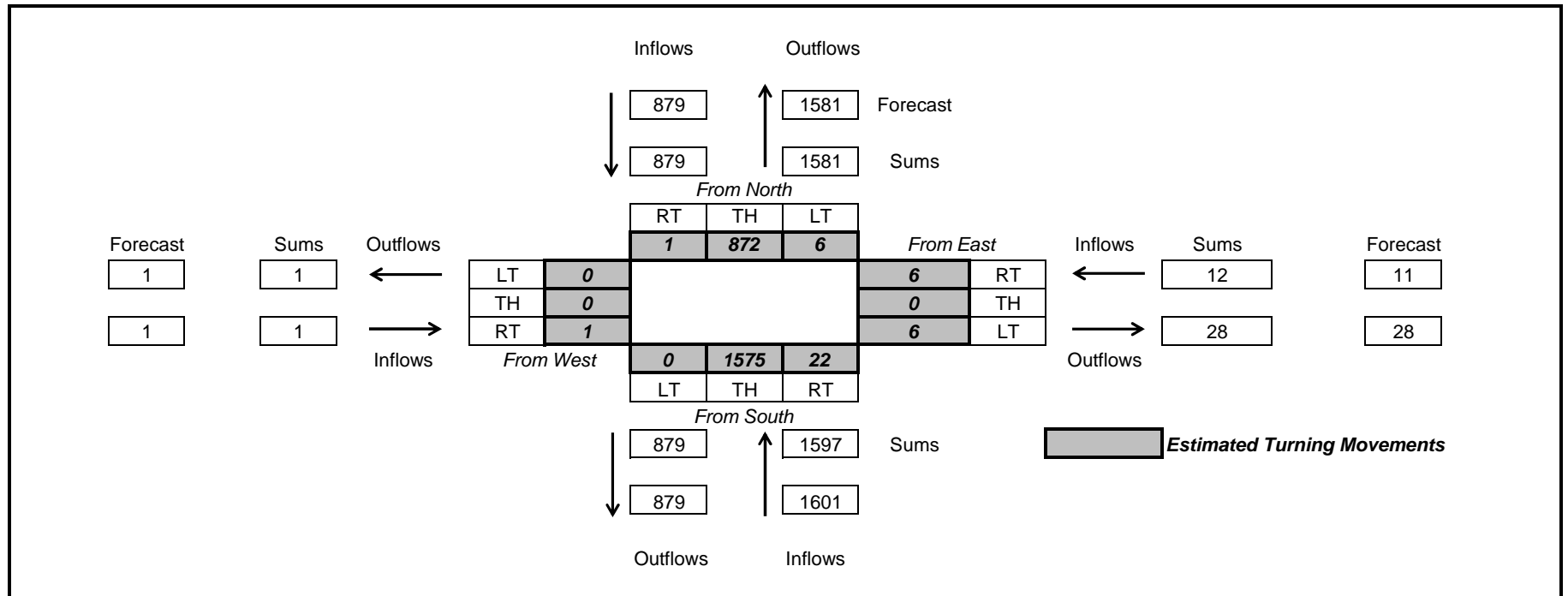
Iterative Method Estimated Turning Movements



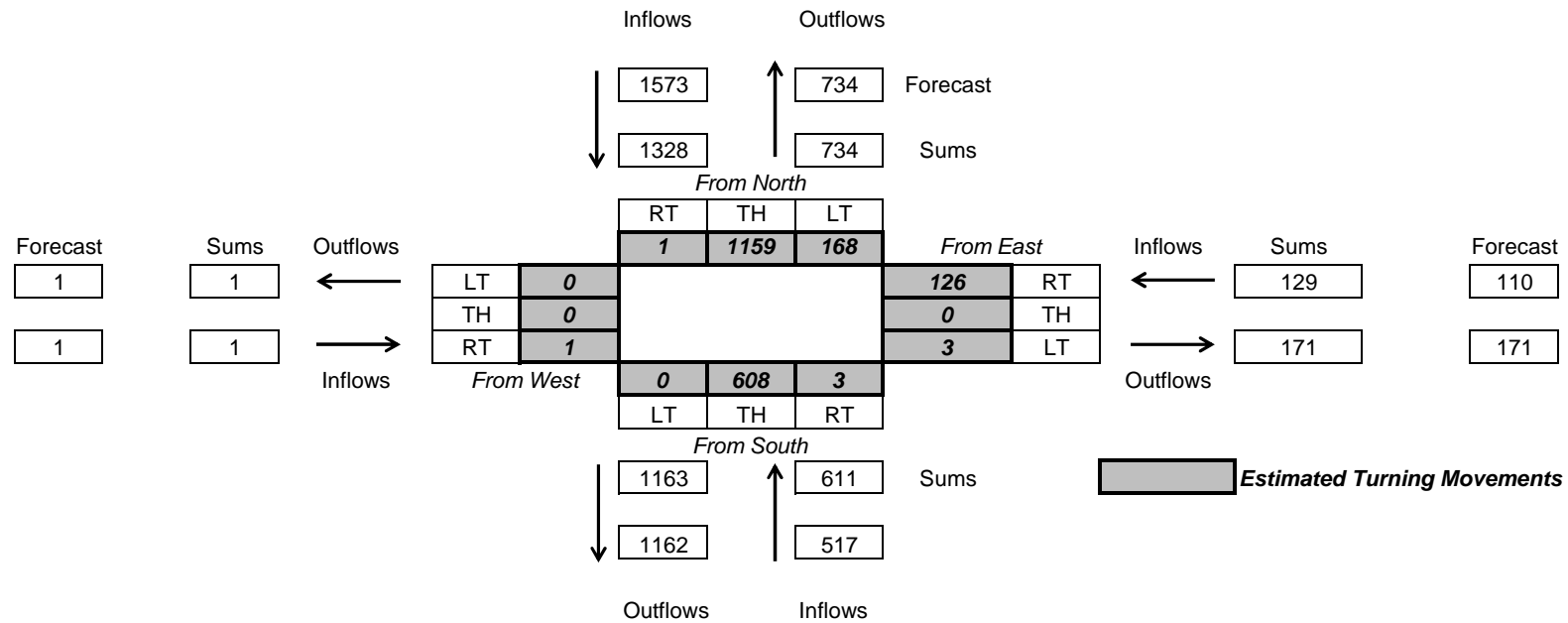
Iterative Method Estimated Turning Movements



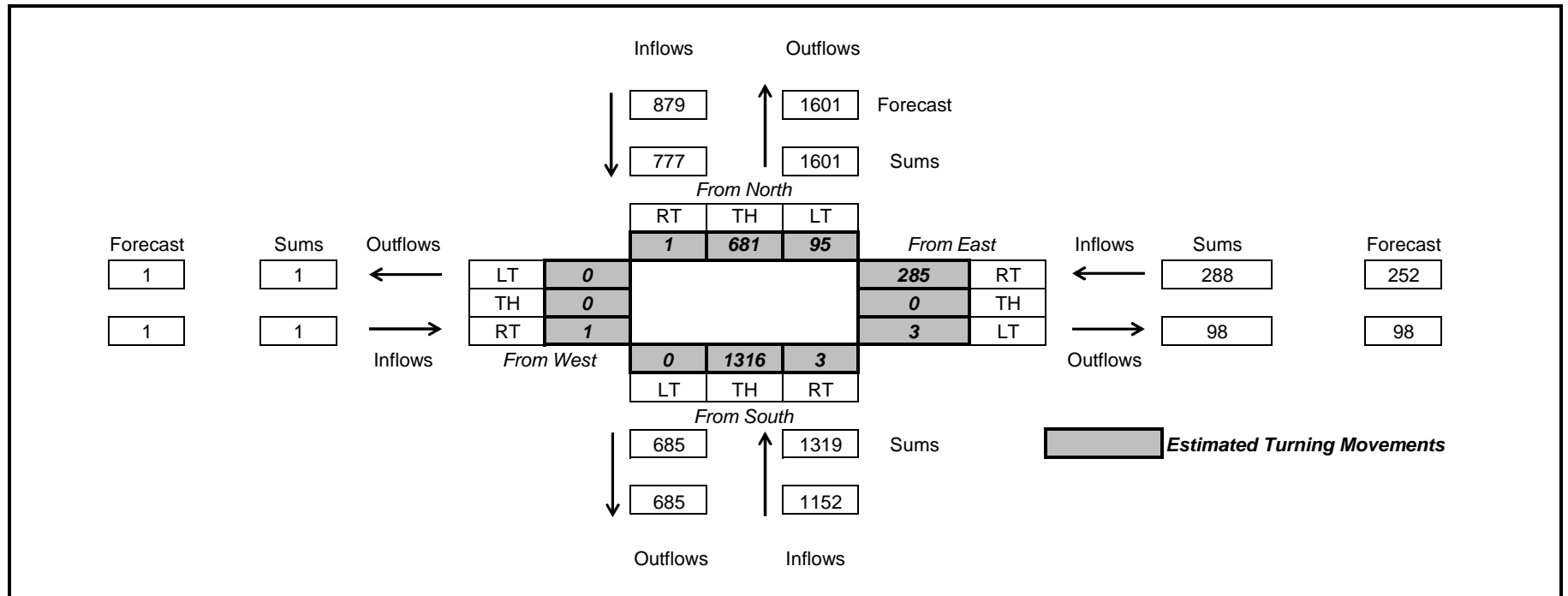
Iterative Method Estimated Turning Movements



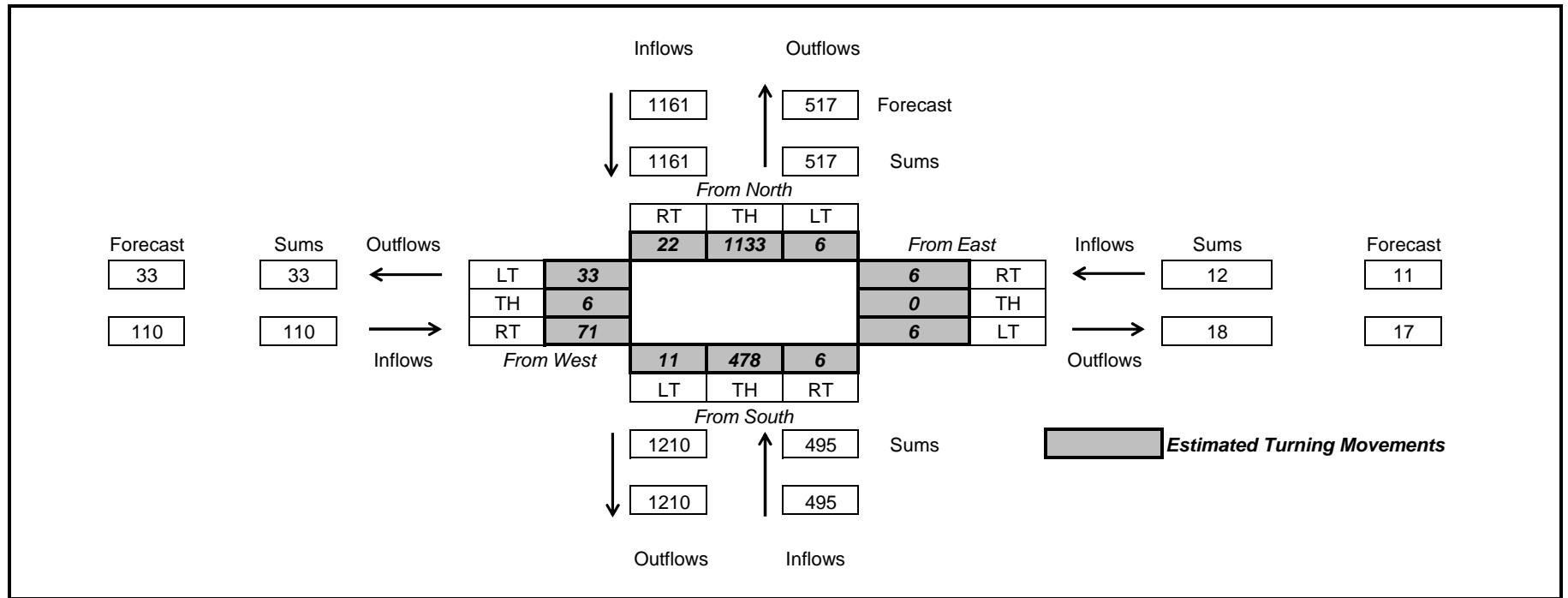
Iterative Method Estimated Turning Movements



