

# East Main

Town of New Market, Maryland

Revised April 13, 2023

September 19, 2022

## Traffic Impact Analysis

### Prepared for:

### The Verdant Companies

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## APPENDICES

**APPENDIX A** – Scoping Agreement, Intersection Turning Movement Counts, and Aerial Photos

**APPENDIX B** – Intersection Capacity Analysis Worksheets

**APPENDIX C** – Trip Assignment for Approved Developments

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am duly licensed professional engineer under the laws of the State of Maryland, License No. 25547 Expiration Date: 09/25/2024.



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# INTRODUCTION AND SUMMARY OF FINDINGS

## Study Purpose

The Traffic Group, Inc. has prepared this Revised Traffic Impact Analysis to determine the impact the proposed East Main Development would have on the adjacent road system in the Town of New Market, Frederick County, Maryland. This development is located along the south side of Main Street east of Ninth Alley (unimproved) and is now proposed with 42 Single-Family Attached Units, 8,000 Square Feet (SF) of Retail Uses (Strip Plaza Retail), 10,000 SF of General Office, and a 4,000 SF High-Turnover Restaurant.

Two full-movement access points are proposed along East Main Street, with the western access across from Marley Street and a second access to the east. Please note there is access proposed along South Alley to the south. However, for the purposes of this Traffic Impact Analysis, all traffic from East Main is proposed to use the accesses along Main Street. East Main is expected to be built out within 3 years (2025).

## Study Criteria/Methodology

The Scope of Work for this Traffic Impact Analysis was determined by Town of New Market and can be found in Appendix A. This Traffic Impact Analysis was prepared in accordance with Frederick County's Adequate Public Facilities Ordinance (APFO).

## Scope of Services

- *Conduct a field inspection to collect physical information concerning the nearby road system, including the compilation of aerial photography.*
- *Collect intersection turning movement counts at each of the key intersections during the weekday morning and evening peak periods.*
- *Provide an allowance for regional traffic growth throughout the corridor.*
- *Obtain background development information from the Town of New Market.*
- *Prepare trip generation and trip distribution for each background development and the subject site.*
- *Undertake Intersection Capacity Analyses and Level of Service (LOS) evaluations for existing, background, and total traffic conditions using Critical Lane Volume (CLV) and Highway Capacity Manual (HCM) Methodologies.*



- *Prepare Queuing Analyses using the Maryland Department of Transportation State Highway Administration (MDOT SHA) 95<sup>th</sup> Percentile Methodology.*
- *Provide an overall assessment of traffic operations.*

## **Summary of Findings and Recommendations**

The results of the Traffic Impact Analysis indicate that all study intersections are operating at acceptable levels of service and will continue to operate with acceptable levels of service during each of the peak periods using the CLV and HCM Methodologies except for Main Street @ Royal Oaks Drive and MD 75 @ Old New Market Road, which is projected to have delay issues under background and total traffic conditions.

Additionally, all queues can be accommodated within the existing storage areas at all intersections during the morning and evening peak hours except for a few movements. Please note that the proposed subject site has little to no impact on these movements under total traffic conditions.

Therefore, it is our opinion that East Main meets the requirements of the Town of New Market for approval.

The data and methodology used to undertake this study is detailed in the sections that follow.

# EXISTING TRAFFIC CONDITIONS

## Site Information

East Main is located along the south side of East Main Street east of Ninth Alley (unimproved) in the Town of New Market, Frederick County, Maryland. A map showing the general area can be found on Figure 1 along with the study intersections, and a Site Concept Plan can be found on Figure 1A.

## Study Area

Based on the Scoping Agreement, the following intersections were identified to be included as part of this analysis:

1. Old National Pike @ Boyers Mill Road (Traffic Signal);
2. Main Street @ Royal Oaks Drive (Stop Controlled);
3. Main Street @ Old New Market Road (Stop Controlled);
4. Main Street @ South Federal Street (Stop Controlled);
5. Main Street @ Marley Street/Site Access (Stop Controlled);
6. Main Street @ Bye Alley (Stop Controlled);
7. MD 75 @ Old New Market Road (Stop Controlled);
8. MD 75 @ Old National Pike (Traffic Signal);
9. MD 75 @ I-70 WB Ramps (Traffic Signal);
10. MD 75 @ I-70 EB Ramps (Traffic Signal); and
11. Main Street @ Site Access (Stop Controlled).

Figure 2 has been prepared to detail the existing lane use and traffic control devices at each of the study intersections. Aerial photography can be found in Appendix A.

## Traffic Volumes

The Traffic Group, Inc. collected intersection turning movement counts from 7–9 AM and 4–6 PM on a weekday at each of the key intersections in the study area on February 25, 2021, October 26, 2021, and May 25, 2022. Please note that the counts in February were conducted when Frederick County Students returned to the classrooms (February 16, 2021) as part of a hybrid plan and have been previously accepted. A summary of the existing peak hour traffic volumes can be found on Figure 3. Complete turning movement count worksheets are contained in Appendix A.

Figure 1. Site Location Map and Study Intersections

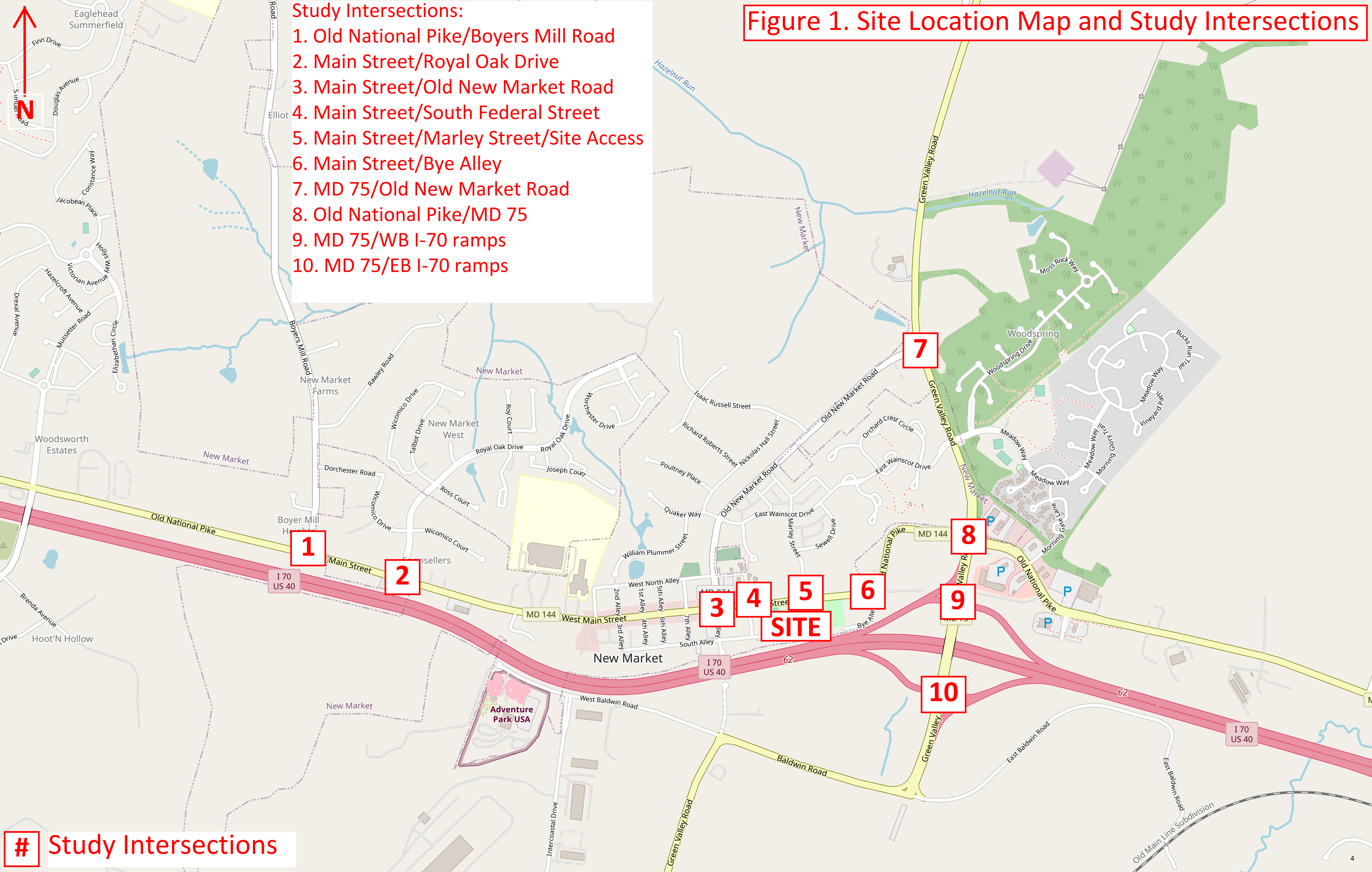
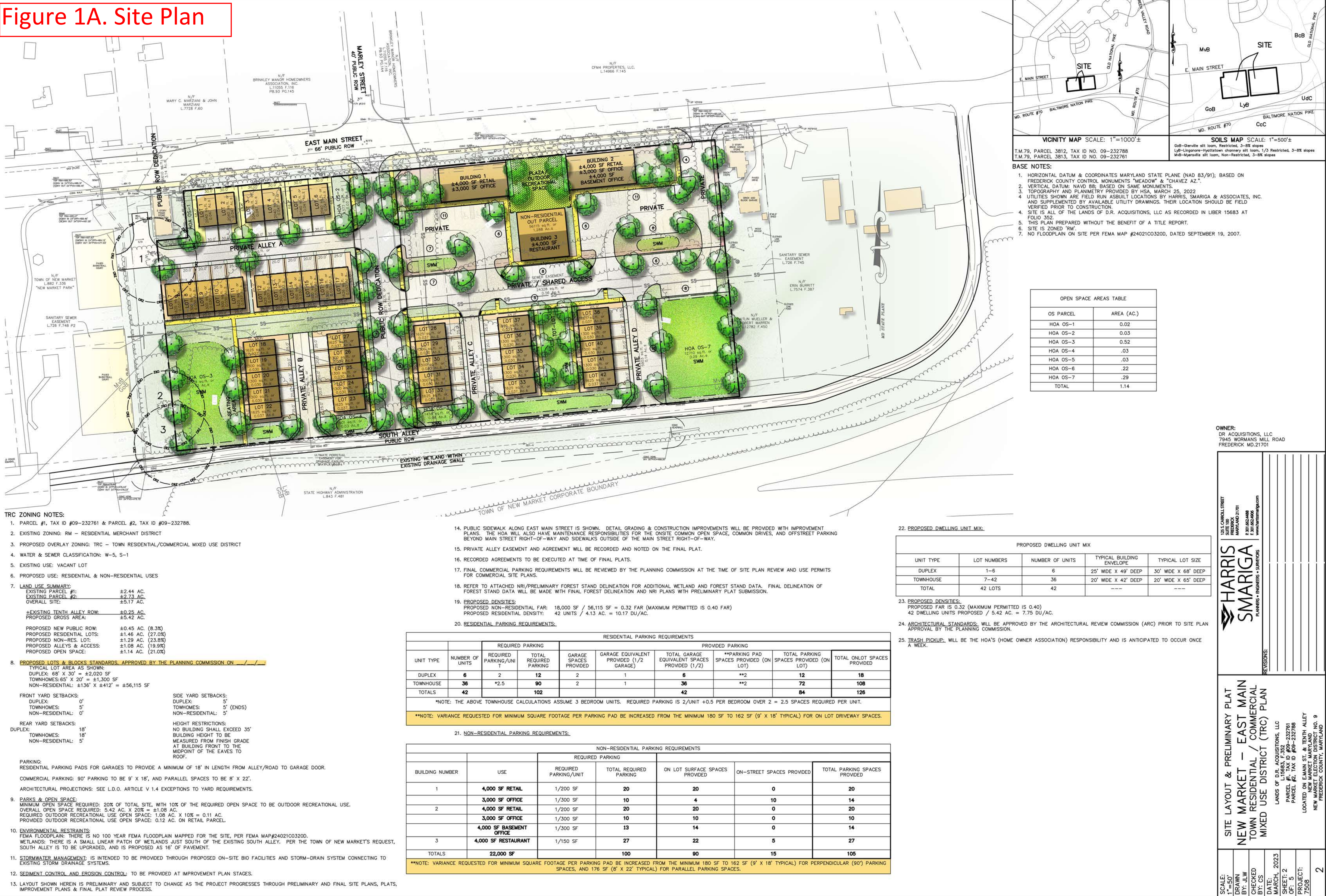
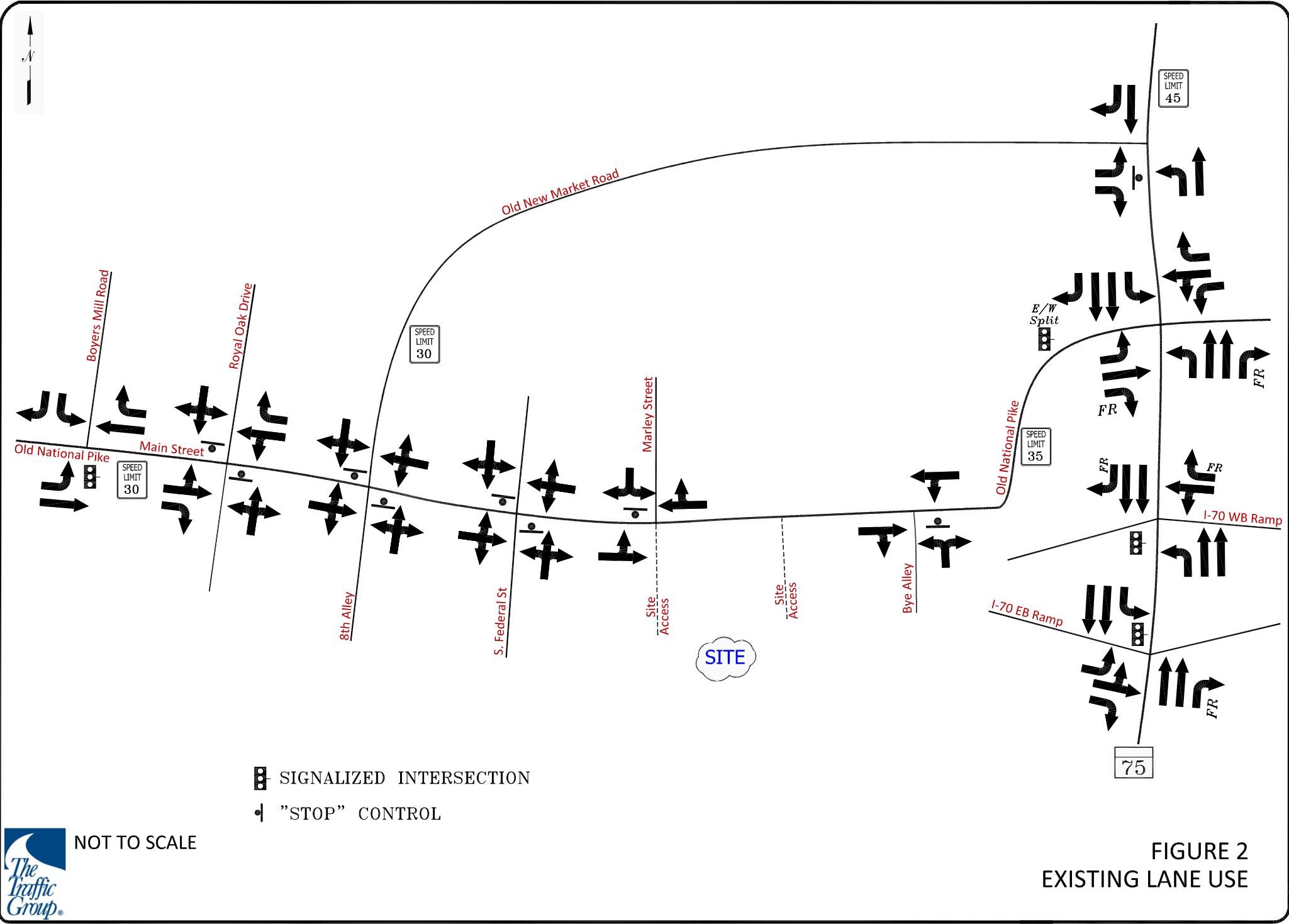




Figure 1A. Site Plan

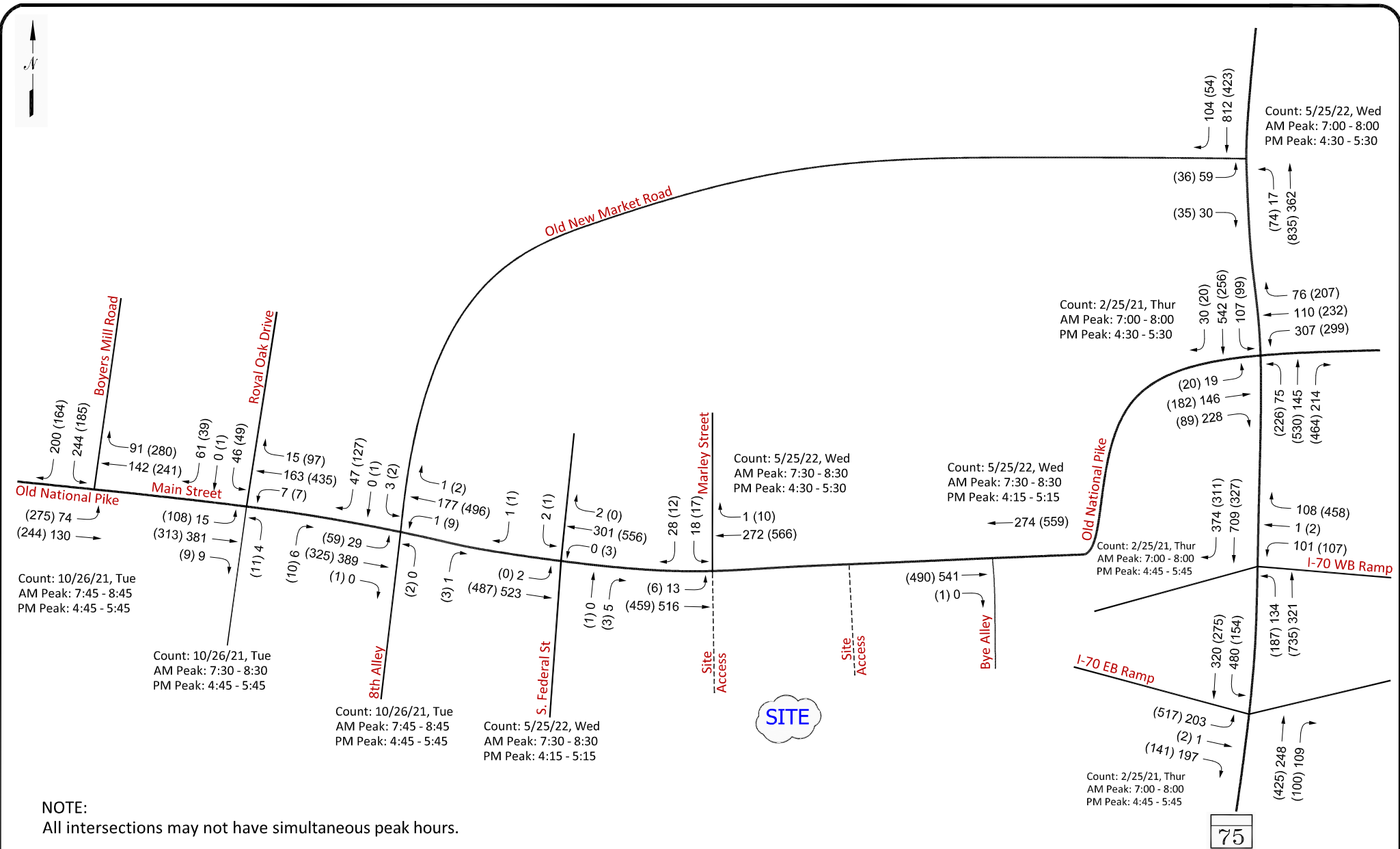






 SIGNALIZED INTERSECTION  
 "STOP" CONTROL

FIGURE 2  
EXISTING LANE USE



**FIGURE 3**  
**EXISTING PEAK HOUR**  
**TRAFFIC VOLUMES**



NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

## **Analysis of Existing Traffic Conditions**

Intersection Capacity Analyses were undertaken at each of the study intersections based on existing traffic conditions using the MDOT SHA CLV and HCM Methodologies. The results can be found in Tables 3 and 4.

A review of Table 3 indicates that each intersection currently exhibits an acceptable LOS “A” based on CLV during the weekday morning and evening peak hours. A review of the HCM Unsignalized Intersection Methodology results on Table 4 indicates that each intersection currently exhibits an acceptable LOS during the weekday morning and evening peak hours.

Queuing Analyses for all intersections were conducted based on the MDOT SHA’s 95<sup>th</sup> Percentile Methodology, and the results can be found on Table 5. As shown, most all queues can be accommodated within the existing storage areas at all intersections during the morning and evening peak hours.

Complete capacity worksheets for all analyses can be found in Appendix B.

## BACKGROUND TRAFFIC CONDITIONS

### Design Year

Full buildout of East Main is expected by the year 2025 (3 years). To account for regional growth a 1% per year growth factor was applied for 3 years since there are a lot of trips from background developments which is most of the growth in this region. Please note that growth was applied to all movements at all intersections for a more conservative analysis. The regional growth is shown in Figure 4, and the resulting 2025 base peak hour traffic volumes can be found on Figure 5.

### Background Traffic

In addition to regional traffic growth, traffic projected to be generated by other approved developments in the vicinity of the subject site must also be taken into consideration. The Town of New Market provided three (3) approved background developments to be included in the study. Previously approved Traffic Impact Studies were utilized to determine the number of trips projected to be generated. Table 1 details the trip generation for the background developments.

Trips from these background developments were assigned throughout the roadway network based on the previously approved Traffic Impact Studies. The trip assignment for all these developments is found in Figure 6 while the individual background development trip distribution can be found in Appendix C.

Combining the background trips from the approved developments and the 2025 base peak hour traffic volumes results in the 2025 background peak hour traffic volumes found on Figure 7.

### Analysis of Background Traffic Conditions

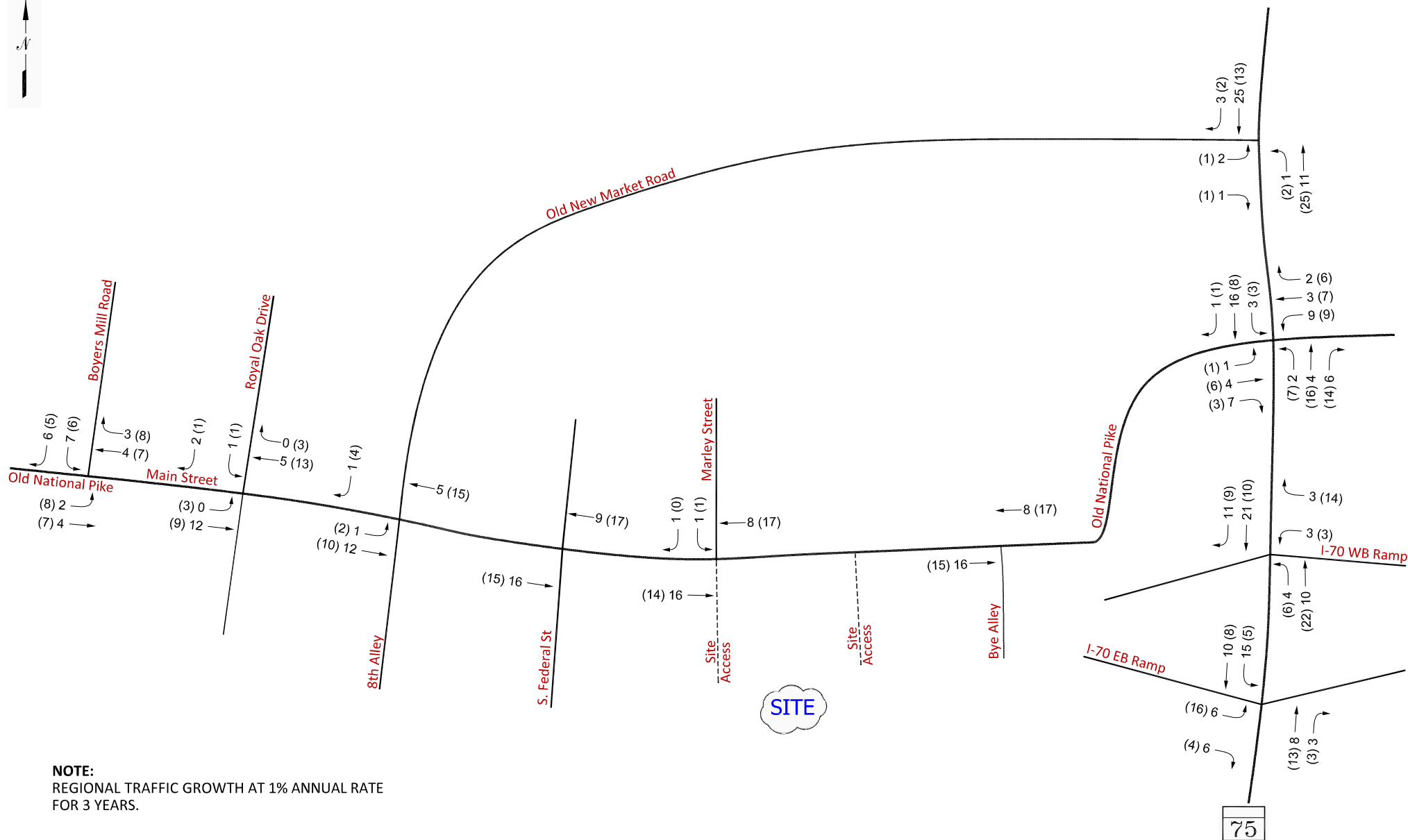
Intersection Capacity Analyses were undertaken at each of the study intersections based on background traffic conditions using the MDOT SHA CLV and HCM Methodologies. The results can be found in Tables 3 and 4.

A review of Table 3 indicates that each intersection is projected to exhibit acceptable LOS “B” or better based on CLV during the weekday morning and evening peak hours. A review of the HCM Unsignalized Intersection Methodology results on Table 4 indicates that all intersections are projected to operate with acceptable levels of service except for Main Street @ Royal Oak Drive and MD 75 @ Old New Market Road. These intersections have movements that are projected to operate with delays.



Queuing Analyses for all intersections were conducted based on the MDOT SHA's 95<sup>th</sup> Percentile Methodology, and the results can be found in Table 5. As shown, the queuing for most of the movements can be maintained in the existing storage areas.

Complete capacity worksheets for all analyses can be found in Appendix B.



**NOTE:**  
REGIONAL TRAFFIC GROWTH AT 1% ANNUAL RATE  
FOR 3 YEARS.

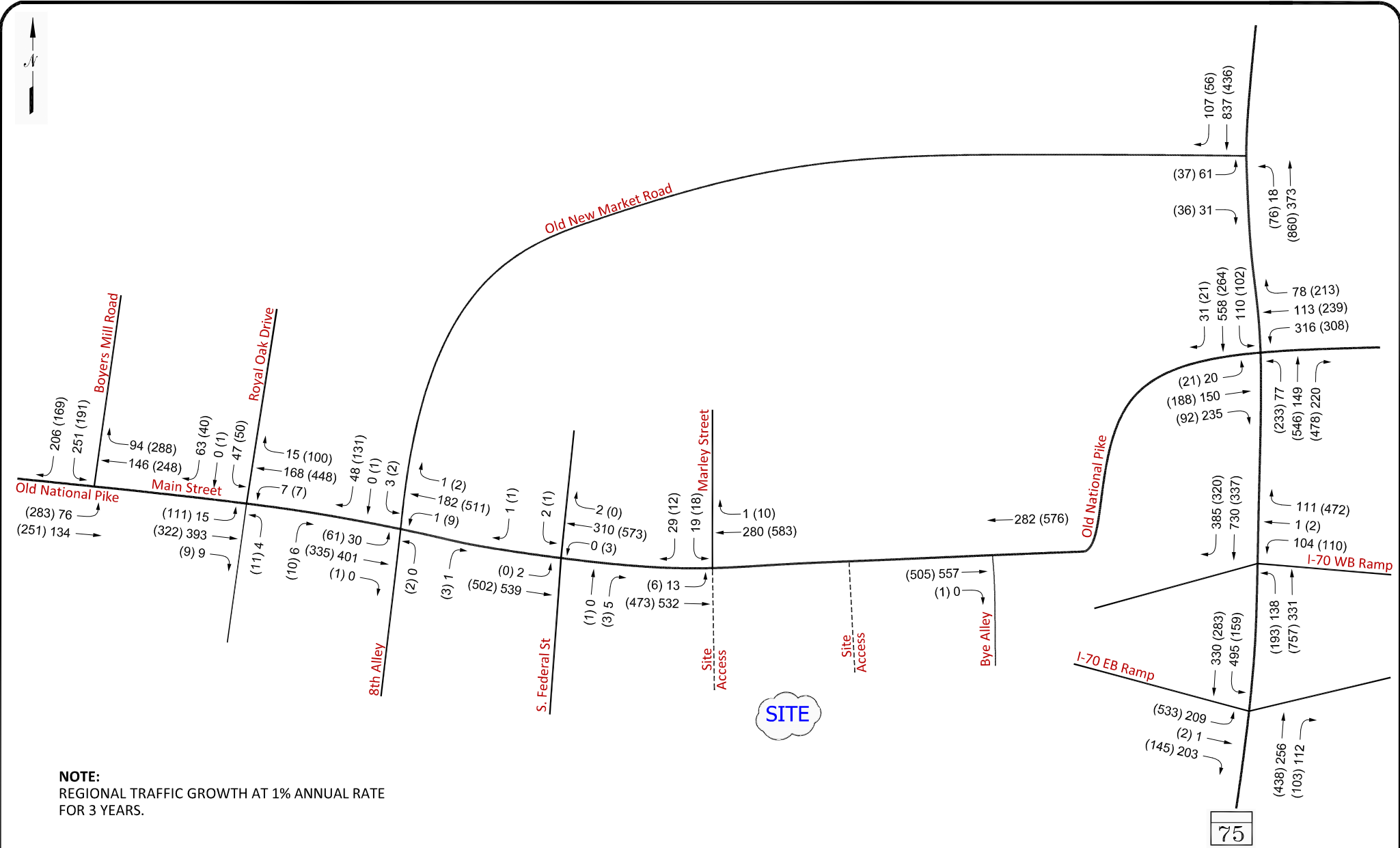


NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

**FIGURE 4**  
**REGIONAL TRAFFIC GROWTH**  
**PEAK HOUR VOLUMES**





**FIGURE 5**  
**2025 BASE PEAK HOUR**  
**TRAFFIC VOLUMES**



NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

## TRIP GENERATION (USE ITE BY REGION)

### 1. Eaglehead on the Lakes

| Traffic Impact<br>Study Approved<br>Units | Proposed Units                                                                                                            | MORNING PEAK HOUR |            |            | EVENING PEAK HOUR |            |             |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------|------------|------------|-------------------|------------|-------------|
|                                           |                                                                                                                           | IN                | OUT        | TOTAL      | IN                | OUT        | TOTAL       |
|                                           | <b>Alpine</b>                                                                                                             |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 4)                                                                                                      | 0.18              | 0.53       | 0.71       | 0.53              | 0.31       | 0.84        |
| 100                                       | 100 Single-Family Detached Units                                                                                          | 18                | 53         | 71         | 53                | 31         | 84          |
|                                           | <b>Hamptons West</b>                                                                                                      |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 1&2)                                                                                                    | 0.18              | 0.53       | 0.71       | 0.46              | 0.27       | 0.73        |
| 300                                       | 217 Single-Family Detached Units                                                                                          | 39                | 115        | 154        | 100               | 59         | 159         |
|                                           | Trips/Townhouse (Region 1&2)                                                                                              | 0.06              | 0.27       | 0.33       | 0.27              | 0.13       | 0.40        |
| 150                                       | 189 Townhouse Units                                                                                                       | 11                | 51         | 62         | 51                | 25         | 76          |
|                                           | <b>Total trips for Hamtons West</b>                                                                                       | <b>50</b>         | <b>166</b> | <b>216</b> | <b>151</b>        | <b>84</b>  | <b>235</b>  |
|                                           | <b>Hamptons East</b>                                                                                                      |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 1&2)                                                                                                    | 0.18              | 0.53       | 0.71       | 0.46              | 0.27       | 0.73        |
| 300                                       | 300 Single-Family Detached Units                                                                                          | 54                | 159        | 213        | 138               | 81         | 219         |
|                                           | Trips/Townhouse (Region 1&2)                                                                                              | 0.06              | 0.27       | 0.33       | 0.27              | 0.13       | 0.40        |
| 135                                       | 135 Townhouse Units                                                                                                       | 8                 | 36         | 44         | 36                | 18         | 54          |
|                                           | <b>Total trips for Hamtons East</b>                                                                                       | <b>62</b>         | <b>195</b> | <b>257</b> | <b>174</b>        | <b>99</b>  | <b>273</b>  |
|                                           | <b>Town Center (11 SFH, 52 TH built)</b>                                                                                  |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 5)                                                                                                      | 0.18              | 0.54       | 0.72       | 0.55              | 0.32       | 0.87        |
| 300                                       | 136 (125 units remaining)                                                                                                 |                   |            |            |                   |            |             |
|                                           | Single-Family Detached Units (11 units built)                                                                             | 23                | 68         | 91         | 69                | 40         | 109         |
|                                           | Trips/Townhouse (Region 5)                                                                                                | 0.05              | 0.27       | 0.32       | 0.26              | 0.13       | 0.39        |
| 900                                       | 631 (579 units remaining)                                                                                                 |                   |            |            |                   |            |             |
|                                           | Townhouse Units (52 units built)                                                                                          | 29                | 156        | 185        | 151               | 75         | 226         |
| 400                                       | 418 Apartment Units                                                                                                       | 42                | 167        | 209        | 161               | 87         | 248         |
| 200,000                                   | 200,000 sq.ft. Shopping Center                                                                                            | 142               | 90         | 232        | 496               | 516        | 1012        |
|                                           | Pass-by trips (PM-32%)                                                                                                    |                   |            |            | -159              | -165       | -324        |
|                                           | Net Shopping Center trips                                                                                                 | 142               | 90         | 232        | 337               | 351        | 688         |
|                                           | 100,000 sf commercial will remain on the north side of MD 144; 100,000 sf commercial will be replaced by South Commercial |                   |            |            |                   |            |             |
|                                           | <b>Total trips for Town Center</b>                                                                                        | <b>236</b>        | <b>481</b> | <b>717</b> | <b>718</b>        | <b>553</b> | <b>1271</b> |
|                                           | <b>Westridge</b>                                                                                                          |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 1&2)                                                                                                    | 0.18              | 0.53       | 0.71       | 0.46              | 0.27       | 0.73        |
| 300                                       | 300 Single-Family Detached Units                                                                                          | 54                | 159        | 213        | 138               | 81         | 219         |
|                                           | Trips/Townhouse (Region 1&2)                                                                                              | 0.06              | 0.27       | 0.33       | 0.27              | 0.13       | 0.40        |
| 100                                       | 100 Townhouse Units                                                                                                       | 6                 | 27         | 33         | 27                | 13         | 40          |
|                                           | <b>Total trips for Westridge</b>                                                                                          | <b>60</b>         | <b>186</b> | <b>246</b> | <b>165</b>        | <b>94</b>  | <b>259</b>  |
|                                           | <b>Woodridge (12 SFH built)</b>                                                                                           |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 1&2)                                                                                                    | 0.18              | 0.53       | 0.71       | 0.46              | 0.27       | 0.73        |
| 100                                       | 150 (138 units remaining)                                                                                                 |                   |            |            |                   |            |             |
|                                           | Single-Family Detached Units (12 units built)                                                                             | 25                | 73         | 98         | 63                | 37         | 100         |
|                                           | Trips/Townhouse (Region 1&2)                                                                                              | 0.06              | 0.27       | 0.33       | 0.27              | 0.13       | 0.40        |
| 50                                        | 0 Townhouse Units                                                                                                         | 0                 | 0          | 0          | 0                 | 0          | 0           |
|                                           | <b>Total trips for Woodridge</b>                                                                                          | <b>25</b>         | <b>73</b>  | <b>98</b>  | <b>63</b>         | <b>37</b>  | <b>100</b>  |
|                                           | <b>Eaglestream</b>                                                                                                        |                   |            |            |                   |            |             |
|                                           | Trips/Townhouse (Region 1&2)                                                                                              | 0.06              | 0.27       | 0.33       | 0.27              | 0.13       | 0.40        |
| 50                                        | 50 Townhouse Units                                                                                                        | 3                 | 14         | 17         | 14                | 7          | 21          |
|                                           | <b>Nightingale</b>                                                                                                        |                   |            |            |                   |            |             |
|                                           | Trips/SFD (Region 3)                                                                                                      | 0.18              | 0.55       | 0.73       | 0.59              | 0.34       | 0.93        |
| 50                                        | 50 Single-Family Detached Units                                                                                           | 9                 | 28         | 37         | 30                | 17         | 47          |
|                                           | <b>Aspen</b>                                                                                                              |                   |            |            |                   |            |             |
|                                           | Trips/Townhouse (Region 1&2)                                                                                              | 0.06              | 0.27       | 0.33       | 0.27              | 0.13       | 0.40        |
| 100                                       | 100 Townhouse Units                                                                                                       | 6                 | 27         | 33         | 27                | 13         | 40          |
|                                           | <b>Day Care - Finn Drive</b>                                                                                              |                   |            |            |                   |            |             |
|                                           | 11,000 SF Day Care Center                                                                                                 |                   | Built      |            |                   |            |             |



Background information obtained from TIS for Eaglehead-on-the Lakes PUD, dated 2/15/2013. Copies is included in Appendix C.

TABLE 1  
TRIP GENERATION  
FOR BACKGROUND DEVELOPMENTS



## Linganore Town Center - South Commercial

### TRIP TOTALS

| MORNING PEAK HOUR |     |       | EVENING PEAK HOUR |     |       |
|-------------------|-----|-------|-------------------|-----|-------|
| IN                | OUT | TOTAL | IN                | OUT | TOTAL |

#### *Fast Food Rest. w/Drive-Thru (ksf, ITE-934)*

|                                      |            |            |             |            |            |             |
|--------------------------------------|------------|------------|-------------|------------|------------|-------------|
| 10,000 sq.ft.                        | 205        | 197        | 402         | 170        | 157        | 327         |
| Less Internal Trips                  | -8         | -6         | -14         | -28        | -55        | -83         |
| <u>Pass-by Trips (49%, 50%, 50%)</u> | <u>-97</u> | <u>-94</u> | <u>-191</u> | <u>-71</u> | <u>-51</u> | <u>-122</u> |
| <b>New Trips</b>                     | <b>100</b> | <b>97</b>  | <b>197</b>  | <b>71</b>  | <b>51</b>  | <b>122</b>  |

#### *High Turnover (Sit-Down) Rest. (ksf, ITE-932)*

|                                    |            |           |            |            |            |            |
|------------------------------------|------------|-----------|------------|------------|------------|------------|
| 19,500 sq.ft.                      | 107        | 87        | 194        | 118        | 73         | 191        |
| Less Internal Trips                | -4         | -3        | -7         | -19        | -26        | -45        |
| <u>Pass-by Trips (0, 43%, 43%)</u> | <u>0</u>   | <u>0</u>  | <u>0</u>   | <u>-43</u> | <u>-20</u> | <u>-63</u> |
| <b>New Trips</b>                   | <b>103</b> | <b>84</b> | <b>187</b> | <b>56</b>  | <b>27</b>  | <b>83</b>  |

#### *Convenience Market w/Gasoline Pumps (ksf, ITE-853)*

|                            |            |            |            |            |            |            |
|----------------------------|------------|------------|------------|------------|------------|------------|
| 3,000 sq.ft.               | 61         | 61         | 122        | 74         | 74         | 148        |
| Less Internal Trips        | -5         | -8         | -13        | -37        | -22        | -59        |
| <u>Pass-by Trips (63%)</u> | <u>-35</u> | <u>-33</u> | <u>-68</u> | <u>-23</u> | <u>-33</u> | <u>-56</u> |
| <b>New Trips</b>           | <b>21</b>  | <b>20</b>  | <b>41</b>  | <b>14</b>  | <b>19</b>  | <b>33</b>  |

#### *Drive-in Bank (ksf, ITE-912)*

|                                      |            |           |            |            |            |            |
|--------------------------------------|------------|-----------|------------|------------|------------|------------|
| 8,500 sq.ft.                         | 47         | 34        | 81         | 87         | 87         | 174        |
| Less Internal Trips                  | -4         | -4        | -8         | -44        | -25        | -69        |
| <u>Pass-by Trips (29%, 35%, 38%)</u> | <u>-12</u> | <u>-9</u> | <u>-21</u> | <u>-15</u> | <u>-22</u> | <u>-37</u> |
| <b>New Trips</b>                     | <b>31</b>  | <b>21</b> | <b>52</b>  | <b>28</b>  | <b>40</b>  | <b>68</b>  |

#### *Day Care Center (ksf, ITE-565)*

|               |    |    |     |    |    |     |
|---------------|----|----|-----|----|----|-----|
| 11,000 sq.ft. | 64 | 57 | 121 | 57 | 65 | 122 |
|---------------|----|----|-----|----|----|-----|

|              |                      |            |            |            |            |            |            |
|--------------|----------------------|------------|------------|------------|------------|------------|------------|
| <b>Total</b> | <b>Pass-by Trips</b> | <b>144</b> | <b>136</b> | <b>280</b> | <b>152</b> | <b>126</b> | <b>278</b> |
|              | <b>New Trips</b>     | <b>319</b> | <b>279</b> | <b>598</b> | <b>226</b> | <b>202</b> | <b>428</b> |



Background information obtained from TIS for  
Linganore Town Center - South Commercial ,  
dated 12/6/2018. Copies is included in Appendix C.

TABLE 1 CONT'D  
TRIP GENERATION  
FOR BACKGROUND DEVELOPMENTS

## 2. Marley Commons

|                                |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|
| 8 Single-Family Detached Units | 1 | 5 | 6 | 5 | 3 | 8 |
|--------------------------------|---|---|---|---|---|---|

## 3. 105/113 W. Main Street

(Trips obtained from 105/113 W. Main Street TIS dated 12/21/2020, prepared by Wells + Associates)

### Existing/Approved Uses

|                                     |           |           |           |           |           |           |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 Single-Family Detached Unit       | 0         | 1         | 1         | 1         | 0         | 1         |
| 3,712 sq. ft. Arts and Crafts Store | 9         | 9         | 18        | 11        | 13        | 24        |
| 7,520 sq. ft. Tractor Supply Store  | 7         | 3         | 10        | 5         | 6         | 11        |
| 8 Mobile Home Units                 | <u>1</u>  | <u>2</u>  | <u>3</u>  | <u>2</u>  | <u>2</u>  | <u>4</u>  |
| <b>Total Trips</b>                  | <b>17</b> | <b>15</b> | <b>32</b> | <b>19</b> | <b>21</b> | <b>40</b> |

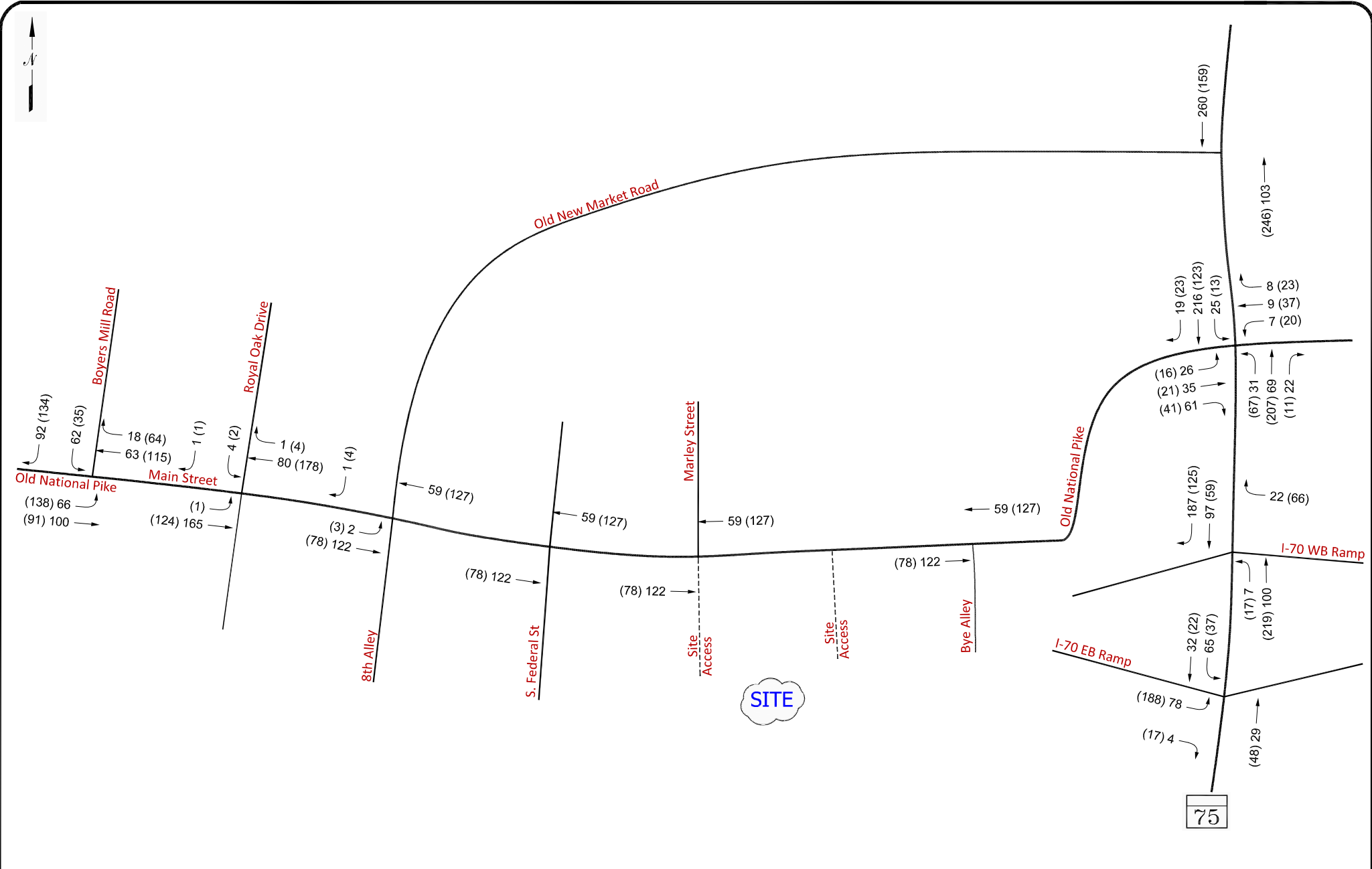
### Proposed Uses

|                                     |           |           |           |           |           |            |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| 1,540 sq. ft. Small Office Building | 2         | 1         | 3         | 1         | 3         | 4          |
| 4,105 sq. ft. Restaurant            | 23        | 18        | 41        | 25        | 16        | 41         |
| 3,270 sq. ft. Restaurant            | 2         | 2         | 4         | 21        | 23        | 44         |
| 27 Townhouse Units                  | <u>3</u>  | <u>11</u> | <u>14</u> | <u>12</u> | <u>7</u>  | <u>19</u>  |
| <b>Total Trips</b>                  | <b>30</b> | <b>32</b> | <b>62</b> | <b>59</b> | <b>49</b> | <b>108</b> |
| <b>Net Difference</b>               | <b>13</b> | <b>17</b> | <b>30</b> | <b>40</b> | <b>28</b> | <b>68</b>  |



**TABLE 1 CONT'D**  
**TRIP GENERATION FOR**  
**BACKGROUND DEVELOPMENTS**

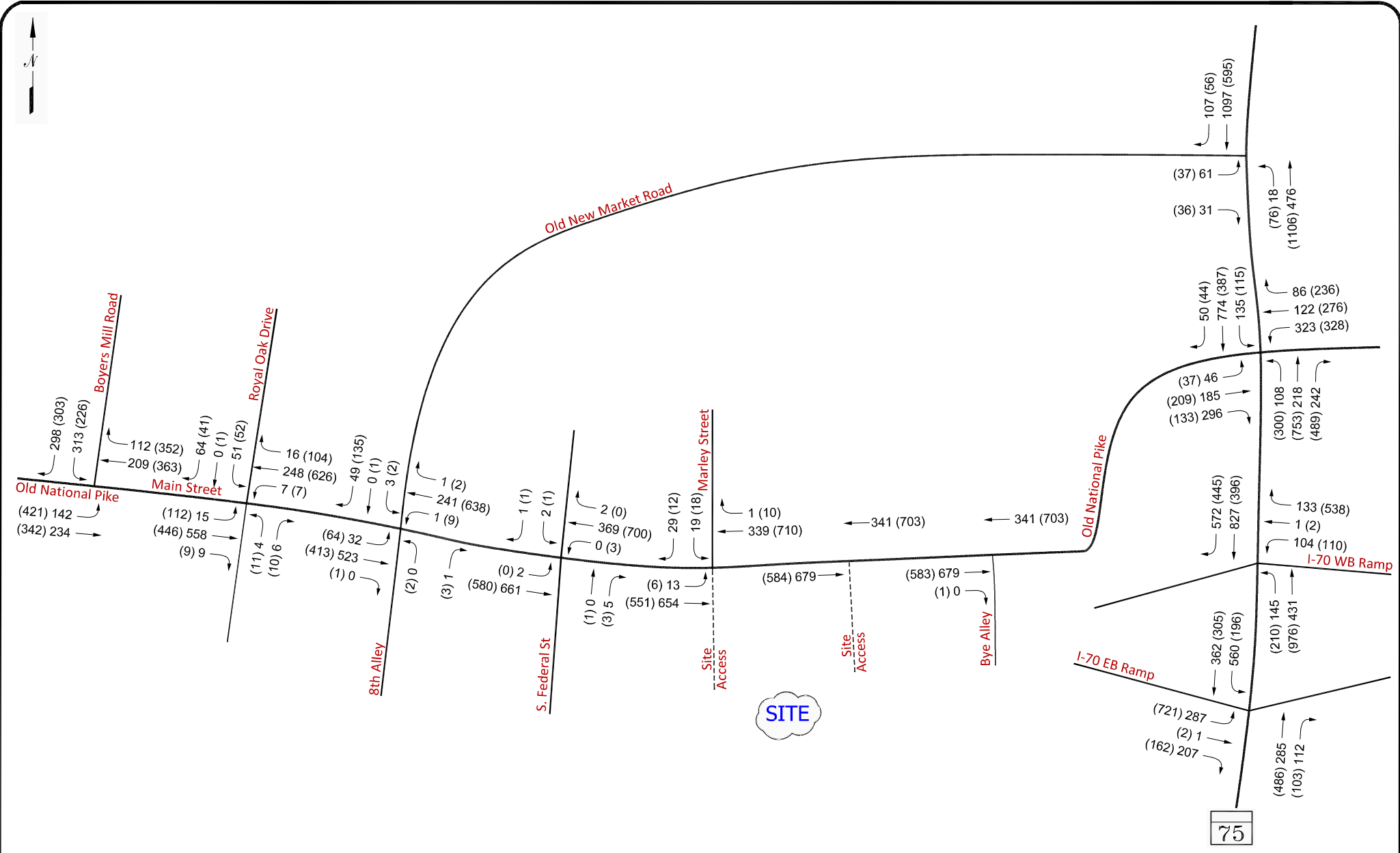




NOT TO SCALE

00 – MORNING PEAK HOUR  
 (00) – EVENING PEAK HOUR

**FIGURE 6**  
**COMBINED TRIPS GENERATED**  
**BY APPROVED DEVELOPMENTS**



NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

**FIGURE 7**  
**2025 BACKGROUND PEAK HOUR**  
**TRAFFIC VOLUMES**

# TOTAL TRAFFIC CONDITIONS

## Site Information

East Main is proposed with 42 Single-Family Attached Units, 8,000 Square Feet (SF) of Retail Uses (Strip Plaza Retail), 10,000 SF of General Office, and a 4,000 SF High-Turnover Restaurant. Two full-movement access points are proposed along East Main Street, with the western access across from Marley Street and a second access to the east. Please note there is access proposed along South Alley to the south. However, for the purposes of this Traffic Impact Analysis, all traffic from East Main is proposed to use the accesses along Main Street.

