

# final report

August 30, 2024

## Traffic Impact Study

Windcrest Farms Section 3  
9300 Old Bardstown Road  
10311 Thixton Lane (KY 2053)  
Louisville, KY

Prepared for

Louisville Metro Planning Commission  
Kentucky Transportation Cabinet

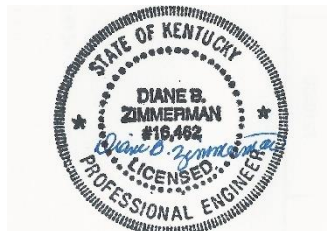


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## INTRODUCTION

The site plan for the Windcrest Farms Section 3 shows 246 single-family lots and 38 single family attached units in Louisville, KY. **Figure 1** displays a map of the site. Access to the site will be from existing Windstream Farms Lane and a new street on Thixton Lane. The site plan is included in the appendix. The purpose of this study is to examine the traffic impacts of the development upon the adjacent highway system. For this study, the impact area was defined to be the intersections of Old Bardstown Road with Windcrest Farms Lane, and Thixton Lane, Thixton Lane at Independence School Road and Bardstown Road, and the proposed entrance on Thixton Lane.



Figure 1. Site Map

## EXISTING CONDITIONS

Thixton Lane, KY 2053, is a state-maintained road with an estimated 2024 ADT of 3,700 vehicles per day between Independence School Road and Bardstown Road as estimated from the Kentucky Transportation Cabinet (KYTC) 2023 count at station 262. The road is a two-lane highway with ten-foot lanes with a stabilized shoulder through the study area (provided by the Kentucky Transportation Cabinet). The speed limit is 35 mph. There are no sidewalks. The intersection at Independence School Road is controlled with a stop sign. The intersection at Old Bardstown

Road is controlled with a stop sign. The intersection with Bardstown Road is controlled with a traffic signal. There is a northbound left turn lane and a southbound right turn lane.

Old Bardstown Road is a Metro maintained road with an estimated 2024 ADT of 4,700 vehicles per day between Hillock and Thixton Lane as estimated from the Kentucky Transportation Cabinet (KYTC) 2023 count at station M67. The road is a two-lane highway with ten-foot lanes with a stabilized shoulder through the study area (provided by the Kentucky Transportation Cabinet). The speed limit is 45 mph. There are no sidewalks. The intersection at Windcrest Farms Lane is controlled with a stop sign.

Peak hour traffic count for the intersections were obtained on Wednesday, May 1, 2024. The a.m. peak hour occurred between 7:00 and 8:00 and the p.m. occurred varied. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes. The Appendix contains the full count data.

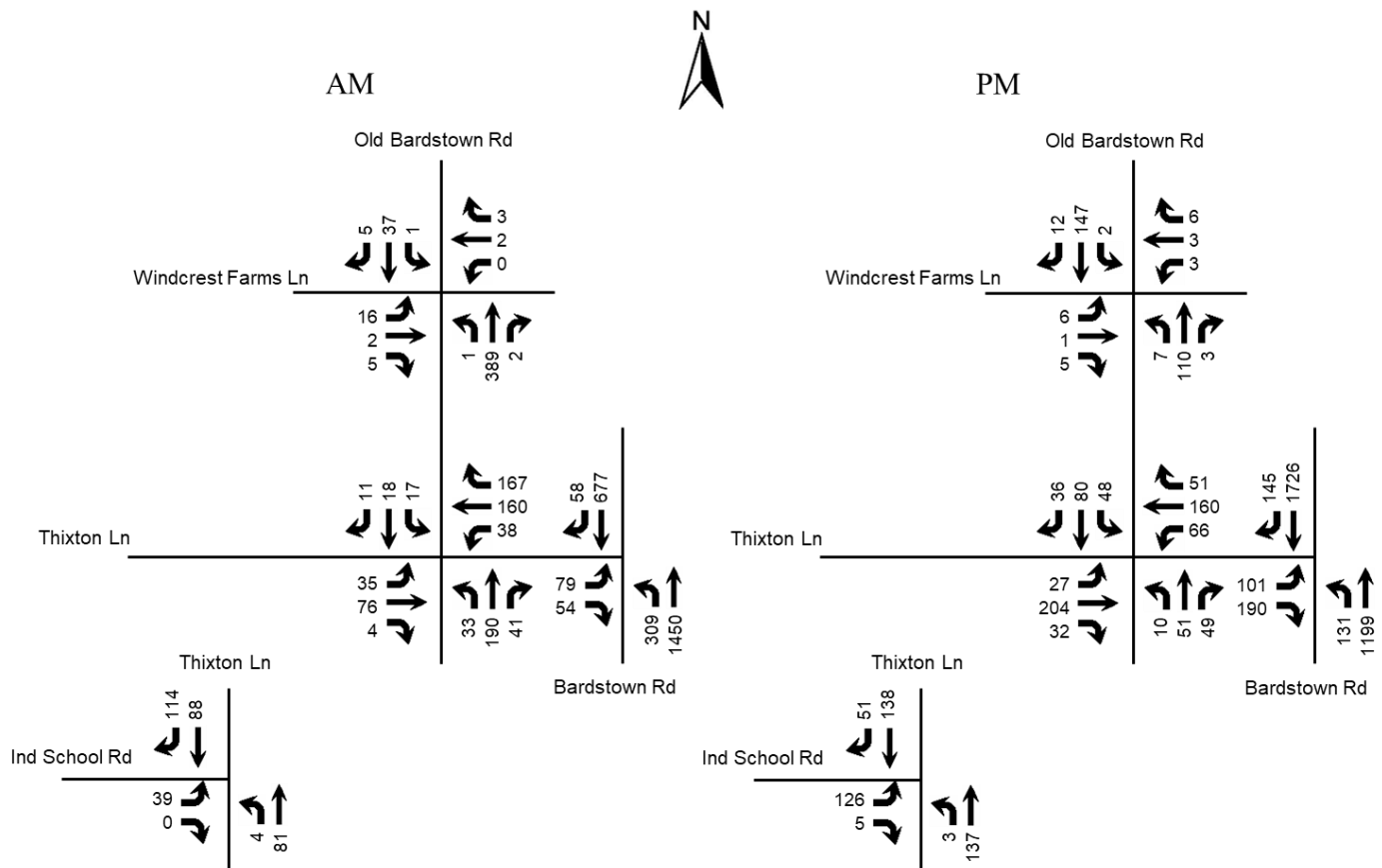


Figure 2. Existing Peak Hour Volumes

## FUTURE CONDITIONS

The project completion date is 2031. An annual growth rate of 2.2 percent was applied to the 2024 volumes. The trip generation for all 147 lots in the Windcrest Farms 1 & 2 was included as the volume on Windcrest Farms Lane. **Figure 3** displays the 2031 No Build peak hour volumes.

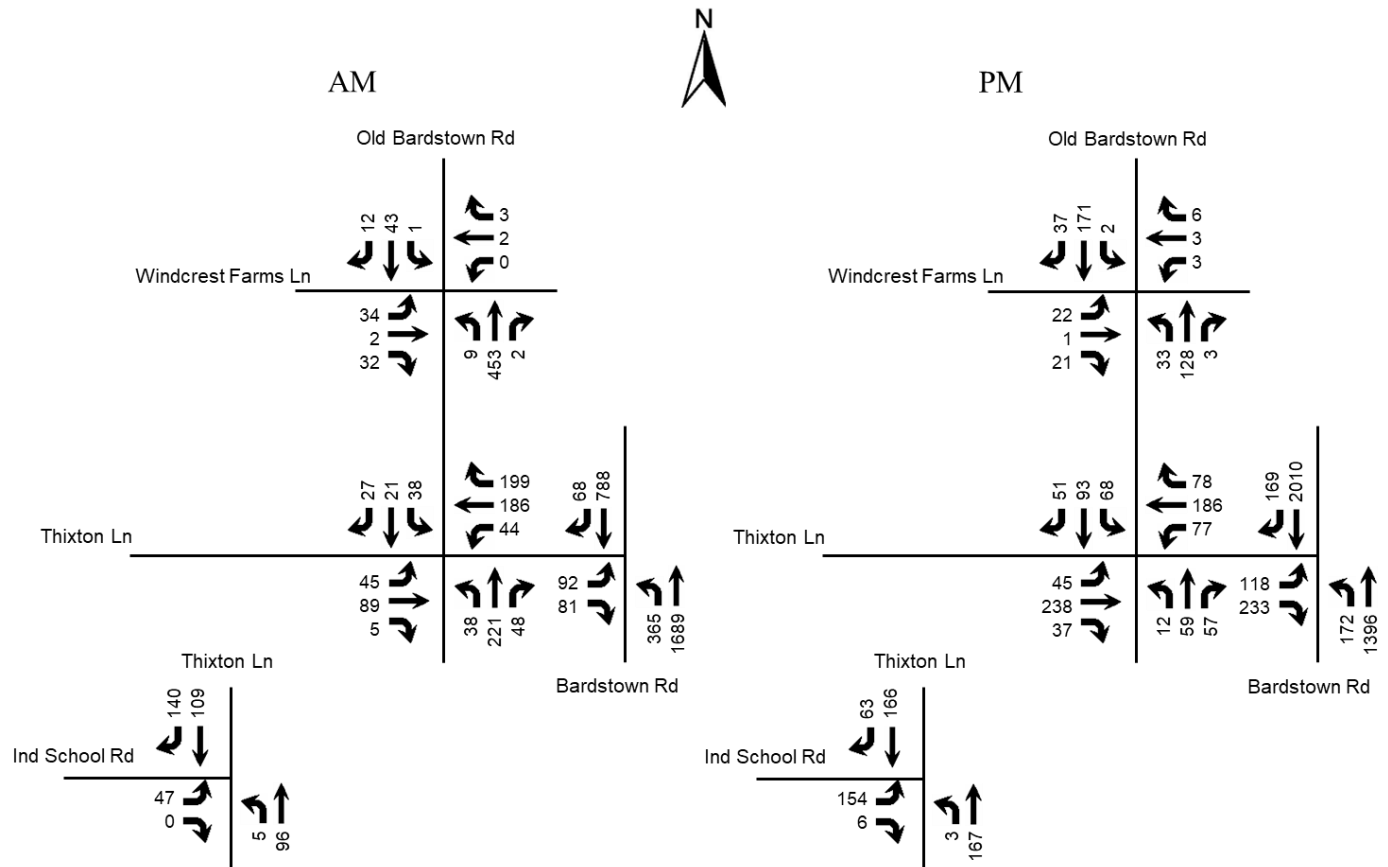


Figure 3. 2031 No Build Peak Hour Volumes

## TRIP GENERATION

The Institute of Transportation Engineers [Trip Generation Manual](#), 11<sup>th</sup> Edition contains trip generation rates for a wide range of developments. The land uses of “Single-Family Detached (210)” and “Single Family Attached (215)” were reviewed and determined to be the best match. The trip generation results are listed in **Table 1**. The trips were assigned to the highway network with the percentages shown in **Figure 4**. **Figure 5** shows the trips generated by this development and distributed throughout the road network during the peak hours. **Figure 6** displays the individual turning movements for the peak hours when the development is completed.

Table 1. Peak Hour Trips Generated by Site

| Land Use                           | A.M. Peak Hour |           |            | P.M. Peak Hour |            |           |
|------------------------------------|----------------|-----------|------------|----------------|------------|-----------|
|                                    | Trips          | In        | Out        | Trips          | In         | Out       |
| Single Family Detached (246 units) | 169            | 42        | 127        | 232            | 146        | 86        |
| Single Family Attached (38 units)  | 14             | 3         | 11         | 19             | 11         | 8         |
| <b>TOTAL</b>                       | <b>183</b>     | <b>45</b> | <b>138</b> | <b>251</b>     | <b>157</b> | <b>94</b> |

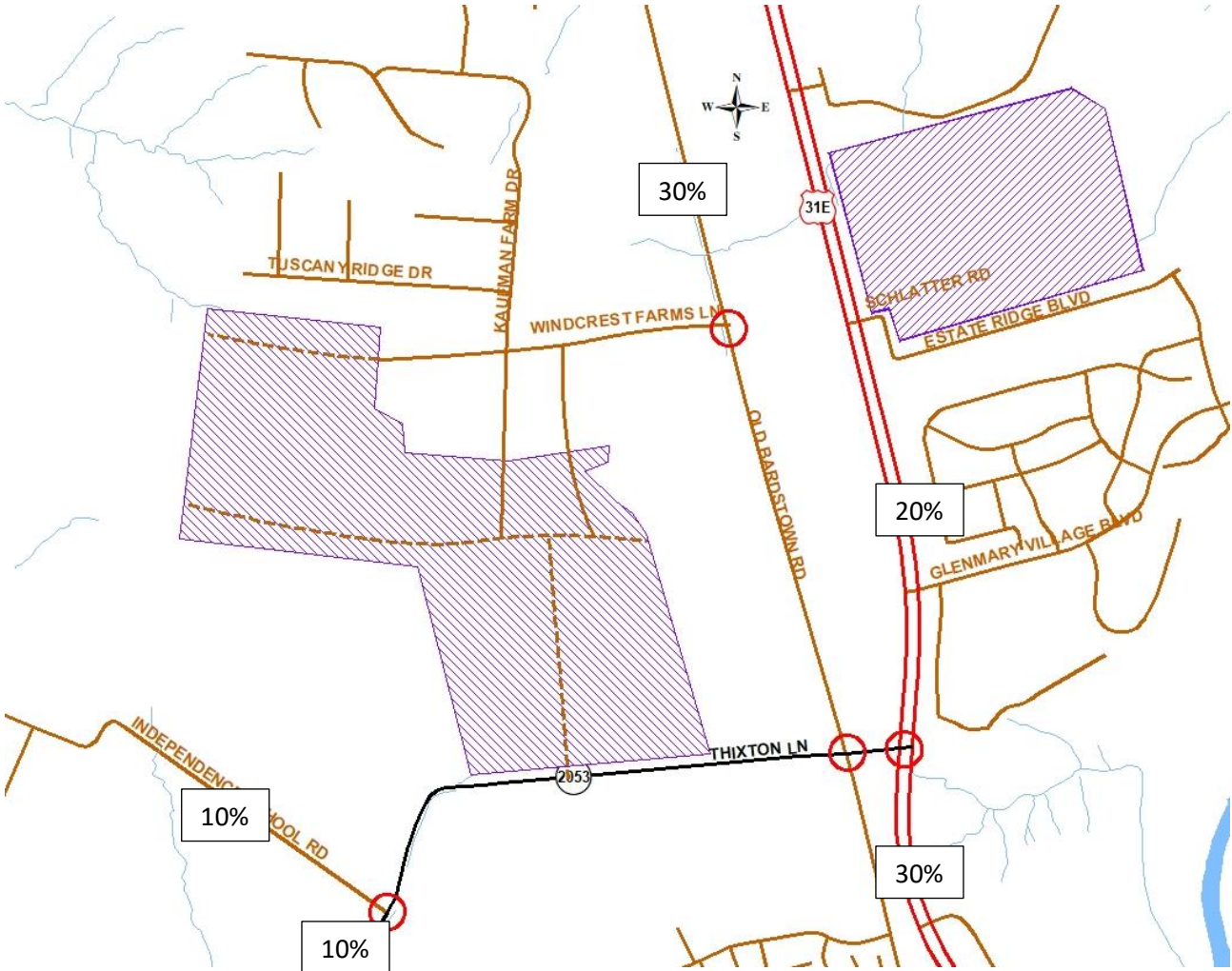
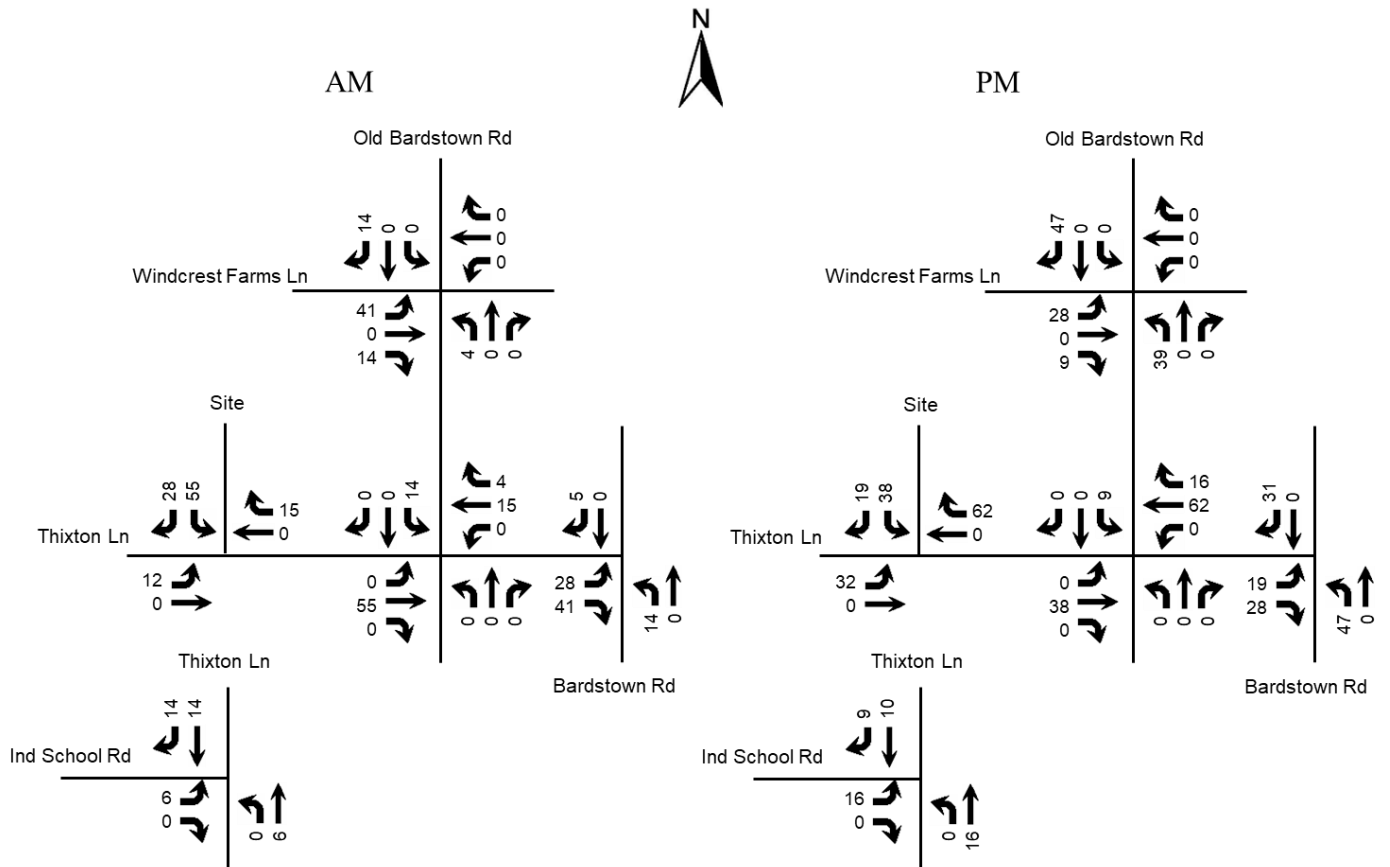


Figure 4. Trip Distribution Percentages





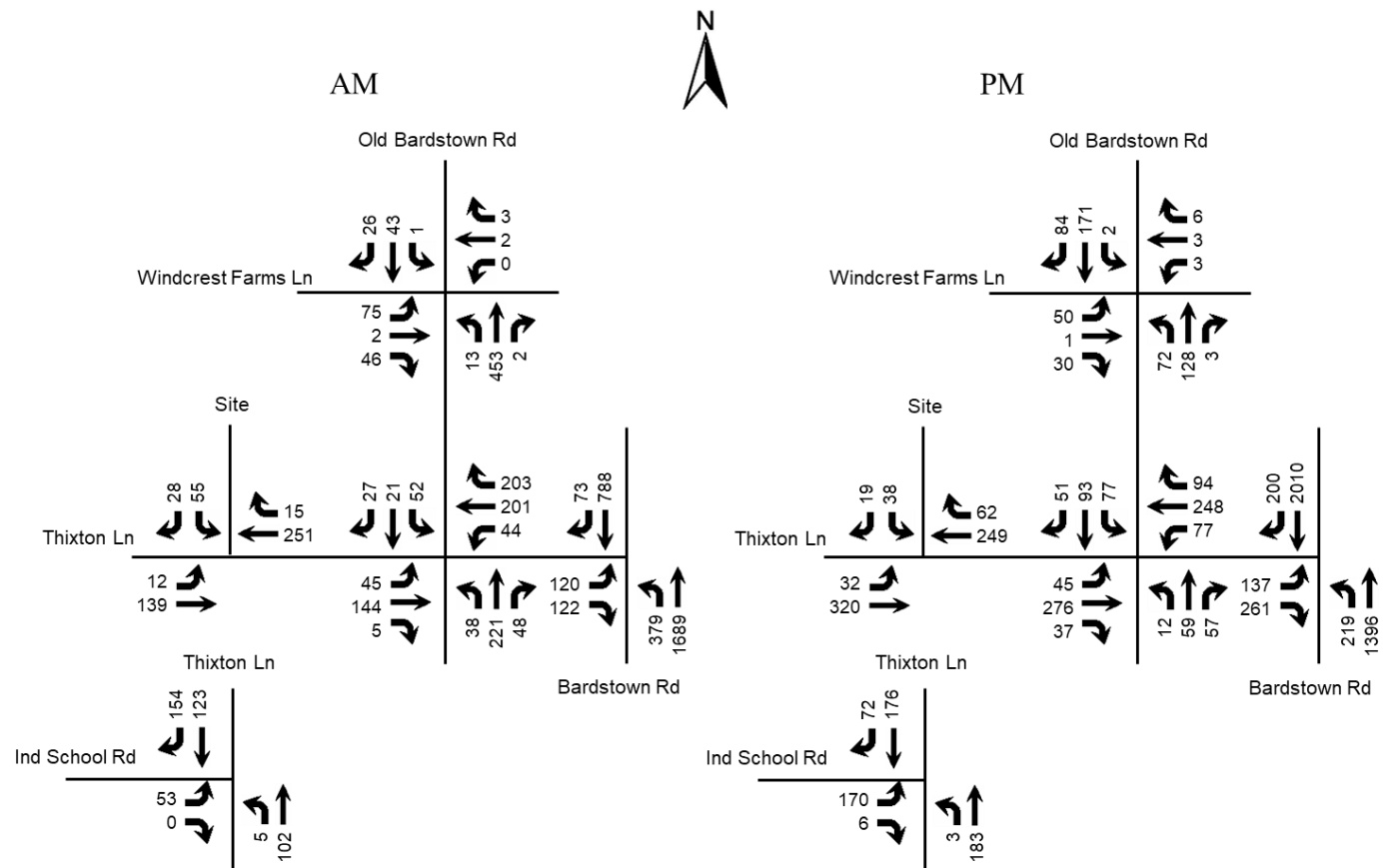


Figure 6. 2031 Build Peak Hour Volumes

ANALYSIS

The qualitative measure of operation for a roadway facility or intersection is evaluated by assigning a “Level of Service”. Level of Service is a ranking scale from A through F, “A” is the best operating condition and “F” is the worst. Level of Service results depend upon the facility that is analyzed. In this case, the Level of Service is based upon the delay experienced for lanes at stop-controlled intersections.

To evaluate the impact of the proposed development, the vehicle delays at the intersections were determined using procedures detailed in the Highway Capacity Manual, 7<sup>th</sup> edition. Future delays and Level of Service were determined for the intersections using the HCS Two-Way Stop Controlled and Streets software (version 2024). The delays and Level of Service are summarized in **Table 2**.



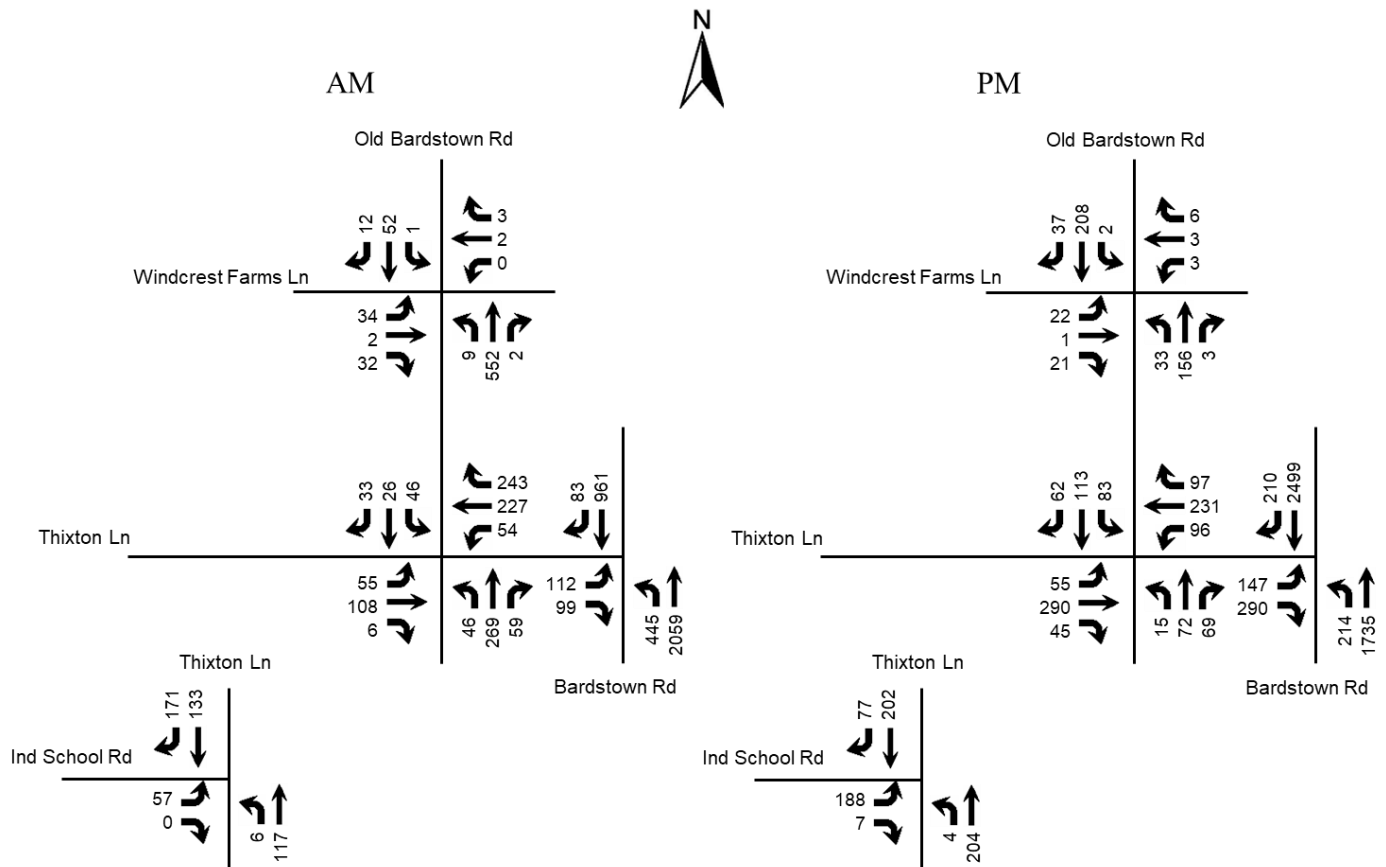
**Table 2. Peak Hour Level of Service**

| Approach  | A.M.             |                   |                   | P.M.              |                   |                   |
|---|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|   | 2024<br>Existing | 2031<br>No Build  | 2031<br>Build     | 2024<br>Existing  | 2031<br>No Build  | 2031<br>Build     |
| <b>Old Bardstown Road at Windcrest Farms Lane</b> |                  |                   |                   |                   |                   |                   |
| Windcrest Farms Lane Eastbound                    | B<br>11.9        | B<br>12.2         | B<br>14.4         | B<br>10.3         | B<br>11.4         | B<br>13.7         |
| Jacobi Entrance Westbound                         | B<br>12.0        | B<br>12.9         | B<br>13.0         | A<br>9.9          | B<br>10.7         | B<br>11.6         |
| Old Bardstown Road Northbound (left)              | A<br>7.3         | A<br>7.3          | A<br>7.4          | A<br>7.7          | A<br>7.9          | A<br>8.1          |
| Old Bardstown Road Southbound (left)              | A<br>8.2         | A<br>8.4          | A<br>8.4          | A<br>7.4          | A<br>7.5          | A<br>7.5          |
| <b>Thixton Lane at Old Bardstown Road</b>         |                  |                   |                   |                   |                   |                   |
| Thixton Lane Eastbound (left)                     | A<br>8.2         | A<br>8.4          | A<br>8.4          | A<br>7.8          | A<br>8.0          | A<br>8.2          |
| Thixton Lane Westbound (left)                     | A<br>7.6         | A<br>7.6          | A<br>7.8          | A<br>7.9          | A<br>8.0          | A<br>8.1          |
| Old Bardstown Road Northbound                     | C<br>23.5        | E<br>45.4         | F<br>66.2         | B<br>12.9         | C<br>16.9         | C<br>20.9         |
| Old Bardstown Road Southbound                     | C<br>17.4        | E<br>42.8         | F<br>161.7        | C<br>19.6         | E<br>39.0         | F<br>79.4         |
| <b>Bardstown Road at Thixton Lane</b>             | <b>A<br/>9.1</b> | <b>B<br/>12.1</b> | <b>B<br/>17.2</b> | <b>C<br/>24.0</b> | <b>D<br/>52.9</b> | <b>D<br/>41.9</b> |
| Thixton Lane Eastbound                            | E<br>57.6        | E<br>60.9         | E<br>73.6         | E<br>79.7         | F<br>80.2         | E<br>63.3         |
| Bardstown Road Northbound                         | A<br>5.4         | A<br>8.0          | B<br>11.3         | B<br>12.3         | B<br>19.7         | B<br>17.6         |
| Bardstown Road Southbound                         | A<br>8.9         | B<br>12.0         | B<br>15.7         | C<br>23.7         | E<br>72.3         | E<br>55.8         |
| <b>Thixton Lane at Street B</b>                   |                  |                   |                   |                   |                   |                   |
| Thixton Lane Eastbound (left)                     |                  |                   | A<br>7.8          |                   |                   | A<br>8.00         |
| Street B Southbound                               |                  |                   | B<br>12.0         |                   |                   | B<br>13.7         |
| <b>Thixton Lane at Independence School Road</b>   |                  |                   |                   |                   |                   |                   |
| Independence School Road Eastbound                | B<br>10.5        | B<br>11.0         | B<br>11.4         | B<br>11.5         | B<br>12.7         | B<br>13.5         |
| Thixton Lane Northbound (left)                    | A<br>8.0         | A<br>8.1          | A<br>8.2          | A<br>7.6          | A<br>7.7          | A<br>7.7          |

*Key: Level of Service, Delay in seconds per vehicle*

The “Build” results at the intersection of Bardstown Road and Thixton Lane include the addition of an eastbound right turn lane on Thixton Lane.