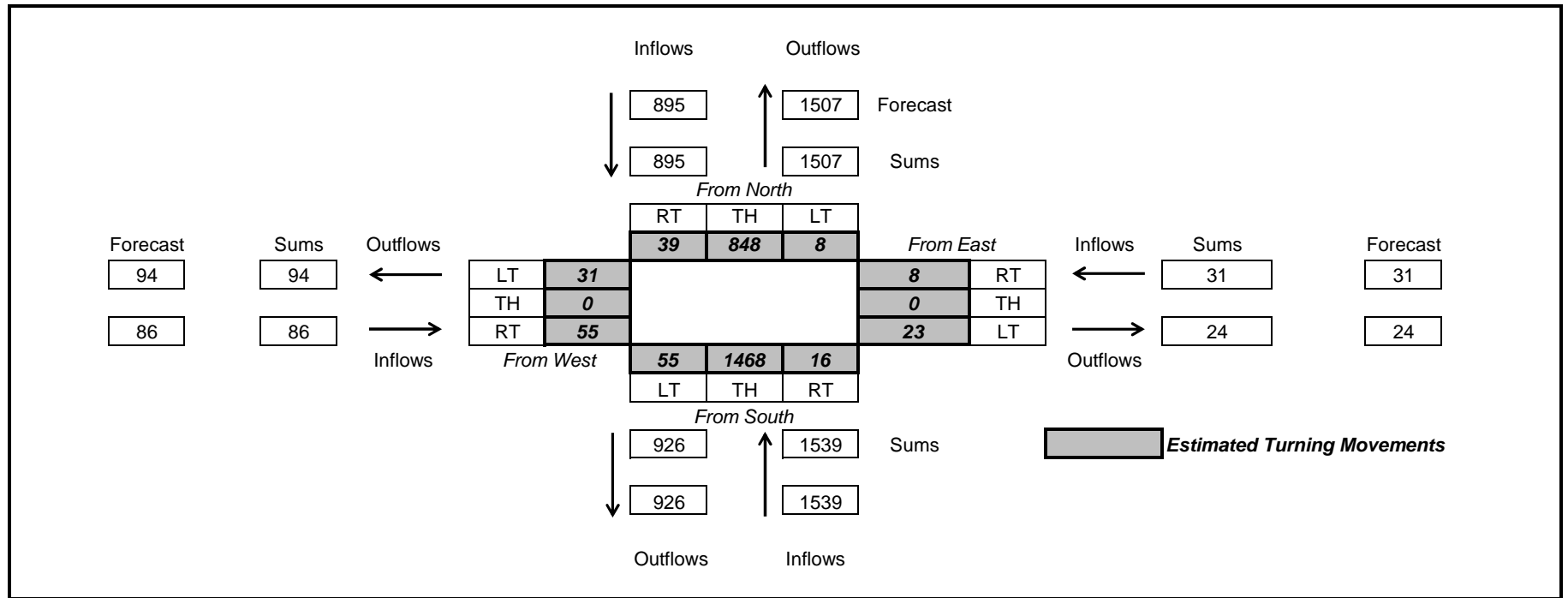
Iterative Method Estimated Turning Movements



Iterative Method Estimated Turning Movements



Iterative Method Estimated Turning Movements



Appendix C

SimTraffic Reports

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.2	1.4	0.0	307.8	127.0
Total Del/Veh (s)	32.7	66.8	12.9	99.2	59.4

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.1
Total Del/Veh (s)	1.0	4.2	169.8	6.3

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	29.1	0.1	1.2
Total Del/Veh (s)	17.5	9.0	567.4	231.5	38.3

4: MD 355 & W Old Baltimore Rd Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.2	1.6	33.1	19.0
Total Del/Veh (s)	60.9	11.1	84.6	56.2

5: MD 355 & Greenbrook Dr Performance by approach

Approach	EB	WB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.4	1.1	62.9	3.0

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.0
Total Del/Veh (s)	20.2	1.2	5.8	5.4

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	2.1	0.3	0.0	0.1
Total Del/Veh (s)	16.6	8.1	1.0	0.6	1.9

Total Network Performance

Denied Del/Veh (s)	110.1
Total Del/Veh (s)	118.3

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.4	1.1	0.0	1.1	0.6
Total Del/Veh (s)	35.7	59.3	7.6	8.6	15.8

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.7	0.2	100.7	3.8

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.7	7.5	19.4	20.6	5.6

4: MD 355 & W Old Baltimore Rd Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.2	0.5	0.0	0.3
Total Del/Veh (s)	48.0	33.9	26.8	32.5

5: MD 355 & Greenbrook Dr Performance by approach

Approach	EB	WB	SW	All
Denied Del/Veh (s)	0.0	1.6	0.1	1.0
Total Del/Veh (s)	10.9	39.6	110.9	29.3

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	168.9	1.8	0.0	24.5
Total Del/Veh (s)	618.6	81.4	23.7	130.9

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	27.8	1.1	0.6	0.0	1.4
Total Del/Veh (s)	276.2	343.8	18.1	2.1	26.4

Total Network Performance

Denied Del/Veh (s)	21.2
Total Del/Veh (s)	195.1

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.3	1.5	0.0	141.6	60.2
Total Del/Veh (s)	42.5	138.9	13.4	69.8	65.1

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.5	540.6	11.5
Total Del/Veh (s)	0.8	6.5	2521.6	40.9

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.1	1145.8	136.4	44.1
Total Del/Veh (s)	26.4	9.2	3121.8	2374.5	100.1

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.4	29.1	3.5	16.4
Total Del/Veh (s)	7.0	55.1	12.3	33.8

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.1
Total Del/Veh (s)	4.1	0.9	96.4	3.8

6: MD 355 & Brink Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	1.0	1.2	7.7	1.6

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	2.3	0.3	0.0	0.1
Total Del/Veh (s)	46.6	8.7	1.0	0.6	3.6

Total Network Performance

Denied Del/Veh (s)	89.5
Total Del/Veh (s)	165.9

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.4	1.0	0.0	1.3	0.7
Total Del/Veh (s)	39.6	49.7	8.3	12.8	16.1

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	6.3	0.2	634.3	11.9

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.7	5.2	31.7	32.1	4.5

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.0	3.0	0.2
Total Del/Veh (s)	4.5	8.3	20.4	6.7

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	2.8	2.1	89.6	3.0

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.4	0.0	0.0	0.3
Total Del/Veh (s)	32.2	6.2	8.8	10.6

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	1.3	0.2	0.0	0.1
Total Del/Veh (s)	34.3	27.5	1.2	0.4	2.3

Total Network Performance

Denied Del/Veh (s)	1.1
Total Del/Veh (s)	45.9

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.3	1.6	0.1	171.9	70.8
Total Del/Veh (s)	47.6	108.7	14.4	78.8	64.2

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	1.5	0.1	1.0
Total Del/Veh (s)	0.9	7.2	30.7	5.0

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	1268.4	294.7	52.8
Total Del/Veh (s)	28.0	10.5	3096.9	2411.2	101.8

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.6	37.7	3.5	21.1
Total Del/Veh (s)	8.3	60.2	8.6	36.7

5: MD 355 & Greenbrook Dr Performance by approach

Approach	EB	WB	SW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.1
Total Del/Veh (s)	4.5	0.9	172.2	4.3

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.3	0.0	0.0	0.2
Total Del/Veh (s)	8.6	1.0	2.8	2.7

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	2.7	0.3	0.0	0.1
Total Del/Veh (s)	28.7	10.8	1.1	0.3	2.2

Total Network Performance

Denied Del/Veh (s)	100.9
Total Del/Veh (s)	149.1

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.2	1.1	0.0	1.3	0.7
Total Del/Veh (s)	37.8	50.2	8.9	13.1	16.9

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	5.7	0.3	190.6	4.4

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.8	5.4	53.2	48.5	5.2

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.0	3.1	0.2
Total Del/Veh (s)	4.4	8.4	17.9	6.6

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.4	2.3	202.5	3.6

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.4	0.0	0.0	0.3
Total Del/Veh (s)	23.7	5.6	6.5	8.3

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	1.2	0.2	0.0	0.1
Total Del/Veh (s)	22.8	24.6	1.1	0.4	1.9

Total Network Performance

Denied Del/Veh (s)	1.1
Total Del/Veh (s)	40.4

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	62.7	0.2	0.2	0.0	17.5
Total Del/Veh (s)	74.4	97.1	37.4	43.9	60.8

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	6.7	2.5	31.0	4.2

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	563.9	0.1	16.3
Total Del/Veh (s)	9.1	7.0	1313.0	279.3	36.8

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.1	3.6	0.3
Total Del/Veh (s)	3.7	16.0	28.8	11.9

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.2	0.4	62.2	2.4

6: MD 355 & Brink Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	1.0	0.9	9.9	1.4

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	143.3	2.3	0.2	0.0	7.1
Total Del/Veh (s)	554.5	27.2	1.2	0.9	26.9

Total Network Performance

Denied Del/Veh (s)	152.7
Total Del/Veh (s)	104.2

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.0	0.2	0.0	0.0	0.5
Total Del/Veh (s)	43.9	57.4	20.6	26.6	30.0

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	6.0	1.8	47.5	4.6

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.7	4.1	59.9	44.5	4.1

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.0	3.2	0.2
Total Del/Veh (s)	4.1	8.4	16.7	6.1

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.8	0.9	522.9	4.3

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.4	0.0	0.0	0.3
Total Del/Veh (s)	226.0	2.1	2.0	27.1

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	36.4	1.1	0.3	0.0	1.4
Total Del/Veh (s)	545.1	202.1	2.4	0.6	22.6

Total Network Performance

Denied Del/Veh (s)	1.8
Total Del/Veh (s)	75.1

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	1400.9	1.1	0.0	409.0	457.3
Total Del/Veh (s)	466.2	52.8	20.7	91.4	99.2

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.1	0.2	0.0
Total Del/Veh (s)	1.1	2.6	247.0	8.5

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.2	0.1	0.1
Total Del/Veh (s)	13.9	7.8	150.8	61.7	19.6

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.3	0.6	3.6	0.8
Total Del/Veh (s)	5.1	10.8	9.1	8.4

5: MD 355 & Greenbrook Dr Performance by approach

Approach	EB	WB	SW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.0
Total Del/Veh (s)	2.5	0.9	56.4	2.4

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.5	0.0	0.0	0.2
Total Del/Veh (s)	5.5	1.0	0.9	1.3

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	2.4	0.3	0.0	0.1
Total Del/Veh (s)	15.2	8.7	1.0	0.3	1.6

Total Network Performance

Denied Del/Veh (s)	366.6
Total Del/Veh (s)	99.0

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	144.6	0.8	0.0	2.2	31.6
Total Del/Veh (s)	157.3	57.6	16.5	18.3	51.6

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	17.2	0.3
Total Del/Veh (s)	21.6	0.3	1297.0	32.5

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.8	5.0	26.3	36.6	4.7

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.0	3.2	0.2
Total Del/Veh (s)	3.7	7.5	16.6	5.7

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	2.6	1.8	69.5	2.5

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.5	0.0	0.0	0.3
Total Del/Veh (s)	13.2	4.4	4.7	5.7

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	1.3	0.2	0.0	0.1
Total Del/Veh (s)	19.1	19.6	1.0	0.5	1.7

Total Network Performance

Denied Del/Veh (s)	26.5
Total Del/Veh (s)	74.3

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	47.7	1.0	0.0	264.8	99.9
Total Del/Veh (s)	119.5	99.1	22.3	86.8	83.4

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.3	0.1	0.2
Total Del/Veh (s)	1.1	4.7	15.4	3.3

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	397.1	7.3	18.0
Total Del/Veh (s)	19.0	8.9	1300.1	657.8	70.8

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.6	0.9	3.6	1.1
Total Del/Veh (s)	5.4	17.3	11.7	12.4

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.0
Total Del/Veh (s)	2.8	0.9	82.2	2.7

6: MD 355 & Brink Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	1.1	1.0	6.6	1.4

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	2.1	0.3	0.0	0.1
Total Del/Veh (s)	30.0	11.0	1.0	0.7	2.9