## Trip Generation/Distribution

ITE's Trip Generation Manual (11<sup>th</sup> Edition) was utilized to determine the number of trips projected to be generated by East Main. The equations and trips proposed to be generated by this development can be found in Table 2. Please note that internal trip capture was not calculated for this development to create a more conservative analysis.

Figure 8 details the new trip distribution and trip assignment based on information provided by the Town of New Market, and Figure 8A details the pass-by trip assignment. Adding the trips projected to be generated by the subject site to the 2025 background peak hour traffic volumes, results in the 2025 total peak hour traffic volumes as shown on Figure 9.

## Analysis of Total Traffic Conditions

Intersection Capacity Analyses were undertaken at each of the study intersections based on total traffic conditions using the MDOT SHA CLV and HCM Methodologies. The results can be found in Tables 3 and 4, respectively.

A review of Table 3 indicates that each intersection is projected to exhibit acceptable LOS "B" or better based on CLV during the weekday morning and evening peak hours. A review of the HCM Unsignalized Intersection Methodology results on Table 4 indicates that all intersections are projected to operate with acceptable levels of service except for Main Street @ Royal Oak Drive and MD 75 @ Old New Market Road. These intersections have movements that are projected to operate with delays. Please note that the subject site only has a minor impact on the delayed movements, therefore, no mitigation is suggested.



Queuing Analyses for all intersections were conducted based on the MDOT SHA's 95<sup>th</sup> Percentile Methodology and the results can be found in Table 5. As shown, the queuing for most of the movements can be maintained in the existing storage areas. Also, the proposed subject site has a little to no impact on the queuing that exceeds the storage length. Therefore, no mitigation is suggested. Figure 10 details the Future Lane Use at this intersection.

Complete capacity worksheets for all analyses can be found in Appendix B.

## TRIP GENERATION RATES

| <u>LAND USE</u>                                  | <u>FORMULA</u> | <u>IN/OUT</u> |
|--------------------------------------------------|----------------|---------------|
| <b>Single-Family Attached (ITE-215, Units)</b>   |                |               |
| AM Peak Hour Trips = 0.52 x Units - 5.70         |                | 31/69         |
| PM Peak Hour Trips = 0.60 x Units - 3.93         |                | 57/43         |
| <b>Strip Retail Plaza, &lt;40 ksf (ITE-822)</b>  |                |               |
| Ln(AM Peak Hour Trips) = 0.66 Ln(X) + 1.84       |                | 60/40         |
| PM Peak Hour Trips = Ln(T) = 0.71 Ln(ksf) + 2.72 |                | 50/50         |
| <b>General Office Building (ksf, ITE-710)</b>    |                |               |
| Ln(AM Peak Hour Trips) = 0.86 x Ln (ksf) + 1.16  |                | 88/12         |
| Ln(PM Peak Hour Trips) = 0.83 x Ln(ksf) + 1.29   |                | 17/83         |
| <b>High Turnover Restaurant (ksf, ITE-932)</b>   |                |               |
| AM Peak Hour Trips = 9.57 x ksf                  |                | 55/45         |
| PM Peak Hour Trips = 9.05 x ksf                  |                | 61/39         |

## TRIP GENERATION TOTALS

|                                        | Morning Peak Hour |           |            | Evening Peak Hour |           |            |
|----------------------------------------|-------------------|-----------|------------|-------------------|-----------|------------|
|                                        | In                | Out       | Total      | In                | Out       | Total      |
| 42 Single-Family Attached Units        | 5                 | 11        | 16         | 12                | 9         | 21         |
| 8,000 sq. ft. Strip Retail Plaza       | 15                | 10        | 25         | 33                | 33        | 66         |
| Less Pass-by Trips (PM: 40%)           |                   |           |            | -13               | -13       | -26        |
| Net New Trips                          | 15                | 10        | 25         | 20                | 20        | 40         |
| 10,000 sq. ft. General Office Building | 20                | 3         | 23         | 4                 | 21        | 25         |
| 4,000 sq. ft. High Turnover Restaurant | 21                | 17        | 38         | 22                | 14        | 36         |
| Less Pass-by Trips (PM: 43%)           |                   |           |            | -9                | -6        | -15        |
| Net New Trips                          | 21                | 17        | 38         | 13                | 8         | 21         |
| <b>Overall Net New Trips</b>           | <b>61</b>         | <b>41</b> | <b>102</b> | <b>49</b>         | <b>58</b> | <b>107</b> |

Note: Trip generation rates derived from ITE Trip Generation Manual, 11th Edition, 2021. ITE has no pass-by rate for ITE-822, so rate for ITE-821 was used.



TABLE 2  
TRIP GENERATION RATES AND TOTALS  
FOR SUBJECT SITE

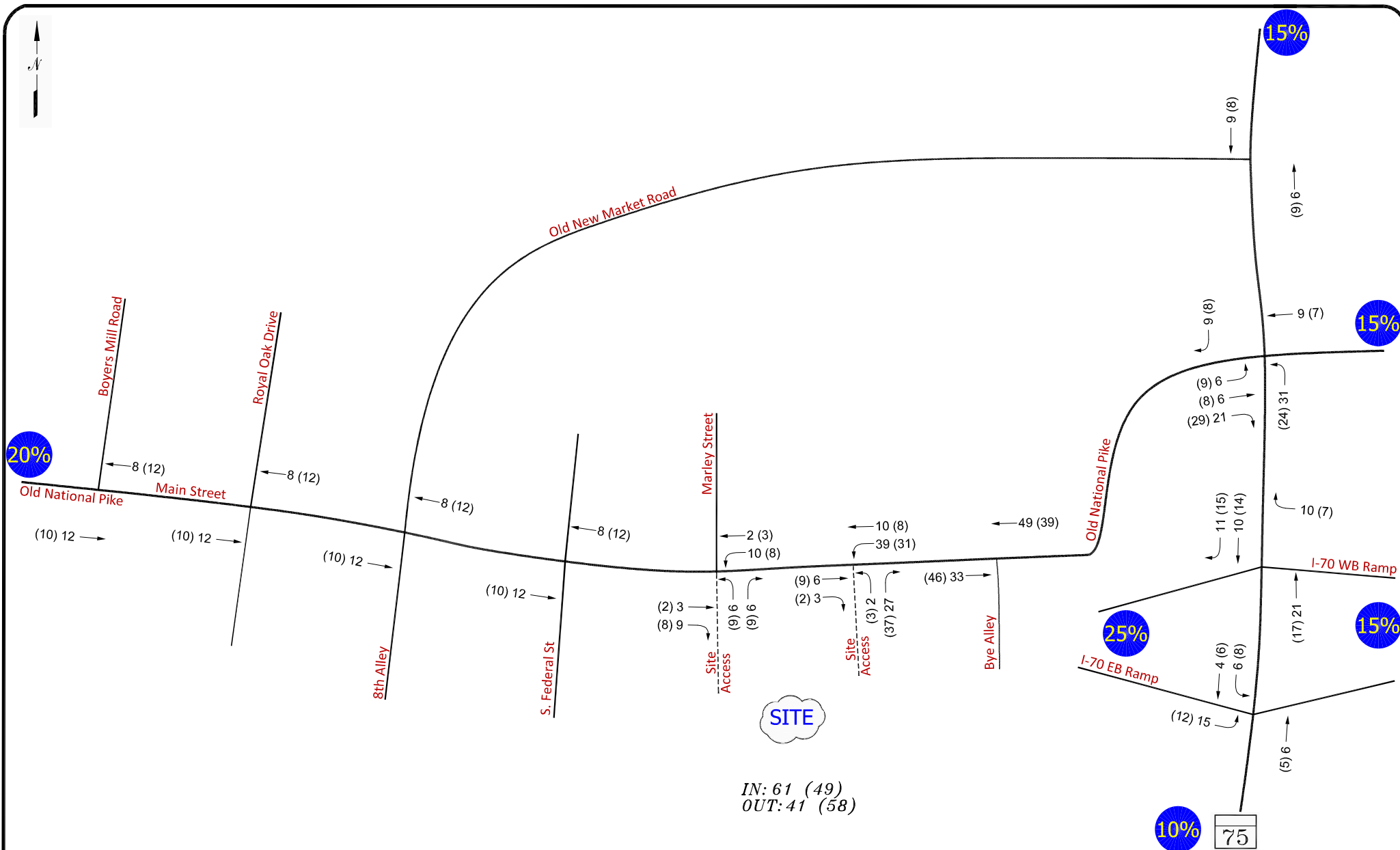
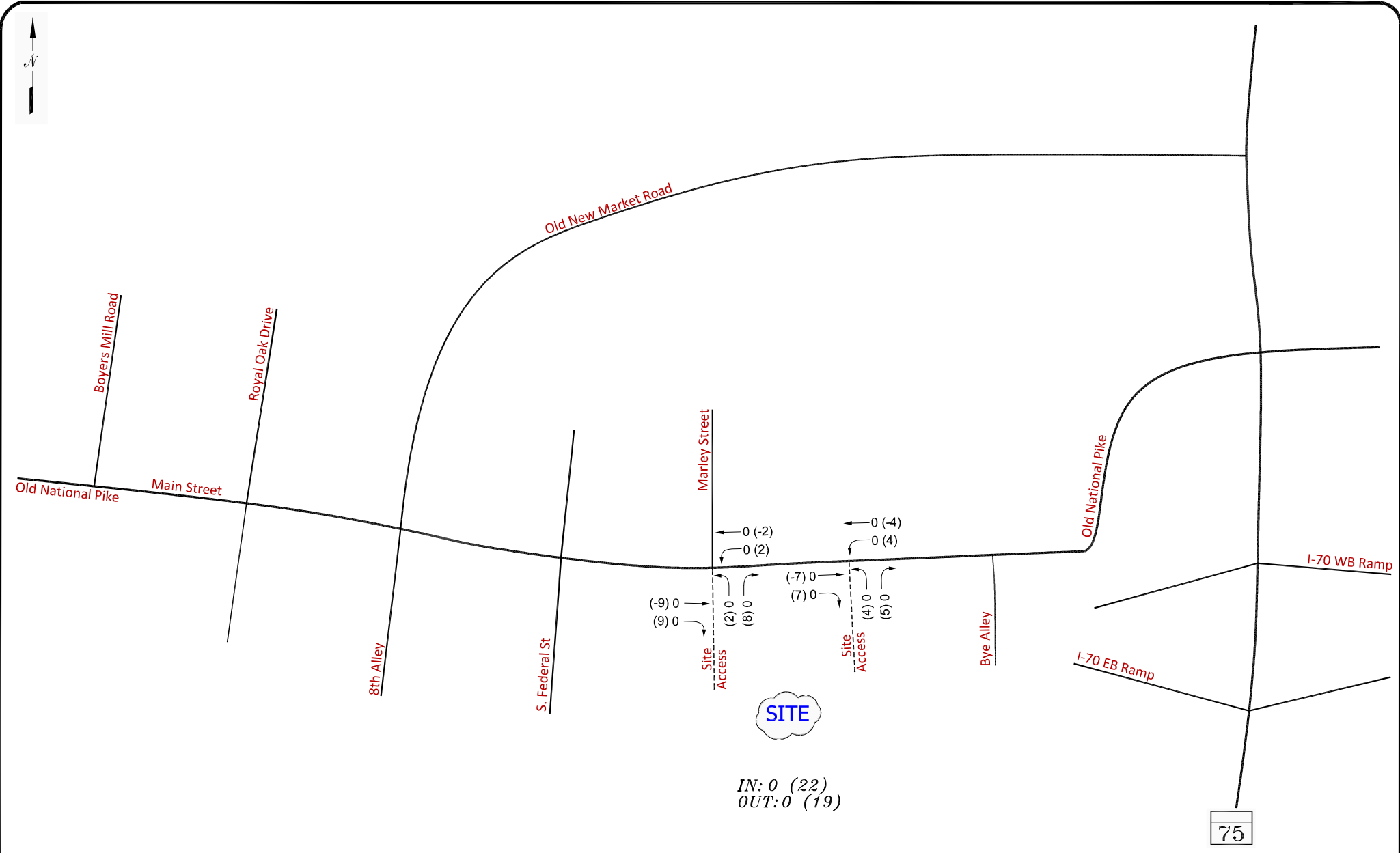


FIGURE 8  
NEW TRIP ASSIGNMENT  
FOR SUBJECT SITE

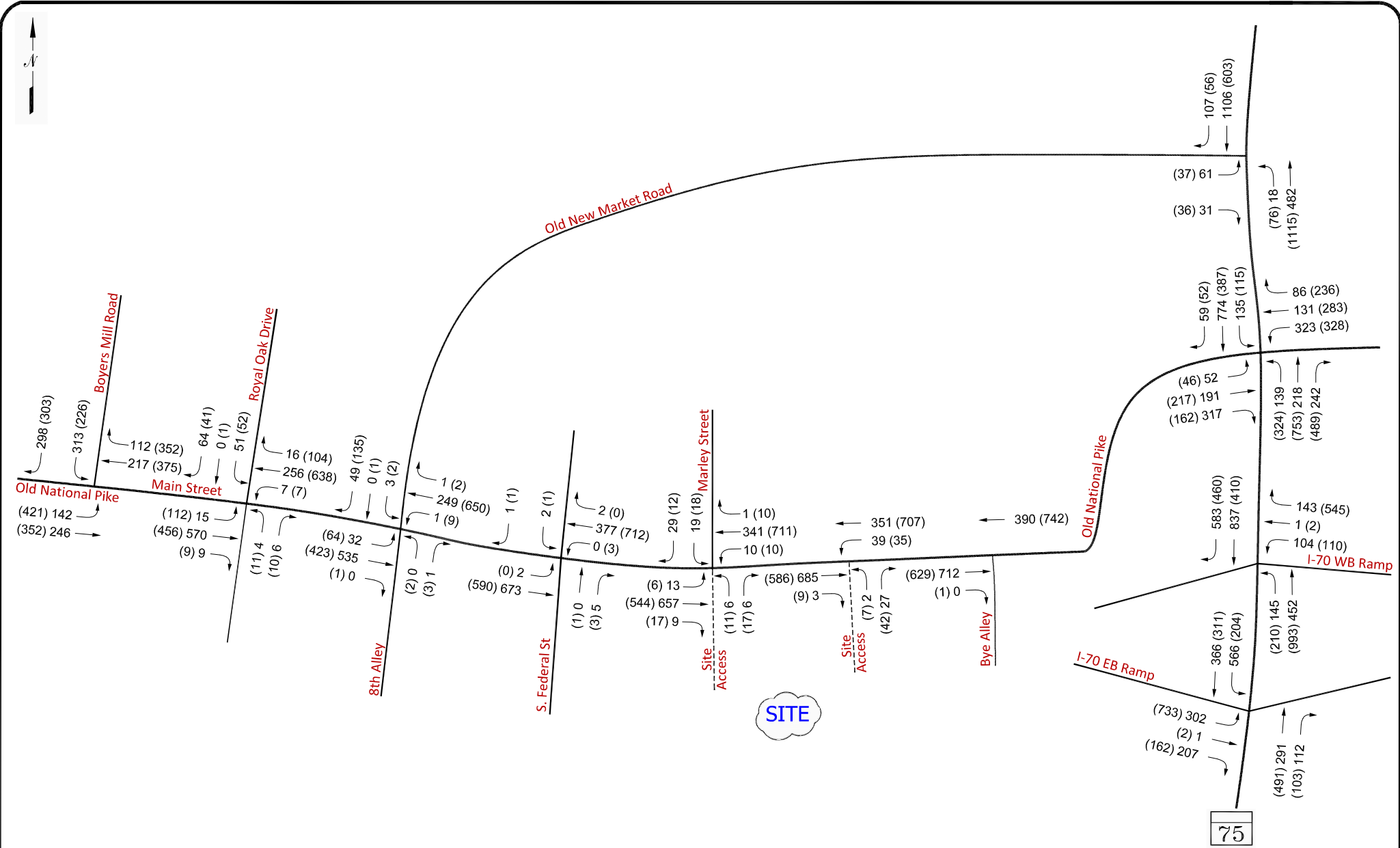




NOT TO SCALE

00 – MORNING PEAK HOUR  
(00) – EVENING PEAK HOUR

FIGURE 8A  
PASS-BY TRIP ASSIGNMENT  
FOR SUBJECT SITE



NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

**FIGURE 9**  
**TOTAL PEAK HOUR**  
**TRAFFIC VOLUMES**

**Table 3 - Results of CLV Analysis**

| Signalized Intersection               | 2022 Existing Traffic |         | 2025 Background Traffic |          | 2025 Total Traffic |          |
|---------------------------------------|-----------------------|---------|-------------------------|----------|--------------------|----------|
|                                       | AM                    | PM      | AM                      | PM       | AM                 | PM       |
|                                       | LOS / CLV             |         |                         |          |                    |          |
| 1. Old National Pike/Boyers Mill Road | A / 460               | A / 701 | A / 664                 | B / 1010 | A / 672            | B / 1022 |
| 8. Old National Pike/MD 75            | A / 832               | A / 913 | B / 1053                | B / 1125 | B / 1097           | B / 1145 |
| 9. MD 75/WB I-70 ramps                | A / 626               | A / 513 | A / 705                 | A / 649  | A / 710            | A / 658  |
| 10. MD 75/EB I-70 ramps               | A / 738               | A / 699 | A / 890                 | A / 897  | A / 908            | A / 915  |



**Table 4 - Results of HCM Analysis**

| Intersection /<br>Movement               | 2022 Existing Traffic |          | 2025 Background Traffic |           | 2025 Total Traffic |           |
|------------------------------------------|-----------------------|----------|-------------------------|-----------|--------------------|-----------|
|                                          | AM                    | PM       | AM                      | PM        | AM                 | PM        |
|                                          | LOS / Delay (sec.)    |          |                         |           |                    |           |
| 2. Main Street/Royal Oak Drive           |                       |          |                         |           |                    |           |
| EB LT                                    | A / 7.7               | A / 9.0  | A / 7.9                 | A / 9.9   | A / 8.0            | A / 10.0  |
| WB LT                                    | A / 8.3               | A / 8.0  | A / 9.0                 | A / 8.3   | A / 9.0            | A / 8.4   |
| NB approach                              | B / 13.5              | C / 19.8 | C / 18.1                | D / 33.0  | C / 19.3           | E / 38.3  |
| SB Approach                              | B / 14.5              | D / 28.9 | C / 22.9                | F / 77.4  | C / 24.2           | F / 86.4  |
| 3. Main Street/Old New Market Road       |                       |          |                         |           |                    |           |
| EB L                                     | A / 7.7               | A / 8.6  | A / 7.9                 | A / 9.2   | A / 8.0            | A / 9.2   |
| WB L                                     | A / 8.3               | A / 8.0  | A / 8.8                 | A / 8.2   | A / 8.9            | A / 8.2   |
| NB approach                              | B / 11.2              | C / 17.3 | B / 12.7                | C / 24.0  | B / 12.8           | D / 26.8  |
| SB Approach                              | B / 10.3              | B / 13.8 | B / 11.2                | C / 17.0  | B / 11.4           | C / 17.3  |
| 4. Main Street/South Federal Street      |                       |          |                         |           |                    |           |
| EB L                                     | A / 8.0               | A / 8.7  | A / 8.2                 | A / 9.3   | A / 8.2            | A / 9.3   |
| WB L                                     | A / 8.7               | A / 8.5  | A / 9.2                 | A / 8.8   | A / 9.3            | A / 8.9   |
| NB approach                              | B / 12.3              | B / 14.8 | B / 14.0                | C / 17.6  | B / 14.2           | C / 18.0  |
| SB Approach                              | C / 17.1              | C / 19.5 | C / 22.0                | D / 26.2  | C / 22.7           | D / 27.0  |
| 5. Main Street/Marley Street/Site Access |                       |          |                         |           |                    |           |
| EB L                                     | A / 7.9               | A / 8.9  | A / 8.1                 | A / 9.3   | A / 8.2            | A / 9.3   |
| WB L                                     |                       |          |                         |           | A / 9.4            | A / 8.8   |
| NB approach                              |                       |          |                         |           | C / 24.1           | D / 25.7  |
| SB Approach                              | B / 14.2              | C / 20.2 | C / 17.5                | D / 25.8  | C / 21.7           | E / 35.6  |
| 6. Main Street/Bye Alley                 |                       |          |                         |           |                    |           |
| WB L                                     | No traffic            |          |                         |           |                    |           |
| NB approach                              |                       |          |                         |           |                    |           |
| 7. MD 75/Old New Market Road             |                       |          |                         |           |                    |           |
| EB L                                     | E / 37.2              | E / 43.1 | F / 105.5               | F / 116.5 | F / 110.5          | F / 121.7 |
| EB R                                     | C / 16.3              | B / 11.2 | C / 23.1                | B / 13.0  | C / 23.4           | B / 13.1  |
| NB L                                     | B / 10.3              | A / 8.6  | B / 12.0                | A / 9.3   | B / 12.0           | A / 9.3   |
| 11. Main Street/Site Access              |                       |          |                         |           |                    |           |
| WB L                                     |                       |          |                         |           | A / 9.5            | A / 9.1   |
| NB approach                              |                       |          |                         |           | C / 15.9           | C / 18.6  |

## SHA Methodology

| SHA Methodology                             | 2022 Existing Traffic             | 2025 Background Traffic | 2025 Total Traffic | Available Storage Length (ft.) |
|---------------------------------------------|-----------------------------------|-------------------------|--------------------|--------------------------------|
| Morning Peak Hour Traffic                   | 95% Percentile Queue Length (ft.) |                         |                    |                                |
| 1. Old National Pike/Boyers Mill Road       |                                   |                         |                    |                                |
| EB Old National Pike left turn:             | 75                                | 125                     | 125                | 150                            |
| EB Old National Pike thru:                  | 125                               | 175                     | 200                | >500                           |
| WB Old National Pike thru:                  | 125                               | 175                     | 175                | >500                           |
| WB Old National Pike right turn:            | <25                               | <25                     | <25                | 150                            |
| SB Boyers Mill Road left turn:              | 200                               | 225                     | 225                | >500                           |
| SB Boyers Mill Road right turn:             | 125                               | 125                     | 125 <sup>1/</sup>  | 100                            |
| 8. Old National Pike/MD 75                  |                                   |                         |                    |                                |
| EB Old National Pike left turn:             | 50                                | 100                     | 100                | 200                            |
| EB Old National Pike thru:                  | 225                               | 250                     | 275                | >1000                          |
| WB Old National Pike most left lane:        | 175                               | 175                     | 175                | 400                            |
| WB Old National Pike left/thru shared lane: | 400                               | 325                     | 325                | 680                            |
| WB Old National Pike right turn:            | 125                               | 150                     | 150                | 680                            |
| NB MD 75 left turn:                         | 125                               | 175                     | 200                | 275                            |
| NB MD 75 thru:                              | 125                               | 175                     | 175                | 700                            |
| SB MD 75 left turn:                         | 175                               | 200                     | 200                | 425                            |
| SB MD 75 thru:                              | 375                               | 525                     | 525                | >1000                          |
| SB MD 75 right turn:                        | 75                                | 100                     | 100                | 300                            |
| 9. MD 75 @ I-70 WB Ramps                    |                                   |                         |                    |                                |
| WB I-70 WB off Ramps left/thru              | 175                               | 175                     | 175                | >500                           |
| NB MD 75 left turn                          | 200                               | 225                     | 225                | 225                            |
| NB MD 75 thru                               | 250                               | 325                     | 325                | 900                            |
| SB MD 75 thru                               | 475                               | 550                     | 550                | 700                            |
| 10. MD 75 @ I-70 EB Ramps                   |                                   |                         |                    |                                |
| EB I-70 EB off Ramps left/thru              | 200                               | 250                     | 250                | >800                           |
| NB MD 75 thru                               | 200                               | 225                     | 225                | >1000                          |
| SB MD 75 left turn                          | 575                               | 650                     | 650 <sup>1/</sup>  | 225                            |
| SB MD 75 thru                               | 250                               | 275                     | 275                | 900                            |
| Evening Peak Hour Traffic                   |                                   |                         |                    |                                |
| 1. Old National Pike/Boyers Mill Road       |                                   |                         |                    |                                |
| EB Old National Pike left turn:             | 225                               | 325                     | 325 <sup>1/</sup>  | 150                            |
| EB Old National Pike thru:                  | 200                               | 275                     | 275                | >500                           |
| WB Old National Pike thru:                  | 200                               | 300                     | 300                | >500                           |
| WB Old National Pike right turn:            | 100                               | 125                     | 125                | 150                            |
| SB Boyers Mill Road left turn:              | 175                               | 200                     | 200                | >500                           |
| SB Boyers Mill Road right turn:             | <25                               | <25                     | <25                | 100                            |
| 8. Old National Pike/MD 75                  |                                   |                         |                    |                                |
| EB Old National Pike left turn:             | 50                                | 75                      | 100                | 200                            |
| EB Old National Pike thru:                  | 250                               | 275                     | 300                | >1000                          |
| WB Old National Pike most left lane:        | 275                               | 300                     | 300                | 400                            |
| WB Old National Pike left/thru shared lane: | 425                               | 325                     | 325                | 680                            |
| WB Old National Pike right turn:            | 275                               | 325                     | 325                | 680                            |
| NB MD 75 left turn:                         | 300                               | 375                     | 400 <sup>1/</sup>  | 275                            |
| NB MD 75 thru:                              | 375                               | 500                     | 500                | 700                            |
| SB MD 75 left turn:                         | 175                               | 175                     | 175                | 425                            |
| SB MD 75 thru:                              | 200                               | 300                     | 300                | >1000                          |
| SB MD 75 right turn:                        | 50                                | 100                     | 100                | 300                            |
| 9. MD 75 @ I-70 WB Ramps                    |                                   |                         |                    |                                |
| WB I-70 WB off Ramps left/thru              | 175                               | 175                     | 175                | >500                           |
| NB MD 75 left turn                          | 275                               | 300                     | 300                | 225                            |
| NB MD 75 thru                               | 500                               | 625                     | 625                | 900                            |
| SB MD 75 thru                               | 250                               | 300                     | 300                | 700                            |
| 10. MD 75 @ I-70 EB Ramps                   |                                   |                         |                    |                                |
| EB I-70 EB off Ramps left/thru              | 400                               | 525                     | 525                | >800                           |
| NB MD 75 thru                               | 300                               | 350                     | 350                | >1000                          |
| SB MD 75 left turn                          | 225                               | 275                     | 275 <sup>1/</sup>  | 225                            |
| SB MD 75 thru                               | 225                               | 250                     | 250                | 900                            |



1. Negligible impact from site.

TABLE 5  
RESULTS OF INTERSECTION  
QUEUEING ANALYSIS

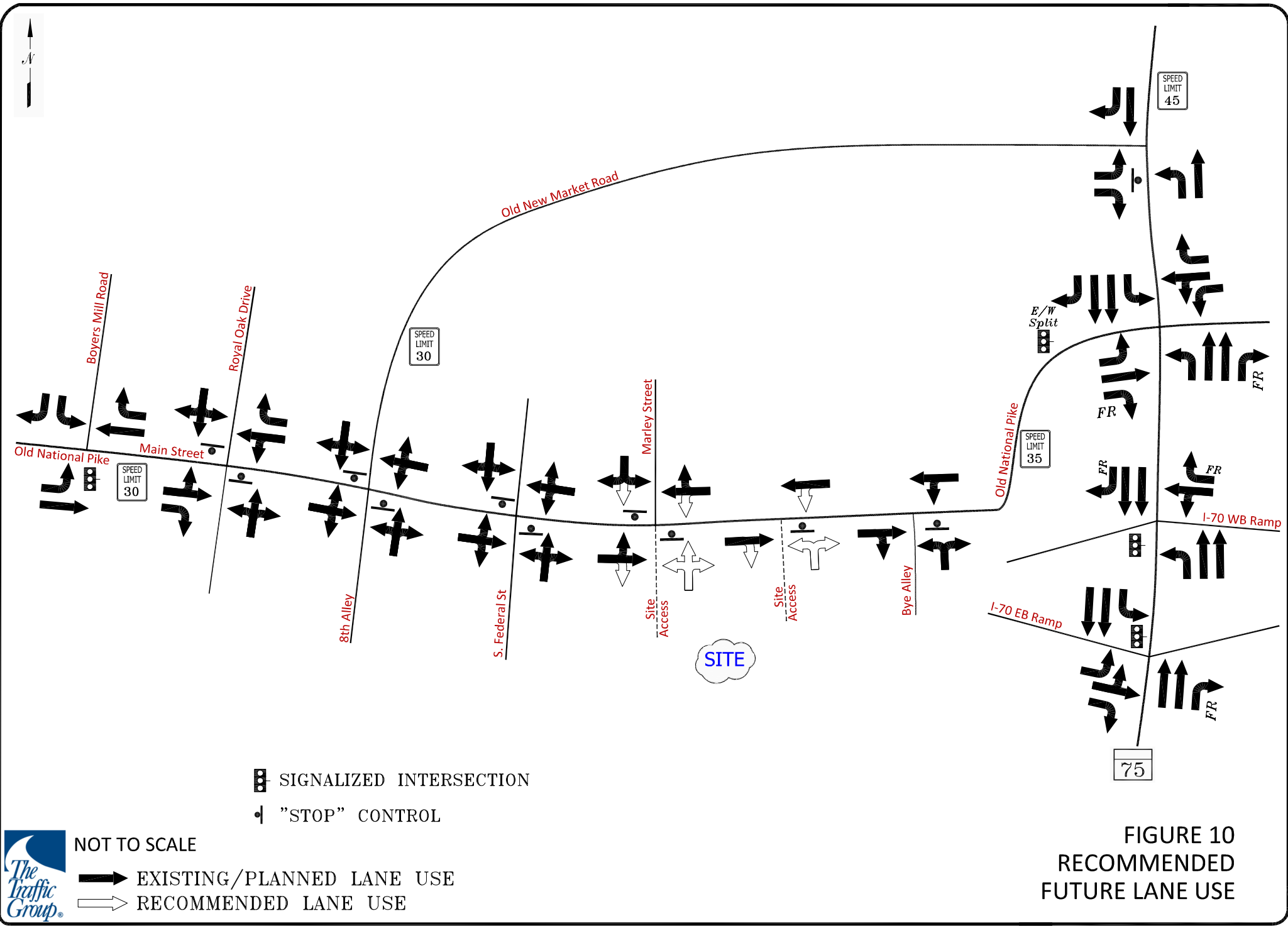


FIGURE 10  
RECOMMENDED  
FUTURE LANE USE

# RESULTS, RECOMMENDATIONS, AND CONCLUSIONS

## Study Purpose

The Traffic Group, Inc. has prepared this Revised Traffic Impact Analysis to determine the impact the proposed East Main Development would have on the adjacent road system in the Town of New Market, Frederick County, Maryland. This development is located along the south side of Main Street east of Ninth Alley (unimproved) and is now proposed with 42 Single-Family Attached Units, 8,000 SF of Retail Uses (Strip Plaza Retail), 10,000 SF of General Office, and a 4,000 SF High-Turnover Restaurant.

Two full-movement access points are proposed along East Main Street, with the western access across from Marley Street and a second access to the east. Please note there is access proposed along South Alley to the south. However, for the purposes of this Traffic Impact Analysis, all traffic from East Main is proposed to use the accesses along Main Street. East Main is expected to be built out within 3 years (2025).

## Study Criteria/Methodology

The Scope of Work for this Traffic Impact Analysis was determined by Town of New Market and can be found in Appendix A. This Traffic Impact Analysis was prepared in accordance with Frederick County's APFO.

## Summary of Findings and Recommendations

The results of the Traffic Impact Analysis indicate that all study intersections are operating at acceptable levels of service and will continue to operate with acceptable levels of service during each of the peak periods using the CLV and HCM Methodologies except for Main Street @ Royal Oaks Drive and MD 75 @ Old New Market Road, which is projected to have delay issues under background and total traffic conditions.

Additionally, all queues can be accommodated within the existing storage areas at all intersections during the morning and evening peak hours except for a few movements. Please note that the proposed subject site has little to no impact on these movements under total traffic conditions.

Therefore, it is our opinion that East Main meets the requirements of the Town of New Market for approval.



## APPENDIX A

### Scoping Agreement, Intersection Turning Movement Counts, and Aerial Photos



**DRAFT TIA Scoping Proposal  
East Main – The Town of New Market  
June 20, 2022**

1. LOCATION: South Side of Old National Pike east of Ninth Alley
2. EXISTING USE: Unimproved
3. PROPOSED USE: 43 Attached Single-Family Units and 3 Restaurant/Retail Pad Site totaling 16,500 SF
4. CIP/CTP ASSUMED IMPROVEMENTS: None
5. OTHER IMPROVEMENTS: Improvements from Background Developments
6. BACKGROUND GROWTH & DEVELOPMENT: Assume 1% growth in through traffic for Three (3) years. Pipeline development would include:
  - a. Oakdale PUD - Eaglehead on the Lakes (south of Lake Linganore)
  - b. Marley Commons
  - c. 105/113 W. Main Street
7. EXISTING TRAFFIC: Traffic counts less than two years old may be used or older counts can be factored with 3% annual growth.
8. TRIP GENERATION: ITE (11<sup>th</sup> Edition)
9. TRIP DISTRIBUTION: Base Assumption: Lake Linganore Blvd not built to Meadow Rd
  - i. 15% North on MD 75
  - ii. 20% West on Old National Pike
  - iii. 15% East on I-70
  - iv. 25% West on I-70
  - v. 10% South on MD 75
  - vi. 15% East on Old National Pike
10. ANALYSIS:
  - a. CLV () & 95% Queues:
    1. Old National Pike/Boyers Mill Road
    2. Old National Pike/MD 75
    3. MD 75/WB I-70 ramps
    4. MD 75/EB I-70 ramps

- b. HCM Un-signalized Analysis:
  - i. MD 75/Old New Market Road
  - ii. Main Street/Royal Oaks Drive
  - iii. Main Street/Old New Market Road
  - iv. Main Street/Bye Alley
  - v. Main Street/South Federal Street
  - vi. Main Street/Marley Street/Site Access
  - vii. Old National Pike @ Site Access
  - viii. South Alley/Site Access

The Town of New Market – Town Engineer

**Shawn Burnett, PE, PTOE, Senior Associate**  
**The Wilson T. Ballard Company**  
**17 Gwynns Mill Court**  
**Owings Mills, MD 21117**  
**sburnett@wtbco.com**  
**p 410.363.0150 x511 | f 410.363.7811 | c 410.978.2120**

# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Old National Pike  
and: Boyer Mill Road  
Location: Frederick County, Maryland

Counted by: VCU  
Date: October 26, 2021  
Weather: Cloudy/Warm  
Entered by: SN

Tuesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>Boyer Mill Road |      |      |      |       | TRAFFIC FROM SOUTH |      |      |      |       | TRAFFIC FROM EAST<br>Old National Pike |      |      |      |       | TRAFFIC FROM WEST<br>Old National Pike |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|---------------------------------------|------|------|------|-------|--------------------|------|------|------|-------|----------------------------------------|------|------|------|-------|----------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                 | THRU | LEFT | U-TN | TOTAL | RIGHT              | THRU | LEFT | U-TN | TOTAL | RIGHT                                  | THRU | LEFT | U-TN | TOTAL | RIGHT                                  | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                       |      |      |      |       |                    |      |      |      |       |                                        |      |      |      |       |                                        |      |      |      |       |                              |
| 6:00 - 6:15 | 32                                    | 0    | 36   | 0    | 68    | 0                  | 0    | 0    | 0    | 0     | 2                                      | 14   | 0    | 0    | 16    | 0                                      | 5    | 5    | 0    | 10    | 94                           |
| 6:15 - 6:30 | 39                                    | 0    | 54   | 0    | 93    | 0                  | 0    | 0    | 0    | 0     | 6                                      | 12   | 0    | 0    | 18    | 0                                      | 20   | 4    | 0    | 24    | 135                          |
| 6:30 - 6:45 | 50                                    | 0    | 57   | 0    | 107   | 0                  | 0    | 0    | 0    | 0     | 4                                      | 24   | 0    | 0    | 28    | 0                                      | 19   | 6    | 0    | 25    | 160                          |
| 6:45 - 7:00 | 47                                    | 0    | 57   | 0    | 104   | 0                  | 0    | 0    | 0    | 0     | 9                                      | 19   | 0    | 0    | 28    | 0                                      | 20   | 7    | 0    | 27    | 159                          |
| 7:00 - 7:15 | 39                                    | 0    | 71   | 0    | 110   | 0                  | 0    | 0    | 0    | 0     | 7                                      | 28   | 0    | 0    | 35    | 0                                      | 23   | 10   | 0    | 33    | 178                          |
| 7:15 - 7:30 | 39                                    | 0    | 59   | 0    | 98    | 0                  | 0    | 0    | 0    | 0     | 11                                     | 27   | 0    | 0    | 38    | 0                                      | 16   | 11   | 0    | 27    | 163                          |
| 7:30 - 7:45 | 50                                    | 0    | 58   | 0    | 108   | 0                  | 0    | 0    | 0    | 0     | 24                                     | 31   | 0    | 0    | 55    | 0                                      | 32   | 8    | 0    | 40    | 203                          |
| 7:45 - 8:00 | 50                                    | 0    | 74   | 0    | 124   | 0                  | 0    | 0    | 0    | 0     | 31                                     | 35   | 0    | 0    | 66    | 0                                      | 43   | 16   | 0    | 59    | 249                          |
| 8:00 - 8:15 | 46                                    | 0    | 66   | 0    | 112   | 0                  | 0    | 0    | 0    | 0     | 18                                     | 40   | 0    | 0    | 58    | 0                                      | 24   | 17   | 0    | 41    | 211                          |
| 8:15 - 8:30 | 55                                    | 0    | 58   | 0    | 113   | 0                  | 0    | 0    | 0    | 0     | 20                                     | 32   | 0    | 0    | 52    | 0                                      | 30   | 19   | 0    | 49    | 214                          |
| 8:30 - 8:45 | 49                                    | 0    | 46   | 0    | 95    | 0                  | 0    | 0    | 0    | 0     | 22                                     | 35   | 0    | 0    | 57    | 0                                      | 33   | 22   | 0    | 55    | 207                          |
| 8:45 - 9:00 | 44                                    | 0    | 52   | 0    | 96    | 0                  | 0    | 0    | 0    | 0     | 28                                     | 34   | 0    | 0    | 62    | 0                                      | 35   | 26   | 0    | 61    | 219                          |
| 3 Hr Totals | 540                                   | 0    | 688  | 0    | 1228  | 0                  | 0    | 0    | 0    | 0     | 182                                    | 331  | 0    | 0    | 513   | 0                                      | 300  | 151  | 0    | 451   | 2192                         |
| 1 Hr Totals |                                       |      |      |      |       |                    |      |      |      |       |                                        |      |      |      |       |                                        |      |      |      |       |                              |
| 6:00 - 7:00 | 168                                   | 0    | 204  | 0    | 372   | 0                  | 0    | 0    | 0    | 0     | 21                                     | 69   | 0    | 0    | 90    | 0                                      | 64   | 22   | 0    | 86    | 548                          |
| 6:15 - 7:15 | 175                                   | 0    | 239  | 0    | 414   | 0                  | 0    | 0    | 0    | 0     | 26                                     | 83   | 0    | 0    | 109   | 0                                      | 82   | 27   | 0    | 109   | 632                          |
| 6:30 - 7:30 | 175                                   | 0    | 244  | 0    | 419   | 0                  | 0    | 0    | 0    | 0     | 31                                     | 98   | 0    | 0    | 129   | 0                                      | 78   | 34   | 0    | 112   | 660                          |
| 6:45 - 7:45 | 175                                   | 0    | 245  | 0    | 420   | 0                  | 0    | 0    | 0    | 0     | 51                                     | 105  | 0    | 0    | 156   | 0                                      | 91   | 36   | 0    | 127   | 703                          |
| 7:00 - 8:00 | 178                                   | 0    | 262  | 0    | 440   | 0                  | 0    | 0    | 0    | 0     | 73                                     | 121  | 0    | 0    | 194   | 0                                      | 114  | 45   | 0    | 159   | 793                          |
| 7:15 - 8:15 | 185                                   | 0    | 257  | 0    | 442   | 0                  | 0    | 0    | 0    | 0     | 84                                     | 133  | 0    | 0    | 217   | 0                                      | 115  | 52   | 0    | 167   | 826                          |
| 7:30 - 8:30 | 201                                   | 0    | 256  | 0    | 457   | 0                  | 0    | 0    | 0    | 0     | 93                                     | 138  | 0    | 0    | 231   | 0                                      | 129  | 60   | 0    | 189   | 877                          |
| 7:45 - 8:45 | 200                                   | 0    | 244  | 0    | 444   | 0                  | 0    | 0    | 0    | 0     | 91                                     | 142  | 0    | 0    | 233   | 0                                      | 130  | 74   | 0    | 204   | 881                          |
| 8:00 - 9:00 | 194                                   | 0    | 222  | 0    | 416   | 0                  | 0    | 0    | 0    | 0     | 88                                     | 141  | 0    | 0    | 229   | 0                                      | 122  | 84   | 0    | 206   | 851                          |
| PEAK HOUR   |                                       |      |      |      |       |                    |      |      |      |       |                                        |      |      |      |       |                                        |      |      |      |       |                              |
| 7:45 - 8:45 | 200                                   | 0    | 244  | 0    | 444   | 0                  | 0    | 0    | 0    | 0     | 91                                     | 142  | 0    | 0    | 233   | 0                                      | 130  | 74   | 0    | 204   | 881                          |
| PM          |                                       |      |      |      |       |                    |      |      |      |       |                                        |      |      |      |       |                                        |      |      |      |       |                              |
| 4:00 - 4:15 | 37                                    | 0    | 31   | 0    | 68    | 0                  | 0    | 0    | 0    | 0     | 61                                     | 55   | 0    | 0    | 116   | 0                                      | 58   | 50   | 0    | 108   | 292                          |
| 4:15 - 4:30 | 35                                    | 0    | 43   | 0    | 78    | 0                  | 0    | 0    | 0    | 0     | 71                                     | 51   | 0    | 0    | 122   | 0                                      | 42   | 54   | 0    | 96    | 296                          |
| 4:30 - 4:45 | 43                                    | 0    | 50   | 0    | 93    | 0                  | 0    | 0    | 0    | 0     | 74                                     | 62   | 0    | 0    | 136   | 0                                      | 54   | 58   | 0    | 112   | 341                          |
| 4:45 - 5:00 | 38                                    | 0    | 60   | 0    | 98    | 0                  | 0    | 0    | 0    | 0     | 71                                     | 51   | 0    | 0    | 122   | 0                                      | 58   | 73   | 0    | 131   | 351                          |
| 5:00 - 5:15 | 48                                    | 0    | 41   | 0    | 89    | 0                  | 0    | 0    | 0    | 0     | 76                                     | 71   | 0    | 0    | 147   | 0                                      | 57   | 74   | 0    | 131   | 367                          |
| 5:15 - 5:30 | 33                                    | 0    | 39   | 0    | 72    | 0                  | 0    | 0    | 0    | 0     | 68                                     | 44   | 0    | 0    | 112   | 0                                      | 75   | 68   | 0    | 143   | 327                          |
| 5:30 - 5:45 | 45                                    | 0    | 45   | 0    | 90    | 0                  | 0    | 0    | 0    | 0     | 65                                     | 75   | 0    | 0    | 140   | 0                                      | 54   | 60   | 0    | 114   | 344                          |
| 5:45 - 6:00 | 33                                    | 0    | 44   | 0    | 77    | 0                  | 0    | 0    | 0    | 0     | 70                                     | 35   | 0    | 0    | 105   | 0                                      | 59   | 50   | 0    | 109   | 291                          |
| 6:00 - 6:15 | 35                                    | 0    | 33   | 0    | 68    | 0                  | 0    | 0    | 0    | 0     | 61                                     | 49   | 0    | 0    | 110   | 0                                      | 33   | 58   | 0    | 91    | 269                          |
| 6:15 - 6:30 | 23                                    | 0    | 37   | 0    | 60    | 0                  | 0    | 0    | 0    | 0     | 73                                     | 52   | 0    | 0    | 125   | 0                                      | 42   | 43   | 0    | 85    | 270                          |
| 6:30 - 6:45 | 35                                    | 0    | 27   | 0    | 62    | 0                  | 0    | 0    | 0    | 0     | 58                                     | 51   | 0    | 0    | 109   | 0                                      | 24   | 42   | 0    | 66    | 237                          |
| 6:45 - 7:00 | 20                                    | 0    | 21   | 0    | 41    | 0                  | 0    | 0    | 0    | 0     | 47                                     | 26   | 0    | 0    | 73    | 0                                      | 49   | 45   | 0    | 94    | 208                          |
| 3 Hr Totals | 425                                   | 0    | 471  | 0    | 896   | 0                  | 0    | 0    | 0    | 0     | 795                                    | 622  | 0    | 0    | 1417  | 0                                      | 605  | 675  | 0    | 1280  | 3593                         |
| 1 Hr Totals |                                       |      |      |      |       |                    |      |      |      |       |                                        |      |      |      |       |                                        |      |      |      |       |                              |
| 4:00 - 5:00 | 153                                   | 0    | 184  | 0    | 337   | 0                  | 0    | 0    | 0    | 0     | 277                                    | 219  | 0    | 0    | 496   | 0                                      | 212  | 235  | 0    | 447   | 1280                         |
| 4:15 - 5:15 | 164                                   | 0    | 194  | 0    | 358   | 0                  | 0    | 0    | 0    | 0     | 292                                    | 235  | 0    | 0    | 527   | 0                                      | 211  | 259  | 0    | 470   | 1355                         |
| 4:30 - 5:30 | 162                                   | 0    | 190  | 0    | 352   | 0                  | 0    | 0    | 0    | 0     | 289                                    | 228  | 0    | 0    | 517   | 0                                      | 244  | 273  | 0    | 517   | 1386                         |
| 4:45 - 5:45 | 164                                   | 0    | 185  | 0    | 349   | 0                  | 0    | 0    | 0    | 0     | 280                                    | 241  | 0    | 0    | 521   | 0                                      | 244  | 275  | 0    | 519   | 1389                         |
| 5:00 - 6:00 | 159                                   | 0    | 169  | 0    | 328   | 0                  | 0    | 0    | 0    | 0     | 279                                    | 225  | 0    | 0    | 504   | 0                                      | 245  | 252  | 0    | 497   | 1329                         |
| 5:15 - 6:15 | 146                                   | 0    | 161  | 0    | 307   | 0                  | 0    | 0    | 0    | 0     | 264                                    | 203  | 0    | 0    | 467   | 0                                      | 221  | 236  | 0    | 457   | 1231                         |
| 5:30 - 6:30 | 136                                   | 0    | 159  | 0    | 295   | 0                  | 0    | 0    | 0    | 0     | 269                                    | 211  | 0    | 0    | 480   | 0                                      | 188  | 211  | 0    | 399   | 1174                         |
| 5:45 - 6:45 | 126                                   | 0    | 141  | 0    | 267   | 0                  | 0    | 0    | 0    | 0     | 262                                    | 187  | 0    | 0    | 449   | 0                                      | 158  | 193  | 0    | 351   | 1067                         |
| 6:00 - 7:00 | 113                                   | 0    | 118  | 0    | 231   | 0                  | 0    | 0    | 0    | 0     | 239                                    | 178  | 0    | 0    | 417   | 0                                      | 148  | 188  | 0    | 336   | 984                          |
| PEAK HOUR   |                                       |      |      |      |       |                    |      |      |      |       |                                        |      |      |      |       |                                        |      |      |      |       |                              |
| 4:45 - 5:45 | 164                                   | 0    | 185  | 0    | 349   | 0                  | 0    | 0    | 0    | 0     | 280                                    | 241  | 0    | 0    | 521   | 0                                      | 244  | 275  | 0    | 519   | 1389                         |



Old National Pike/Boyers Mill Road

Legend

- Sara's grooming services



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Main Street  
and: Royal Oaks Drive  
Location: Frederick County, Maryland