The entrances were evaluated for turn lanes using the Kentucky Transportation Cabinet Highway Design Guidance Manual dated July, 2020. The traffic impact policy requires using volumes for ten years beyond opening date, or 2041. The 2041 volumes were determined by using 2.2% annual growth from the 2031 volumes. **Figure 7** is the 2041 No Build and **Figure 8** is the Build. The volumes in Figure 8 were utilized to determine turn lane requirements. **Table 3** displays the level of service results for 2041. These volumes do not account for the reduction in traffic volumes along Thixton Lane anticipated by the extension of Cooper-Chapel Road to Bardstown Road, which is scheduled for construction in Fiscal Year 2026.



### Figure 7. 2041 No Build Peak Hour Volumes

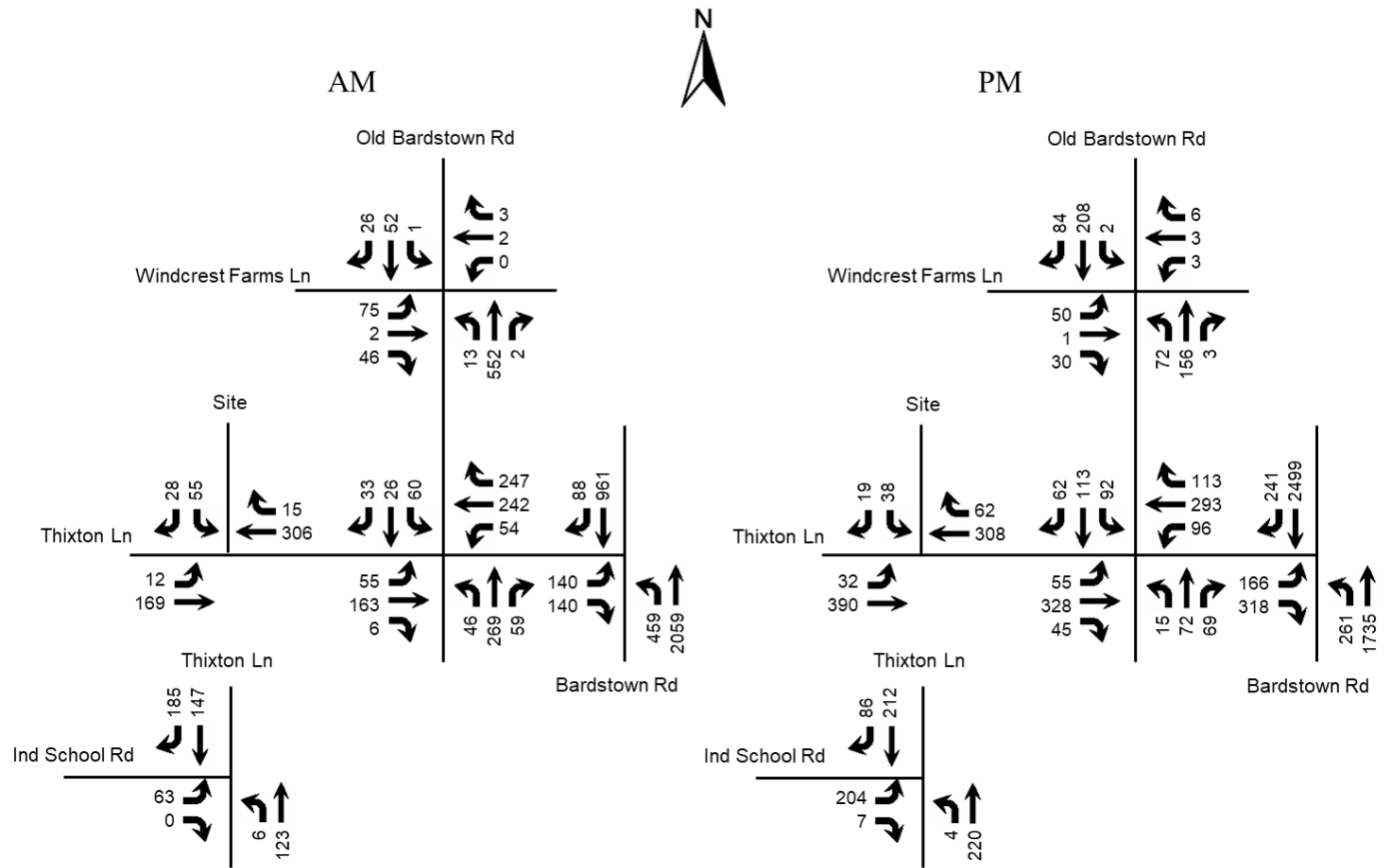


Figure 8. 2041 Build Peak Hour Volumes

Table 3. Peak Hour Level of Service 2041

| Approach  | A.M.          |               |            | P.M.          |               |            |
|---|---------------|---------------|------------|---------------|---------------|------------|
|   | 2024 Existing | 2041 No Build | 2041 Build | 2024 Existing | 2041 No Build | 2041 Build |
| <b>Old Bardstown Road at Windcrest Farms Lane</b> |               |               |            |               |               |            |
| Windcrest Farms Lane Eastbound                    | B<br>11.9     | B<br>13.5     | C<br>16.7  | B<br>10.3     | B<br>12.0     | B<br>14.8  |
| Jacobi Entrance Westbound                         | B<br>12.0     | B<br>14.2     | B<br>14.4  | A<br>9.9      | B<br>11.1     | B<br>12.2  |
| Old Bardstown Road Northbound (left)              | A<br>7.3      | A<br>7.3      | A<br>7.4   | A<br>7.7      | A<br>8.0      | A<br>8.3   |
| Old Bardstown Road Southbound (left)              | A<br>8.2      | A<br>8.7      | A<br>8.7   | A<br>7.4      | A<br>7.5      | A<br>7.5   |

|   | A.M.             |                   |                   | P.M.              |                    |                    |
|---|------------------|-------------------|-------------------|-------------------|--------------------|--------------------|
| Approach  | 2024<br>Existing | 2041<br>No Build  | 2041<br>Build     | 2024<br>Existing  | 2041<br>No Build   | 2041<br>Build      |
| <b>Thixton Lane at Old Bardstown Road</b>       |                  |                   |                   |                   |                    |                    |
| Thixton Lane Eastbound (left)                   | A<br>8.2         | A<br>8.7          | A<br>8.8          | A<br>7.8          | A<br>8.2           | A<br>8.4           |
| Thixton Lane Westbound (left)                   | A<br>7.6         | A<br>7.7          | A<br>7.9          | A<br>7.9          | A<br>8.2           | A<br>8.4           |
| Old Bardstown Road Northbound                   | C<br>23.5        | F<br>184.9        | F<br>254.4        | B<br>12.9         | D<br>32.8          | F<br>58.0          |
| Old Bardstown Road Southbound                   | C<br>17.4        | F<br>No cap       | F<br>No cap       | C<br>19.6         | F<br>208.8         | F<br>418.1         |
| <b>Bardstown Road at Thixton Lane</b>           | <b>A<br/>9.1</b> | <b>B<br/>18.5</b> | <b>C<br/>24.3</b> | <b>C<br/>17.2</b> | <b>F<br/>101.9</b> | <b>F<br/>117.6</b> |
| Thixton Lane Eastbound                          | E<br>57.6        | E<br>68.5         | E<br>78.8         | E<br>79.7         | E<br>64.8          | E<br>65.9          |
| Bardstown Road Northbound                       | A<br>5.4         | B<br>14.9         | B<br>19.1         | B<br>12.3         | C<br>20.4          | C<br>27.9          |
| Bardstown Road Southbound                       | A<br>8.9         | B<br>16.9         | C<br>22.3         | C<br>23.7         | F<br>166.5         | F<br>192.1         |
| <b>Thixton Lane at Street B</b>                 |                  |                   |                   |                   |                    |                    |
| Thixton Lane Eastbound (left)                   |                  |                   | A<br>8.0          |                   |                    | A<br>8.1           |
| Street B Southbound                             |                  |                   | B<br>13.0         |                   |                    | C<br>15.5          |
| <b>Thixton Lane at Independence School Road</b> |                  |                   |                   |                   |                    |                    |
| Independence School Road Eastbound              | B<br>10.5        | B<br>11.7         | B<br>12.1         | B<br>11.5         | B<br>14.9          | C<br>16.1          |
| Thixton Lane Northbound (left)                  | A<br>8.0         | A<br>8.3          | A<br>8.4          | A<br>7.6          | A<br>7.8           | A<br>7.9           |

Key: Level of Service, Delay in seconds per vehicle

The 2041 PM Peak hour level of service F conditions can only be improved by constructing a third southbound lane on Bardstown Road. This development is not adding traffic to the southbound through movement.

Analysis for when the intersection of Thixton Lane at Old Bardstown Road will reach level of service F was completed. The Cooper Chapel Road extension to Bardstown Road is expected to be completed in 2028. 2029 was selected for the analysis year providing time to have the road open to traffic. Construction is expected to start at Thixton Lane and progress to the north along Street B. 110 single-family detached units can be occupied in 2029 before Level of Service F is reached. The volumes and capacity analysis are in the appendix on pages 65-67.

## CONCLUSIONS

Based upon the volume of traffic generated by the development and the amount of traffic forecasted for the year 2031 and 2041, there will be an impact to the existing highway network. The volumes at the entrances do not meet

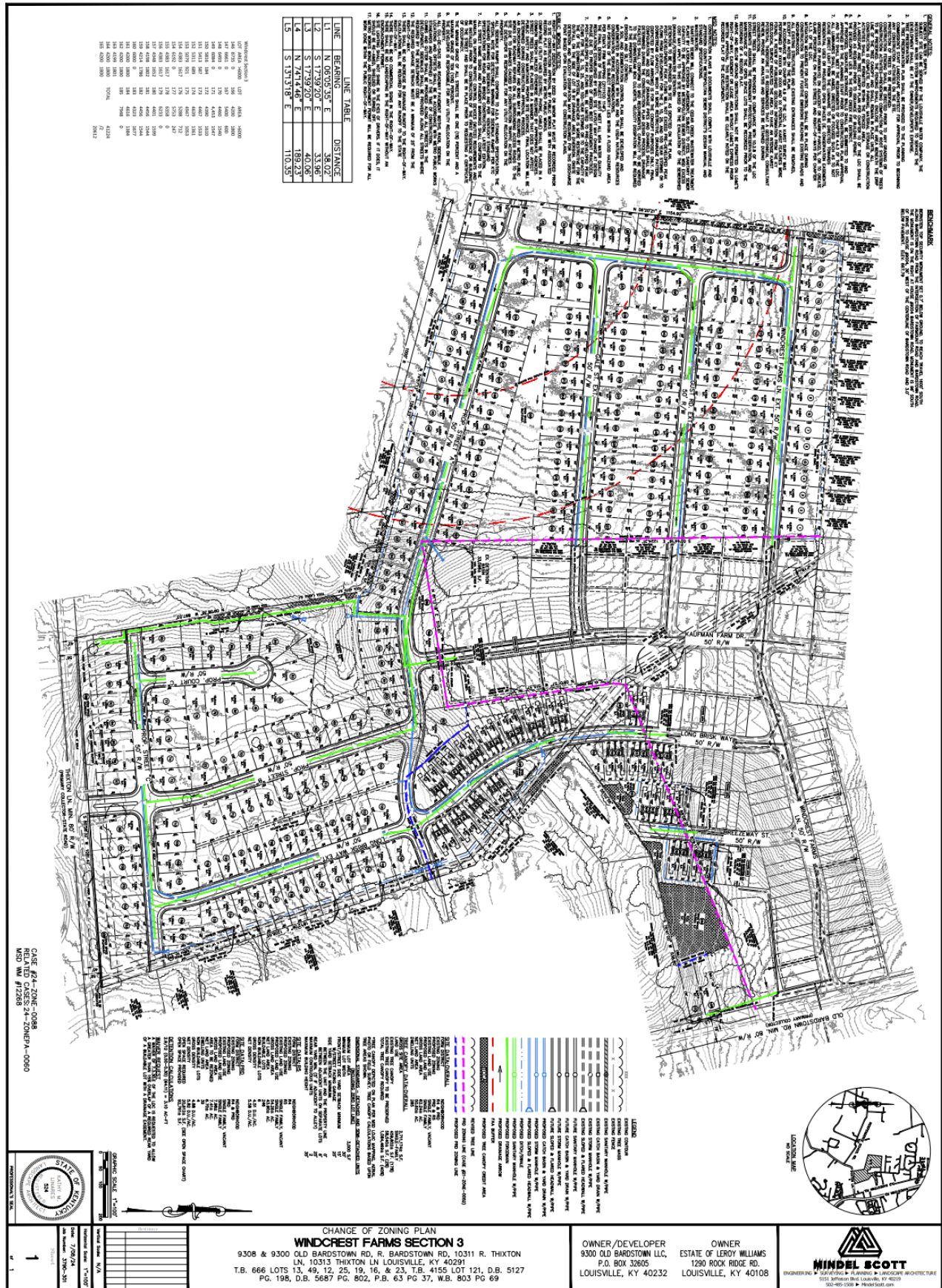
the turn lane warrants. An eastbound right turn lane will be constructed on Thixton Lane at Bardstown Road to mitigate the impact of the development at that intersection.

This study does not evaluate the impact of the construction of the Cooper Chapel Road extension to Bardstown Road, scheduled for construction in Fiscal Year 2026 and open to traffic if 2028. The extension should reduce traffic volumes on Thixton Lane and Old Bardstown Road during the peak hours. The development can construct and occupy 110 single-family dwelling units by 2029 before level of service F conditions develop.

## APPENDIX



# Windcrest Farms #3 Traffic Impact Study





# Windcrest Farms #3 Traffic Impact Study

## Traffic Counts

### Classified Turn Movement Count || All vehicles

Louisville, KY (Thixton Ln)



www.marrtraffic.com

#### Site 4

Old Bardstown Rd (South)  
Old Bardstown Rd (North)  
Windcrest Farms Lane Driveway  
Jacob Entrance Driveway



#### Date

Wednesday, May 1, 2024

#### Lat/Long

38.106766°, -85.568843°

[Click here for Map](#)

#### Weather

Mostly Cloudy  
74°F

[Click here for Detailed Weather](#)



#### 0700 - 0900 (Weekday 2h Session) (05-01-2024)

All vehicles

| TIME            | Northbound               |             |              |               | Southbound               |             |             |              | Eastbound                     |              |             |              | Westbound               |                |              |              | Int<br>Total |              |               |                |              |
|-----------------|--------------------------|-------------|--------------|---------------|--------------------------|-------------|-------------|--------------|-------------------------------|--------------|-------------|--------------|-------------------------|----------------|--------------|--------------|--------------|--------------|---------------|----------------|--------------|
|                 | Old Bardstown Rd (South) |             |              |               | Old Bardstown Rd (North) |             |             |              | Windcrest Farms Lane Driveway |              |             |              | Jacob Entrance Driveway |                |              |              |              |              |               |                |              |
|                 | Left<br>4.1              | Thru<br>4.2 | Right<br>4.3 | U-Turn<br>4.4 | App<br>Total             | Left<br>4.5 | Thru<br>4.6 | Right<br>4.7 | U-Turn<br>4.8                 | App<br>Total | Left<br>4.9 | Thru<br>4.10 | Right<br>4.11           | U-Turn<br>4.12 | App<br>Total | Left<br>4.13 |              | Thru<br>4.14 | Right<br>4.15 | U-Turn<br>4.16 | App<br>Total |
| 0700 - 0715     | 0                        | 101         | 1            | 0             | 102                      | 0           | 11          | 0            | 0                             | 11           | 3           | 0            | 1                       | 0              | 4            | 0            | 1            | 1            | 0             | 2              | 119          |
| 0715 - 0730     | 0                        | 118         | 0            | 0             | 118                      | 0           | 3           | 0            | 0                             | 3            | 5           | 0            | 2                       | 0              | 7            | 0            | 0            | 1            | 0             | 1              | 129          |
| 0730 - 0745     | 0                        | 107         | 0            | 0             | 107                      | 0           | 7           | 3            | 0                             | 10           | 5           | 0            | 2                       | 0              | 7            | 0            | 0            | 0            | 0             | 0              | 124          |
| 0745 - 0800     | 1                        | 63          | 1            | 0             | 65                       | 1           | 16          | 2            | 0                             | 19           | 3           | 2            | 0                       | 0              | 5            | 0            | 1            | 1            | 0             | 2              | 91           |
| Hourly Total    | 1                        | 389         | 2            | 0             | 392                      | 1           | 37          | 5            | 0                             | 43           | 16          | 2            | 5                       | 0              | 23           | 0            | 2            | 3            | 0             | 5              | 463          |
| 0800 - 0815     | 1                        | 48          | 2            | 0             | 51                       | 0           | 18          | 3            | 0                             | 21           | 4           | 1            | 1                       | 0              | 6            | 0            | 3            | 1            | 0             | 4              | 82           |
| 0815 - 0830     | 3                        | 49          | 1            | 0             | 53                       | 0           | 9           | 0            | 0                             | 9            | 3           | 1            | 1                       | 0              | 5            | 0            | 1            | 0            | 0             | 1              | 68           |
| 0830 - 0845     | 1                        | 46          | 0            | 0             | 47                       | 0           | 28          | 0            | 0                             | 28           | 2           | 0            | 2                       | 0              | 4            | 0            | 0            | 0            | 0             | 0              | 79           |
| 0845 - 0900     | 1                        | 44          | 0            | 0             | 45                       | 1           | 11          | 3            | 0                             | 15           | 5           | 0            | 1                       | 0              | 6            | 0            | 0            | 0            | 0             | 0              | 66           |
| Hourly Total    | 6                        | 187         | 3            | 0             | 196                      | 1           | 66          | 6            | 0                             | 73           | 14          | 2            | 5                       | 0              | 21           | 0            | 4            | 1            | 0             | 5              | 295          |
| Grand Total     | 7                        | 576         | 5            | 0             | 588                      | 2           | 103         | 11           | 0                             | 116          | 30          | 4            | 10                      | 0              | 44           | 0            | 6            | 4            | 0             | 10             | 758          |
| Approach %      | 1.19                     | 97.96       | 0.85         | 0.00          | -                        | 1.72        | 88.79       | 9.48         | 0.00                          | -            | 68.18       | 9.09         | 22.73                   | 0.00           | -            | 0.00         | 60.00        | 40.00        | 0.00          | -              |              |
| Intersection %  | 0.92                     | 75.99       | 0.66         | 0.00          | 77.57                    | 0.26        | 13.59       | 1.45         | 0.00                          | 15.30        | 3.96        | 0.53         | 1.32                    | 0.00           | 5.80         | 0.00         | 0.79         | 0.53         | 0.00          | 1.32           |              |
| Heavy Vehicle % | 29                       | 2           | 0            | -             | 2                        | 0           | 4           | 9            | -                             | 4            | 3           | 25           | 10                      | -              | 7            | -            | 17           | 0            | -             | 10             | 3            |
| PHF             | 0.25                     | 0.82        | 0.50         | 0.00          | 0.83                     | 0.25        | 0.58        | 0.42         | 0.00                          | 0.57         | 0.80        | 0.25         | 0.63                    | 0.00           | 0.82         | 0.00         | 0.50         | 0.75         | 0.00          | 0.63           | 0.90         |

#### 1600 - 1800 (Weekday 2h Session) (05-01-2024)

All vehicles

| TIME            | Northbound               |          |           |            | Southbound               |          |          |           | Eastbound                     |           |          |           | Westbound               |             |           |           | Int Total |           |            |             |           |
|-----------------|--------------------------|----------|-----------|------------|--------------------------|----------|----------|-----------|-------------------------------|-----------|----------|-----------|-------------------------|-------------|-----------|-----------|-----------|-----------|------------|-------------|-----------|
|                 | Old Bardstown Rd (South) |          |           |            | Old Bardstown Rd (North) |          |          |           | Windcrest Farms Lane Driveway |           |          |           | Jacob Entrance Driveway |             |           |           |           |           |            |             |           |
|                 | Left 4.1                 | Thru 4.2 | Right 4.3 | U-Turn 4.4 | App Total                | Left 4.5 | Thru 4.6 | Right 4.7 | U-Turn 4.8                    | App Total | Left 4.9 | Thru 4.10 | Right 4.11              | U-Turn 4.12 | App Total | Left 4.13 |           | Thru 4.14 | Right 4.15 | U-Turn 4.16 | App Total |
| 1600 - 1615     | 2                        | 23       | 1         | 0          | 26                       | 0        | 28       | 8         | 0                             | 36        | 3        | 0         | 3                       | 0           | 6         | 0         | 0         | 0         | 0          | 0           | 68        |
| 1615 - 1630     | 1                        | 32       | 0         | 0          | 33                       | 0        | 35       | 3         | 0                             | 38        | 1        | 0         | 2                       | 0           | 3         | 0         | 0         | 0         | 0          | 0           | 74        |
| 1630 - 1645     | 4                        | 25       | 1         | 0          | 30                       | 0        | 43       | 3         | 0                             | 46        | 2        | 0         | 1                       | 0           | 3         | 2         | 0         | 1         | 0          | 3           | 82        |
| 1645 - 1700     | 1                        | 22       | 2         | 0          | 25                       | 0        | 35       | 2         | 0                             | 37        | 1        | 0         | 1                       | 0           | 2         | 0         | 2         | 3         | 0          | 5           | 69        |
| Hourly Total    | 8                        | 102      | 4         | 0          | 114                      | 0        | 141      | 16        | 0                             | 157       | 7        | 0         | 7                       | 0           | 14        | 2         | 2         | 4         | 0          | 8           | 293       |
| 1700 - 1715     | 1                        | 31       | 0         | 0          | 32                       | 2        | 34       | 4         | 0                             | 40        | 2        | 1         | 1                       | 0           | 4         | 1         | 1         | 2         | 0          | 4           | 80        |
| 1715 - 1730     | 0                        | 28       | 0         | 0          | 28                       | 2        | 31       | 3         | 0                             | 36        | 0        | 0         | 2                       | 0           | 2         | 2         | 0         | 0         | 0          | 2           | 68        |
| 1730 - 1745     | 0                        | 33       | 0         | 0          | 33                       | 2        | 43       | 3         | 0                             | 48        | 3        | 0         | 1                       | 0           | 4         | 0         | 0         | 1         | 0          | 1           | 86        |
| 1745 - 1800     | 0                        | 31       | 0         | 0          | 31                       | 1        | 22       | 3         | 1                             | 27        | 1        | 1         | 1                       | 0           | 3         | 0         | 0         | 0         | 0          | 0           | 61        |
| Hourly Total    | 1                        | 123      | 0         | 0          | 124                      | 7        | 130      | 13        | 1                             | 151       | 6        | 2         | 5                       | 0           | 13        | 3         | 1         | 3         | 0          | 7           | 295       |
| Grand Total     | 9                        | 225      | 4         | 0          | 238                      | 7        | 271      | 29        | 1                             | 308       | 13       | 2         | 12                      | 0           | 27        | 5         | 3         | 7         | 0          | 15          | 588       |
| Approach %      | 3.78                     | 94.54    | 1.68      | 0.00       | -                        | 2.27     | 87.99    | 9.42      | 0.32                          | -         | 48.15    | 7.41      | 44.44                   | 0.00        | -         | 33.33     | 20.00     | 46.67     | 0.00       | -           |           |
| Intersection %  | 1.53                     | 38.27    | 0.68      | 0.00       | 40.48                    | 1.19     | 46.09    | 4.93      | 0.17                          | 52.38     | 2.21     | 0.34      | 2.04                    | 0.00        | 4.59      | 0.85      | 0.51      | 1.19      | 0.00       | 2.55        |           |
| Heavy Vehicle % | 11                       | 3        | 0         | -          | 3                        | 0        | 1        | 3         | 0                             | 2         | 0        | 0         | 17                      | -           | 7         | 0         | 0         | 0         | -          | 0           | 2         |
| PHF             | 0.44                     | 0.86     | 0.38      | 0.00       | 0.91                     | 0.25     | 0.85     | 0.75      | 0.00                          | 0.88      | 0.75     | 0.25      | 0.63                    | 0.00        | 0.75      | 0.38      | 0.38      | 0.50      | 0.00       | 0.60        | 0.93      |

# Windcrest Farms #3 Traffic Impact Study

## Classified Turn Movement Count || All vehicles

Louisville, KY (Thixton Ln)



### Site 2

Vista Hills Blvd  
Old Bardstown Rd  
KY-2053 Thixton Ln (West)  
KY-2053 Thixton Ln (East)



### Date

Wednesday, May 1, 2024

### Lat/Long

38.100620°, -85.566643°

[Click here for Map](#)

### Weather

Mostly Cloudy  
74°F

[Click here for Detailed Weather](#)