Total Network Performance

Denied Del/Veh (s)	89.6
Total Del/Veh (s)	116.3

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	13.2	0.8	0.0	2.2	3.6
Total Del/Veh (s)	78.6	87.5	17.8	21.1	41.4

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	16.6	0.4	333.1	11.5

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.0	4.9	22.8	34.1	4.6

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.0	3.3	0.2
Total Del/Veh (s)	3.5	3.8	15.2	4.4

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	1.8	1.7	36.0	1.9

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.4	0.0	0.0	0.3
Total Del/Veh (s)	12.2	4.2	3.7	5.1

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	1.2	0.2	0.0	0.1
Total Del/Veh (s)	20.1	25.6	1.1	0.5	1.9

Total Network Performance

Denied Del/Veh (s)	3.3
Total Del/Veh (s)	54.6

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.0	0.2	0.0	0.0	0.8
Total Del/Veh (s)	33.1	48.0	28.2	33.2	35.5

2: MD 355 & New Cut Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	0.9	2.4	9.3	1.9

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	16.2	0.1	0.5
Total Del/Veh (s)	8.8	3.5	589.1	79.8	25.0

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.1	3.5	0.3
Total Del/Veh (s)	3.7	28.8	42.0	21.4

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.1	0.0	0.1	0.0
Total Del/Veh (s)	7.1	0.3	148.7	5.7

6: MD 355 & Brink Rd Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	2.3	0.1
Total Del/Veh (s)	0.8	1.4	8.4	1.6

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	10.3	2.2	0.2	0.0	0.6
Total Del/Veh (s)	189.2	21.5	0.9	0.6	10.8

Total Network Performance

Denied Del/Veh (s)	4.1
Total Del/Veh (s)	72.6

1: MD 355 & Little Seneca Pkwy Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.0	0.2	0.0	0.0	0.4
Total Del/Veh (s)	37.7	51.1	17.2	18.4	24.6

2: MD 355 & New Cut Road Performance by approach

Approach	NB	SB	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.9	1.6	44.7	3.3

3: Rosecrest Dr/Canterfield Way & MD 355 Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.3	3.2	23.3	23.8	2.9

4: W Old Baltimore Rd & MD 355 Performance by approach

Approach	NB	SB	NE	All
Denied Del/Veh (s)	0.0	0.0	3.2	0.2
Total Del/Veh (s)	2.8	6.0	18.7	4.6

5: MD 355 & Greenbrook Dr Performance by approach

Approach	SE	NW	SW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.0	0.9	279.9	2.8

6: MD 355 & Brink Rd Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	2.4	0.0	0.0	0.3
Total Del/Veh (s)	48.7	1.8	1.4	7.3

7: MD 355 & Milestone Manor Dr Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	1.4	0.3	0.0	0.2
Total Del/Veh (s)	125.3	108.4	2.1	0.6	8.5

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	41.3

Arterial Level of Service
2014 AM Existing

08/08/2019

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.3	6.8	0.1	51
Brink Rd	6	1.3	23.4	0.3	41
Greenbrook Dr	5	1.0	10.4	0.1	38
W Old Baltimore Rd	4	8.9	16.9	0.1	20
Canterfield Way	3	9.0	38.9	0.4	38
New Cut Rd	2	1.0	18.8	0.2	39
	10	1.1	4.0	0.0	22
Little Seneca Pkwy	1	12.8	16.8	0.0	10
Total		35.3	136.0	1.3	35

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	7.7	12.5	0.0	14
New Cut Rd	2	4.2	5.9	0.0	16
Rosecrest Dr	3	17.8	37.2	0.2	20
W Old Baltimore Rd	4	84.6	150.0	0.4	13
Greenbrook Dr	5	3.6	11.0	0.1	27
Brink Rd	6	5.5	14.5	0.1	27
	361	2.5	22.8	0.3	42
Milestone Manor Dr	7	0.6	9.6	0.1	36
Total		126.6	263.6	1.3	15

Queuing and Blocking Report
2014 AM Existing

08/08/2019

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	T	L	T
Maximum Queue (ft)	153	124	135	405	181	100	127	250	72	85	274	754
Average Queue (ft)	60	41	50	202	80	34	53	135	21	8	99	721
95th Queue (ft)	125	92	100	378	156	73	107	241	53	45	276	790
Link Distance (ft)		710		957	957		169	169	169	31		705
Upstream Blk Time (%)							0	5		1		59
Queuing Penalty (veh)							0	11		3		0
Storage Bay Dist (ft)	250		300			200					200	
Storage Blk Time (%)	0				0							57
Queuing Penalty (veh)	0				0							91

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	225
Average Queue (ft)	86
95th Queue (ft)	245
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	175
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: MD 355 & New Cut Rd

Movement	NB	SB	B10	B10	SW
Directions Served	TR	LT	T		LR
Maximum Queue (ft)	33	134	241	107	151
Average Queue (ft)	2	91	80	6	53
95th Queue (ft)	25	145	207	54	129
Link Distance (ft)	979	31	169	169	509
Upstream Blk Time (%)		24	1	0	
Queuing Penalty (veh)		249	7	0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	22	25	475	184
Average Queue (ft)	2	2	259	56
95th Queue (ft)	12	14	542	177
Link Distance (ft)			605	607
Upstream Blk Time (%)			7	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: MD 355 & W Old Baltimore Rd

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	232	94	356	1404
Average Queue (ft)	103	28	97	832
95th Queue (ft)	193	72	270	1449
Link Distance (ft)	857		404	2080
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			2	
Storage Bay Dist (ft)		20		
Storage Blk Time (%)		32	16	
Queuing Penalty (veh)		197	6	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	EB	WB	SW
Directions Served	LT	TR	LR
Maximum Queue (ft)	67	41	59
Average Queue (ft)	4	2	14
95th Queue (ft)	34	23	44
Link Distance (ft)	404	526	1230
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

2014 AM Existing

08/08/2019

Intersection: 6: MD 355 & Brink Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	150	183
Average Queue (ft)	52	55
95th Queue (ft)	111	128
Link Distance (ft)	1322	526
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	119	36	23	37	23
Average Queue (ft)	49	5	4	6	2
95th Queue (ft)	95	23	16	24	12
Link Distance (ft)	647	671			
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			50	150	150
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		0	0		

Network Summary

Network wide Queuing Penalty: 567

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	44.3	53.4	0.1	7
Brink Rd	6	81.4	102.4	0.3	9
Greenbrook Dr	5	38.9	48.2	0.1	8
W Old Baltimore Rd	4	33.4	41.0	0.1	7
Canterfield Way	3	7.5	40.5	0.4	37
New Cut Road	2	3.7	21.7	0.2	34
	10	2.3	5.2	0.0	17
Little Seneca Pkwy	1	9.1	13.1	0.0	13
Total		220.6	325.4	1.3	15

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	1.5	6.2	0.0	28
New Cut Road	2	0.2	1.7	0.0	51
Rosecrest Dr	3	1.7	19.2	0.2	38
W Old Baltimore Rd	4	27.2	59.3	0.4	25
Greenbrook Dr	5	11.0	18.5	0.1	16
Brink Rd	6	20.3	29.3	0.1	14
	9	2.8	23.2	0.3	39
Milestone Manor Dr	7	0.4	9.2	0.1	44
Total		64.9	166.6	1.3	28

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	T	L	T
Maximum Queue (ft)	78	51	51	269	58	52	68	252	92	184	82	258
Average Queue (ft)	22	12	17	135	15	18	24	156	26	35	35	86
95th Queue (ft)	59	39	41	238	43	43	55	289	63	134	72	196
Link Distance (ft)		712		957	957		169	169	169	31		1425
Upstream Blk Time (%)								9		4		
Queuing Penalty (veh)								30		22		
Storage Bay Dist (ft)	250		300			200					200	
Storage Blk Time (%)												1
Queuing Penalty (veh)												1

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	90
Average Queue (ft)	6
95th Queue (ft)	46
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	175
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: MD 355 & New Cut Road

Movement	NB	SB	B10	SW
Directions Served	TR	LT	T	LR
Maximum Queue (ft)	127	18	6	84
Average Queue (ft)	9	0	0	29
95th Queue (ft)	62	7	5	72
Link Distance (ft)	983	31	169	509
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	T	L	LTR	LTR
Maximum Queue (ft)	39	62	44	70	32
Average Queue (ft)	4	1	11	24	7
95th Queue (ft)	20	17	33	56	24
Link Distance (ft)		983		605	607
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150		150		
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 4: MD 355 & W Old Baltimore Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	199	420	797
Average Queue (ft)	58	382	241
95th Queue (ft)	144	513	608
Link Distance (ft)	857	404	2080
Upstream Blk Time (%)		15	0
Queuing Penalty (veh)		184	2
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: MD 355 & Greenbrook Dr

Movement	EB	WB	SW
Directions Served	LT	TR	LR
Maximum Queue (ft)	379	597	66
Average Queue (ft)	64	433	17
95th Queue (ft)	273	756	50
Link Distance (ft)	404	529	1230
Upstream Blk Time (%)	4	15	
Queuing Penalty (veh)	26	185	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

2014 PM Existing

08/08/2019

Intersection: 6: MD 355 & Brink Rd

Movement	WB	NB	B9	B9	SB	SB
Directions Served	LR	TR	T		L	T
Maximum Queue (ft)	1338	1298	447	380	60	532
Average Queue (ft)	1038	679	189	145	29	163
95th Queue (ft)	1661	1587	637	528	50	485
Link Distance (ft)	1322	1245	526	526		529
Upstream Blk Time (%)	47	21	24	14		6
Queuing Penalty (veh)	0	203	116	66		40
Storage Bay Dist (ft)					10	
Storage Blk Time (%)					37	0
Queuing Penalty (veh)					210	0

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	NB	SB
Directions Served	LTR	LT	R	L	T	T	R	L
Maximum Queue (ft)	318	151	50	115	402	377	35	39
Average Queue (ft)	127	63	4	21	79	69	4	7
95th Queue (ft)	438	245	27	93	436	411	34	42
Link Distance (ft)	648	671			1592	1592		
Upstream Blk Time (%)	5				1	1		
Queuing Penalty (veh)	0				0	0		
Storage Bay Dist (ft)			50	150			225	150
Storage Blk Time (%)		25	0	0	12	8		
Queuing Penalty (veh)		2	0	0	4	1		

Network Summary

Network wide Queuing Penalty: 1091

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.3	6.8	0.1	51
Brink Rd	6	1.0	19.9	0.2	40
	11	0.7	4.7	0.0	36
Greenbrook Dr	5	0.9	9.7	0.1	41
W Old Baltimore Rd	4	4.2	12.4	0.1	31
Canterfield Way	3	8.1	37.0	0.4	39
New Cut Rd	2	0.8	18.7	0.2	39
	10	0.9	3.8	0.0	23
Little Seneca Pkwy	1	10.2	14.2	0.0	12
Total		27.1	127.2	1.2	37

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Little Seneca Pkwy	10	13.8	18.5	0.0	9
New Cut Rd	2	6.5	8.5	0.0	11
Rosecrest Dr	3	26.5	45.9	0.2	16
W Old Baltimore Rd	4	55.2	114.7	0.4	17
Greenbrook Dr	5	4.1	12.4	0.1	30
	11	1.3	10.1	0.1	39
Brink Rd	6	0.5	4.0	0.0	42
	361	1.2	18.0	0.2	44
Milestone Manor Dr	7	0.6	9.6	0.1	36
Total		109.7	241.6	1.2	17

Queuing and Blocking Report
2040 AM No Build

02/04/2020

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	T	L	T
Maximum Queue (ft)	169	108	202	722	195	123	162	235	59	54	275	754
Average Queue (ft)	73	42	82	449	79	37	68	124	20	3	89	684
95th Queue (ft)	142	92	165	790	155	85	132	218	48	29	258	878
Link Distance (ft)		709		957	957		169	169	169	31		700
Upstream Blk Time (%)							1	2		0		44
Queuing Penalty (veh)							2	6		2		0
Storage Bay Dist (ft)	250		300			200					200	
Storage Blk Time (%)					0							46
Queuing Penalty (veh)					0							83

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	225
Average Queue (ft)	97
95th Queue (ft)	268
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	175
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 2: MD 355 & New Cut Rd