Counted by: VCU  
Date: October 26, 2021  
Weather: Cloudy/Warm  
Entered by: SN

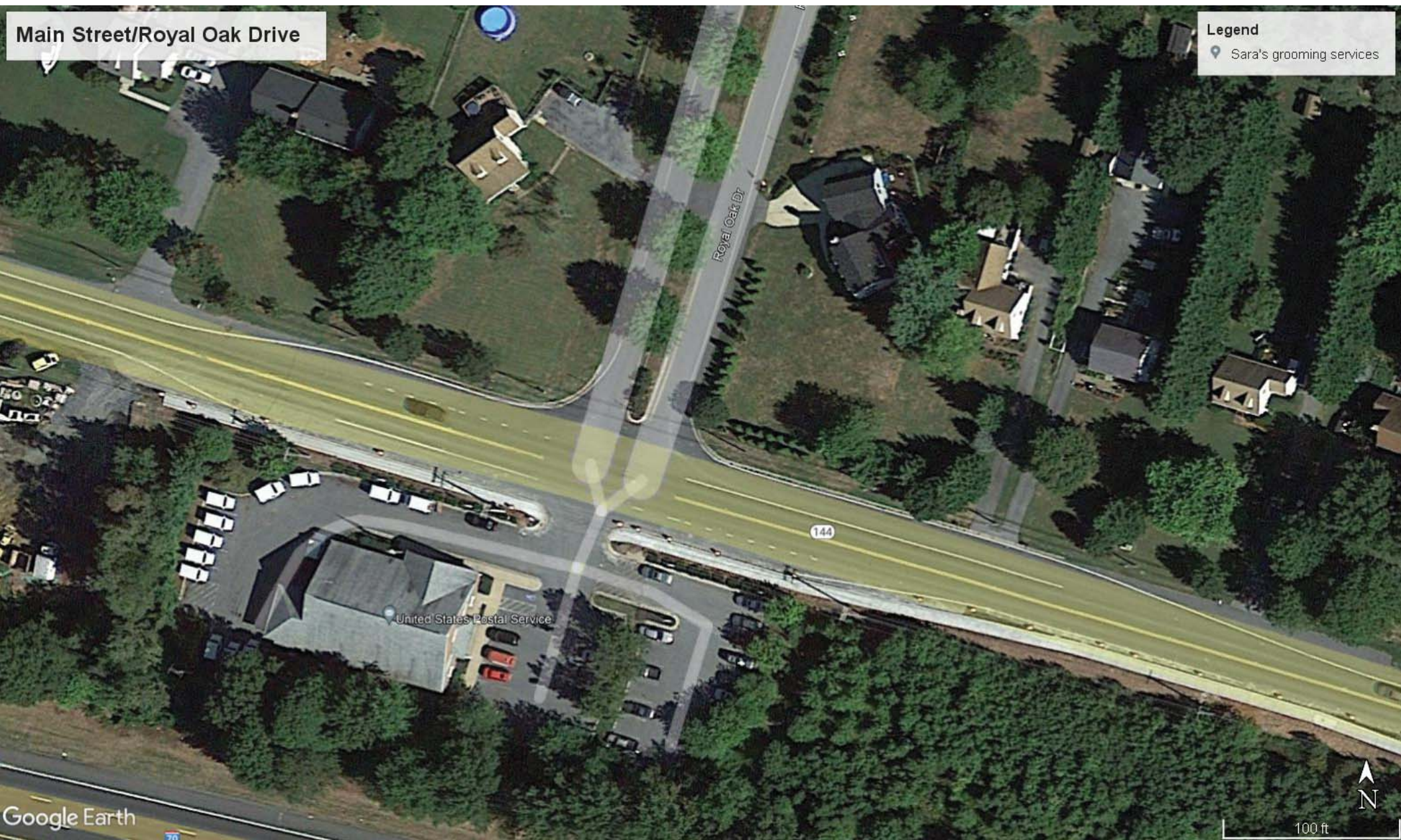
Tuesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>Royal Oaks Drive |      |      |      |       | TRAFFIC FROM SOUTH<br>Post Office Access |      |      |      |       | TRAFFIC FROM EAST<br>Main Street |      |      |      |       | TRAFFIC FROM WEST<br>Main Street |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|----------------------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|----------------------------------|------|------|------|-------|----------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                  | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL | RIGHT                            | THRU | LEFT | U-TN | TOTAL | RIGHT                            | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                        |      |      |      |       |                                          |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 6:00 - 6:15 | 10                                     | 0    | 11   | 0    | 21    | 0                                        | 0    | 1    | 0    | 1     | 3                                | 5    | 0    | 0    | 8     | 0                                | 42   | 0    | 0    | 42    | 72                           |
| 6:15 - 6:30 | 8                                      | 0    | 8    | 0    | 16    | 0                                        | 0    | 0    | 0    | 0     | 2                                | 12   | 0    | 0    | 14    | 1                                | 74   | 1    | 0    | 76    | 106                          |
| 6:30 - 6:45 | 16                                     | 0    | 10   | 0    | 26    | 0                                        | 0    | 1    | 0    | 1     | 2                                | 14   | 1    | 0    | 17    | 3                                | 64   | 2    | 0    | 69    | 113                          |
| 6:45 - 7:00 | 13                                     | 0    | 23   | 0    | 36    | 2                                        | 0    | 0    | 0    | 2     | 3                                | 16   | 3    | 0    | 22    | 1                                | 67   | 1    | 0    | 69    | 129                          |
| 7:00 - 7:15 | 14                                     | 0    | 19   | 0    | 33    | 2                                        | 0    | 2    | 0    | 4     | 2                                | 19   | 0    | 0    | 21    | 2                                | 103  | 2    | 0    | 107   | 165                          |
| 7:15 - 7:30 | 9                                      | 0    | 12   | 0    | 21    | 0                                        | 0    | 0    | 0    | 0     | 3                                | 31   | 1    | 0    | 35    | 2                                | 75   | 1    | 0    | 78    | 134                          |
| 7:30 - 7:45 | 15                                     | 0    | 17   | 0    | 32    | 2                                        | 0    | 1    | 0    | 3     | 4                                | 40   | 2    | 0    | 46    | 6                                | 88   | 4    | 0    | 98    | 179                          |
| 7:45 - 8:00 | 16                                     | 0    | 11   | 0    | 27    | 2                                        | 0    | 2    | 0    | 4     | 1                                | 50   | 2    | 0    | 53    | 1                                | 123  | 6    | 0    | 130   | 214                          |
| 8:00 - 8:15 | 17                                     | 0    | 8    | 0    | 25    | 2                                        | 0    | 0    | 0    | 2     | 4                                | 37   | 1    | 0    | 42    | 0                                | 87   | 2    | 0    | 89    | 158                          |
| 8:15 - 8:30 | 13                                     | 0    | 10   | 0    | 23    | 0                                        | 0    | 1    | 0    | 1     | 6                                | 36   | 2    | 0    | 44    | 2                                | 83   | 3    | 0    | 88    | 156                          |
| 8:30 - 8:45 | 13                                     | 1    | 15   | 0    | 29    | 1                                        | 0    | 2    | 0    | 3     | 5                                | 48   | 1    | 0    | 54    | 2                                | 75   | 4    | 0    | 81    | 167                          |
| 8:45 - 9:00 | 8                                      | 1    | 13   | 0    | 22    | 0                                        | 0    | 3    | 0    | 3     | 2                                | 48   | 3    | 0    | 53    | 3                                | 74   | 8    | 0    | 85    | 163                          |
| 3 Hr Totals | 152                                    | 2    | 157  | 0    | 311   | 11                                       | 0    | 13   | 0    | 24    | 37                               | 356  | 16   | 0    | 409   | 23                               | 955  | 34   | 0    | 1012  | 1756                         |
| 1 Hr Totals |                                        |      |      |      |       |                                          |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 6:00 - 7:00 | 47                                     | 0    | 52   | 0    | 99    | 2                                        | 0    | 2    | 0    | 4     | 10                               | 47   | 4    | 0    | 61    | 5                                | 247  | 4    | 0    | 256   | 420                          |
| 6:15 - 7:15 | 51                                     | 0    | 60   | 0    | 111   | 4                                        | 0    | 3    | 0    | 7     | 9                                | 61   | 4    | 0    | 74    | 7                                | 308  | 6    | 0    | 321   | 513                          |
| 6:30 - 7:30 | 52                                     | 0    | 64   | 0    | 116   | 4                                        | 0    | 3    | 0    | 7     | 10                               | 80   | 5    | 0    | 95    | 8                                | 309  | 6    | 0    | 323   | 541                          |
| 6:45 - 7:45 | 51                                     | 0    | 71   | 0    | 122   | 6                                        | 0    | 3    | 0    | 9     | 12                               | 106  | 6    | 0    | 124   | 11                               | 333  | 8    | 0    | 352   | 607                          |
| 7:00 - 8:00 | 54                                     | 0    | 59   | 0    | 113   | 6                                        | 0    | 5    | 0    | 11    | 10                               | 140  | 5    | 0    | 155   | 11                               | 389  | 13   | 0    | 413   | 692                          |
| 7:15 - 8:15 | 57                                     | 0    | 48   | 0    | 105   | 6                                        | 0    | 3    | 0    | 9     | 12                               | 158  | 6    | 0    | 176   | 9                                | 373  | 13   | 0    | 395   | 685                          |
| 7:30 - 8:30 | 61                                     | 0    | 46   | 0    | 107   | 6                                        | 0    | 4    | 0    | 10    | 15                               | 163  | 7    | 0    | 185   | 9                                | 381  | 15   | 0    | 405   | 707                          |
| 7:45 - 8:45 | 59                                     | 1    | 44   | 0    | 104   | 5                                        | 0    | 5    | 0    | 10    | 16                               | 171  | 6    | 0    | 193   | 5                                | 368  | 15   | 0    | 388   | 695                          |
| 8:00 - 9:00 | 51                                     | 2    | 46   | 0    | 99    | 3                                        | 0    | 6    | 0    | 9     | 17                               | 169  | 7    | 0    | 193   | 7                                | 319  | 17   | 0    | 343   | 644                          |
| PEAK HOUR   |                                        |      |      |      |       |                                          |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 7:30 - 8:30 | 61                                     | 0    | 46   | 0    | 107   | 6                                        | 0    | 4    | 0    | 10    | 15                               | 163  | 7    | 0    | 185   | 9                                | 381  | 15   | 0    | 405   | 707                          |
| PM          |                                        |      |      |      |       |                                          |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 4:00 - 4:15 | 15                                     | 1    | 9    | 0    | 25    | 4                                        | 1    | 0    | 0    | 5     | 10                               | 101  | 3    | 0    | 114   | 2                                | 64   | 22   | 0    | 88    | 232                          |
| 4:15 - 4:30 | 11                                     | 0    | 8    | 0    | 19    | 3                                        | 0    | 4    | 0    | 7     | 16                               | 111  | 3    | 0    | 130   | 3                                | 65   | 18   | 0    | 86    | 242                          |
| 4:30 - 4:45 | 17                                     | 0    | 9    | 0    | 26    | 3                                        | 0    | 3    | 0    | 6     | 15                               | 112  | 2    | 0    | 129   | 5                                | 89   | 12   | 0    | 106   | 267                          |
| 4:45 - 5:00 | 12                                     | 0    | 8    | 0    | 20    | 2                                        | 0    | 4    | 0    | 6     | 32                               | 103  | 4    | 0    | 139   | 5                                | 87   | 26   | 0    | 118   | 283                          |
| 5:00 - 5:15 | 7                                      | 0    | 10   | 0    | 17    | 4                                        | 0    | 4    | 0    | 8     | 20                               | 118  | 0    | 0    | 138   | 3                                | 73   | 21   | 0    | 97    | 260                          |
| 5:15 - 5:30 | 5                                      | 0    | 9    | 0    | 14    | 2                                        | 0    | 1    | 0    | 3     | 18                               | 105  | 3    | 0    | 126   | 1                                | 76   | 37   | 0    | 114   | 257                          |
| 5:30 - 5:45 | 15                                     | 1    | 22   | 0    | 38    | 2                                        | 0    | 2    | 0    | 4     | 27                               | 109  | 0    | 0    | 136   | 0                                | 77   | 24   | 0    | 101   | 279                          |
| 5:45 - 6:00 | 6                                      | 0    | 12   | 0    | 18    | 2                                        | 0    | 0    | 0    | 2     | 21                               | 96   | 0    | 0    | 117   | 1                                | 79   | 18   | 0    | 98    | 235                          |
| 6:00 - 6:15 | 14                                     | 0    | 12   | 0    | 26    | 1                                        | 0    | 1    | 0    | 2     | 10                               | 97   | 0    | 0    | 107   | 2                                | 55   | 10   | 0    | 67    | 202                          |
| 6:15 - 6:30 | 8                                      | 0    | 4    | 0    | 12    | 0                                        | 0    | 0    | 0    | 0     | 17                               | 117  | 0    | 0    | 134   | 0                                | 64   | 14   | 0    | 78    | 224                          |
| 6:30 - 6:45 | 8                                      | 0    | 3    | 0    | 11    | 0                                        | 1    | 2    | 0    | 3     | 16                               | 93   | 2    | 0    | 111   | 1                                | 48   | 4    | 0    | 53    | 178                          |
| 6:45 - 7:00 | 2                                      | 0    | 8    | 0    | 10    | 0                                        | 2    | 0    | 0    | 2     | 8                                | 64   | 1    | 0    | 73    | 1                                | 59   | 13   | 0    | 73    | 158                          |
| 3 Hr Totals | 120                                    | 2    | 114  | 0    | 236   | 23                                       | 4    | 21   | 0    | 48    | 210                              | 1226 | 18   | 0    | 1454  | 24                               | 836  | 219  | 0    | 1079  | 2817                         |
| 1 Hr Totals |                                        |      |      |      |       |                                          |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 4:00 - 5:00 | 55                                     | 1    | 34   | 0    | 90    | 12                                       | 1    | 11   | 0    | 24    | 73                               | 427  | 12   | 0    | 512   | 15                               | 305  | 78   | 0    | 398   | 1024                         |
| 4:15 - 5:15 | 47                                     | 0    | 35   | 0    | 82    | 12                                       | 0    | 15   | 0    | 27    | 83                               | 444  | 9    | 0    | 536   | 16                               | 314  | 77   | 0    | 407   | 1052                         |
| 4:30 - 5:30 | 41                                     | 0    | 36   | 0    | 77    | 11                                       | 0    | 12   | 0    | 23    | 85                               | 438  | 9    | 0    | 532   | 14                               | 325  | 96   | 0    | 435   | 1067                         |
| 4:45 - 5:45 | 39                                     | 1    | 49   | 0    | 89    | 10                                       | 0    | 11   | 0    | 21    | 97                               | 435  | 7    | 0    | 539   | 9                                | 313  | 108  | 0    | 430   | 1079                         |
| 5:00 - 6:00 | 33                                     | 1    | 53   | 0    | 87    | 10                                       | 0    | 7    | 0    | 17    | 86                               | 428  | 3    | 0    | 517   | 5                                | 305  | 100  | 0    | 410   | 1031                         |
| 5:15 - 6:15 | 40                                     | 1    | 55   | 0    | 96    | 7                                        | 0    | 4    | 0    | 11    | 76                               | 407  | 3    | 0    | 486   | 4                                | 287  | 89   | 0    | 380   | 973                          |
| 5:30 - 6:30 | 43                                     | 1    | 50   | 0    | 94    | 5                                        | 0    | 3    | 0    | 8     | 75                               | 419  | 0    | 0    | 494   | 3                                | 275  | 66   | 0    | 344   | 940                          |
| 5:45 - 6:45 | 36                                     | 0    | 31   | 0    | 67    | 3                                        | 1    | 3    | 0    | 7     | 64                               | 403  | 2    | 0    | 469   | 4                                | 246  | 46   | 0    | 296   | 839                          |
| 6:00 - 7:00 | 32                                     | 0    | 27   | 0    | 59    | 1                                        | 3    | 3    | 0    | 7     | 51                               | 371  | 3    | 0    | 425   | 4                                | 226  | 41   | 0    | 271   | 762                          |
| PEAK HOUR   |                                        |      |      |      |       |                                          |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 4:45 - 5:45 | 39                                     | 1    | 49   | 0    | 89    | 10                                       | 0    | 11   | 0    | 21    | 97                               | 435  | 7    | 0    | 539   | 9                                | 313  | 108  | 0    | 430   | 1079                         |





# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Main Street  
and: Old New Market Road  
Location: Frederick County, Maryland

Counted by: VCU  
Date: October 26, 2021  
Weather: Cloudy/Warm  
Entered by: SN

Tuesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>Old New Market Road |      |      |      |       | TRAFFIC FROM SOUTH<br>8th Alley |      |      |      |       | TRAFFIC FROM EAST<br>Main Street |      |      |      |       | TRAFFIC FROM WEST<br>Main Street |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|-------------------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|----------------------------------|------|------|------|-------|----------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                     | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                            | THRU | LEFT | U-TN | TOTAL | RIGHT                            | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                           |      |      |      |       |                                 |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 6:00 - 6:15 | 2                                         | 1    | 0    | 0    | 3     | 0                               | 0    | 0    | 0    | 0     | 0                                | 9    | 0    | 0    | 9     | 0                                | 54   | 1    | 0    | 55    | 67                           |
| 6:15 - 6:30 | 3                                         | 0    | 0    | 0    | 3     | 0                               | 0    | 0    | 0    | 0     | 0                                | 9    | 0    | 0    | 9     | 0                                | 71   | 4    | 0    | 75    | 87                           |
| 6:30 - 6:45 | 5                                         | 0    | 2    | 0    | 7     | 0                               | 0    | 0    | 0    | 0     | 0                                | 12   | 0    | 0    | 12    | 0                                | 78   | 2    | 0    | 80    | 99                           |
| 6:45 - 7:00 | 4                                         | 0    | 2    | 0    | 6     | 0                               | 0    | 0    | 0    | 0     | 0                                | 20   | 0    | 0    | 20    | 0                                | 106  | 6    | 0    | 112   | 138                          |
| 7:00 - 7:15 | 6                                         | 0    | 1    | 0    | 7     | 0                               | 0    | 0    | 0    | 0     | 0                                | 19   | 0    | 0    | 19    | 0                                | 102  | 3    | 0    | 105   | 131                          |
| 7:15 - 7:30 | 9                                         | 0    | 0    | 0    | 9     | 0                               | 0    | 0    | 0    | 0     | 2                                | 33   | 0    | 0    | 35    | 1                                | 96   | 3    | 0    | 100   | 144                          |
| 7:30 - 7:45 | 8                                         | 0    | 0    | 0    | 8     | 1                               | 0    | 0    | 0    | 1     | 0                                | 36   | 0    | 0    | 36    | 1                                | 84   | 10   | 0    | 95    | 140                          |
| 7:45 - 8:00 | 12                                        | 0    | 1    | 0    | 13    | 1                               | 0    | 0    | 0    | 1     | 0                                | 53   | 0    | 0    | 53    | 0                                | 130  | 3    | 0    | 133   | 200                          |
| 8:00 - 8:15 | 9                                         | 0    | 0    | 0    | 9     | 0                               | 0    | 0    | 0    | 0     | 0                                | 37   | 1    | 0    | 38    | 0                                | 90   | 13   | 0    | 103   | 150                          |
| 8:15 - 8:30 | 13                                        | 0    | 1    | 0    | 14    | 0                               | 0    | 0    | 0    | 0     | 0                                | 44   | 0    | 0    | 44    | 0                                | 88   | 4    | 0    | 92    | 150                          |
| 8:30 - 8:45 | 13                                        | 0    | 1    | 0    | 14    | 0                               | 0    | 0    | 0    | 0     | 1                                | 43   | 0    | 0    | 44    | 0                                | 81   | 9    | 0    | 90    | 148                          |
| 8:45 - 9:00 | 21                                        | 0    | 1    | 0    | 22    | 0                               | 0    | 0    | 0    | 0     | 2                                | 32   | 0    | 0    | 34    | 0                                | 84   | 6    | 0    | 90    | 146                          |
| 3 Hr Totals | 105                                       | 1    | 9    | 0    | 115   | 2                               | 0    | 0    | 0    | 2     | 5                                | 347  | 1    | 0    | 353   | 2                                | 1064 | 64   | 0    | 1130  | 1600                         |
| 1 Hr Totals |                                           |      |      |      |       |                                 |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 6:00 - 7:00 | 14                                        | 1    | 4    | 0    | 19    | 0                               | 0    | 0    | 0    | 0     | 0                                | 50   | 0    | 0    | 50    | 0                                | 309  | 13   | 0    | 322   | 391                          |
| 6:15 - 7:15 | 18                                        | 0    | 5    | 0    | 23    | 0                               | 0    | 0    | 0    | 0     | 0                                | 60   | 0    | 0    | 60    | 0                                | 357  | 15   | 0    | 372   | 455                          |
| 6:30 - 7:30 | 24                                        | 0    | 5    | 0    | 29    | 0                               | 0    | 0    | 0    | 0     | 2                                | 84   | 0    | 0    | 86    | 1                                | 382  | 14   | 0    | 397   | 512                          |
| 6:45 - 7:45 | 27                                        | 0    | 3    | 0    | 30    | 1                               | 0    | 0    | 0    | 1     | 2                                | 108  | 0    | 0    | 110   | 2                                | 388  | 22   | 0    | 412   | 553                          |
| 7:00 - 8:00 | 35                                        | 0    | 2    | 0    | 37    | 2                               | 0    | 0    | 0    | 2     | 2                                | 141  | 0    | 0    | 143   | 2                                | 412  | 19   | 0    | 433   | 615                          |
| 7:15 - 8:15 | 38                                        | 0    | 1    | 0    | 39    | 2                               | 0    | 0    | 0    | 2     | 2                                | 159  | 1    | 0    | 162   | 2                                | 400  | 29   | 0    | 431   | 634                          |
| 7:30 - 8:30 | 42                                        | 0    | 2    | 0    | 44    | 2                               | 0    | 0    | 0    | 2     | 0                                | 170  | 1    | 0    | 171   | 1                                | 392  | 30   | 0    | 423   | 640                          |
| 7:45 - 8:45 | 47                                        | 0    | 3    | 0    | 50    | 1                               | 0    | 0    | 0    | 1     | 1                                | 177  | 1    | 0    | 179   | 0                                | 389  | 29   | 0    | 418   | 648                          |
| 8:00 - 9:00 | 56                                        | 0    | 3    | 0    | 59    | 0                               | 0    | 0    | 0    | 0     | 3                                | 156  | 1    | 0    | 160   | 0                                | 343  | 32   | 0    | 375   | 594                          |
| PEAK HOUR   |                                           |      |      |      |       |                                 |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 7:45 - 8:45 | 47                                        | 0    | 3    | 0    | 50    | 1                               | 0    | 0    | 0    | 1     | 1                                | 177  | 1    | 0    | 179   | 0                                | 389  | 29   | 0    | 418   | 648                          |
| PM          |                                           |      |      |      |       |                                 |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 4:00 - 4:15 | 13                                        | 0    | 0    | 0    | 13    | 2                               | 0    | 1    | 0    | 3     | 4                                | 98   | 1    | 0    | 103   | 0                                | 66   | 13   | 0    | 79    | 198                          |
| 4:15 - 4:30 | 16                                        | 0    | 1    | 0    | 17    | 1                               | 0    | 0    | 0    | 1     | 0                                | 116  | 1    | 0    | 117   | 2                                | 59   | 11   | 0    | 72    | 207                          |
| 4:30 - 4:45 | 17                                        | 0    | 0    | 0    | 17    | 1                               | 0    | 0    | 0    | 1     | 1                                | 123  | 0    | 0    | 124   | 1                                | 91   | 16   | 0    | 108   | 250                          |
| 4:45 - 5:00 | 29                                        | 0    | 0    | 0    | 29    | 0                               | 0    | 0    | 0    | 0     | 0                                | 123  | 2    | 0    | 125   | 0                                | 85   | 12   | 0    | 97    | 251                          |
| 5:00 - 5:15 | 29                                        | 1    | 0    | 0    | 30    | 2                               | 0    | 0    | 0    | 2     | 0                                | 115  | 4    | 0    | 119   | 1                                | 74   | 20   | 0    | 95    | 246                          |
| 5:15 - 5:30 | 34                                        | 0    | 1    | 0    | 35    | 1                               | 0    | 2    | 0    | 3     | 2                                | 131  | 0    | 0    | 133   | 0                                | 83   | 11   | 0    | 94    | 265                          |
| 5:30 - 5:45 | 35                                        | 0    | 1    | 0    | 36    | 0                               | 0    | 0    | 0    | 0     | 0                                | 127  | 3    | 0    | 130   | 0                                | 83   | 16   | 0    | 99    | 265                          |
| 5:45 - 6:00 | 10                                        | 0    | 0    | 0    | 10    | 0                               | 0    | 0    | 0    | 0     | 1                                | 124  | 0    | 0    | 125   | 1                                | 90   | 12   | 0    | 103   | 238                          |
| 6:00 - 6:15 | 11                                        | 0    | 1    | 0    | 12    | 1                               | 0    | 0    | 0    | 1     | 4                                | 105  | 3    | 0    | 112   | 0                                | 69   | 7    | 0    | 76    | 201                          |
| 6:15 - 6:30 | 11                                        | 0    | 0    | 0    | 11    | 1                               | 0    | 3    | 0    | 4     | 1                                | 122  | 1    | 0    | 124   | 0                                | 62   | 8    | 0    | 70    | 209                          |
| 6:30 - 6:45 | 15                                        | 1    | 0    | 0    | 16    | 0                               | 0    | 0    | 0    | 0     | 1                                | 98   | 0    | 0    | 99    | 1                                | 49   | 4    | 0    | 54    | 169                          |
| 6:45 - 7:00 | 12                                        | 0    | 0    | 0    | 12    | 0                               | 0    | 0    | 0    | 0     | 0                                | 73   | 0    | 0    | 73    | 0                                | 59   | 7    | 0    | 66    | 151                          |
| 3 Hr Totals | 232                                       | 2    | 4    | 0    | 238   | 9                               | 0    | 6    | 0    | 15    | 14                               | 1355 | 15   | 0    | 1384  | 6                                | 870  | 137  | 0    | 1013  | 2650                         |
| 1 Hr Totals |                                           |      |      |      |       |                                 |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 4:00 - 5:00 | 75                                        | 0    | 1    | 0    | 76    | 4                               | 0    | 1    | 0    | 5     | 5                                | 460  | 4    | 0    | 469   | 3                                | 301  | 52   | 0    | 356   | 906                          |
| 4:15 - 5:15 | 91                                        | 1    | 1    | 0    | 93    | 4                               | 0    | 0    | 0    | 4     | 1                                | 477  | 7    | 0    | 485   | 4                                | 309  | 59   | 0    | 372   | 954                          |
| 4:30 - 5:30 | 109                                       | 1    | 1    | 0    | 111   | 4                               | 0    | 2    | 0    | 6     | 3                                | 492  | 6    | 0    | 501   | 2                                | 333  | 59   | 0    | 394   | 1012                         |
| 4:45 - 5:45 | 127                                       | 1    | 2    | 0    | 130   | 3                               | 0    | 2    | 0    | 5     | 2                                | 496  | 9    | 0    | 507   | 1                                | 325  | 59   | 0    | 385   | 1027                         |
| 5:00 - 6:00 | 108                                       | 1    | 2    | 0    | 111   | 3                               | 0    | 2    | 0    | 5     | 3                                | 497  | 7    | 0    | 507   | 2                                | 330  | 59   | 0    | 391   | 1014                         |
| 5:15 - 6:15 | 90                                        | 0    | 3    | 0    | 93    | 2                               | 0    | 2    | 0    | 4     | 7                                | 487  | 6    | 0    | 500   | 1                                | 325  | 46   | 0    | 372   | 969                          |
| 5:30 - 6:30 | 67                                        | 0    | 2    | 0    | 69    | 2                               | 0    | 3    | 0    | 5     | 6                                | 478  | 7    | 0    | 491   | 1                                | 304  | 43   | 0    | 348   | 913                          |
| 5:45 - 6:45 | 47                                        | 1    | 1    | 0    | 49    | 2                               | 0    | 3    | 0    | 5     | 7                                | 449  | 4    | 0    | 460   | 2                                | 270  | 31   | 0    | 303   | 817                          |
| 6:00 - 7:00 | 49                                        | 1    | 1    | 0    | 51    | 2                               | 0    | 3    | 0    | 5     | 6                                | 398  | 4    | 0    | 408   | 1                                | 239  | 26   | 0    | 266   | 730                          |
| PEAK HOUR   |                                           |      |      |      |       |                                 |      |      |      |       |                                  |      |      |      |       |                                  |      |      |      |       |                              |
| 4:45 - 5:45 | 127                                       | 1    | 2    | 0    | 130   | 3                               | 0    | 2    | 0    | 5     | 2                                | 496  | 9    | 0    | 507   | 1                                | 325  | 59   | 0    | 385   | 1027                         |



Main Street/Old New Market Road

Legend

- Sara's grooming services





# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Main Street  
and: Federal Street  
Location: Frederick County, Maryland

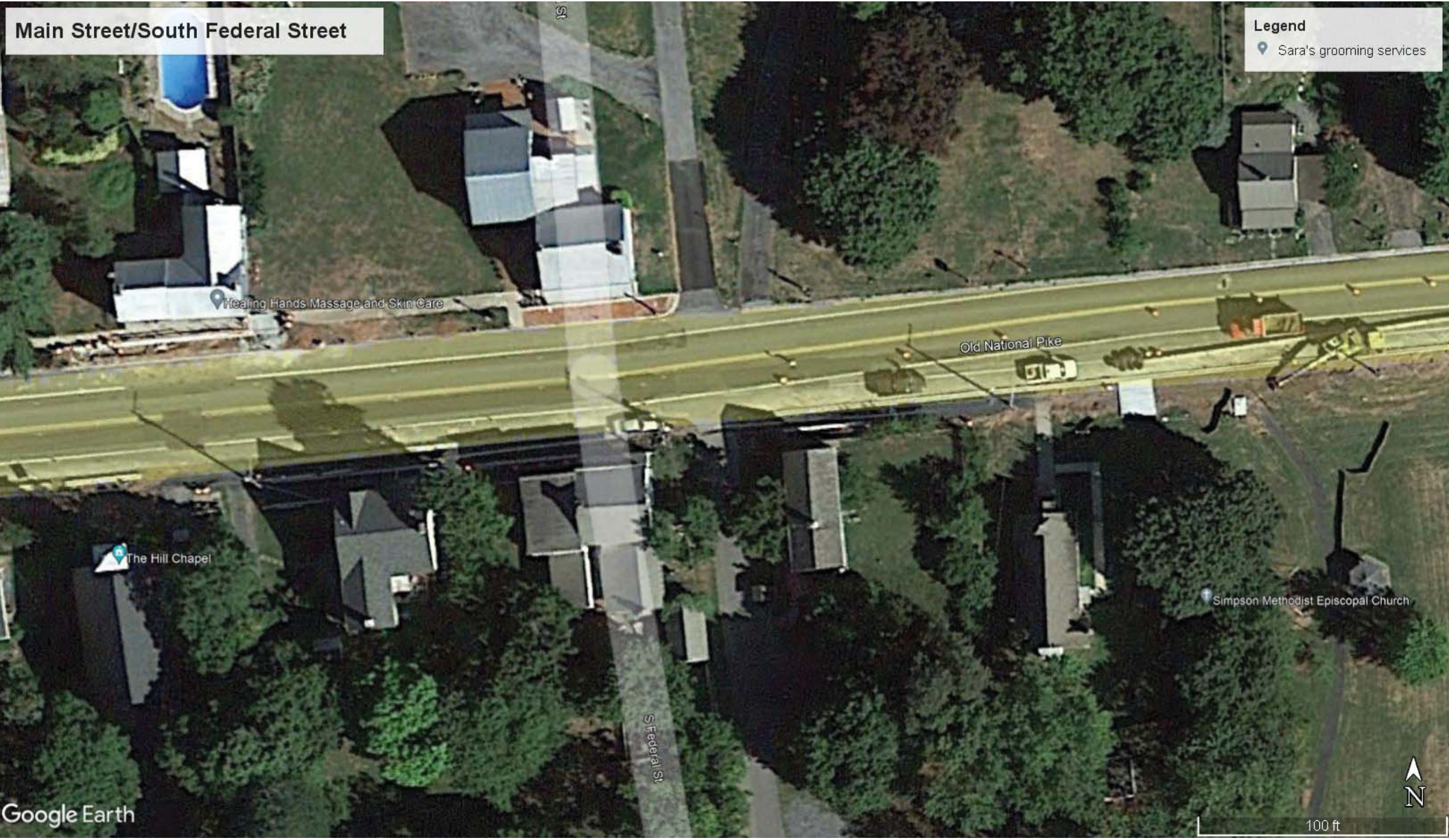
Counted by: VCU  
Date: May 25, 2022  
Weather: Sunny/Warm  
Entered by: SN

Wednesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Federal Street |      |      |      |       | TRAFFIC FROM SOUTH<br>on: Federal Street |      |      |      |       | TRAFFIC FROM EAST<br>on: Main Street |      |      |      |       | TRAFFIC FROM WEST<br>on: Main Street |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|------------------------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|--------------------------------------|------|------|------|-------|--------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                | THRU | LEFT | U-TN | TOTAL | RIGHT                                | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                          |      |      |      |       |                                          |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 7:00 - 7:15 | 0                                        | 0    | 1    | 0    | 1     | 0                                        | 0    | 0    | 0    | 0     | 0                                    | 31   | 0    | 0    | 31    | 0                                    | 112  | 0    | 0    | 112   | 144                          |
| 7:15 - 7:30 | 0                                        | 0    | 0    | 0    | 0     | 0                                        | 0    | 0    | 0    | 0     | 0                                    | 56   | 0    | 0    | 56    | 0                                    | 98   | 0    | 0    | 98    | 154                          |
| 7:30 - 7:45 | 1                                        | 0    | 0    | 0    | 1     | 1                                        | 0    | 0    | 0    | 1     | 1                                    | 79   | 0    | 0    | 80    | 0                                    | 143  | 1    | 0    | 144   | 226                          |
| 7:45 - 8:00 | 0                                        | 0    | 1    | 0    | 1     | 0                                        | 0    | 0    | 0    | 0     | 1                                    | 89   | 0    | 0    | 90    | 0                                    | 150  | 0    | 0    | 150   | 241                          |
| 8:00 - 8:15 | 0                                        | 0    | 1    | 0    | 1     | 4                                        | 0    | 0    | 0    | 4     | 0                                    | 59   | 0    | 0    | 59    | 0                                    | 135  | 0    | 0    | 135   | 199                          |
| 8:15 - 8:30 | 0                                        | 0    | 0    | 0    | 0     | 0                                        | 0    | 0    | 0    | 0     | 0                                    | 74   | 0    | 0    | 74    | 0                                    | 95   | 1    | 0    | 96    | 170                          |
| 8:30 - 8:45 | 1                                        | 0    | 3    | 0    | 4     | 0                                        | 0    | 0    | 0    | 0     | 0                                    | 65   | 0    | 0    | 65    | 0                                    | 126  | 1    | 0    | 127   | 196                          |
| 8:45 - 9:00 | 1                                        | 0    | 5    | 0    | 6     | 0                                        | 0    | 0    | 0    | 0     | 1                                    | 76   | 0    | 0    | 77    | 0                                    | 98   | 0    | 0    | 98    | 181                          |
| 2 Hr Totals | 3                                        | 0    | 11   | 0    | 14    | 5                                        | 0    | 0    | 0    | 5     | 3                                    | 529  | 0    | 0    | 532   | 0                                    | 957  | 3    | 0    | 960   | 1511                         |
| 1 Hr Totals |                                          |      |      |      |       |                                          |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 7:00 - 8:00 | 1                                        | 0    | 2    | 0    | 3     | 1                                        | 0    | 0    | 0    | 1     | 2                                    | 255  | 0    | 0    | 257   | 0                                    | 503  | 1    | 0    | 504   | 765                          |
| 7:15 - 8:15 | 1                                        | 0    | 2    | 0    | 3     | 5                                        | 0    | 0    | 0    | 5     | 2                                    | 283  | 0    | 0    | 285   | 0                                    | 526  | 1    | 0    | 527   | 820                          |
| 7:30 - 8:30 | 1                                        | 0    | 2    | 0    | 3     | 5                                        | 0    | 0    | 0    | 5     | 2                                    | 301  | 0    | 0    | 303   | 0                                    | 523  | 2    | 0    | 525   | 836                          |
| 7:45 - 8:45 | 1                                        | 0    | 5    | 0    | 6     | 4                                        | 0    | 0    | 0    | 4     | 1                                    | 287  | 0    | 0    | 288   | 0                                    | 506  | 2    | 0    | 508   | 806                          |
| 8:00 - 9:00 | 2                                        | 0    | 9    | 0    | 11    | 4                                        | 0    | 0    | 0    | 4     | 1                                    | 274  | 0    | 0    | 275   | 0                                    | 454  | 2    | 0    | 456   | 746                          |
| PEAK HOUR   |                                          |      |      |      |       |                                          |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 7:30 - 8:30 | 1                                        | 0    | 2    | 0    | 3     | 5                                        | 0    | 0    | 0    | 5     | 2                                    | 301  | 0    | 0    | 303   | 0                                    | 523  | 2    | 0    | 525   | 836                          |
| PM          |                                          |      |      |      |       |                                          |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 4:00 - 4:15 | 0                                        | 0    | 0    | 0    | 0     | 0                                        | 0    | 0    | 0    | 0     | 1                                    | 114  | 1    | 0    | 116   | 0                                    | 108  | 0    | 0    | 108   | 224                          |
| 4:15 - 4:30 | 0                                        | 0    | 0    | 0    | 0     | 1                                        | 0    | 0    | 0    | 1     | 0                                    | 127  | 0    | 0    | 127   | 0                                    | 120  | 0    | 0    | 120   | 248                          |
| 4:30 - 4:45 | 0                                        | 0    | 0    | 0    | 0     | 1                                        | 1    | 0    | 0    | 2     | 0                                    | 127  | 1    | 0    | 128   | 0                                    | 124  | 0    | 0    | 124   | 254                          |
| 4:45 - 5:00 | 0                                        | 0    | 1    | 0    | 1     | 1                                        | 0    | 0    | 0    | 1     | 0                                    | 159  | 1    | 0    | 160   | 0                                    | 129  | 0    | 0    | 129   | 291                          |
| 5:00 - 5:15 | 1                                        | 0    | 0    | 0    | 1     | 0                                        | 0    | 0    | 0    | 0     | 0                                    | 143  | 1    | 0    | 144   | 0                                    | 114  | 0    | 0    | 114   | 259                          |
| 5:15 - 5:30 | 0                                        | 0    | 0    | 0    | 0     | 0                                        | 0    | 0    | 0    | 0     | 0                                    | 139  | 1    | 0    | 140   | 0                                    | 91   | 1    | 0    | 92    | 232                          |
| 5:30 - 5:45 | 0                                        | 0    | 0    | 0    | 0     | 1                                        | 0    | 0    | 0    | 1     | 0                                    | 149  | 2    | 0    | 151   | 0                                    | 97   | 0    | 0    | 97    | 249                          |
| 5:45 - 6:00 | 0                                        | 0    | 0    | 0    | 0     | 0                                        | 0    | 1    | 0    | 1     | 0                                    | 135  | 0    | 0    | 135   | 0                                    | 80   | 0    | 0    | 80    | 216                          |
| 2 Hr Totals | 1                                        | 0    | 1    | 0    | 2     | 4                                        | 1    | 1    | 0    | 6     | 1                                    | 1093 | 7    | 0    | 1101  | 0                                    | 863  | 1    | 0    | 864   | 1973                         |
| 1 Hr Totals |                                          |      |      |      |       |                                          |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 4:00 - 5:00 | 0                                        | 0    | 1    | 0    | 1     | 3                                        | 1    | 0    | 0    | 4     | 1                                    | 527  | 3    | 0    | 531   | 0                                    | 481  | 0    | 0    | 481   | 1017                         |
| 4:15 - 5:15 | 1                                        | 0    | 1    | 0    | 2     | 3                                        | 1    | 0    | 0    | 4     | 0                                    | 556  | 3    | 0    | 559   | 0                                    | 487  | 0    | 0    | 487   | 1052                         |
| 4:30 - 5:30 | 1                                        | 0    | 1    | 0    | 2     | 2                                        | 1    | 0    | 0    | 3     | 0                                    | 568  | 4    | 0    | 572   | 0                                    | 458  | 1    | 0    | 459   | 1036                         |
| 4:45 - 5:45 | 1                                        | 0    | 1    | 0    | 2     | 2                                        | 0    | 0    | 0    | 2     | 0                                    | 590  | 5    | 0    | 595   | 0                                    | 431  | 1    | 0    | 432   | 1031                         |
| 5:00 - 6:00 | 1                                        | 0    | 0    | 0    | 1     | 1                                        | 0    | 1    | 0    | 2     | 0                                    | 566  | 4    | 0    | 570   | 0                                    | 382  | 1    | 0    | 383   | 956                          |
| PEAK HOUR   |                                          |      |      |      |       |                                          |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 4:15 - 5:15 | 1                                        | 0    | 1    | 0    | 2     | 3                                        | 1    | 0    | 0    | 4     | 0                                    | 556  | 3    | 0    | 559   | 0                                    | 487  | 0    | 0    | 487   | 1052                         |



Legend

Sara's grooming services

Google Earth

# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Main Street  
and: Marley Street  
Location: Frederick County, Maryland

Counted by: VCU  
Date: May 25, 2022  
Weather: Sunny/Warm  
Entered by: SN

Wednesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: Marley Street |      |      |      |       | TRAFFIC FROM SOUTH<br>on: |      |      |      |       | TRAFFIC FROM EAST<br>on: Main Street |      |      |      |       | TRAFFIC FROM WEST<br>on: Main Street |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|-----------------------------------------|------|------|------|-------|---------------------------|------|------|------|-------|--------------------------------------|------|------|------|-------|--------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                                   | THRU | LEFT | U-TN | TOTAL | RIGHT                     | THRU | LEFT | U-TN | TOTAL | RIGHT                                | THRU | LEFT | U-TN | TOTAL | RIGHT                                | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                         |      |      |      |       |                           |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 7:00 - 7:15 | 0                                       | 0    | 5    | 0    | 5     | 0                         | 0    | 0    | 0    | 0     | 1                                    | 29   | 0    | 0    | 30    | 0                                    | 113  | 0    | 0    | 113   | 148                          |
| 7:15 - 7:30 | 0                                       | 0    | 1    | 0    | 1     | 0                         | 0    | 0    | 0    | 0     | 0                                    | 58   | 0    | 0    | 58    | 0                                    | 101  | 1    | 0    | 102   | 161                          |
| 7:30 - 7:45 | 11                                      | 0    | 7    | 0    | 18    | 0                         | 0    | 0    | 0    | 0     | 0                                    | 76   | 0    | 0    | 76    | 0                                    | 145  | 3    | 0    | 148   | 242                          |
| 7:45 - 8:00 | 10                                      | 0    | 5    | 0    | 15    | 0                         | 0    | 0    | 0    | 0     | 1                                    | 76   | 0    | 0    | 77    | 0                                    | 151  | 5    | 0    | 156   | 248                          |
| 8:00 - 8:15 | 2                                       | 0    | 3    | 0    | 5     | 0                         | 0    | 0    | 0    | 0     | 0                                    | 48   | 0    | 0    | 48    | 0                                    | 128  | 4    | 0    | 132   | 185                          |
| 8:15 - 8:30 | 5                                       | 0    | 3    | 0    | 8     | 0                         | 0    | 0    | 0    | 0     | 0                                    | 72   | 0    | 0    | 72    | 0                                    | 92   | 1    | 0    | 93    | 173                          |
| 8:30 - 8:45 | 6                                       | 0    | 4    | 0    | 10    | 0                         | 0    | 0    | 0    | 0     | 0                                    | 60   | 0    | 0    | 60    | 0                                    | 128  | 2    | 0    | 130   | 200                          |
| 8:45 - 9:00 | 2                                       | 0    | 3    | 0    | 5     | 0                         | 0    | 0    | 0    | 0     | 0                                    | 70   | 0    | 0    | 70    | 0                                    | 92   | 5    | 0    | 97    | 172                          |
| 2 Hr Totals | 36                                      | 0    | 31   | 0    | 67    | 0                         | 0    | 0    | 0    | 0     | 2                                    | 489  | 0    | 0    | 491   | 0                                    | 950  | 21   | 0    | 971   | 1529                         |
| 1 Hr Totals |                                         |      |      |      |       |                           |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 7:00 - 8:00 | 21                                      | 0    | 18   | 0    | 39    | 0                         | 0    | 0    | 0    | 0     | 2                                    | 239  | 0    | 0    | 241   | 0                                    | 510  | 9    | 0    | 519   | 799                          |
| 7:15 - 8:15 | 23                                      | 0    | 16   | 0    | 39    | 0                         | 0    | 0    | 0    | 0     | 1                                    | 258  | 0    | 0    | 259   | 0                                    | 525  | 13   | 0    | 538   | 836                          |
| 7:30 - 8:30 | 28                                      | 0    | 18   | 0    | 46    | 0                         | 0    | 0    | 0    | 0     | 1                                    | 272  | 0    | 0    | 273   | 0                                    | 516  | 13   | 0    | 529   | 848                          |
| 7:45 - 8:45 | 23                                      | 0    | 15   | 0    | 38    | 0                         | 0    | 0    | 0    | 0     | 1                                    | 256  | 0    | 0    | 257   | 0                                    | 499  | 12   | 0    | 511   | 806                          |
| 8:00 - 9:00 | 15                                      | 0    | 13   | 0    | 28    | 0                         | 0    | 0    | 0    | 0     | 0                                    | 250  | 0    | 0    | 250   | 0                                    | 440  | 12   | 0    | 452   | 730                          |
| PEAK HOUR   |                                         |      |      |      |       |                           |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 7:30 - 8:30 | 28                                      | 0    | 18   | 0    | 46    | 0                         | 0    | 0    | 0    | 0     | 1                                    | 272  | 0    | 0    | 273   | 0                                    | 516  | 13   | 0    | 529   | 848                          |
| PM          |                                         |      |      |      |       |                           |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 4:00 - 4:15 | 3                                       | 0    | 1    | 0    | 4     | 0                         | 0    | 0    | 0    | 0     | 1                                    | 110  | 0    | 0    | 111   | 0                                    | 105  | 1    | 0    | 106   | 221                          |
| 4:15 - 4:30 | 2                                       | 0    | 3    | 0    | 5     | 0                         | 0    | 0    | 0    | 0     | 2                                    | 128  | 0    | 0    | 130   | 0                                    | 112  | 1    | 0    | 113   | 248                          |
| 4:30 - 4:45 | 4                                       | 0    | 3    | 0    | 7     | 0                         | 0    | 0    | 0    | 0     | 2                                    | 133  | 0    | 0    | 135   | 0                                    | 127  | 1    | 0    | 128   | 270                          |
| 4:45 - 5:00 | 2                                       | 0    | 4    | 0    | 6     | 0                         | 0    | 0    | 0    | 0     | 4                                    | 157  | 0    | 0    | 161   | 0                                    | 136  | 2    | 0    | 138   | 305                          |
| 5:00 - 5:15 | 3                                       | 0    | 4    | 0    | 7     | 0                         | 0    | 0    | 0    | 0     | 1                                    | 129  | 0    | 0    | 130   | 0                                    | 103  | 0    | 0    | 103   | 240                          |
| 5:15 - 5:30 | 3                                       | 0    | 6    | 0    | 9     | 0                         | 0    | 0    | 0    | 0     | 3                                    | 147  | 0    | 0    | 150   | 0                                    | 93   | 3    | 0    | 96    | 255                          |
| 5:30 - 5:45 | 1                                       | 0    | 0    | 0    | 1     | 0                         | 0    | 0    | 0    | 0     | 1                                    | 148  | 0    | 0    | 149   | 0                                    | 100  | 3    | 0    | 103   | 253                          |
| 5:45 - 6:00 | 0                                       | 0    | 7    | 0    | 7     | 0                         | 0    | 0    | 0    | 0     | 5                                    | 136  | 0    | 0    | 141   | 0                                    | 77   | 0    | 0    | 77    | 225                          |
| 2 Hr Totals | 18                                      | 0    | 28   | 0    | 46    | 0                         | 0    | 0    | 0    | 0     | 19                                   | 1088 | 0    | 0    | 1107  | 0                                    | 853  | 11   | 0    | 864   | 2017                         |
| 1 Hr Totals |                                         |      |      |      |       |                           |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 4:00 - 5:00 | 11                                      | 0    | 11   | 0    | 22    | 0                         | 0    | 0    | 0    | 0     | 9                                    | 528  | 0    | 0    | 537   | 0                                    | 480  | 5    | 0    | 485   | 1044                         |
| 4:15 - 5:15 | 11                                      | 0    | 14   | 0    | 25    | 0                         | 0    | 0    | 0    | 0     | 9                                    | 547  | 0    | 0    | 556   | 0                                    | 478  | 4    | 0    | 482   | 1063                         |
| 4:30 - 5:30 | 12                                      | 0    | 17   | 0    | 29    | 0                         | 0    | 0    | 0    | 0     | 10                                   | 566  | 0    | 0    | 576   | 0                                    | 459  | 6    | 0    | 465   | 1070                         |
| 4:45 - 5:45 | 9                                       | 0    | 14   | 0    | 23    | 0                         | 0    | 0    | 0    | 0     | 9                                    | 581  | 0    | 0    | 590   | 0                                    | 432  | 8    | 0    | 440   | 1053                         |
| 5:00 - 6:00 | 7                                       | 0    | 17   | 0    | 24    | 0                         | 0    | 0    | 0    | 0     | 10                                   | 560  | 0    | 0    | 570   | 0                                    | 373  | 6    | 0    | 379   | 973                          |
| PEAK HOUR   |                                         |      |      |      |       |                           |      |      |      |       |                                      |      |      |      |       |                                      |      |      |      |       |                              |
| 4:30 - 5:30 | 12                                      | 0    | 17   | 0    | 29    | 0                         | 0    | 0    | 0    | 0     | 10                                   | 566  | 0    | 0    | 576   | 0                                    | 459  | 6    | 0    | 465   | 1070                         |





Main Street/Marley Street

Legend

 Sara's grooming services

James E. Stewart Lodge #49

Google Earth

  
N

100 ft



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Main Street  
 and: Bye Alley  
 Location: Frederick County, Maryland