### 0700 - 0900 (Weekday 2h Session) (05-01-2024)

All vehicles

| TIME            | Northbound       |             |              |               | Southbound       |             |             |              | Eastbound                 |              |             |              | Westbound                 |                |              |              | Int   | Total |              |               |                |
|-----------------|------------------|-------------|--------------|---------------|------------------|-------------|-------------|--------------|---------------------------|--------------|-------------|--------------|---------------------------|----------------|--------------|--------------|-------|-------|--------------|---------------|----------------|
|                 | Vista Hills Blvd |             |              |               | Old Bardstown Rd |             |             |              | KY-2053 Thixton Ln (West) |              |             |              | KY-2053 Thixton Ln (East) |                |              |              |       |       |              |               |                |
|                 | Left<br>2.1      | Thru<br>2.2 | Right<br>2.3 | U-Turn<br>2.4 | App<br>Total     | Left<br>2.5 | Thru<br>2.6 | Right<br>2.7 | U-Turn<br>2.8             | App<br>Total | Left<br>2.9 | Thru<br>2.10 | Right<br>2.11             | U-Turn<br>2.12 | App<br>Total | Left<br>2.13 |       |       | Thru<br>2.14 | Right<br>2.15 | U-Turn<br>2.16 |
| 0700 - 0715     | 10               | 53          | 10           | 0             | 73               | 7           | 5           | 3            | 0                         | 15           | 10          | 17           | 1                         | 0              | 28           | 8            | 33    | 41    | 0            | 82            | 198            |
| 0715 - 0730     | 12               | 53          | 8            | 0             | 73               | 3           | 3           | 1            | 0                         | 7            | 8           | 13           | 1                         | 0              | 22           | 4            | 45    | 55    | 0            | 104           | 206            |
| 0730 - 0745     | 5                | 53          | 13           | 0             | 71               | 3           | 5           | 2            | 0                         | 10           | 8           | 19           | 1                         | 0              | 28           | 4            | 48    | 48    | 0            | 100           | 209            |
| 0745 - 0800     | 6                | 31          | 10           | 0             | 47               | 4           | 5           | 5            | 0                         | 14           | 9           | 27           | 1                         | 0              | 37           | 22           | 34    | 23    | 0            | 79            | 177            |
| Hourly Total    | 33               | 190         | 41           | 0             | 264              | 17          | 18          | 11           | 0                         | 46           | 35          | 76           | 4                         | 0              | 115          | 38           | 160   | 167   | 0            | 365           | 790            |
| 0800 - 0815     | 5                | 28          | 10           | 0             | 43               | 8           | 8           | 3            | 0                         | 19           | 9           | 23           | 2                         | 0              | 34           | 8            | 32    | 14    | 0            | 54            | 150            |
| 0815 - 0830     | 5                | 27          | 20           | 0             | 52               | 7           | 3           | 2            | 0                         | 12           | 13          | 21           | 1                         | 0              | 35           | 13           | 31    | 15    | 0            | 59            | 158            |
| 0830 - 0845     | 6                | 27          | 9            | 0             | 42               | 11          | 6           | 10           | 0                         | 27           | 8           | 25           | 1                         | 0              | 34           | 9            | 24    | 13    | 0            | 46            | 149            |
| 0845 - 0900     | 5                | 24          | 19           | 0             | 48               | 4           | 3           | 4            | 0                         | 11           | 6           | 26           | 1                         | 0              | 33           | 9            | 30    | 14    | 0            | 53            | 145            |
| Hourly Total    | 21               | 106         | 58           | 0             | 185              | 30          | 20          | 19           | 0                         | 69           | 36          | 95           | 5                         | 0              | 136          | 39           | 117   | 56    | 0            | 212           | 602            |
| Grand Total     | 54               | 296         | 99           | 0             | 449              | 47          | 38          | 30           | 0                         | 115          | 71          | 171          | 9                         | 0              | 251          | 77           | 277   | 223   | 0            | 577           | 1392           |
| Approach %      | 12.03            | 65.92       | 22.05        | 0.00          | -                | 40.87       | 33.04       | 26.09        | 0.00                      | -            | 28.29       | 68.13        | 3.59                      | 0.00           | -            | 13.34        | 48.01 | 38.65 | 0.00         | -             |                |
| Intersection %  | 3.88             | 21.26       | 7.11         | 0.00          | 32.26            | 3.38        | 2.73        | 2.16         | 0.00                      | 8.26         | 5.10        | 12.28        | 0.65                      | 0.00           | 18.03        | 5.53         | 19.90 | 16.02 | 0.00         | 41.45         |                |
| Heavy Vehicle % | 6                | 1           | 12           | -             | 4                | 2           | 11          | 0            | -                         | 4            | 7           | 2            | 44                        | -              | 5            | 17           | 3     | 2     | -            | 5             | 4              |
| PHF             | 0.69             | 0.90        | 0.79         | 0.00          | 0.90             | 0.61        | 0.90        | 0.55         | 0.00                      | 0.77         | 0.88        | 0.70         | 1.00                      | 0.00           | 0.78         | 0.43         | 0.83  | 0.76  | 0.00         | 0.88          | 0.94           |

### 1600 - 1800 (Weekday 2h Session) (05-01-2024)

All vehicles

| TIME            | Northbound       |             |              |               |              | Southbound       |             |              |               |              | Eastbound                 |              |               |                |              | Westbound                 |              |               |                |              | Int  |
|-----------------|------------------|-------------|--------------|---------------|--------------|------------------|-------------|--------------|---------------|--------------|---------------------------|--------------|---------------|----------------|--------------|---------------------------|--------------|---------------|----------------|--------------|------|
|                 | Vista Hills Blvd |             |              |               |              | Old Bardstown Rd |             |              |               |              | KY-2053 Thixton Ln (West) |              |               |                |              | KY-2053 Thixton Ln (East) |              |               |                |              |      |
|                 | Left<br>2.1      | Thru<br>2.2 | Right<br>2.3 | U-Turn<br>2.4 | App<br>Total | Left<br>2.5      | Thru<br>2.6 | Right<br>2.7 | U-Turn<br>2.8 | App<br>Total | Left<br>2.9               | Thru<br>2.10 | Right<br>2.11 | U-Turn<br>2.12 | App<br>Total | Left<br>2.13              | Thru<br>2.14 | Right<br>2.15 | U-Turn<br>2.16 | App<br>Total |      |
| 1600 - 1615     | 0                | 10          | 17           | 0             | 27           | 8                | 17          | 11           | 0             | 36           | 4                         | 54           | 6             | 0              | 64           | 13                        | 36           | 10            | 0              | 59           | 186  |
| 1615 - 1630     | 4                | 10          | 13           | 0             | 27           | 8                | 22          | 11           | 1             | 42           | 11                        | 51           | 9             | 0              | 71           | 19                        | 33           | 17            | 0              | 69           | 209  |
| 1630 - 1645     | 5                | 7           | 10           | 0             | 22           | 12               | 27          | 13           | 0             | 52           | 11                        | 45           | 6             | 0              | 62           | 10                        | 37           | 14            | 0              | 61           | 197  |
| 1645 - 1700     | 3                | 6           | 10           | 0             | 19           | 17               | 24          | 4            | 0             | 45           | 10                        | 59           | 7             | 0              | 76           | 13                        | 42           | 11            | 0              | 66           | 206  |
| Hourly Total    | 12               | 33          | 50           | 0             | 95           | 45               | 90          | 39           | 1             | 175          | 36                        | 209          | 28            | 0              | 273          | 55                        | 148          | 52            | 0              | 255          | 798  |
| 1700 - 1715     | 1                | 17          | 10           | 0             | 28           | 8                | 18          | 10           | 0             | 36           | 6                         | 45           | 4             | 0              | 55           | 26                        | 41           | 12            | 0              | 79           | 198  |
| 1715 - 1730     | 1                | 12          | 15           | 0             | 28           | 12               | 17          | 7            | 0             | 36           | 7                         | 46           | 11            | 0              | 64           | 15                        | 40           | 14            | 0              | 69           | 197  |
| 1730 - 1745     | 5                | 16          | 14           | 0             | 35           | 11               | 21          | 15           | 0             | 47           | 4                         | 54           | 10            | 0              | 68           | 12                        | 37           | 14            | 0              | 63           | 213  |
| 1745 - 1800     | 1                | 13          | 12           | 1             | 27           | 10               | 13          | 4            | 0             | 27           | 8                         | 48           | 5             | 0              | 61           | 22                        | 38           | 12            | 0              | 72           | 187  |
| Hourly Total    | 8                | 58          | 51           | 1             | 118          | 41               | 69          | 36           | 0             | 146          | 25                        | 193          | 30            | 0              | 248          | 75                        | 156          | 52            | 0              | 283          | 795  |
| Grand Total     | 20               | 91          | 101          | 1             | 213          | 86               | 159         | 75           | 1             | 321          | 61                        | 402          | 58            | 0              | 521          | 130                       | 304          | 104           | 0              | 538          | 1593 |
| Approach %      | 9.39             | 42.72       | 47.42        | 0.47          | -            | 26.79            | 49.53       | 23.36        | 0.31          | -            | 11.71                     | 77.16        | 11.13         | 0.00           | -            | 24.16                     | 56.51        | 19.33         | 0.00           | -            |      |
| Intersection %  | 1.26             | 5.71        | 6.34         | 0.06          | 13.37        | 5.40             | 9.98        | 4.71         | 0.06          | 20.15        | 3.83                      | 25.24        | 3.64          | 0.00           | 32.71        | 8.16                      | 19.08        | 6.53          | 0.00           | 33.77        |      |
| Heavy Vehicle % | 15               | 3           | 4            | 0             | 5            | 3                | 2           | 1            | 0             | 2            | 5                         | 2            | 5             | -              | 2            | 3                         | 2            | 1             | -              | 2            | 3    |
| PHF             | 0.50             | 0.75        | 0.82         | 0.00          | 0.79         | 0.71             | 0.83        | 0.60         | 0.00          | 0.87         | 0.68                      | 0.86         | 0.73          | 0.00           | 0.87         | 0.63                      | 0.95         | 0.91          | 0.00           | 0.88         | 0.96 |

# Windcrest Farms #3 Traffic Impact Study

## Classified Turn Movement Count || All vehicles

Louisville, KY (Thixton Ln)



**Site 1**  
US-31E Bardstown Rd (South)  
US-31E Bardstown Rd (North)  
KY-2053 Thixton Ln

**Date**  
Wednesday, May 1, 2024  
**Lat/Long**  
38.100677°, -85.565604°  
[Click here for Map](#)

**Weather**  
Mostly Cloudy  
74°F  
[Click here for Detailed Weather](#)

**0700 - 0900 (Weekday 2h Session) (05-01-2024)**  
All vehicles

| TIME            | Northbound                  |             |               |              | Southbound                  |              |               |              | Eastbound          |              |               |              | Int<br>Total |
|-----------------|-----------------------------|-------------|---------------|--------------|-----------------------------|--------------|---------------|--------------|--------------------|--------------|---------------|--------------|--------------|
|                 | US-31E Bardstown Rd (South) |             |               |              | US-31E Bardstown Rd (North) |              |               |              | KY-2053 Thixton Ln |              |               |              |              |
|                 | Left<br>1.1                 | Thru<br>1.2 | U-Turn<br>1.3 | App<br>Total | Thru<br>1.4                 | Right<br>1.5 | U-Turn<br>1.6 | App<br>Total | Left<br>1.7        | Right<br>1.8 | U-Turn<br>1.9 | App<br>Total |              |
| 0700 - 0715     | 74                          | 415         | 0             | 489          | 122                         | 11           | 0             | 133          | 17                 | 16           | 0             | 33           | 655          |
| 0715 - 0730     | 95                          | 351         | 0             | 446          | 174                         | 8            | 0             | 182          | 15                 | 11           | 0             | 26           | 654          |
| 0730 - 0745     | 88                          | 349         | 0             | 437          | 167                         | 12           | 0             | 179          | 22                 | 10           | 0             | 32           | 648          |
| 0745 - 0800     | 52                          | 335         | 0             | 387          | 214                         | 27           | 0             | 241          | 25                 | 17           | 0             | 42           | 670          |
| Hourly Total    | 309                         | 1450        | 0             | 1759         | 677                         | 58           | 0             | 735          | 79                 | 54           | 0             | 133          | 2627         |
| 0800 - 0815     | 35                          | 302         | 0             | 337          | 193                         | 17           | 0             | 210          | 19                 | 21           | 0             | 40           | 587          |
| 0815 - 0830     | 37                          | 382         | 0             | 419          | 170                         | 22           | 0             | 192          | 30                 | 19           | 0             | 49           | 660          |
| 0830 - 0845     | 28                          | 304         | 0             | 332          | 159                         | 18           | 0             | 177          | 26                 | 19           | 0             | 45           | 554          |
| 0845 - 0900     | 31                          | 308         | 0             | 339          | 181                         | 22           | 0             | 203          | 25                 | 25           | 0             | 50           | 592          |
| Hourly Total    | 131                         | 1296        | 0             | 1427         | 703                         | 79           | 0             | 782          | 100                | 84           | 0             | 184          | 2393         |
| Grand Total     | 440                         | 2746        | 0             | 3186         | 1380                        | 137          | 0             | 1517         | 179                | 138          | 0             | 317          | 5020         |
| Approach %      | 13.81                       | 86.19       | 0.00          | -            | 90.97                       | 9.03         | 0.00          | -            | 56.47              | 43.53        | 0.00          | -            |              |
| Intersection %  | 8.76                        | 54.70       | 0.00          | 63.47        | 27.49                       | 2.73         | 0.00          | 30.22        | 3.57               | 2.75         | 0.00          | 6.31         |              |
| Heavy Vehicle % | 2                           | 3           | -             | 3            | 6                           | 13           | -             | 7            | 7                  | 3            | -             | 5            | 4            |
| PHF             | 0.81                        | 0.87        | 0.00          | 0.90         | 0.79                        | 0.54         | 0.00          | 0.76         | 0.79               | 0.79         | 0.00          | 0.79         | 0.98         |

**1600 - 1800 (Weekday 2h Session) (05-01-2024)**  
All vehicles

| TIME            | Northbound                  |             |               |              | Southbound                  |              |               |              | Eastbound          |              |               |              | Int<br>Total |
|-----------------|-----------------------------|-------------|---------------|--------------|-----------------------------|--------------|---------------|--------------|--------------------|--------------|---------------|--------------|--------------|
|                 | US-31E Bardstown Rd (South) |             |               |              | US-31E Bardstown Rd (North) |              |               |              | KY-2053 Thixton Ln |              |               |              |              |
|                 | Left<br>1.1                 | Thru<br>1.2 | U-Turn<br>1.3 | App<br>Total | Thru<br>1.4                 | Right<br>1.5 | U-Turn<br>1.6 | App<br>Total | Left<br>1.7        | Right<br>1.8 | U-Turn<br>1.9 | App<br>Total |              |
| 1600 - 1615     | 32                          | 282         | 0             | 314          | 398                         | 27           | 0             | 425          | 29                 | 49           | 0             | 78           | 817          |
| 1615 - 1630     | 30                          | 310         | 0             | 340          | 415                         | 40           | 0             | 455          | 31                 | 46           | 0             | 77           | 872          |
| 1630 - 1645     | 34                          | 315         | 0             | 349          | 471                         | 26           | 0             | 497          | 21                 | 39           | 0             | 60           | 906          |
| 1645 - 1700     | 37                          | 260         | 0             | 297          | 393                         | 30           | 0             | 423          | 24                 | 63           | 0             | 87           | 807          |
| Hourly Total    | 133                         | 1167        | 0             | 1300         | 1677                        | 123          | 0             | 1800         | 105                | 197          | 0             | 302          | 3402         |
| 1700 - 1715     | 30                          | 314         | 0             | 344          | 447                         | 49           | 0             | 496          | 25                 | 42           | 0             | 67           | 907          |
| 1715 - 1730     | 33                          | 269         | 0             | 302          | 448                         | 38           | 0             | 486          | 27                 | 43           | 0             | 70           | 858          |
| 1730 - 1745     | 29                          | 251         | 0             | 280          | 453                         | 32           | 0             | 485          | 27                 | 56           | 0             | 83           | 848          |
| 1745 - 1800     | 26                          | 269         | 0             | 295          | 418                         | 45           | 0             | 463          | 24                 | 43           | 0             | 67           | 825          |
| Hourly Total    | 118                         | 1103        | 0             | 1221         | 1766                        | 164          | 0             | 1930         | 103                | 184          | 0             | 287          | 3438         |
| Grand Total     | 251                         | 2270        | 0             | 2521         | 3443                        | 287          | 0             | 3730         | 208                | 381          | 0             | 589          | 6840         |
| Approach %      | 9.96                        | 90.04       | 0.00          | -            | 92.31                       | 7.69         | 0.00          | -            | 35.31              | 64.69        | 0.00          | -            |              |
| Intersection %  | 3.67                        | 33.19       | 0.00          | 36.86        | 50.34                       | 4.20         | 0.00          | 54.53        | 3.04               | 5.57         | 0.00          | 8.61         |              |
| Heavy Vehicle % | 1                           | 3           | -             | 2            | 2                           | 3            | -             | 2            | 6                  | 1            | -             | 2            | 2            |
| PHF             | 0.89                        | 0.95        | 0.00          | 0.95         | 0.92                        | 0.74         | 0.00          | 0.94         | 0.81               | 0.75         | 0.00          | 0.84         | 0.96         |

# Windcrest Farms #3 Traffic Impact Study

## Classified Turn Movement Count || All vehicles

Louisville, KY (Thixton Ln)



Site 3



Independence School Dr  
KY-2053 Thixton Ln (West)  
KY-2053 Thixton Ln (East)

Date

Wednesday, May 1, 2024

Lat/Long

38.098406°, -85.574773°

[Click here for Map](#)

Weather

Mostly Cloudy  
74°F

[Click here for Detailed Weather](#)



0700 - 0900 (Weekday 2h Session) (05-01-2024)

All vehicles

| TIME            | Southbound             |              |               |              | Eastbound                 |             |               |              | Westbound                 |              |               |              |              |
|-----------------|------------------------|--------------|---------------|--------------|---------------------------|-------------|---------------|--------------|---------------------------|--------------|---------------|--------------|--------------|
|                 | Independence School Dr |              |               |              | KY-2053 Thixton Ln (West) |             |               |              | KY-2053 Thixton Ln (East) |              |               |              |              |
|                 | Left<br>3.1            | Right<br>3.2 | U-Turn<br>3.3 | App<br>Total | Left<br>3.4               | Thru<br>3.5 | U-Turn<br>3.6 | App<br>Total | Thru<br>3.7               | Right<br>3.8 | U-Turn<br>3.9 | App<br>Total | Int<br>Total |
| 0700 - 0715     | 12                     | 0            | 0             | 12           | 1                         | 15          | 0             | 16           | 20                        | 27           | 0             | 47           | 75           |
| 0715 - 0730     | 7                      | 0            | 0             | 7            | 0                         | 17          | 0             | 17           | 23                        | 29           | 0             | 52           | 76           |
| 0730 - 0745     | 9                      | 0            | 0             | 9            | 0                         | 18          | 0             | 18           | 24                        | 32           | 0             | 56           | 83           |
| 0745 - 0800     | 11                     | 0            | 0             | 11           | 3                         | 31          | 0             | 34           | 21                        | 26           | 0             | 47           | 92           |
| Hourly Total    | 39                     | 0            | 0             | 39           | 4                         | 81          | 0             | 85           | 88                        | 114          | 0             | 202          | 326          |
| 0800 - 0815     | 8                      | 1            | 0             | 9            | 0                         | 20          | 0             | 20           | 19                        | 19           | 0             | 38           | 67           |
| 0815 - 0830     | 12                     | 0            | 0             | 12           | 0                         | 22          | 0             | 22           | 14                        | 26           | 0             | 40           | 74           |
| 0830 - 0845     | 6                      | 0            | 0             | 6            | 0                         | 26          | 0             | 26           | 24                        | 16           | 0             | 40           | 72           |
| 0845 - 0900     | 14                     | 0            | 0             | 14           | 1                         | 22          | 0             | 23           | 20                        | 17           | 0             | 37           | 74           |
| Hourly Total    | 40                     | 1            | 0             | 41           | 1                         | 90          | 0             | 91           | 77                        | 78           | 0             | 155          | 287          |
| Grand Total     | 79                     | 1            | 0             | 80           | 5                         | 171         | 0             | 176          | 165                       | 192          | 0             | 357          | 613          |
| Approach %      | 98.75                  | 1.25         | 0.00          | -            | 2.84                      | 97.16       | 0.00          | -            | 46.22                     | 53.78        | 0.00          | -            |              |
| Intersection %  | 12.89                  | 0.16         | 0.00          | 13.05        | 0.82                      | 27.90       | 0.00          | 28.71        | 26.92                     | 31.32        | 0.00          | 58.24        |              |
| Heavy Vehicle % | 4                      | 0            | -             | 4            | 20                        | 5           | -             | 6            | 5                         | 2            | -             | 3            | 4            |
| PHF             | 0.81                   | 0.00         | 0.00          | 0.81         | 0.33                      | 0.65        | 0.00          | 0.63         | 0.92                      | 0.89         | 0.00          | 0.90         | 0.89         |

1600 - 1800 (Weekday 2h Session) (05-01-2024)

All vehicles

| TIME            | Southbound             |              |               |              | Eastbound                 |             |               |              | Westbound                 |              |  |               |              |              |
|-----------------|------------------------|--------------|---------------|--------------|---------------------------|-------------|---------------|--------------|---------------------------|--------------|--|---------------|--------------|--------------|
|                 | Independence School Dr |              |               |              | KY-2053 Thixton Ln (West) |             |               |              | KY-2053 Thixton Ln (East) |              |  |               |              |              |
|                 | Left<br>3.1            | Right<br>3.2 | U-Turn<br>3.3 | App<br>Total | Left<br>3.4               | Thru<br>3.5 | U-Turn<br>3.6 | App<br>Total | Thru<br>3.7               | Right<br>3.8 |  | U-Turn<br>3.9 | App<br>Total | Int<br>Total |
| 1600 - 1615     | 34                     | 2            | 0             | 36           | 0                         | 25          | 0             | 25           | 31                        | 11           |  | 0             | 42           | 103          |
| 1615 - 1630     | 17                     | 0            | 0             | 17           | 1                         | 47          | 0             | 48           | 32                        | 14           |  | 0             | 46           | 111          |
| 1630 - 1645     | 25                     | 3            | 0             | 28           | 0                         | 40          | 0             | 40           | 39                        | 8            |  | 0             | 47           | 115          |
| 1645 - 1700     | 31                     | 0            | 0             | 31           | 2                         | 39          | 0             | 41           | 37                        | 8            |  | 0             | 45           | 117          |
| Hourly Total    | 107                    | 5            | 0             | 112          | 3                         | 151         | 0             | 154          | 139                       | 41           |  | 0             | 180          | 446          |
| 1700 - 1715     | 25                     | 1            | 0             | 26           | 1                         | 34          | 0             | 35           | 41                        | 8            |  | 0             | 49           | 110          |
| 1715 - 1730     | 31                     | 0            | 0             | 31           | 0                         | 37          | 0             | 37           | 30                        | 16           |  | 0             | 46           | 114          |
| 1730 - 1745     | 31                     | 1            | 0             | 32           | 1                         | 28          | 0             | 29           | 40                        | 16           |  | 0             | 56           | 117          |
| 1745 - 1800     | 39                     | 3            | 0             | 42           | 1                         | 38          | 0             | 39           | 27                        | 11           |  | 0             | 38           | 119          |
| Hourly Total    | 126                    | 5            | 0             | 131          | 3                         | 137         | 0             | 140          | 138                       | 51           |  | 0             | 189          | 460          |
| Grand Total     | 233                    | 10           | 0             | 243          | 6                         | 288         | 0             | 294          | 277                       | 92           |  | 0             | 369          | 906          |
| Approach %      | 95.88                  | 4.12         | 0.00          | -            | 2.04                      | 97.96       | 0.00          | -            | 75.07                     | 24.93        |  | 0.00          | -            |              |
| Intersection %  | 25.72                  | 1.10         | 0.00          | 26.82        | 0.66                      | 31.79       | 0.00          | 32.45        | 30.57                     | 10.15        |  | 0.00          | 40.73        |              |
| Heavy Vehicle % | 0                      | 10           | -             | 1            | 0                         | 4           | -             | 4            | 3                         | 3            |  | -             | 3            | 3            |
| PHF             | 0.81                   | 0.42         | 0.00          | 0.78         | 0.75                      | 0.90        | 0.00          | 0.90         | 0.84                      | 0.80         |  | 0.00          | 0.84         | 0.97         |



## TIS Simplified Traffic Forecast

|              |      |                  |       |
|--------------|------|------------------|-------|
| Count Year   | 2024 | Number of Counts | 15    |
| Opening Year | 2031 |                  |       |
| Design Year  | 2041 | Growth Rate      | 2.16% |
| Years Back   | 15   |                  |       |

**KYTC Traffic Count Station #1**

| STA ID                | 056262 |
|-----------------------|--------|
| Paste Count Data Here |        |
| 2024                  |        |
| 2023                  | 3623   |
| 2022                  |        |
| 2021                  |        |
| 2020                  | 3169   |
| 2019                  |        |
| 2018                  |        |
| 2017                  | 2985   |
| 2016                  |        |
| 2015                  |        |
| 2014                  | 2521   |
| 2013                  |        |
| 2012                  |        |
| 2011                  | 2010   |
| 2010                  |        |
| 2009                  |        |
| 2008                  | 2030   |
| 2007                  |        |
| 2006                  |        |
| 2005                  | 2000   |
| 2004                  |        |
| 2003                  | 2660   |
| 2002                  |        |
| 2001                  |        |
| 2000                  | 1670   |
| 1999                  |        |
| 1998                  |        |

**KYTC Traffic Count Station #2**

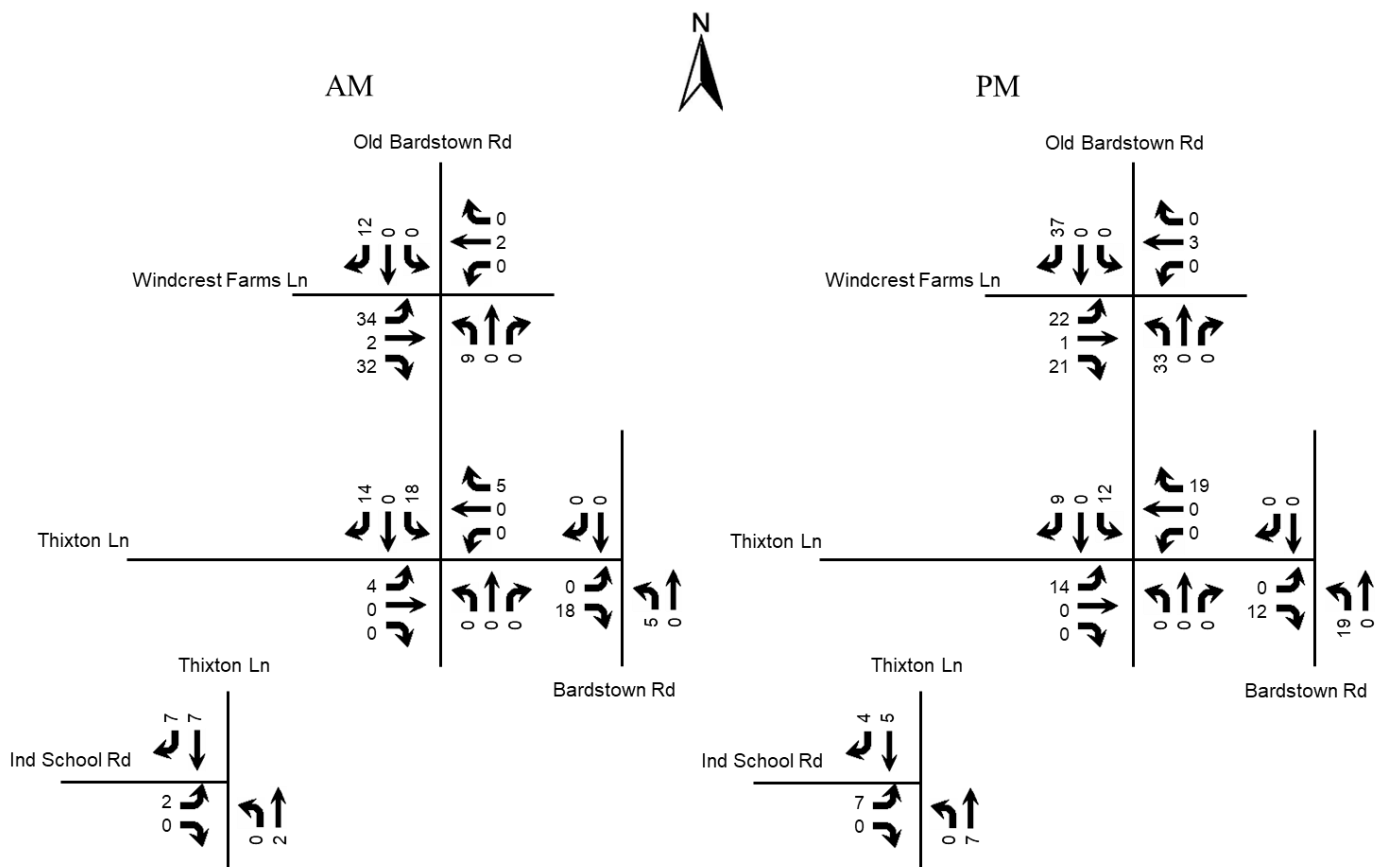
| STA ID                | 056M67 |
|-----------------------|--------|
| Paste Count Data Here |        |
| 2024                  |        |
| 2023                  | 4569   |
| 2022                  |        |
| 2021                  |        |
| 2020                  | 3858   |
| 2019                  | 4519   |
| 2018                  | 4480   |
| 2017                  |        |
| 2016                  | 4043   |
| 2015                  | 3797   |
| 2014                  |        |
| 2013                  |        |
| 2012                  |        |
| 2011                  |        |
| 2010                  |        |
| 2009                  |        |
| 2008                  |        |
| 2007                  |        |
| 2006                  |        |
| 2005                  |        |
| 2004                  |        |
| 2003                  |        |
| 2002                  |        |
| 2001                  |        |
| 2000                  |        |
| 1999                  |        |
| 1998                  |        |
| 1997                  |        |

**KYTC Traffic Count Station #3**

| STA ID                | 056257 |
|-----------------------|--------|
| Paste Count Data Here |        |
| 2024                  |        |
| 2023                  | 31314  |
| 2022                  |        |
| 2021                  |        |
| 2020                  |        |
| 2019                  |        |
| 2018                  | 33295  |
| 2017                  |        |
| 2016                  |        |
| 2015                  |        |
| 2014                  |        |
| 2013                  | 29024  |
| 2012                  |        |
| 2011                  |        |
| 2010                  | 25900  |
| 2009                  |        |
| 2008                  |        |
| 2007                  | 26000  |
| 2006                  |        |
| 2005                  |        |
| 2004                  |        |
| 2003                  | 26700  |
| 2002                  |        |
| 2001                  |        |
| 2000                  | 23200  |
| 1999                  |        |
| 1998                  |        |

TRIP DISTRIBUTION for the Windcrest Farms 1 & 2  
83 Detached Lots and 64 Attached Lots

|                                   | A.M. Peak Hour |    |     | P.M. Peak Hour |    |     |
|-----------------------------------|----------------|----|-----|----------------|----|-----|
| Land Use                          | Trips          | In | Out | Trips          | In | Out |
| Single Family Detached (83 units) | 63             | 16 | 47  | 83             | 53 | 30  |
| Single Family Attached (64 units) | 28             | 7  | 21  | 34             | 20 | 14  |
| TOTAL                             | 91             | 23 | 68  | 117            | 73 | 44  |



HCS Reports

HCS Two-Way Stop-Control Report

General Information

Analyst

DBZ

Agency/Co.