Movement	SB	B10	B10	SW
Directions Served	LT	T		LR
Maximum Queue (ft)	145	297	182	522
Average Queue (ft)	111	199	23	411
95th Queue (ft)	148	347	122	629
Link Distance (ft)	31	169	169	509
Upstream Blk Time (%)	51	13	0	56
Queuing Penalty (veh)	591	75	2	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	22	22	33	618	602
Average Queue (ft)	2	1	7	551	422
95th Queue (ft)	13	11	28	724	713
Link Distance (ft)				599	601
Upstream Blk Time (%)				71	28
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)	150	200	150		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	105	249	1030	90	86	7
Average Queue (ft)	31	35	382	3	27	0
95th Queue (ft)	78	154	955	66	67	5
Link Distance (ft)	502	502	2022		968	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				375		125
Storage Blk Time (%)			10		0	
Queuing Penalty (veh)			1		0	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	B11	SW
Directions Served	L	T	LR
Maximum Queue (ft)	29	13	85
Average Queue (ft)	2	0	21
95th Queue (ft)	13	8	64
Link Distance (ft)	502	172	1215
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

2040 AM No Build

02/04/2020

Intersection: 6: MD 355 & Brink Rd

Movement	NB	SB	SW	SW
Directions Served	TR	L	L	R
Maximum Queue (ft)	4	101	37	93
Average Queue (ft)	0	38	7	42
95th Queue (ft)	5	76	27	73
Link Distance (ft)	1018	172	1368	1368
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		1		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	262	33	20	29	23
Average Queue (ft)	77	4	4	6	1
95th Queue (ft)	198	19	16	23	9
Link Distance (ft)	647	671			
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			50	150	150
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Network Summary

Network wide Queuing Penalty: 762

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	2.0	11.2	0.1	36
Brink Rd	6	6.2	22.5	0.2	33
	11	2.9	6.9	0.0	25
Greenbrook Dr	5	2.2	10.9	0.1	36
W Old Baltimore Rd	4	3.5	12.1	0.1	30
Canterfield Way	3	5.2	36.9	0.4	39
New Cut Road	2	6.4	24.5	0.2	30
	10	3.1	6.0	0.0	15
Little Seneca Pkwy	1	9.7	13.7	0.0	13
Total		41.1	144.6	1.2	33

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	1.7	6.4	0.0	27
New Cut Road	2	0.2	1.8	0.0	50
Rosecrest Dr	3	1.5	19.1	0.2	39
W Old Baltimore Rd	4	8.6	40.4	0.4	35
Greenbrook Dr	5	2.6	11.1	0.1	33
	11	2.2	10.9	0.1	36
Brink Rd	6	0.6	4.4	0.0	38
	9	1.0	17.9	0.2	41
Milestone Manor Dr	7	0.4	9.2	0.1	43
Total		18.8	121.1	1.2	35

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	T	L	T
Maximum Queue (ft)	106	82	66	217	102	87	88	263	83	192	201	295
Average Queue (ft)	39	20	23	121	32	24	38	186	30	60	58	119
95th Queue (ft)	88	58	49	206	75	62	71	299	62	185	122	238
Link Distance (ft)		712		957	957		169	169	169	31		1425
Upstream Blk Time (%)								12		6		
Queuing Penalty (veh)								45		37		
Storage Bay Dist (ft)	250		300			200					200	
Storage Blk Time (%)											0	3
Queuing Penalty (veh)											1	4

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	85
Average Queue (ft)	10
95th Queue (ft)	50
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	175
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: MD 355 & New Cut Road

Movement	NB	SB	B10	SW
Directions Served	TR	LT	T	LR
Maximum Queue (ft)	292	18	7	200
Average Queue (ft)	34	0	0	99
95th Queue (ft)	173	6	5	301
Link Distance (ft)	982	31	169	509
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	39	50	96	28
Average Queue (ft)	8	14	26	6
95th Queue (ft)	28	39	66	20
Link Distance (ft)			599	601
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	SB	NE
Directions Served	L	T	T	R	L
Maximum Queue (ft)	146	208	260	16	98
Average Queue (ft)	61	68	106	1	39
95th Queue (ft)	113	168	217	8	82
Link Distance (ft)	501	501	2023		922
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				375	
Storage Blk Time (%)			0		0
Queuing Penalty (veh)			0		0

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	B11	B11	SW
Directions Served	L	T		LR
Maximum Queue (ft)	29	276	41	77
Average Queue (ft)	5	34	2	17
95th Queue (ft)	22	180	31	55
Link Distance (ft)	501	192	192	1215
Upstream Blk Time (%)		1	0	
Queuing Penalty (veh)		10	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	B9	B9	SB	SB	B11
Directions Served	L	R	TR	T		L	T	T
Maximum Queue (ft)	495	200	209	127	53	192	53	142
Average Queue (ft)	73	98	11	10	5	80	2	15
95th Queue (ft)	317	195	94	62	28	187	38	119
Link Distance (ft)	1375		1030	526	526	192	192	509
Upstream Blk Time (%)						7		
Queuing Penalty (veh)						26		
Storage Bay Dist (ft)		125						
Storage Blk Time (%)	2	14						
Queuing Penalty (veh)	7	1						

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	SB
Directions Served	LTR	LT	R	L	T	R	L
Maximum Queue (ft)	168	64	33	43	27	19	21
Average Queue (ft)	44	15	5	12	1	1	2
95th Queue (ft)	120	47	21	36	20	9	11
Link Distance (ft)	648	671			1592		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			50	150		225	150
Storage Blk Time (%)		4	0		0		
Queuing Penalty (veh)		0	0		0		

Network Summary

Network wide Queuing Penalty: 131

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.3	8.3	0.1	42
Brink Rd	6	1.0	18.5	0.2	43
Greenbrook Dr	5	0.8	13.3	0.2	42
W Old Baltimore Rd	4	5.7	14.1	0.1	27
Canterfield Way	3	8.9	37.8	0.4	38
New Cut Rd	2	0.9	18.8	0.2	39
	10	1.0	3.9	0.0	23
Little Seneca Pkwy	1	11.1	15.1	0.1	11
Total		29.7	129.7	1.2	36

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	15.4	20.2	0.1	8
New Cut Rd	2	7.2	10.2	0.0	10
Rosecrest Dr	3	28.1	47.4	0.2	16
W Old Baltimore Rd	4	60.2	128.0	0.4	16
Greenbrook Dr	5	4.5	12.8	0.1	29
Brink Rd	6	2.1	14.5	0.2	38
	361	1.1	19.3	0.2	41
Milestone Manor Dr	7	0.3	7.9	0.1	44
Total		119.2	260.3	1.2	16

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	SB	SB
Directions Served	L	T	R	L	T	TR	L	T	R	T	L	T
Maximum Queue (ft)	166	178	257	743	474	192	158	241	66	58	275	764
Average Queue (ft)	64	44	89	391	102	73	69	137	22	3	110	724
95th Queue (ft)	135	132	203	794	334	161	130	231	52	25	306	774
Link Distance (ft)		706		957	957		169	169	169	32		703
Upstream Blk Time (%)				1	1		0	4		0		52
Queuing Penalty (veh)				0	0		1	9		1		0
Storage Bay Dist (ft)	250		300			200					200	
Storage Blk Time (%)			1		0	1						51
Queuing Penalty (veh)			1		0	0						91

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	225
Average Queue (ft)	101
95th Queue (ft)	274
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	175
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: MD 355 & New Cut Rd

Movement	NB	SB	B10	B10	SW
Directions Served	TR	LT	T		LR
Maximum Queue (ft)	6	148	315	204	31
Average Queue (ft)	0	118	228	18	6
95th Queue (ft)	4	143	344	107	23
Link Distance (ft)	978	32	169	169	513
Upstream Blk Time (%)		59	17	0	
Queuing Penalty (veh)		701	104	2	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	21	22	33	615	615
Average Queue (ft)	2	1	7	567	441
95th Queue (ft)	12	12	28	688	737
Link Distance (ft)				599	601
Upstream Blk Time (%)				65	39
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)	150	200	150		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	NE
Directions Served	L	T	T	L
Maximum Queue (ft)	108	286	829	68
Average Queue (ft)	35	56	332	21
95th Queue (ft)	84	205	741	56
Link Distance (ft)	503	503	2021	970
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)			7	
Queuing Penalty (veh)			0	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	EB	SW
Directions Served	L	LR
Maximum Queue (ft)	17	87
Average Queue (ft)	1	23
95th Queue (ft)	11	76
Link Distance (ft)	503	1213
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	31	100	75
Average Queue (ft)	4	43	34
95th Queue (ft)	19	76	63
Link Distance (ft)	1380		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		125	200
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	175	32	29	30	24
Average Queue (ft)	56	3	4	5	1
95th Queue (ft)	132	18	19	23	11
Link Distance (ft)	648	671			
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			50	150	150
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		0	0		

Network Summary

Network wide Queuing Penalty: 911

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	1.5	10.7	0.1	37
Brink Rd	6	5.6	21.8	0.2	34
	11	2.9	6.8	0.0	25
Greenbrook Dr	5	2.3	11.0	0.1	36
W Old Baltimore Rd	4	3.8	12.3	0.1	30
Canterfield Way	3	5.3	37.0	0.4	39
New Cut Road	2	5.8	23.7	0.2	31
	10	3.2	6.1	0.0	15
Little Seneca Pkwy	1	10.6	14.5	0.0	12
Total		40.8	144.7	1.3	33

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	1.8	6.5	0.0	26
New Cut Road	2	0.3	1.8	0.0	50
Rosecrest Dr	3	1.6	19.2	0.2	38
W Old Baltimore Rd	4	8.6	40.3	0.4	35
Greenbrook Dr	5	3.2	11.7	0.1	31
	11	2.5	11.2	0.1	35
Brink Rd	6	0.6	4.4	0.0	39
	9	1.1	17.9	0.2	41
Milestone Manor Dr	7	0.4	9.2	0.1	43
Total		20.0	122.1	1.3	35

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	B10	SB
Directions Served	L	T	R	L	T	TR	L	T	R	T	T	L
Maximum Queue (ft)	106	85	65	265	77	94	94	265	95	24	195	125
Average Queue (ft)	35	24	22	137	26	23	40	201	31	1	71	52
95th Queue (ft)	82	64	49	230	63	60	80	288	68	21	194	100
Link Distance (ft)		712		957	957		169	169	169	31	31	
Upstream Blk Time (%)								14			8	
Queuing Penalty (veh)								54			48	
Storage Bay Dist (ft)	250		300			200						200
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	282	97
Average Queue (ft)	123	10
95th Queue (ft)	236	60
Link Distance (ft)	1425	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)	3	
Queuing Penalty (veh)	4	

Intersection: 2: MD 355 & New Cut Road

Movement	NB	SB	B10	SW
Directions Served	TR	LT	T	LR
Maximum Queue (ft)	301	4	4	48
Average Queue (ft)	40	0	0	11
95th Queue (ft)	231	4	3	42
Link Distance (ft)	982	31	169	509
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	42	55	92	50
Average Queue (ft)	7	16	31	8
95th Queue (ft)	29	43	74	29
Link Distance (ft)			599	601
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	134	220	306	6	95	5
Average Queue (ft)	51	67	113	0	37	0
95th Queue (ft)	103	172	244	5	82	4
Link Distance (ft)	501	501	2023		922	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				375		125
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	SE	NW	B11	B11	SW
Directions Served	L	T	T	T		LR
Maximum Queue (ft)	106	76	3	218	34	86
Average Queue (ft)	7	6	0	24	0	22
95th Queue (ft)	73	85	3	147	0	88
Link Distance (ft)	501	501	509	192	192	1215
Upstream Blk Time (%)	0	0		1	0	
Queuing Penalty (veh)	1	0		6	0	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	B9	B9	SB	SB	B11
Directions Served	L	R	TR	T		L	T	T
Maximum Queue (ft)	308	187	90	69	47	173	37	88
Average Queue (ft)	40	87	6	7	3	72	3	9
95th Queue (ft)	198	176	53	36	22	154	45	115
Link Distance (ft)	1375		1030	526	526	192	192	509
Upstream Blk Time (%)						2		1
Queuing Penalty (veh)						9		5
Storage Bay Dist (ft)		125						
Storage Blk Time (%)	0	10						
Queuing Penalty (veh)	0	1						

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	121	58	29	43	20	22	21	1
Average Queue (ft)	41	14	4	11	1	1	2	0
95th Queue (ft)	91	43	19	34	12	9	12	1
Link Distance (ft)	648	671			1592			
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50	150		225	150	175
Storage Blk Time (%)		2	0					
Queuing Penalty (veh)		0	0					

Network Summary

Network wide Queuing Penalty: 130

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.3	8.3	0.1	42
Brink Rd	6	1.0	18.4	0.2	43
	11	0.7	4.6	0.0	37
Greenbrook Dr	5	0.9	9.8	0.1	41
W Old Baltimore Rd	4	4.4	12.4	0.1	30
Canterfield Way	3	7.7	36.6	0.4	39
New Cut Rd	2	1.1	19.0	0.2	39
	10	1.4	4.3	0.0	21
Little Seneca Pkwy	1	19.7	23.7	0.0	7
Total		37.2	137.2	1.3	35

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	5.5	10.3	0.0	17
New Cut Rd	2	2.6	4.2	0.0	22
Rosecrest Dr	3	14.2	33.6	0.2	22
W Old Baltimore Rd	4	11.0	41.6	0.4	35
Greenbrook Dr	5	2.3	10.5	0.1	35
	11	1.0	9.9	0.1	40
Brink Rd	6	0.3	4.0	0.0	42
	361	1.1	19.2	0.2	41
Milestone Manor Dr	7	0.3	7.9	0.1	44
Total		38.4	141.2	1.3	20

Queuing and Blocking Report
2040 AM Build w/ Observation Ext.