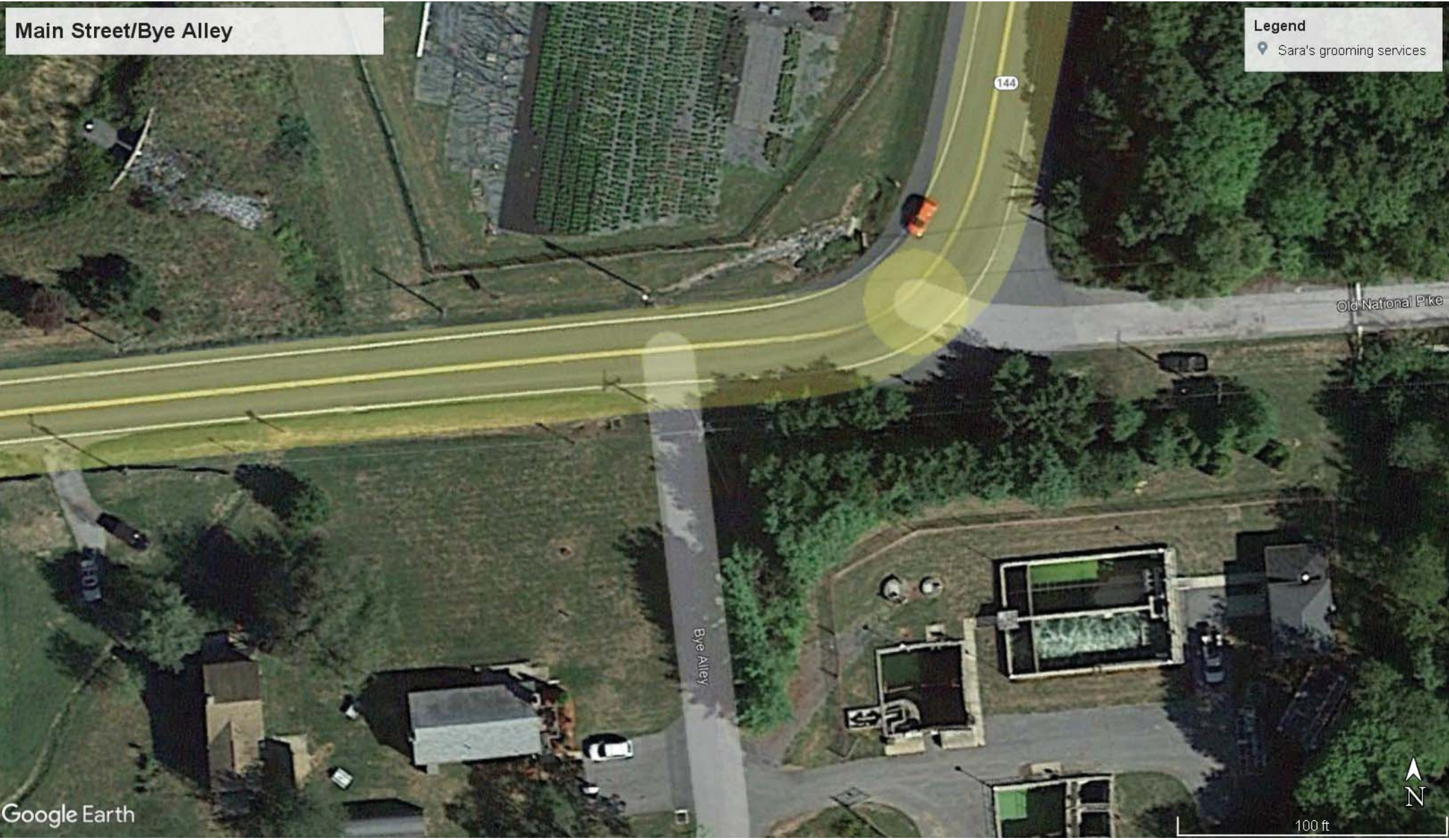
Counted by: VCU  
 Date: May 25, 2022  
 Weather: Sunny/Warm  
 Entered by: SN

Wednesday

Star Rating: 4



| TIME               | TRAFFIC FROM NORTH |      |      |      |       | TRAFFIC FROM SOUTH |      |      |      |       | TRAFFIC FROM EAST |      |      |      |       | TRAFFIC FROM WEST |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|--------------------|--------------------|------|------|------|-------|--------------------|------|------|------|-------|-------------------|------|------|------|-------|-------------------|------|------|------|-------|------------------------------|
|                    | on:<br>RIGHT       | THRU | LEFT | U-TN | TOTAL | on:<br>RIGHT       | THRU | LEFT | U-TN | TOTAL | on:<br>RIGHT      | THRU | LEFT | U-TN | TOTAL | on:<br>RIGHT      | THRU | LEFT | U-TN | TOTAL |                              |
| <b>AM</b>          |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                   |      |      |      |       |                              |
| 7:00 - 7:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 33   | 0    | 0    | 33    | 0                 | 109  | 0    | 0    | 109   | 142                          |
| 7:15 - 7:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 1    | 0    | 1     | 0                 | 54   | 0    | 0    | 54    | 0                 | 109  | 0    | 0    | 109   | 164                          |
| 7:30 - 7:45        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 72   | 0    | 0    | 72    | 0                 | 150  | 0    | 0    | 150   | 222                          |
| 7:45 - 8:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 80   | 0    | 0    | 80    | 0                 | 151  | 0    | 0    | 151   | 231                          |
| 8:00 - 8:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 53   | 0    | 0    | 53    | 0                 | 142  | 0    | 0    | 142   | 195                          |
| 8:15 - 8:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 69   | 0    | 0    | 69    | 0                 | 98   | 0    | 0    | 98    | 167                          |
| 8:30 - 8:45        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 59   | 0    | 0    | 59    | 0                 | 123  | 0    | 0    | 123   | 182                          |
| 8:45 - 9:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 73   | 0    | 0    | 73    | 0                 | 109  | 0    | 0    | 109   | 182                          |
| <b>2 Hr Totals</b> | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 1    | 0    | 1     | 0                 | 493  | 0    | 0    | 493   | 0                 | 991  | 0    | 0    | 991   | 1485                         |
| <b>1 Hr Totals</b> |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                   |      |      |      |       |                              |
| 7:00 - 8:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 1    | 0    | 1     | 0                 | 239  | 0    | 0    | 239   | 0                 | 519  | 0    | 0    | 519   | 759                          |
| 7:15 - 8:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 1    | 0    | 1     | 0                 | 259  | 0    | 0    | 259   | 0                 | 552  | 0    | 0    | 552   | 812                          |
| 7:30 - 8:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 274  | 0    | 0    | 274   | 0                 | 541  | 0    | 0    | 541   | 815                          |
| 7:45 - 8:45        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 261  | 0    | 0    | 261   | 0                 | 514  | 0    | 0    | 514   | 775                          |
| 8:00 - 9:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 254  | 0    | 0    | 254   | 0                 | 472  | 0    | 0    | 472   | 726                          |
| <b>PEAK HOUR</b>   |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                   |      |      |      |       |                              |
| 7:30 - 8:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 274  | 0    | 0    | 274   | 0                 | 541  | 0    | 0    | 541   | 815                          |
| <b>PM</b>          |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                   |      |      |      |       |                              |
| 4:00 - 4:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 114  | 0    | 0    | 114   | 0                 | 106  | 0    | 0    | 106   | 220                          |
| 4:15 - 4:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 126  | 0    | 0    | 126   | 0                 | 121  | 0    | 0    | 121   | 247                          |
| 4:30 - 4:45        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 132  | 0    | 0    | 132   | 0                 | 124  | 0    | 0    | 124   | 256                          |
| 4:45 - 5:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 160  | 0    | 0    | 160   | 0                 | 135  | 0    | 0    | 135   | 295                          |
| 5:00 - 5:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 141  | 0    | 0    | 141   | 1                 | 110  | 0    | 0    | 111   | 252                          |
| 5:15 - 5:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 144  | 0    | 0    | 144   | 0                 | 100  | 0    | 0    | 100   | 244                          |
| 5:30 - 5:45        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 146  | 0    | 0    | 146   | 0                 | 94   | 0    | 0    | 94    | 240                          |
| 5:45 - 6:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 141  | 0    | 0    | 141   | 0                 | 93   | 0    | 0    | 93    | 234                          |
| <b>2 Hr Totals</b> | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 1104 | 0    | 0    | 1104  | 1                 | 883  | 0    | 0    | 884   | 1988                         |
| <b>1 Hr Totals</b> |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                   |      |      |      |       |                              |
| 4:00 - 5:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 532  | 0    | 0    | 532   | 0                 | 486  | 0    | 0    | 486   | 1018                         |
| 4:15 - 5:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 559  | 0    | 0    | 559   | 1                 | 490  | 0    | 0    | 491   | 1050                         |
| 4:30 - 5:30        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 577  | 0    | 0    | 577   | 1                 | 469  | 0    | 0    | 470   | 1047                         |
| 4:45 - 5:45        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 591  | 0    | 0    | 591   | 1                 | 439  | 0    | 0    | 440   | 1031                         |
| 5:00 - 6:00        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 572  | 0    | 0    | 572   | 1                 | 397  | 0    | 0    | 398   | 970                          |
| <b>PEAK HOUR</b>   |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                   |      |      |      |       |                              |
| 4:15 - 5:15        | 0                  | 0    | 0    | 0    | 0     | 0                  | 0    | 0    | 0    | 0     | 0                 | 559  | 0    | 0    | 559   | 1                 | 490  | 0    | 0    | 491   | 1050                         |



Main Street/Bye Alley

Legend  
Sara's grooming services

Google Earth

# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 75  
and: Old New Market Road  
Location: Frederick County, Maryland

Counted by: VCU  
Date: May 25, 2022  
Weather: Sunny/Warm  
Entered by: SN

Wednesday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH |      |      |      |       | TRAFFIC FROM SOUTH |      |      |      |       | TRAFFIC FROM EAST |      |      |      |       | TRAFFIC FROM WEST          |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|--------------------|------|------|------|-------|--------------------|------|------|------|-------|-------------------|------|------|------|-------|----------------------------|------|------|------|-------|------------------------------|
|             | on:<br>MD 75       |      |      |      |       | on:<br>MD 75       |      |      |      |       | on:               |      |      |      |       | on:<br>Old New Market Road |      |      |      |       |                              |
|             | RIGHT              | THRU | LEFT | U-TN | TOTAL | RIGHT              | THRU | LEFT | U-TN | TOTAL | RIGHT             | THRU | LEFT | U-TN | TOTAL | RIGHT                      | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                            |      |      |      |       |                              |
| 7:00 - 7:15 | 15                 | 193  | 0    | 0    | 208   | 0                  | 125  | 1    | 0    | 126   | 0                 | 0    | 0    | 0    | 0     | 10                         | 0    | 28   | 0    | 38    | 372                          |
| 7:15 - 7:30 | 23                 | 227  | 0    | 0    | 250   | 0                  | 82   | 5    | 0    | 87    | 0                 | 0    | 0    | 0    | 0     | 10                         | 0    | 7    | 0    | 17    | 354                          |
| 7:30 - 7:45 | 37                 | 237  | 0    | 0    | 274   | 0                  | 72   | 2    | 0    | 74    | 0                 | 0    | 0    | 0    | 0     | 1                          | 0    | 7    | 0    | 8     | 356                          |
| 7:45 - 8:00 | 29                 | 155  | 0    | 0    | 184   | 0                  | 83   | 9    | 0    | 92    | 0                 | 0    | 0    | 0    | 0     | 9                          | 0    | 17   | 0    | 26    | 302                          |
| 8:00 - 8:15 | 13                 | 131  | 0    | 0    | 144   | 0                  | 80   | 2    | 0    | 82    | 0                 | 0    | 0    | 0    | 0     | 10                         | 0    | 16   | 0    | 26    | 252                          |
| 8:15 - 8:30 | 12                 | 138  | 0    | 7    | 157   | 0                  | 110  | 4    | 0    | 114   | 0                 | 0    | 0    | 0    | 0     | 5                          | 0    | 10   | 0    | 15    | 286                          |
| 8:30 - 8:45 | 13                 | 100  | 0    | 0    | 113   | 0                  | 136  | 4    | 0    | 140   | 0                 | 0    | 0    | 0    | 0     | 10                         | 0    | 21   | 0    | 31    | 284                          |
| 8:45 - 9:00 | 7                  | 93   | 0    | 0    | 100   | 0                  | 102  | 6    | 0    | 108   | 0                 | 0    | 0    | 0    | 0     | 10                         | 0    | 17   | 0    | 27    | 235                          |
| 2 Hr Totals | 149                | 1274 | 0    | 7    | 1430  | 0                  | 790  | 33   | 0    | 823   | 0                 | 0    | 0    | 0    | 0     | 65                         | 0    | 123  | 0    | 188   | 2441                         |
| 1 Hr Totals |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                            |      |      |      |       |                              |
| 7:00 - 8:00 | 104                | 812  | 0    | 0    | 916   | 0                  | 362  | 17   | 0    | 379   | 0                 | 0    | 0    | 0    | 0     | 30                         | 0    | 59   | 0    | 89    | 1384                         |
| 7:15 - 8:15 | 102                | 750  | 0    | 0    | 852   | 0                  | 317  | 18   | 0    | 335   | 0                 | 0    | 0    | 0    | 0     | 30                         | 0    | 47   | 0    | 77    | 1264                         |
| 7:30 - 8:30 | 91                 | 661  | 0    | 7    | 759   | 0                  | 345  | 17   | 0    | 362   | 0                 | 0    | 0    | 0    | 0     | 25                         | 0    | 50   | 0    | 75    | 1196                         |
| 7:45 - 8:45 | 67                 | 524  | 0    | 7    | 598   | 0                  | 409  | 19   | 0    | 428   | 0                 | 0    | 0    | 0    | 0     | 34                         | 0    | 64   | 0    | 98    | 1124                         |
| 8:00 - 9:00 | 45                 | 462  | 0    | 7    | 514   | 0                  | 428  | 16   | 0    | 444   | 0                 | 0    | 0    | 0    | 0     | 35                         | 0    | 64   | 0    | 99    | 1057                         |
| PEAK HOUR   |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                            |      |      |      |       |                              |
| 7:00 - 8:00 | 104                | 812  | 0    | 0    | 916   | 0                  | 362  | 17   | 0    | 379   | 0                 | 0    | 0    | 0    | 0     | 30                         | 0    | 59   | 0    | 89    | 1384                         |
| PM          |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                            |      |      |      |       |                              |
| 4:00 - 4:15 | 6                  | 82   | 0    | 0    | 88    | 0                  | 189  | 17   | 0    | 206   | 0                 | 0    | 0    | 0    | 0     | 6                          | 0    | 10   | 0    | 16    | 310                          |
| 4:15 - 4:30 | 9                  | 100  | 0    | 0    | 109   | 0                  | 179  | 12   | 0    | 191   | 0                 | 0    | 0    | 0    | 0     | 6                          | 0    | 14   | 0    | 20    | 320                          |
| 4:30 - 4:45 | 14                 | 86   | 0    | 0    | 100   | 0                  | 245  | 12   | 0    | 257   | 0                 | 0    | 0    | 0    | 0     | 5                          | 0    | 9    | 0    | 14    | 371                          |
| 4:45 - 5:00 | 11                 | 111  | 0    | 0    | 122   | 0                  | 181  | 19   | 0    | 200   | 0                 | 0    | 0    | 0    | 0     | 8                          | 0    | 10   | 0    | 18    | 340                          |
| 5:00 - 5:15 | 14                 | 103  | 0    | 0    | 117   | 0                  | 214  | 27   | 0    | 241   | 0                 | 0    | 0    | 0    | 0     | 11                         | 0    | 9    | 0    | 20    | 378                          |
| 5:15 - 5:30 | 15                 | 123  | 0    | 0    | 138   | 0                  | 195  | 16   | 0    | 211   | 0                 | 0    | 0    | 0    | 0     | 11                         | 0    | 8    | 0    | 19    | 368                          |
| 5:30 - 5:45 | 10                 | 104  | 0    | 0    | 114   | 0                  | 176  | 20   | 0    | 196   | 0                 | 0    | 0    | 0    | 0     | 7                          | 0    | 9    | 0    | 16    | 326                          |
| 5:45 - 6:00 | 9                  | 100  | 0    | 0    | 109   | 0                  | 156  | 28   | 0    | 184   | 0                 | 0    | 0    | 0    | 0     | 10                         | 0    | 11   | 0    | 21    | 314                          |
| 2 Hr Totals | 88                 | 809  | 0    | 0    | 897   | 0                  | 1535 | 151  | 0    | 1686  | 0                 | 0    | 0    | 0    | 0     | 64                         | 0    | 80   | 0    | 144   | 2727                         |
| 1 Hr Totals |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                            |      |      |      |       |                              |
| 4:00 - 5:00 | 40                 | 379  | 0    | 0    | 419   | 0                  | 794  | 60   | 0    | 854   | 0                 | 0    | 0    | 0    | 0     | 25                         | 0    | 43   | 0    | 68    | 1341                         |
| 4:15 - 5:15 | 48                 | 400  | 0    | 0    | 448   | 0                  | 819  | 70   | 0    | 889   | 0                 | 0    | 0    | 0    | 0     | 30                         | 0    | 42   | 0    | 72    | 1409                         |
| 4:30 - 5:30 | 54                 | 423  | 0    | 0    | 477   | 0                  | 835  | 74   | 0    | 909   | 0                 | 0    | 0    | 0    | 0     | 35                         | 0    | 36   | 0    | 71    | 1457                         |
| 4:45 - 5:45 | 50                 | 441  | 0    | 0    | 491   | 0                  | 766  | 82   | 0    | 848   | 0                 | 0    | 0    | 0    | 0     | 37                         | 0    | 36   | 0    | 73    | 1412                         |
| 5:00 - 6:00 | 48                 | 430  | 0    | 0    | 478   | 0                  | 741  | 91   | 0    | 832   | 0                 | 0    | 0    | 0    | 0     | 39                         | 0    | 37   | 0    | 76    | 1386                         |
| PEAK HOUR   |                    |      |      |      |       |                    |      |      |      |       |                   |      |      |      |       |                            |      |      |      |       |                              |
| 4:30 - 5:30 | 54                 | 423  | 0    | 0    | 477   | 0                  | 835  | 74   | 0    | 909   | 0                 | 0    | 0    | 0    | 0     | 35                         | 0    | 36   | 0    | 71    | 1457                         |





Legend

Sara's grooming services

# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 75  
and: Old National Pike  
Location: Frederick County, Maryland

Counted by: VCU  
Date: February 25, 2021  
Weather: Sunny/Cool  
Entered by: SN

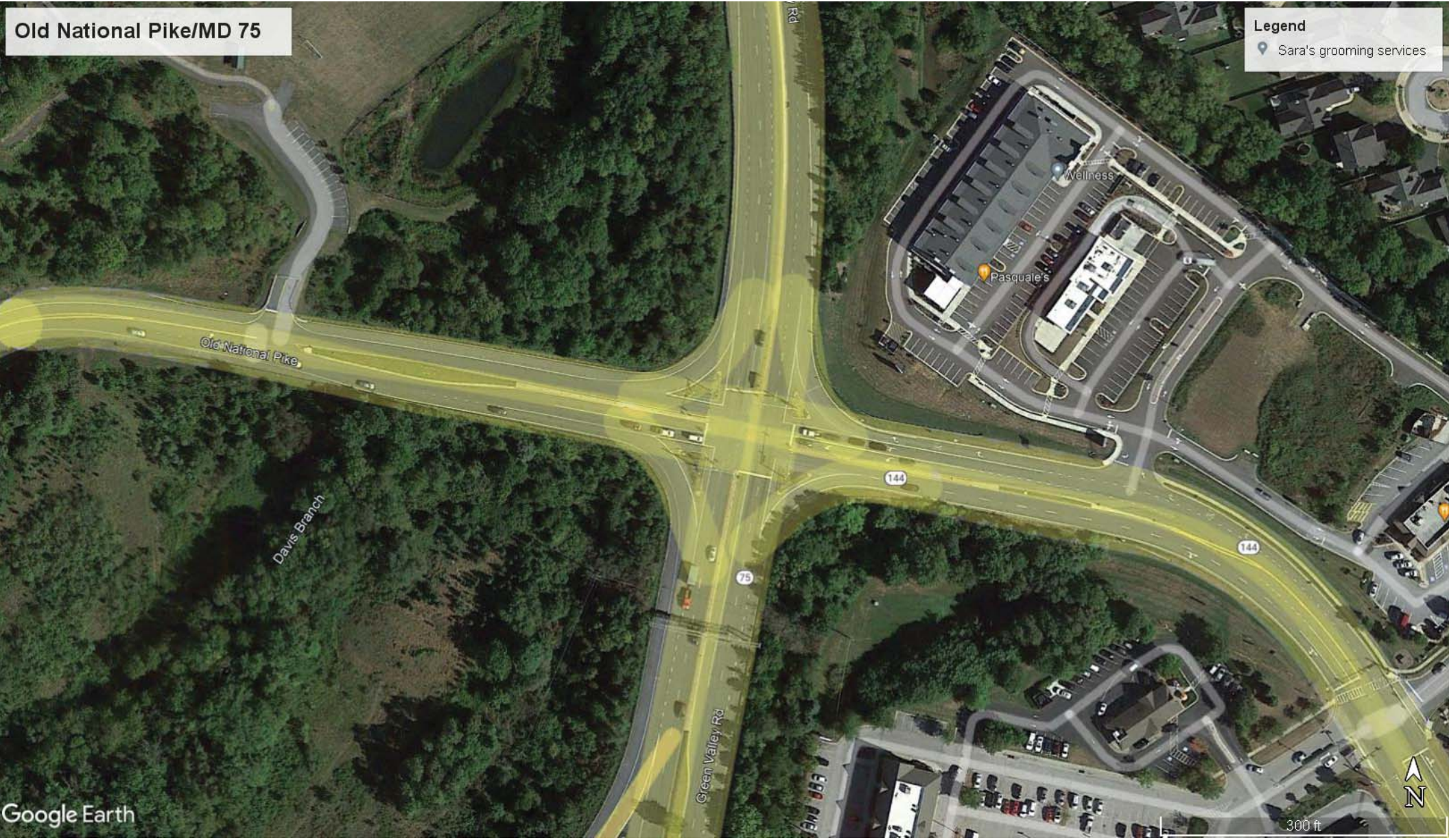
Thursday

Star Rating: 4



| TIME               | TRAFFIC FROM NORTH<br>on: MD 75 |      |      |      |       | TRAFFIC FROM SOUTH<br>on: MD 75 |      |      |      |       | TRAFFIC FROM EAST<br>on: Old National Pike |      |      |      |       | TRAFFIC FROM WEST<br>on: Old National Pike |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|--------------------|---------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|--------------------------------------------|------|------|------|-------|--------------------------------------------|------|------|------|-------|------------------------------|
|                    | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                                      | THRU | LEFT | U-TN | TOTAL | RIGHT                                      | THRU | LEFT | U-TN | TOTAL |                              |
| <b>AM</b>          |                                 |      |      |      |       |                                 |      |      |      |       |                                            |      |      |      |       |                                            |      |      |      |       |                              |
| 7:00 - 7:15        | 4                               | 120  | 28   | 0    | 152   | 41                              | 33   | 15   | 0    | 89    | 29                                         | 18   | 72   | 0    | 119   | 50                                         | 34   | 5    | 0    | 89    | 449                          |
| 7:15 - 7:30        | 8                               | 146  | 30   | 0    | 184   | 53                              | 36   | 21   | 0    | 110   | 21                                         | 30   | 83   | 0    | 134   | 69                                         | 36   | 5    | 0    | 110   | 538                          |
| 7:30 - 7:45        | 9                               | 151  | 27   | 0    | 187   | 49                              | 40   | 17   | 0    | 106   | 15                                         | 37   | 79   | 0    | 131   | 56                                         | 29   | 3    | 0    | 88    | 512                          |
| 7:45 - 8:00        | 9                               | 125  | 22   | 0    | 156   | 71                              | 36   | 22   | 0    | 129   | 11                                         | 25   | 73   | 0    | 109   | 53                                         | 47   | 6    | 0    | 106   | 500                          |
| 8:00 - 8:15        | 3                               | 69   | 20   | 0    | 92    | 62                              | 40   | 17   | 0    | 119   | 12                                         | 30   | 79   | 0    | 121   | 45                                         | 44   | 3    | 0    | 92    | 424                          |
| 8:15 - 8:30        | 5                               | 113  | 26   | 0    | 144   | 71                              | 36   | 31   | 0    | 138   | 15                                         | 29   | 72   | 0    | 116   | 36                                         | 25   | 4    | 0    | 65    | 463                          |
| 8:30 - 8:45        | 7                               | 84   | 17   | 0    | 108   | 57                              | 53   | 23   | 0    | 133   | 8                                          | 28   | 75   | 0    | 111   | 39                                         | 42   | 3    | 0    | 84    | 436                          |
| 8:45 - 9:00        | 3                               | 79   | 13   | 0    | 95    | 62                              | 51   | 24   | 0    | 137   | 13                                         | 30   | 72   | 0    | 115   | 46                                         | 46   | 7    | 0    | 99    | 446                          |
| <b>2 Hr Totals</b> | 48                              | 887  | 183  | 0    | 1118  | 466                             | 325  | 170  | 0    | 961   | 124                                        | 227  | 605  | 0    | 956   | 394                                        | 303  | 36   | 0    | 733   | 3768                         |
| <b>1 Hr Totals</b> |                                 |      |      |      |       |                                 |      |      |      |       |                                            |      |      |      |       |                                            |      |      |      |       |                              |
| 7:00 - 8:00        | 30                              | 542  | 107  | 0    | 679   | 214                             | 145  | 75   | 0    | 434   | 76                                         | 110  | 307  | 0    | 493   | 228                                        | 146  | 19   | 0    | 393   | 1999                         |
| 7:15 - 8:15        | 29                              | 491  | 99   | 0    | 619   | 235                             | 152  | 77   | 0    | 464   | 59                                         | 122  | 314  | 0    | 495   | 223                                        | 156  | 17   | 0    | 396   | 1974                         |
| 7:30 - 8:30        | 26                              | 458  | 95   | 0    | 579   | 253                             | 152  | 87   | 0    | 492   | 53                                         | 121  | 303  | 0    | 477   | 190                                        | 145  | 16   | 0    | 351   | 1899                         |
| 7:45 - 8:45        | 24                              | 391  | 85   | 0    | 500   | 261                             | 165  | 93   | 0    | 519   | 46                                         | 112  | 299  | 0    | 457   | 173                                        | 158  | 16   | 0    | 347   | 1823                         |
| 8:00 - 9:00        | 18                              | 345  | 76   | 0    | 439   | 252                             | 180  | 95   | 0    | 527   | 48                                         | 117  | 298  | 0    | 463   | 166                                        | 157  | 17   | 0    | 340   | 1769                         |
| <b>PEAK HOUR</b>   |                                 |      |      |      |       |                                 |      |      |      |       |                                            |      |      |      |       |                                            |      |      |      |       |                              |
| <b>7:00 - 8:00</b> | 30                              | 542  | 107  | 0    | 679   | 214                             | 145  | 75   | 0    | 434   | 76                                         | 110  | 307  | 0    | 493   | 228                                        | 146  | 19   | 0    | 393   | 1999                         |
| <b>PM</b>          |                                 |      |      |      |       |                                 |      |      |      |       |                                            |      |      |      |       |                                            |      |      |      |       |                              |
| 4:00 - 4:15        | 3                               | 66   | 30   | 0    | 99    | 130                             | 134  | 46   | 0    | 310   | 43                                         | 50   | 65   | 0    | 158   | 38                                         | 51   | 5    | 0    | 94    | 661                          |
| 4:15 - 4:30        | 5                               | 71   | 20   | 0    | 96    | 121                             | 149  | 54   | 0    | 324   | 53                                         | 59   | 55   | 0    | 167   | 36                                         | 34   | 6    | 0    | 76    | 663                          |
| 4:30 - 4:45        | 5                               | 66   | 28   | 0    | 99    | 100                             | 110  | 48   | 0    | 258   | 53                                         | 59   | 80   | 0    | 192   | 33                                         | 58   | 4    | 0    | 95    | 644                          |
| 4:45 - 5:00        | 3                               | 61   | 26   | 0    | 90    | 129                             | 143  | 67   | 0    | 339   | 44                                         | 60   | 62   | 0    | 166   | 13                                         | 28   | 4    | 0    | 45    | 640                          |
| 5:00 - 5:15        | 3                               | 60   | 16   | 0    | 79    | 126                             | 137  | 56   | 0    | 319   | 62                                         | 50   | 81   | 0    | 193   | 14                                         | 51   | 7    | 0    | 72    | 663                          |
| 5:15 - 5:30        | 9                               | 69   | 29   | 0    | 107   | 109                             | 140  | 55   | 0    | 304   | 48                                         | 63   | 76   | 0    | 187   | 29                                         | 45   | 5    | 0    | 79    | 677                          |
| 5:30 - 5:45        | 3                               | 76   | 12   | 0    | 91    | 95                              | 117  | 51   | 0    | 263   | 55                                         | 53   | 85   | 0    | 193   | 16                                         | 49   | 3    | 0    | 68    | 615                          |
| 5:45 - 6:00        | 3                               | 63   | 33   | 0    | 99    | 112                             | 87   | 53   | 0    | 252   | 49                                         | 64   | 75   | 0    | 188   | 31                                         | 29   | 1    | 0    | 61    | 600                          |
| <b>2 Hr Totals</b> | 34                              | 532  | 194  | 0    | 760   | 922                             | 1017 | 430  | 0    | 2369  | 407                                        | 458  | 579  | 0    | 1444  | 210                                        | 345  | 35   | 0    | 590   | 5163                         |
| <b>1 Hr Totals</b> |                                 |      |      |      |       |                                 |      |      |      |       |                                            |      |      |      |       |                                            |      |      |      |       |                              |
| 4:00 - 5:00        | 16                              | 264  | 104  | 0    | 384   | 480                             | 536  | 215  | 0    | 1231  | 193                                        | 228  | 262  | 0    | 683   | 120                                        | 171  | 19   | 0    | 310   | 2608                         |
| 4:15 - 5:15        | 16                              | 258  | 90   | 0    | 364   | 476                             | 539  | 225  | 0    | 1240  | 212                                        | 228  | 278  | 0    | 718   | 96                                         | 171  | 21   | 0    | 288   | 2610                         |
| 4:30 - 5:30        | 20                              | 256  | 99   | 0    | 375   | 464                             | 530  | 226  | 0    | 1220  | 207                                        | 232  | 299  | 0    | 738   | 89                                         | 182  | 20   | 0    | 291   | 2624                         |
| 4:45 - 5:45        | 18                              | 266  | 83   | 0    | 367   | 459                             | 537  | 229  | 0    | 1225  | 209                                        | 226  | 304  | 0    | 739   | 72                                         | 173  | 19   | 0    | 264   | 2595                         |
| 5:00 - 6:00        | 18                              | 268  | 90   | 0    | 376   | 442                             | 481  | 215  | 0    | 1138  | 214                                        | 230  | 317  | 0    | 761   | 90                                         | 174  | 16   | 0    | 280   | 2555                         |
| <b>PEAK HOUR</b>   |                                 |      |      |      |       |                                 |      |      |      |       |                                            |      |      |      |       |                                            |      |      |      |       |                              |
| <b>4:30 - 5:30</b> | 20                              | 256  | 99   | 0    | 375   | 464                             | 530  | 226  | 0    | 1220  | 207                                        | 232  | 299  | 0    | 738   | 89                                         | 182  | 20   | 0    | 291   | 2624                         |





Old National Pike/MD 75

Legend

- Sara's grooming services

Google Earth



# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 75  
and: I-70 WB Ramps  
Location: Frederick County, Maryland

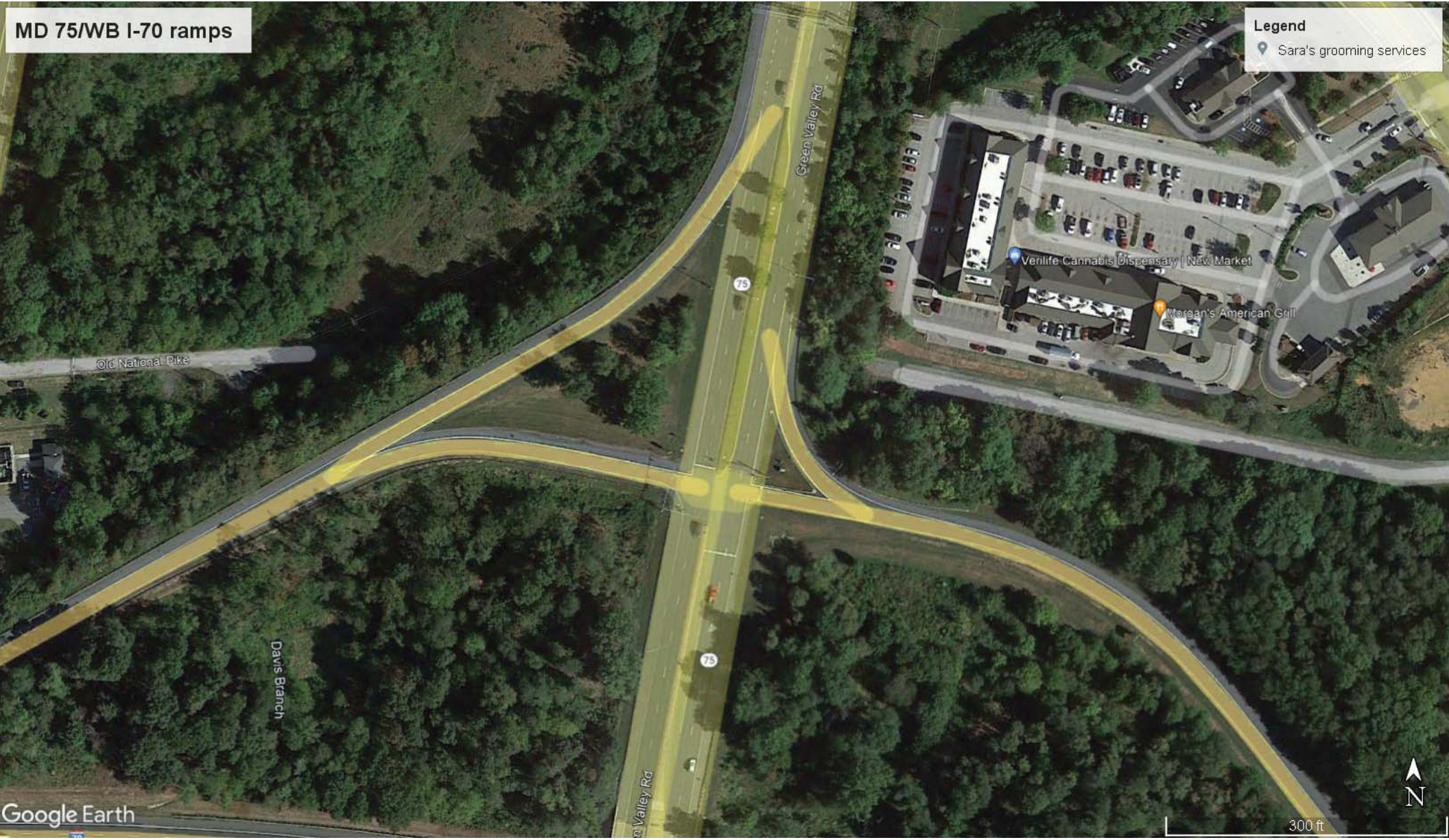
Counted by: VCU  
Date: February 25, 2021  
Weather: Sunny/Cool  
Entered by: SN

Thursday

Star Rating: 5



| TIME        | TRAFFIC FROM NORTH<br>on: MD 75 |      |      |      |       | TRAFFIC FROM SOUTH<br>on: MD 75 |      |      |      |       | TRAFFIC FROM EAST<br>on: I-70 WB Off Ramp |      |      |      |       | TRAFFIC FROM WEST<br>on: I-70 WB On Ramp |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|---------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|-------------------------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                                     | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                 |      |      |      |       |                                 |      |      |      |       |                                           |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 7:15 | 65                              | 169  | 0    | 0    | 234   | 0                               | 72   | 25   | 0    | 97    | 16                                        | 0    | 23   | 0    | 39    | 0                                        | 0    | 0    | 0    | 0     | 370                          |
| 7:15 - 7:30 | 107                             | 197  | 0    | 0    | 304   | 0                               | 76   | 29   | 0    | 105   | 30                                        | 0    | 26   | 0    | 56    | 0                                        | 0    | 0    | 0    | 0     | 465                          |
| 7:30 - 7:45 | 103                             | 181  | 0    | 0    | 284   | 0                               | 83   | 38   | 1    | 122   | 28                                        | 1    | 33   | 0    | 62    | 0                                        | 0    | 0    | 0    | 0     | 468                          |
| 7:45 - 8:00 | 99                              | 162  | 0    | 0    | 261   | 0                               | 90   | 41   | 0    | 131   | 34                                        | 0    | 19   | 0    | 53    | 0                                        | 0    | 0    | 0    | 0     | 445                          |
| 8:00 - 8:15 | 80                              | 116  | 0    | 0    | 196   | 0                               | 80   | 35   | 0    | 115   | 37                                        | 0    | 16   | 0    | 53    | 0                                        | 0    | 0    | 0    | 0     | 364                          |
| 8:15 - 8:30 | 93                              | 145  | 0    | 0    | 238   | 0                               | 95   | 42   | 0    | 137   | 46                                        | 0    | 13   | 0    | 59    | 0                                        | 0    | 0    | 0    | 0     | 434                          |
| 8:30 - 8:45 | 101                             | 105  | 0    | 0    | 206   | 0                               | 92   | 43   | 0    | 135   | 38                                        | 0    | 11   | 0    | 49    | 0                                        | 0    | 0    | 0    | 0     | 390                          |
| 8:45 - 9:00 | 89                              | 102  | 0    | 0    | 191   | 0                               | 99   | 28   | 0    | 127   | 37                                        | 0    | 14   | 0    | 51    | 0                                        | 0    | 0    | 0    | 0     | 369                          |
| 2 Hr Totals | 737                             | 1177 | 0    | 0    | 1914  | 0                               | 687  | 281  | 1    | 969   | 266                                       | 1    | 155  | 0    | 422   | 0                                        | 0    | 0    | 0    | 0     | 3305                         |
| 1 Hr Totals |                                 |      |      |      |       |                                 |      |      |      |       |                                           |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 8:00 | 374                             | 709  | 0    | 0    | 1083  | 0                               | 321  | 133  | 1    | 455   | 108                                       | 1    | 101  | 0    | 210   | 0                                        | 0    | 0    | 0    | 0     | 1748                         |
| 7:15 - 8:15 | 389                             | 656  | 0    | 0    | 1045  | 0                               | 329  | 143  | 1    | 473   | 129                                       | 1    | 94   | 0    | 224   | 0                                        | 0    | 0    | 0    | 0     | 1742                         |
| 7:30 - 8:30 | 375                             | 604  | 0    | 0    | 979   | 0                               | 348  | 156  | 1    | 505   | 145                                       | 1    | 81   | 0    | 227   | 0                                        | 0    | 0    | 0    | 0     | 1711                         |
| 7:45 - 8:45 | 373                             | 528  | 0    | 0    | 901   | 0                               | 357  | 161  | 0    | 518   | 155                                       | 0    | 59   | 0    | 214   | 0                                        | 0    | 0    | 0    | 0     | 1633                         |
| 8:00 - 9:00 | 363                             | 468  | 0    | 0    | 831   | 0                               | 366  | 148  | 0    | 514   | 158                                       | 0    | 54   | 0    | 212   | 0                                        | 0    | 0    | 0    | 0     | 1557                         |
| PEAK HOUR   |                                 |      |      |      |       |                                 |      |      |      |       |                                           |      |      |      |       |                                          |      |      |      |       |                              |
| 7:00 - 8:00 | 374                             | 709  | 0    | 0    | 1083  | 0                               | 321  | 133  | 1    | 455   | 108                                       | 1    | 101  | 0    | 210   | 0                                        | 0    | 0    | 0    | 0     | 1748                         |
| PM          |                                 |      |      |      |       |                                 |      |      |      |       |                                           |      |      |      |       |                                          |      |      |      |       |                              |
| 4:00 - 4:15 | 86                              | 73   | 0    | 0    | 159   | 0                               | 171  | 38   | 1    | 210   | 141                                       | 1    | 29   | 0    | 171   | 0                                        | 0    | 0    | 0    | 0     | 540                          |
| 4:15 - 4:30 | 96                              | 78   | 0    | 0    | 174   | 0                               | 168  | 48   | 0    | 216   | 133                                       | 0    | 15   | 0    | 148   | 0                                        | 0    | 0    | 0    | 0     | 538                          |
| 4:30 - 4:45 | 88                              | 84   | 0    | 0    | 172   | 0                               | 141  | 25   | 0    | 166   | 109                                       | 0    | 30   | 0    | 139   | 0                                        | 0    | 0    | 0    | 0     | 477                          |
| 4:45 - 5:00 | 67                              | 73   | 0    | 0    | 140   | 0                               | 185  | 46   | 0    | 231   | 119                                       | 0    | 34   | 0    | 153   | 0                                        | 0    | 0    | 0    | 0     | 524                          |
| 5:00 - 5:15 | 84                              | 68   | 0    | 0    | 152   | 0                               | 182  | 65   | 0    | 247   | 133                                       | 2    | 24   | 0    | 159   | 0                                        | 0    | 0    | 0    | 0     | 558                          |
| 5:15 - 5:30 | 74                              | 101  | 0    | 0    | 175   | 0                               | 204  | 41   | 0    | 245   | 103                                       | 0    | 28   | 0    | 131   | 0                                        | 0    | 0    | 0    | 0     | 551                          |
| 5:30 - 5:45 | 86                              | 85   | 0    | 0    | 171   | 0                               | 164  | 35   | 0    | 199   | 103                                       | 0    | 21   | 0    | 124   | 0                                        | 0    | 0    | 0    | 0     | 494                          |
| 5:45 - 6:00 | 85                              | 86   | 0    | 0    | 171   | 0                               | 167  | 32   | 0    | 199   | 95                                        | 0    | 23   | 0    | 118   | 0                                        | 0    | 0    | 0    | 0     | 488                          |
| 2 Hr Totals | 666                             | 648  | 0    | 0    | 1314  | 0                               | 1382 | 330  | 1    | 1713  | 936                                       | 3    | 204  | 0    | 1143  | 0                                        | 0    | 0    | 0    | 0     | 4170                         |
| 1 Hr Totals |                                 |      |      |      |       |                                 |      |      |      |       |                                           |      |      |      |       |                                          |      |      |      |       |                              |
| 4:00 - 5:00 | 337                             | 308  | 0    | 0    | 645   | 0                               | 665  | 157  | 1    | 823   | 502                                       | 1    | 108  | 0    | 611   | 0                                        | 0    | 0    | 0    | 0     | 2079                         |
| 4:15 - 5:15 | 335                             | 303  | 0    | 0    | 638   | 0                               | 676  | 184  | 0    | 860   | 494                                       | 2    | 103  | 0    | 599   | 0                                        | 0    | 0    | 0    | 0     | 2097                         |
| 4:30 - 5:30 | 313                             | 326  | 0    | 0    | 639   | 0                               | 712  | 177  | 0    | 889   | 464                                       | 2    | 116  | 0    | 582   | 0                                        | 0    | 0    | 0    | 0     | 2110                         |
| 4:45 - 5:45 | 311                             | 327  | 0    | 0    | 638   | 0                               | 735  | 187  | 0    | 922   | 458                                       | 2    | 107  | 0    | 567   | 0                                        | 0    | 0    | 0    | 0     | 2127                         |
| 5:00 - 6:00 | 329                             | 340  | 0    | 0    | 669   | 0                               | 717  | 173  | 0    | 890   | 434                                       | 2    | 96   | 0    | 532   | 0                                        | 0    | 0    | 0    | 0     | 2091                         |
| PEAK HOUR   |                                 |      |      |      |       |                                 |      |      |      |       |                                           |      |      |      |       |                                          |      |      |      |       |                              |
| 4:45 - 5:45 | 311                             | 327  | 0    | 0    | 638   | 0                               | 735  | 187  | 0    | 922   | 458                                       | 2    | 107  | 0    | 567   | 0                                        | 0    | 0    | 0    | 0     | 2127                         |



MD 75/WB I-70 ramps

Legend  
Sara's grooming services

Google Earth

# TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 75  
 and: I-70 EB Ramps  
 Location: Frederick County, Maryland

Counted by: VCU  
 Date: February 25, 2021  
 Weather: Sunny/Cool  
 Entered by: SN

Thursday

Star Rating: 4



| TIME        | TRAFFIC FROM NORTH<br>on: MD 75 |      |      |      |       | TRAFFIC FROM SOUTH<br>on: MD 75 |      |      |      |       | TRAFFIC FROM EAST<br>on: I-70 EB On Ramp |      |      |      |       | TRAFFIC FROM WEST<br>on: I-70 EB Off Ramp |      |      |      |       | TOTAL<br>N + S<br>+<br>E + W |
|-------------|---------------------------------|------|------|------|-------|---------------------------------|------|------|------|-------|------------------------------------------|------|------|------|-------|-------------------------------------------|------|------|------|-------|------------------------------|
|             | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                           | THRU | LEFT | U-TN | TOTAL | RIGHT                                    | THRU | LEFT | U-TN | TOTAL | RIGHT                                     | THRU | LEFT | U-TN | TOTAL |                              |
| AM          |                                 |      |      |      |       |                                 |      |      |      |       |                                          |      |      |      |       |                                           |      |      |      |       |                              |
| 7:00 - 7:15 | 0                               | 71   | 126  | 0    | 197   | 22                              | 54   | 0    | 0    | 76    | 0                                        | 0    | 0    | 0    | 0     | 41                                        | 0    | 44   | 0    | 85    | 358                          |
| 7:15 - 7:30 | 0                               | 87   | 133  | 0    | 220   | 35                              | 50   | 0    | 0    | 85    | 0                                        | 0    | 0    | 0    | 0     | 42                                        | 0    | 55   | 0    | 97    | 402                          |
| 7:30 - 7:45 | 0                               | 95   | 110  | 0    | 205   | 22                              | 75   | 0    | 0    | 97    | 0                                        | 0    | 0    | 0    | 0     | 47                                        | 0    | 50   | 0    | 97    | 399                          |
| 7:45 - 8:00 | 0                               | 67   | 111  | 0    | 178   | 30                              | 69   | 0    | 0    | 99    | 0                                        | 0    | 0    | 0    | 0     | 67                                        | 1    | 54   | 0    | 122   | 399                          |
| 8:00 - 8:15 | 0                               | 56   | 90   | 0    | 146   | 38                              | 65   | 0    | 0    | 103   | 0                                        | 0    | 0    | 0    | 0     | 44                                        | 0    | 59   | 0    | 103   | 352                          |
| 8:15 - 8:30 | 0                               | 65   | 81   | 0    | 146   | 30                              | 64   | 0    | 0    | 94    | 0                                        | 0    | 0    | 0    | 0     | 45                                        | 0    | 66   | 0    | 111   | 351                          |
| 8:30 - 8:45 | 0                               | 39   | 85   | 0    | 124   | 21                              | 73   | 0    | 0    | 94    | 0                                        | 0    | 0    | 0    | 0     | 31                                        | 0    | 62   | 0    | 93    | 311                          |
| 8:45 - 9:00 | 0                               | 54   | 66   | 0    | 120   | 20                              | 65   | 0    | 0    | 85    | 0                                        | 0    | 0    | 0    | 0     | 25                                        | 0    | 64   | 0    | 89    | 294                          |
| 2 Hr Totals | 0                               | 534  | 802  | 0    | 1336  | 218                             | 515  | 0    | 0    | 733   | 0                                        | 0    | 0    | 0    | 0     | 342                                       | 1    | 454  | 0    | 797   | 2866                         |
| 1 Hr Totals |                                 |      |      |      |       |                                 |      |      |      |       |                                          |      |      |      |       |                                           |      |      |      |       |                              |
| 7:00 - 8:00 | 0                               | 320  | 480  | 0    | 800   | 109                             | 248  | 0    | 0    | 357   | 0                                        | 0    | 0    | 0    | 0     | 197                                       | 1    | 203  | 0    | 401   | 1558                         |
| 7:15 - 8:15 | 0                               | 305  | 444  | 0    | 749   | 125                             | 259  | 0    | 0    | 384   | 0                                        | 0    | 0    | 0    | 0     | 200                                       | 1    | 218  | 0    | 419   | 1552                         |
| 7:30 - 8:30 | 0                               | 283  | 392  | 0    | 675   | 120                             | 273  | 0    | 0    | 393   | 0                                        | 0    | 0    | 0    | 0     | 203                                       | 1    | 229  | 0    | 433   | 1501                         |
| 7:45 - 8:45 | 0                               | 227  | 367  | 0    | 594   | 119                             | 271  | 0    | 0    | 390   | 0                                        | 0    | 0    | 0    | 0     | 187                                       | 1    | 241  | 0    | 429   | 1413                         |
| 8:00 - 9:00 | 0                               | 214  | 322  | 0    | 536   | 109                             | 267  | 0    | 0    | 376   | 0                                        | 0    | 0    | 0    | 0     | 145                                       | 0    | 251  | 0    | 396   | 1308                         |
| PEAK HOUR   |                                 |      |      |      |       |                                 |      |      |      |       |                                          |      |      |      |       |                                           |      |      |      |       |                              |
| 7:00 - 8:00 | 0                               | 320  | 480  | 0    | 800   | 109                             | 248  | 0    | 0    | 357   | 0                                        | 0    | 0    | 0    | 0     | 197                                       | 1    | 203  | 0    | 401   | 1558                         |
| PM          |                                 |      |      |      |       |                                 |      |      |      |       |                                          |      |      |      |       |                                           |      |      |      |       |                              |
| 4:00 - 4:15 | 0                               | 63   | 38   | 0    | 101   | 16                              | 106  | 0    | 0    | 122   | 0                                        | 0    | 0    | 0    | 0     | 32                                        | 0    | 128  | 0    | 160   | 383                          |
| 4:15 - 4:30 | 0                               | 46   | 47   | 0    | 93    | 34                              | 100  | 0    | 0    | 134   | 0                                        | 0    | 0    | 0    | 0     | 40                                        | 0    | 111  | 0    | 151   | 378                          |
| 4:30 - 4:45 | 0                               | 60   | 54   | 0    | 114   | 27                              | 79   | 0    | 0    | 106   | 0                                        | 0    | 0    | 0    | 0     | 48                                        | 0    | 104  | 0    | 152   | 372                          |
| 4:45 - 5:00 | 0                               | 68   | 40   | 0    | 108   | 25                              | 117  | 0    | 0    | 142   | 0                                        | 0    | 0    | 0    | 0     | 32                                        | 0    | 116  | 0    | 148   | 398                          |
| 5:00 - 5:15 | 0                               | 61   | 28   | 0    | 89    | 26                              | 134  | 0    | 0    | 160   | 0                                        | 0    | 0    | 0    | 0     | 29                                        | 2    | 137  | 0    | 168   | 417                          |
| 5:15 - 5:30 | 0                               | 84   | 47   | 0    | 131   | 23                              | 89   | 0    | 0    | 112   | 0                                        | 0    | 0    | 0    | 0     | 43                                        | 0    | 138  | 0    | 181   | 424                          |
| 5:30 - 5:45 | 0                               | 62   | 39   | 0    | 101   | 26                              | 85   | 0    | 0    | 111   | 0                                        | 0    | 0    | 0    | 0     | 37                                        | 0    | 126  | 0    | 163   | 375                          |
| 5:45 - 6:00 | 0                               | 62   | 46   | 0    | 108   | 16                              | 85   | 0    | 0    | 101   | 0                                        | 0    | 0    | 0    | 0     | 34                                        | 0    | 103  | 0    | 137   | 346                          |
| 2 Hr Totals | 0                               | 506  | 339  | 0    | 845   | 193                             | 795  | 0    | 0    | 988   | 0                                        | 0    | 0    | 0    | 0     | 295                                       | 2    | 963  | 0    | 1260  | 3093                         |
| 1 Hr Totals |                                 |      |      |      |       |                                 |      |      |      |       |                                          |      |      |      |       |                                           |      |      |      |       |                              |
| 4:00 - 5:00 | 0                               | 237  | 179  | 0    | 416   | 102                             | 402  | 0    | 0    | 504   | 0                                        | 0    | 0    | 0    | 0     | 152                                       | 0    | 459  | 0    | 611   | 1531                         |
| 4:15 - 5:15 | 0                               | 235  | 169  | 0    | 404   | 112                             | 430  | 0    | 0    | 542   | 0                                        | 0    | 0    | 0    | 0     | 149                                       | 2    | 468  | 0    | 619   | 1565                         |
| 4:30 - 5:30 | 0                               | 273  | 169  | 0    | 442   | 101                             | 419  | 0    | 0    | 520   | 0                                        | 0    | 0    | 0    | 0     | 152                                       | 2    | 495  | 0    | 649   | 1611                         |
| 4:45 - 5:45 | 0                               | 275  | 154  | 0    | 429   | 100                             | 425  | 0    | 0    | 525   | 0                                        | 0    | 0    | 0    | 0     | 141                                       | 2    | 517  | 0    | 660   | 1614                         |
| 5:00 - 6:00 | 0                               | 269  | 160  | 0    | 429   | 91                              | 393  | 0    | 0    | 484   | 0                                        | 0    | 0    | 0    | 0     | 143                                       | 2    | 504  | 0    | 649   | 1562                         |
| PEAK HOUR   |                                 |      |      |      |       |                                 |      |      |      |       |                                          |      |      |      |       |                                           |      |      |      |       |                              |
| 4:45 - 5:45 | 0                               | 275  | 154  | 0    | 429   | 100                             | 425  | 0    | 0    | 525   | 0                                        | 0    | 0    | 0    | 0     | 141                                       | 2    | 517  | 0    | 660   | 1614                         |