Diane B. Zimmerman Traffic Engineering LLC

Date Performed

9/3/2024

Analysis Year

2024

Time Analyzed

AM Peak

Intersection Orientation

North-South

Project Description

Windcrest 3

Site Information

Intersection

Old Bardstown at Windcrest

Jurisdiction

East/West Street

Windcrest Farms Lane

North/South Street

Old Bardstown Road

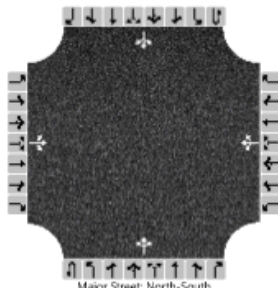
Peak Hour Factor

0.90

Analysis Time Period (hrs)

0.25

Lanes



Major Street: North-South

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            |           | 0  | 1   | 0  |           | 0 | 1   | 0 | 0          | 0 | 1   | 0 | 0          | 0 | 1   | 0 |
| Configuration              |           |    | LTR |    |           |   | LTR |   |            |   | LTR |   |            |   | LTR |   |
| Volume (veh/h)             |           | 16 | 2   | 5  |           | 0 | 2   | 3 |            | 1 | 389 | 2 |            | 1 | 37  | 5 |
| Percent Heavy Vehicles (%) |           | 0  | 50  | 0  |           | 0 | 50  | 0 |            | 0 |     |   |            | 0 |     |   |
| Proportion Time Blocked    |           |    |     |    |           |   |     |   |            |   |     |   |            |   |     |   |
| Percent Grade (%)          | 0         |    |     |    | 0         |   |     |   |            |   |     |   |            |   |     |   |
| Right Turn Channelized     |           |    |     |    |           |   |     |   |            |   |     |   |            |   |     |   |
| Median Type   Storage      | Undivided |    |     |    |           |   |     |   |            |   |     |   |            |   |     |   |

Critical and Follow-up Headways

|                              |  |      |      |      |  |      |      |      |  |      |  |  |  |      |  |  |
|------------------------------|--|------|------|------|--|------|------|------|--|------|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  | 7.1  | 6.5  | 6.2  |  | 7.1  | 6.5  | 6.2  |  | 4.1  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  | 7.10 | 7.00 | 6.20 |  | 7.10 | 7.00 | 6.20 |  | 4.10 |  |  |  | 4.10 |  |  |
| Base Follow-Up Headway (sec) |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |  | 2.2  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  | 3.50 | 4.45 | 3.30 |  | 3.50 | 4.45 | 3.30 |  | 2.20 |  |  |  | 2.20 |  |  |

Delay, Queue Length, and Level of Service

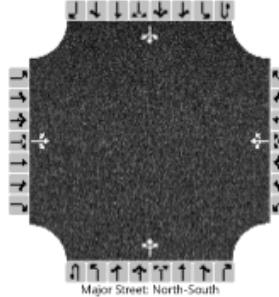
|   |      |  |      |  |      |  |      |  |     |      |     |     |     |      |     |     |
|---|------|--|------|--|------|--|------|--|-----|------|-----|-----|-----|------|-----|-----|
| Flow Rate, v (veh/h)                    |      |  | 26   |  |      |  | 6    |  |     | 1    |     |     |     | 1    |     |     |
| Capacity, c (veh/h)                     |      |  | 544  |  |      |  | 523  |  |     | 1574 |     |     |     | 1136 |     |     |
| v/c Ratio                               |      |  | 0.05 |  |      |  | 0.01 |  |     | 0.00 |     |     |     | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh) |      |  | 0.1  |  |      |  | 0.0  |  |     | 0.0  |     |     |     | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |      |  | 2.6  |  |      |  | 0.0  |  |     |      |     |     |     |      |     |     |
| Control Delay (s/veh)                   |      |  | 11.9 |  |      |  | 12.0 |  |     | 7.3  | 0.0 | 0.0 |     | 8.2  | 0.0 | 0.0 |
| Level of Service (LOS)                  |      |  | B    |  |      |  | B    |  |     | A    | A   | A   |     | A    | A   | A   |
| Approach Delay (s/veh)                  | 11.9 |  |      |  | 12.0 |  |      |  | 0.0 |      |     |     | 0.2 |      |     |     |
| Approach LOS                            | B    |  |      |  | B    |  |      |  | A   |      |     |     | A   |      |     |     |

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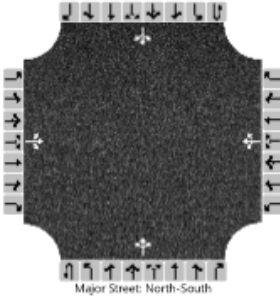


| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
|---|--|------|------|------|-----------|------|------|----------------------------|------------|------|-----|----------------------------|------------|------|-----|-----|
| General Information   |  |      |      |      |           |      |      | Site Information           |            |      |     |                            |            |      |     |     |
| Analyst   | DBZ  |      |      |      |           |      |      | Intersection               |            |      |     | Old Bardstown at Windcrest |            |      |     |     |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      | Jurisdiction               |            |      |     |                            |            |      |     |     |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      | East/West Street           |            |      |     | Windcrest Farms Lane       |            |      |     |     |
| Analysis Year   | 2031                                       |      |      |      |           |      |      | North/South Street         |            |      |     | Old Bardstown Road         |            |      |     |     |
| Time Analyzed   | AM Peak No Build                           |      |      |      |           |      |      | Peak Hour Factor           |            |      |     | 0.90                       |            |      |     |     |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      | Analysis Time Period (hrs) |            |      |     | 0.25                       |            |      |     |     |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0                          | 0          | 0    | 1   | 0                          | 0          | 0    | 1   | 0   |
| Configuration   |  |      | LTR  |      |           |      | LTR  |                            |            |      | LTR |                            |            |      | LTR |     |
| Volume (veh/h)  |  | 34   | 2    | 32   |           | 0    | 2    | 3                          |            | 9    | 453 | 2                          |            | 1    | 43  | 12  |
| Percent Heavy Vehicles (%)  |  | 0    | 50   | 0    |           | 0    | 50   | 0                          |            | 0    |     |                            |            | 0    |     |     |
| Proportion Time Blocked   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Percent Grade (%)   | 0  |      |      |      | 0         |      |      |                            |            |      |     |                            |            |      |     |     |
| Right Turn Channelized  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |            | 4.1  |     |                            |            | 4.1  |     |     |
| Critical Headway (sec)  |  | 7.10 | 7.00 | 6.20 |           | 7.10 | 7.00 | 6.20                       |            | 4.10 |     |                            |            | 4.10 |     |     |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |            | 2.2  |     |                            |            | 2.2  |     |     |
| Follow-Up Headway (sec)   |  | 3.50 | 4.45 | 3.30 |           | 3.50 | 4.45 | 3.30                       |            | 2.20 |     |                            |            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Flow Rate, v (veh/h)  |  |      | 76   |      |           |      | 6    |                            |            | 10   |     |                            |            | 1    |     |     |
| Capacity, c (veh/h)   |  |      | 574  |      |           |      | 462  |                            |            | 1555 |     |                            |            | 1070 |     |     |
| v/c Ratio   |  |      | 0.13 |      |           |      | 0.01 |                            |            | 0.01 |     |                            |            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 0.5  |      |           |      | 0.0  |                            |            | 0.0  |     |                            |            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 12.6 |      |           |      | 0.0  |                            |            |      |     |                            |            |      |     |     |
| Control Delay (s/veh)   |  |      | 12.2 |      |           |      | 12.9 |                            |            | 7.3  | 0.1 | 0.1                        |            | 8.4  | 0.0 | 0.0 |
| Level of Service (LOS)  |  |      | B    |      |           |      | B    |                            |            | A    | A   | A                          |            | A    | A   | A   |
| Approach Delay (s/veh)  | 12.2                                       |      |      |      | 12.9      |      |      |                            | 0.2        |      |     |                            | 0.2        |      |     |     |
| Approach LOS  | B  |      |      |      | B         |      |      |                            | A          |      |     |                            | A          |      |     |     |

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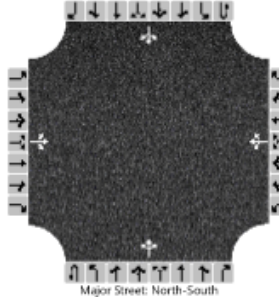
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| HCS Two-Way Stop-Control Report   |  |           |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
|---|--|-----------|------|------|-----------|------|------|----------------------------|----------------------------|------|-----|-----|------------|------|-----|-----|--|--|--|
| General Information   |  |           |      |      |           |      |      | Site Information           |                            |      |     |     |            |      |     |     |  |  |  |
| Analyst   | DBZ  |           |      |      |           |      |      | Intersection               | Old Bardstown at Windcrest |      |     |     |            |      |     |     |  |  |  |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |           |      |      |           |      |      | Jurisdiction               |                            |      |     |     |            |      |     |     |  |  |  |
| Date Performed  | 9/3/2024                                   |           |      |      |           |      |      | East/West Street           | Windcrest Farms Lane       |      |     |     |            |      |     |     |  |  |  |
| Analysis Year   | 2031                                       |           |      |      |           |      |      | North/South Street         | Old Bardstown Road         |      |     |     |            |      |     |     |  |  |  |
| Time Analyzed   | AM Peak Build                              |           |      |      |           |      |      | Peak Hour Factor           | 0.90                       |      |     |     |            |      |     |     |  |  |  |
| Intersection Orientation  | North-South                                |           |      |      |           |      |      | Analysis Time Period (hrs) | 0.25                       |      |     |     |            |      |     |     |  |  |  |
| Project Description   | Windcrest 3                                |           |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| 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   |  | 0         | 1    | 0    |           | 0    | 1    | 0                          | 0                          | 0    | 1   | 0   | 0          | 0    | 1   | 0   |  |  |  |
| Configuration   |  |           | LTR  |      |           |      | LTR  |                            |                            |      | LTR |     |            |      | LTR |     |  |  |  |
| Volume (veh/h)  |  | 75        | 2    | 46   |           | 0    | 2    | 3                          |                            | 13   | 453 | 2   |            | 1    | 43  | 26  |  |  |  |
| Percent Heavy Vehicles (%)  |  | 0         | 50   | 0    |           | 0    | 50   | 0                          |                            | 0    |     |     |            | 0    |     |     |  |  |  |
| Proportion Time Blocked   |  |           |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Percent Grade (%)   |  | 0         |      |      |           | 0    |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Right Turn Channelized  |  |           |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Median Type   Storage   |  | Undivided |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Critical and Follow-up Headways   |  |           |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Base Critical Headway (sec)   |  | 7.1       | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |                            | 4.1  |     |     |            | 4.1  |     |     |  |  |  |
| Critical Headway (sec)  |  | 7.10      | 7.00 | 6.20 |           | 7.10 | 7.00 | 6.20                       |                            | 4.10 |     |     |            | 4.10 |     |     |  |  |  |
| Base Follow-Up Headway (sec)  |  | 3.5       | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |                            | 2.2  |     |     |            | 2.2  |     |     |  |  |  |
| Follow-Up Headway (sec)   |  | 3.50      | 4.45 | 3.30 |           | 3.50 | 4.45 | 3.30                       |                            | 2.20 |     |     |            | 2.20 |     |     |  |  |  |
| Delay, Queue Length, and Level of Service   |  |           |      |      |           |      |      |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Flow Rate, v (veh/h)  |  |           | 137  |      |           |      | 6    |                            |                            | 14   |     |     |            | 1    |     |     |  |  |  |
| Capacity, c (veh/h)   |  |           | 520  |      |           |      | 453  |                            |                            | 1535 |     |     |            | 1070 |     |     |  |  |  |
| v/c Ratio   |  |           | 0.26 |      |           |      | 0.01 |                            |                            | 0.01 |     |     |            | 0.00 |     |     |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |           | 1.0  |      |           |      | 0.0  |                            |                            | 0.0  |     |     |            | 0.0  |     |     |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |           | 25.2 |      |           |      | 0.0  |                            |                            |      |     |     |            |      |     |     |  |  |  |
| Control Delay (s/veh)   |  |           | 14.4 |      |           |      | 13.0 |                            |                            | 7.4  | 0.1 | 0.1 |            | 8.4  | 0.0 | 0.0 |  |  |  |
| Level of Service (LOS)  |  |           | B    |      |           |      | B    |                            |                            | A    | A   | A   |            | A    | A   | A   |  |  |  |
| Approach Delay (s/veh)  |  | 14.4      |      |      |           | 13.0 |      |                            |                            |      | 0.3 |     |            |      |     | 0.1 |  |  |  |
| Approach LOS  |  | B         |      |      |           | B    |      |                            |                            |      | A   |     |            |      |     | A   |  |  |  |

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Windcrest Fm Ln AM 31 B.tlw

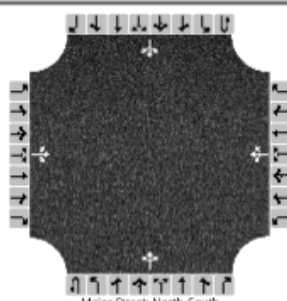
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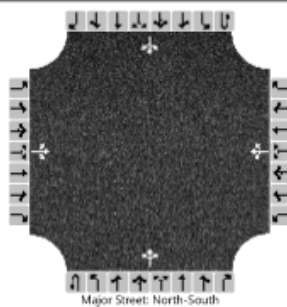
| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
|---|--|------|------|------|-----------|------|------|----------------------------|------------|------|-----|----------------------------|------------|------|-----|-----|
| General Information   |  |      |      |      |           |      |      | Site Information           |            |      |     |                            |            |      |     |     |
| Analyst   | DBZ  |      |      |      |           |      |      | Intersection               |            |      |     | Old Bardstown at Windcrest |            |      |     |     |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      | Jurisdiction               |            |      |     |                            |            |      |     |     |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      | East/West Street           |            |      |     | Windcrest Farms Lane       |            |      |     |     |
| Analysis Year   | 2041                                       |      |      |      |           |      |      | North/South Street         |            |      |     | Old Bardstown Road         |            |      |     |     |
| Time Analyzed   | AM Peak No Build                           |      |      |      |           |      |      | Peak Hour Factor           |            |      |     | 0.90                       |            |      |     |     |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      | Analysis Time Period (hrs) |            |      |     | 0.25                       |            |      |     |     |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0                          | 0          | 0    | 1   | 0                          | 0          | 0    | 1   | 0   |
| Configuration   |  |      | LTR  |      |           |      | LTR  |                            |            |      | LTR |                            |            |      | LTR |     |
| Volume (veh/h)  |  | 34   | 2    | 32   |           | 0    | 2    | 3                          |            | 9    | 552 | 2                          |            | 1    | 52  | 12  |
| Percent Heavy Vehicles (%)  |  | 0    | 50   | 0    |           | 0    | 50   | 0                          |            | 0    |     |                            |            | 0    |     |     |
| Proportion Time Blocked   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Percent Grade (%)   | 0  |      |      |      | 0         |      |      |                            |            |      |     |                            |            |      |     |     |
| Right Turn Channelized  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |            | 4.1  |     |                            |            | 4.1  |     |     |
| Critical Headway (sec)  |  | 7.10 | 7.00 | 6.20 |           | 7.10 | 7.00 | 6.20                       |            | 4.10 |     |                            |            | 4.10 |     |     |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |            | 2.2  |     |                            |            | 2.2  |     |     |
| Follow-Up Headway (sec)   |  | 3.50 | 4.45 | 3.30 |           | 3.50 | 4.45 | 3.30                       |            | 2.20 |     |                            |            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Flow Rate, v (veh/h)  |  |      | 76   |      |           |      | 6    |                            |            | 10   |     |                            |            | 1    |     |     |
| Capacity, c (veh/h)   |  |      | 497  |      |           |      | 395  |                            |            | 1542 |     |                            |            | 974  |     |     |
| v/c Ratio   |  |      | 0.15 |      |           |      | 0.01 |                            |            | 0.01 |     |                            |            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 0.5  |      |           |      | 0.0  |                            |            | 0.0  |     |                            |            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 12.6 |      |           |      | 0.0  |                            |            |      |     |                            |            |      |     |     |
| Control Delay (s/veh)   |  |      | 13.5 |      |           |      | 14.2 |                            |            | 7.3  | 0.1 | 0.1                        |            | 8.7  | 0.0 | 0.0 |
| Level of Service (LOS)  |  |      | B    |      |           |      | B    |                            |            | A    | A   | A                          |            | A    | A   | A   |
| Approach Delay (s/veh)  | 13.5                                       |      |      |      | 14.2      |      |      |                            | 0.2        |      |     |                            | 0.1        |      |     |     |
| Approach LOS  | B  |      |      |      | B         |      |      |                            | A          |      |     |                            | A          |      |     |     |

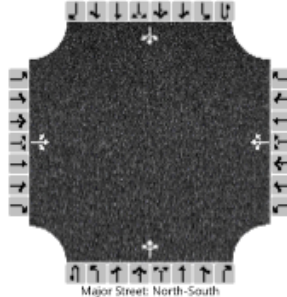
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HCS™ TWSC Version 2024  
Windcrest Fm Ln AM 41 NB.xtw

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| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
|---|--|------|------|------|-----------|------|------|----------------------------|------------|------|-----|----------------------------|------------|------|-----|-----|
| General Information   |  |      |      |      |           |      |      | Site Information           |            |      |     |                            |            |      |     |     |
| Analyst   | DBZ  |      |      |      |           |      |      | Intersection               |            |      |     | Old Bardstown at Windcrest |            |      |     |     |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      | Jurisdiction               |            |      |     |                            |            |      |     |     |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      | East/West Street           |            |      |     | Windcrest Farms Lane       |            |      |     |     |
| Analysis Year   | 2041                                       |      |      |      |           |      |      | North/South Street         |            |      |     | Old Bardstown Road         |            |      |     |     |
| Time Analyzed   | AM Peak Build                              |      |      |      |           |      |      | Peak Hour Factor           |            |      |     | 0.90                       |            |      |     |     |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      | Analysis Time Period (hrs) |            |      |     | 0.25                       |            |      |     |     |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0                          | 0          | 0    | 1   | 0                          | 0          | 0    | 1   | 0   |
| Configuration   |  |      | LTR  |      |           |      | LTR  |                            |            |      | LTR |                            |            |      | LTR |     |
| Volume (veh/h)  |  | 75   | 2    | 46   |           | 0    | 2    | 3                          |            | 13   | 552 | 2                          |            | 1    | 52  | 26  |
| Percent Heavy Vehicles (%)  |  | 0    | 50   | 0    |           | 0    | 50   | 0                          |            | 0    |     |                            |            | 0    |     |     |
| Proportion Time Blocked   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Percent Grade (%)   | 0  |      |      |      | 0         |      |      |                            |            |      |     |                            |            |      |     |     |
| Right Turn Channelized  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |            | 4.1  |     |                            |            | 4.1  |     |     |
| Critical Headway (sec)  |  | 7.10 | 7.00 | 6.20 |           | 7.10 | 7.00 | 6.20                       |            | 4.10 |     |                            |            | 4.10 |     |     |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |            | 2.2  |     |                            |            | 2.2  |     |     |
| Follow-Up Headway (sec)   |  | 3.50 | 4.45 | 3.30 |           | 3.50 | 4.45 | 3.30                       |            | 2.20 |     |                            |            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Flow Rate, v (veh/h)  |  |      | 137  |      |           |      | 6    |                            |            | 14   |     |                            |            | 1    |     |     |
| Capacity, c (veh/h)   |  |      | 445  |      |           |      | 387  |                            |            | 1522 |     |                            |            | 974  |     |     |
| v/c Ratio   |  |      | 0.31 |      |           |      | 0.01 |                            |            | 0.01 |     |                            |            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 1.3  |      |           |      | 0.0  |                            |            | 0.0  |     |                            |            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 32.7 |      |           |      | 0.0  |                            |            |      |     |                            |            |      |     |     |
| Control Delay (s/veh)   |  |      | 16.7 |      |           |      | 14.4 |                            |            | 7.4  | 0.1 | 0.1                        |            | 8.7  | 0.0 | 0.0 |
| Level of Service (LOS)  |  |      | C    |      |           |      | B    |                            |            | A    | A   | A                          |            | A    | A   | A   |
| Approach Delay (s/veh)  | 16.7                                       |      |      |      | 14.4      |      |      |                            | 0.3        |      |     |                            | 0.1        |      |     |     |
| Approach LOS  | C  |      |      |      | B         |      |      |                            | A          |      |     |                            | A          |      |     |     |
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| HCS™ TWSC Version 2024  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Windcrest Fm Ln AM 41 B.txtw  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
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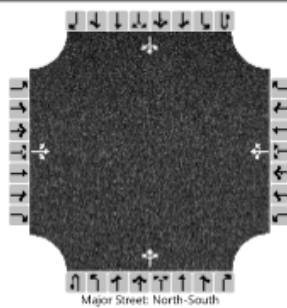
| HCS Two-Way Stop-Control Report  |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
|--|--|------|------|------|-----------|------|------|------|----------------------------|------|-----|-----|----------------------------|------|-----|-----|
| General Information  |  |      |      |      |           |      |      |      | Site Information           |      |     |     |                            |      |     |     |
| Analyst  | DBZ  |      |      |      |           |      |      |      | Intersection               |      |     |     | Old Bardstown at Windcrest |      |     |     |
| Agency/Co.   | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      |      | Jurisdiction               |      |     |     |                            |      |     |     |
| Date Performed   | 9/3/2024                                   |      |      |      |           |      |      |      | East/West Street           |      |     |     | Windcrest Farms Lane       |      |     |     |
| Analysis Year  | 2024                                       |      |      |      |           |      |      |      | North/South Street         |      |     |     | Old Bardstown Road         |      |     |     |
| Time Analyzed  | PM Peak                                    |      |      |      |           |      |      |      | Peak Hour Factor           |      |     |     | 0.93                       |      |     |     |
| Intersection Orientation   | North-South                                |      |      |      |           |      |      |      | Analysis Time Period (hrs) |      |     |     | 0.25                       |      |     |     |
| Project Description  | Windcrest 3                                |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| 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  |  | 0    | 1    | 0    |           | 0    | 1    | 0    | 0                          | 0    | 1   | 0   | 0                          | 0    | 1   | 0   |
| Configuration  |  |      | LTR  |      |           |      | LTR  |      |                            |      | LTR |     |                            |      | LTR |     |
| Volume (veh/h)   |  | 6    | 1    | 5    |           | 3    | 3    | 6    |                            | 7    | 110 | 3   |                            | 2    | 147 | 12  |
| Percent Heavy Vehicles (%)   |  | 0    | 0    | 40   |           | 0    | 0    | 0    |                            | 14   |     |     |                            | 0    |     |     |
| Proportion Time Blocked  |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Percent Grade (%)  | 0  |      |      |      | 0         |      |      |      |                            |      |     |     |                            |      |     |     |
| Right Turn Channelized   |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Median Type   Storage  | Undivided                                  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Critical and Follow-up Headways  |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Base Critical Headway (sec)  |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2  |                            | 4.1  |     |     |                            | 4.1  |     |     |
| Critical Headway (sec)   |  | 7.10 | 6.50 | 6.60 |           | 7.10 | 6.50 | 6.20 |                            | 4.24 |     |     |                            | 4.10 |     |     |
| Base Follow-Up Headway (sec)   |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3  |                            | 2.2  |     |     |                            | 2.2  |     |     |
| Follow-Up Headway (sec)  |  | 3.50 | 4.00 | 3.66 |           | 3.50 | 4.00 | 3.30 |                            | 2.33 |     |     |                            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service  |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Flow Rate, v (veh/h)   |  |      | 13   |      |           |      | 13   |      |                            | 8    |     |     |                            | 2    |     |     |
| Capacity, c (veh/h)  |  |      | 689  |      |           |      | 747  |      |                            | 1337 |     |     |                            | 1478 |     |     |
| v/c Ratio  |  |      | 0.02 |      |           |      | 0.02 |      |                            | 0.01 |     |     |                            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)  |  |      | 0.1  |      |           |      | 0.1  |      |                            | 0.0  |     |     |                            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)   |  |      | 2.8  |      |           |      | 2.5  |      |                            |      |     |     |                            |      |     |     |
| Control Delay (s/veh)  |  |      | 10.3 |      |           |      | 9.9  |      |                            | 7.7  | 0.0 | 0.0 |                            | 7.4  | 0.0 | 0.0 |
| Level of Service (LOS)   |  |      | B    |      |           |      | A    |      |                            | A    | A   | A   |                            | A    | A   | A   |
| Approach Delay (s/veh)   | 10.3                                       |      |      |      | 9.9       |      |      |      | 0.5                        |      |     |     | 0.1                        |      |     |     |
| Approach LOS   | B  |      |      |      | A         |      |      |      | A                          |      |     |     | A                          |      |     |     |
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| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
|---|--|------|------|------|-----------|------|------|----------------------------|------------|------|-----|----------------------------|------------|------|-----|-----|
| General Information   |  |      |      |      |           |      |      | Site Information           |            |      |     |                            |            |      |     |     |
| Analyst   | DBZ  |      |      |      |           |      |      | Intersection               |            |      |     | Old Bardstown at Windcrest |            |      |     |     |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      | Jurisdiction               |            |      |     |                            |            |      |     |     |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      | East/West Street           |            |      |     | Windcrest Farms Lane       |            |      |     |     |
| Analysis Year   | 2031                                       |      |      |      |           |      |      | North/South Street         |            |      |     | Old Bardstown Road         |            |      |     |     |
| Time Analyzed   | PM Peak No Build                           |      |      |      |           |      |      | Peak Hour Factor           |            |      |     | 0.93                       |            |      |     |     |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      | Analysis Time Period (hrs) |            |      |     | 0.25                       |            |      |     |     |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0                          | 0          | 0    | 1   | 0                          | 0          | 0    | 1   | 0   |
| Configuration   |  |      | LTR  |      |           |      | LTR  |                            |            |      | LTR |                            |            |      | LTR |     |
| Volume (veh/h)  |  | 22   | 1    | 21   |           | 3    | 3    | 6                          |            | 33   | 128 | 3                          |            | 2    | 171 | 37  |
| Percent Heavy Vehicles (%)  |  | 0    | 0    | 40   |           | 0    | 0    | 0                          |            | 14   |     |                            |            | 0    |     |     |
| Proportion Time Blocked   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Percent Grade (%)   | 0  |      |      |      | 0         |      |      |                            |            |      |     |                            |            |      |     |     |
| Right Turn Channelized  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |            | 4.1  |     |                            |            | 4.1  |     |     |
| Critical Headway (sec)  |  | 7.10 | 6.50 | 6.60 |           | 7.10 | 6.50 | 6.20                       |            | 4.24 |     |                            |            | 4.10 |     |     |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |            | 2.2  |     |                            |            | 2.2  |     |     |
| Follow-Up Headway (sec)   |  | 3.50 | 4.00 | 3.66 |           | 3.50 | 4.00 | 3.30                       |            | 2.33 |     |                            |            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Flow Rate, v (veh/h)  |  |      | 47   |      |           |      | 13   |                            |            | 35   |     |                            |            | 2    |     |     |
| Capacity, c (veh/h)   |  |      | 609  |      |           |      | 648  |                            |            | 1277 |     |                            |            | 1455 |     |     |
| v/c Ratio   |  |      | 0.08 |      |           |      | 0.02 |                            |            | 0.03 |     |                            |            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 0.3  |      |           |      | 0.1  |                            |            | 0.1  |     |                            |            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 8.6  |      |           |      | 2.5  |                            |            |      |     |                            |            |      |     |     |
| Control Delay (s/veh)   |  |      | 11.4 |      |           |      | 10.7 |                            |            | 7.9  | 0.2 | 0.2                        |            | 7.5  | 0.0 | 0.0 |
| Level of Service (LOS)  |  |      | B    |      |           |      | B    |                            |            | A    | A   | A                          |            | A    | A   | A   |
| Approach Delay (s/veh)  | 11.4                                       |      |      |      | 10.7      |      |      |                            | 1.8        |      |     |                            | 0.1        |      |     |     |
| Approach LOS  | B  |      |      |      | B         |      |      |                            | A          |      |     |                            | A          |      |     |     |