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Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	T	L	T
Maximum Queue (ft)	325	764	375	432	696	275	189	250	66	119	275	768
Average Queue (ft)	323	731	261	130	334	127	93	163	26	10	86	738
95th Queue (ft)	330	752	541	307	646	319	163	259	56	56	252	759
Link Distance (ft)		710		957	957		169	169	169	32		714
Upstream Blk Time (%)		98			1		1	9		2		58
Queuing Penalty (veh)		0			0		2	20		5		0
Storage Bay Dist (ft)	250		300			200					200	
Storage Blk Time (%)	100				28							54
Queuing Penalty (veh)	370				43							151

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	225
Average Queue (ft)	147
95th Queue (ft)	298
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	175
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 2: MD 355 & New Cut Rd

Movement	NB	SB	B10	B10	SW
Directions Served	TR	LT	T		LR
Maximum Queue (ft)	36	124	106	8	234
Average Queue (ft)	2	52	13	0	91
95th Queue (ft)	16	118	61	7	216
Link Distance (ft)	979	32	169	169	513
Upstream Blk Time (%)		9	0		
Queuing Penalty (veh)		91	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	19	43	328	80
Average Queue (ft)	1	7	129	26
95th Queue (ft)	11	27	298	67
Link Distance (ft)			605	607
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	NE
Directions Served	L	T	T	L
Maximum Queue (ft)	67	280	243	65
Average Queue (ft)	18	43	61	20
95th Queue (ft)	51	163	187	50
Link Distance (ft)	503	503	2021	970
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: MD 355 & Greenbrook Dr

Movement	EB	B11	SW
Directions Served	L	T	LR
Maximum Queue (ft)	28	20	76
Average Queue (ft)	1	1	17
95th Queue (ft)	12	13	52
Link Distance (ft)	503	184	1216
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
2040 AM Build w/ Observation Ext.

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Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	22	77	3	66
Average Queue (ft)	4	38	0	29
95th Queue (ft)	17	64	3	57
Link Distance (ft)	1368		1110	184
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		125		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	134	33	28	34	23
Average Queue (ft)	54	5	4	6	2
95th Queue (ft)	106	21	18	25	11
Link Distance (ft)	648	671			
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			50	150	150
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		0	0		

Network Summary

Network wide Queuing Penalty: 683

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	1.3	10.5	0.1	38
Brink Rd	6	4.4	20.8	0.2	35
	11	2.2	6.2	0.0	28
Greenbrook Dr	5	1.8	10.5	0.1	37
W Old Baltimore Rd	4	2.8	11.4	0.1	32
Canterfield Way	3	5.0	36.8	0.4	39
New Cut Road	2	21.6	39.6	0.2	19
	10	8.1	11.0	0.0	8
Little Seneca Pkwy	1	20.0	23.9	0.0	7
Total		67.2	170.8	1.3	28

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	2.6	7.3	0.0	23
New Cut Road	2	0.3	1.9	0.0	48
Rosecrest Dr	3	1.7	19.4	0.2	38
W Old Baltimore Rd	4	7.5	39.4	0.4	36
Greenbrook Dr	5	2.4	11.0	0.1	33
	11	1.7	10.4	0.1	37
Brink Rd	6	0.4	4.3	0.0	40
	9	1.0	17.8	0.2	41
Milestone Manor Dr	7	0.4	9.2	0.1	43
Total		18.2	120.6	1.3	33

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	B10	SB
Directions Served	L	T	R	L	T	R	L	T	R	T	T	L
Maximum Queue (ft)	325	765	375	242	340	218	131	255	100	22	210	219
Average Queue (ft)	295	609	135	115	157	35	48	233	39	1	149	70
95th Queue (ft)	394	951	405	216	284	118	99	269	84	17	250	156
Link Distance (ft)		712		957	957		169	169	169	31	31	
Upstream Blk Time (%)		49					0	31			25	
Queuing Penalty (veh)		0					0	110			134	
Storage Bay Dist (ft)	250		300			200						200
Storage Blk Time (%)	62	16			7							0
Queuing Penalty (veh)	220	54			5							1

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	444	225
Average Queue (ft)	167	78
95th Queue (ft)	316	197
Link Distance (ft)	1425	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)	6	0
Queuing Penalty (veh)	25	0

Intersection: 2: MD 355 & New Cut Road

Movement	NB	SB	B10	B10	SW
Directions Served	TR	LT	T		LR
Maximum Queue (ft)	755	16	13	13	390
Average Queue (ft)	290	1	0	0	220
95th Queue (ft)	711	9	11	11	447
Link Distance (ft)	982	31	169	169	509
Upstream Blk Time (%)		0			5
Queuing Penalty (veh)		0			0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	29	3	46	81	56
Average Queue (ft)	6	0	16	28	12
95th Queue (ft)	22	3	42	64	40
Link Distance (ft)				599	601
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150	200	150		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	NE
Directions Served	L	T	T	L
Maximum Queue (ft)	140	174	230	89
Average Queue (ft)	50	54	80	30
95th Queue (ft)	99	152	185	69
Link Distance (ft)	501	501	2023	922
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	B11	SW
Directions Served	L	T	LR
Maximum Queue (ft)	29	161	85
Average Queue (ft)	3	6	17
95th Queue (ft)	17	69	59
Link Distance (ft)	501	192	1215
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		1	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	B9	B9	SB	B11
Directions Served	L	R	TR	T		L	T
Maximum Queue (ft)	99	172	18	69	41	163	71
Average Queue (ft)	8	74	1	5	3	61	4
95th Queue (ft)	71	141	7	33	20	129	77
Link Distance (ft)	1375		1030	526	526	192	509
Upstream Blk Time (%)						1	0
Queuing Penalty (veh)						4	0
Storage Bay Dist (ft)		125					
Storage Blk Time (%)	0	4					
Queuing Penalty (veh)	0	0					

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	122	59	29	40	27	8	40	26	2	2
Average Queue (ft)	38	14	4	9	1	0	2	3	0	0
95th Queue (ft)	83	44	20	31	13	6	17	17	2	1
Link Distance (ft)	648	671			1592	1592			526	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			50	150			225	150		175
Storage Blk Time (%)		2	0							
Queuing Penalty (veh)		0	0							

Network Summary

Network wide Queuing Penalty: 554

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.2	6.8	0.1	51
Brink Rd	6	1.1	19.9	0.2	40
	11	0.7	4.7	0.0	36
Greenbrook Dr	5	0.9	9.8	0.1	41
W Old Baltimore Rd	4	4.5	12.8	0.1	30
Canterfield Way	3	8.3	37.1	0.4	39
New Cut Rd	2	1.1	19.0	0.2	39
	10	1.4	4.3	0.0	21
Little Seneca Pkwy	1	19.6	23.6	0.0	7
Total		37.8	138.0	1.3	34

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	9.0	13.8	0.0	12
New Cut Rd	2	4.7	6.5	0.0	15
Rosecrest Dr	3	19.1	38.4	0.2	19
W Old Baltimore Rd	4	17.4	48.7	0.4	30
Greenbrook Dr	5	2.6	10.8	0.1	34
	11	1.1	9.9	0.1	40
Brink Rd	6	0.4	4.0	0.0	42
	361	1.1	17.9	0.2	44
Milestone Manor Dr	7	0.7	9.6	0.1	36
Total		56.0	159.5	1.3	19

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	B10	SB
Directions Served	L	T	R	L	T	TR	L	T	R	T	T	L
Maximum Queue (ft)	325	732	375	671	541	275	212	249	61	7	109	275
Average Queue (ft)	298	513	213	359	236	191	95	164	28	0	10	95
95th Queue (ft)	380	941	463	666	445	293	176	258	56	5	60	270
Link Distance (ft)		708		957	957		169	169	169	31	31	
Upstream Blk Time (%)		30		0	0		2	9		0	2	
Queuing Penalty (veh)		0		0	0		5	19		0	5	
Storage Bay Dist (ft)	250		300			200						200
Storage Blk Time (%)	55	3	0		14	8						
Queuing Penalty (veh)	204	14	2		48	16						

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	769	225
Average Queue (ft)	733	128
95th Queue (ft)	764	282
Link Distance (ft)	712	
Upstream Blk Time (%)	54	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		175
Storage Blk Time (%)	52	0
Queuing Penalty (veh)	146	0

Intersection: 2: MD 355 & New Cut Rd

Movement	NB	SB	B10	B10	SW
Directions Served	TR	LT	T		LR
Maximum Queue (ft)	31	136	287	144	28
Average Queue (ft)	2	97	101	12	5
95th Queue (ft)	20	144	255	88	22
Link Distance (ft)	978	31	169	169	509
Upstream Blk Time (%)		30	3	0	
Queuing Penalty (veh)		324	17	1	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	19	6	44	627	352
Average Queue (ft)	3	0	8	505	171
95th Queue (ft)	15	4	30	761	414
Link Distance (ft)				599	601
Upstream Blk Time (%)				59	3
Queuing Penalty (veh)				0	0
Storage Bay Dist (ft)	150	200	150		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	NE
Directions Served	L	T	T	L
Maximum Queue (ft)	65	248	396	85
Average Queue (ft)	20	40	84	23
95th Queue (ft)	50	169	299	65
Link Distance (ft)	502	502	2022	968
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)			1	0
Queuing Penalty (veh)			0	0

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	B11	SW
Directions Served	L	T	LR
Maximum Queue (ft)	29	2	69
Average Queue (ft)	2	0	16
95th Queue (ft)	14	2	50
Link Distance (ft)	502	172	1215
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: MD 355 & Brink Rd

Movement	NB	SB	SW	SW
Directions Served	TR	L	L	R
Maximum Queue (ft)	3	70	31	89
Average Queue (ft)	0	34	4	42
95th Queue (ft)	3	62	19	71
Link Distance (ft)	1018	172	1368	1368
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB	SB
Directions Served	LTR	LT	R	L	L	T
Maximum Queue (ft)	207	31	28	33	19	2
Average Queue (ft)	68	5	4	6	1	0
95th Queue (ft)	169	22	18	24	10	2
Link Distance (ft)	647	671				356
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			50	150	150	
Storage Blk Time (%)		0	0			
Queuing Penalty (veh)		0	0			

Network Summary

Network wide Queuing Penalty: 801

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	1.2	10.4	0.1	38
Brink Rd	6	4.3	20.6	0.2	36
	11	2.2	6.2	0.0	28
Greenbrook Dr	5	1.8	10.5	0.1	37
W Old Baltimore Rd	4	2.8	11.3	0.1	32
Canterfield Way	3	4.8	36.4	0.4	39
New Cut Road	2	16.6	34.7	0.2	21
	10	7.5	10.4	0.0	9
Little Seneca Pkwy	1	21.7	25.6	0.1	7
Total		62.9	166.2	1.2	29