MD 75/EB I-70 ramps

**Legend**

-  Sara's grooming services

Google Earth



300 ft

## APPENDIX B

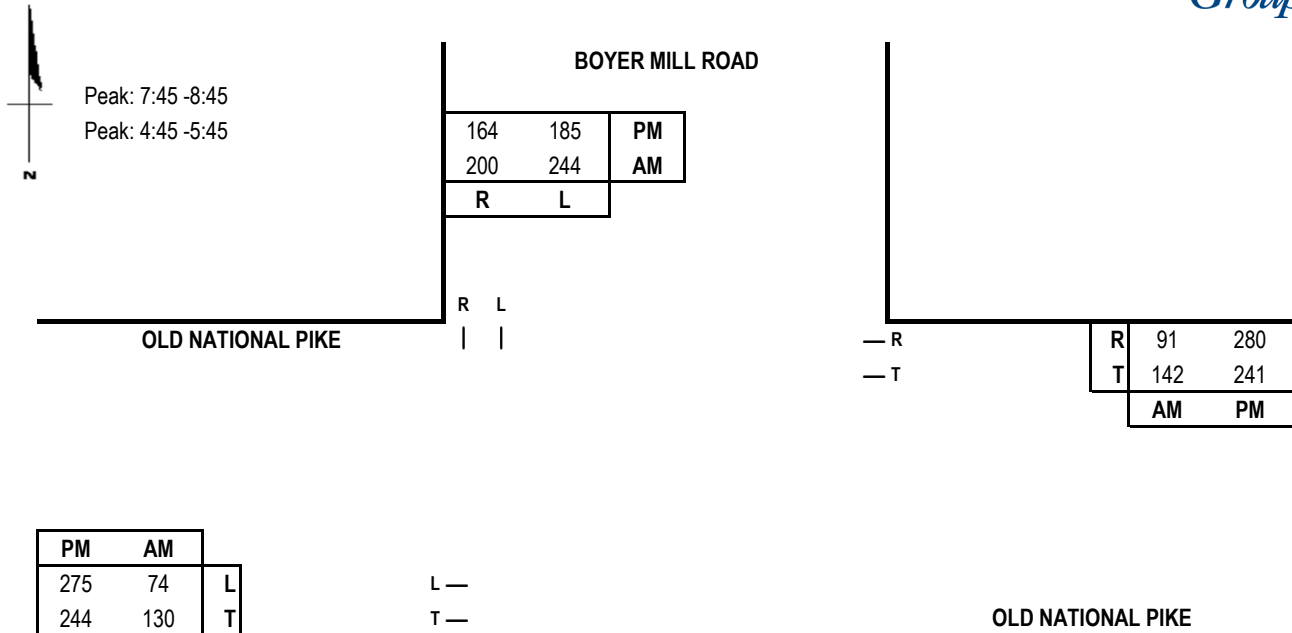
### Intersection Capacity Analysis Worksheets



# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

**E/W Road:** Old National Pike  
**N/S Road:** Boyer Mill Road  
**Conditions:** Existing Traffic

**Date of Count:** 10/26/2021  
**Day of Count:** Tuesday  
**Analyst:** Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| SB                       | 244          | 1.00  | 244     |                  |       |         |
| EB                       | 130          | 1.00  | 130     |                  |       |         |
| WB                       | 142          | 1.00  | 142     | 74               | 1.00  | 74      |
| CLV TOTAL=               |              |       |         |                  |       | 460     |
| Level of Service (LOS )= |              |       |         |                  |       | A       |

Scenario ID - EXIST1

CLV V/C =0.29

| Evening Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| SB                       | 185          | 1.00  | 185     |                  |       |         |
| EB                       | 244          | 1.00  | 244     |                  |       |         |
| WB                       | 241          | 1.00  | 241     | 275              | 1.00  | 275     |
| CLV TOTAL=               |              |       |         |                  |       | 701     |
| Level of Service (LOS )= |              |       |         |                  |       | A       |

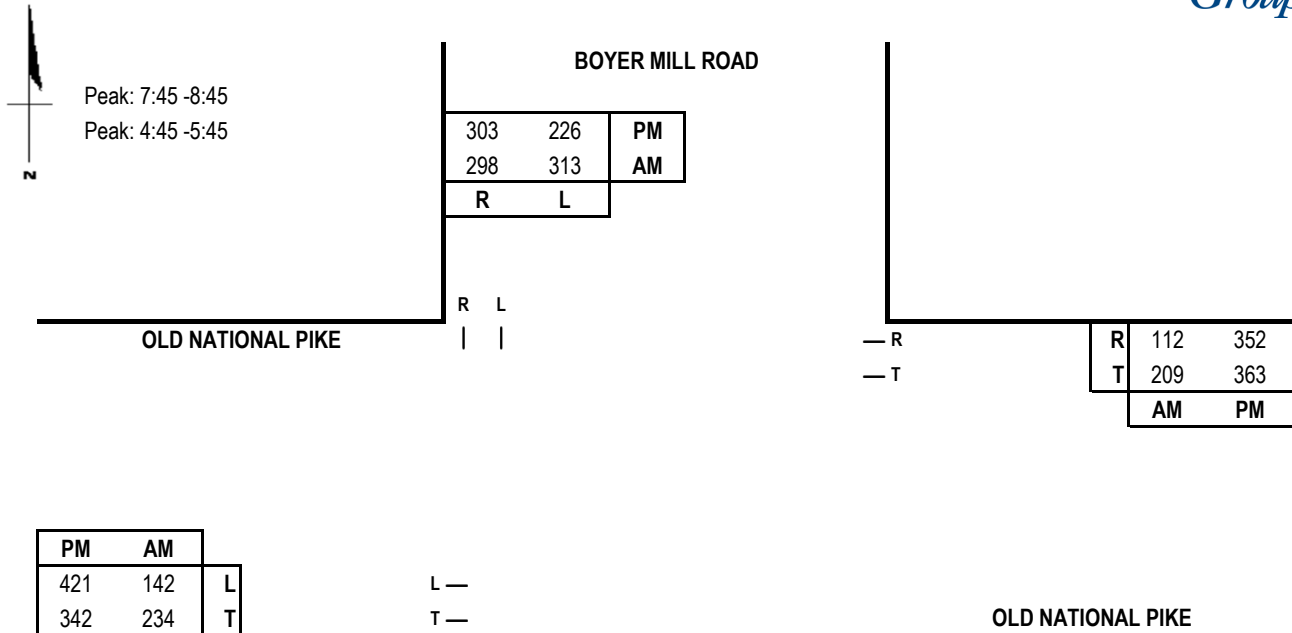
CLV V/C =0.44



# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

**E/W Road:** Old National Pike  
**N/S Road:** Boyer Mill Road  
**Conditions:** Background Traffic

**Date of Count:** 10/26/2021  
**Day of Count:** Tuesday  
**Analyst:** Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| SB                       | 313          | 1.00  | 313     |                  |       |         |
| EB                       | 234          | 1.00  | 234     |                  |       |         |
| WB                       | 209          | 1.00  | 209     | 142              | 1.00  | 142     |
| CLV TOTAL=               |              |       |         |                  |       | 664     |
| Level of Service (LOS )= |              |       |         |                  |       | A       |

Scenario ID - BACK1

CLV V/C =0.42

| Evening Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| SB                       | 226          | 1.00  | 226     |                  |       |         |
| EB                       | 342          | 1.00  | 342     |                  |       |         |
| WB                       | 363          | 1.00  | 363     | 421              | 1.00  | 421     |
| CLV TOTAL=               |              |       |         |                  |       | 1,010   |
| Level of Service (LOS )= |              |       |         |                  |       | B       |

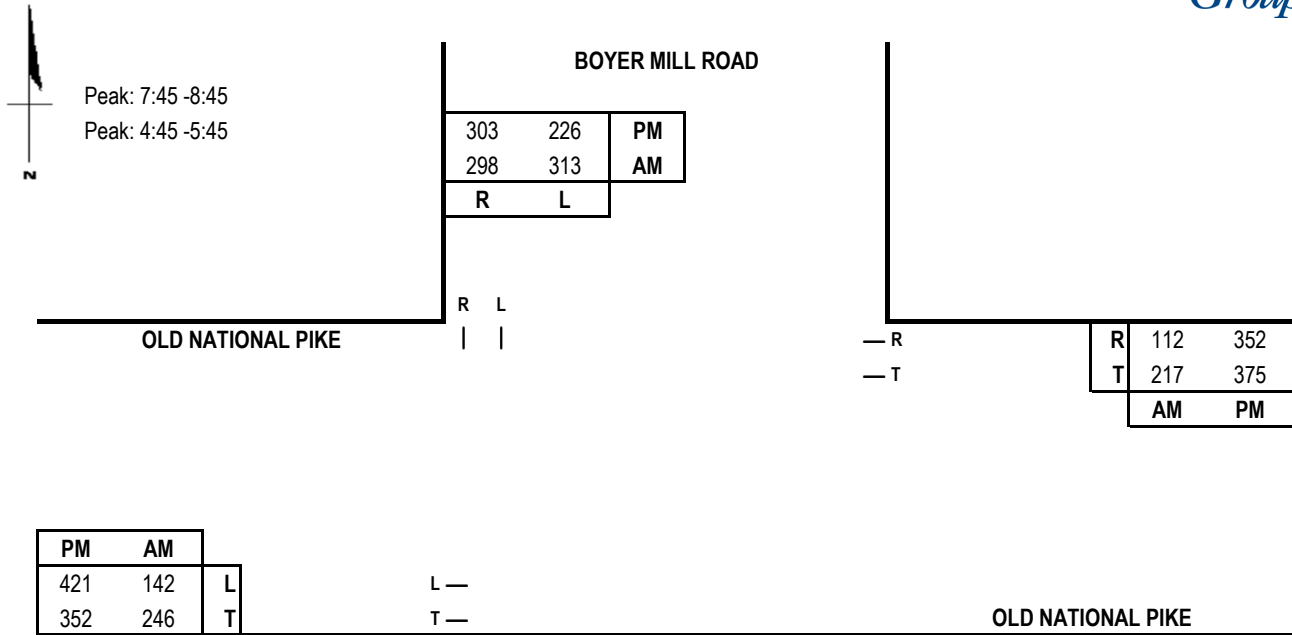
Level of Service (LOS )=

CLV V/C =0.63

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

**E/W Road:** Old National Pike  
**N/S Road:** Boyer Mill Road  
**Conditions:** Total Traffic

**Date of Count:** 10/26/2021  
**Day of Count:** Tuesday  
**Analyst:** Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| SB                       | 313          | 1.00  | 313     |                  |       |         |
| EB                       | 246          | 1.00  | 246     |                  |       |         |
| WB                       | 217          | 1.00  | 217     | 142              | 1.00  | 142     |
| CLV TOTAL=               |              |       |         |                  |       | 672     |
| Level of Service (LOS )= |              |       |         |                  |       | A       |

Scenario ID - TOT1

CLV V/C =0.42

| Evening Peak Hour        |              |       |         |                  |       |         |
|--------------------------|--------------|-------|---------|------------------|-------|---------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |
| SB                       | 226          | 1.00  | 226     |                  |       |         |
| EB                       | 352          | 1.00  | 352     |                  |       |         |
| WB                       | 375          | 1.00  | 375     | 421              | 1.00  | 421     |
| CLV TOTAL=               |              |       |         |                  |       | 1,022   |
| Level of Service (LOS )= |              |       |         |                  |       | B       |

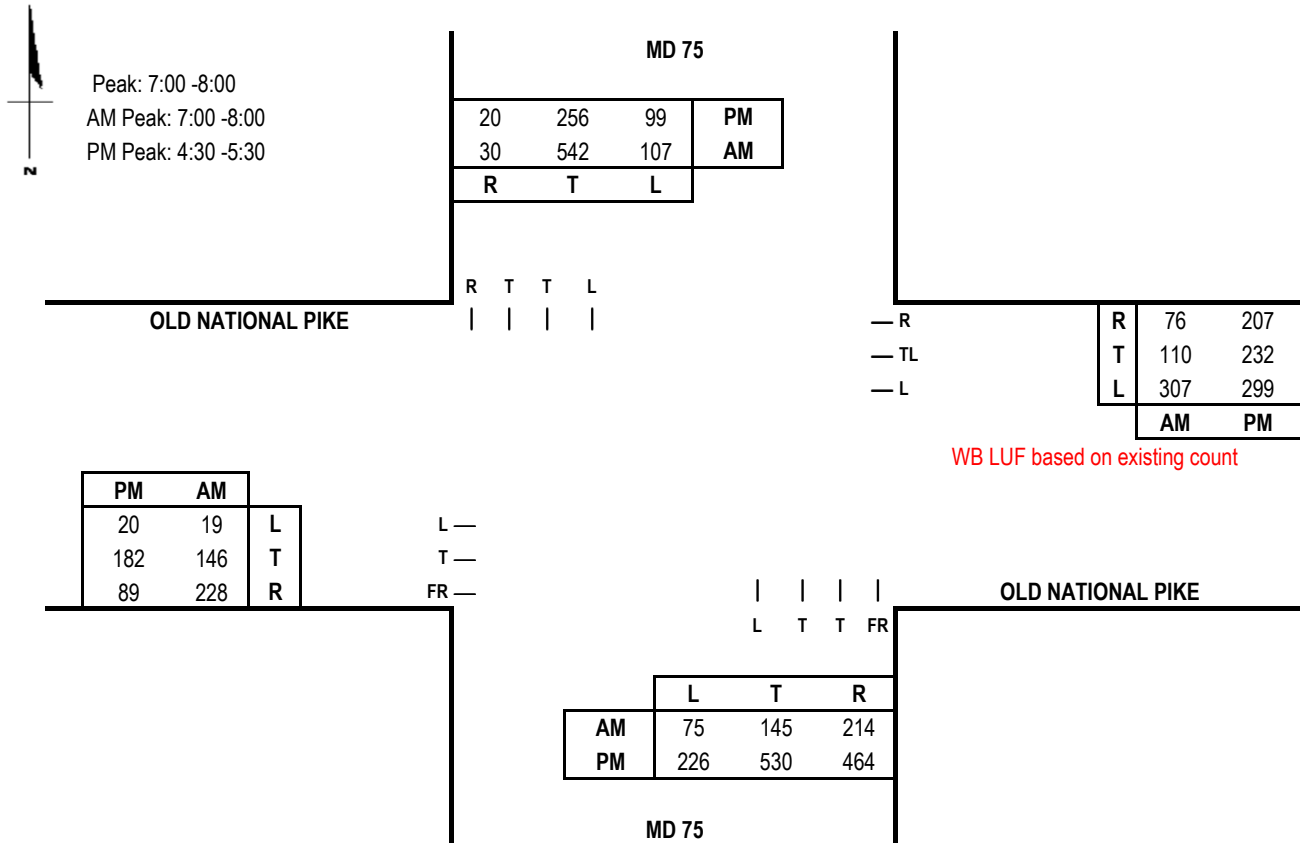
Level of Service (LOS )=

CLV V/C =0.64

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for Frederick County

**E/W Road:** Old National Pike  
**N/S Road:** MD 75  
**Conditions:** Existing Traffic

**Date of Count:** 2/25/2021  
**Day of Week:** Thursday  
**Analyst:** Qiang Tian



## Capacity Analysis - East/West Split

| Morning Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| EB                      | 146          | 1.00  | 146     |                  |       |         | 146 |
| WB                      | 417          | 0.75  | 313     |                  |       |         | 313 |
| NB                      | 145          | 0.55  | 80      | 107              | 1.00  | 107     | 373 |
| SB                      | 542          | 0.55  | 298     | 75               | 1.00  | 75      |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 832 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

AM V/C =0.52

| Evening Peak Hour       |              |       |         |                  |       |         |     |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| EB                      | 182          | 1.00  | 182     |                  |       |         | 182 |
| WB                      | 531          | 0.64  | 340     |                  |       |         | 340 |
| NB                      | 530          | 0.55  | 292     | 99               | 1.00  | 99      | 391 |
| SB                      | 256          | 0.55  | 141     | 226              | 1.00  | 226     |     |
| CLV TOTAL=              |              |       |         |                  |       |         | 913 |
| Level of Service (LOS)= |              |       |         |                  |       |         | A   |

PM V/C =0.57

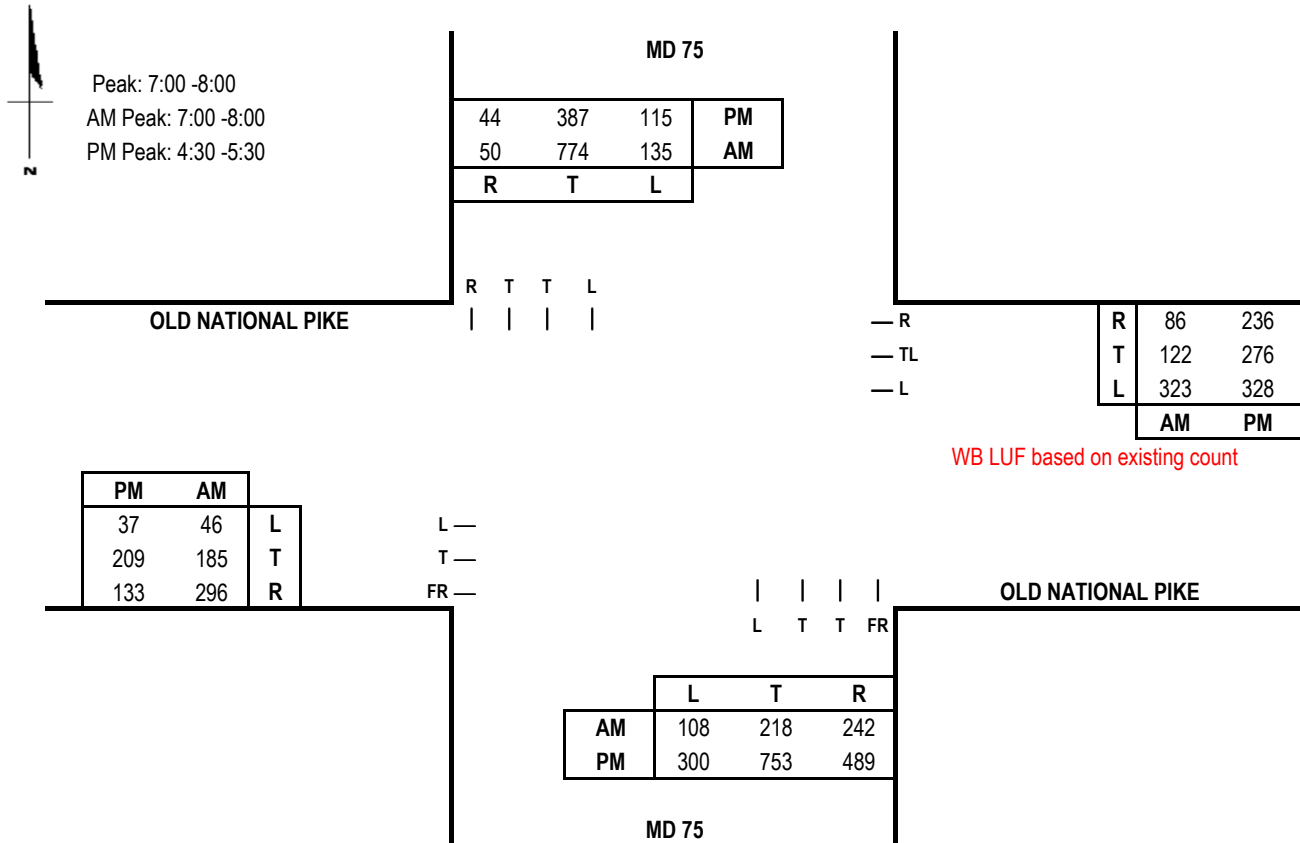
Scenario ID - EXIST8



# CRITICAL LANE VOLUME (CLV) METHODOLOGY for Frederick County

**E/W Road:** Old National Pike  
**N/S Road:** MD 75  
**Conditions:** Background Traffic

**Date of Count:** 2/25/2021  
**Day of Week:** Thursday  
**Analyst:** Qiang Tian



## Capacity Analysis - East/West Split

| Morning Peak Hour       |              |       |         |                  |       |         |       |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-------|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | AM    |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV   |
| EB                      | 185          | 1.00  | 185     |                  |       |         | 185   |
| WB                      | 445          | 0.75  | 334     |                  |       |         | 334   |
| NB                      | 218          | 0.55  | 120     | 135              | 1.00  | 135     | 534   |
| SB                      | 774          | 0.55  | 426     | 108              | 1.00  | 108     |       |
| CLV TOTAL=              |              |       |         |                  |       |         | 1,053 |
| Level of Service (LOS)= |              |       |         |                  |       |         | B     |

AM V/C = 0.66

| Evening Peak Hour       |              |       |         |                  |       |         |       |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-------|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | PM    |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV   |
| EB                      | 209          | 1.00  | 209     |                  |       |         | 209   |
| WB                      | 604          | 0.64  | 387     |                  |       |         | 387   |
| NB                      | 753          | 0.55  | 414     | 115              | 1.00  | 115     | 529   |
| SB                      | 387          | 0.55  | 213     | 300              | 1.00  | 300     |       |
| CLV TOTAL=              |              |       |         |                  |       |         | 1,125 |
| Level of Service (LOS)= |              |       |         |                  |       |         | B     |

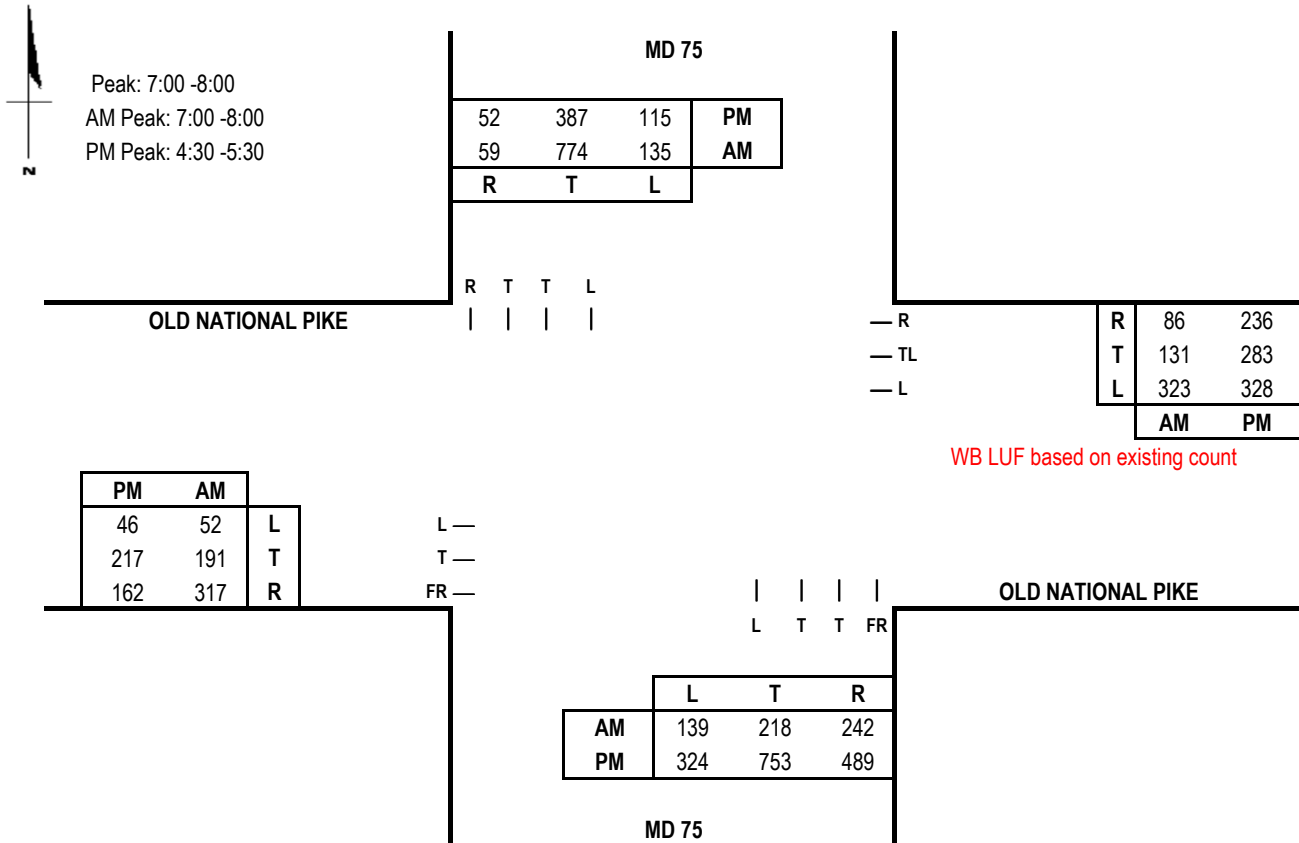
PM V/C = 0.7

Scenario ID - BACK8

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for Frederick County

**E/W Road:** Old National Pike  
**N/S Road:** MD 75  
**Conditions:** Total Traffic

**Date of Count:** 2/25/2021  
**Day of Week:** Thursday  
**Analyst:** Qiang Tian



## Capacity Analysis - East/West Split

| Morning Peak Hour       |              |       |         |                  |       |         |       |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-------|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | AM    |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV   |
| EB                      | 191          | 1.00  | 191     |                  |       |         | 191   |
| WB                      | 454          | 0.75  | 341     |                  |       |         | 341   |
| NB                      | 218          | 0.55  | 120     | 135              | 1.00  | 135     | 565   |
| SB                      | 774          | 0.55  | 426     | 139              | 1.00  | 139     |       |
| CLV TOTAL=              |              |       |         |                  |       |         | 1,097 |
| Level of Service (LOS)= |              |       |         |                  |       |         | B     |

AM V/C =0.69

| Evening Peak Hour       |              |       |         |                  |       |         |       |
|-------------------------|--------------|-------|---------|------------------|-------|---------|-------|
| Dir                     | Thru Volumes |       |         | + Opposing Lefts |       |         | PM    |
|                         | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV   |
| EB                      | 217          | 1.00  | 217     |                  |       |         | 217   |
| WB                      | 611          | 0.64  | 391     |                  |       |         | 391   |
| NB                      | 753          | 0.55  | 414     | 115              | 1.00  | 115     | 537   |
| SB                      | 387          | 0.55  | 213     | 324              | 1.00  | 324     |       |
| CLV TOTAL=              |              |       |         |                  |       |         | 1,145 |
| Level of Service (LOS)= |              |       |         |                  |       |         | B     |

PM V/C =0.72

Scenario ID - TOT8

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: I-70 WB Off Ramp/I-70 Wb On Ramp

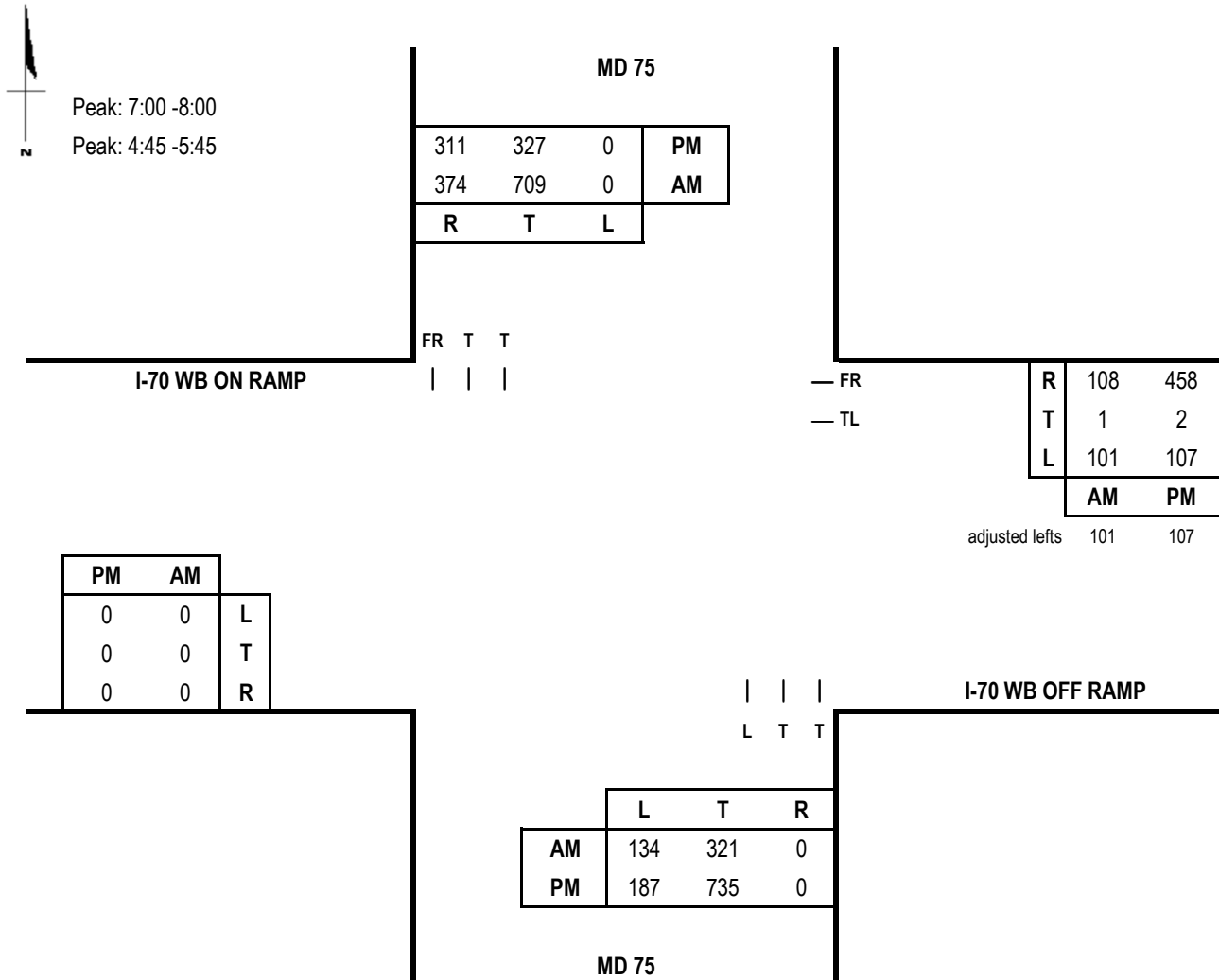
Date of Count: 2/25/2021

N/S Road: MD 75

Day of Count: Thursday

Conditions: Existing Traffic

Analyst: Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |           |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM<br>CLV |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |           |
| NB                       | 321          | 0.55  | 177     | 0                | 0.00  | 0       | 524       |
| SB                       | 709          | 0.55  | 390     | 134              | 1.00  | 134     |           |
| EB                       | 0            | 0.00  | 0       | 101              | 1.00  | 101     | 102       |
| WB                       | 102          | 1.00  | 102     | 0                | 0.00  | 0       |           |
| CLV TOTAL=               |              |       |         |                  |       |         | 626       |
| Level of Service (LOS )= |              |       |         |                  |       |         | A         |

AM V/C =0.39

| Evening Peak Hour        |              |       |         |                  |       |         |           |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM<br>CLV |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |           |
| NB                       | 735          | 0.55  | 404     | 0                | 0.00  | 0       | 404       |
| SB                       | 327          | 0.55  | 180     | 187              | 1.00  | 187     |           |
| EB                       | 0            | 0.00  | 0       | 107              | 1.00  | 107     | 109       |
| WB                       | 109          | 1.00  | 109     | 0                | 0.00  | 0       |           |
| CLV TOTAL=               |              |       |         |                  |       |         | 513       |
| Level of Service (LOS )= |              |       |         |                  |       |         | A         |

PM V/C =0.32

Scenario ID - EXIST9



# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: I-70 WB Off Ramp/I-70 Wb On Ramp

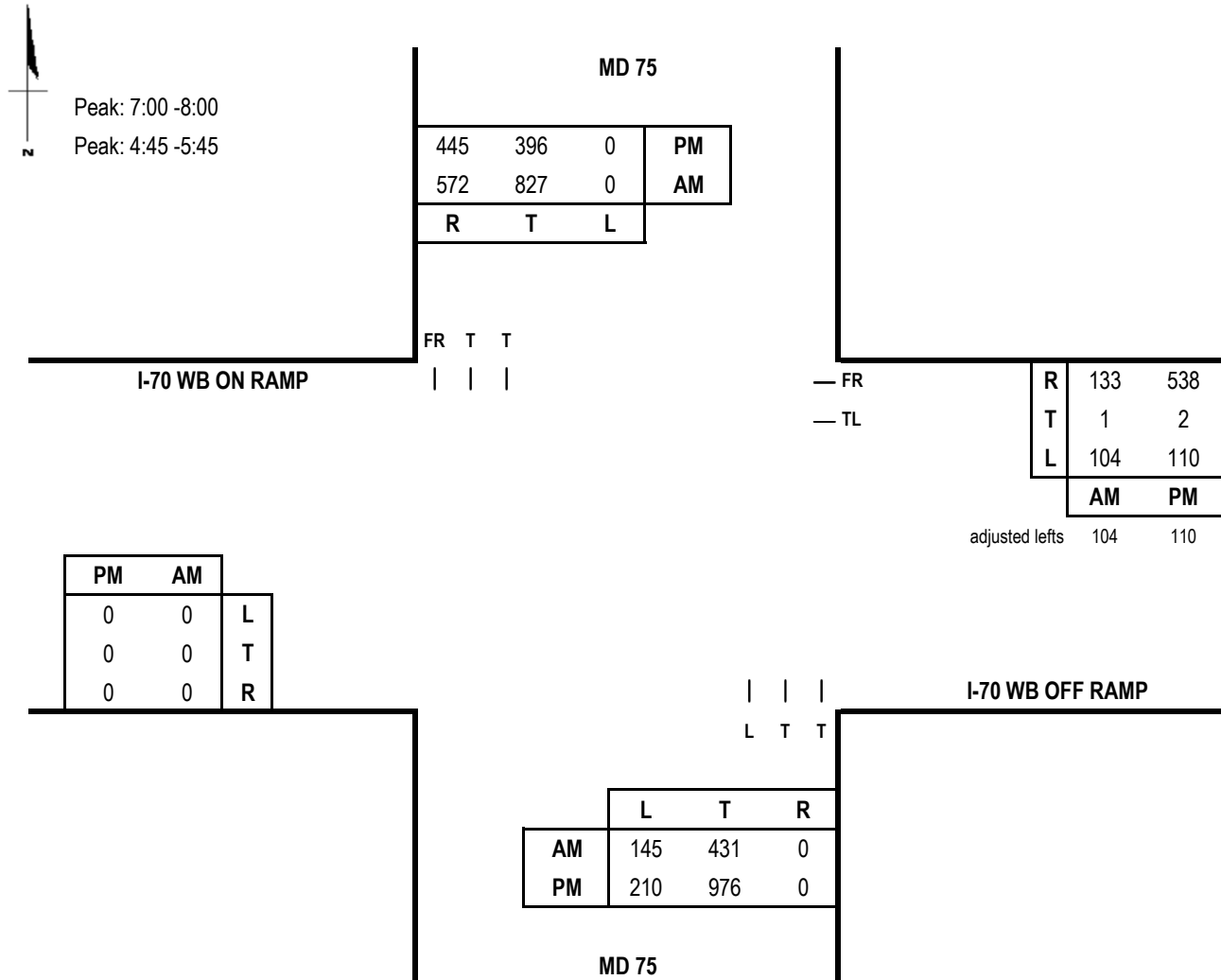
Date of Count: 2/25/2021

N/S Road: MD 75

Day of Count: Thursday

Conditions: Background Traffic

Analyst: Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |           |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM<br>CLV |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |           |
| NB                       | 431          | 0.55  | 237     | 0                | 0.00  | 0       | 600       |
| SB                       | 827          | 0.55  | 455     | 145              | 1.00  | 145     |           |
| EB                       | 0            | 0.00  | 0       | 104              | 1.00  | 104     | 105       |
| WB                       | 105          | 1.00  | 105     | 0                | 0.00  | 0       |           |
| CLV TOTAL=               |              |       |         |                  |       |         | 705       |
| Level of Service (LOS )= |              |       |         |                  |       |         | A         |

| Evening Peak Hour        |              |       |         |                  |       |         |           |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM<br>CLV |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |           |
| NB                       | 976          | 0.55  | 537     | 0                | 0.00  | 0       | 537       |
| SB                       | 396          | 0.55  | 218     | 210              | 1.00  | 210     |           |
| EB                       | 0            | 0.00  | 0       | 110              | 1.00  | 110     | 112       |
| WB                       | 112          | 1.00  | 112     | 0                | 0.00  | 0       |           |
| CLV TOTAL=               |              |       |         |                  |       |         | 649       |
| Level of Service (LOS )= |              |       |         |                  |       |         | A         |

Scenario ID - BACK9

AM V/C =0.44

PM V/C =0.41

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: I-70 WB Off Ramp/I-70 Wb On Ramp

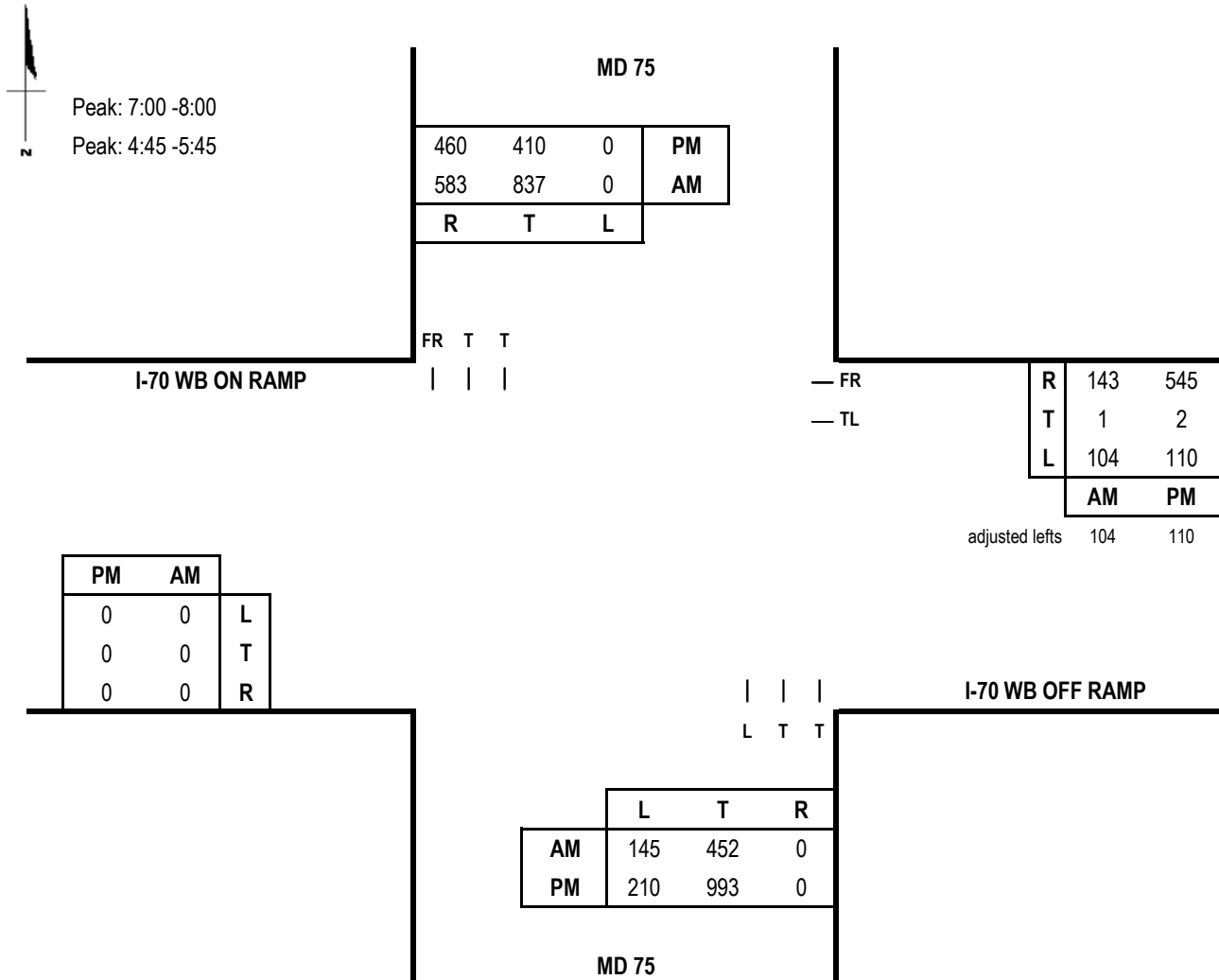
Date of Count: 2/25/2021

N/S Road: MD 75

Day of Count: Thursday

Conditions: Total Traffic

Analyst: Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |           |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM<br>CLV |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |           |
| NB                       | 452          | 0.55  | 249     | 0                | 0.00  | 0       | 605       |
| SB                       | 837          | 0.55  | 460     | 145              | 1.00  | 145     |           |
| EB                       | 0            | 0.00  | 0       | 104              | 1.00  | 104     | 105       |
| WB                       | 105          | 1.00  | 105     | 0                | 0.00  | 0       |           |
| CLV TOTAL=               |              |       |         |                  |       |         | 710       |
| Level of Service (LOS )= |              |       |         |                  |       |         | A         |

| Evening Peak Hour        |              |       |         |                  |       |         |           |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----------|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM<br>CLV |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total |           |
| NB                       | 993          | 0.55  | 546     | 0                | 0.00  | 0       | 546       |
| SB                       | 410          | 0.55  | 226     | 210              | 1.00  | 210     |           |
| EB                       | 0            | 0.00  | 0       | 110              | 1.00  | 110     | 112       |
| WB                       | 112          | 1.00  | 112     | 0                | 0.00  | 0       |           |
| CLV TOTAL=               |              |       |         |                  |       |         | 658       |
| Level of Service (LOS )= |              |       |         |                  |       |         | A         |

Scenario ID - TOT9

AM V/C =0.44

PM V/C =0.41

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for Frederick County

E/W Road: I-70 EB On Ramp/I-70 Eb Off Ramp

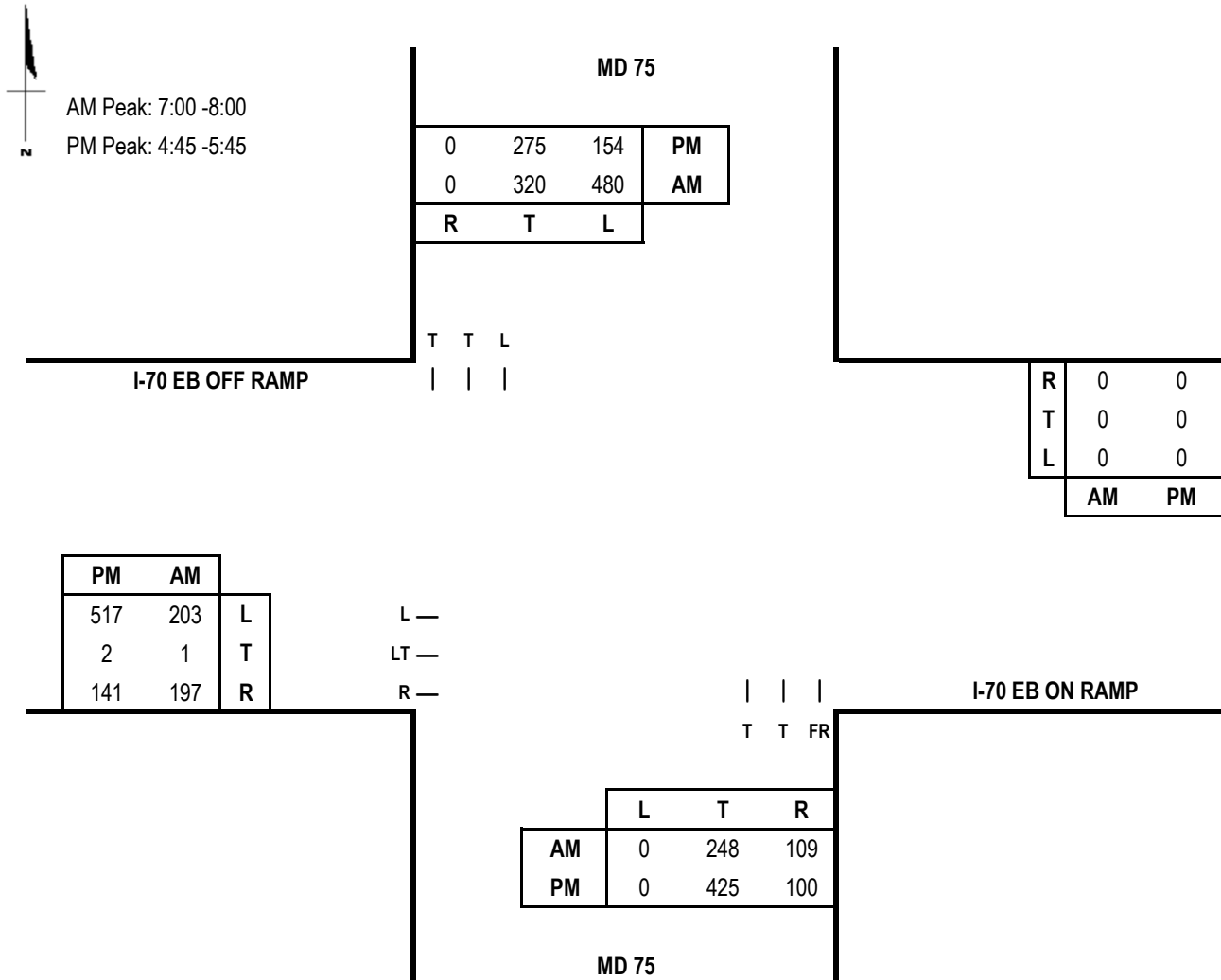
Date of Count: 2/25/21

N/S Road: MD 75

Day of Count: Thursday

Conditions: Existing Traffic

Analyst: Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 248          | 0.55  | 136     | 480              | 1.00  | 480     | 616 |
| SB                       | 320          | 0.55  | 176     | 0                | 0.00  | 0       |     |
| EB                       | 204          | 0.60  | 122     | 0                | 0.00  | 0       | 122 |
| WB                       | 0            | 0.00  | 0       | 203              | 0.60  | 122     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 738 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

| Evening Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 425          | 0.55  | 234     | 154              | 1.00  | 154     | 388 |
| SB                       | 275          | 0.55  | 151     | 0                | 0.00  | 0       |     |
| EB                       | 519          | 0.60  | 311     | 0                | 0.00  | 0       | 311 |
| WB                       | 0            | 0.00  | 0       | 517              | 0.60  | 310     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 699 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

Scenario ID - EXIST10

AM V/C =0.46

PM V/C =0.44



# CRITICAL LANE VOLUME (CLV) METHODOLOGY for Frederick County

E/W Road: I-70 EB On Ramp/I-70 Eb Off Ramp

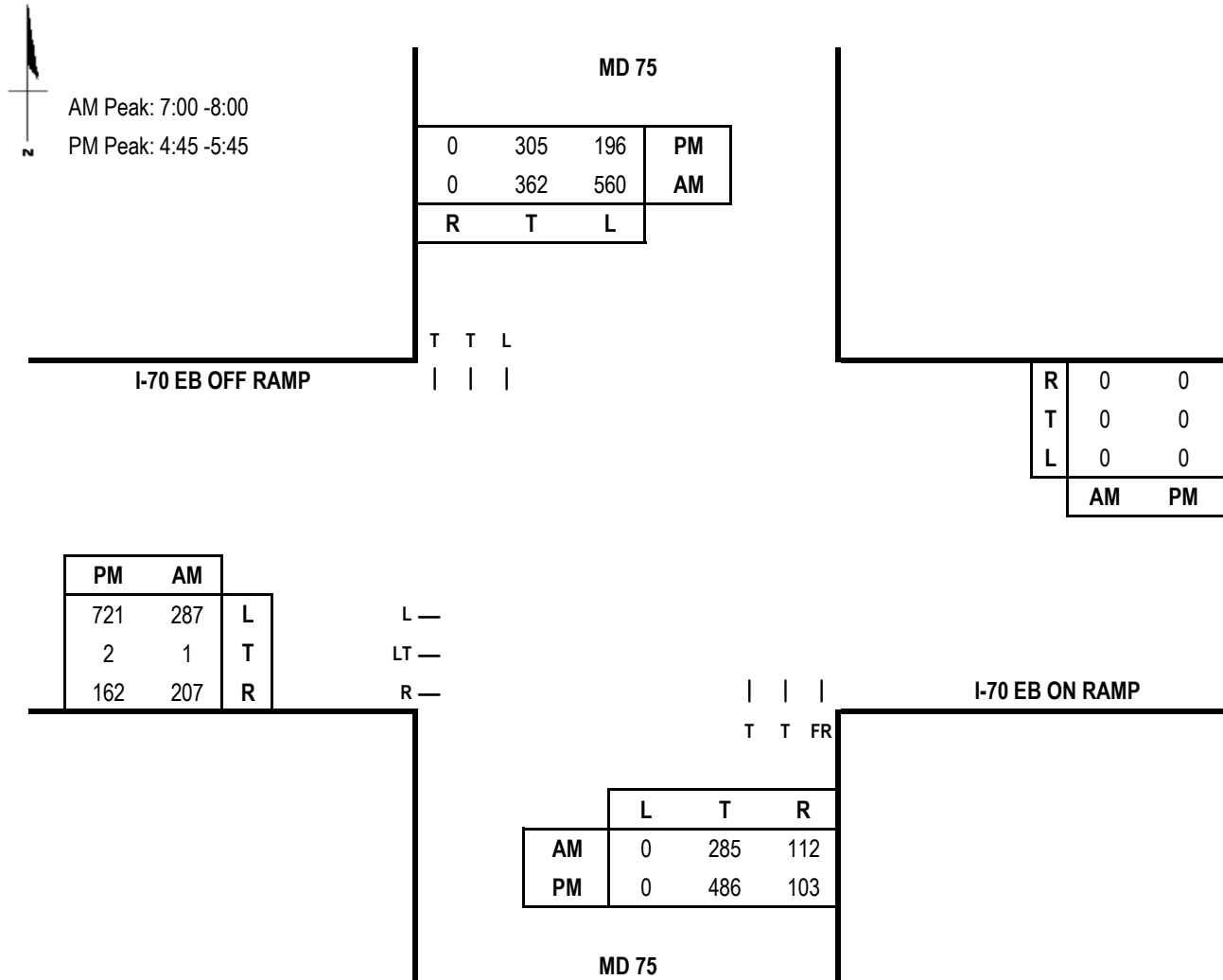
Date of Count: 2/25/21

N/S Road: MD 75

Day of Count: Thursday

Conditions: Background Traffic

Analyst: Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 285          | 0.55  | 157     | 560              | 1.00  | 560     | 717 |
| SB                       | 362          | 0.55  | 199     | 0                | 0.00  | 0       |     |
| EB                       | 288          | 0.60  | 173     | 0                | 0.00  | 0       | 173 |
| WB                       | 0            | 0.00  | 0       | 287              | 0.60  | 172     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 890 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