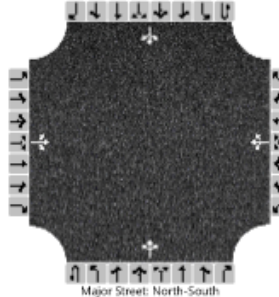
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| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
|---|--|------|------|------|-----------|------|------|------|----------------------------|------|-----|-----|----------------------------|------|-----|-----|
| General Information   |  |      |      |      |           |      |      |      | Site Information           |      |     |     |                            |      |     |     |
| Analyst   | DBZ  |      |      |      |           |      |      |      | Intersection               |      |     |     | Old Bardstown at Windcrest |      |     |     |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      |      | Jurisdiction               |      |     |     |                            |      |     |     |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      |      | East/West Street           |      |     |     | Windcrest Farms Lane       |      |     |     |
| Analysis Year   | 2031                                       |      |      |      |           |      |      |      | North/South Street         |      |     |     | Old Bardstown Road         |      |     |     |
| Time Analyzed   | PM Peak Build                              |      |      |      |           |      |      |      | Peak Hour Factor           |      |     |     | 0.93                       |      |     |     |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      |      | Analysis Time Period (hrs) |      |     |     | 0.25                       |      |     |     |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0    | 0                          | 0    | 1   | 0   | 0                          | 0    | 1   | 0   |
| Configuration   |  |      | LTR  |      |           |      | LTR  |      |                            |      | LTR |     |                            |      | LTR |     |
| Volume (veh/h)  |  | 50   | 1    | 30   |           | 3    | 3    | 6    |                            | 72   | 128 | 3   |                            | 2    | 171 | 84  |
| Percent Heavy Vehicles (%)  |  | 0    | 0    | 40   |           | 0    | 0    | 0    |                            | 14   |     |     |                            | 0    |     |     |
| Proportion Time Blocked   |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Percent Grade (%)   | 0  |      |      |      | 0         |      |      |      |                            |      |     |     |                            |      |     |     |
| Right Turn Channelized  |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2  |                            | 4.1  |     |     |                            | 4.1  |     |     |
| Critical Headway (sec)  |  | 7.10 | 6.50 | 6.60 |           | 7.10 | 6.50 | 6.20 |                            | 4.24 |     |     |                            | 4.10 |     |     |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3  |                            | 2.2  |     |     |                            | 2.2  |     |     |
| Follow-Up Headway (sec)   |  | 3.50 | 4.00 | 3.66 |           | 3.50 | 4.00 | 3.30 |                            | 2.33 |     |     |                            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |
| Flow Rate, v (veh/h)  |  |      | 87   |      |           |      | 13   |      |                            | 77   |     |     |                            | 2    |     |     |
| Capacity, c (veh/h)   |  |      | 500  |      |           |      | 558  |      |                            | 1223 |     |     |                            | 1455 |     |     |
| v/c Ratio   |  |      | 0.17 |      |           |      | 0.02 |      |                            | 0.06 |     |     |                            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 0.6  |      |           |      | 0.1  |      |                            | 0.2  |     |     |                            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 16.8 |      |           |      | 2.5  |      |                            |      |     |     |                            |      |     |     |
| Control Delay (s/veh)   |  |      | 13.7 |      |           |      | 11.6 |      |                            | 8.1  | 0.6 | 0.6 |                            | 7.5  | 0.0 | 0.0 |
| Level of Service (LOS)  |  |      | B    |      |           |      | B    |      |                            | A    | A   | A   |                            | A    | A   | A   |
| Approach Delay (s/veh)  | 13.7                                       |      |      |      | 11.6      |      |      |      | 3.2                        |      |     |     | 0.1                        |      |     |     |
| Approach LOS  | B  |      |      |      | B         |      |      |      | A                          |      |     |     | A                          |      |     |     |
| Copyright © 2024 University of Florida. All Rights Reserved. HCS™ TWSC Version 2024 Windcrest Fm Ln PM 31 B.txtw Generated: 9/3/2024 6:02:19 PM |  |      |      |      |           |      |      |      |                            |      |     |     |                            |      |     |     |

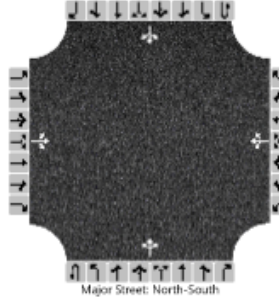


| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
|---|--|------|------|------|-----------|------|------|----------------------------|------------|------|-----|----------------------------|------------|------|-----|-----|
| General Information   |  |      |      |      |           |      |      | Site Information           |            |      |     |                            |            |      |     |     |
| Analyst   | DBZ  |      |      |      |           |      |      | Intersection               |            |      |     | Old Bardstown at Windcrest |            |      |     |     |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      | Jurisdiction               |            |      |     |                            |            |      |     |     |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      | East/West Street           |            |      |     | Windcrest Farms Lane       |            |      |     |     |
| Analysis Year   | 2041                                       |      |      |      |           |      |      | North/South Street         |            |      |     | Old Bardstown Road         |            |      |     |     |
| Time Analyzed   | PM Peak No Build                           |      |      |      |           |      |      | Peak Hour Factor           |            |      |     | 0.93                       |            |      |     |     |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      | Analysis Time Period (hrs) |            |      |     | 0.25                       |            |      |     |     |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0                          | 0          | 0    | 1   | 0                          | 0          | 0    | 1   | 0   |
| Configuration   |  |      | LTR  |      |           |      | LTR  |                            |            |      | LTR |                            |            |      | LTR |     |
| Volume (veh/h)  |  | 22   | 1    | 21   |           | 3    | 3    | 6                          |            | 33   | 156 | 3                          |            | 2    | 208 | 37  |
| Percent Heavy Vehicles (%)  |  | 0    | 0    | 40   |           | 0    | 0    | 0                          |            | 14   |     |                            |            | 0    |     |     |
| Proportion Time Blocked   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Percent Grade (%)   | 0  |      |      |      | 0         |      |      |                            |            |      |     |                            |            |      |     |     |
| Right Turn Channelized  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |            | 4.1  |     |                            |            | 4.1  |     |     |
| Critical Headway (sec)  |  | 7.10 | 6.50 | 6.60 |           | 7.10 | 6.50 | 6.20                       |            | 4.24 |     |                            |            | 4.10 |     |     |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |            | 2.2  |     |                            |            | 2.2  |     |     |
| Follow-Up Headway (sec)   |  | 3.50 | 4.00 | 3.66 |           | 3.50 | 4.00 | 3.30                       |            | 2.33 |     |                            |            | 2.20 |     |     |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |
| Flow Rate, v (veh/h)  |  |      | 47   |      |           |      | 13   |                            |            | 35   |     |                            |            | 2    |     |     |
| Capacity, c (veh/h)   |  |      | 558  |      |           |      | 599  |                            |            | 1234 |     |                            |            | 1418 |     |     |
| v/c Ratio   |  |      | 0.08 |      |           |      | 0.02 |                            |            | 0.03 |     |                            |            | 0.00 |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 0.3  |      |           |      | 0.1  |                            |            | 0.1  |     |                            |            | 0.0  |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 8.6  |      |           |      | 2.5  |                            |            |      |     |                            |            |      |     |     |
| Control Delay (s/veh)   |  |      | 12.0 |      |           |      | 11.1 |                            |            | 8.0  | 0.3 | 0.3                        |            | 7.5  | 0.0 | 0.0 |
| Level of Service (LOS)  |  |      | B    |      |           |      | B    |                            |            | A    | A   | A                          |            | A    | A   | A   |
| Approach Delay (s/veh)  | 12.0                                       |      |      |      | 11.1      |      |      |                            | 1.6        |      |     |                            | 0.1        |      |     |     |
| Approach LOS  | B  |      |      |      | B         |      |      |                            | A          |      |     |                            | A          |      |     |     |

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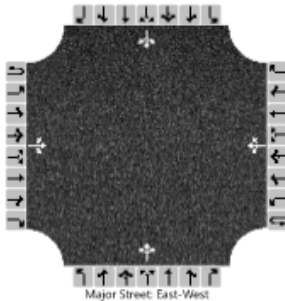
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| HCS Two-Way Stop-Control Report   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
|---|--|------|------|------|-----------|------|------|----------------------------|------------|------|-----|----------------------------|------------|------|-----|-----|--|
| General Information   |  |      |      |      |           |      |      | Site Information           |            |      |     |                            |            |      |     |     |  |
| Analyst   | DBZ  |      |      |      |           |      |      | Intersection               |            |      |     | Old Bardstown at Windcrest |            |      |     |     |  |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |      |      | Jurisdiction               |            |      |     |                            |            |      |     |     |  |
| Date Performed  | 9/3/2024                                   |      |      |      |           |      |      | East/West Street           |            |      |     | Windcrest Farms Lane       |            |      |     |     |  |
| Analysis Year   | 2041                                       |      |      |      |           |      |      | North/South Street         |            |      |     | Old Bardstown Road         |            |      |     |     |  |
| Time Analyzed   | PM Peak Build                              |      |      |      |           |      |      | Peak Hour Factor           |            |      |     | 0.93                       |            |      |     |     |  |
| Intersection Orientation  | North-South                                |      |      |      |           |      |      | Analysis Time Period (hrs) |            |      |     | 0.25                       |            |      |     |     |  |
| Project Description   | Windcrest 3                                |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
| 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   |  | 0    | 1    | 0    |           | 0    | 1    | 0                          | 0          | 0    | 1   | 0                          | 0          | 0    | 1   | 0   |  |
| Configuration   |  |      | LTR  |      |           |      | LTR  |                            |            |      | LTR |                            |            |      | LTR |     |  |
| Volume (veh/h)  |  | 50   | 1    | 30   |           | 3    | 3    | 6                          |            | 72   | 156 | 3                          |            | 2    | 208 | 84  |  |
| Percent Heavy Vehicles (%)  |  | 0    | 0    | 40   |           | 0    | 0    | 0                          |            | 14   |     |                            |            | 0    |     |     |  |
| Proportion Time Blocked   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
| Percent Grade (%)   |  | 0    |      |      |           | 0    |      |                            |            |      |     |                            |            |      |     |     |  |
| Right Turn Channelized  |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
| Median Type   Storage   | Undivided                                  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
| Critical and Follow-up Headways   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
| Base Critical Headway (sec)   |  | 7.1  | 6.5  | 6.2  |           | 7.1  | 6.5  | 6.2                        |            | 4.1  |     |                            |            | 4.1  |     |     |  |
| Critical Headway (sec)  |  | 7.10 | 6.50 | 6.60 |           | 7.10 | 6.50 | 6.20                       |            | 4.24 |     |                            |            | 4.10 |     |     |  |
| Base Follow-Up Headway (sec)  |  | 3.5  | 4.0  | 3.3  |           | 3.5  | 4.0  | 3.3                        |            | 2.2  |     |                            |            | 2.2  |     |     |  |
| Follow-Up Headway (sec)   |  | 3.50 | 4.00 | 3.66 |           | 3.50 | 4.00 | 3.30                       |            | 2.33 |     |                            |            | 2.20 |     |     |  |
| Delay, Queue Length, and Level of Service   |  |      |      |      |           |      |      |                            |            |      |     |                            |            |      |     |     |  |
| Flow Rate, v (veh/h)  |  |      | 87   |      |           |      | 13   |                            |            | 77   |     |                            |            | 2    |     |     |  |
| Capacity, c (veh/h)   |  |      | 453  |      |           |      | 513  |                            |            | 1181 |     |                            |            | 1418 |     |     |  |
| v/c Ratio   |  |      | 0.19 |      |           |      | 0.03 |                            |            | 0.07 |     |                            |            | 0.00 |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  |      | 0.7  |      |           |      | 0.1  |                            |            | 0.2  |     |                            |            | 0.0  |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      | 19.6 |      |           |      | 2.5  |                            |            |      |     |                            |            |      |     |     |  |
| Control Delay (s/veh)   |  |      | 14.8 |      |           |      | 12.2 |                            |            | 8.3  | 0.6 | 0.6                        |            | 7.5  | 0.0 | 0.0 |  |
| Level of Service (LOS)  |  |      | B    |      |           |      | B    |                            |            | A    | A   | A                          |            | A    | A   | A   |  |
| Approach Delay (s/veh)  | 14.8                                       |      |      |      | 12.2      |      |      |                            | 3.0        |      |     |                            | 0.1        |      |     |     |  |
| Approach LOS  | B  |      |      |      | B         |      |      |                            | A          |      |     |                            | A          |      |     |     |  |

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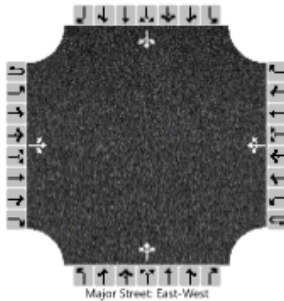
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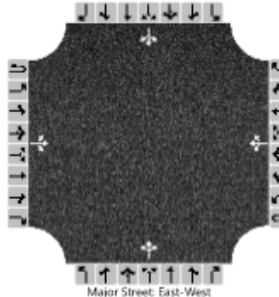
| HCS Two-Way Stop-Control Report   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
|---|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|-------|------|--------------------------|------|------|------|
| General Information   |  |      |     |     |           |      |     |     | Site Information           |      |       |      |                          |      |      |      |
| Analyst   | DBZ  |      |     |     |           |      |     |     | Intersection               |      |       |      | Thixton at Old Bardstown |      |      |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |       |      |                          |      |      |      |
| Date Performed  | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |       |      | Thixton Lane             |      |      |      |
| Analysis Year   | 2024                                       |      |     |     |           |      |     |     | North/South Street         |      |       |      | Old Bardstown Road       |      |      |      |
| Time Analyzed   | AM Peak                                    |      |     |     |           |      |     |     | Peak Hour Factor           |      |       |      | 0.94                     |      |      |      |
| Intersection Orientation  | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |       |      | 0.25                     |      |      |      |
| Project Description   | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
| 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)  |  | 35   | 76  | 4   |           | 38   | 160 | 167 |                            | 33   | 190   | 41   |                          | 17   | 18   | 11   |
| Percent Heavy Vehicles (%)  |  | 9    |     |     |           | 16   |     |     |                            | 6    | 1     | 17   |                          | 0    | 6    | 0    |
| 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)  |  | 4.19 |     |     |           | 4.26 |     |     |                            | 7.16 | 6.51  | 6.37 |                          | 7.10 | 6.56 | 6.20 |
| 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)   |  | 2.28 |     |     |           | 2.34 |     |     |                            | 3.55 | 4.01  | 3.45 |                          | 3.50 | 4.05 | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
| Flow Rate, v (veh/h)  |  | 37   |     |     |           | 40   |     |     |                            |      | 281   |      |                          |      | 49   |      |
| Capacity, c (veh/h)   |  | 1173 |     |     |           | 1428 |     |     |                            |      | 468   |      |                          |      | 338  |      |
| v/c Ratio   |  | 0.03 |     |     |           | 0.03 |     |     |                            |      | 0.60  |      |                          |      | 0.14 |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.1  |     |     |           | 0.1  |     |     |                            |      | 3.9   |      |                          |      | 0.5  |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      |     |     |           |      |     |     |                            |      | 100.7 |      |                          |      | 12.7 |      |
| Control Delay (s/veh)   |  | 8.2  | 0.3 | 0.3 |           | 7.6  | 0.3 | 0.3 |                            |      | 23.5  |      |                          |      | 17.4 |      |
| Level of Service (LOS)  |  | A    | A   | A   |           | A    | A   | A   |                            |      | C     |      |                          |      | C    |      |
| Approach Delay (s/veh)  | 2.7  |      |     |     | 1.0       |      |     |     | 23.5                       |      |       |      | 17.4                     |      |      |      |
| Approach LOS  | A  |      |     |     | A         |      |     |     | C                          |      |       |      | C                        |      |      |      |

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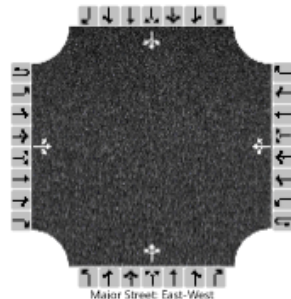
| HCS Two-Way Stop-Control Report   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
|---|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|-------|------|--------------------------|------|------|------|
| General Information   |  |      |     |     |           |      |     |     | Site Information           |      |       |      |                          |      |      |      |
| Analyst   | DBZ  |      |     |     |           |      |     |     | Intersection               |      |       |      | Thixton at Old Bardstown |      |      |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |       |      |                          |      |      |      |
| Date Performed  | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |       |      | Thixton Lane             |      |      |      |
| Analysis Year   | 2031                                       |      |     |     |           |      |     |     | North/South Street         |      |       |      | Old Bardstown Road       |      |      |      |
| Time Analyzed   | AM Peak No Build                           |      |     |     |           |      |     |     | Peak Hour Factor           |      |       |      | 0.94                     |      |      |      |
| Intersection Orientation  | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |       |      | 0.25                     |      |      |      |
| Project Description   | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
| 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)  |  | 45   | 89  | 5   |           | 44   | 186 | 199 |                            | 38   | 221   | 48   |                          | 38   | 21   | 27   |
| Percent Heavy Vehicles (%)  |  | 9    |     |     |           | 16   |     |     |                            | 6    | 1     | 17   |                          | 0    | 6    | 0    |
| 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)  |  | 4.19 |     |     |           | 4.26 |     |     |                            | 7.16 | 6.51  | 6.37 |                          | 7.10 | 6.56 | 6.20 |
| 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)   |  | 2.28 |     |     |           | 2.34 |     |     |                            | 3.55 | 4.01  | 3.45 |                          | 3.50 | 4.05 | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
| Flow Rate, v (veh/h)  |  | 48   |     |     |           | 47   |     |     |                            |      | 327   |      |                          |      | 91   |      |
| Capacity, c (veh/h)   |  | 1112 |     |     |           | 1409 |     |     |                            |      | 394   |      |                          |      | 183  |      |
| v/c Ratio   |  | 0.04 |     |     |           | 0.03 |     |     |                            |      | 0.83  |      |                          |      | 0.50 |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.1  |     |     |           | 0.1  |     |     |                            |      | 7.6   |      |                          |      | 2.5  |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      |     |     |           |      |     |     |                            |      | 196.3 |      |                          |      | 63.2 |      |
| Control Delay (s/veh)   |  | 8.4  | 0.4 | 0.4 |           | 7.6  | 0.3 | 0.3 |                            |      | 45.4  |      |                          |      | 42.8 |      |
| Level of Service (LOS)  |  | A    | A   | A   |           | A    | A   | A   |                            |      | E     |      |                          |      | E    |      |
| Approach Delay (s/veh)  | 3.0  |      |     |     | 1.1       |      |     |     | 45.4                       |      |       |      | 42.8                     |      |      |      |
| Approach LOS  | A  |      |     |     | A         |      |     |     | E                          |      |       |      | E                        |      |      |      |
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| HCS™ TWSC Version 2024<br>Old B AM 31 NB.xtw                                      |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
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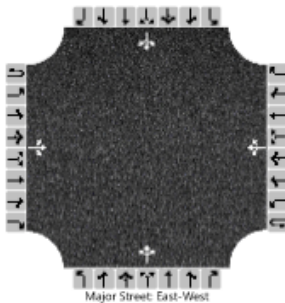
| HCS Two-Way Stop-Control Report   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |       |      |
|---|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|-------|------|--------------------------|------|-------|------|
| General Information   |  |      |     |     |           |      |     |     | Site Information           |      |       |      |                          |      |       |      |
| Analyst   | DBZ  |      |     |     |           |      |     |     | Intersection               |      |       |      | Thixton at Old Bardstown |      |       |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |       |      |                          |      |       |      |
| Date Performed  | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |       |      | Thixton Lane             |      |       |      |
| Analysis Year   | 2031                                       |      |     |     |           |      |     |     | North/South Street         |      |       |      | Old Bardstown Road       |      |       |      |
| Time Analyzed   | AM Peak Build                              |      |     |     |           |      |     |     | Peak Hour Factor           |      |       |      | 0.94                     |      |       |      |
| Intersection Orientation  | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |       |      | 0.25                     |      |       |      |
| Project Description   | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |       |      |                          |      |       |      |
| 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)  |  | 45   | 144 | 5   |           | 44   | 201 | 203 |                            | 38   | 221   | 48   |                          | 52   | 21    | 27   |
| Percent Heavy Vehicles (%)  |  | 9    |     |     |           | 16   |     |     |                            | 6    | 1     | 17   |                          | 0    | 6     | 0    |
| 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)  |  | 4.19 |     |     |           | 4.26 |     |     |                            | 7.16 | 6.51  | 6.37 |                          | 7.10 | 6.56  | 6.20 |
| 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)   |  | 2.28 |     |     |           | 2.34 |     |     |                            | 3.55 | 4.01  | 3.45 |                          | 3.50 | 4.05  | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |       |      |
| Flow Rate, v (veh/h)  |  | 48   |     |     |           | 47   |     |     |                            |      | 327   |      |                          |      | 106   |      |
| Capacity, c (veh/h)   |  | 1093 |     |     |           | 1340 |     |     |                            |      | 352   |      |                          |      | 107   |      |
| v/c Ratio   |  | 0.04 |     |     |           | 0.03 |     |     |                            |      | 0.93  |      |                          |      | 1.00  |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.1  |     |     |           | 0.1  |     |     |                            |      | 9.6   |      |                          |      | 6.3   |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      |     |     |           |      |     |     |                            |      | 247.9 |      |                          |      | 159.1 |      |
| Control Delay (s/veh)   |  | 8.4  | 0.4 | 0.4 |           | 7.8  | 0.4 | 0.4 |                            |      | 66.2  |      |                          |      | 161.7 |      |
| Level of Service (LOS)  |  | A    | A   | A   |           | A    | A   | A   |                            |      | F     |      |                          |      | F     |      |
| Approach Delay (s/veh)  | 2.3  |      |     |     | 1.1       |      |     |     | 66.2                       |      |       |      | 161.7                    |      |       |      |
| Approach LOS  | A  |      |     |     | A         |      |     |     | F                          |      |       |      | F                        |      |       |      |

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| HCS Two-Way Stop-Control Report  |  |           |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |  |
|--|--|-----------|-----|-----|-----------|------|-----|-----|----------------------------|------|-------|------|--------------------------|------|------|------|--|
| General Information  |  |           |     |     |           |      |     |     | Site Information           |      |       |      |                          |      |      |      |  |
| Analyst  | DBZ  |           |     |     |           |      |     |     | Intersection               |      |       |      | Thixton at Old Bardstown |      |      |      |  |
| Agency/Co.   | Diane B. Zimmerman Traffic Engineering LLC |           |     |     |           |      |     |     | Jurisdiction               |      |       |      |                          |      |      |      |  |
| Date Performed   | 9/6/2024                                   |           |     |     |           |      |     |     | East/West Street           |      |       |      | Thixton Lane             |      |      |      |  |
| Analysis Year  | 2041                                       |           |     |     |           |      |     |     | North/South Street         |      |       |      | Old Bardstown Road       |      |      |      |  |
| Time Analyzed  | AM Peak No Build                           |           |     |     |           |      |     |     | Peak Hour Factor           |      |       |      | 0.94                     |      |      |      |  |
| Intersection Orientation   | East-West                                  |           |     |     |           |      |     |     | Analysis Time Period (hrs) |      |       |      | 0.25                     |      |      |      |  |
| Project Description  | Windcrest Farms 3                          |           |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |  |
| 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)   |  | 55        | 108 | 6   |           | 54   | 227 | 243 |                            | 46   | 269   | 59   |                          | 46   | 26   | 33   |  |
| Percent Heavy Vehicles (%)   |  | 9         |     |     |           | 16   |     |     |                            | 6    | 1     | 17   |                          | 0    | 6    | 0    |  |
| 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)   |  | 4.19      |     |     |           | 4.26 |     |     |                            | 7.16 | 6.51  | 6.37 |                          | 7.10 | 6.56 | 6.20 |  |
| 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)  |  | 2.28      |     |     |           | 2.34 |     |     |                            | 3.55 | 4.01  | 3.45 |                          | 3.50 | 4.05 | 3.30 |  |
| Delay, Queue Length, and Level of Service  |  |           |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |  |
| Flow Rate, v (veh/h)   |  | 59        |     |     |           | 57   |     |     |                            |      | 398   |      |                          |      | 112  |      |  |
| Capacity, c (veh/h)  |  | 1029      |     |     |           | 1384 |     |     |                            |      | 310   |      |                          |      | 0    |      |  |
| v/c Ratio  |  | 0.06      |     |     |           | 0.04 |     |     |                            |      | 1.29  |      |                          |      |      |      |  |
| 95% Queue Length, Q <sub>95</sub> (veh)  |  | 0.2       |     |     |           | 0.1  |     |     |                            |      | 18.9  |      |                          |      |      |      |  |
| 95% Queue Length, Q <sub>95</sub> (ft)   |  |           |     |     |           |      |     |     |                            |      | 488.1 |      |                          |      |      |      |  |
| Control Delay (s/veh)  |  | 8.7       | 0.5 | 0.5 |           | 7.7  | 0.5 | 0.5 |                            |      | 184.9 |      |                          |      |      |      |  |
| Level of Service (LOS)   |  | A         | A   | A   |           | A    | A   | A   |                            |      | F     |      |                          |      |      |      |  |
| Approach Delay (s/veh)   |  | 3.2       |     |     |           | 1.2  |     |     |                            |      | 184.9 |      |                          |      |      |      |  |
| Approach LOS   |  | A         |     |     |           | A    |     |     |                            |      | F     |      |                          |      |      |      |  |
| Copyright © 2024 University of Florida. All Rights Reserved. HCS™ TWSC Version 2024 Old B AM 41 NB.xtw Generated: 9/6/2024 12:08:31 PM |  |           |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |  |

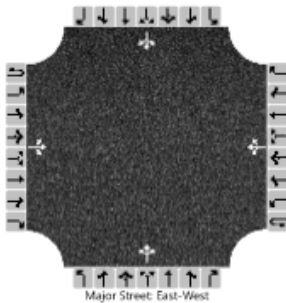
| HCS Two-Way Stop-Control Report   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
|---|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|-------|------|--------------------------|------|------|------|
| General Information   |  |      |     |     |           |      |     |     | Site Information           |      |       |      |                          |      |      |      |
| Analyst   | DBZ  |      |     |     |           |      |     |     | Intersection               |      |       |      | Thixton at Old Bardstown |      |      |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |       |      |                          |      |      |      |
| Date Performed  | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |       |      | Thixton Lane             |      |      |      |
| Analysis Year   | 2041                                       |      |     |     |           |      |     |     | North/South Street         |      |       |      | Old Bardstown Road       |      |      |      |
| Time Analyzed   | AM Peak Build                              |      |     |     |           |      |     |     | Peak Hour Factor           |      |       |      | 0.94                     |      |      |      |
| Intersection Orientation  | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |       |      | 0.25                     |      |      |      |
| Project Description   | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
| 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)  |  | 55   | 163 | 6   |           | 54   | 242 | 247 |                            | 46   | 269   | 59   |                          | 60   | 26   | 33   |
| Percent Heavy Vehicles (%)  |  | 9    |     |     |           | 16   |     |     |                            | 6    | 1     | 17   |                          | 0    | 6    | 0    |
| 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)  |  | 4.19 |     |     |           | 4.26 |     |     |                            | 7.16 | 6.51  | 6.37 |                          | 7.10 | 6.56 | 6.20 |
| 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)   |  | 2.28 |     |     |           | 2.34 |     |     |                            | 3.55 | 4.01  | 3.45 |                          | 3.50 | 4.05 | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |      |      |
| Flow Rate, v (veh/h)  |  | 59   |     |     |           | 57   |     |     |                            |      | 398   |      |                          |      | 127  |      |
| Capacity, c (veh/h)   |  | 1011 |     |     |           | 1316 |     |     |                            |      | 275   |      |                          |      | 0    |      |
| v/c Ratio   |  | 0.06 |     |     |           | 0.04 |     |     |                            |      | 1.45  |      |                          |      |      |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.2  |     |     |           | 0.1  |     |     |                            |      | 22.1  |      |                          |      |      |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      |     |     |           |      |     |     |                            |      | 570.8 |      |                          |      |      |      |
| Control Delay (s/veh)   |  | 8.8  | 0.6 | 0.6 |           | 7.9  | 0.5 | 0.5 |                            |      | 254.4 |      |                          |      |      |      |
| Level of Service (LOS)  |  | A    | A   | A   |           | A    | A   | A   |                            |      | F     |      |                          |      |      |      |
| Approach Delay (s/veh)  | 2.6  |      |     |     | 1.2       |      |     |     | 254.4                      |      |       |      |                          |      |      |      |
| Approach LOS  | A  |      |     |     | A         |      |     |     | F                          |      |       |      |                          |      |      |      |