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	10	2.8	7.5	0.1	23
New Cut Road	2	0.4	1.9	0.0	46
Rosecrest Dr	3	1.9	19.5	0.2	38
W Old Baltimore Rd	4	3.8	35.5	0.4	40
Greenbrook Dr	5	1.6	10.1	0.1	36
	11	1.0	9.7	0.1	40
Brink Rd	6	0.4	4.2	0.0	41
	9	1.1	17.9	0.2	41
Milestone Manor Dr	7	0.4	9.2	0.1	43
Total		14.5	115.6	1.2	33

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B10	B10	SB
Directions Served	L	T	R	L	T	TR	L	T	R	T	T	L
Maximum Queue (ft)	325	702	375	422	188	157	101	270	112	195	109	242
Average Queue (ft)	235	364	76	226	107	70	47	240	46	135	4	80
95th Queue (ft)	366	722	277	405	178	148	86	267	91	231	47	182
Link Distance (ft)		712		957	957		169	169	169	31	31	
Upstream Blk Time (%)		8						32		25		
Queuing Penalty (veh)		0						113		132		
Storage Bay Dist (ft)	250		300			200						200
Storage Blk Time (%)	12	22			0	0						0
Queuing Penalty (veh)	43	78			0	0						1

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	467	225
Average Queue (ft)	207	94
95th Queue (ft)	378	220
Link Distance (ft)	1425	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		175
Storage Blk Time (%)	11	0
Queuing Penalty (veh)	42	0

Intersection: 2: MD 355 & New Cut Road

Movement	NB	SB	B10	SW
Directions Served	TR	LT	T	LR
Maximum Queue (ft)	618	18	12	44
Average Queue (ft)	204	1	1	11
95th Queue (ft)	553	8	9	47
Link Distance (ft)	982	31	169	509
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	28	57	91	44
Average Queue (ft)	4	18	30	9
95th Queue (ft)	20	47	66	31
Link Distance (ft)			599	601
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	119	200	115	11	98	39
Average Queue (ft)	49	60	30	0	28	1
95th Queue (ft)	95	159	80	8	72	29
Link Distance (ft)	501	501	2023		922	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				375		125
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	B11	SW
Directions Served	L	T	LR
Maximum Queue (ft)	28	93	48
Average Queue (ft)	4	3	11
95th Queue (ft)	18	47	36
Link Distance (ft)	501	192	1215
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	B9	B9	SB
Directions Served	L	R	TR	T		L
Maximum Queue (ft)	204	191	18	52	20	164
Average Queue (ft)	13	73	1	3	1	56
95th Queue (ft)	95	147	7	25	11	114
Link Distance (ft)	1375		1030	526	526	192
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)		125				
Storage Blk Time (%)		4				
Queuing Penalty (veh)		0				

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	99	66	30	48	27	13	22	2
Average Queue (ft)	39	16	4	10	1	1	3	0
95th Queue (ft)	74	49	20	34	12	7	15	1
Link Distance (ft)	648	671			1592			
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50	150		225	150	175
Storage Blk Time (%)		4	0					
Queuing Penalty (veh)		1	0					

Network Summary

Network wide Queuing Penalty: 410

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.3	6.8	0.1	51
Brink Rd	6	1.0	19.7	0.2	40
	11	0.3	4.2	0.0	40
Greenbrook Dr	5	0.4	9.1	0.1	43
W Old Baltimore Rd	4	2.7	10.4	0.1	35
Canterfield Way	3	6.8	35.1	0.4	41
New Cut Rd	2	6.8	24.5	0.2	30
Little Seneca Pkwy	1	21.2	27.8	0.1	9
Total		39.5	137.6	1.2	33

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
New Cut Rd	2	4.2	10.2	0.1	25
Rosecrest Dr	3	9.0	28.1	0.2	26
W Old Baltimore Rd	4	16.1	46.1	0.4	31
Greenbrook Dr	5	2.0	10.1	0.1	36
	11	0.8	9.4	0.1	42
Brink Rd	6	0.3	3.8	0.0	44
	361	1.0	17.6	0.2	45
Milestone Manor Dr	7	0.9	9.7	0.1	36
Total		34.3	135.1	1.2	21

Queuing and Blocking Report
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Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	R	L	T	TR	L	T	TR	L	T
Maximum Queue (ft)	325	741	375	320	321	557	536	249	300	272	234	314
Average Queue (ft)	290	473	304	185	167	348	340	223	231	172	87	261
95th Queue (ft)	384	904	447	317	282	602	591	288	348	271	238	325
Link Distance (ft)		694			959	959	959		249	249		235
Upstream Blk Time (%)		21						15	22	1	0	21
Queuing Penalty (veh)		0						0	123	5	0	0
Storage Bay Dist (ft)	250		300	300				215			200	
Storage Blk Time (%)	45	3	2	0				33	4		0	35
Queuing Penalty (veh)	407	26	7	1				94	18		0	29

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	SB	B9
Directions Served	T	R	T
Maximum Queue (ft)	335	225	465
Average Queue (ft)	294	193	427
95th Queue (ft)	338	284	449
Link Distance (ft)	235		404
Upstream Blk Time (%)	29	2	39
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)		175	
Storage Blk Time (%)	40	5	
Queuing Penalty (veh)	182	22	

Intersection: 2: MD 355 & New Cut Rd

Movement	NB	NB	SB	SB	SW
Directions Served	T	TR	LT	T	LR
Maximum Queue (ft)	305	215	33	51	26
Average Queue (ft)	98	26	3	5	4
95th Queue (ft)	296	149	21	31	19
Link Distance (ft)	980	980	249	249	509
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report
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Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	SE	SE	NW	NE	SW
Directions Served	L	T	T	R	L	LTR	LTR
Maximum Queue (ft)	24	9	8	4	28	638	227
Average Queue (ft)	4	0	0	0	5	509	81
95th Queue (ft)	17	7	6	3	20	763	225
Link Distance (ft)		980	980			587	589
Upstream Blk Time (%)						68	
Queuing Penalty (veh)						0	
Storage Bay Dist (ft)	150			200	150		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	T	T	L	R
Maximum Queue (ft)	88	220	186	316	332	168	186
Average Queue (ft)	27	40	40	133	129	27	76
95th Queue (ft)	67	128	123	287	282	93	150
Link Distance (ft)		505	505	2017	2017	956	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200						125
Storage Blk Time (%)		0			0	1	4
Queuing Penalty (veh)		0			0	1	1

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	SW
Directions Served	L	LR
Maximum Queue (ft)	23	63
Average Queue (ft)	3	14
95th Queue (ft)	16	46
Link Distance (ft)		1215
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
2040 AM Four-Lane No Build

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Intersection: 6: MD 355 & Brink Rd

Movement	NB	NB	SB	SW	SW
Directions Served	T	TR	L	L	R
Maximum Queue (ft)	13	10	118	32	106
Average Queue (ft)	1	0	44	3	49
95th Queue (ft)	6	6	81	19	86
Link Distance (ft)	1021	1021	166	1368	1368
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	643	37	28	32	18
Average Queue (ft)	491	6	4	10	2
95th Queue (ft)	799	25	18	30	13
Link Distance (ft)	647	671			
Upstream Blk Time (%)	37				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			50	150	150
Storage Blk Time (%)		1	0		
Queuing Penalty (veh)		0	0		

Intersection: 9: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	168	125
Average Queue (ft)	47	29
95th Queue (ft)	130	88
Link Distance (ft)	235	235
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 915

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	0.8	9.9	0.1	40
Brink Rd	6	2.1	18.2	0.2	40
	11	0.6	4.4	0.0	38
Greenbrook Dr	5	0.9	9.8	0.1	41
W Old Baltimore Rd	4	2.9	11.4	0.1	32
Canterfield Way	3	4.0	35.2	0.4	40
New Cut Road	2	6.1	23.9	0.2	31
Little Seneca Pkwy	1	18.4	25.0	0.1	10
Total		35.8	137.8	1.2	33

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
New Cut Road	2	2.8	8.9	0.1	29
Rosecrest Dr	3	1.4	18.9	0.2	39
W Old Baltimore Rd	4	8.5	39.8	0.4	36
Greenbrook Dr	5	3.1	11.6	0.1	32
	11	1.5	10.2	0.1	39
Brink Rd	6	0.3	3.9	0.0	43
	9	0.7	17.3	0.2	42
Milestone Manor Dr	7	0.6	9.3	0.1	43
Total		18.9	119.9	1.2	30

Queuing and Blocking Report
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Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	R	L	T	TR	L	T	TR	L	T
Maximum Queue (ft)	265	226	186	144	323	159	146	249	294	275	158	276
Average Queue (ft)	135	96	91	31	173	81	55	179	210	222	58	151
95th Queue (ft)	234	188	163	101	299	143	120	273	324	306	119	236
Link Distance (ft)		694			959	959	959		249	249		235
Upstream Blk Time (%)								2	5	6	0	1
Queuing Penalty (veh)								0	39	45	0	0
Storage Bay Dist (ft)	250		300	300				215			200	
Storage Blk Time (%)	1	0						7	5			3
Queuing Penalty (veh)	4	0						30	23			3

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	SB	B12
Directions Served	T	R	T
Maximum Queue (ft)	295	225	168
Average Queue (ft)	152	61	8
95th Queue (ft)	253	164	78
Link Distance (ft)	235		404
Upstream Blk Time (%)	1	0	0
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)		175	
Storage Blk Time (%)	6	0	
Queuing Penalty (veh)	9	0	

Intersection: 2: MD 355 & New Cut Road

Movement	NB	NB	SW
Directions Served	T	TR	LR
Maximum Queue (ft)	263	279	46
Average Queue (ft)	65	80	10
95th Queue (ft)	200	209	35
Link Distance (ft)	985	985	509
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
2040 PM Four-Lane No Build

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Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	36	8	56	122	33
Average Queue (ft)	9	0	16	31	7
95th Queue (ft)	30	4	42	87	23
Link Distance (ft)				587	589
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150	200	150		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	T	T	L	R
Maximum Queue (ft)	140	141	134	167	209	78	93
Average Queue (ft)	62	41	61	56	110	27	18
95th Queue (ft)	108	103	119	136	199	65	63
Link Distance (ft)		503	503	2019	2019	910	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100					125	
Storage Blk Time (%)	3	0				0	
Queuing Penalty (veh)	24	1				0	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	SW
Directions Served	L	LR
Maximum Queue (ft)	34	146
Average Queue (ft)	4	49
95th Queue (ft)	21	160
Link Distance (ft)		1208
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

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Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	NB	SB
Directions Served	L	R	T	TR	L
Maximum Queue (ft)	920	200	13	35	107
Average Queue (ft)	560	190	1	1	51
95th Queue (ft)	1218	240	7	14	92
Link Distance (ft)	1376		1032	1032	184
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)		125			
Storage Blk Time (%)		86			
Queuing Penalty (veh)		5			

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	T	R	L	T	T	TR
Maximum Queue (ft)	649	219	108	64	110	80	30	22	13	22	21
Average Queue (ft)	358	54	10	20	8	4	1	3	0	1	1
95th Queue (ft)	734	173	58	49	61	51	13	15	10	12	13
Link Distance (ft)	648	671			1592	1592			526	526	
Upstream Blk Time (%)	17										
Queuing Penalty (veh)	0										
Storage Bay Dist (ft)			50	150			225	150			175
Storage Blk Time (%)		31	0		0	0					
Queuing Penalty (veh)		3	0		0	0					

Intersection: 12: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	265	165
Average Queue (ft)	104	56
95th Queue (ft)	235	129
Link Distance (ft)	235	235
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	5	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 193

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	361	0.2	6.7	0.1	52
Brink Rd	6	0.8	19.5	0.2	41
	11	0.3	4.1	0.0	41
Greenbrook Dr	5	0.3	9.0	0.1	44
W Old Baltimore Rd	4	2.0	9.6	0.1	38
Canterfield Way	3	3.4	31.8	0.4	45
New Cut Rd	2	0.9	18.7	0.2	39
Little Seneca Pkwy	1	24.3	31.0	0.1	8
Total		7.9	130.4	1.2	35

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
New Cut Rd	2	3.7	9.8	0.1	27
Rosecrest Dr	3	8.7	27.8	0.2	26
W Old Baltimore Rd	4	28.8	58.9	0.4	24
Greenbrook Dr	5	5.8	14.0	0.1	26
	11	4.6	13.2	0.1	30
Brink Rd	6	0.9	4.4	0.0	38
	361	0.9	17.5	0.2	45
Milestone Manor Dr	7	0.6	9.5	0.1	36
Total		54.0	155.1	1.4	23