AM V/C =0.56

| Evening Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 486          | 0.55  | 267     | 196              | 1.00  | 196     | 463 |
| SB                       | 305          | 0.55  | 168     | 0                | 0.00  | 0       |     |
| EB                       | 723          | 0.60  | 434     | 0                | 0.00  | 0       | 434 |
| WB                       | 0            | 0.00  | 0       | 721              | 0.60  | 433     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 897 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

PM V/C =0.56

Scenario ID - BACK10

# CRITICAL LANE VOLUME (CLV) METHODOLOGY for Frederick County

E/W Road: I-70 EB On Ramp/I-70 Eb Off Ramp

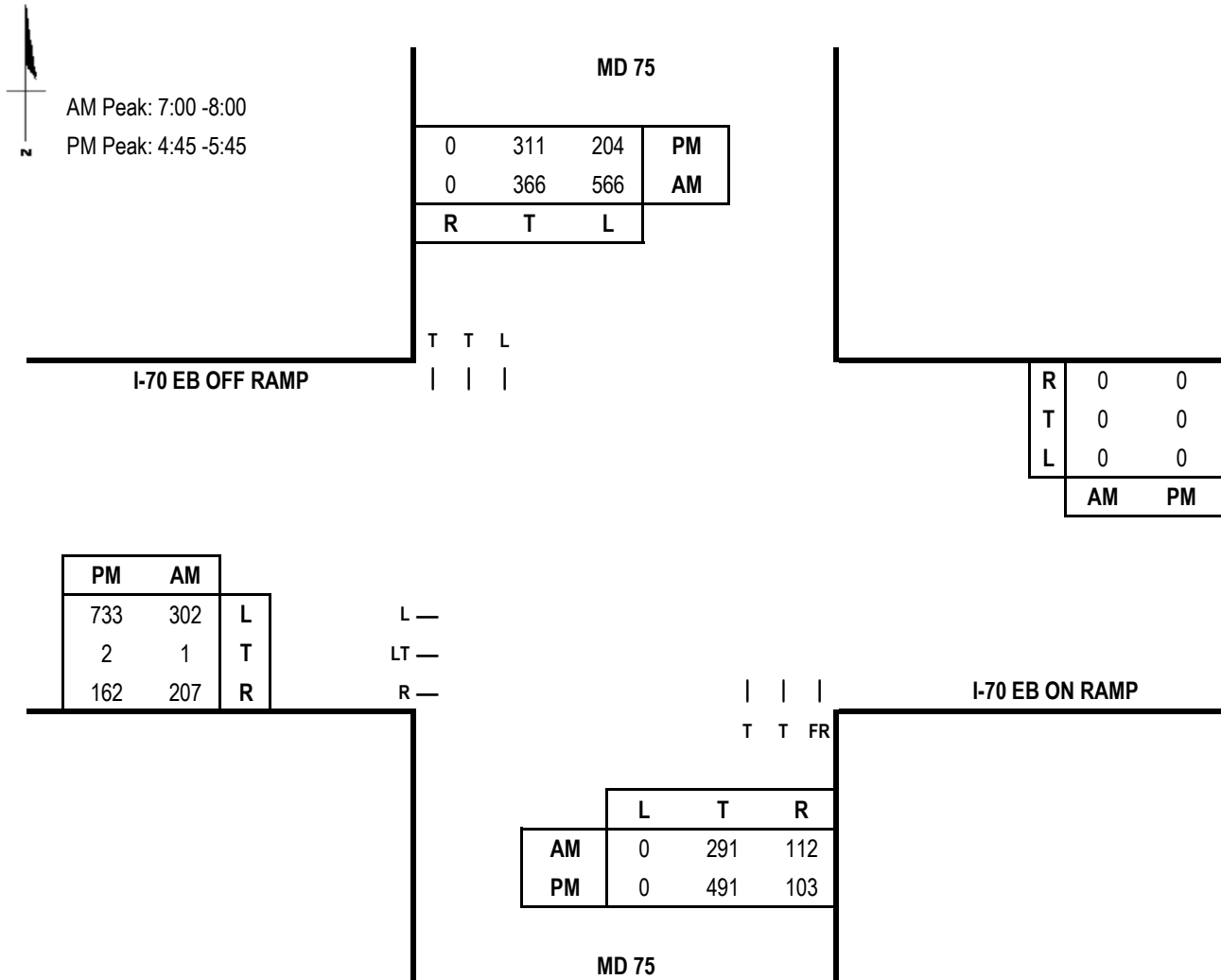
Date of Count: 2/25/21

N/S Road: MD 75

Day of Count: Thursday

Conditions: Total Traffic

Analyst: Qiang Tian



## Capacity Analysis

| Morning Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | AM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 291          | 0.55  | 160     | 566              | 1.00  | 566     | 726 |
| SB                       | 366          | 0.55  | 201     | 0                | 0.00  | 0       |     |
| EB                       | 303          | 0.60  | 182     | 0                | 0.00  | 0       | 182 |
| WB                       | 0            | 0.00  | 0       | 302              | 0.60  | 181     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 908 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

| Evening Peak Hour        |              |       |         |                  |       |         |     |
|--------------------------|--------------|-------|---------|------------------|-------|---------|-----|
| Dir                      | Thru Volumes |       |         | + Opposing Lefts |       |         | PM  |
|                          | VOL          | x LUF | = Total | VOL              | x LUF | = Total | CLV |
| NB                       | 491          | 0.55  | 270     | 204              | 1.00  | 204     | 474 |
| SB                       | 311          | 0.55  | 171     | 0                | 0.00  | 0       |     |
| EB                       | 735          | 0.60  | 441     | 0                | 0.00  | 0       | 441 |
| WB                       | 0            | 0.00  | 0       | 733              | 0.60  | 440     |     |
| CLV TOTAL=               |              |       |         |                  |       |         | 915 |
| Level of Service (LOS )= |              |       |         |                  |       |         | A   |

Scenario ID - TOT10

AM V/C =0.57

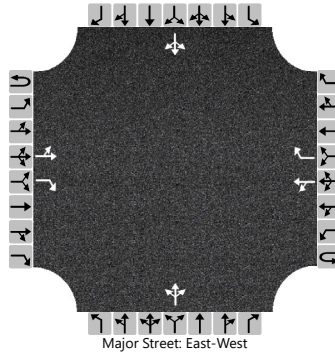
PM V/C =0.57

# HCS Two-Way Stop-Control Report

## General Information

|                          |             |                            |                             |
|--------------------------|-------------|----------------------------|-----------------------------|
| Analyst                  | QT          | Intersection               | Main Street/Royal Oak Drive |
| Agency/Co.               | TTG, Inc.   | Jurisdiction               | Town of New Market          |
| Date Performed           | 7/11/2022   | East/West Street           | Main Street                 |
| Analysis Year            | 2022        | North/South Street         | Royal Oak Drive             |
| Time Analyzed            | Existing AM | Peak Hour Factor           | 0.83                        |
| Intersection Orientation | East-West   | Analysis Time Period (hrs) | 0.25                        |
| Project Description      | East Main   |                            |                             |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |    |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|----|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L  | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 1 | 0         | 0  | 1   | 1  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | LT |     | R |           | LT |     | R  |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 15 | 381 | 9 |           | 7  | 163 | 15 |            | 4 | 0   | 6 |            | 46 | 0   | 61 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2  |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |    |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |    |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     | No        |    |     |   | No        |    |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |    |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

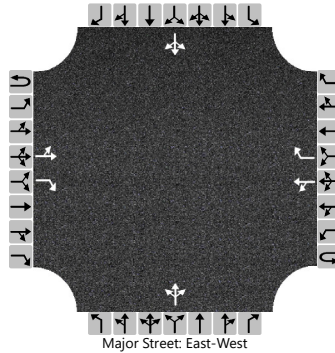
|                                         |     |      |     |  |     |      |     |  |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|-----|------|-----|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 18   |     |  |     | 8    |     |  |      |  | 12   |  |      |  | 129  |  |
| Capacity, c (veh/h)                     |     | 1356 |     |  |     | 1092 |     |  |      |  | 435  |  |      |  | 506  |  |
| v/c Ratio                               |     | 0.01 |     |  |     | 0.01 |     |  |      |  | 0.03 |  |      |  | 0.25 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |     | 0.0  |     |  |      |  | 0.1  |  |      |  | 1.0  |  |
| Control Delay (s/veh)                   |     | 7.7  | 0.1 |  |     | 8.3  | 0.1 |  |      |  | 13.5 |  |      |  | 14.5 |  |
| Level of Service (LOS)                  |     | A    | A   |  |     | A    | A   |  |      |  | B    |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.4 |      |     |  | 0.4 |      |     |  | 13.5 |  |      |  | 14.5 |  |      |  |
| Approach LOS                            | A   |      |     |  | A   |      |     |  | B    |  |      |  | B    |  |      |  |

# HCS Two-Way Stop-Control Report

## General Information

|                          |             |                            |                             |
|--------------------------|-------------|----------------------------|-----------------------------|
| Analyst                  | QT          | Intersection               | Main Street/Royal Oak Drive |
| Agency/Co.               | TTG, Inc.   | Jurisdiction               | Town of New Market          |
| Date Performed           | 7/11/2022   | East/West Street           | Main Street                 |
| Analysis Year            | 2022        | North/South Street         | Royal Oak Drive             |
| Time Analyzed            | Existing PM | Peak Hour Factor           | 0.95                        |
| Intersection Orientation | East-West   | Analysis Time Period (hrs) | 0.25                        |
| Project Description      | East Main   |                            |                             |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |     |     |   | Westbound |    |     |    | Northbound |    |     |    | Southbound |    |     |    |
|----------------------------|-----------|-----|-----|---|-----------|----|-----|----|------------|----|-----|----|------------|----|-----|----|
| Movement                   | U         | L   | T   | R | U         | L  | T   | R  | U          | L  | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1   | 2   | 3 | 4U        | 4  | 5   | 6  |            | 7  | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0   | 1   | 1 | 0         | 0  | 1   | 1  |            | 0  | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | LT  |     | R |           | LT |     | R  |            |    | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 108 | 313 | 9 |           | 7  | 435 | 97 |            | 11 | 0   | 10 |            | 49 | 1   | 39 |
| Percent Heavy Vehicles (%) |           | 2   |     |   |           | 2  |     |    |            | 2  | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |     |     |   |           |    |     |    |            |    |     |    |            |    |     |    |
| Percent Grade (%)          |           |     |     |   |           |    |     |    | 0          |    |     |    | 0          |    |     |    |
| Right Turn Channelized     | No        |     |     |   | No        |    |     |    |            |    |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |     |     |   |           |    |     |    |            |    |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |     |      |     |  |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|-----|------|-----|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 114  |     |  |     | 7    |     |  |      |  | 22   |  |      |  | 94   |  |
| Capacity, c (veh/h)                     |     | 1011 |     |  |     | 1220 |     |  |      |  | 265  |  |      |  | 242  |  |
| v/c Ratio                               |     | 0.11 |     |  |     | 0.01 |     |  |      |  | 0.08 |  |      |  | 0.39 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.4  |     |  |     | 0.0  |     |  |      |  | 0.3  |  |      |  | 1.7  |  |
| Control Delay (s/veh)                   |     | 9.0  | 0.7 |  |     | 8.0  | 0.1 |  |      |  | 19.8 |  |      |  | 28.9 |  |
| Level of Service (LOS)                  |     | A    | A   |  |     | A    | A   |  |      |  | C    |  |      |  | D    |  |
| Approach Delay (s/veh)                  | 2.7 |      |     |  | 0.1 |      |     |  | 19.8 |  |      |  | 28.9 |  |      |  |
| Approach LOS                            | A   |      |     |  | A   |      |     |  | C    |  |      |  | D    |  |      |  |



# HCS Two-Way Stop-Control Report

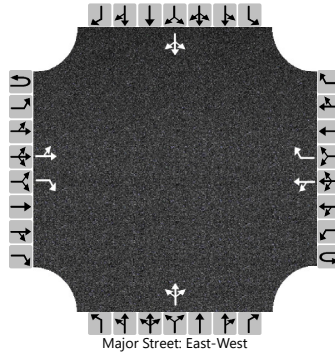
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background AM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                             |
|----------------------------|-----------------------------|
| Intersection               | Main Street/Royal Oak Drive |
| Jurisdiction               | Town of New Market          |
| East/West Street           | Main Street                 |
| North/South Street         | Royal Oak Drive             |
| Peak Hour Factor           | 0.83                        |
| Analysis Time Period (hrs) | 0.25                        |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |    |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|----|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L  | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 1 | 0         | 0  | 1   | 1  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | LT |     | R |           | LT |     | R  |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 15 | 558 | 9 |           | 7  | 248 | 16 |            | 4 | 0   | 6 |            | 51 | 0   | 64 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2  |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |    |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |    |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     | No        |    |     |   | No        |    |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |    |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |     |      |     |  |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|-----|------|-----|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 18   |     |  |     | 8    |     |  |      |  | 12   |  |      |  | 139  |  |
| Capacity, c (veh/h)                     |     | 1242 |     |  |     | 910  |     |  |      |  | 286  |  |      |  | 337  |  |
| v/c Ratio                               |     | 0.01 |     |  |     | 0.01 |     |  |      |  | 0.04 |  |      |  | 0.41 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |     | 0.0  |     |  |      |  | 0.1  |  |      |  | 1.9  |  |
| Control Delay (s/veh)                   |     | 7.9  | 0.1 |  |     | 9.0  | 0.1 |  |      |  | 18.1 |  |      |  | 22.9 |  |
| Level of Service (LOS)                  |     | A    | A   |  |     | A    | A   |  |      |  | C    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.3 |      |     |  | 0.3 |      |     |  | 18.1 |  |      |  | 22.9 |  |      |  |
| Approach LOS                            | A   |      |     |  | A   |      |     |  | C    |  |      |  | C    |  |      |  |

# HCS Two-Way Stop-Control Report

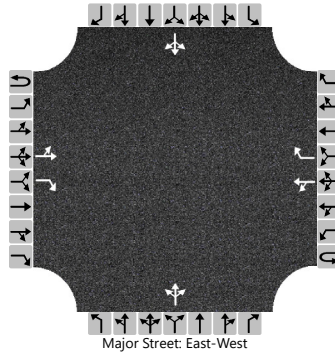
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background PM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                             |
|----------------------------|-----------------------------|
| Intersection               | Main Street/Royal Oak Drive |
| Jurisdiction               | Town of New Market          |
| East/West Street           | Main Street                 |
| North/South Street         | Royal Oak Drive             |
| Peak Hour Factor           | 0.95                        |
| Analysis Time Period (hrs) | 0.25                        |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |     |     |   | Westbound |    |     |     | Northbound |    |     |    | Southbound |    |     |    |
|----------------------------|-----------|-----|-----|---|-----------|----|-----|-----|------------|----|-----|----|------------|----|-----|----|
| Movement                   | U         | L   | T   | R | U         | L  | T   | R   | U          | L  | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1   | 2   | 3 | 4U        | 4  | 5   | 6   |            | 7  | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0   | 1   | 1 | 0         | 0  | 1   | 1   |            | 0  | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | LT  |     | R |           | LT |     | R   |            |    | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 112 | 446 | 9 |           | 7  | 626 | 104 |            | 11 | 0   | 10 |            | 52 | 1   | 41 |
| Percent Heavy Vehicles (%) |           | 2   |     |   |           | 2  |     |     |            | 2  | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |     |     |   |           |    |     |     |            |    |     |    |            |    |     |    |
| Percent Grade (%)          |           |     |     |   |           |    |     |     | 0          |    |     |    | 0          |    |     |    |
| Right Turn Channelized     | No        |     |     |   | No        |    |     |     |            |    |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |     |     |   |           |    |     |     |            |    |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |     |      |     |  |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|-----|------|-----|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 118  |     |  |     | 7    |     |  |      |  | 22   |  |      |  | 99   |  |
| Capacity, c (veh/h)                     |     | 846  |     |  |     | 1083 |     |  |      |  | 150  |  |      |  | 139  |  |
| v/c Ratio                               |     | 0.14 |     |  |     | 0.01 |     |  |      |  | 0.15 |  |      |  | 0.71 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.5  |     |  |     | 0.0  |     |  |      |  | 0.5  |  |      |  | 4.1  |  |
| Control Delay (s/veh)                   |     | 9.9  | 1.1 |  |     | 8.3  | 0.1 |  |      |  | 33.0 |  |      |  | 77.4 |  |
| Level of Service (LOS)                  |     | A    | A   |  |     | A    | A   |  |      |  | D    |  |      |  | F    |  |
| Approach Delay (s/veh)                  | 2.8 |      |     |  | 0.1 |      |     |  | 33.0 |  |      |  | 77.4 |  |      |  |
| Approach LOS                            | A   |      |     |  | A   |      |     |  | D    |  |      |  | F    |  |      |  |

# HCS Two-Way Stop-Control Report

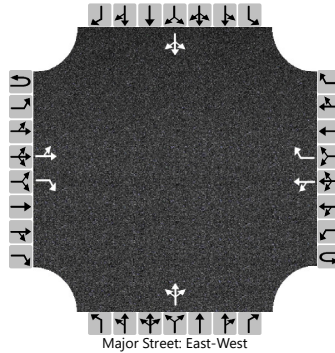
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total AM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                             |
|----------------------------|-----------------------------|
| Intersection               | Main Street/Royal Oak Drive |
| Jurisdiction               | Town of New Market          |
| East/West Street           | Main Street                 |
| North/South Street         | Royal Oak Drive             |
| Peak Hour Factor           | 0.83                        |
| Analysis Time Period (hrs) | 0.25                        |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |    |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|----|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L  | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 1 | 0         | 0  | 1   | 1  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | LT |     | R |           | LT |     | R  |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 15 | 570 | 9 |           | 7  | 256 | 16 |            | 4 | 0   | 6 |            | 51 | 0   | 64 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2  |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |    |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |    |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     | No        |    |     |   | No        |    |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |    |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |     |      |     |  |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|-----|--|-----|------|-----|--|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 18   |     |  |     | 8    |     |  |      |  | 12   |  |      |  |  | 139  |
| Capacity, c (veh/h)                     |     | 1232 |     |  |     | 899  |     |  |      |  | 264  |  |      |  |  | 323  |
| v/c Ratio                               |     | 0.01 |     |  |     | 0.01 |     |  |      |  | 0.05 |  |      |  |  | 0.43 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |     | 0.0  |     |  |      |  | 0.1  |  |      |  |  | 2.1  |
| Control Delay (s/veh)                   |     | 8.0  | 0.1 |  |     | 9.0  | 0.1 |  |      |  | 19.3 |  |      |  |  | 24.2 |
| Level of Service (LOS)                  |     | A    | A   |  |     | A    | A   |  |      |  | C    |  |      |  |  | C    |
| Approach Delay (s/veh)                  | 0.3 |      |     |  | 0.3 |      |     |  | 19.3 |  |      |  | 24.2 |  |  |      |
| Approach LOS                            | A   |      |     |  | A   |      |     |  | C    |  |      |  | C    |  |  |      |

# HCS Two-Way Stop-Control Report

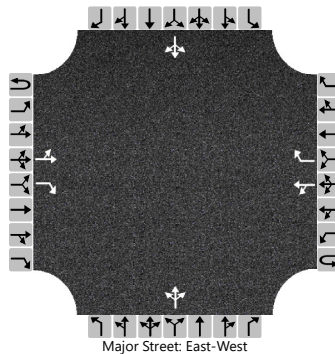
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total PM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                             |
|----------------------------|-----------------------------|
| Intersection               | Main Street/Royal Oak Drive |
| Jurisdiction               | Town of New Market          |
| East/West Street           | Main Street                 |
| North/South Street         | Royal Oak Drive             |
| Peak Hour Factor           | 0.95                        |
| Analysis Time Period (hrs) | 0.25                        |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |     |     |   | Westbound |    |     |     | Northbound |    |     |    | Southbound |    |     |    |
|----------------------------|-----------|-----|-----|---|-----------|----|-----|-----|------------|----|-----|----|------------|----|-----|----|
| Movement                   | U         | L   | T   | R | U         | L  | T   | R   | U          | L  | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1   | 2   | 3 | 4U        | 4  | 5   | 6   |            | 7  | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0   | 1   | 1 | 0         | 0  | 1   | 1   |            | 0  | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | LT  |     | R |           | LT |     | R   |            |    | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 112 | 456 | 9 |           | 7  | 638 | 104 |            | 11 | 0   | 10 |            | 52 | 1   | 41 |
| Percent Heavy Vehicles (%) |           | 2   |     |   |           | 2  |     |     |            | 2  | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |     |     |   |           |    |     |     |            |    |     |    |            |    |     |    |
| Percent Grade (%)          |           |     |     |   |           |    |     |     | 0          |    |     |    | 0          |    |     |    |
| Right Turn Channelized     | No        |     |     |   | No        |    |     |     |            |    |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |     |     |   |           |    |     |     |            |    |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |     |      |     |  |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|-----|--|-----|------|-----|--|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 118  |     |  |     | 7    |     |  |      |  | 22   |  |      |  |  | 99   |
| Capacity, c (veh/h)                     |     | 836  |     |  |     | 1074 |     |  |      |  | 130  |  |      |  |  | 133  |
| v/c Ratio                               |     | 0.14 |     |  |     | 0.01 |     |  |      |  | 0.17 |  |      |  |  | 0.75 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.5  |     |  |     | 0.0  |     |  |      |  | 0.6  |  |      |  |  | 4.3  |
| Control Delay (s/veh)                   |     | 10.0 | 1.1 |  |     | 8.4  | 0.1 |  |      |  | 38.3 |  |      |  |  | 86.4 |
| Level of Service (LOS)                  |     | B    | A   |  |     | A    | A   |  |      |  | E    |  |      |  |  | F    |
| Approach Delay (s/veh)                  | 2.8 |      |     |  | 0.1 |      |     |  | 38.3 |  |      |  | 86.4 |  |  |      |
| Approach LOS                            | A   |      |     |  | A   |      |     |  | E    |  |      |  | F    |  |  |      |

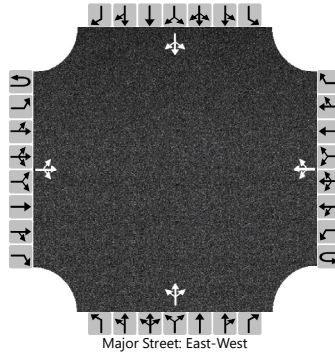


# HCS Two-Way Stop-Control Report

## General Information

|                          |             |                            |                                 |
|--------------------------|-------------|----------------------------|---------------------------------|
| Analyst                  | QT          | Intersection               | Main Street/Old New Market Road |
| Agency/Co.               | TTG, Inc.   | Jurisdiction               | Town of New Market              |
| Date Performed           | 7/11/2022   | East/West Street           | Main Street                     |
| Analysis Year            | 2022        | North/South Street         | Old New Market Road             |
| Time Analyzed            | Existing AM | Peak Hour Factor           | 0.81                            |
| Intersection Orientation | East-West   | Analysis Time Period (hrs) | 0.25                            |
| Project Description      | East Main   |                            |                                 |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |    | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 29 | 389 | 0 |           | 1 | 177 | 1 |            | 0 | 0   | 1 |            | 3  | 0   | 47 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 36   |     |     |     | 1    |     |     |      |  | 1    |  |      |  | 62   |  |
| Capacity, c (veh/h)                     |     | 1350 |     |     |     | 1082 |     |     |      |  | 586  |  |      |  | 744  |  |
| v/c Ratio                               |     | 0.03 |     |     |     | 0.00 |     |     |      |  | 0.00 |  |      |  | 0.08 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.1  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.3  |  |
| Control Delay (s/veh)                   |     | 7.7  | 0.3 | 0.3 |     | 8.3  | 0.0 | 0.0 |      |  | 11.2 |  |      |  | 10.3 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.8 |      |     |     | 0.1 |      |     |     | 11.2 |  |      |  | 10.3 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | B    |  |      |  |

# HCS Two-Way Stop-Control Report

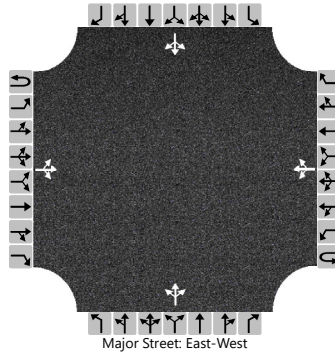
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Existing PM |
| Intersection Orientation | East-West   |
| Project Description      | East Main   |

## Site Information

|                            |                                 |
|----------------------------|---------------------------------|
| Intersection               | Main Street/Old New Market Road |
| Jurisdiction               | Town of New Market              |
| East/West Street           | Main Street                     |
| North/South Street         | Old New Market Road             |
| Peak Hour Factor           | 0.97                            |
| Analysis Time Period (hrs) | 0.25                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |     |
|----------------------------|-----------|----|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|-----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R   |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12  |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0   |
| Configuration              |           |    | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |     |
| Volume (veh/h)             |           | 59 | 325 | 1 |           | 9 | 496 | 2 |            | 2 | 0   | 3 |            | 2  | 1   | 127 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2   |
| Proportion Time Blocked    |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |
| Percent Grade (%)          |           |    |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |     |
| Right Turn Channelized     |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 61   |     |     |     | 9    |     |     |      |  | 5    |  |      |  |  | 134  |
| Capacity, c (veh/h)                     |     | 1052 |     |     |     | 1223 |     |     |      |  | 297  |  |      |  |  | 541  |
| v/c Ratio                               |     | 0.06 |     |     |     | 0.01 |     |     |      |  | 0.02 |  |      |  |  | 0.25 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.2  |     |     |     | 0.0  |     |     |      |  | 0.1  |  |      |  |  | 1.0  |
| Control Delay (s/veh)                   |     | 8.6  | 0.6 | 0.6 |     | 8.0  | 0.1 | 0.1 |      |  | 17.3 |  |      |  |  | 13.8 |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | C    |  |      |  |  | B    |
| Approach Delay (s/veh)                  | 1.8 |      |     |     | 0.2 |      |     |     | 17.3 |  |      |  | 13.8 |  |  |      |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | C    |  |      |  | B    |  |  |      |

# HCS Two-Way Stop-Control Report

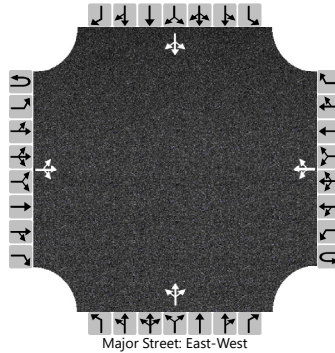
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background AM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                                 |
|----------------------------|---------------------------------|
| Intersection               | Main Street/Old New Market Road |
| Jurisdiction               | Town of New Market              |
| East/West Street           | Main Street                     |
| North/South Street         | Old New Market Road             |
| Peak Hour Factor           | 0.81                            |
| Analysis Time Period (hrs) | 0.25                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |    | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 32 | 523 | 0 |           | 1 | 241 | 1 |            | 0 | 0   | 1 |            | 3  | 0   | 49 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 40   |     |     |     | 1    |     |     |      |  | 1    |  |      |  | 64   |  |
| Capacity, c (veh/h)                     |     | 1262 |     |     |     | 940  |     |     |      |  | 472  |  |      |  | 642  |  |
| v/c Ratio                               |     | 0.03 |     |     |     | 0.00 |     |     |      |  | 0.00 |  |      |  | 0.10 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.1  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.3  |  |
| Control Delay (s/veh)                   |     | 7.9  | 0.4 | 0.4 |     | 8.8  | 0.0 | 0.0 |      |  | 12.7 |  |      |  | 11.2 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.8 |      |     |     | 0.1 |      |     |     | 12.7 |  |      |  | 11.2 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | B    |  |      |  |

# HCS Two-Way Stop-Control Report

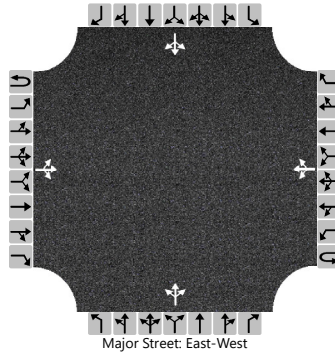
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background PM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                                 |
|----------------------------|---------------------------------|
| Intersection               | Main Street/Old New Market Road |
| Jurisdiction               | Town of New Market              |
| East/West Street           | Main Street                     |
| North/South Street         | Old New Market Road             |
| Peak Hour Factor           | 0.97                            |
| Analysis Time Period (hrs) | 0.25                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |     |
|----------------------------|-----------|----|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|-----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R   |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12  |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0   |
| Configuration              |           |    | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |     |
| Volume (veh/h)             |           | 64 | 413 | 1 |           | 9 | 638 | 2 |            | 2 | 0   | 3 |            | 2  | 1   | 135 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2   |
| Proportion Time Blocked    |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |
| Percent Grade (%)          |           |    |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |     |
| Right Turn Channelized     |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 66   |     |     |     | 9    |     |     |      |  | 5    |  |      |  | 142  |  |
| Capacity, c (veh/h)                     |     | 928  |     |     |     | 1133 |     |     |      |  | 194  |  |      |  | 442  |  |
| v/c Ratio                               |     | 0.07 |     |     |     | 0.01 |     |     |      |  | 0.03 |  |      |  | 0.32 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.2  |     |     |     | 0.0  |     |     |      |  | 0.1  |  |      |  | 1.4  |  |
| Control Delay (s/veh)                   |     | 9.2  | 0.9 | 0.9 |     | 8.2  | 0.1 | 0.1 |      |  | 24.0 |  |      |  | 17.0 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | C    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 2.0 |      |     |     | 0.2 |      |     |     | 24.0 |  |      |  | 17.0 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | C    |  |      |  | C    |  |      |  |



# HCS Two-Way Stop-Control Report

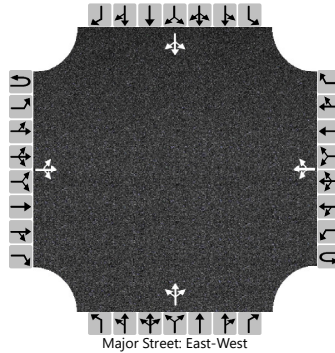
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total AM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                                 |
|----------------------------|---------------------------------|
| Intersection               | Main Street/Old New Market Road |
| Jurisdiction               | Town of New Market              |
| East/West Street           | Main Street                     |
| North/South Street         | Old New Market Road             |
| Peak Hour Factor           | 0.81                            |
| Analysis Time Period (hrs) | 0.25                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |    | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 32 | 535 | 0 |           | 1 | 249 | 1 |            | 0 | 0   | 1 |            | 3  | 0   | 49 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 40   |     |     |     | 1    |     |     |      |  | 1    |  |      |  | 64   |  |
| Capacity, c (veh/h)                     |     | 1252 |     |     |     | 928  |     |     |      |  | 463  |  |      |  | 631  |  |
| v/c Ratio                               |     | 0.03 |     |     |     | 0.00 |     |     |      |  | 0.00 |  |      |  | 0.10 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.1  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.3  |  |
| Control Delay (s/veh)                   |     | 8.0  | 0.4 | 0.4 |     | 8.9  | 0.0 | 0.0 |      |  | 12.8 |  |      |  | 11.4 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.8 |      |     |     | 0.0 |      |     |     | 12.8 |  |      |  | 11.4 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | B    |  |      |  |

# HCS Two-Way Stop-Control Report

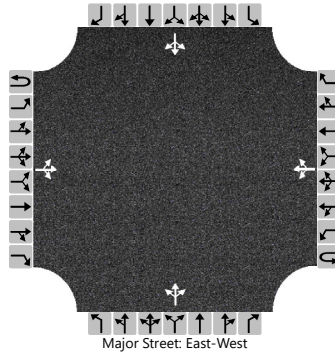
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total PM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                                 |
|----------------------------|---------------------------------|
| Intersection               | Main Street/Old New Market Road |
| Jurisdiction               | Town of New Market              |
| East/West Street           | Main Street                     |
| North/South Street         | Old New Market Road             |
| Peak Hour Factor           | 0.97                            |
| Analysis Time Period (hrs) | 0.25                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |     |
|----------------------------|-----------|----|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|-----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R   |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12  |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0   |
| Configuration              |           |    | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |     |
| Volume (veh/h)             |           | 64 | 423 | 1 |           | 9 | 650 | 2 |            | 2 | 0   | 3 |            | 2  | 1   | 135 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2   |
| Proportion Time Blocked    |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |
| Percent Grade (%)          |           |    |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |     |
| Right Turn Channelized     |           |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |   |            |   |     |   |            |    |     |     |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

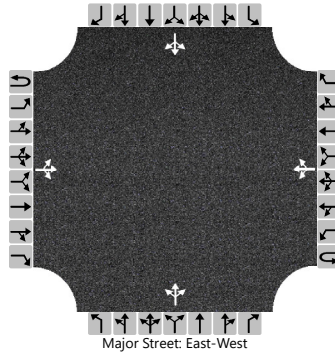
|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 66   |     |     |     | 9    |     |     |      |  | 5    |  |      |  |  | 142  |
| Capacity, c (veh/h)                     |     | 919  |     |     |     | 1123 |     |     |      |  | 170  |  |      |  |  | 434  |
| v/c Ratio                               |     | 0.07 |     |     |     | 0.01 |     |     |      |  | 0.03 |  |      |  |  | 0.33 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.2  |     |     |     | 0.0  |     |     |      |  | 0.1  |  |      |  |  | 1.4  |
| Control Delay (s/veh)                   |     | 9.2  | 0.9 | 0.9 |     | 8.2  | 0.1 | 0.1 |      |  | 26.8 |  |      |  |  | 17.3 |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | D    |  |      |  |  | C    |
| Approach Delay (s/veh)                  | 2.0 |      |     |     | 0.2 |      |     |     | 26.8 |  |      |  | 17.3 |  |  |      |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | D    |  |      |  | C    |  |  |      |

# HCS Two-Way Stop-Control Report

## General Information

|                          |             |                            |                            |
|--------------------------|-------------|----------------------------|----------------------------|
| Analyst                  | QT          | Intersection               | Main Street/Federal Street |
| Agency/Co.               | TTG, Inc.   | Jurisdiction               | Town of New Market         |
| Date Performed           | 7/11/2022   | East/West Street           | Main Street                |
| Analysis Year            | 2022        | North/South Street         | Federal Street             |
| Time Analyzed            | Existing AM | Peak Hour Factor           | 0.87                       |
| Intersection Orientation | East-West   | Analysis Time Period (hrs) | 0.25                       |
| Project Description      | East Main   |                            |                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 2 | 523 | 0 |           | 0 | 301 | 2 |            | 0 | 0   | 5 |            | 2  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

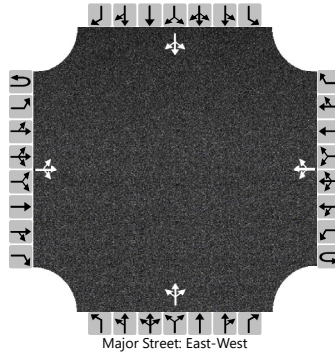
|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 2    |     |     |     | 0    |     |     |      |  | 6    |  |      |  | 3    |  |
| Capacity, c (veh/h)                     |     | 1211 |     |     |     | 976  |     |     |      |  | 500  |  |      |  | 302  |  |
| v/c Ratio                               |     | 0.00 |     |     |     | 0.00 |     |     |      |  | 0.01 |  |      |  | 0.01 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 8.0  | 0.0 | 0.0 |     | 8.7  | 0.0 | 0.0 |      |  | 12.3 |  |      |  | 17.1 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.1 |      |     |     | 0.0 |      |     |     | 12.3 |  |      |  | 17.1 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | C    |  |      |  |

# HCS Two-Way Stop-Control Report

## General Information

|                          |             |                            |                            |
|--------------------------|-------------|----------------------------|----------------------------|
| Analyst                  | QT          | Intersection               | Main Street/Federal Street |
| Agency/Co.               | TTG, Inc.   | Jurisdiction               | Town of New Market         |
| Date Performed           | 7/11/2022   | East/West Street           | Main Street                |
| Analysis Year            | 2022        | North/South Street         | Federal Street             |
| Time Analyzed            | Existing PM | Peak Hour Factor           | 0.90                       |
| Intersection Orientation | East-West   | Analysis Time Period (hrs) | 0.25                       |
| Project Description      | East Main   |                            |                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 0 | 487 | 0 |           | 3 | 556 | 0 |            | 0 | 1   | 3 |            | 1  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 0    |     |     |     | 3    |     |     |      |  | 4    |  |      |  | 2    |  |
| Capacity, c (veh/h)                     |     | 962  |     |     |     | 1027 |     |     |      |  | 373  |  |      |  | 250  |  |
| v/c Ratio                               |     | 0.00 |     |     |     | 0.00 |     |     |      |  | 0.01 |  |      |  | 0.01 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 8.7  | 0.0 | 0.0 |     | 8.5  | 0.0 | 0.0 |      |  | 14.8 |  |      |  | 19.5 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.0 |      |     |     | 0.1 |      |     |     | 14.8 |  |      |  | 19.5 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | C    |  |      |  |

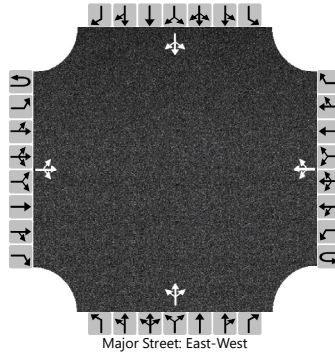


# HCS Two-Way Stop-Control Report

## General Information

|                          |               |                            |                            |
|--------------------------|---------------|----------------------------|----------------------------|
| Analyst                  | QT            | Intersection               | Main Street/Federal Street |
| Agency/Co.               | TTG, Inc.     | Jurisdiction               | Town of New Market         |
| Date Performed           | 7/11/2022     | East/West Street           | Main Street                |
| Analysis Year            | 2025          | North/South Street         | Federal Street             |
| Time Analyzed            | Background AM | Peak Hour Factor           | 0.87                       |
| Intersection Orientation | East-West     | Analysis Time Period (hrs) | 0.25                       |
| Project Description      | East Main     |                            |                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 2 | 661 | 0 |           | 0 | 369 | 2 |            | 0 | 0   | 5 |            | 2  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

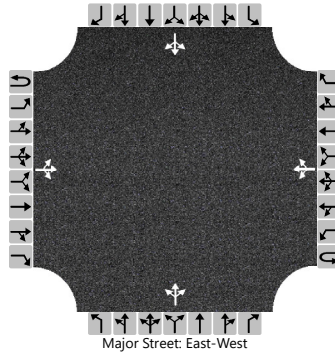
|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 2    |     |     |     | 0    |     |     |      |  | 6    |  |      |  | 3    |  |
| Capacity, c (veh/h)                     |     | 1133 |     |     |     | 852  |     |     |      |  | 406  |  |      |  | 215  |  |
| v/c Ratio                               |     | 0.00 |     |     |     | 0.00 |     |     |      |  | 0.01 |  |      |  | 0.02 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 8.2  | 0.0 | 0.0 |     | 9.2  | 0.0 | 0.0 |      |  | 14.0 |  |      |  | 22.0 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.1 |      |     |     | 0.0 |      |     |     | 14.0 |  |      |  | 22.0 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | C    |  |      |  |

# HCS Two-Way Stop-Control Report

## General Information

|                          |               |                            |                            |
|--------------------------|---------------|----------------------------|----------------------------|
| Analyst                  | QT            | Intersection               | Main Street/Federal Street |
| Agency/Co.               | TTG, Inc.     | Jurisdiction               | Town of New Market         |
| Date Performed           | 7/11/2022     | East/West Street           | Main Street                |
| Analysis Year            | 2025          | North/South Street         | Federal Street             |
| Time Analyzed            | Background PM | Peak Hour Factor           | 0.90                       |
| Intersection Orientation | East-West     | Analysis Time Period (hrs) | 0.25                       |
| Project Description      | East Main     |                            |                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 0 | 580 | 0 |           | 3 | 700 | 0 |            | 0 | 1   | 3 |            | 1  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

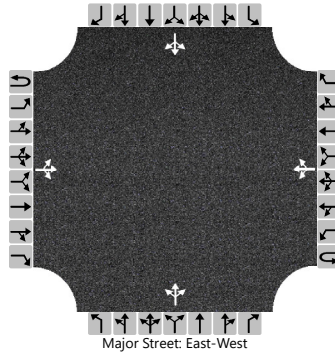
|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 0    |     |     |     | 3    |     |     |      |  | 4    |  |      |  | 2    |  |
| Capacity, c (veh/h)                     |     | 839  |     |     |     | 941  |     |     |      |  | 290  |  |      |  | 172  |  |
| v/c Ratio                               |     | 0.00 |     |     |     | 0.00 |     |     |      |  | 0.02 |  |      |  | 0.01 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 9.3  | 0.0 | 0.0 |     | 8.8  | 0.1 | 0.1 |      |  | 17.6 |  |      |  | 26.2 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | C    |  |      |  | D    |  |
| Approach Delay (s/veh)                  | 0.0 |      |     |     | 0.1 |      |     |     | 17.6 |  |      |  | 26.2 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | C    |  |      |  | D    |  |      |  |

# HCS Two-Way Stop-Control Report

## General Information

|                          |           |                            |                            |
|--------------------------|-----------|----------------------------|----------------------------|
| Analyst                  | QT        | Intersection               | Main Street/Federal Street |
| Agency/Co.               | TTG, Inc. | Jurisdiction               | Town of New Market         |
| Date Performed           | 7/11/2022 | East/West Street           | Main Street                |
| Analysis Year            | 2025      | North/South Street         | Federal Street             |
| Time Analyzed            | Total AM  | Peak Hour Factor           | 0.87                       |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25                       |
| Project Description      | East Main |                            |                            |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 2 | 673 | 0 |           | 0 | 377 | 2 |            | 0 | 0   | 5 |            | 2  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 2    |     |     |     | 0    |     |     |      |  | 6    |  |      |  | 3    |  |
| Capacity, c (veh/h)                     |     | 1124 |     |     |     | 842  |     |     |      |  | 399  |  |      |  | 207  |  |
| v/c Ratio                               |     | 0.00 |     |     |     | 0.00 |     |     |      |  | 0.01 |  |      |  | 0.02 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.1  |  |
| Control Delay (s/veh)                   |     | 8.2  | 0.0 | 0.0 |     | 9.3  | 0.0 | 0.0 |      |  | 14.2 |  |      |  | 22.7 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | B    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.1 |      |     |     | 0.0 |      |     |     | 14.2 |  |      |  | 22.7 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | B    |  |      |  | C    |  |      |  |

# HCS Two-Way Stop-Control Report

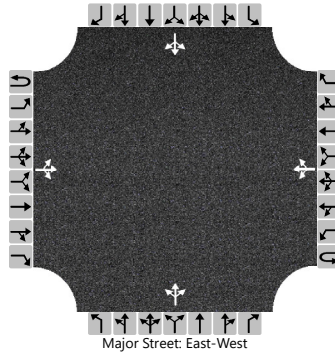
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total PM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                            |
|----------------------------|----------------------------|
| Intersection               | Main Street/Federal Street |
| Jurisdiction               | Town of New Market         |
| East/West Street           | Main Street                |
| North/South Street         | Federal Street             |
| Peak Hour Factor           | 0.90                       |
| Analysis Time Period (hrs) | 0.25                       |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |   | Westbound |   |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R | U         | L | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3 | 4U        | 4 | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0 | 0         | 0 | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |   |           |   | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 0 | 590 | 0 |           | 3 | 712 | 0 |            | 0 | 1   | 3 |            | 1  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |   |           | 2 |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |   |           |   |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |   |           |   |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 0    |     |     |     | 3    |     |     |      |  | 4    |  |      |  | 2    |  |
| Capacity, c (veh/h)                     |     | 829  |     |     |     | 932  |     |     |      |  | 282  |  |      |  | 166  |  |
| v/c Ratio                               |     | 0.00 |     |     |     | 0.00 |     |     |      |  | 0.02 |  |      |  | 0.01 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.0  |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 9.3  | 0.0 | 0.0 |     | 8.9  | 0.1 | 0.1 |      |  | 18.0 |  |      |  | 27.0 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | C    |  |      |  | D    |  |
| Approach Delay (s/veh)                  | 0.0 |      |     |     | 0.1 |      |     |     | 18.0 |  |      |  | 27.0 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | C    |  |      |  | D    |  |      |  |



# HCS Two-Way Stop-Control Report

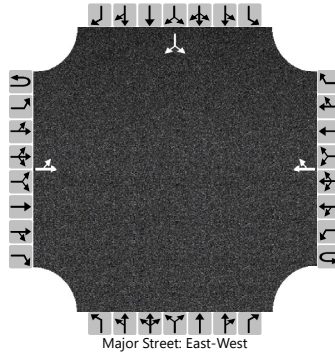
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Existing AM |
| Intersection Orientation | East-West   |
| Project Description      | East Main   |

## Site Information

|                            |                                       |
|----------------------------|---------------------------------------|
| Intersection               | Main Street/Marley Street/Site Access |
| Jurisdiction               | Town of New Market                    |
| East/West Street           | Main Street                           |
| North/South Street         | Marley Street/Site Access             |
| Peak Hour Factor           | 0.85                                  |
| Analysis Time Period (hrs) | 0.25                                  |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |    | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R  | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6  |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0  |            | 0 | 0 | 0 |            | 0  | 1  | 0  |
| Configuration              |           | LT |     |   |           |   |     | TR |            |   |   |   |            |    | LR |    |
| Volume (veh/h)             |           | 13 | 516 |   |           |   | 272 | 1  |            |   |   |   |            | 18 |    | 28 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           |   |     |    |            |   |   |   |            | 2  |    | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |    |            |   |   |   | 0          |    |    |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |  |  |  |  |  |  |  |  |      |  |      |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  |  |  |  |  |  |  |  |  | 7.1  |  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  |  |  |  |  |  |  |  |  | 6.42 |  | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  |  |  |  |  |  |  |  |  | 3.5  |  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  |  |  |  |  |  |  |  |  | 3.52 |  | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |  |  |  |  |  |  |  |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 15   |     |  |  |  |  |  |  |  |  |  |      |  | 54   |  |
| Capacity, c (veh/h)                     |     | 1239 |     |  |  |  |  |  |  |  |  |  |      |  | 446  |  |
| v/c Ratio                               |     | 0.01 |     |  |  |  |  |  |  |  |  |  |      |  | 0.12 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |  |  |  |  |  |  |  |  |      |  | 0.4  |  |
| Control Delay (s/veh)                   |     | 7.9  | 0.1 |  |  |  |  |  |  |  |  |  |      |  | 14.2 |  |
| Level of Service (LOS)                  |     | A    | A   |  |  |  |  |  |  |  |  |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.3 |      |     |  |  |  |  |  |  |  |  |  | 14.2 |  |      |  |
| Approach LOS                            | A   |      |     |  |  |  |  |  |  |  |  |  | B    |  |      |  |

# HCS Two-Way Stop-Control Report

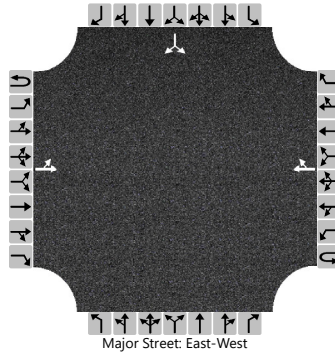
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2025        |
| Time Analyzed            | Existing PM |
| Intersection Orientation | East-West   |
| Project Description      | East Main   |

## Site Information

|                            |                                       |
|----------------------------|---------------------------------------|
| Intersection               | Main Street/Marley Street/Site Access |
| Jurisdiction               | Town of New Market                    |
| East/West Street           | Main Street                           |
| North/South Street         | Marley Street/Site Access             |
| Peak Hour Factor           | 0.88                                  |
| Analysis Time Period (hrs) | 0.25                                  |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |    | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R  | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6  |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0  |            | 0 | 0 | 0 |            | 0  | 1  | 0  |
| Configuration              |           | LT |     |   |           |   |     | TR |            |   |   |   |            |    | LR |    |
| Volume (veh/h)             |           | 6  | 459 |   |           |   | 566 | 10 |            |   |   |   |            | 17 |    | 12 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           |   |     |    |            |   |   |   |            | 2  |    | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |    |            |   |   |   | 0          |    |    |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |  |  |  |  |  |  |  |  |      |  |      |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  |  |  |  |  |  |  |  |  | 7.1  |  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  |  |  |  |  |  |  |  |  | 6.42 |  | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  |  |  |  |  |  |  |  |  | 3.5  |  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  |  |  |  |  |  |  |  |  | 3.52 |  | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |  |  |  |  |  |  |  |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 7    |     |  |  |  |  |  |  |  |  |  |      |  | 33   |  |
| Capacity, c (veh/h)                     |     | 932  |     |  |  |  |  |  |  |  |  |  |      |  | 269  |  |
| v/c Ratio                               |     | 0.01 |     |  |  |  |  |  |  |  |  |  |      |  | 0.12 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |  |  |  |  |  |  |  |  |      |  | 0.4  |  |
| Control Delay (s/veh)                   |     | 8.9  | 0.1 |  |  |  |  |  |  |  |  |  |      |  | 20.2 |  |
| Level of Service (LOS)                  |     | A    | A   |  |  |  |  |  |  |  |  |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.2 |      |     |  |  |  |  |  |  |  |  |  | 20.2 |  |      |  |
| Approach LOS                            | A   |      |     |  |  |  |  |  |  |  |  |  | C    |  |      |  |