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| HCS Two-Way Stop-Control Report  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |      |      |
|--|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|------|------|--------------------------|------|------|------|
| General Information  |  |      |     |     |           |      |     |     | Site Information           |      |      |      |                          |      |      |      |
| Analyst  | DBZ  |      |     |     |           |      |     |     | Intersection               |      |      |      | Thixton at Old Bardstown |      |      |      |
| Agency/Co.   | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |      |      |                          |      |      |      |
| Date Performed   | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |      |      | Thixton Lane             |      |      |      |
| Analysis Year  | 2024                                       |      |     |     |           |      |     |     | North/South Street         |      |      |      | Old Bardstown Road       |      |      |      |
| Time Analyzed  | PM Peak                                    |      |     |     |           |      |     |     | Peak Hour Factor           |      |      |      | 0.96                     |      |      |      |
| Intersection Orientation   | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |      |      | 0.25                     |      |      |      |
| Project Description  | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |      |      |                          |      |      |      |
| Lanes  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |      |      |
|  <p>Major Street: East-West</p> |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |      |      |
| 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)   |  | 27   | 204 | 32  |           | 66   | 160 | 51  |                            | 10   | 51   | 49   |                          | 48   | 80   | 36   |
| Percent Heavy Vehicles (%)   |  | 7    |     |     |           | 2    |     |     |                            | 20   | 0    | 2    |                          | 0    | 2    | 0    |
| 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)   |  | 4.17 |     |     |           | 4.12 |     |     |                            | 7.30 | 6.50 | 6.22 |                          | 7.10 | 6.52 | 6.20 |
| 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)  |  | 2.26 |     |     |           | 2.22 |     |     |                            | 3.68 | 4.00 | 3.32 |                          | 3.50 | 4.02 | 3.30 |
| Delay, Queue Length, and Level of Service  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |      |      |
| Flow Rate, v (veh/h)   |  | 28   |     |     |           | 69   |     |     |                            |      | 115  |      |                          |      | 171  |      |
| Capacity, c (veh/h)  |  | 1320 |     |     |           | 1320 |     |     |                            |      | 570  |      |                          |      | 416  |      |
| v/c Ratio  |  | 0.02 |     |     |           | 0.05 |     |     |                            |      | 0.20 |      |                          |      | 0.41 |      |
| 95% Queue Length, Q <sub>95</sub> (veh)  |  | 0.1  |     |     |           | 0.2  |     |     |                            |      | 0.7  |      |                          |      | 2.0  |      |
| 95% Queue Length, Q <sub>95</sub> (ft)   |  |      |     |     |           |      |     |     |                            |      | 17.9 |      |                          |      | 50.4 |      |
| Control Delay (s/veh)  |  | 7.8  | 0.2 | 0.2 |           | 7.9  | 0.5 | 0.5 |                            |      | 12.9 |      |                          |      | 19.6 |      |
| Level of Service (LOS)   |  | A    | A   | A   |           | A    | A   | A   |                            |      | B    |      |                          |      | C    |      |
| Approach Delay (s/veh)   | 1.0  |      |     |     | 2.2       |      |     |     | 12.9                       |      |      |      | 19.6                     |      |      |      |
| Approach LOS   | A  |      |     |     | A         |      |     |     | B                          |      |      |      | C                        |      |      |      |

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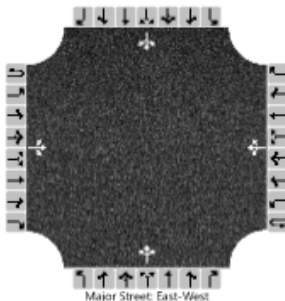
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| HCS Two-Way Stop-Control Report                  |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
|--|--|------|-----|-----|-----------|------|-----|-----|----------------------------|--------------------------|------|------|------------|------|-------|------|--|
| General Information                              |  |      |     |     |           |      |     |     | Site Information           |                          |      |      |            |      |       |      |  |
| Analyst  | DBZ  |      |     |     |           |      |     |     | Intersection               | Thixton at Old Bardstown |      |      |            |      |       |      |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |                          |      |      |            |      |       |      |  |
| Date Performed                                   | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           | Thixton Lane             |      |      |            |      |       |      |  |
| Analysis Year                                    | 2031                                       |      |     |     |           |      |     |     | North/South Street         | Old Bardstown Road       |      |      |            |      |       |      |  |
| Time Analyzed                                    | PM Peak No Build                           |      |     |     |           |      |     |     | Peak Hour Factor           | 0.96                     |      |      |            |      |       |      |  |
| Intersection Orientation                         | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) | 0.25                     |      |      |            |      |       |      |  |
| Project Description                              | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| <b>Lanes</b>                                     |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| <p>Major Street: East-West</p>                   |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| 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)                                   |  | 45   | 238 | 37  |           | 77   | 186 | 78  |                            | 12                       | 59   | 57   |            | 68   | 93    | 51   |  |
| Percent Heavy Vehicles (%)                       |  | 7    |     |     |           | 2    |     |     |                            | 20                       | 0    | 2    |            | 0    | 2     | 0    |  |
| Proportion Time Blocked                          |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| Percent Grade (%)                                |  |      |     |     |           |      |     |     | 0                          |                          |      |      | 0          |      |       |      |  |
| Right Turn Channelized                           |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| Median Type   Storage                            | Undivided                                  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| <b>Critical and Follow-up Headways</b>           |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| Base Critical Headway (sec)                      |  | 4.1  |     |     |           | 4.1  |     |     |                            | 7.1                      | 6.5  | 6.2  |            | 7.1  | 6.5   | 6.2  |  |
| Critical Headway (sec)                           |  | 4.17 |     |     |           | 4.12 |     |     |                            | 7.30                     | 6.50 | 6.22 |            | 7.10 | 6.52  | 6.20 |  |
| 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)                          |  | 2.26 |     |     |           | 2.22 |     |     |                            | 3.68                     | 4.00 | 3.32 |            | 3.50 | 4.02  | 3.30 |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |     |     |           |      |     |     |                            |                          |      |      |            |      |       |      |  |
| Flow Rate, v (veh/h)                             |  | 47   |     |     |           | 80   |     |     |                            |                          | 133  |      |            |      | 221   |      |  |
| Capacity, c (veh/h)                              |  | 1260 |     |     |           | 1276 |     |     |                            |                          | 435  |      |            |      | 316   |      |  |
| v/c Ratio  |  | 0.04 |     |     |           | 0.06 |     |     |                            |                          | 0.31 |      |            |      | 0.70  |      |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  | 0.1  |     |     |           | 0.2  |     |     |                            |                          | 1.3  |      |            |      | 4.9   |      |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      |     |     |           |      |     |     |                            |                          | 33.2 |      |            |      | 123.4 |      |  |
| Control Delay (s/veh)                            |  | 8.0  | 0.4 | 0.4 |           | 8.0  | 0.6 | 0.6 |                            |                          | 16.9 |      |            |      | 39.0  |      |  |
| Level of Service (LOS)                           |  | A    | A   | A   |           | A    | A   | A   |                            |                          | C    |      |            |      | E     |      |  |
| Approach Delay (s/veh)                           | 1.4  |      |     |     | 2.3       |      |     |     | 16.9                       |                          |      |      | 39.0       |      |       |      |  |
| Approach LOS                                     | A  |      |     |     | A         |      |     |     | C                          |                          |      |      | E          |      |       |      |  |

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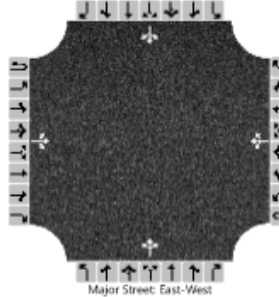
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| HCS Two-Way Stop-Control Report  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
|--|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|------|------|--------------------------|------|-------|------|
| General Information  |  |      |     |     |           |      |     |     | Site Information           |      |      |      |                          |      |       |      |
| Analyst  | DBZ  |      |     |     |           |      |     |     | Intersection               |      |      |      | Thixton at Old Bardstown |      |       |      |
| Agency/Co.   | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |      |      |                          |      |       |      |
| Date Performed   | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |      |      | Thixton Lane             |      |       |      |
| Analysis Year  | 2031                                       |      |     |     |           |      |     |     | North/South Street         |      |      |      | Old Bardstown Road       |      |       |      |
| Time Analyzed  | PM Peak Build                              |      |     |     |           |      |     |     | Peak Hour Factor           |      |      |      | 0.96                     |      |       |      |
| Intersection Orientation   | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |      |      | 0.25                     |      |       |      |
| Project Description  | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
| Lanes  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
|  <p>Major Street: East-West</p> |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
| 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)   |  | 45   | 276 | 37  |           | 77   | 248 | 94  |                            | 12   | 59   | 57   |                          | 77   | 93    | 51   |
| Percent Heavy Vehicles (%)   |  | 7    |     |     |           | 2    |     |     |                            | 20   | 0    | 2    |                          | 0    | 2     | 0    |
| 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)   |  | 4.17 |     |     |           | 4.12 |     |     |                            | 7.30 | 6.50 | 6.22 |                          | 7.10 | 6.52  | 6.20 |
| 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)  |  | 2.26 |     |     |           | 2.22 |     |     |                            | 3.68 | 4.00 | 3.32 |                          | 3.50 | 4.02  | 3.30 |
| Delay, Queue Length, and Level of Service  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
| Flow Rate, v (veh/h)   |  | 47   |     |     |           | 80   |     |     |                            |      | 133  |      |                          |      | 230   |      |
| Capacity, c (veh/h)  |  | 1175 |     |     |           | 1234 |     |     |                            |      | 357  |      |                          |      | 251   |      |
| v/c Ratio  |  | 0.04 |     |     |           | 0.07 |     |     |                            |      | 0.37 |      |                          |      | 0.92  |      |
| 95% Queue Length, Q <sub>95</sub> (veh)  |  | 0.1  |     |     |           | 0.2  |     |     |                            |      | 1.7  |      |                          |      | 8.1   |      |
| 95% Queue Length, Q <sub>95</sub> (ft)   |  |      |     |     |           |      |     |     |                            |      | 43.4 |      |                          |      | 203.9 |      |
| Control Delay (s/veh)  |  | 8.2  | 0.4 | 0.4 |           | 8.1  | 0.7 | 0.7 |                            |      | 20.9 |      |                          |      | 79.4  |      |
| Level of Service (LOS)   |  | A    | A   | A   |           | A    | A   | A   |                            |      | C    |      |                          |      | F     |      |
| Approach Delay (s/veh)   | 1.4  |      |     |     | 2.0       |      |     |     | 20.9                       |      |      |      | 79.4                     |      |       |      |
| Approach LOS   | A  |      |     |     | A         |      |     |     | C                          |      |      |      | F                        |      |       |      |

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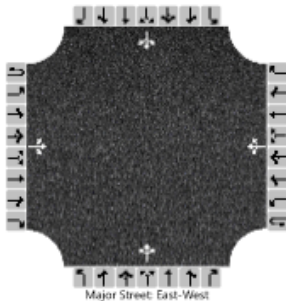
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| HCS Two-Way Stop-Control Report   |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
|---|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|------|------|--------------------------|------|-------|------|
| General Information   |  |      |     |     |           |      |     |     | Site Information           |      |      |      |                          |      |       |      |
| Analyst   | DBZ  |      |     |     |           |      |     |     | Intersection               |      |      |      | Thixton at Old Bardstown |      |       |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |      |      |                          |      |       |      |
| Date Performed  | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |      |      | Thixton Lane             |      |       |      |
| Analysis Year   | 2041                                       |      |     |     |           |      |     |     | North/South Street         |      |      |      | Old Bardstown Road       |      |       |      |
| Time Analyzed   | PM Peak No Build                           |      |     |     |           |      |     |     | Peak Hour Factor           |      |      |      | 0.96                     |      |       |      |
| Intersection Orientation  | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |      |      | 0.25                     |      |       |      |
| Project Description   | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
| 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)  |  | 55   | 290 | 45  |           | 96   | 231 | 97  |                            | 15   | 72   | 69   |                          | 83   | 113   | 62   |
| Percent Heavy Vehicles (%)  |  | 7    |     |     |           | 2    |     |     |                            | 20   | 0    | 2    |                          | 0    | 2     | 0    |
| 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)  |  | 4.17 |     |     |           | 4.12 |     |     |                            | 7.30 | 6.50 | 6.22 |                          | 7.10 | 6.52  | 6.20 |
| 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)   |  | 2.26 |     |     |           | 2.22 |     |     |                            | 3.68 | 4.00 | 3.32 |                          | 3.50 | 4.02  | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |     |           |      |     |     |                            |      |      |      |                          |      |       |      |
| Flow Rate, v (veh/h)  |  | 57   |     |     |           | 100  |     |     |                            |      | 163  |      |                          |      | 269   |      |
| Capacity, c (veh/h)   |  | 1190 |     |     |           | 1210 |     |     |                            |      | 287  |      |                          |      | 208   |      |
| v/c Ratio   |  | 0.05 |     |     |           | 0.08 |     |     |                            |      | 0.57 |      |                          |      | 1.29  |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.2  |     |     |           | 0.3  |     |     |                            |      | 3.2  |      |                          |      | 14.6  |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      |     |     |           |      |     |     |                            |      | 81.8 |      |                          |      | 367.6 |      |
| Control Delay (s/veh)   |  | 8.2  | 0.5 | 0.5 |           | 8.2  | 0.9 | 0.9 |                            |      | 32.8 |      |                          |      | 208.8 |      |
| Level of Service (LOS)  |  | A    | A   | A   |           | A    | A   | A   |                            |      | D    |      |                          |      | F     |      |
| Approach Delay (s/veh)  | 1.6  |      |     |     | 2.5       |      |     |     | 32.8                       |      |      |      | 208.8                    |      |       |      |
| Approach LOS  | A  |      |     |     | A         |      |     |     | D                          |      |      |      | F                        |      |       |      |

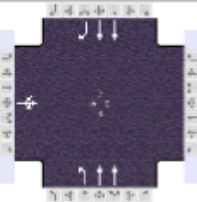
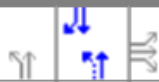
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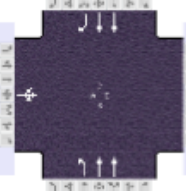
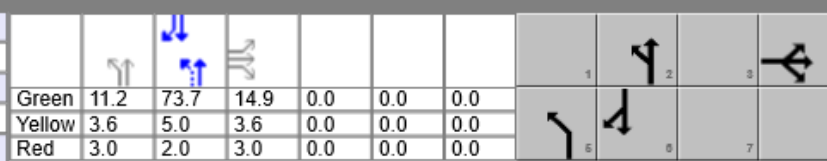
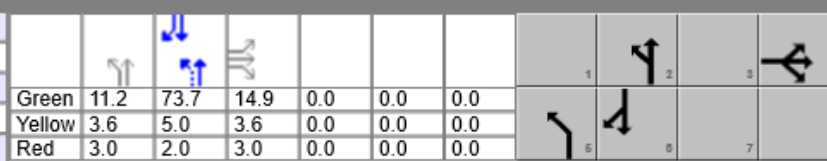
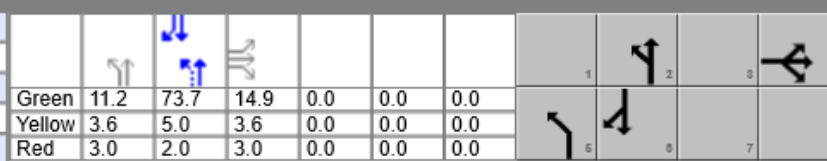
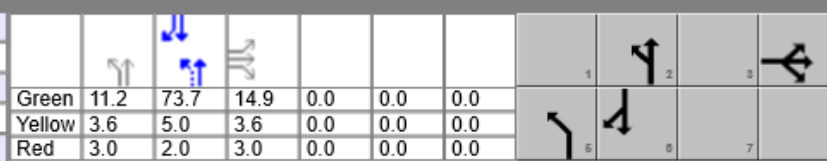
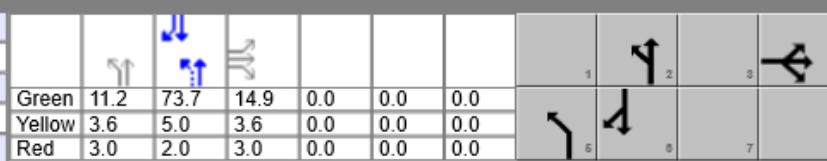
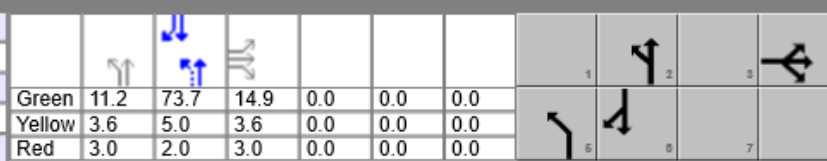
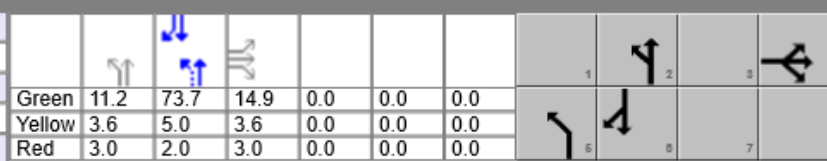
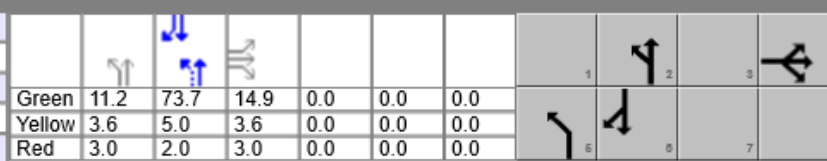
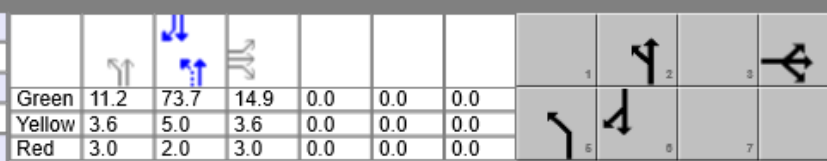
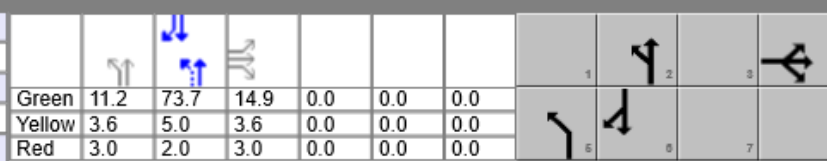
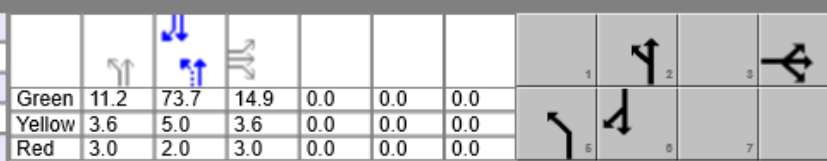
| HCS Two-Way Stop-Control Report   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |       |      |
|---|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|-------|------|--------------------------|------|-------|------|
| General Information   |  |      |     |     |           |      |     |     | Site Information           |      |       |      |                          |      |       |      |
| Analyst   | DBZ  |      |     |     |           |      |     |     | Intersection               |      |       |      | Thixton at Old Bardstown |      |       |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |       |      |                          |      |       |      |
| Date Performed  | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |       |      | Thixton Lane             |      |       |      |
| Analysis Year   | 2041                                       |      |     |     |           |      |     |     | North/South Street         |      |       |      | Old Bardstown Road       |      |       |      |
| Time Analyzed   | PM Peak Build                              |      |     |     |           |      |     |     | Peak Hour Factor           |      |       |      | 0.96                     |      |       |      |
| Intersection Orientation  | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |       |      | 0.25                     |      |       |      |
| Project Description   | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |       |      |                          |      |       |      |
| 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)  |  | 55   | 328 | 45  |           | 96   | 293 | 113 |                            | 15   | 72    | 69   |                          | 92   | 113   | 62   |
| Percent Heavy Vehicles (%)  |  | 7    |     |     |           | 2    |     |     |                            | 20   | 0     | 2    |                          | 0    | 2     | 0    |
| 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)  |  | 4.17 |     |     |           | 4.12 |     |     |                            | 7.30 | 6.50  | 6.22 |                          | 7.10 | 6.52  | 6.20 |
| 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)   |  | 2.26 |     |     |           | 2.22 |     |     |                            | 3.68 | 4.00  | 3.32 |                          | 3.50 | 4.02  | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |     |           |      |     |     |                            |      |       |      |                          |      |       |      |
| Flow Rate, v (veh/h)  |  | 57   |     |     |           | 100  |     |     |                            |      | 163   |      |                          |      | 278   |      |
| Capacity, c (veh/h)   |  | 1110 |     |     |           | 1170 |     |     |                            |      | 218   |      |                          |      | 158   |      |
| v/c Ratio   |  | 0.05 |     |     |           | 0.09 |     |     |                            |      | 0.74  |      |                          |      | 1.76  |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.2  |     |     |           | 0.3  |     |     |                            |      | 5.1   |      |                          |      | 20.2  |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  |      |     |     |           |      |     |     |                            |      | 130.4 |      |                          |      | 508.4 |      |
| Control Delay (s/veh)   |  | 8.4  | 0.6 | 0.6 |           | 8.4  | 1.0 | 1.0 |                            |      | 58.0  |      |                          |      | 418.1 |      |
| Level of Service (LOS)  |  | A    | A   | A   |           | A    | A   | A   |                            |      | F     |      |                          |      | F     |      |
| Approach Delay (s/veh)  | 1.6  |      |     |     | 2.4       |      |     |     | 58.0                       |      |       |      | 418.1                    |      |       |      |
| Approach LOS  | A  |      |     |     | A         |      |     |     | F                          |      |       |      | F                        |      |       |      |
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### HCS Signalized Intersection Results Summary

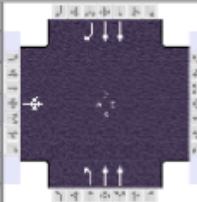
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|---|-------|--|-----|---------------|-----|---|------|-----------------|-----|-------------|------|---|-------------|-------|----|------|--|------|--|
| Agency  |       | Diane B. Zimmerman Traffic Engineering |     |               |     | Duration, h   |      | 0.250           |     |             |      |   |             |       |    |      |  |      |  |
| Analyst   |       | DBZ                                    |     | Analysis Date |     | Sep 3, 2024   |      | Area Type       |     | Other       |      |   |             |       |    |      |  |      |  |
| Jurisdiction                                    |       |  |     | Time Period   |     | AM Peak   |      | PHF             |     | 0.98        |      |   |             |       |    |      |  |      |  |
| Urban Street                                    |       | Bardstown Road                         |     | Analysis Year |     | 2024  |      | Analysis Period |     | 1> 7:00     |      |   |             |       |    |      |  |      |  |
| Intersection                                    |       | Thixton                                |     | File Name     |     | Thixton AM 24.xus   |      |                 |     |             |      |   |             |       |    |      |  |      |  |
| Project Description                             |       | Windcrest Farms 3                      |     |               |     |   |      |                 |     |             |      |   |             |       |    |      |  |      |  |
| Demand Information                              |       |  |     | EB            |     |   | WB   |                 |     | NB          |      |   | SB          |       |    |      |  |      |  |
| Approach Movement                               |       |  |     | L             | T   | R   | L    | T               | R   | L           | T    | R   | L           | T     | R  |      |  |      |  |
| Demand ( v ), veh/h                             |       |  |     | 79            | 0   | 54  |      |                 |     | 309         | 1450 |   |             | 677   | 58 |      |  |      |  |
| Signal Information                              |       |  |     |               |     |  |      |                 |     |             |      |   |             |       |    |      |  |      |  |
| Cycle, s  | 120.0 | Reference Phase                        | 2   |               |     |   |      |                 |     |             |      |   |             |       |    |      |  |      |  |
| Offset, s                                       | 0     | Reference Point                        | End | Green         | 8.9 | 79.1  | 11.8 | 0.0             | 0.0 | 0.0         |      |   |             |       |    |      |  |      |  |
| Uncoordinated                                   | No    | Simult. Gap E/W                        | On  | Yellow        | 3.6 | 5.0   | 3.6  | 0.0             | 0.0 | 0.0         |      |   |             |       |    |      |  |      |  |
| Force Mode                                      | Fixed | Simult. Gap N/S                        | On  | Red           | 3.0 | 2.0   | 3.0  | 0.0             | 0.0 | 0.0         |      |   |             |       |    |      |  |      |  |
| Timer Results                                   |       |  |     | EBL           |     | EBT   |      | WBL             |     | WBT         |      | NBL   |             | NBT   |    | SBL  |  | SBT  |  |
| Assigned Phase                                  |       |  |     |               |     | 4   |      |                 |     |             |      | 5   |             | 2     |    |      |  | 6    |  |
| Case Number                                     |       |  |     |               |     | 12.0  |      |                 |     |             |      | 1.0   |             | 4.0   |    |      |  | 7.3  |  |
| Phase Duration, s                               |       |  |     |               |     | 18.4  |      |                 |     |             |      | 15.5  |             | 101.6 |    |      |  | 86.1 |  |
| Change Period, ( Y+R c ), s                     |       |  |     |               |     | 6.6   |      |                 |     |             |      | 6.6   |             | 7.0   |    |      |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |       |  |     |               |     | 3.2   |      |                 |     |             |      | 3.0   |             | 0.0   |    |      |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |       |  |     |               |     | 11.7  |      |                 |     |             |      | 8.4   |             |       |    |      |  |      |  |
| Green Extension Time ( g e ), s                 |       |  |     |               |     | 0.2   |      |                 |     |             |      | 0.5   |             | 0.0   |    |      |  | 0.0  |  |
| Phase Call Probability                          |       |  |     |               |     | 0.99  |      |                 |     |             |      | 1.00  |             |       |    |      |  |      |  |
| Max Out Probability                             |       |  |     |               |     | 0.00  |      |                 |     |             |      | 0.00  |             |       |    |      |  |      |  |
| Movement Group Results                          |       |  |     | EB            |     |   | WB   |                 |     | NB          |      |   | SB          |       |    |      |  |      |  |
| Approach Movement                               |       |  |     | L             | T   | R   | L    | T               | R   | L           | T    | R   | L           | T     | R  |      |  |      |  |
| Assigned Movement                               |       |  |     | 7             | 4   | 14  |      |                 |     | 5           | 2    |   |             | 6     | 16 |      |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |       |  |     | 136           |     |   |      |                 |     | 315 1480    |      |   | 691 59      |       |    |      |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |       |  |     | 1642          |     |   |      |                 |     | 1795 1766   |      |   | 1724 1459   |       |    |      |  |      |  |
| Queue Service Time ( g s ), s                   |       |  |     | 9.7           |     |   |      |                 |     | 6.4 18.3    |      |   | 10.2 1.7    |       |    |      |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |       |  |     | 9.7           |     |   |      |                 |     | 6.4 18.3    |      |   | 10.2 1.7    |       |    |      |  |      |  |
| Green Ratio ( g/C )                             |       |  |     | 0.10          |     |   |      |                 |     | 0.75 0.79   |      |   | 0.66 0.66   |       |    |      |  |      |  |
| Capacity ( c ), veh/h                           |       |  |     | 161           |     |   |      |                 |     | 628 2785    |      |   | 2274 962    |       |    |      |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |       |  |     | 0.841         |     |   |      |                 |     | 0.502 0.531 |      |   | 0.304 0.061 |       |    |      |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |       |  |     | 198           |     |   |      |                 |     | 80 202      |      |   | 159 25      |       |    |      |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |       |  |     | 7.5           |     |   |      |                 |     | 3.2 7.9     |      |   | 6.1 0.9     |       |    |      |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |       |  |     | 0.00          |     |   |      |                 |     | 0.27 0.00   |      |   | 0.00 0.00   |       |    |      |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |       |  |     | 53.2          |     |   |      |                 |     | 5.6 4.6     |      |   | 8.7 7.3     |       |    |      |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |       |  |     | 4.5           |     |   |      |                 |     | 0.2 0.7     |      |   | 0.3 0.1     |       |    |      |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |       |  |     | 0.0           |     |   |      |                 |     | 0.0 0.0     |      |   | 0.0 0.0     |       |    |      |  |      |  |
| Control Delay ( d ), s/veh                      |       |  |     | 57.6          |     |   |      |                 |     | 5.8 5.4     |      |   | 9.0 7.4     |       |    |      |  |      |  |
| Level of Service (LOS)                          |       |  |     | E             |     |   |      |                 |     | A A         |      |   | A A         |       |    |      |  |      |  |
| Approach Delay, s/veh / LOS                     |       |  |     | 57.6          |     | E   |      | 0.0             |     |             |      | 5.4   |             | A     |    | 8.9  |  | A    |  |
| Intersection Delay, s/veh / LOS                 |       |  |     | 9.1           |     |   |      |                 |     | A           |      |   |             |       |    |      |  |      |  |
| Multimodal Results                              |       |  |     | EB            |     |   | WB   |                 |     | NB          |      |   | SB          |       |    |      |  |      |  |
| Pedestrian LOS Score / LOS                      |       |  |     | 2.32          |     | B   |      | 2.32            |     | B           |      | 1.32  |             | A     |    | 1.65 |  | B    |  |
| Bicycle LOS Score / LOS                         |       |  |     | 0.71          |     | A   |      |                 |     |             |      | 1.97  |             | B     |    | 1.11 |  | A    |  |