Queuing and Blocking Report
2040 AM Four-Lane Build

11/22/2019

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	TR	L	T	TR	L	T	T
Maximum Queue (ft)	228	422	364	307	355	380	244	265	259	234	315	322
Average Queue (ft)	100	139	210	157	220	206	128	131	149	71	239	231
95th Queue (ft)	186	297	350	282	313	314	219	234	247	199	329	326
Link Distance (ft)		693		959	959	959		258	258		235	235
Upstream Blk Time (%)							0	0	1	0	12	11
Queuing Penalty (veh)							0	1	2	0	0	0
Storage Bay Dist (ft)	250		300				215			200		
Storage Blk Time (%)	0	1	4				2	1		0	22	26
Queuing Penalty (veh)	1	4	12				4	2		0	17	49

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	B9
Directions Served	R	T
Maximum Queue (ft)	225	442
Average Queue (ft)	109	161
95th Queue (ft)	248	471
Link Distance (ft)		404
Upstream Blk Time (%)	0	9
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)	175	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 2: MD 355 & New Cut Rd

Movement	NB	NB	SB	SB	SW
Directions Served	T	TR	LT	T	LR
Maximum Queue (ft)	18	17	12	41	28
Average Queue (ft)	1	1	0	2	5
95th Queue (ft)	8	12	6	17	22
Link Distance (ft)	980	980	258	258	509
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	SE	NW	NE	SW
Directions Served	L	T	L	LTR	LTR
Maximum Queue (ft)	23	4	28	535	116
Average Queue (ft)	2	0	3	307	31
95th Queue (ft)	12	3	17	644	95
Link Distance (ft)		980		587	589
Upstream Blk Time (%)				14	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)	150		150		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	T	T	L	R
Maximum Queue (ft)	86	154	104	387	406	232	193
Average Queue (ft)	30	28	28	164	205	35	104
95th Queue (ft)	72	88	77	346	374	134	182
Link Distance (ft)		505	505	2017	2017	956	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200						125
Storage Blk Time (%)		0			1	1	11
Queuing Penalty (veh)		0			0	1	2

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	SE	SE	SW
Directions Served	L	T	T	LR
Maximum Queue (ft)	25	54	118	85
Average Queue (ft)	4	2	6	22
95th Queue (ft)	20	31	45	69
Link Distance (ft)		505	505	1215
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
2040 AM Four-Lane Build

11/22/2019

Intersection: 6: MD 355 & Brink Rd

Movement	NB	SB	B11	SW	SW
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	5	78	226	32	84
Average Queue (ft)	0	38	8	7	43
95th Queue (ft)	3	64	114	28	72
Link Distance (ft)	1021	166	505	1368	
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			1		
Storage Bay Dist (ft)				125	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	481	50	20	42	18
Average Queue (ft)	194	6	3	8	2
95th Queue (ft)	510	26	16	28	12
Link Distance (ft)	647	671			
Upstream Blk Time (%)	3				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			50	150	150
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 9: Bend

Movement	NB	NB
Directions Served	T	
Maximum Queue (ft)	121	82
Average Queue (ft)	27	18
95th Queue (ft)	87	62
Link Distance (ft)	235	235
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 95

Arterial Level of Service: NB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	9	0.7	9.8	0.1	41
Brink Rd	6	1.8	17.9	0.2	41
	11	0.5	4.4	0.0	38
Greenbrook Dr	5	0.9	9.7	0.1	41
W Old Baltimore Rd	4	2.1	10.6	0.1	35
Canterfield Way	3	3.2	34.4	0.4	41
New Cut Road	2	3.9	21.8	0.2	34
Little Seneca Pkwy	1	16.9	23.6	0.1	11
Total		30.0	132.2	1.2	35

Arterial Level of Service: SB MD 355

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
					38
					9
New Cut Road	2	2.3	8.4	0.1	31
Rosecrest Dr	3	1.2	18.6	0.2	40
W Old Baltimore Rd	4	6.1	37.3	0.4	38
Greenbrook Dr	5	2.5	10.9	0.1	34
	11	1.1	9.9	0.1	40
Brink Rd	6	0.3	3.9	0.0	43
	9	0.7	17.3	0.2	43
Milestone Manor Dr	7	0.5	9.2	0.1	43
Total		14.7	115.5	1.2	34

Queuing and Blocking Report
2040 PM Four-Lane Build

11/22/2019

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	TR	L	T	TR	L	T	T
Maximum Queue (ft)	221	175	83	243	183	181	254	290	275	151	259	215
Average Queue (ft)	115	77	40	123	95	66	137	184	210	55	129	95
95th Queue (ft)	195	148	72	216	156	141	234	303	314	108	218	185
Link Distance (ft)		693		959	959	959		258	258		235	235
Upstream Blk Time (%)							1	2	4	0	0	0
Queuing Penalty (veh)							0	14	28	0	0	0
Storage Bay Dist (ft)	250		300				215			200		
Storage Blk Time (%)	0	0					2	4			1	1
Queuing Penalty (veh)	0	0					9	15			2	1

Intersection: 1: MD 355 & Little Seneca Pkwy

Movement	SB	B12
Directions Served	R	T
Maximum Queue (ft)	111	7
Average Queue (ft)	31	0
95th Queue (ft)	72	5
Link Distance (ft)		404
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)	175	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: MD 355 & New Cut Road

Movement	NB	NB	SW
Directions Served	T	TR	LR
Maximum Queue (ft)	173	184	51
Average Queue (ft)	23	40	11
95th Queue (ft)	107	132	39
Link Distance (ft)	985	985	509
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
2040 PM Four-Lane Build

11/22/2019

Intersection: 3: Rosecrest Dr/Canterfield Way & MD 355

Movement	SE	NW	NE	SW
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	31	41	76	27
Average Queue (ft)	6	12	25	6
95th Queue (ft)	23	33	59	21
Link Distance (ft)			587	589
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: W Old Baltimore Rd & MD 355

Movement	NB	NB	NB	SB	SB	NE	NE
Directions Served	L	T	T	T	T	L	R
Maximum Queue (ft)	116	136	134	126	186	86	62
Average Queue (ft)	48	29	40	24	59	31	9
95th Queue (ft)	95	93	112	80	142	73	42
Link Distance (ft)		503	503	2019	2019	910	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200					125	
Storage Blk Time (%)	0	0				0	
Queuing Penalty (veh)	0	0				0	

Intersection: 5: MD 355 & Greenbrook Dr

Movement	SE	SW
Directions Served	L	LR
Maximum Queue (ft)	29	102
Average Queue (ft)	4	30
95th Queue (ft)	20	90
Link Distance (ft)		1215
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
2040 PM Four-Lane Build

11/22/2019

Intersection: 6: MD 355 & Brink Rd

Movement	WB	WB	NB	NB	SB
Directions Served	L	R	T	TR	L
Maximum Queue (ft)	425	200	4	29	90
Average Queue (ft)	81	138	0	1	40
95th Queue (ft)	325	224	3	12	74
Link Distance (ft)	1376		1032	1032	184
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		125			
Storage Blk Time (%)	0	32			
Queuing Penalty (veh)	0	2			

Intersection: 7: MD 355 & Milestone Manor Dr

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	338	145	91	58	50	28	34	39	2	4
Average Queue (ft)	124	43	12	19	4	1	3	5	0	0
95th Queue (ft)	308	129	56	47	27	15	17	23	2	2
Link Distance (ft)	648	671			1592	1592			526	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			50	150			225	150		175
Storage Blk Time (%)		25	0							
Queuing Penalty (veh)		5	0							

Network Summary

Network wide Queuing Penalty: 75

Appendix D

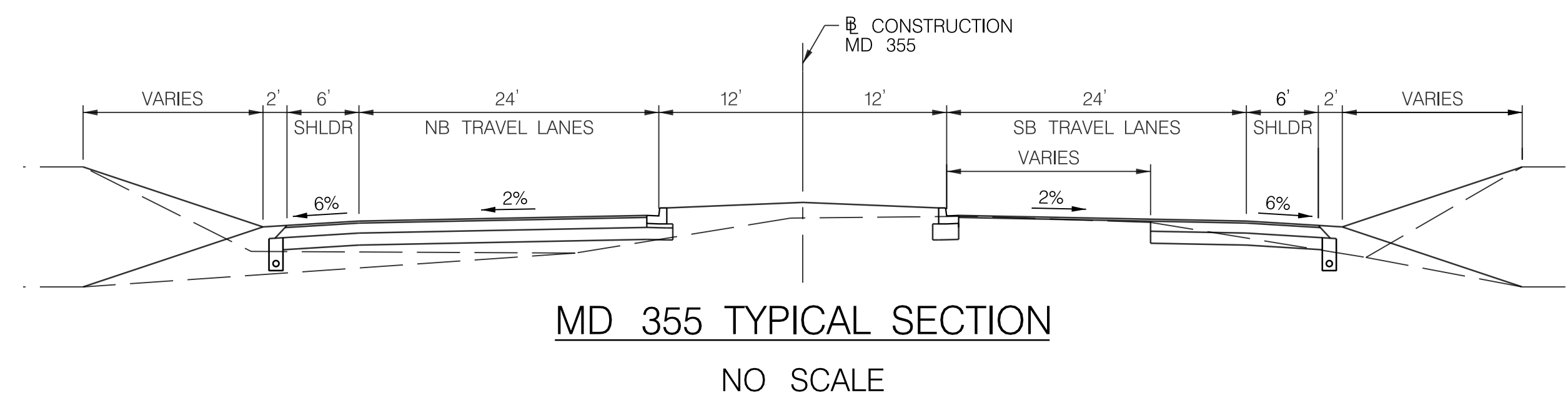
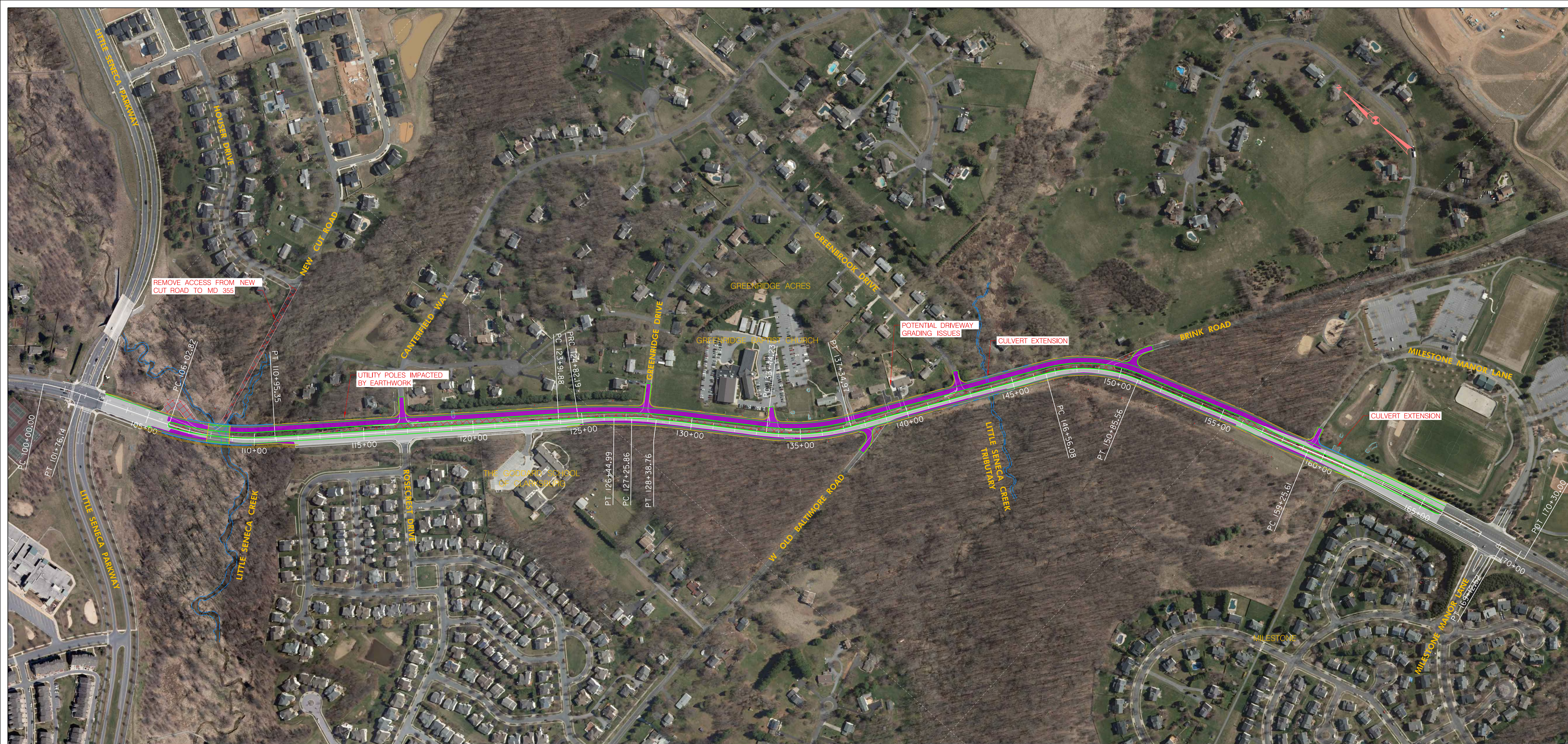
Bus Ridership Data