# HCS Two-Way Stop-Control Report

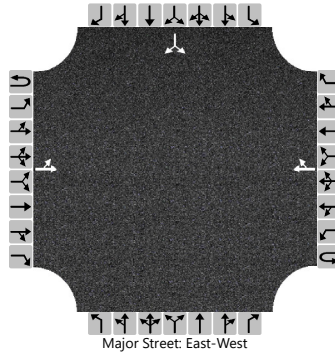
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background AM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                                       |
|----------------------------|---------------------------------------|
| Intersection               | Main Street/Marley Street/Site Access |
| Jurisdiction               | Town of New Market                    |
| East/West Street           | Main Street                           |
| North/South Street         | Marley Street/Site Access             |
| Peak Hour Factor           | 0.85                                  |
| Analysis Time Period (hrs) | 0.25                                  |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |    | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R  | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6  |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0  |            | 0 | 0 | 0 |            | 0  | 1  | 0  |
| Configuration              |           | LT |     |   |           |   |     | TR |            |   |   |   |            |    | LR |    |
| Volume (veh/h)             |           | 13 | 654 |   |           |   | 339 | 1  |            |   |   |   |            | 19 |    | 29 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           |   |     |    |            |   |   |   |            | 2  |    | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |    |            |   |   |   | 0          |    |    |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |  |  |  |  |  |  |  |  |      |  |      |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  |  |  |  |  |  |  |  |  | 7.1  |  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  |  |  |  |  |  |  |  |  | 6.42 |  | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  |  |  |  |  |  |  |  |  | 3.5  |  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  |  |  |  |  |  |  |  |  | 3.52 |  | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |  |  |  |  |  |  |  |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 15   |     |  |  |  |  |  |  |  |  |  |      |  | 56   |  |
| Capacity, c (veh/h)                     |     | 1159 |     |  |  |  |  |  |  |  |  |  |      |  | 344  |  |
| v/c Ratio                               |     | 0.01 |     |  |  |  |  |  |  |  |  |  |      |  | 0.16 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |  |  |  |  |  |  |  |  |      |  | 0.6  |  |
| Control Delay (s/veh)                   |     | 8.1  | 0.2 |  |  |  |  |  |  |  |  |  |      |  | 17.5 |  |
| Level of Service (LOS)                  |     | A    | A   |  |  |  |  |  |  |  |  |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.3 |      |     |  |  |  |  |  |  |  |  |  | 17.5 |  |      |  |
| Approach LOS                            | A   |      |     |  |  |  |  |  |  |  |  |  | C    |  |      |  |

# HCS Two-Way Stop-Control Report

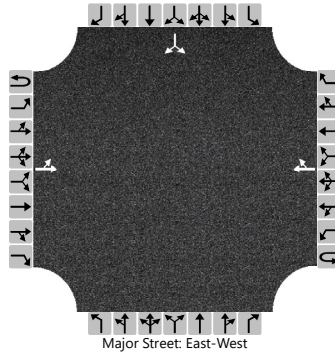
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background PM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                                       |
|----------------------------|---------------------------------------|
| Intersection               | Main Street/Marley Street/Site Access |
| Jurisdiction               | Town of New Market                    |
| East/West Street           | Main Street                           |
| North/South Street         | Marley Street/Site Access             |
| Peak Hour Factor           | 0.92                                  |
| Analysis Time Period (hrs) | 0.25                                  |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |   |     |    | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|----|-----|---|-----------|---|-----|----|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L  | T   | R | U         | L | T   | R  | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4 | 5   | 6  |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0 | 1   | 0  |            | 0 | 0 | 0 |            | 0  | 1  | 0  |
| Configuration              |           | LT |     |   |           |   |     | TR |            |   |   |   |            |    | LR |    |
| Volume (veh/h)             |           | 6  | 551 |   |           |   | 710 | 10 |            |   |   |   |            | 18 |    | 12 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           |   |     |    |            |   |   |   |            | 2  |    | 2  |
| Proportion Time Blocked    |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |    |     |   |           |   |     |    |            |   |   |   | 0          |    |    |    |
| Right Turn Channelized     |           |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |    |     |   |           |   |     |    |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |  |  |  |  |  |  |  |  |      |  |      |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  |  |  |  |  |  |  |  |  | 7.1  |  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  |  |  |  |  |  |  |  |  | 6.42 |  | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  |  |  |  |  |  |  |  |  | 3.5  |  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  |  |  |  |  |  |  |  |  | 3.52 |  | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |  |  |  |  |  |  |  |  |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|--|--|--|--|--|--|--|--|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 7    |     |  |  |  |  |  |  |  |  |  |      |  | 33   |  |
| Capacity, c (veh/h)                     |     | 835  |     |  |  |  |  |  |  |  |  |  |      |  | 205  |  |
| v/c Ratio                               |     | 0.01 |     |  |  |  |  |  |  |  |  |  |      |  | 0.16 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |  |  |  |  |  |  |  |  |  |      |  | 0.6  |  |
| Control Delay (s/veh)                   |     | 9.3  | 0.1 |  |  |  |  |  |  |  |  |  |      |  | 25.8 |  |
| Level of Service (LOS)                  |     | A    | A   |  |  |  |  |  |  |  |  |  |      |  | D    |  |
| Approach Delay (s/veh)                  | 0.2 |      |     |  |  |  |  |  |  |  |  |  | 25.8 |  |      |  |
| Approach LOS                            | A   |      |     |  |  |  |  |  |  |  |  |  | D    |  |      |  |



# HCS Two-Way Stop-Control Report

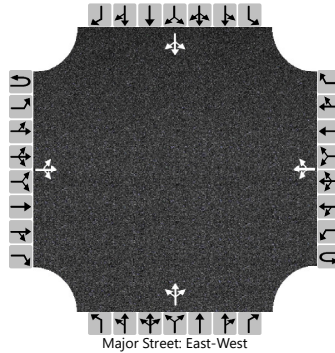
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total AM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                                       |
|----------------------------|---------------------------------------|
| Intersection               | Main Street/Marley Street/Site Access |
| Jurisdiction               | Town of New Market                    |
| East/West Street           | Main Street                           |
| North/South Street         | Marley Street/Site Access             |
| Peak Hour Factor           | 0.85                                  |
| Analysis Time Period (hrs) | 0.25                                  |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |   | Westbound |    |     |   | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|---|-----------|----|-----|---|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R | U         | L  | T   | R | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3 | 4U        | 4  | 5   | 6 |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0  | 1   | 0 | 0         | 0  | 1   | 0 |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           |    | LTR |   |           |    | LTR |   |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 13 | 657 | 9 |           | 10 | 341 | 1 |            | 6 | 0   | 6 |            | 19 | 0   | 29 |
| Percent Heavy Vehicles (%) |           | 2  |     |   |           | 2  |     |   |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |   |           |    |     |   |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |   |           |    |     |   | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |   |           |    |     |   |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |   |           |    |     |   |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 15   |     |     |     | 12   |     |     |      |  | 14   |  |      |  |  | 56   |
| Capacity, c (veh/h)                     |     | 1156 |     |     |     | 835  |     |     |      |  | 202  |  |      |  |  | 271  |
| v/c Ratio                               |     | 0.01 |     |     |     | 0.01 |     |     |      |  | 0.07 |  |      |  |  | 0.21 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.2  |  |      |  |  | 0.8  |
| Control Delay (s/veh)                   |     | 8.2  | 0.2 | 0.2 |     | 9.4  | 0.2 | 0.2 |      |  | 24.1 |  |      |  |  | 21.7 |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | C    |  |      |  |  | C    |
| Approach Delay (s/veh)                  | 0.3 |      |     |     | 0.4 |      |     |     | 24.1 |  |      |  | 21.7 |  |  |      |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | C    |  |      |  | C    |  |  |      |

# HCS Two-Way Stop-Control Report

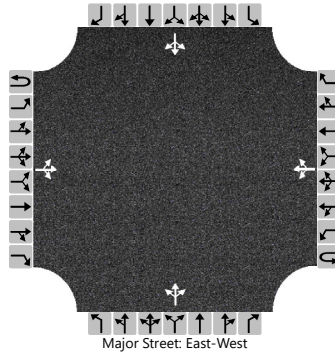
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total PM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                                       |
|----------------------------|---------------------------------------|
| Intersection               | Main Street/Marley Street/Site Access |
| Jurisdiction               | Town of New Market                    |
| East/West Street           | Main Street                           |
| North/South Street         | Marley Street/Site Access             |
| Peak Hour Factor           | 0.92                                  |
| Analysis Time Period (hrs) | 0.25                                  |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |    | Northbound |    |     |    | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R  | U          | L  | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7  | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0  |            | 0  | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           |   | LTR |    |           |    | LTR |    |            |    | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 6 | 544 | 17 |           | 10 | 711 | 10 |            | 11 | 0   | 17 |            | 18 | 0   | 12 |
| Percent Heavy Vehicles (%) |           | 2 |     |    |           | 2  |     |    |            | 2  | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |    | 0          |    |     |    | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.12 |  |  |  | 4.12 |  |  |  | 7.12 | 6.52 | 6.22 |  | 7.12 | 6.52 | 6.22 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |     |     |     |      |     |     |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|-----|-----|-----|------|-----|-----|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 7    |     |     |     | 11   |     |     |      |  | 30   |  |      |  | 33   |  |
| Capacity, c (veh/h)                     |     | 835  |     |     |     | 969  |     |     |      |  | 205  |  |      |  | 150  |  |
| v/c Ratio                               |     | 0.01 |     |     |     | 0.01 |     |     |      |  | 0.15 |  |      |  | 0.22 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |     |     |     | 0.0  |     |     |      |  | 0.5  |  |      |  | 0.8  |  |
| Control Delay (s/veh)                   |     | 9.3  | 0.1 | 0.1 |     | 8.8  | 0.2 | 0.2 |      |  | 25.7 |  |      |  | 35.6 |  |
| Level of Service (LOS)                  |     | A    | A   | A   |     | A    | A   | A   |      |  | D    |  |      |  | E    |  |
| Approach Delay (s/veh)                  | 0.2 |      |     |     | 0.3 |      |     |     | 25.7 |  |      |  | 35.6 |  |      |  |
| Approach LOS                            | A   |      |     |     | A   |      |     |     | D    |  |      |  | E    |  |      |  |

# HCS Two-Way Stop-Control Report

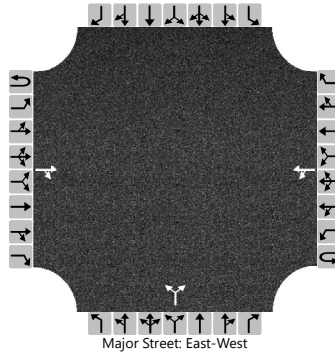
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Existing AM |
| Intersection Orientation | East-West   |
| Project Description      | East Main   |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Bye Alley   |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Marley Street/Bye Alley |
| Peak Hour Factor           | 0.88                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0 |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |   |            |    |    |    |
| Volume (veh/h)             |           |   | 541 | 0  |           | 0  | 274 |   |            | 0 |    | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  | 6.42 |  | 6.22 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |  |  |   |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|--|--|---|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 0    |     |  |  |  | 0 |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 965  |     |  |  |  | 0 |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |     |  |  |  |   |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |     |  |  |  |   |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 8.7  | 0.0 |  |  |  |   |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |  |  |   |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |     |  |  |  |   |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  |  |  |   |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

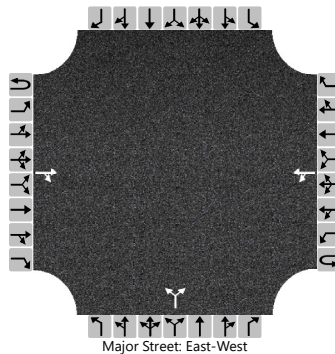
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Existing PM |
| Intersection Orientation | East-West   |
| Project Description      | East Main   |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Bye Alley   |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Marley Street/Bye Alley |
| Peak Hour Factor           | 0.89                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0 |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |   |            |    |    |    |
| Volume (veh/h)             |           |   | 490 | 1  |           | 0  | 559 |   |            | 0 |    | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  | 6.42 |  | 6.22 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |  |  |   |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|--|--|---|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 0    |     |  |  |  | 0 |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 1018 |     |  |  |  | 0 |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |     |  |  |  |   |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |     |  |  |  |   |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 8.5  | 0.0 |  |  |  |   |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |  |  |   |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |     |  |  |  |   |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  |  |  |   |  |  |  |  |  |



# HCS Two-Way Stop-Control Report

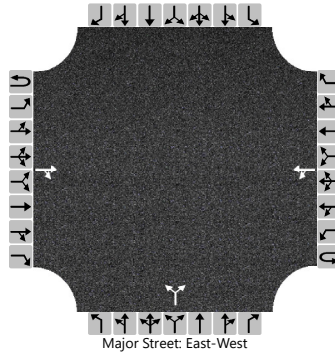
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background AM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Bye Alley   |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Marley Street/Bye Alley |
| Peak Hour Factor           | 0.88                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0 |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |   |            |    |    |    |
| Volume (veh/h)             |           |   | 679 | 0  |           | 0  | 341 |   |            | 0 |    | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  | 6.42 |  | 6.22 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |  |  |   |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|--|--|---|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 0    |     |  |  |  | 0 |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 843  |     |  |  |  | 0 |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |     |  |  |  |   |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |     |  |  |  |   |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.3  | 0.0 |  |  |  |   |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |  |  |   |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |     |  |  |  |   |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  |  |  |   |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

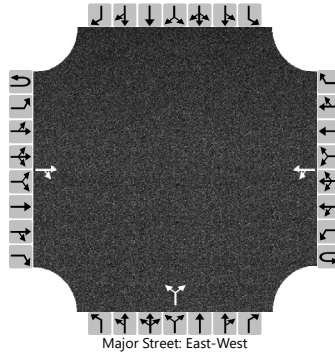
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background PM |
| Intersection Orientation | East-West     |
| Project Description      | East Main     |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Bye Alley   |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Marley Street/Bye Alley |
| Peak Hour Factor           | 0.89                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0 |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |   |            |    |    |    |
| Volume (veh/h)             |           |   | 583 | 1  |           | 0  | 703 |   |            | 0 |    | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |  |      |  |      |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|--|------|--|------|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  |  | 6.42 |  | 6.22 |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  |  | 3.52 |  | 3.32 |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |  |  |   |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|--|--|---|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 0    |     |  |  |  | 0 |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 931  |     |  |  |  | 0 |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |     |  |  |  |   |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |     |  |  |  |   |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 8.9  | 0.0 |  |  |  |   |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |  |  |   |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |     |  |  |  |   |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  |  |  |   |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

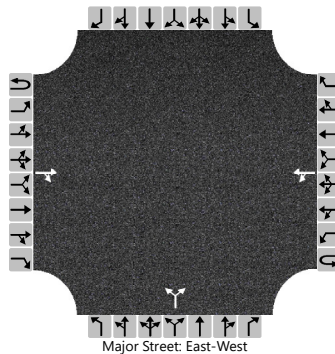
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total AM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Bye Alley   |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Marley Street/Bye Alley |
| Peak Hour Factor           | 0.88                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0 |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |   |            |    |    |    |
| Volume (veh/h)             |           |   | 712 | 0  |           | 0  | 390 |   |            | 0 |    | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  | 6.42 |  | 6.22 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |  |  |   |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|--|--|---|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 0    |     |  |  |  | 0 |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 817  |     |  |  |  | 0 |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |     |  |  |  |   |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |     |  |  |  |   |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.4  | 0.0 |  |  |  |   |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |  |  |   |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |     |  |  |  |   |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  |  |  |   |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

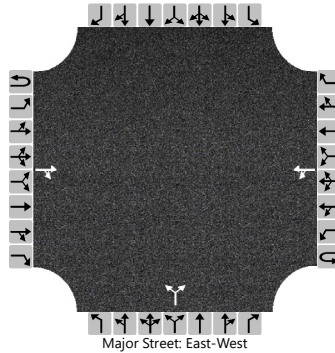
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total PM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Bye Alley   |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Marley Street/Bye Alley |
| Peak Hour Factor           | 0.89                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0 |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |   |            |    |    |    |
| Volume (veh/h)             |           |   | 629 | 1  |           | 0  | 742 |   |            | 0 |    | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |  |      |  |      |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|--|------|--|------|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  |  | 6.42 |  | 6.22 |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  |  | 3.52 |  | 3.32 |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |  |  |   |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|--|--|---|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 0    |     |  |  |  | 0 |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 891  |     |  |  |  | 0 |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |     |  |  |  |   |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |     |  |  |  |   |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.0  | 0.0 |  |  |  |   |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |  |  |   |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |     |  |  |  |   |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  |  |  |   |  |  |  |  |  |



# HCS Two-Way Stop-Control Report

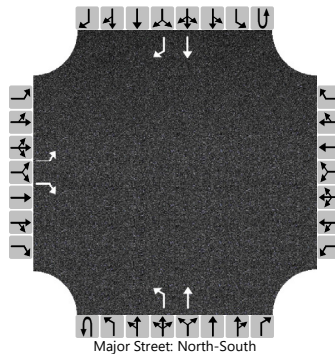
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Existing AM |
| Intersection Orientation | North-South |
| Project Description      | East Main   |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | MD 75/Old New Market Road |
| Jurisdiction               | Town of New Market        |
| East/West Street           | Old New Market Road       |
| North/South Street         | MD 75                     |
| Peak Hour Factor           | 0.93                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |   |   | Northbound |    |     |   | Southbound |   |     |     |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|-----|
| Movement                   | U         | L  | T  | R  | U         | L | T | R | U          | L  | T   | R | U          | L | T   | R   |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8 | 9 | 1U         | 1  | 2   | 3 | 4U         | 4 | 5   | 6   |
| Number of Lanes            |           | 1  | 0  | 1  |           | 0 | 0 | 0 | 0          | 1  | 1   | 0 | 0          | 0 | 1   | 1   |
| Configuration              |           | L  |    | R  |           |   |   |   |            | L  | T   |   |            |   | T   | R   |
| Volume (veh/h)             |           | 59 |    | 30 |           |   |   |   |            | 17 | 362 |   |            |   | 812 | 104 |
| Percent Heavy Vehicles (%) |           | 2  |    | 2  |           |   |   |   |            | 2  |     |   |            |   |     |     |
| Proportion Time Blocked    |           |    |    |    |           |   |   |   |            |    |     |   |            |   |     |     |
| Percent Grade (%)          | 0         |    |    |    |           |   |   |   |            |    |     |   |            |   |     |     |
| Right Turn Channelized     | No        |    |    |    |           |   |   |   |            |    |     |   | No         |   |     |     |
| Median Type   Storage      | Undivided |    |    |    |           |   |   |   |            |    |     |   |            |   |     |     |

## Critical and Follow-up Headways

|                              |  |      |  |      |  |  |  |  |  |      |  |  |  |  |  |  |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec)  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |  |  |  |  |
| Critical Headway (sec)       |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |  |  |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |  |  |  |  |
| Follow-Up Headway (sec)      |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |      |      |  |      |  |  |  |  |     |      |  |  |  |  |  |  |
|-----------------------------------------|------|------|--|------|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |      | 63   |  | 32   |  |  |  |  |     | 18   |  |  |  |  |  |  |
| Capacity, c (veh/h)                     |      | 174  |  | 349  |  |  |  |  |     | 701  |  |  |  |  |  |  |
| v/c Ratio                               |      | 0.37 |  | 0.09 |  |  |  |  |     | 0.03 |  |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |      | 1.6  |  | 0.3  |  |  |  |  |     | 0.1  |  |  |  |  |  |  |
| Control Delay (s/veh)                   |      | 37.2 |  | 16.3 |  |  |  |  |     | 10.3 |  |  |  |  |  |  |
| Level of Service (LOS)                  |      | E    |  | C    |  |  |  |  |     | B    |  |  |  |  |  |  |
| Approach Delay (s/veh)                  | 30.2 |      |  |      |  |  |  |  | 0.5 |      |  |  |  |  |  |  |
| Approach LOS                            | D    |      |  |      |  |  |  |  | A   |      |  |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

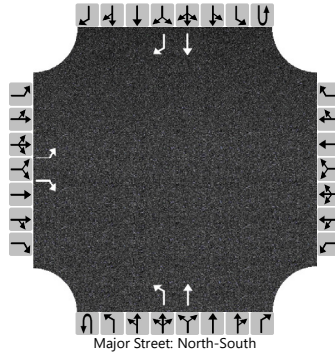
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Existing PM |
| Intersection Orientation | North-South |
| Project Description      | East Main   |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | MD 75/Old New Market Road |
| Jurisdiction               | Town of New Market        |
| East/West Street           | Old New Market Road       |
| North/South Street         | MD 75                     |
| Peak Hour Factor           | 0.96                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |   |   | Northbound |    |     |   | Southbound |   |     |    |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|----|
| Movement                   | U         | L  | T  | R  | U         | L | T | R | U          | L  | T   | R | U          | L | T   | R  |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8 | 9 | 1U         | 1  | 2   | 3 | 4U         | 4 | 5   | 6  |
| Number of Lanes            |           | 1  | 0  | 1  |           | 0 | 0 | 0 | 0          | 1  | 1   | 0 | 0          | 0 | 1   | 1  |
| Configuration              |           | L  |    | R  |           |   |   |   |            | L  | T   |   |            |   | T   | R  |
| Volume (veh/h)             |           | 36 |    | 35 |           |   |   |   |            | 74 | 835 |   |            |   | 423 | 54 |
| Percent Heavy Vehicles (%) |           | 2  |    | 2  |           |   |   |   |            | 2  |     |   |            |   |     |    |
| Proportion Time Blocked    |           |    |    |    |           |   |   |   |            |    |     |   |            |   |     |    |
| Percent Grade (%)          | 0         |    |    |    |           |   |   |   |            |    |     |   |            |   |     |    |
| Right Turn Channelized     | No        |    |    |    |           |   |   |   |            |    |     |   | No         |   |     |    |
| Median Type   Storage      | Undivided |    |    |    |           |   |   |   |            |    |     |   |            |   |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |      |  |  |  |  |  |      |  |  |  |  |  |  |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec)  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |  |  |  |  |
| Critical Headway (sec)       |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |  |  |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |  |  |  |  |
| Follow-Up Headway (sec)      |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |      |      |  |      |  |  |  |  |     |      |  |  |  |  |  |  |
|-----------------------------------------|------|------|--|------|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |      | 38   |  | 36   |  |  |  |  |     | 77   |  |  |  |  |  |  |
| Capacity, c (veh/h)                     |      | 131  |  | 617  |  |  |  |  |     | 1067 |  |  |  |  |  |  |
| v/c Ratio                               |      | 0.29 |  | 0.06 |  |  |  |  |     | 0.07 |  |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |      | 1.1  |  | 0.2  |  |  |  |  |     | 0.2  |  |  |  |  |  |  |
| Control Delay (s/veh)                   |      | 43.1 |  | 11.2 |  |  |  |  |     | 8.6  |  |  |  |  |  |  |
| Level of Service (LOS)                  |      | E    |  | B    |  |  |  |  |     | A    |  |  |  |  |  |  |
| Approach Delay (s/veh)                  | 27.4 |      |  |      |  |  |  |  | 0.7 |      |  |  |  |  |  |  |
| Approach LOS                            | D    |      |  |      |  |  |  |  | A   |      |  |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

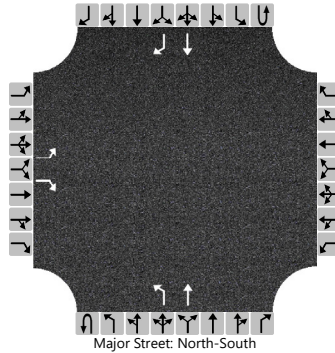
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background AM |
| Intersection Orientation | North-South   |
| Project Description      | East Main     |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | MD 75/Old New Market Road |
| Jurisdiction               | Town of New Market        |
| East/West Street           | Old New Market Road       |
| North/South Street         | MD 75                     |
| Peak Hour Factor           | 0.93                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |   |   | Northbound |    |     |   | Southbound |   |      |     |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|------|-----|
| Movement                   | U         | L  | T  | R  | U         | L | T | R | U          | L  | T   | R | U          | L | T    | R   |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8 | 9 | 1U         | 1  | 2   | 3 | 4U         | 4 | 5    | 6   |
| Number of Lanes            |           | 1  | 0  | 1  |           | 0 | 0 | 0 | 0          | 1  | 1   | 0 | 0          | 0 | 1    | 1   |
| Configuration              |           | L  |    | R  |           |   |   |   |            | L  | T   |   |            |   | T    | R   |
| Volume (veh/h)             |           | 61 |    | 31 |           |   |   |   |            | 18 | 476 |   |            |   | 1097 | 107 |
| Percent Heavy Vehicles (%) |           | 2  |    | 2  |           |   |   |   |            | 2  |     |   |            |   |      |     |
| Proportion Time Blocked    |           |    |    |    |           |   |   |   |            |    |     |   |            |   |      |     |
| Percent Grade (%)          | 0         |    |    |    |           |   |   |   |            |    |     |   |            |   |      |     |
| Right Turn Channelized     | No        |    |    |    |           |   |   |   |            |    |     |   | No         |   |      |     |
| Median Type   Storage      | Undivided |    |    |    |           |   |   |   |            |    |     |   |            |   |      |     |

## Critical and Follow-up Headways

|                              |  |      |  |      |  |  |  |  |  |      |  |  |  |  |  |  |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec)  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |  |  |  |  |
| Critical Headway (sec)       |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |  |  |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |  |  |  |  |
| Follow-Up Headway (sec)      |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |      |       |  |      |  |  |  |  |     |      |  |  |  |  |  |  |
|-----------------------------------------|------|-------|--|------|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |      | 66    |  | 33   |  |  |  |  |     | 19   |  |  |  |  |  |  |
| Capacity, c (veh/h)                     |      | 93    |  | 232  |  |  |  |  |     | 535  |  |  |  |  |  |  |
| v/c Ratio                               |      | 0.70  |  | 0.14 |  |  |  |  |     | 0.04 |  |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |      | 3.5   |  | 0.5  |  |  |  |  |     | 0.1  |  |  |  |  |  |  |
| Control Delay (s/veh)                   |      | 105.5 |  | 23.1 |  |  |  |  |     | 12.0 |  |  |  |  |  |  |
| Level of Service (LOS)                  |      | F     |  | C    |  |  |  |  |     | B    |  |  |  |  |  |  |
| Approach Delay (s/veh)                  | 77.8 |       |  |      |  |  |  |  | 0.4 |      |  |  |  |  |  |  |
| Approach LOS                            | F    |       |  |      |  |  |  |  | A   |      |  |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

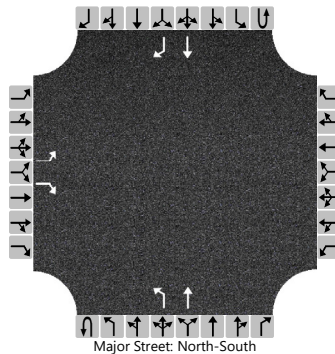
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | QT            |
| Agency/Co.               | TTG, Inc.     |
| Date Performed           | 7/11/2022     |
| Analysis Year            | 2025          |
| Time Analyzed            | Background PM |
| Intersection Orientation | North-South   |
| Project Description      | East Main     |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | MD 75/Old New Market Road |
| Jurisdiction               | Town of New Market        |
| East/West Street           | Old New Market Road       |
| North/South Street         | MD 75                     |
| Peak Hour Factor           | 0.96                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |   |   | Northbound |    |      |   | Southbound |   |     |    |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|------|---|------------|---|-----|----|
| Movement                   | U         | L  | T  | R  | U         | L | T | R | U          | L  | T    | R | U          | L | T   | R  |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8 | 9 | 1U         | 1  | 2    | 3 | 4U         | 4 | 5   | 6  |
| Number of Lanes            |           | 1  | 0  | 1  |           | 0 | 0 | 0 | 0          | 1  | 1    | 0 | 0          | 0 | 1   | 1  |
| Configuration              |           | L  |    | R  |           |   |   |   |            | L  | T    |   |            |   | T   | R  |
| Volume (veh/h)             |           | 37 |    | 36 |           |   |   |   |            | 76 | 1106 |   |            |   | 595 | 56 |
| Percent Heavy Vehicles (%) |           | 2  |    | 2  |           |   |   |   |            | 2  |      |   |            |   |     |    |
| Proportion Time Blocked    |           |    |    |    |           |   |   |   |            |    |      |   |            |   |     |    |
| Percent Grade (%)          | 0         |    |    |    |           |   |   |   |            |    |      |   |            |   |     |    |
| Right Turn Channelized     | No        |    |    |    |           |   |   |   |            |    |      |   | No         |   |     |    |
| Median Type   Storage      | Undivided |    |    |    |           |   |   |   |            |    |      |   |            |   |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |      |  |  |  |  |  |      |  |  |  |  |  |  |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec)  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |  |  |  |  |
| Critical Headway (sec)       |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |  |  |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |  |  |  |  |
| Follow-Up Headway (sec)      |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |      |       |  |      |  |  |  |  |     |      |  |  |  |  |  |  |
|-----------------------------------------|------|-------|--|------|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |      | 39    |  | 38   |  |  |  |  |     | 79   |  |  |  |  |  |  |
| Capacity, c (veh/h)                     |      | 66    |  | 488  |  |  |  |  |     | 914  |  |  |  |  |  |  |
| v/c Ratio                               |      | 0.58  |  | 0.08 |  |  |  |  |     | 0.09 |  |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |      | 2.4   |  | 0.2  |  |  |  |  |     | 0.3  |  |  |  |  |  |  |
| Control Delay (s/veh)                   |      | 116.5 |  | 13.0 |  |  |  |  |     | 9.3  |  |  |  |  |  |  |
| Level of Service (LOS)                  |      | F     |  | B    |  |  |  |  |     | A    |  |  |  |  |  |  |
| Approach Delay (s/veh)                  | 65.4 |       |  |      |  |  |  |  | 0.6 |      |  |  |  |  |  |  |
| Approach LOS                            | F    |       |  |      |  |  |  |  | A   |      |  |  |  |  |  |  |



# HCS Two-Way Stop-Control Report

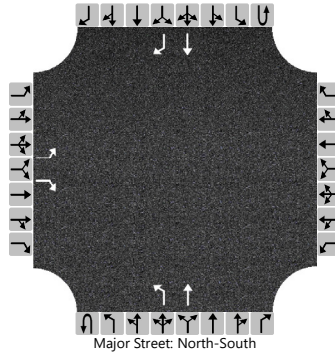
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2025        |
| Time Analyzed            | Total AM    |
| Intersection Orientation | North-South |
| Project Description      | East Main   |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | MD 75/Old New Market Road |
| Jurisdiction               | Town of New Market        |
| East/West Street           | Old New Market Road       |
| North/South Street         | MD 75                     |
| Peak Hour Factor           | 0.93                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |   |   | Northbound |    |     |   | Southbound |   |      |     |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|------|-----|
| Movement                   | U         | L  | T  | R  | U         | L | T | R | U          | L  | T   | R | U          | L | T    | R   |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8 | 9 | 1U         | 1  | 2   | 3 | 4U         | 4 | 5    | 6   |
| Number of Lanes            |           | 1  | 0  | 1  |           | 0 | 0 | 0 | 0          | 1  | 1   | 0 | 0          | 0 | 1    | 1   |
| Configuration              |           | L  |    | R  |           |   |   |   |            | L  | T   |   |            |   | T    | R   |
| Volume (veh/h)             |           | 61 |    | 31 |           |   |   |   |            | 18 | 482 |   |            |   | 1106 | 107 |
| Percent Heavy Vehicles (%) |           | 2  |    | 2  |           |   |   |   |            | 2  |     |   |            |   |      |     |
| Proportion Time Blocked    |           |    |    |    |           |   |   |   |            |    |     |   |            |   |      |     |
| Percent Grade (%)          | 0         |    |    |    |           |   |   |   |            |    |     |   |            |   |      |     |
| Right Turn Channelized     | No        |    |    |    |           |   |   |   |            |    |     |   | No         |   |      |     |
| Median Type   Storage      | Undivided |    |    |    |           |   |   |   |            |    |     |   |            |   |      |     |

## Critical and Follow-up Headways

|                              |  |      |  |      |  |  |  |  |  |      |  |  |  |  |  |  |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec)  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |  |  |  |  |
| Critical Headway (sec)       |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |  |  |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |  |  |  |  |
| Follow-Up Headway (sec)      |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |      |       |  |      |  |  |  |  |     |      |  |  |  |  |  |  |
|-----------------------------------------|------|-------|--|------|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |      | 66    |  | 33   |  |  |  |  |     | 19   |  |  |  |  |  |  |
| Capacity, c (veh/h)                     |      | 91    |  | 229  |  |  |  |  |     | 531  |  |  |  |  |  |  |
| v/c Ratio                               |      | 0.72  |  | 0.15 |  |  |  |  |     | 0.04 |  |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |      | 3.6   |  | 0.5  |  |  |  |  |     | 0.1  |  |  |  |  |  |  |
| Control Delay (s/veh)                   |      | 110.5 |  | 23.4 |  |  |  |  |     | 12.0 |  |  |  |  |  |  |
| Level of Service (LOS)                  |      | F     |  | C    |  |  |  |  |     | B    |  |  |  |  |  |  |
| Approach Delay (s/veh)                  | 81.2 |       |  |      |  |  |  |  | 0.4 |      |  |  |  |  |  |  |
| Approach LOS                            | F    |       |  |      |  |  |  |  | A   |      |  |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

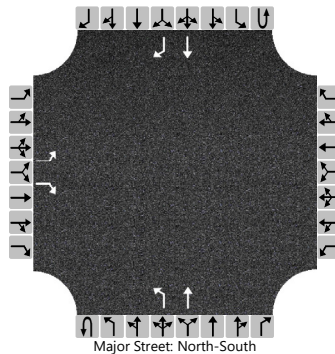
## General Information

|                          |             |
|--------------------------|-------------|
| Analyst                  | QT          |
| Agency/Co.               | TTG, Inc.   |
| Date Performed           | 7/11/2022   |
| Analysis Year            | 2022        |
| Time Analyzed            | Total PM    |
| Intersection Orientation | North-South |
| Project Description      | East Main   |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | MD 75/Old New Market Road |
| Jurisdiction               | Town of New Market        |
| East/West Street           | Old New Market Road       |
| North/South Street         | MD 75                     |
| Peak Hour Factor           | 0.96                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |   |   | Northbound |    |      |   | Southbound |   |     |    |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|------|---|------------|---|-----|----|
| Movement                   | U         | L  | T  | R  | U         | L | T | R | U          | L  | T    | R | U          | L | T   | R  |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8 | 9 | 1U         | 1  | 2    | 3 | 4U         | 4 | 5   | 6  |
| Number of Lanes            |           | 1  | 0  | 1  |           | 0 | 0 | 0 | 0          | 1  | 1    | 0 | 0          | 0 | 1   | 1  |
| Configuration              |           | L  |    | R  |           |   |   |   |            | L  | T    |   |            |   | T   | R  |
| Volume (veh/h)             |           | 37 |    | 36 |           |   |   |   |            | 76 | 1115 |   |            |   | 603 | 56 |
| Percent Heavy Vehicles (%) |           | 2  |    | 2  |           |   |   |   |            | 2  |      |   |            |   |     |    |
| Proportion Time Blocked    |           |    |    |    |           |   |   |   |            |    |      |   |            |   |     |    |
| Percent Grade (%)          | 0         |    |    |    |           |   |   |   |            |    |      |   |            |   |     |    |
| Right Turn Channelized     | No        |    |    |    |           |   |   |   |            |    |      |   | No         |   |     |    |
| Median Type   Storage      | Undivided |    |    |    |           |   |   |   |            |    |      |   |            |   |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |      |  |  |  |  |  |      |  |  |  |  |  |  |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec)  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |  |  |  |  |
| Critical Headway (sec)       |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |  |  |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |  |  |  |  |
| Follow-Up Headway (sec)      |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |      |       |  |      |  |  |  |  |     |      |  |  |  |  |  |  |
|-----------------------------------------|------|-------|--|------|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |      | 39    |  | 38   |  |  |  |  |     | 79   |  |  |  |  |  |  |
| Capacity, c (veh/h)                     |      | 65    |  | 483  |  |  |  |  |     | 907  |  |  |  |  |  |  |
| v/c Ratio                               |      | 0.60  |  | 0.08 |  |  |  |  |     | 0.09 |  |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |      | 2.5   |  | 0.3  |  |  |  |  |     | 0.3  |  |  |  |  |  |  |
| Control Delay (s/veh)                   |      | 121.7 |  | 13.1 |  |  |  |  |     | 9.3  |  |  |  |  |  |  |
| Level of Service (LOS)                  |      | F     |  | B    |  |  |  |  |     | A    |  |  |  |  |  |  |
| Approach Delay (s/veh)                  | 68.2 |       |  |      |  |  |  |  | 0.6 |      |  |  |  |  |  |  |
| Approach LOS                            | F    |       |  |      |  |  |  |  | A   |      |  |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

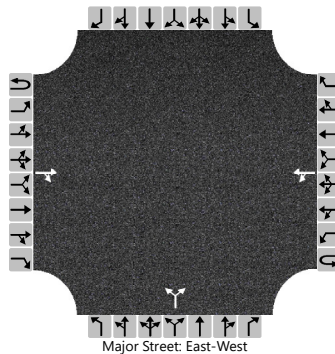
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total AM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Site Access |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Site Access             |
| Peak Hour Factor           | 0.88                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |    | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|----|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R  | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9  |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0  |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |    |            |    |    |    |
| Volume (veh/h)             |           |   | 685 | 3  |           | 39 | 351 |   |            | 2 |    | 27 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2  |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |    |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  | 6.42 |  | 6.22 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |      |  |      |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|------|--|------|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 44   |     |  |      |  | 33   |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 836  |     |  |      |  | 363  |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.05 |     |  |      |  | 0.09 |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.2  |     |  |      |  | 0.3  |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.5  | 0.7 |  |      |  | 15.9 |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |      |  | C    |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 1.5 |      |     |  | 15.9 |  |      |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  | C    |  |      |  |  |  |  |  |

# HCS Two-Way Stop-Control Report

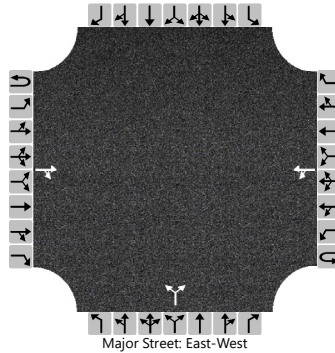
## General Information

|                          |           |
|--------------------------|-----------|
| Analyst                  | QT        |
| Agency/Co.               | TTG, Inc. |
| Date Performed           | 7/11/2022 |
| Analysis Year            | 2025      |
| Time Analyzed            | Total PM  |
| Intersection Orientation | East-West |
| Project Description      | East Main |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Main Street/Site Access |
| Jurisdiction               | Town of New Market      |
| East/West Street           | Main Street             |
| North/South Street         | Site Access             |
| Peak Hour Factor           | 0.88                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |    | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|----|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R  | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9  |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 1   | 0  | 0         | 0  | 1   | 0 |            | 0 | 1  | 0  |            | 0  | 0  | 0  |
| Configuration              |           |   |     | TR |           | LT |     |   |            |   | LR |    |            |    |    |    |
| Volume (veh/h)             |           |   | 586 | 9  |           | 35 | 707 |   |            | 7 |    | 42 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    |           | 2  |     |   |            | 2 |    | 2  |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |    |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.12 |  |  |  | 6.42 |  | 6.22 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |     |  |      |  |      |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|-----|--|------|--|------|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 40   |     |  |      |  | 56   |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 915  |     |  |      |  | 320  |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.04 |     |  |      |  | 0.17 |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.1  |     |  |      |  | 0.6  |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.1  | 0.7 |  |      |  | 18.6 |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    | A   |  |      |  | C    |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 1.1 |      |     |  | 18.6 |  |      |  |  |  |  |  |
| Approach LOS                            |  |  |  |  | A   |      |     |  | C    |  |      |  |  |  |  |  |

# 1. Old National Pike/Boyers Mill Road

## Maryland State Highway Administration Queuing Analysis Formula

Queue Length (feet) =

If Average No. of Vehicle (Specific Movement) per Cycle <= 20: Poisson Distribution Maximum No. of Vehicles per Cycle x 25 Feet per Vehicle

If Average No. of Vehicle (Specific Movement) per Cycle > 20:  $\frac{\text{Turning Volume (veh per hour)} \times \text{Lane Use Factor} \times \text{Cycle Length (Seconds)}}{3600 \text{ (Seconds per hour)}}$  x 25 Feet per Vehicle x 1.4 Surge Factor

|                           |                                  | Available<br>Storage (feet) | Queue Length<br>(feet) | Veh / Hour | Lane Use Factor | Cycle Length (seconds) | Average No. of<br>Vehicle per<br>Cycle | Is Average No.<br>of Vehicle<br>(Specific<br>Movement) per<br>Cycle <= 20? | Poisson<br>Distribution<br>Maximum No.<br>of Vehicle per<br>Cycle |
|---------------------------|----------------------------------|-----------------------------|------------------------|------------|-----------------|------------------------|----------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Existing Traffic</b>   |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| <b>AM Peak Hour</b>       |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
|                           | EB Old National Pike left turn:  | 150                         | 75                     | 74         | 1               | 60                     | 1.2                                    | Yes                                                                        | 3                                                                 |
|                           | EB Old National Pike thru:       | >500                        | 125                    | 130        | 1               | 60                     | 2.2                                    | Yes                                                                        | 5                                                                 |
|                           | WB Old National Pike thru:       | >500                        | 125                    | 142        | 1               | 60                     | 2.4                                    | Yes                                                                        | 5                                                                 |
|                           | WB Old National Pike right turn: | 150                         | 0                      | 0          | 1               | 60                     | 0.0                                    | Yes                                                                        | 0                                                                 |
|                           | SB Boyers Mill Road left turn:   | >500                        | 200                    | 244        | 1               | 60                     | 4.1                                    | Yes                                                                        | 8                                                                 |
|                           | SB Boyers Mill Road right turn:  | 100                         | 125                    | 126        | 1               | 60                     | 2.1                                    | Yes                                                                        | 5                                                                 |
| <b>PM Peak Hour</b>       |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
|                           | EB Old National Pike left turn:  | 150                         | 225                    | 275        | 1               | 70                     | 5.3                                    | Yes                                                                        | 9                                                                 |
|                           | EB Old National Pike thru:       | >500                        | 200                    | 244        | 1               | 70                     | 4.7                                    | Yes                                                                        | 8                                                                 |
|                           | WB Old National Pike thru:       | >500                        | 200                    | 241        | 1               | 70                     | 4.7                                    | Yes                                                                        | 8                                                                 |
|                           | WB Old National Pike right turn: | 150                         | 100                    | 95         | 1               | 70                     | 1.8                                    | Yes                                                                        | 4                                                                 |
|                           | SB Boyers Mill Road left turn:   | >500                        | 175                    | 185        | 1               | 70                     | 3.6                                    | Yes                                                                        | 7                                                                 |
|                           | SB Boyers Mill Road right turn:  | 100                         | 0                      | 0          | 1               | 70                     | 0.0                                    | Yes                                                                        | 0                                                                 |
| <b>Background Traffic</b> |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| <b>AM Peak Hour</b>       |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
|                           | EB Old National Pike left turn:  | 150                         | 125                    | 142        | 1               | 60                     | 2.4                                    | Yes                                                                        | 5                                                                 |
|                           | EB Old National Pike thru:       | >500                        | 175                    | 234        | 1               | 60                     | 3.9                                    | Yes                                                                        | 7                                                                 |
|                           | WB Old National Pike thru:       | >500                        | 175                    | 209        | 1               | 60                     | 3.5                                    | Yes                                                                        | 7                                                                 |
|                           | WB Old National Pike right turn: | 150                         | 0                      | 0          | 1               | 60                     | 0.0                                    | Yes                                                                        | 0                                                                 |
|                           | SB Boyers Mill Road left turn:   | >500                        | 225                    | 313        | 1               | 60                     | 5.2                                    | Yes                                                                        | 9                                                                 |
|                           | SB Boyers Mill Road right turn:  | 100                         | 125                    | 156        | 1               | 60                     | 2.6                                    | Yes                                                                        | 5                                                                 |
| <b>PM Peak Hour</b>       |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
|                           | EB Old National Pike left turn:  | 150                         | 325                    | 421        | 1               | 70                     | 8.2                                    | Yes                                                                        | 13                                                                |
|                           | EB Old National Pike thru:       | >500                        | 275                    | 342        | 1               | 70                     | 6.7                                    | Yes                                                                        | 11                                                                |
|                           | WB Old National Pike thru:       | >500                        | 300                    | 363        | 1               | 70                     | 7.1                                    | Yes                                                                        | 12                                                                |
|                           | WB Old National Pike right turn: | 150                         | 125                    | 126        | 1               | 70                     | 2.5                                    | Yes                                                                        | 5                                                                 |
|                           | SB Boyers Mill Road left turn:   | >500                        | 200                    | 226        | 1               | 70                     | 4.4                                    | Yes                                                                        | 8                                                                 |
|                           | SB Boyers Mill Road right turn:  | 100                         | 0                      | 0          | 1               | 70                     | 0.0                                    | Yes                                                                        | 0                                                                 |
| <b>Total Traffic</b>      |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| <b>AM Peak Hour</b>       |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
|                           | EB Old National Pike left turn:  | 150                         | 125                    | 142        | 1               | 60                     | 2.4                                    | Yes                                                                        | 5                                                                 |
|                           | EB Old National Pike thru:       | >500                        | 200                    | 246        | 1               | 60                     | 4.1                                    | Yes                                                                        | 8                                                                 |
|                           | WB Old National Pike thru:       | >500                        | 175                    | 217        | 1               | 60                     | 3.6                                    | Yes                                                                        | 7                                                                 |
|                           | WB Old National Pike right turn: | 150                         | 0                      | 0          | 1               | 60                     | 0.0                                    | Yes                                                                        | 0                                                                 |
|                           | SB Boyers Mill Road left turn:   | >500                        | 225                    | 313        | 1               | 60                     | 5.2                                    | Yes                                                                        | 9                                                                 |
|                           | SB Boyers Mill Road right turn:  | 100                         | 125                    | 156        | 1               | 60                     | 2.6                                    | Yes                                                                        | 5                                                                 |
| <b>PM Peak Hour</b>       |                                  |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
|                           | EB Old National Pike left turn:  | 150                         | 325                    | 421        | 1               | 70                     | 8.2                                    | Yes                                                                        | 13                                                                |
|                           | EB Old National Pike thru:       | >500                        | 275                    | 352        | 1               | 70                     | 6.8                                    | Yes                                                                        | 11                                                                |
|                           | WB Old National Pike thru:       | >500                        | 300                    | 375        | 1               | 70                     | 7.3                                    | Yes                                                                        | 12                                                                |
|                           | WB Old National Pike right turn: | 150                         | 125                    | 126        | 1               | 70                     | 2.5                                    | Yes                                                                        | 5                                                                 |
|                           | SB Boyers Mill Road left turn:   | >500                        | 200                    | 226        | 1               | 70                     | 4.4                                    | Yes                                                                        | 8                                                                 |
|                           | SB Boyers Mill Road right turn:  | 100                         | 0                      | 0          | 1               | 70                     | 0.0                                    | Yes                                                                        | 0                                                                 |





8. Old National Pike/MD 75

**Maryland State Highway Administration Queuing Analysis Formula**

Queue Length (feet) =

If Average No. of Vehicle (Specific Movement) per Cycle <= 20: Poisson Distribution Maximum No. of Vehicles per Cycle x 25 Feet per Vehicle

If Average No. of Vehicle (Specific Movement) per Cycle > 20:  $\frac{\text{Turning Volume (veh per hour)} \times \text{Lane Use Factor} \times \text{Cycle Length (Seconds)}}{3600 \text{ (Seconds per hour)}}$  x 25 Feet per Vehicle x 1.4 Surge Factor

|                                                                                         | Available Storage (feet) | Queue Length (feet) | Veh / Hour | Lane Use Factor | Cycle Length (seconds) | Average No. of Vehicle per Cycle | Is Average No. of Vehicle (Specific Movement) per Cycle <= 20? | Poisson Distribution Maximum No. of Vehicle per Cycle |
|-----------------------------------------------------------------------------------------|--------------------------|---------------------|------------|-----------------|------------------------|----------------------------------|----------------------------------------------------------------|-------------------------------------------------------|
| <b>Existing Traffic</b> (WB left/thru lane use factors based on existing traffic count) |                          |                     |            |                 |                        |                                  |                                                                |                                                       |
| <b>AM Peak Hour</b>                                                                     |                          |                     |            |                 |                        |                                  |                                                                |                                                       |
| EB (Old National Pike) left turn                                                        | 200                      | 50                  | 19         | 1               | 120                    | 0.6                              | Yes                                                            | 2                                                     |
| EB (Old National Pike) thru                                                             | 1000+                    | 225                 | 146        | 1               | 120                    | 4.9                              | Yes                                                            | 9                                                     |
| WB (Old National Pike) most left lane                                                   | 400                      | 175                 | 417        | 0.25            | 120                    | 3.5                              | Yes                                                            | 7                                                     |
| WB (Old National Pike) left/thru shared lane                                            | 680                      | 400                 | 417        | 0.75            | 120                    | 10.4                             | Yes                                                            | 16                                                    |
| WB (Old National Pike) right turn                                                       | 680                      | 125                 | 76         | 1               | 120                    | 2.5                              | Yes                                                            | 5                                                     |
| NB (MD 75) left turn                                                                    | 275                      | 125                 | 75         | 1               | 120                    | 2.5                              | Yes                                                            | 5                                                     |
| NB (Old National Pike) thru                                                             | 700                      | 125                 | 145        | 0.55            | 120                    | 2.7                              | Yes                                                            | 5                                                     |
| SB (MD 75) left turn                                                                    | 425                      | 175                 | 107        | 1               | 120                    | 3.6                              | Yes                                                            | 7                                                     |
| SB (MD 75) thru                                                                         | 1000+                    | 375                 | 542        | 0.55            | 120                    | 9.9                              | Yes                                                            | 15                                                    |
| SB (MD 75) right turn                                                                   | 300                      | 75                  | 30         | 1               | 120                    | 1.0                              | Yes                                                            | 3                                                     |
| <b>PM Peak Hour</b>                                                                     |                          |                     |            |                 |                        |                                  |                                                                |                                                       |
| EB (Old National Pike) left turn                                                        | 200                      | 50                  | 20         | 1               | 120                    | 0.7                              | Yes                                                            | 2                                                     |
| EB (Old National Pike) thru                                                             | 1000+                    | 250                 | 182        | 1               | 120                    | 6.1                              | Yes                                                            | 10                                                    |
| WB (Old National Pike) most left lane                                                   | 400                      | 275                 | 531        | 0.36            | 120                    | 6.4                              | Yes                                                            | 11                                                    |
| WB (Old National Pike) left/thru shared lane                                            | 680                      | 425                 | 531        | 0.64            | 120                    | 11.3                             | Yes                                                            | 17                                                    |
| WB (Old National Pike) right turn                                                       | 680                      | 275                 | 207        | 1               | 120                    | 6.9                              | Yes                                                            | 11                                                    |
| NB (MD 75) left turn                                                                    | 275                      | 300                 | 226        | 1               | 120                    | 7.5                              | Yes                                                            | 12                                                    |
| NB (Old National Pike) thru                                                             | 700                      | 375                 | 530        | 0.55            | 120                    | 9.7                              | Yes                                                            | 15                                                    |
| SB (MD 75) left turn                                                                    | 425                      | 175                 | 99         | 1               | 120                    | 3.3                              | Yes                                                            | 7                                                     |
| SB (MD 75) thru                                                                         | 1000+                    | 200                 | 256        | 0.55            | 120                    | 4.7                              | Yes                                                            | 8                                                     |
| SB (MD 75) right turn                                                                   | 300                      | 50                  | 20         | 1               | 120                    | 0.7                              | Yes                                                            | 2                                                     |
| <b>Background Traffic</b>                                                               |                          |                     |            |                 |                        |                                  |                                                                |                                                       |
| <b>AM Peak Hour</b>                                                                     |                          |                     |            |                 |                        |                                  |                                                                |                                                       |
| EB (Old National Pike) left turn                                                        | 200                      | 100                 | 46         | 1               | 120                    | 1.5                              | Yes                                                            | 4                                                     |
| EB (Old National Pike) thru                                                             | 1000+                    | 250                 | 185        | 1               | 120                    | 6.2                              | Yes                                                            | 10                                                    |
| WB (Old National Pike) most left lane                                                   | 400                      | 175                 | 445        | 0.25            | 120                    | 3.7                              | Yes                                                            | 7                                                     |
| WB (Old National Pike) left/thru shared lane                                            | 680                      | 325                 | 445        | 0.75            | 120                    | 8.3                              | Yes                                                            | 13                                                    |
| WB (Old National Pike) right turn                                                       | 680                      | 150                 | 86         | 1               | 120                    | 2.9                              | Yes                                                            | 6                                                     |
| NB (MD 75) left turn                                                                    | 275                      | 175                 | 108        | 1               | 120                    | 3.6                              | Yes                                                            | 7                                                     |
| NB (Old National Pike) thru                                                             | 700                      | 175                 | 218        | 0.55            | 120                    | 4.0                              | Yes                                                            | 7                                                     |
| SB (MD 75) left turn                                                                    | 425                      | 200                 | 135        | 1               | 120                    | 4.5                              | Yes                                                            | 8                                                     |
| SB (MD 75) thru                                                                         | 1000+                    | 525                 | 774        | 0.55            | 120                    | 14.2                             | Yes                                                            | 21                                                    |
| SB (MD 75) right turn                                                                   | 300                      | 100                 | 50         | 1               | 120                    | 1.7                              | Yes                                                            | 4                                                     |