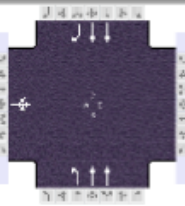
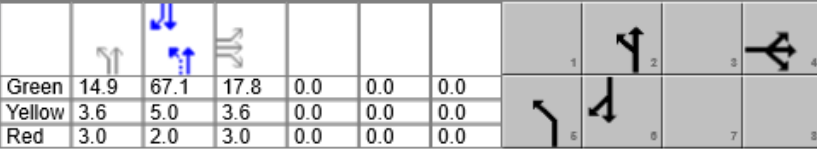
### HCS Signalized Intersection Results Summary

| General Information                             |       |  |     |  |  | Intersection Information   |  |  |  |  |  |  |  |  |       |     |  |      |  |
|---|-------|--|-----|--|--|--|--|--|--|--|--|---|--|--|-------|-----|--|------|--|
| Agency  |       | Diane B. Zimmerman Traffic Engineering |     |  |  | Duration, h  |  | 0.250  |  |  |  |   |  |  |       |     |  |      |  |
| Analyst   |       | DBZ                                    |     | Analysis Date  |  | Sep 3, 2024  |  | Area Type  |  | Other  |  |   |  |  |       |     |  |      |  |
| Jurisdiction                                    |       |  |     | Time Period  |  | AM Peak  |  | PHF  |  | 0.98   |  |   |  |  |       |     |  |      |  |
| Urban Street                                    |       | Bardstown Road                         |     | Analysis Year  |  | 2031 No Build  |  | Analysis Period  |  | 1> 7:00  |  |   |  |  |       |     |  |      |  |
| Intersection                                    |       | Thixton                                |     | File Name  |  | Thixton AM 31 NB.xus   |  |  |  |  |  |   |  |  |       |     |  |      |  |
| Project Description                             |       | Windcrest Farms 3                      |     |  |  |  |  |  |  |  |  |   |  |  |       |     |  |      |  |
| Demand Information                              |       |  |     | EB   |  |  | WB   |  |  | NB   |  |   | SB   |  |       |     |  |      |  |
| Approach Movement                               |       |  |     | L  | T  | R  | L  | T  | R  | L  | T  | R   | L  | T  | R     |     |  |      |  |
| Demand ( v ), veh/h                             |       |  |     | 92   | 0  | 81   |  |  |  | 365  | 1689   |   |  | 788  | 68    |     |  |      |  |
| Signal Information                              |       |  |     |  |  |  |  |  |  |  |  |   |  |  |       |     |  |      |  |
| Cycle, s  | 120.0 | Reference Phase                        | 2   |  |  |  |  |  |  |  |  |   |  |  |       |     |  |      |  |
| Offset, s                                       | 0     | Reference Point                        | End |  |  |  |  |  |  |  |  |   |  |  |       |     |  |      |  |
| Uncoordinated                                   | No    | Simult. Gap E/W                        | On  |  |  |  |  |  |  |  |  |   |  |  |       |     |  |      |  |
| Force Mode                                      | Fixed | Simult. Gap N/S                        | On  |  |  |  |  |  |  |  |  |   |  |  |       |     |  |      |  |
|   |       |  |     | Green  | 11.2   | 73.7   | 14.9   | 0.0  | 0.0  | 0.0  |  |   |  |  |       |     |  |      |  |
|   |       |  |     | Yellow   | 3.6  | 5.0  | 3.6  | 0.0  | 0.0  | 0.0  |  |   |  |  |       |     |  |      |  |
|   |       |  |     | Red  | 3.0  | 2.0  | 3.0  | 0.0  | 0.0  | 0.0  |  |   |  |  |       |     |  |      |  |
| Timer Results                                   |       |  |     | EBL  |  | EBT  |  | WBL  |  | WBT  |  | NBL   |  | NBT  |       | SBL |  | SBT  |  |
| Assigned Phase                                  |       |  |     |  |  | 4  |  |  |  |  |  | 5   |  | 2  |       |     |  | 6    |  |
| Case Number                                     |       |  |     |  |  | 12.0   |  |  |  |  |  | 1.0   |  | 4.0  |       |     |  | 7.3  |  |
| Phase Duration, s                               |       |  |     |  |  | 21.5   |  |  |  |  |  | 17.8  |  | 98.5   |       |     |  | 80.7 |  |
| Change Period, ( Y+R c ), s                     |       |  |     |  |  | 6.6  |  |  |  |  |  | 6.6   |  | 7.0  |       |     |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |       |  |     |  |  | 3.2  |  |  |  |  |  | 3.0   |  | 0.0  |       |     |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |       |  |     |  |  | 14.8   |  |  |  |  |  | 10.7  |  |  |       |     |  |      |  |
| Green Extension Time ( g e ), s                 |       |  |     |  |  | 0.2  |  |  |  |  |  | 0.5   |  | 0.0  |       |     |  | 0.0  |  |
| Phase Call Probability                          |       |  |     |  |  | 1.00   |  |  |  |  |  | 1.00  |  |  |       |     |  |      |  |
| Max Out Probability                             |       |  |     |  |  | 0.00   |  |  |  |  |  | 0.00  |  |  |       |     |  |      |  |
| Movement Group Results                          |       |  |     | EB   |  |  | WB   |  |  | NB   |  |   | SB   |  |       |     |  |      |  |
| Approach Movement                               |       |  |     | L  | T  | R  | L  | T  | R  | L  | T  | R   | L  | T  | R     |     |  |      |  |
| Assigned Movement                               |       |  |     | 7  | 4  | 14   |  |  |  | 5  | 2  |   |  | 6  | 16    |     |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |       |  |     |  | 177  |  |  |  |  | 372  | 1723   |   |  | 804  | 69    |     |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |       |  |     |  | 1630   |  |  |  |  | 1795   | 1766   |   |  | 1724   | 1459  |     |  |      |  |
| Queue Service Time ( g s ), s                   |       |  |     |  | 12.8   |  |  |  |  | 8.7  | 27.2   |   |  | 14.1   | 2.3   |     |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |       |  |     |  | 12.8   |  |  |  |  | 8.7  | 27.2   |   |  | 14.1   | 2.3   |     |  |      |  |
| Green Ratio ( g/C )                             |       |  |     |  | 0.12   |  |  |  |  | 0.72   | 0.76   |   |  | 0.61   | 0.61  |     |  |      |  |
| Capacity ( c ), veh/h                           |       |  |     |  | 203  |  |  |  |  | 566  | 2693   |   |  | 2117   | 896   |     |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |       |  |     |  | 0.870  |  |  |  |  | 0.658  | 0.640  |   |  | 0.380  | 0.077 |     |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |       |  |     |  | 252  |  |  |  |  | 119  | 304  |   |  | 224  | 35    |     |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |       |  |     |  | 9.6  |  |  |  |  | 4.7  | 11.9   |   |  | 8.6  | 1.3   |     |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |       |  |     |  | 0.00   |  |  |  |  | 0.40   | 0.00   |   |  | 0.00   | 0.00  |     |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |       |  |     |  | 51.6   |  |  |  |  | 8.1  | 6.6  |   |  | 11.7   | 9.4   |     |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |       |  |     |  | 9.4  |  |  |  |  | 0.6  | 1.2  |   |  | 0.5  | 0.2   |     |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |       |  |     |  | 0.0  |  |  |  |  | 0.0  | 0.0  |   |  | 0.0  | 0.0   |     |  |      |  |
| Control Delay ( d ), s/veh                      |       |  |     |  | 60.9   |  |  |  |  | 8.8  | 7.8  |   |  | 12.2   | 9.6   |     |  |      |  |
| Level of Service ( LOS )                        |       |  |     |  | E  |  |  |  |  | A  | A  |   |  | B  | A     |     |  |      |  |
| Approach Delay, s/veh / LOS                     |       |  |     | 60.9   | E  |  | 0.0  |  |  | 8.0  | A  |   | 12.0   |  | B     |     |  |      |  |
| Intersection Delay, s/veh / LOS                 |       |  |     | 12.1   |  |  |  |  |  | B  |  |   |  |  |       |     |  |      |  |
| Multimodal Results                              |       |  |     | EB   |  |  | WB   |  |  | NB   |  |   | SB   |  |       |     |  |      |  |
| Pedestrian LOS Score / LOS                      |       |  |     | 2.32   | B  |  | 2.32   | B  |  | 1.33   | A  |   | 1.66   | B  |       |     |  |      |  |
| Bicycle LOS Score / LOS                         |       |  |     | 0.78   | A  |  |  |  |  | 2.22   | B  |   | 1.21   | A  |       |     |  |      |  |

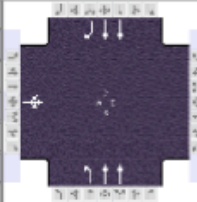
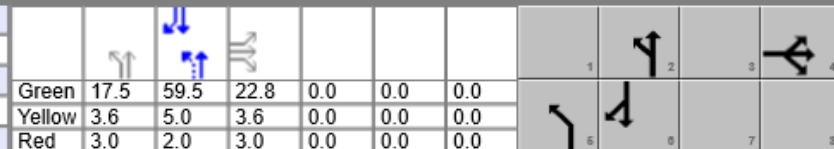


| HCS Signalized Intersection Results Summary     |  |                 |               |                     |      |                 |         |                          |       |             |      |   |             |      |    |     |  |      |  |
|---|--|-----------------|---------------|---------------------|------|-----------------|---------|--------------------------|-------|-------------|------|---|-------------|------|----|-----|--|------|--|
| General Information                             |  |                 |               |                     |      |                 |         | Intersection Information |       |             |      |  |             |      |    |     |  |      |  |
| Agency  | Diane B. Zimmerman Traffic Engineering |                 |               |                     |      |                 |         | Duration, h              | 0.250 |             |      |   |             |      |    |     |  |      |  |
| Analyst   | DBZ                                    |                 | Analysis Date | Sep 3, 2024         |      | Area Type       | Other   |                          |       |             |      |   |             |      |    |     |  |      |  |
| Jurisdiction                                    |  |                 | Time Period   | AM Peak             |      | PHF             | 0.98    |                          |       |             |      |   |             |      |    |     |  |      |  |
| Urban Street                                    | Bardstown Road                         |                 | Analysis Year | 2031 Build          |      | Analysis Period | 1> 7:00 |                          |       |             |      |   |             |      |    |     |  |      |  |
| Intersection                                    | Thixton                                |                 | File Name     | Thixton AM 31 B.xus |      |                 |         |                          |       |             |      |   |             |      |    |     |  |      |  |
| Project Description                             | Windcrest Farms 3                      |                 |               |                     |      |                 |         |                          |       |             |      |   |             |      |    |     |  |      |  |
| Demand Information                              |  |                 |               | EB                  |      |                 | WB      |                          |       | NB          |      |   | SB          |      |    |     |  |      |  |
| Approach Movement                               |  |                 |               | L                   | T    | R               | L       | T                        | R     | L           | T    | R   | L           | T    | R  |     |  |      |  |
| Demand ( v ), veh/h                             |  |                 |               | 120                 | 0    | 122             |         |                          |       | 379         | 1689 |   |             | 788  | 73 |     |  |      |  |
| Signal Information                              |  |                 |               |                     |      |                 |         |                          |       |             |      |   |             |      |    |     |  |      |  |
| Cycle, s  | 120.0                                  | Reference Phase | 2             |                     |      |                 |         |                          |       |             |      |   |             |      |    |     |  |      |  |
| Offset, s                                       | 0                                      | Reference Point | End           |                     |      |                 |         |                          |       |             |      |   |             |      |    |     |  |      |  |
| Uncoordinated                                   | No                                     | Simult. Gap E/W | On            | Green               | 12.8 | 66.9            | 20.1    | 0.0                      | 0.0   | 0.0         |      |   |             |      |    |     |  |      |  |
| Force Mode                                      | Fixed                                  | Simult. Gap N/S | On            | Yellow              | 3.6  | 5.0             | 3.6     | 0.0                      | 0.0   | 0.0         |      |   |             |      |    |     |  |      |  |
|   |  |                 |               | Red                 | 3.0  | 2.0             | 3.0     | 0.0                      | 0.0   | 0.0         |      |   |             |      |    |     |  |      |  |
| Timer Results                                   |  |                 |               | EBL                 |      | EBT             |         | WBL                      |       | WBT         |      | NBL   |             | NBT  |    | SBL |  | SBT  |  |
| Assigned Phase                                  |  |                 |               |                     |      | 4               |         |                          |       |             |      | 5   |             | 2    |    |     |  | 6    |  |
| Case Number                                     |  |                 |               |                     |      | 12.0            |         |                          |       |             |      | 1.0   |             | 4.0  |    |     |  | 7.3  |  |
| Phase Duration, s                               |  |                 |               |                     |      | 26.7            |         |                          |       |             |      | 19.4  |             | 93.3 |    |     |  | 73.9 |  |
| Change Period, ( Y+R c ), s                     |  |                 |               |                     |      | 6.6             |         |                          |       |             |      | 6.6   |             | 7.0  |    |     |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |  |                 |               |                     |      | 3.2             |         |                          |       |             |      | 3.0   |             | 0.0  |    |     |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |  |                 |               |                     |      | 19.9            |         |                          |       |             |      | 12.5  |             |      |    |     |  |      |  |
| Green Extension Time ( g e ), s                 |  |                 |               |                     |      | 0.2             |         |                          |       |             |      | 0.3   |             | 0.0  |    |     |  | 0.0  |  |
| Phase Call Probability                          |  |                 |               |                     |      | 1.00            |         |                          |       |             |      | 1.00  |             |      |    |     |  |      |  |
| Max Out Probability                             |  |                 |               |                     |      | 0.82            |         |                          |       |             |      | 0.40  |             |      |    |     |  |      |  |
| Movement Group Results                          |  |                 |               | EB                  |      |                 | WB      |                          |       | NB          |      |   | SB          |      |    |     |  |      |  |
| Approach Movement                               |  |                 |               | L                   | T    | R               | L       | T                        | R     | L           | T    | R   | L           | T    | R  |     |  |      |  |
| Assigned Movement                               |  |                 |               | 7                   | 4    | 14              |         |                          |       | 5           | 2    |   |             | 6    | 16 |     |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |  |                 |               | 247                 |      |                 |         |                          |       | 387 1723    |      |   | 804 74      |      |    |     |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |  |                 |               | 1624                |      |                 |         |                          |       | 1795 1766   |      |   | 1724 1459   |      |    |     |  |      |  |
| Queue Service Time ( g s ), s                   |  |                 |               | 17.9                |      |                 |         |                          |       | 10.5 32.1   |      |   | 16.2 2.9    |      |    |     |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |  |                 |               | 17.9                |      |                 |         |                          |       | 10.5 32.1   |      |   | 16.2 2.9    |      |    |     |  |      |  |
| Green Ratio ( g/C )                             |  |                 |               | 0.17                |      |                 |         |                          |       | 0.68 0.72   |      |   | 0.56 0.56   |      |    |     |  |      |  |
| Capacity ( c ), veh/h                           |  |                 |               | 272                 |      |                 |         |                          |       | 540 2541    |      |   | 1922 813    |      |    |     |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |  |                 |               | 0.908               |      |                 |         |                          |       | 0.716 0.678 |      |   | 0.418 0.092 |      |    |     |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |  |                 |               | 366                 |      |                 |         |                          |       | 172 385     |      |   | 260 45      |      |    |     |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |  |                 |               | 14.0                |      |                 |         |                          |       | 6.8 15.0    |      |   | 9.9 1.6     |      |    |     |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |  |                 |               | 0.00                |      |                 |         |                          |       | 0.57 0.00   |      |   | 0.00 0.00   |      |    |     |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |  |                 |               | 49.0                |      |                 |         |                          |       | 11.0 9.2    |      |   | 15.3 12.4   |      |    |     |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |  |                 |               | 24.5                |      |                 |         |                          |       | 2.9 1.5     |      |   | 0.7 0.2     |      |    |     |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |  |                 |               | 0.0                 |      |                 |         |                          |       | 0.0 0.0     |      |   | 0.0 0.0     |      |    |     |  |      |  |
| Control Delay ( d ), s/veh                      |  |                 |               | 73.6                |      |                 |         |                          |       | 13.8 10.7   |      |   | 16.0 12.6   |      |    |     |  |      |  |
| Level of Service (LOS)                          |  |                 |               | E                   |      |                 |         |                          |       | B B         |      |   | B B         |      |    |     |  |      |  |
| Approach Delay, s/veh / LOS                     |  |                 |               | 73.6 E              |      |                 | 0.0     |                          |       | 11.3 B      |      |   | 15.7 B      |      |    |     |  |      |  |
| Intersection Delay, s/veh / LOS                 |  |                 |               | 17.2                |      |                 |         |                          |       | B           |      |   |             |      |    |     |  |      |  |
| Multimodal Results                              |  |                 |               | EB                  |      |                 | WB      |                          |       | NB          |      |   | SB          |      |    |     |  |      |  |
| Pedestrian LOS Score / LOS                      |  |                 |               | 2.32 B              |      |                 | 2.32 B  |                          |       | 1.34 A      |      |   | 1.67 B      |      |    |     |  |      |  |
| Bicycle LOS Score / LOS                         |  |                 |               | 0.90 A              |      |                 |         |                          |       | 2.23 B      |      |   | 1.21 A      |      |    |     |  |      |  |

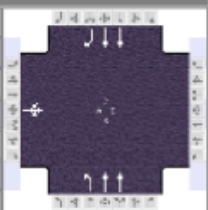
### HCS Signalized Intersection Results Summary

| General Information                             |       |  |               |     | Intersection Information   |                 |       |         |      |  |       |       |      |       |       |     |     |
|---|-------|--|---------------|-----|--|-----------------|-------|---------|------|---|-------|-------|------|-------|-------|-----|-----|
| Agency  |       | Diane B. Zimmerman Traffic Engineering |               |     | Duration, h  |                 | 0.250 |         |      |   |       |       |      |       |       |     |     |
| Analyst   |       | DBZ                                    | Analysis Date |     | Sep 3, 2024  | Area Type       |       | Other   |      |   |       |       |      |       |       |     |     |
| Jurisdiction                                    |       |  | Time Period   |     | AM Peak  | PHF             |       | 0.98    |      |   |       |       |      |       |       |     |     |
| Urban Street                                    |       | Bardstown Road                         | Analysis Year |     | 2041 No Build  | Analysis Period |       | 1> 7:00 |      |   |       |       |      |       |       |     |     |
| Intersection                                    |       | Thixton                                | File Name     |     | Thixton AM 41 NB.xus   |                 |       |         |      |   |       |       |      |       |       |     |     |
| Project Description                             |       | Windcrest Farms 3                      |               |     |  |                 |       |         |      |   |       |       |      |       |       |     |     |
| Demand Information                              |       |  |               |     | EB   |                 |       | WB      |      |   | NB    |       |      | SB    |       |     |     |
| Approach Movement                               |       |  |               |     | L  | T               | R     | L       | T    | R   | L     | T     | R    | L     | T     | R   |     |
| Demand ( v ), veh/h                             |       |  |               |     | 112  | 0               | 99    |         |      |   | 445   | 2059  |      |       | 961   | 83  |     |
| Signal Information                              |       |  |               |     |  |                 |       |         |      |   |       |       |      |       |       |     |     |
| Cycle, s  | 120.0 | Reference Phase                        |               | 2   |  |                 |       |         |      |   |       |       |      |       |       |     |     |
| Offset, s                                       | 0     | Reference Point                        |               | End |  | Green           | 14.9  | 67.1    | 17.8 | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0 |     |
| Uncoordinated                                   | No    | Simult. Gap E/W                        |               | On  |  | Yellow          | 3.6   | 5.0     | 3.6  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0 | 0.0 |
| Force Mode                                      | Fixed | Simult. Gap N/S                        |               | On  |  | Red             | 3.0   | 2.0     | 3.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0 | 0.0 |
| Timer Results                                   |       |  |               |     | EBL  | EBT             | WBL   | WBT     | NBL  | NBT   | SBL   | SBT   |      |       |       |     |     |
| Assigned Phase                                  |       |  |               |     |  | 4               |       |         | 5    | 2   |       | 6     |      |       |       |     |     |
| Case Number                                     |       |  |               |     |  | 12.0            |       |         | 1.0  | 4.0   |       | 7.3   |      |       |       |     |     |
| Phase Duration, s                               |       |  |               |     |  | 24.4            |       |         | 21.5 | 95.6  |       | 74.1  |      |       |       |     |     |
| Change Period, ( Y+R c ), s                     |       |  |               |     |  | 6.6             |       |         | 6.6  | 7.0   |       | 7.0   |      |       |       |     |     |
| Max Allow Headway ( MAH ), s                    |       |  |               |     |  | 3.2             |       |         | 3.0  | 0.0   |       | 0.0   |      |       |       |     |     |
| Queue Clearance Time ( g s ), s                 |       |  |               |     |  | 17.6            |       |         | 14.2 |   |       |       |      |       |       |     |     |
| Green Extension Time ( g e ), s                 |       |  |               |     |  | 0.2             |       |         | 0.7  | 0.0   |       | 0.0   |      |       |       |     |     |
| Phase Call Probability                          |       |  |               |     |  | 1.00            |       |         | 1.00 |   |       |       |      |       |       |     |     |
| Max Out Probability                             |       |  |               |     |  | 0.09            |       |         | 0.00 |   |       |       |      |       |       |     |     |
| Movement Group Results                          |       |  |               |     | EB   |                 |       | WB      |      |   | NB    |       |      | SB    |       |     |     |
| Approach Movement                               |       |  |               |     | L  | T               | R     | L       | T    | R   | L     | T     | R    | L     | T     | R   |     |
| Assigned Movement                               |       |  |               |     | 7  | 4               | 14    |         |      |   | 5     | 2     |      | 6     | 16    |     |     |
| Adjusted Flow Rate ( v ), veh/h                 |       |  |               |     |  | 215             |       |         |      |   | 454   | 2101  |      | 981   | 85    |     |     |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |       |  |               |     |  | 1630            |       |         |      |   | 1795  | 1766  |      | 1724  | 1459  |     |     |
| Queue Service Time ( g s ), s                   |       |  |               |     |  | 15.6            |       |         |      |   | 12.2  | 46.0  |      | 21.0  | 3.3   |     |     |
| Cycle Queue Clearance Time ( g c ), s           |       |  |               |     |  | 15.6            |       |         |      |   | 12.2  | 46.0  |      | 21.0  | 3.3   |     |     |
| Green Ratio ( g/C )                             |       |  |               |     |  | 0.15            |       |         |      |   | 0.70  | 0.74  |      | 0.56  | 0.56  |     |     |
| Capacity ( c ), veh/h                           |       |  |               |     |  | 241             |       |         |      |   | 505   | 2610  |      | 1929  | 816   |     |     |
| Volume-to-Capacity Ratio ( X )                  |       |  |               |     |  | 0.892           |       |         |      |   | 0.899 | 0.805 |      | 0.508 | 0.104 |     |     |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |       |  |               |     |  | 314             |       |         |      |   | 279   | 510   |      | 322   | 51    |     |     |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |       |  |               |     |  | 12.0            |       |         |      |   | 11.1  | 19.9  |      | 12.3  | 1.9   |     |     |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |       |  |               |     |  | 0.00            |       |         |      |   | 0.93  | 0.00  |      | 0.00  | 0.00  |     |     |
| Uniform Delay ( d 1 ), s/veh                    |       |  |               |     |  | 50.2            |       |         |      |   | 15.8  | 10.1  |      | 16.3  | 12.4  |     |     |
| Incremental Delay ( d 2 ), s/veh                |       |  |               |     |  | 18.3            |       |         |      |   | 8.7   | 2.8   |      | 1.0   | 0.3   |     |     |
| Initial Queue Delay ( d 3 ), s/veh              |       |  |               |     |  | 0.0             |       |         |      |   | 0.0   | 0.0   |      | 0.0   | 0.0   |     |     |
| Control Delay ( d ), s/veh                      |       |  |               |     |  | 68.5            |       |         |      |   | 24.5  | 12.9  |      | 17.2  | 12.6  |     |     |
| Level of Service ( LOS )                        |       |  |               |     |  | E               |       |         |      |   | C     | B     |      | B     | B     |     |     |
| Approach Delay, s/veh / LOS                     |       |  |               |     | 68.5   | E               | 0.0   |         |      |   | 14.9  | B     | 16.9 | B     |       |     |     |
| Intersection Delay, s/veh / LOS                 |       |  |               |     | 18.5   |                 |       |         |      | B   |       |       |      |       |       |     |     |
| Multimodal Results                              |       |  |               |     | EB   |                 |       | WB      |      |   | NB    |       |      | SB    |       |     |     |
| Pedestrian LOS Score / LOS                      |       |  |               |     | 2.32   | B               | 2.32  | B       | 1.34 | A   | 1.67  | B     |      |       |       |     |     |
| Bicycle LOS Score / LOS                         |       |  |               |     | 0.84   | A               |       |         | 2.60 | C   | 1.37  | A     |      |       |       |     |     |

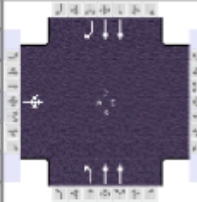
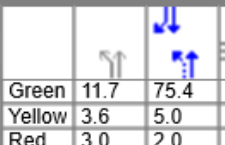