Route	Stop Order	Number	Stop	Avg Board	Avg Alight
75	101	14832	Bus Stop: 14832 WHELAN LN & @22880 (MC CORRECTIONAL	36	-
75	102	17650	Bus Stop: 17650 GOSNELL FARM DR & CLARKSBURG RD	23	1
75	103	17190	Bus Stop: 17190 STRINGTOWN RD & GATEWAY CENTER DR	16	1
75	104	16088	Bus Stop: 16088 STRINGTOWN RD & SUTLER SQUARE TERR	16	2
75	105	17402	Bus Stop: 17402 STRINGTOWN RD & CLARKS CROSSING DR	9	2
75	106	14927	Bus Stop: 14927 CLARKS CROSSING DR & PIEDMONT TRAIL	1	-
75	107	14926	Bus Stop: 14926 CLARKS CROSSING DR & SUGAR VIEW DRIVE	-	-
75	108	14925	Bus Stop: 14925 CLARKS CROSSING DR & CLARKSBURG SQ	16	2
75	109	17177	Bus Stop: 17177 CLARKS CROSSING DR & CLARKSMEADE DR	4	-
75	110	17629	Bus Stop: 17629 SNOWDEN FARM PKWY & STRINGTOWN RD	5	-
75	111	17403	Bus Stop: 17403 SNOWDEN FARM PKWY & GRAND ELM (W) S	8	-
75	112	30027	Bus Stop: 30027 LITTLE SENECA PKWY & GREY SQUIRREL	20	2
75	113	17036	Bus Stop: 17036 FREDERICK RD & FOREMAN BLVD	4	-
75	114	17037	Bus Stop: 17037 FREDERICK RD & FOREMAN BLVD	-	-
75	115	16066	Bus Stop: 16066 FREDERICK RD & LITTLE SENECA PKWY	2	-
75	116	10024	Bus Stop: 10024 FREDERICK RD & ROSECREST DR	12	2
75	117	2598	Bus Stop: 2598 FREDERICK RD & OLD BALTIMORE RD	2	2
75	118	8796	Bus Stop: 8796 FREDERICK RD & MILESTONE MANOR LN	5	4
75	119	7780	Bus Stop: 7780 FREDERICK RD & STARDRIFT DR	2	-
75	120	9052	Bus Stop: 9052 FREDERICK RD & HENDERSON CORNER RD	4	19
75	121	8834	Bus Stop: 8834 SHAKESPEARE BLVD & FREDERICK RD	4	34
75	122	8836	Bus Stop: 8836 SHAKESPEARE BLVD & MILESTONE PARK &	12	15
75	123	8838	Bus Stop: 8838 SHAKESPEARE BLVD & OBSERVATION DR	48	26
75	124	17398	Bus Stop: 17398 OBSERVATION DR & @20457 (SENECA MEA	1	-
75	125	9320	Bus Stop: 9320 OBSERVATION DR & PANTHER RIDGE DR	1	2
75	126	8846	Bus Stop: 8846 OBSERVATION DR & BOLAND FARM RD	1	2
75	127	8848	Bus Stop: 8848 OBSERVATION DR & OBSERVATION CT	3	4
75	128	4636	Bus Stop: 4636 GERMANTOWN RD & OBSERVATION DR	5	7
75	129	7958	Bus Stop: 7958 GERMANTOWN RD & GOLDENROD LN	1	4
75	130	15182	Bus Stop: 15182 GERMANTOWN TRANSIT CENTER & BAY B	-	233
75	201	15182	Bus Stop: 15182 GERMANTOWN TRANSIT CENTER & BAY B	235	-
75	202	2892	Bus Stop: 2892 GERMANTOWN RD & GOLDENROD LN	3	5
75	203	8852	Bus Stop: 8852 OBSERVATION DR & OBSERVATION CT	18	4
75	204	8854	Bus Stop: 8854 OBSERVATION DR & BOLAND FARM RD	3	1
75	205	8850	Bus Stop: 8850 OBSERVATION DR & PANTHER RIDGE DR	1	1
75	206	17399	Bus Stop: 17399 OBSERVATION DR & @20457 (SENECA MEA	-	3
75	207	8840	Bus Stop: 8840 SHAKESPEARE BLVD & OBSERVATION DR	36	31
75	208	8842	Bus Stop: 8842 SHAKESPEARE BLVD & AMBER RIDGE DR	18	6
75	209	8844	Bus Stop: 8844 SHAKESPEARE BLVD & ETON MANOR DR	36	11
75	210	9132	Bus Stop: 9132 FREDERICK RD & SHAKESPEARE BLVD	6	3
75	211	9134	Bus Stop: 9134 FREDERICK RD & HENDERSON CORNER	3	5
75	212	7778	Bus Stop: 7778 FREDERICK RD & RIDGE RD	7	3
75	213	8778	Bus Stop: 8778 FREDERICK RD & STARDRIFT DR	-	-
75	214	8794	Bus Stop: 8794 FREDERICK RD & MILESTONE MANOR LN	3	8
75	215	14940	Bus Stop: 14940 FREDERICK RD & GREENBROOK DR	-	1
75	216	2554	Bus Stop: 2554 FREDERICK RD & GREENRIDGE DR	-	2
75	217	10023	Bus Stop: 10023 FREDERICK RD & CANTERFIELD WAY	2	14





Route	Stop Order	Number	Stop	Avg Board	Avg Alight
75	218	2556	Bus Stop: 2556 FREDERICK RD & LITTLE SENECA PKWY	8	30
75	219	17037	Bus Stop: 17037 FREDERICK RD & FOREMAN BLVD	2	5
75	220	17037	Bus Stop: 17037 FREDERICK RD & FOREMAN BLVD	-	-
75	221	30026	Bus Stop: 30026 LITTLE SENECA PKWY & GREY SQUIRELL	5	20
75	222	17404	Bus Stop: 17404 SNOWDEN FARM PKWY & GRAND ELM (W) S	2	12
75	223	17628	Bus Stop: 17628 SNOWDEN FARM PKWY & CLARKSBURG SQ R	-	1
75	224	17176	Bus Stop: 17176 CLARKS CROSSING DR & CLARKSMEADE DR	1	5
75	225	17368	Bus Stop: 17368 CLARKS CROSSING DR & CLARKSBURG SQU	6	27
75	226	17367	Bus Stop: 17367 CLARKS CROSSING DR & SUGAR VIEW DR	1	4
75	227	17405	Bus Stop: 17405 STRINGTOWN RD & CLARKS CROSSING DR	-	1
75	228	16089	Bus Stop: 16089 STRINGTOWN RD & SUTLER SQUARE TERR	1	14
75	229	17627	Bus Stop: 17627 STRINGTOWN RD & N FREDERICK RD	3	9
75	230	17191	Bus Stop: 17191 STRINGTOWN RD & GATEWAY CENTER DR	1	3
75	231	17651	Bus Stop: 17651 GOSNELL FARM DR & CLARKSBURG RD	20	49
75	232	14832	Bus Stop: 14832 WHELAN LN & @22880 (MC CORRECTIONAL	-	31
				677	669

Appendix E

Costs/Concepts



LEGEND

	RESURFACING		PROPOSED BRIDGE
	FULL DEPTH CONSTRUCTION		EXISTING PAVEMENT REMOVAL

MD 355 LITTLE SENECA DRIVE TO MILESTONE MANOR LANE DUALIZATION CONCEPT

FEBRUARY 2020

SCALE: 1" = 200'

MD 355 Dualization
From Little Seneca Parkway to Milestone Manor Lane
Conceptual Estimate

Roadway Costs						
Item No.	Description	Unit	Quantity	Unit Cost	Total Cost	Notes
Category 2: Grading						
	CLASS 1 EXCAVATION	CY	27,000	\$ 30.00	\$ 810,000.00	
	CLASS 1A EXCAVATION	CY	2,700	\$ 60.00	\$ 162,000.00	
	GEOSYNTHETIC STABILIZED SUBGRADE USING GRADED AGGREGATE BASE	CY	2,700	\$ 50.00	\$ 135,000.00	
	COMMON BORROW	CY	15,000	\$ 30.00	\$ 450,000.00	
	REMOVAL OF EXISTING PAVEMENT	CY	2,900	\$ 100.00	\$ 290,000.00	
	Subtotal				\$ 1,847,000.00	
Category 4: Structures						
	BRIDGE - MD355 REPLACEMENT	LS	1	\$ 3,500,000.00	\$ 3,500,000.00	
	BOX CULVERT - LITTLE SENECA CREEK TRIBUTARY EXTENSION	LS	1	\$ 200,000.00	\$ 200,000.00	
	Subtotal				\$ 3,700,000.00	
Category 5: Paving						
	GAP-GRADED ASPHALT SURFACE	TON	5,550	\$ 100.00	\$ 555,000.00	
	ASPHALT BASE	TON	15,600	\$ 85.00	\$ 1,326,000.00	
	6 INCH GRADED AGGREGATE BASE	SY	53,000	\$ 10.00	\$ 530,000.00	
	FINE MILLING	SY	20,200	\$ 2.00	\$ 40,400.00	
	PAVEMENT MARKINGS	LF	35,000	\$ 3.00	\$ 105,000.00	
	Subtotal				\$ 2,556,400.00	
Category 6: Shoulders						
	COMBINATION CURB AND GUTTER	LF	12,000	\$ 35.00	\$ 420,000.00	
	REMOVAL OF TRAFFIC BARRIER W-BEAM	LF	1,500	\$ 3.00	\$ 4,500.00	
	TRAFFIC BARRIER W-BEAM	LF	2,500	\$ 25.00	\$ 62,500.00	
	Subtotal				\$ 487,000.00	
Category 8: Traffic						
	LIGHTING	LS	1	\$ 100,000.00	\$ 100,000.00	
	SIGNING	LS	1	\$ 100,000.00	\$ 100,000.00	
	TRAFFIC SIGNAL	EA	1	\$ 250,000.00	\$ 250,000.00	
	Subtotal				\$ 450,000.00	
				Subtotal		
	Category 1: Preliminary	35%	\$ 4,890,400.00	\$ 1,711,640.00	35% of Cat. 2, 5, 6	
	Category 1: Maintenance of Traffic	10%	\$ 4,890,400.00	\$ 489,040.00	10% of Cat. 2, 5, 6	
	Category 3: Drainage	30%	\$ 4,890,400.00	\$ 1,467,120.00	30% of Cat. 2, 5, 6	
	Category 7: Landscape	10%	\$ 4,890,400.00	\$ 489,040.00	10% of Cat. 2, 5, 6	
	Subtotal 1			\$ 13,197,240.00		
	Contingency	35%		\$ 4,619,034.00	35% of Subtotal 1	
	Total			\$ 17,816,274.00		

ASSUMPTIONS

1. New Cut Road will no longer connect to MD 355, and will tie directly into Houser Drive.
2. Instead of widening the bridge deck over Little Seneca Creek, a new bridge will be constructed.
3. Drainage items will include extension of the box culverts near Greenbrook Drive and Milestone Manor Lane.
4. Landscaping contingency is set at 10% under the assumption that there will be trees planted at regular intervals in the median.
5. Utility costs are not included in the estimate.
6. Right of way costs are not included in the estimate.