MD SHA QUEUING ANALYSIS  
8. OLD NATIONAL PIKE/MD 75

# 8. Old National Pike/MD 75

## Maryland State Highway Administration Queuing Analysis Formula

Queue Length (feet) =

If Average No. of Vehicle (Specific Movement) per Cycle <= 20: Poisson Distribution Maximum No. of Vehicles per Cycle x 25 Feet per Vehicle

If Average No. of Vehicle (Specific Movement) per Cycle > 20:  $\frac{\text{Turning Volume (veh per hour)} \times \text{Lane Use Factor} \times \text{Cycle Length (Seconds)}}{3600 \text{ (Seconds per hour)}}$  x 25 Feet per Vehicle x 1.4 Surge Factor

|                                              | Available<br>Storage (feet) | Queue Length<br>(feet) | Veh / Hour | Lane Use Factor | Cycle Length (seconds) | Average No. of<br>Vehicle per<br>Cycle | Is Average No.<br>of Vehicle<br>(Specific<br>Movement) per<br>Cycle <= 20? | Poisson<br>Distribution<br>Maximum No.<br>of Vehicle per<br>Cycle |
|----------------------------------------------|-----------------------------|------------------------|------------|-----------------|------------------------|----------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Background Traffic</b>                    |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| <b>PM Peak Hour</b>                          |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| EB (Old National Pike) left turn             | 200                         | 75                     | 37         | 1               | 120                    | 1.2                                    | Yes                                                                        | 3                                                                 |
| EB (Old National Pike) thru                  | 1000+                       | 275                    | 209        | 1               | 120                    | 7.0                                    | Yes                                                                        | 11                                                                |
| WB (Old National Pike) most left lane        | 400                         | 300                    | 604        | 0.36            | 120                    | 7.2                                    | Yes                                                                        | 12                                                                |
| WB (Old National Pike) left/thru shared lane | 680                         | 325                    | 604        | 0.64            | 120                    | 8.3                                    | Yes                                                                        | 13                                                                |
| WB (Old National Pike) right turn            | 680                         | 325                    | 236        | 1               | 120                    | 7.9                                    | Yes                                                                        | 13                                                                |
| NB (MD 75) left turn                         | 275                         | 375                    | 300        | 1               | 120                    | 10.0                                   | Yes                                                                        | 15                                                                |
| NB (Old National Pike) thru                  | 700                         | 500                    | 753        | 0.55            | 120                    | 13.8                                   | Yes                                                                        | 20                                                                |
| SB (MD 75) left turn                         | 425                         | 175                    | 115        | 1               | 120                    | 3.8                                    | Yes                                                                        | 7                                                                 |
| SB (MD 75) thru                              | 1000+                       | 300                    | 387        | 0.55            | 120                    | 7.1                                    | Yes                                                                        | 12                                                                |
| SB (MD 75) right turn                        | 300                         | 100                    | 44         | 1               | 120                    | 1.5                                    | Yes                                                                        | 4                                                                 |
| <b>Total Traffic</b>                         |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| <b>AM Peak Hour</b>                          |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| EB (Old National Pike) left turn             | 200                         | 100                    | 52         | 1               | 120                    | 1.7                                    | Yes                                                                        | 4                                                                 |
| EB (Old National Pike) thru                  | 1000+                       | 275                    | 191        | 1               | 120                    | 6.4                                    | Yes                                                                        | 11                                                                |
| WB (Old National Pike) most left lane        | 400                         | 175                    | 454        | 0.25            | 120                    | 3.8                                    | Yes                                                                        | 7                                                                 |
| WB (Old National Pike) left/thru shared lane | 680                         | 325                    | 454        | 0.75            | 120                    | 8.3                                    | Yes                                                                        | 13                                                                |
| WB (Old National Pike) right turn            | 680                         | 150                    | 86         | 1               | 120                    | 2.9                                    | Yes                                                                        | 6                                                                 |
| NB (MD 75) left turn                         | 275                         | 200                    | 139        | 1               | 120                    | 4.6                                    | Yes                                                                        | 8                                                                 |
| NB (Old National Pike) thru                  | 700                         | 175                    | 218        | 0.55            | 120                    | 4.0                                    | Yes                                                                        | 7                                                                 |
| SB (MD 75) left turn                         | 425                         | 200                    | 135        | 1               | 120                    | 4.5                                    | Yes                                                                        | 8                                                                 |
| SB (MD 75) thru                              | 1000+                       | 525                    | 774        | 0.55            | 120                    | 14.2                                   | Yes                                                                        | 21                                                                |
| SB (MD 75) right turn                        | 300                         | 100                    | 59         | 1               | 120                    | 2.0                                    | Yes                                                                        | 4                                                                 |
| <b>PM Peak Hour</b>                          |                             |                        |            |                 |                        |                                        |                                                                            |                                                                   |
| EB (Old National Pike) left turn             | 200                         | 100                    | 46         | 1               | 120                    | 1.5                                    | Yes                                                                        | 4                                                                 |
| EB (Old National Pike) thru                  | 1000+                       | 300                    | 217        | 1               | 120                    | 7.2                                    | Yes                                                                        | 12                                                                |
| WB (Old National Pike) most left lane        | 400                         | 300                    | 611        | 0.36            | 120                    | 7.3                                    | Yes                                                                        | 12                                                                |
| WB (Old National Pike) left/thru shared lane | 680                         | 325                    | 611        | 0.64            | 120                    | 8.3                                    | Yes                                                                        | 13                                                                |
| WB (Old National Pike) right turn            | 680                         | 325                    | 236        | 1               | 120                    | 7.9                                    | Yes                                                                        | 13                                                                |
| NB (MD 75) left turn                         | 275                         | 400                    | 324        | 1               | 120                    | 10.8                                   | Yes                                                                        | 16                                                                |
| NB (Old National Pike) thru                  | 700                         | 500                    | 753        | 0.55            | 120                    | 13.8                                   | Yes                                                                        | 20                                                                |
| SB (MD 75) left turn                         | 425                         | 175                    | 115        | 1               | 120                    | 3.8                                    | Yes                                                                        | 7                                                                 |
| SB (MD 75) thru                              | 1000+                       | 300                    | 387        | 0.55            | 120                    | 7.1                                    | Yes                                                                        | 12                                                                |
| SB (MD 75) right turn                        | 300                         | 100                    | 52         | 1               | 120                    | 1.7                                    | Yes                                                                        | 4                                                                 |



MD SHA QUEUING ANALYSIS  
8. OLD NATIONAL PIKE/MD 75

9. MD 75 @ I-70 WB Ramps

**Maryland State Highway Administration Queuing Analysis Formula**

Queue Length (feet) =

If Average No. of Vehicle (Specific Movement) per Cycle <= 20: Poisson Distribution Maximum No. of Vehicles per Cycle x 25 Feet per Vehicle

If Average No. of Vehicle (Specific Movement) per Cycle > 20:  $\frac{\text{Turning Volume (veh per hour)} \times \text{Lane Use Factor} \times \text{Cycle Length (Seconds)}}{3600 \text{ (Seconds per hour)}}$  x 25 Feet per Vehicle x 1.4 Surge Factor

| Existing Traffic               |                                  | Available Storage (feet) | Queue Length (feet) | Veh / Hour | Lane Use Factor | Cycle Length (seconds) | Average No. of Vehicle per Cycle | Is Average No. of Vehicle (Specific Movement) per Cycle <= 20? | Poisson Distribution Maximum No. of Vehicles per Cycle |
|--------------------------------|----------------------------------|--------------------------|---------------------|------------|-----------------|------------------------|----------------------------------|----------------------------------------------------------------|--------------------------------------------------------|
| <b>AM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | WB (I-70 WB off Ramps) left/thru | >500                     | 175                 | 102        | 1               | 120                    | 3.4                              | Yes                                                            | 7                                                      |
|                                | NB (MD 75) left turn             | 225                      | 200                 | 134        | 1               | 120                    | 4.5                              | Yes                                                            | 8                                                      |
|                                | NB (MD 75) thru                  | 900                      | 250                 | 321        | 0.55            | 120                    | 5.9                              | Yes                                                            | 10                                                     |
|                                | SB (MD 75) thru                  | 700                      | 475                 | 709        | 0.55            | 120                    | 13.0                             | Yes                                                            | 19                                                     |
| <b>PM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | WB (I-70 WB off Ramps) left/thru | >500                     | 175                 | 109        | 1               | 120                    | 3.6                              | Yes                                                            | 7                                                      |
|                                | NB (MD 75) left turn             | 225                      | 275                 | 187        | 1               | 120                    | 6.2                              | Yes                                                            | 11                                                     |
|                                | NB (MD 75) thru                  | 900                      | 500                 | 735        | 0.55            | 120                    | 13.5                             | Yes                                                            | 20                                                     |
|                                | SB (MD 75) thru                  | 700                      | 250                 | 327        | 0.55            | 120                    | 6.0                              | Yes                                                            | 10                                                     |
| <b>2025 Background Traffic</b> |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
| <b>AM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | WB (I-70 WB off Ramps) left/thru | >500                     | 175                 | 105        | 1               | 120                    | 3.5                              | Yes                                                            | 7                                                      |
|                                | NB (MD 75) left turn             | 225                      | 225                 | 145        | 1               | 120                    | 4.8                              | Yes                                                            | 9                                                      |
|                                | NB (MD 75) thru                  | 900                      | 325                 | 431        | 0.55            | 120                    | 7.9                              | Yes                                                            | 13                                                     |
|                                | SB (MD 75) thru                  | 700                      | 550                 | 827        | 0.55            | 120                    | 15.2                             | Yes                                                            | 22                                                     |
| <b>PM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | WB (I-70 WB off Ramps) left/thru | >500                     | 175                 | 112        | 1               | 120                    | 3.7                              | Yes                                                            | 7                                                      |
|                                | NB (MD 75) left turn             | 225                      | 300                 | 210        | 1               | 120                    | 7.0                              | Yes                                                            | 12                                                     |
|                                | NB (MD 75) thru                  | 900                      | 625                 | 976        | 0.55            | 120                    | 17.9                             | Yes                                                            | 25                                                     |
|                                | SB (MD 75) thru                  | 700                      | 300                 | 396        | 0.55            | 120                    | 7.3                              | Yes                                                            | 12                                                     |
| <b>2025 Total Traffic</b>      |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
| <b>AM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | WB (I-70 WB off Ramps) left/thru | >500                     | 175                 | 105        | 1               | 120                    | 3.5                              | Yes                                                            | 7                                                      |
|                                | NB (MD 75) left turn             | 225                      | 225                 | 145        | 1               | 120                    | 4.8                              | Yes                                                            | 9                                                      |
|                                | NB (MD 75) thru                  | 900                      | 325                 | 452        | 0.55            | 120                    | 8.3                              | Yes                                                            | 13                                                     |
|                                | SB (MD 75) thru                  | 700                      | 550                 | 837        | 0.55            | 120                    | 15.3                             | Yes                                                            | 22                                                     |
| <b>PM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | WB (I-70 WB off Ramps) left/thru | >500                     | 175                 | 112        | 1               | 120                    | 3.7                              | Yes                                                            | 7                                                      |
|                                | NB (MD 75) left turn             | 225                      | 300                 | 210        | 1               | 120                    | 7.0                              | Yes                                                            | 12                                                     |
|                                | NB (MD 75) thru                  | 900                      | 625                 | 993        | 0.55            | 120                    | 18.2                             | Yes                                                            | 25                                                     |
|                                | SB (MD 75) thru                  | 700                      | 300                 | 410        | 0.55            | 120                    | 7.5                              | Yes                                                            | 12                                                     |



MD SHA QUEUING ANALYSIS  
9. MD 75 @ I-70 WB RAMPS

# 10. MD 75 @ I-70 EB Ramps

## Maryland State Highway Administration Queuing Analysis Formula

Queue Length (feet) =

If Average No. of Vehicle (Specific Movement) per Cycle <= 20: Poisson Distribution Maximum No. of Vehicles per Cycle x 25 Feet per Vehicle

If Average No. of Vehicle (Specific Movement) per Cycle > 20:  $\frac{\text{Turning Volume (veh per hour)} \times \text{Lane Use Factor} \times \text{Cycle Length (Seconds)}}{3600 \text{ (Seconds per hour)}}$  x 25 Feet per Vehicle x 1.4 Surge Factor

| Existing Traffic               |                                  | Available Storage (feet) | Queue Length (feet) | Veh / Hour | Lane Use Factor | Cycle Length (seconds) | Average No. of Vehicle per Cycle | Is Average No. of Vehicle (Specific Movement) per Cycle <= 20? | Poisson Distribution Maximum No. of Vehicles per Cycle |
|--------------------------------|----------------------------------|--------------------------|---------------------|------------|-----------------|------------------------|----------------------------------|----------------------------------------------------------------|--------------------------------------------------------|
| <b>AM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | EB (I-70 EB off Ramps) left/thru | >800                     | 200                 | 204        | 0.6             | 120                    | 4.1                              | Yes                                                            | 8                                                      |
|                                | NB (MD 75) thru                  | >1000                    | 200                 | 248        | 0.55            | 120                    | 4.5                              | Yes                                                            | 8                                                      |
|                                | SB (MD 75) left turn             | 225                      | 575                 | 480        | 1               | 120                    | 16.0                             | Yes                                                            | 23                                                     |
|                                | SB (MD 75) thru                  | 900                      | 250                 | 320        | 0.55            | 120                    | 5.9                              | Yes                                                            | 10                                                     |
| <b>PM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | EB (I-70 EB off Ramps) left/thru | >800                     | 400                 | 519        | 0.6             | 120                    | 10.4                             | Yes                                                            | 16                                                     |
|                                | NB (MD 75) thru                  | >1000                    | 300                 | 425        | 0.55            | 120                    | 7.8                              | Yes                                                            | 12                                                     |
|                                | SB (MD 75) left turn             | 225                      | 225                 | 154        | 1               | 120                    | 5.1                              | Yes                                                            | 9                                                      |
|                                | SB (MD 75) thru                  | 900                      | 225                 | 275        | 0.55            | 120                    | 5.0                              | Yes                                                            | 9                                                      |
| <b>2028 Background Traffic</b> |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
| <b>AM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | EB (I-70 EB off Ramps) left/thru | >800                     | 250                 | 288        | 0.6             | 120                    | 5.8                              | Yes                                                            | 10                                                     |
|                                | NB (MD 75) thru                  | >1000                    | 225                 | 285        | 0.55            | 120                    | 5.2                              | Yes                                                            | 9                                                      |
|                                | SB (MD 75) left turn             | 225                      | 650                 | 560        | 1               | 120                    | 18.7                             | Yes                                                            | 26                                                     |
|                                | SB (MD 75) thru                  | 900                      | 275                 | 362        | 0.55            | 120                    | 6.6                              | Yes                                                            | 11                                                     |
| <b>PM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | EB (I-70 EB off Ramps) left/thru | >800                     | 525                 | 723        | 0.6             | 120                    | 14.5                             | Yes                                                            | 21                                                     |
|                                | NB (MD 75) thru                  | >1000                    | 350                 | 486        | 0.55            | 120                    | 8.9                              | Yes                                                            | 14                                                     |
|                                | SB (MD 75) left turn             | 225                      | 275                 | 196        | 1               | 120                    | 6.5                              | Yes                                                            | 11                                                     |
|                                | SB (MD 75) thru                  | 900                      | 250                 | 305        | 0.55            | 120                    | 5.6                              | Yes                                                            | 10                                                     |
| <b>2028 Total Traffic</b>      |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
| <b>AM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | EB (I-70 EB off Ramps) left/thru | >800                     | 250                 | 303        | 0.6             | 120                    | 6.1                              | Yes                                                            | 10                                                     |
|                                | NB (MD 75) thru                  | >1000                    | 225                 | 291        | 0.55            | 120                    | 5.3                              | Yes                                                            | 9                                                      |
|                                | SB (MD 75) left turn             | 225                      | 650                 | 566        | 1               | 120                    | 18.9                             | Yes                                                            | 26                                                     |
|                                | SB (MD 75) thru                  | 900                      | 275                 | 366        | 0.55            | 120                    | 6.7                              | Yes                                                            | 11                                                     |
| <b>PM Peak Hour</b>            |                                  |                          |                     |            |                 |                        |                                  |                                                                |                                                        |
|                                | EB (I-70 EB off Ramps) left/thru | >800                     | 525                 | 735        | 0.6             | 120                    | 14.7                             | Yes                                                            | 21                                                     |
|                                | NB (MD 75) thru                  | >1000                    | 350                 | 491        | 0.55            | 120                    | 9.0                              | Yes                                                            | 14                                                     |
|                                | SB (MD 75) left turn             | 225                      | 275                 | 204        | 1               | 120                    | 6.8                              | Yes                                                            | 11                                                     |
|                                | SB (MD 75) thru                  | 900                      | 250                 | 311        | 0.55            | 120                    | 5.7                              | Yes                                                            | 10                                                     |



MD SHA QUEUING ANALYSIS  
10. MD 75 @ I-70 EB RAMPS

## APPENDIX C

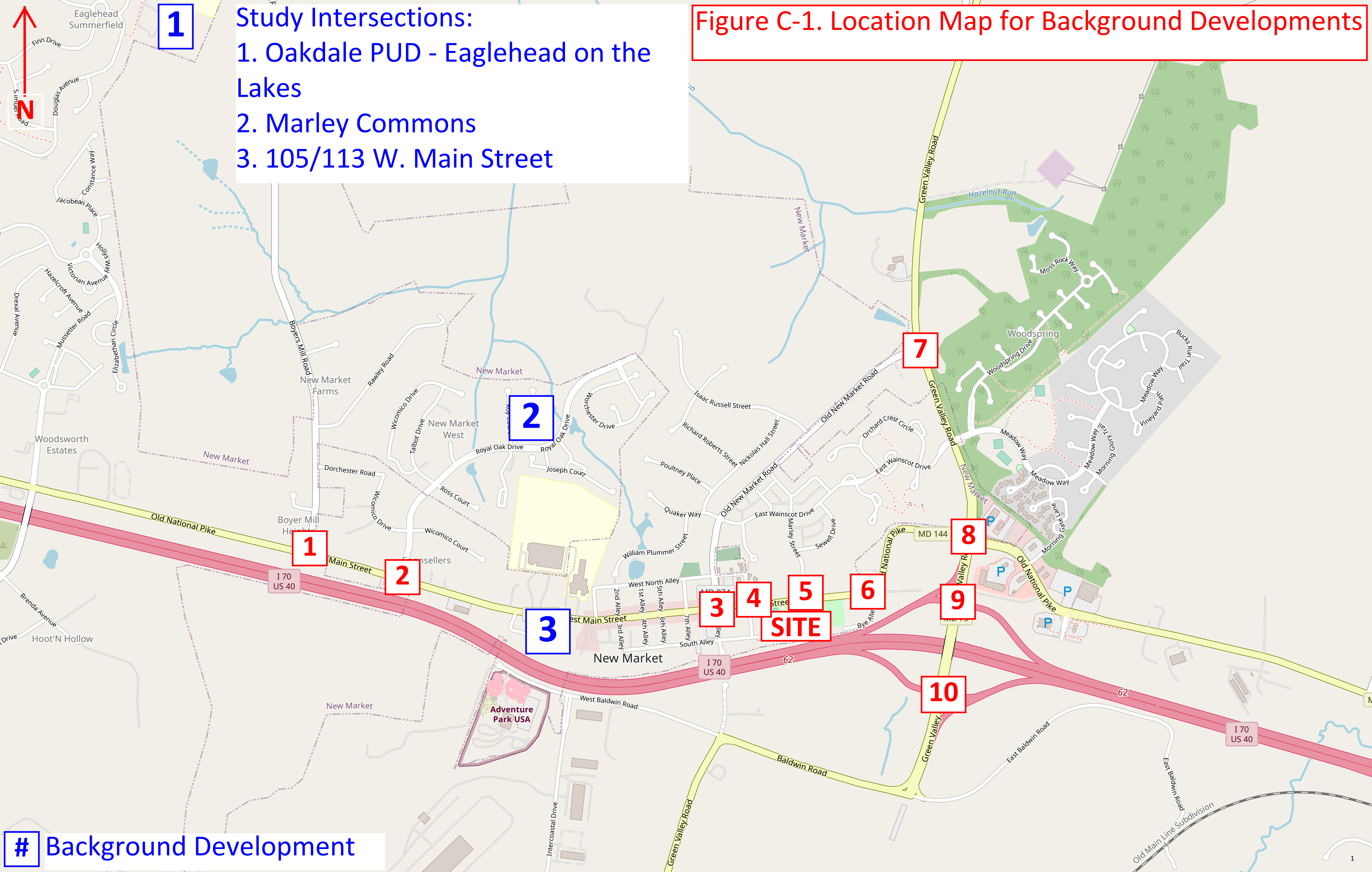
### Trip Assignment for Approved Developments





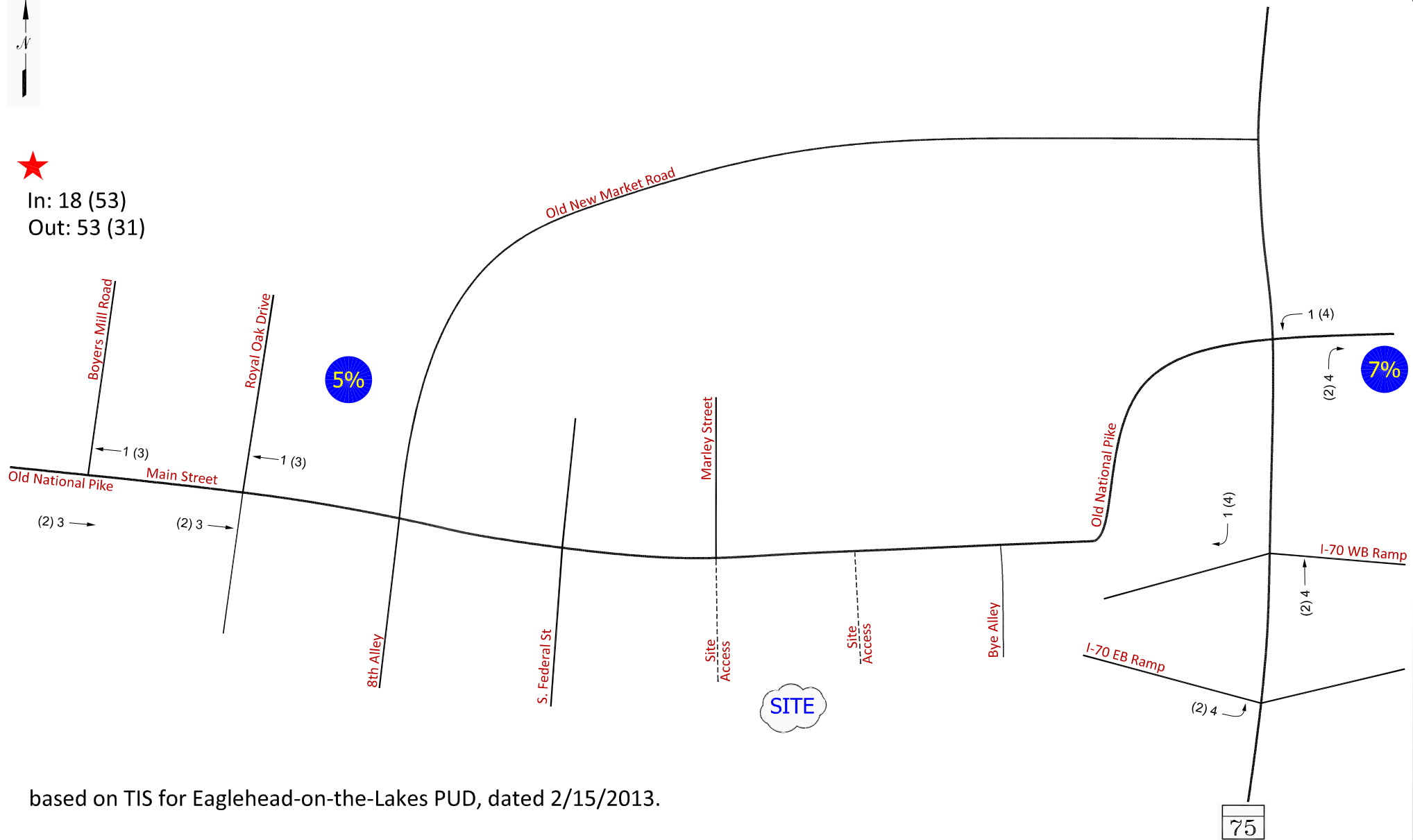
Figure C-1. Location Map for Background Developments

- Study Intersections:**
- 1. Oakdale PUD - Eaglehead on the Lakes
  - 2. Marley Commons
  - 3. 105/113 W. Main Street





In: 18 (53)  
Out: 53 (31)



based on TIS for Eaglehead-on-the-Lakes PUD, dated 2/15/2013.



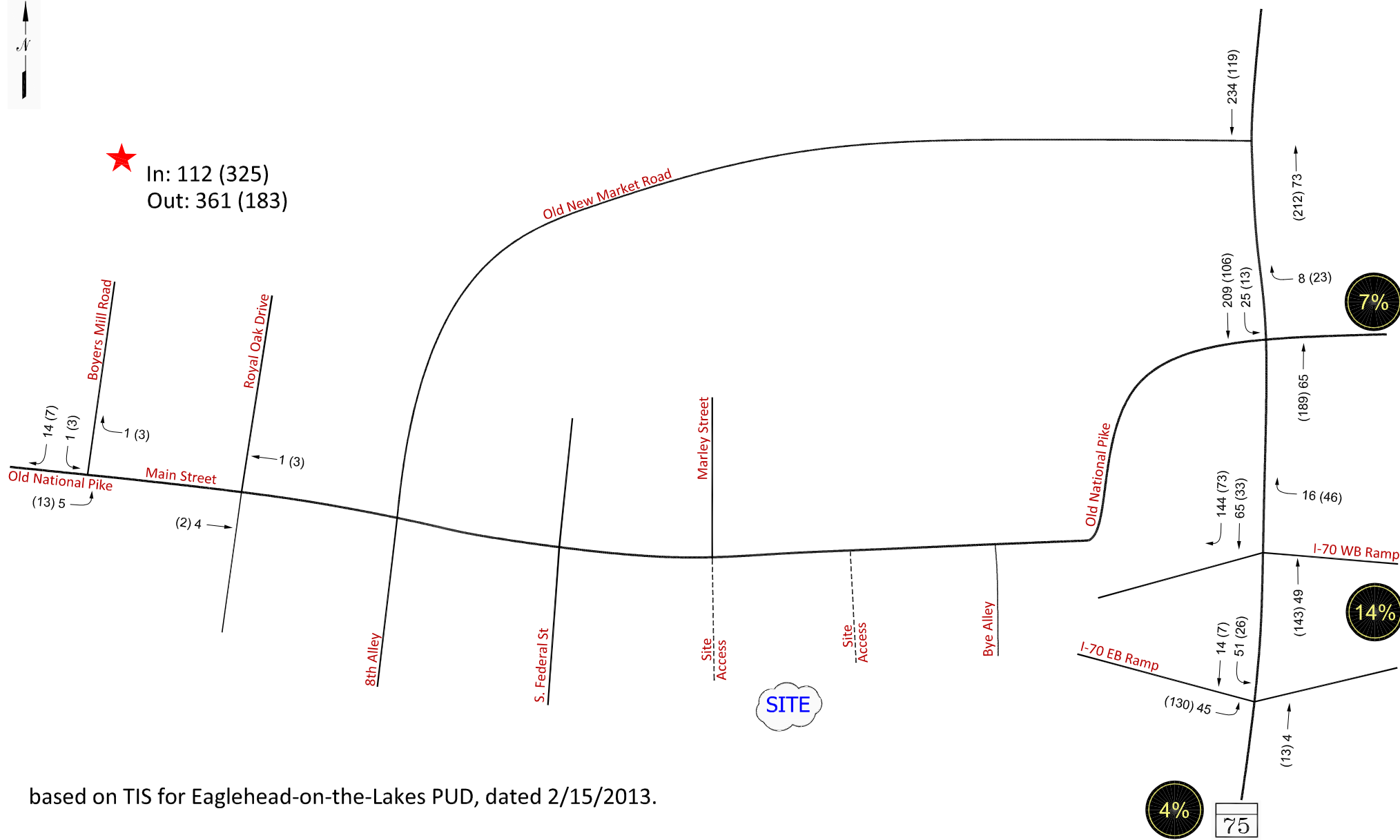
NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

FIGURE C-2A  
NEW TRIP ASSIGNMENT  
FOR APPROVED DEVELOPMENTS #1 -  
ALPINE



In: 112 (325)  
Out: 361 (183)



based on TIS for Eaglehead-on-the-Lakes PUD, dated 2/15/2013.



NOT TO SCALE

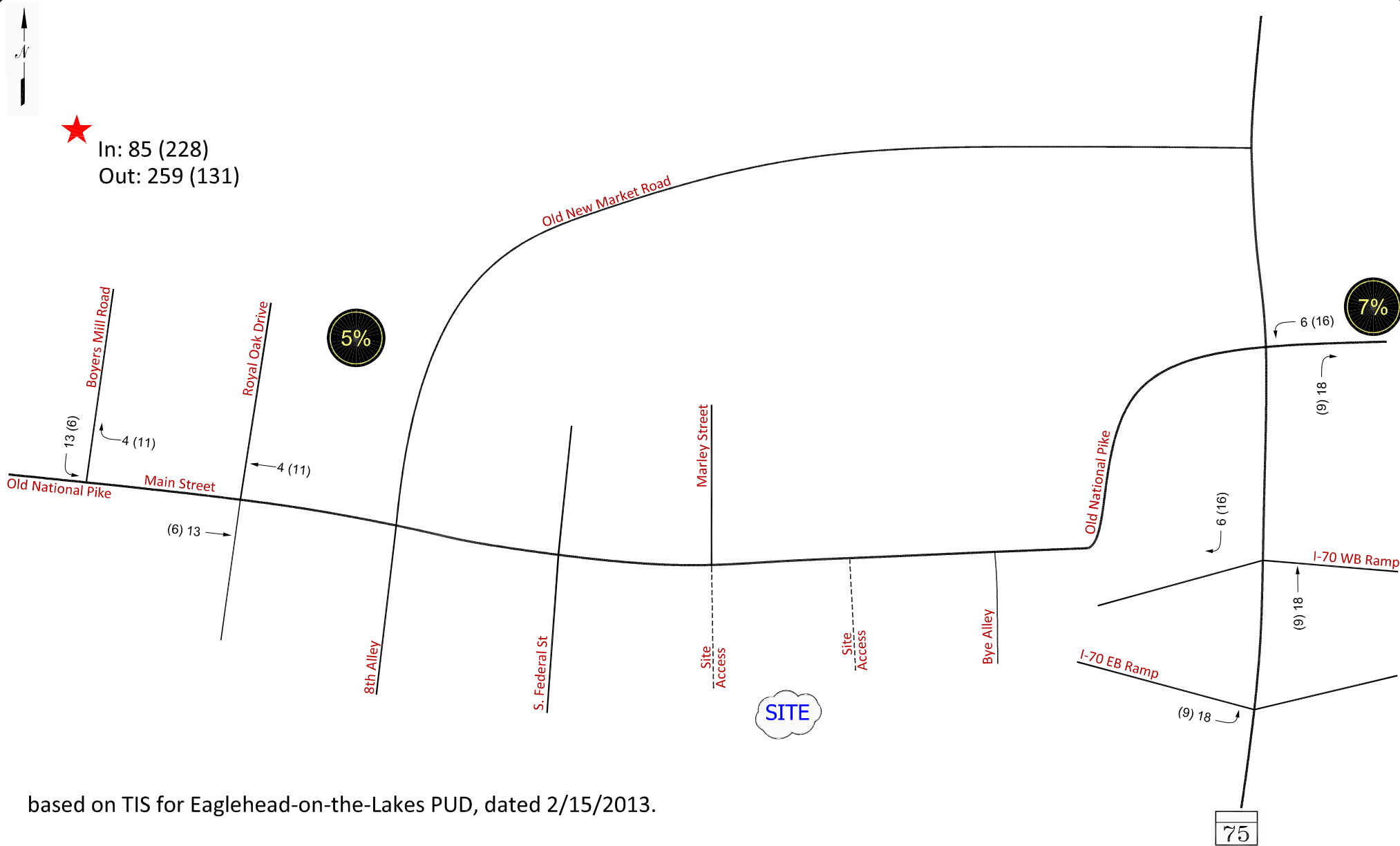
00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

FIGURE C-2B  
NEW TRIP ASSIGNMENT  
FOR APPROVED DEVELOPMENTS  
#1 - HAMPTONS WEST & HAMPTONS EAST









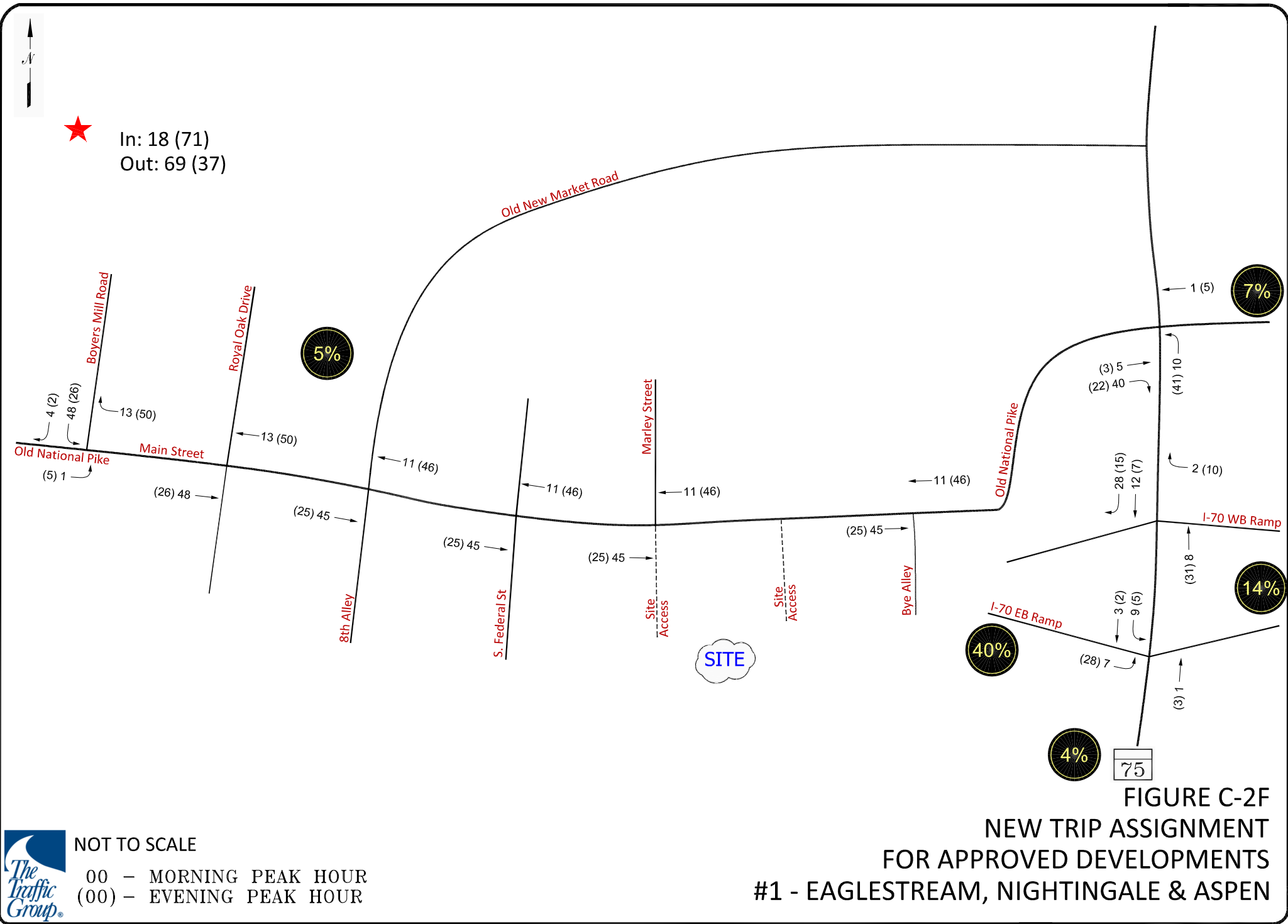
based on TIS for Eaglehead-on-the-Lakes PUD, dated 2/15/2013.

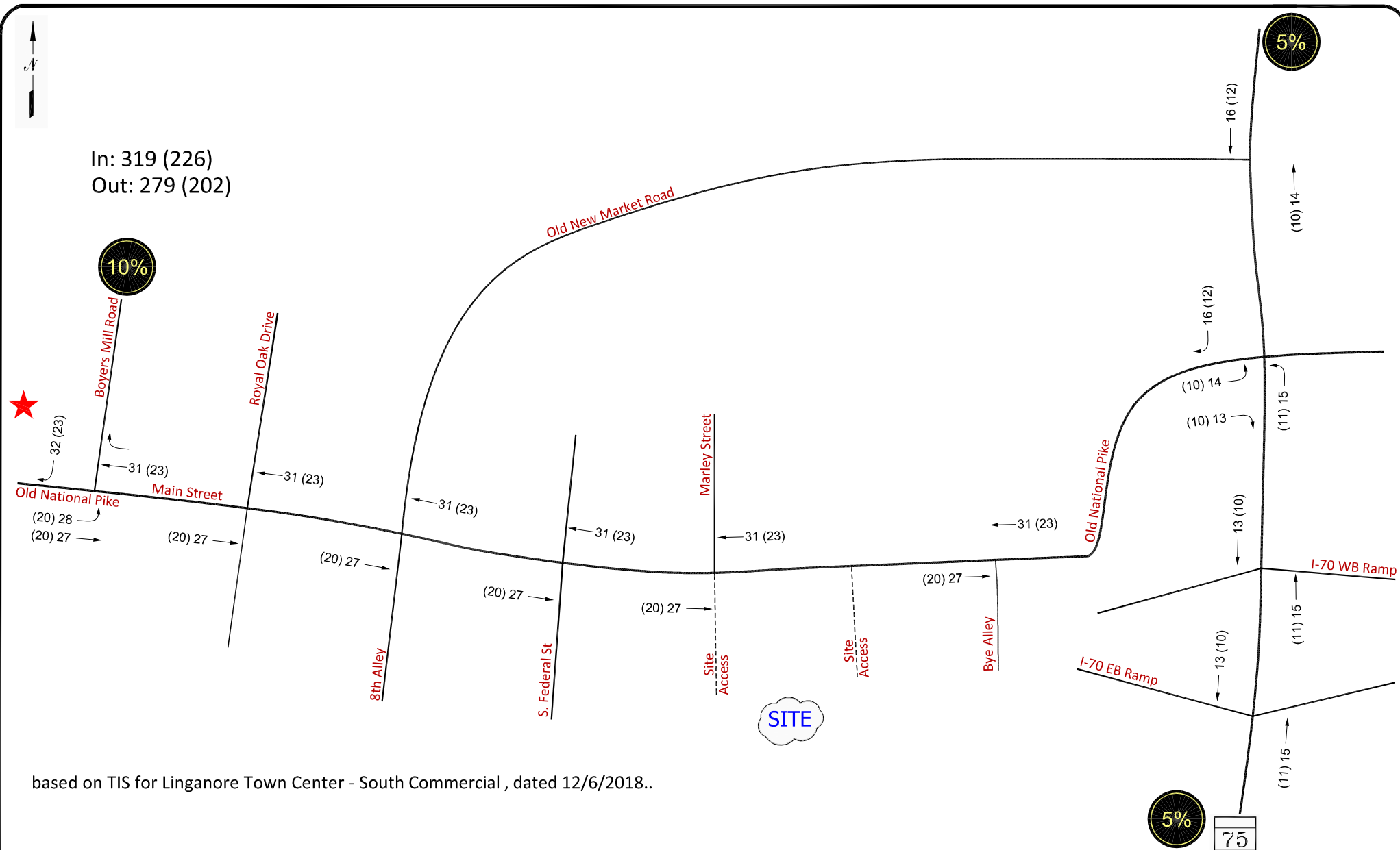


NOT TO SCALE

00 – MORNING PEAK HOUR  
 (00) – EVENING PEAK HOUR

FIGURE C-2E  
 NEW TRIP ASSIGNMENT  
 FOR APPROVED DEVELOPMENTS  
 #1 - WESTRIDGE & WOODRIDGE

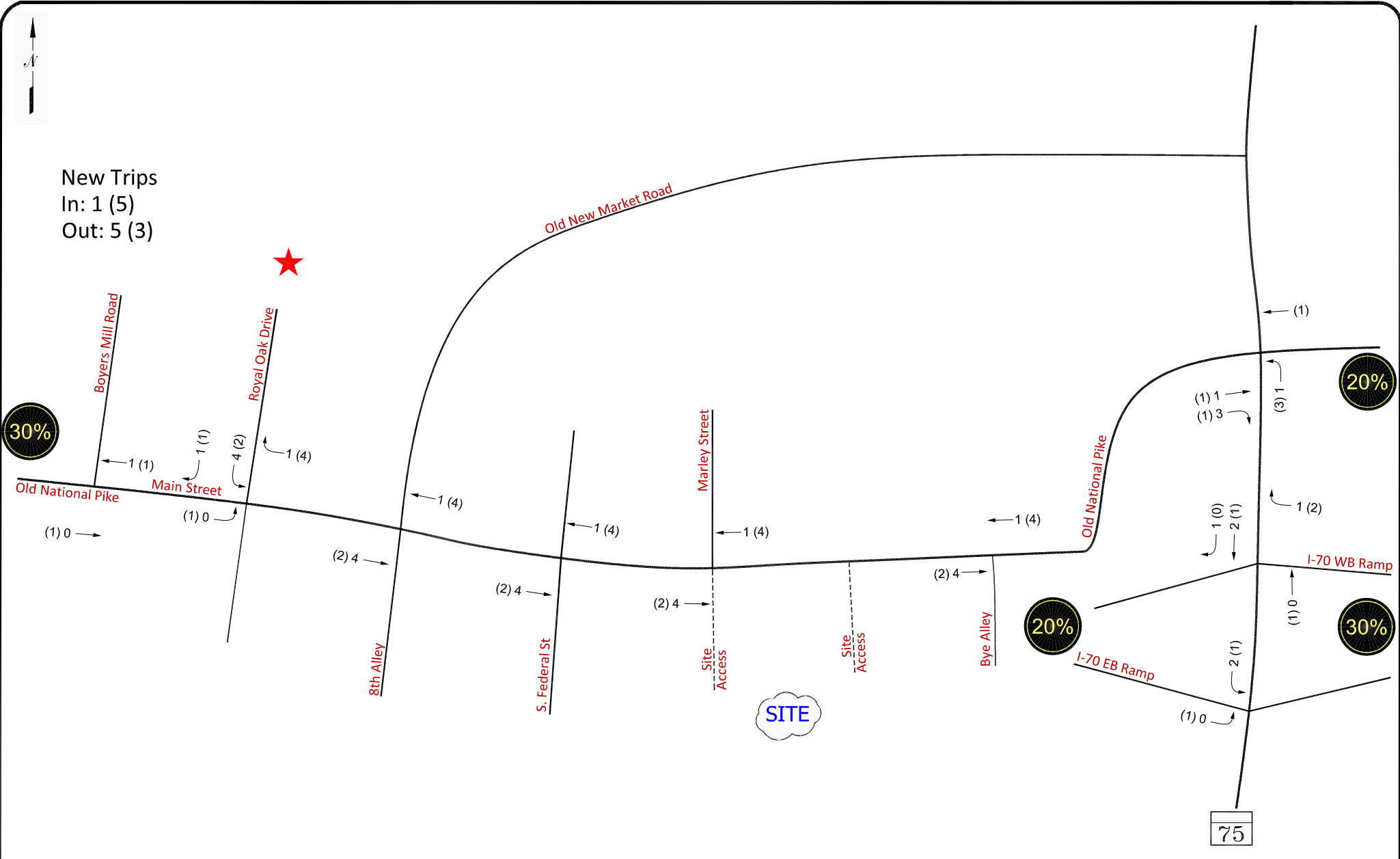




NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

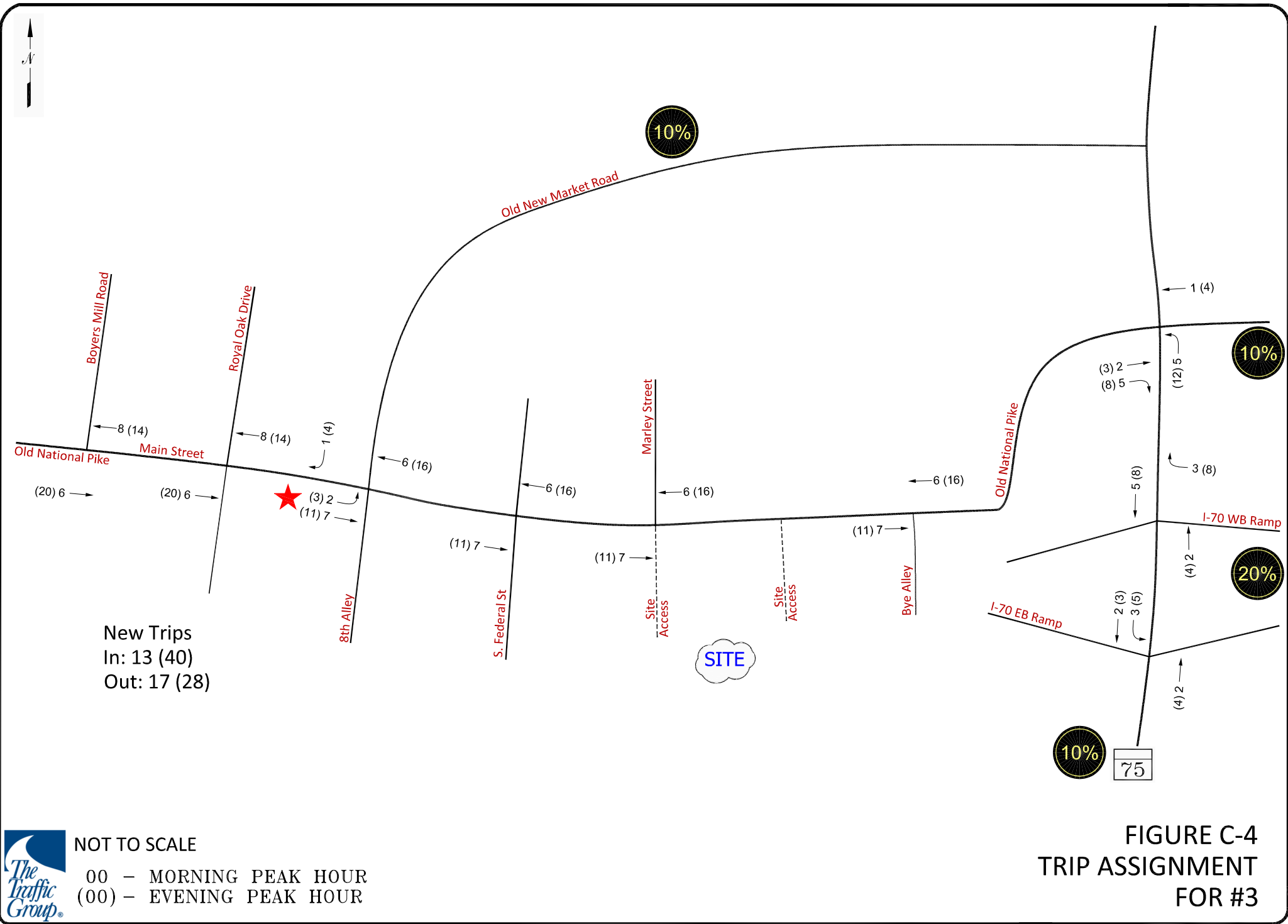
FIGURE C-2G  
NEW TRIP ASSIGNMENT  
FOR LINGANORE TC  
- SOUTH COMMERCIAL



NOT TO SCALE

00 – MORNING PEAK HOUR  
 (00) – EVENING PEAK HOUR

**FIGURE C-3**  
**TRIP ASSIGNMENT**  
**FOR #2**



**FIGURE C-4**  
**TRIP ASSIGNMENT**  
**FOR #3**