### HCS Signalized Intersection Results Summary

| General Information                             |       |  |      |  |     | Intersection Information |     |                 |     |         |      |  |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
|---|-------|--|------|--|-----|--------------------------|-----|-----------------|-----|---------|------|---|-------|------|-----|------|--|------|-------|--|--|-------|--|--|---|--|--|
| Agency  |       | Diane B. Zimmerman Traffic Engineering |      |  |     | Duration, h              |     | 0.250           |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Analyst   |       | DBZ                                    |      | Analysis Date  |     | Sep 3, 2024              |     | Area Type       |     | Other   |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Jurisdiction                                    |       |  |      | Time Period  |     | AM Peak                  |     | PHF             |     | 0.98    |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Urban Street                                    |       | Bardstown Road                         |      | Analysis Year  |     | 2041 Build               |     | Analysis Period |     | 1> 7:00 |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Intersection                                    |       | Thixton                                |      | File Name  |     | Thixton AM 41 B.xus      |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Project Description                             |       | Windcrest Farms 3                      |      |  |     |                          |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Demand Information                              |       |  |      | EB   |     |                          | WB  |                 |     | NB      |      |   | SB    |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Approach Movement                               |       |  |      | L  | T   | R                        | L   | T               | R   | L       | T    | R   | L     | T    | R   |      |  |      |       |  |  |       |  |  |   |  |  |
| Demand ( v ), veh/h                             |       |  |      | 140  | 0   | 140                      |     |                 |     | 459     | 2059 |   |       | 961  | 88  |      |  |      |       |  |  |       |  |  |   |  |  |
| Signal Information                              |       |  |      |  |     |                          |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Cycle, s  | 120.0 | Reference Phase                        | 2    |  |     |                          |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Offset, s                                       | 0     | Reference Point                        | End  |  |     |                          |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Uncoordinated                                   | No    | Simult. Gap E/W                        | On   |  |     |                          |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Force Mode                                      | Fixed | Simult. Gap N/S                        | On   |  |     |                          |     |                 |     |         |      |   |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Green   | 17.5  | 59.5                                   | 22.8 | 0.0  | 0.0 | 0.0                      | 0.0 | 0.0             | 0.0 | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0 |      |  |      |       |  |  |       |  |  |   |  |  |
| Yellow  | 3.6   | 5.0                                    | 3.6  | 0.0  | 0.0 | 0.0                      | 0.0 | 0.0             | 0.0 | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0 |      |  |      |       |  |  |       |  |  |   |  |  |
| Red   | 3.0   | 2.0                                    | 3.0  | 0.0  | 0.0 | 0.0                      | 0.0 | 0.0             | 0.0 | 0.0     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0 |      |  |      |       |  |  |       |  |  |   |  |  |
| Timer Results                                   |       |  |      | EBL  |     | EBT                      |     | WBL             |     | WBT     |      | NBL   |       | NBT  |     | SBL  |  | SBT  |       |  |  |       |  |  |   |  |  |
| Assigned Phase                                  |       |  |      |  |     | 4                        |     |                 |     |         |      | 5   |       | 2    |     |      |  | 6    |       |  |  |       |  |  |   |  |  |
| Case Number                                     |       |  |      |  |     | 12.0                     |     |                 |     |         |      | 1.0   |       | 4.0  |     |      |  | 7.3  |       |  |  |       |  |  |   |  |  |
| Phase Duration, s                               |       |  |      |  |     | 29.4                     |     |                 |     |         |      | 24.1  |       | 90.6 |     |      |  | 66.5 |       |  |  |       |  |  |   |  |  |
| Change Period, ( Y+R c ), s                     |       |  |      |  |     | 6.6                      |     |                 |     |         |      | 6.6   |       | 7.0  |     |      |  | 7.0  |       |  |  |       |  |  |   |  |  |
| Max Allow Headway ( MAH ), s                    |       |  |      |  |     | 3.2                      |     |                 |     |         |      | 3.0   |       | 0.0  |     |      |  | 0.0  |       |  |  |       |  |  |   |  |  |
| Queue Clearance Time ( g s ), s                 |       |  |      |  |     | 22.7                     |     |                 |     |         |      | 16.6  |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Green Extension Time ( g e ), s                 |       |  |      |  |     | 0.0                      |     |                 |     |         |      | 0.8   |       | 0.0  |     |      |  | 0.0  |       |  |  |       |  |  |   |  |  |
| Phase Call Probability                          |       |  |      |  |     | 1.00                     |     |                 |     |         |      | 1.00  |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Max Out Probability                             |       |  |      |  |     | 1.00                     |     |                 |     |         |      | 0.00  |       |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Movement Group Results                          |       |  |      | EB   |     |                          | WB  |                 |     | NB      |      |   | SB    |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Approach Movement                               |       |  |      | L  | T   | R                        | L   | T               | R   | L       | T    | R   | L     | T    | R   |      |  |      |       |  |  |       |  |  |   |  |  |
| Assigned Movement                               |       |  |      | 7  | 4   | 14                       |     |                 |     | 5       | 2    |   |       | 6    | 16  |      |  |      |       |  |  |       |  |  |   |  |  |
| Adjusted Flow Rate ( v ), veh/h                 |       |  |      | 286  |     |                          |     |                 |     | 468     |      |   | 2101  |      |     | 981  |  |      | 90    |  |  |       |  |  |   |  |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |       |  |      | 1624   |     |                          |     |                 |     | 1795    |      |   | 1766  |      |     |      |  |      | 1724  |  |  | 1459  |  |  |   |  |  |
| Queue Service Time ( g s ), s                   |       |  |      | 20.7   |     |                          |     |                 |     | 14.6    |      |   | 53.4  |      |     |      |  |      | 24.1  |  |  | 4.0   |  |  |   |  |  |
| Cycle Queue Clearance Time ( g c ), s           |       |  |      | 20.7   |     |                          |     |                 |     | 14.6    |      |   | 53.4  |      |     |      |  |      | 24.1  |  |  | 4.0   |  |  |   |  |  |
| Green Ratio ( g/C )                             |       |  |      | 0.19   |     |                          |     |                 |     | 0.67    |      |   | 0.70  |      |     |      |  |      | 0.50  |  |  | 0.50  |  |  |   |  |  |
| Capacity ( c ), veh/h                           |       |  |      | 309  |     |                          |     |                 |     | 512     |      |   | 2461  |      |     |      |  |      | 1708  |  |  | 723   |  |  |   |  |  |
| Volume-to-Capacity Ratio ( X )                  |       |  |      | 0.926  |     |                          |     |                 |     | 0.915   |      |   | 0.854 |      |     |      |  |      | 0.574 |  |  | 0.124 |  |  |   |  |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |       |  |      | 429  |     |                          |     |                 |     | 294     |      |   | 632   |      |     |      |  |      | 373   |  |  | 65    |  |  |   |  |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |       |  |      | 16.4   |     |                          |     |                 |     | 11.7    |      |   | 24.7  |      |     |      |  |      | 14.2  |  |  | 2.4   |  |  |   |  |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |       |  |      | 0.00   |     |                          |     |                 |     | 0.98    |      |   | 0.00  |      |     |      |  |      | 0.00  |  |  | 0.00  |  |  |   |  |  |
| Uniform Delay ( d 1 ), s/veh                    |       |  |      | 47.8   |     |                          |     |                 |     | 19.2    |      |   | 13.6  |      |     |      |  |      | 21.4  |  |  | 16.3  |  |  |   |  |  |
| Incremental Delay ( d 2 ), s/veh                |       |  |      | 31.0   |     |                          |     |                 |     | 6.3     |      |   | 4.0   |      |     |      |  |      | 1.4   |  |  | 0.4   |  |  |   |  |  |
| Initial Queue Delay ( d 3 ), s/veh              |       |  |      | 0.0  |     |                          |     |                 |     | 0.0     |      |   | 0.0   |      |     |      |  |      | 0.0   |  |  | 0.0   |  |  |   |  |  |
| Control Delay ( d ), s/veh                      |       |  |      | 78.8   |     |                          |     |                 |     | 25.5    |      |   | 17.6  |      |     |      |  |      | 22.8  |  |  | 16.6  |  |  |   |  |  |
| Level of Service (LOS)                          |       |  |      | E  |     |                          |     |                 |     | C       |      |   | B     |      |     |      |  |      | C     |  |  | B     |  |  |   |  |  |
| Approach Delay, s/veh / LOS                     |       |  |      | 78.8   |     |                          | E   |                 |     | 0.0     |      |   | 19.1  |      |     | B    |  |      | 22.3  |  |  | C     |  |  |   |  |  |
| Intersection Delay, s/veh / LOS                 |       |  |      | 24.3   |     |                          |     |                 |     |         |      |   |       | C    |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Multimodal Results                              |       |  |      | EB   |     |                          | WB  |                 |     | NB      |      |   | SB    |      |     |      |  |      |       |  |  |       |  |  |   |  |  |
| Pedestrian LOS Score / LOS                      |       |  |      | 2.32   |     |                          | B   |                 |     | 2.32    |      |   | B     |      |     | 1.35 |  |      | A     |  |  | 1.68  |  |  | B |  |  |
| Bicycle LOS Score / LOS                         |       |  |      | 0.96   |     |                          | A   |                 |     |         |      |   | 2.61  |      |     | C    |  |      | 1.37  |  |  | A     |  |  |   |  |  |

### HCS Signalized Intersection Results Summary

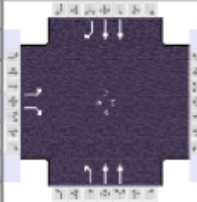
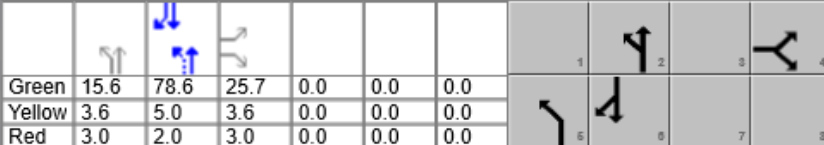
| General Information                             |       |  |     |               |       | Intersection Information |      |                 |     |         |       |  |      |       |       |     |  |      |  |
|---|-------|--|-----|---------------|-------|--------------------------|------|-----------------|-----|---------|-------|---|------|-------|-------|-----|--|------|--|
| Agency  |       | Diane B. Zimmerman Traffic Engineering |     |               |       | Duration, h              |      | 0.250           |     |         |       |   |      |       |       |     |  |      |  |
| Analyst   |       | DBZ                                    |     | Analysis Date |       | 9/19/2021                |      | Area Type       |     | Other   |       |   |      |       |       |     |  |      |  |
| Jurisdiction                                    |       |  |     | Time Period   |       | PM Peak                  |      | PHF             |     | 0.96    |       |   |      |       |       |     |  |      |  |
| Urban Street                                    |       | Bardstown Road                         |     | Analysis Year |       | 2024                     |      | Analysis Period |     | 1> 4:15 |       |   |      |       |       |     |  |      |  |
| Intersection                                    |       | Thixton                                |     | File Name     |       | Thixton PM 24.xus        |      |                 |     |         |       |   |      |       |       |     |  |      |  |
| Project Description                             |       | Windcrest Farms 3                      |     |               |       |                          |      |                 |     |         |       |   |      |       |       |     |  |      |  |
| Demand Information                              |       |  |     | EB            |       |                          | WB   |                 |     | NB      |       |   | SB   |       |       |     |  |      |  |
| Approach Movement                               |       |  |     | L             | T     | R                        | L    | T               | R   | L       | T     | R   | L    | T     | R     |     |  |      |  |
| Demand ( v ), veh/h                             |       |  |     | 101           | 0     | 190                      |      |                 |     | 131     | 1199  |   |      | 1726  | 145   |     |  |      |  |
| Signal Information                              |       |  |     |               |       |                          |      |                 |     |         |       |   |      |       |       |     |  |      |  |
| Cycle, s  | 140.0 | Reference Phase                        | 2   |               |       |                          |      |                 |     |         |       |   |      |       |       |     |  |      |  |
| Offset, s                                       | 0     | Reference Point                        | End |               |       |                          |      |                 |     |         |       |   |      |       |       |     |  |      |  |
| Uncoordinated                                   | No    | Simult. Gap E/W                        | On  | Green         | 6.0   | 86.0                     | 27.9 | 0.0             | 0.0 | 0.0     |       |   |      |       |       |     |  |      |  |
|   |       |  |     | Yellow        | 3.6   | 5.0                      | 3.6  | 0.0             | 0.0 | 0.0     |       |   |      |       |       |     |  |      |  |
| Force Mode                                      | Fixed | Simult. Gap N/S                        | On  | Red           | 3.0   | 2.0                      | 3.0  | 0.0             | 0.0 | 0.0     |       |   |      |       |       |     |  |      |  |
| Timer Results                                   |       |  |     | EBL           |       | EBT                      |      | WBL             |     | WBT     |       | NBL   |      | NBT   |       | SBL |  | SBT  |  |
| Assigned Phase                                  |       |  |     |               |       | 4                        |      |                 |     |         |       | 5   |      | 2     |       |     |  | 6    |  |
| Case Number                                     |       |  |     |               |       | 12.0                     |      |                 |     |         |       | 1.0   |      | 4.0   |       |     |  | 7.3  |  |
| Phase Duration, s                               |       |  |     |               |       | 34.5                     |      |                 |     |         |       | 12.6  |      | 105.5 |       |     |  | 93.0 |  |
| Change Period, ( Y+R c ), s                     |       |  |     |               |       | 6.6                      |      |                 |     |         |       | 6.6   |      | 7.0   |       |     |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |       |  |     |               |       | 3.3                      |      |                 |     |         |       | 3.0   |      | 0.0   |       |     |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |       |  |     |               |       | 27.5                     |      |                 |     |         |       | 5.8   |      |       |       |     |  |      |  |
| Green Extension Time ( g e ), s                 |       |  |     |               |       | 0.4                      |      |                 |     |         |       | 0.2   |      | 0.0   |       |     |  | 0.0  |  |
| Phase Call Probability                          |       |  |     |               |       | 1.00                     |      |                 |     |         |       | 1.00  |      |       |       |     |  |      |  |
| Max Out Probability                             |       |  |     |               |       | 0.14                     |      |                 |     |         |       | 0.00  |      |       |       |     |  |      |  |
| Movement Group Results                          |       |  |     | EB            |       |                          | WB   |                 |     | NB      |       |   | SB   |       |       |     |  |      |  |
| Approach Movement                               |       |  |     | L             | T     | R                        | L    | T               | R   | L       | T     | R   | L    | T     | R     |     |  |      |  |
| Assigned Movement                               |       |  |     | 7             | 4     | 14                       |      |                 |     | 5       | 2     |   |      | 6     | 16    |     |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |       |  |     |               | 303   |                          |      |                 |     | 136     | 1249  |   |      | 1798  | 151   |     |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |       |  |     |               | 1635  |                          |      |                 |     | 1795    | 1766  |   |      | 1781  | 1572  |     |  |      |  |
| Queue Service Time ( g s ), s                   |       |  |     |               | 25.5  |                          |      |                 |     | 3.8     | 22.7  |   |      | 55.1  | 5.7   |     |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |       |  |     |               | 25.5  |                          |      |                 |     | 3.8     | 22.7  |   |      | 55.1  | 5.7   |     |  |      |  |
| Green Ratio ( g/C )                             |       |  |     |               | 0.20  |                          |      |                 |     | 0.67    | 0.70  |   |      | 0.61  | 0.61  |     |  |      |  |
| Capacity ( c ), veh/h                           |       |  |     |               | 326   |                          |      |                 |     | 186     | 2486  |   |      | 2186  | 965   |     |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |       |  |     |               | 0.931 |                          |      |                 |     | 0.733   | 0.502 |   |      | 0.822 | 0.156 |     |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |       |  |     |               | 473   |                          |      |                 |     | 133     | 314   |   |      | 739   | 91    |     |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |       |  |     |               | 18.5  |                          |      |                 |     | 5.3     | 12.3  |   |      | 29.1  | 3.6   |     |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |       |  |     |               | 0.00  |                          |      |                 |     | 0.44    | 0.00  |   |      | 0.00  | 0.00  |     |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |       |  |     |               | 55.1  |                          |      |                 |     | 29.3    | 9.5   |   |      | 21.1  | 11.5  |     |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |       |  |     |               | 24.6  |                          |      |                 |     | 2.1     | 0.7   |   |      | 3.6   | 0.3   |     |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |       |  |     |               | 0.0   |                          |      |                 |     | 0.0     | 0.0   |   |      | 0.0   | 0.0   |     |  |      |  |
| Control Delay ( d ), s/veh                      |       |  |     |               | 79.7  |                          |      |                 |     | 31.3    | 10.2  |   |      | 24.7  | 11.9  |     |  |      |  |
| Level of Service ( LOS)                         |       |  |     |               | E     |                          |      |                 |     | C       | B     |   |      | C     | B     |     |  |      |  |
| Approach Delay, s/veh / LOS                     |       |  |     | 79.7          | E     |                          | 0.0  |                 |     | 12.3    | B     |   | 23.7 | C     |       |     |  |      |  |
| Intersection Delay, s/veh / LOS                 |       |  |     | 24.0          |       |                          |      |                 |     | C       |       |   |      |       |       |     |  |      |  |
| Multimodal Results                              |       |  |     | EB            |       |                          | WB   |                 |     | NB      |       |   | SB   |       |       |     |  |      |  |
| Pedestrian LOS Score / LOS                      |       |  |     | 2.33          | B     |                          | 2.33 | B               |     | 1.35    | A     |   | 1.67 | B     |       |     |  |      |  |
| Bicycle LOS Score / LOS                         |       |  |     | 0.99          | A     |                          |      |                 |     | 1.63    | B     |   | 2.10 | B     |       |     |  |      |  |

### HCS Signalized Intersection Results Summary

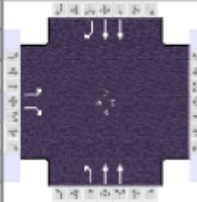
| General Information                             |  |                 |                      |     |                 | Intersection Information  |       |      |        |     |   |  |      |      |             |       |     |     |  |      |  |
|---|--|-----------------|----------------------|-----|-----------------|---|-------|------|--------|-----|---|---|------|------|-------------|-------|-----|-----|--|------|--|
| Agency  | Diane B. Zimmerman Traffic Engineering |                 |                      |     |                 | Duration, h   | 0.250 |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Analyst   | DBZ                                    | Analysis Date   | 9/19/2021            |     | Area Type       | Other   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Jurisdiction                                    |  | Time Period     | PM Peak              |     | PHF             | 0.96  |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Urban Street                                    | Bardstown Road                         | Analysis Year   | 2031 No Build        |     | Analysis Period | 1> 4:15   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Intersection                                    | Thixton                                | File Name       | Thixton PM 31 NB.xus |     |                 |   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Project Description                             | Windcrest Farms 3                      |                 |                      |     |                 |   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Demand Information                              |  |                 |                      |     |                 | EB  |       |      | WB     |     |   | NB  |      |      | SB          |       |     |     |  |      |  |
| Approach Movement                               |  |                 |                      |     |                 | L   | T     | R    | L      | T   | R | L   | T    | R    | L           | T     | R   |     |  |      |  |
| Demand ( v ), veh/h                             |  |                 |                      |     |                 | 118   | 0     | 233  |        |     |   | 172   | 1396 |      |             | 2010  | 169 |     |  |      |  |
| Signal Information                              |  |                 |                      |     |                 |  |       |      |        |     |   |  |      |      |             |       |     |     |  |      |  |
| Cycle, s  | 140.0                                  | Reference Phase | 2                    |     |                 |   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Offset, s                                       | 0                                      | Reference Point | End                  |     |                 |   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Uncoordinated                                   | No                                     | Simult. Gap E/W | On                   |     |                 |   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Force Mode                                      | Fixed                                  | Simult. Gap N/S | On                   |     |                 |   |       |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Green   | 11.7                                   | 75.4            | 32.7                 | 0.0 | 0.0             | 0.0   | 0.0   |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Yellow  | 3.6                                    | 5.0             | 3.6                  | 0.0 | 0.0             | 0.0   | 0.0   |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Red   | 3.0                                    | 2.0             | 3.0                  | 0.0 | 0.0             | 0.0   | 0.0   |      |        |     |   |   |      |      |             |       |     |     |  |      |  |
| Timer Results                                   |  |                 |                      |     |                 | EBL   |       | EBT  |        | WBL |   | WBT   |      | NBL  |             | NBT   |     | SBL |  | SBT  |  |
| Assigned Phase                                  |  |                 |                      |     |                 |   |       | 4    |        |     |   |   |      | 5    |             | 2     |     |     |  | 6    |  |
| Case Number                                     |  |                 |                      |     |                 |   |       | 12.0 |        |     |   |   |      | 1.0  |             | 4.0   |     |     |  | 7.3  |  |
| Phase Duration, s                               |  |                 |                      |     |                 |   |       | 39.3 |        |     |   |   |      | 18.3 |             | 100.7 |     |     |  | 82.4 |  |
| Change Period, ( Y+R c ), s                     |  |                 |                      |     |                 |   |       | 6.6  |        |     |   |   |      | 6.6  |             | 7.0   |     |     |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |  |                 |                      |     |                 |   |       | 3.3  |        |     |   |   |      | 3.0  |             | 0.0   |     |     |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |  |                 |                      |     |                 |   |       | 32.7 |        |     |   |   |      | 11.7 |             |       |     |     |  |      |  |
| Green Extension Time ( g e ), s                 |  |                 |                      |     |                 |   |       | 0.1  |        |     |   |   |      | 0.1  |             | 0.0   |     |     |  | 0.0  |  |
| Phase Call Probability                          |  |                 |                      |     |                 |   |       | 1.00 |        |     |   |   |      | 1.00 |             |       |     |     |  |      |  |
| Max Out Probability                             |  |                 |                      |     |                 |   |       | 1.00 |        |     |   |   |      | 1.00 |             |       |     |     |  |      |  |
| Movement Group Results                          |  |                 |                      |     |                 | EB  |       |      | WB     |     |   | NB  |      |      | SB          |       |     |     |  |      |  |
| Approach Movement                               |  |                 |                      |     |                 | L   | T     | R    | L      | T   | R | L   | T    | R    | L           | T     | R   |     |  |      |  |
| Assigned Movement                               |  |                 |                      |     |                 | 7   | 4     | 14   |        |     |   | 5   | 2    |      |             | 6     | 16  |     |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |  |                 |                      |     |                 | 366   |       |      |        |     |   | 179 1454  |      |      | 2094 176    |       |     |     |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |  |                 |                      |     |                 | 1633  |       |      |        |     |   | 1795 1766   |      |      | 1781 1572   |       |     |     |  |      |  |
| Queue Service Time ( g s ), s                   |  |                 |                      |     |                 | 30.7  |       |      |        |     |   | 9.7 32.4  |      |      | 76.4 8.1    |       |     |     |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |  |                 |                      |     |                 | 30.7  |       |      |        |     |   | 9.7 32.4  |      |      | 76.4 8.1    |       |     |     |  |      |  |
| Green Ratio ( g/C )                             |  |                 |                      |     |                 | 0.24  |       |      |        |     |   | 0.65 0.67   |      |      | 0.55 0.55   |       |     |     |  |      |  |
| Capacity ( c ), veh/h                           |  |                 |                      |     |                 | 394   |       |      |        |     |   | 214 2364  |      |      | 1942 846    |       |     |     |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |  |                 |                      |     |                 | 0.929   |       |      |        |     |   | 0.835 0.615   |      |      | 1.078 0.208 |       |     |     |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |  |                 |                      |     |                 | 563   |       |      |        |     |   | 289 441   |      |      | 1417 135    |       |     |     |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |  |                 |                      |     |                 | 22.0  |       |      |        |     |   | 11.5 17.2   |      |      | 55.8 5.3    |       |     |     |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |  |                 |                      |     |                 | 0.00  |       |      |        |     |   | 0.96 0.00   |      |      | 0.00 0.00   |       |     |     |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |  |                 |                      |     |                 | 52.0  |       |      |        |     |   | 46.8 13.0   |      |      | 31.8 16.8   |       |     |     |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |  |                 |                      |     |                 | 28.2  |       |      |        |     |   | 17.5 1.2  |      |      | 45.1 0.6    |       |     |     |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |  |                 |                      |     |                 | 0.0   |       |      |        |     |   | 0.0 0.0   |      |      | 0.0 0.0     |       |     |     |  |      |  |
| Control Delay ( d ), s/veh                      |  |                 |                      |     |                 | 80.2  |       |      |        |     |   | 64.3 14.2   |      |      | 76.9 17.4   |       |     |     |  |      |  |
| Level of Service ( LOS)                         |  |                 |                      |     |                 | F   |       |      |        |     |   | E B   |      |      | F B         |       |     |     |  |      |  |
| Approach Delay, s/veh / LOS                     |  |                 |                      |     |                 | 80.2 F  |       |      | 0.0    |     |   | 19.7 B  |      |      | 72.3 E      |       |     |     |  |      |  |
| Intersection Delay, s/veh / LOS                 |  |                 |                      |     |                 | 52.9  |       |      |        |     |   |   |      |      | D           |       |     |     |  |      |  |
| Multimodal Results                              |  |                 |                      |     |                 | EB  |       |      | WB     |     |   | NB  |      |      | SB          |       |     |     |  |      |  |
| Pedestrian LOS Score / LOS                      |  |                 |                      |     |                 | 2.33 B  |       |      | 2.33 B |     |   | 1.36 A  |      |      | 1.68 B      |       |     |     |  |      |  |
| Bicycle LOS Score / LOS                         |  |                 |                      |     |                 | 1.09 A  |       |      |        |     |   | 1.84 B  |      |      | 2.36 B      |       |     |     |  |      |  |



### HCS Signalized Intersection Results Summary

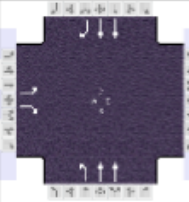
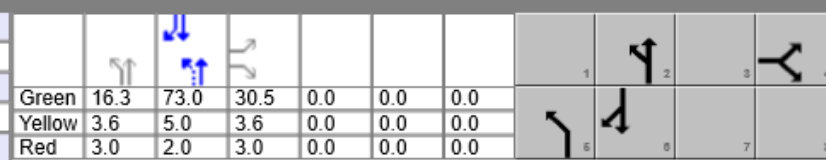
| General Information                             |  |  |                 |  |   | Intersection Information |          |                 |       |                 |       |  |      |       |       |     |  |      |  |
|---|--|--|-----------------|--|---|--------------------------|----------|-----------------|-------|-----------------|-------|---|------|-------|-------|-----|--|------|--|
| Agency  |  | Diane B. Zimmerman Traffic Engineering |                 |  |   | Duration, h              |          | 0.250           |       |                 |       |   |      |       |       |     |  |      |  |
| Analyst   |  | DBZ                                    |                 | Analysis Date  |   | 9/19/2021                |          | Area Type       |       | Other           |       |   |      |       |       |     |  |      |  |
| Jurisdiction                                    |  |  |                 | Time Period  |   | PM Peak                  |          | PHF             |       | 0.96            |       |   |      |       |       |     |  |      |  |
| Urban Street                                    |  | Bardstown Road                         |                 | Analysis Year  |   | 2031 Build               |          | Analysis Period |       | 1> 4:15         |       |   |      |       |       |     |  |      |  |
| Intersection                                    |  | Thixton                                |                 | File Name  |   | Thixton PM 31 B.xus      |          |                 |       |                 |       |   |      |       |       |     |  |      |  |
| Project Description                             |  | Windcrest Farms 3                      |                 |  |   |                          |          |                 |       |                 |       |   |      |       |       |     |  |      |  |
| Demand Information                              |  |  |                 | EB   |   |                          | WB       |                 |       | NB              |       |   | SB   |       |       |     |  |      |  |
| Approach Movement                               |  |  |                 | L  | T | R                        | L        | T               | R     | L               | T     | R   | L    | T     | R     |     |  |      |  |
| Demand ( v ), veh/h                             |  |  |                 | 137  |   | 261                      |          |                 |       | 219             | 1396  |   |      | 2010  | 200   |     |  |      |  |
| Signal Information                              |  |  |                 |  |   |                          | Cycle, s |                 | 140.0 | Reference Phase |       | 2   |      |       |       |     |  |      |  |
| Offset, s                                       |  | 0                                      | Reference Point |  |   |                          | End      |                 |       |                 |       |   |      |       |       |     |  |      |  |
| Uncoordinated                                   |  | No                                     | Simult. Gap E/W |  |   |                          | On       |                 |       |                 |       |   |      |       |       |     |  |      |  |
| Force Mode                                      |  | Fixed                                  | Simult. Gap N/S |  |   |                          | On       |                 |       |                 |       |   |      |       |       |     |  |      |  |
|   |  |  |                 |  |   |                          |          |                 |       |                 |       |   |      |       |       |     |  |      |  |
| Timer Results                                   |  |  |                 | EBL  |   | EBT                      |          | WBL             |       | WBT             |       | NBL   |      | NBT   |       | SBL |  | SBT  |  |
| Assigned Phase                                  |  |  |                 |  |   | 4                        |          |                 |       |                 |       | 5   |      | 2     |       |     |  | 6    |  |
| Case Number                                     |  |  |                 |  |   | 9.0                      |          |                 |       |                 |       | 1.0   |      | 4.0   |       |     |  | 7.3  |  |
| Phase Duration, s                               |  |  |                 |  |   | 32.3                     |          |                 |       |                 |       | 22.2  |      | 107.7 |       |     |  | 85.6 |  |
| Change Period, ( Y+R c ), s                     |  |  |                 |  |   | 6.6                      |          |                 |       |                 |       | 6.6   |      | 7.0   |       |     |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |  |  |                 |  |   | 3.3                      |          |                 |       |                 |       | 3.0   |      | 0.0   |       |     |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |  |  |                 |  |   | 25.0                     |          |                 |       |                 |       | 15.4  |      |       |       |     |  |      |  |
| Green Extension Time ( g e ), s                 |  |  |                 |  |   | 0.6                      |          |                 |       |                 |       | 0.2   |      | 0.0   |       |     |  | 0.0  |  |
| Phase Call Probability                          |  |  |                 |  |   | 1.00                     |          |                 |       |                 |       | 1.00  |      |       |       |     |  |      |  |
| Max Out Probability                             |  |  |                 |  |   | 0.04                     |          |                 |       |                 |       | 0.06  |      |       |       |     |  |      |  |
| Movement Group Results                          |  |  |                 | EB   |   |                          | WB       |                 |       | NB              |       |   | SB   |       |       |     |  |      |  |
| Approach Movement                               |  |  |                 | L  | T | R                        | L        | T               | R     | L               | T     | R   | L    | T     | R     |     |  |      |  |
| Assigned Movement                               |  |  |                 | 7  |   | 14                       |          |                 |       | 5               | 2     |   |      | 6     | 16    |     |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |  |  |                 | 143  |   | 272                      |          |                 |       | 228             | 1454  |   |      | 2094  | 208   |     |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |  |  |                 | 1810   |   | 1610                     |          |                 |       | 1795            | 1766  |   |      | 1781  | 1572  |     |  |      |  |
| Queue Service Time ( g s ), s                   |  |  |                 | 9.7  |   | 23.0                     |          |                 |       | 13.4            | 27.5  |   |      | 79.6  | 9.4   |     |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |  |  |                 | 9.7  |   | 23.0                     |          |                 |       | 13.4            | 27.5  |   |      | 79.6  | 9.4   |     |  |      |  |
| Green Ratio ( g/C )                             |  |  |                 | 0.19   |   | 0.19                     |          |                 |       | 0.70            | 0.72  |   |      | 0.57  | 0.57  |     |  |      |  |
| Capacity ( c ), veh/h                           |  |  |                 | 345  |   | 307                      |          |                 |       | 264             | 2542  |   |      | 2024  | 883   |     |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |  |  |                 | 0.414  |   | 0.887                    |          |                 |       | 0.865           | 0.572 |   |      | 1.034 | 0.236 |     |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |  |  |                 | 197  |   | 397                      |          |                 |       | 343             | 361   |   |      | 1282  | 154   |     |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |  |  |                 | 7.9  |   | 15.9                     |          |                 |       | 13.6            | 14.1  |   |      | 50.5  | 6.0   |     |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |  |  |                 | 0.00   |   | 0.00                     |          |                 |       | 1.14            | 0.00  |   |      | 0.00  | 0.00  |     |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |  |  |                 | 49.8   |   | 55.2                     |          |                 |       | 49.4            | 9.4   |   |      | 30.2  | 15.5  |     |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |  |  |                 | 0.3  |   | 15.1                     |          |                 |       | 14.5            | 0.9   |   |      | 29.5  | 0.6   |     |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |  |  |                 | 0.0  |   | 0.0                      |          |                 |       | 0.0             | 0.0   |   |      | 0.0   | 0.0   |     |  |      |  |
| Control Delay ( d ), s/veh                      |  |  |                 | 50.1   |   | 70.3                     |          |                 |       | 63.9            | 10.3  |   |      | 59.7  | 16.2  |     |  |      |  |
| Level of Service (LOS)                          |  |  |                 | D  |   | E                        |          |                 |       | E               | B     |   |      | F     | B     |     |  |      |  |
| Approach Delay, s/veh / LOS                     |  |  |                 | 63.3   |   | E                        |          |                 | 0.0   | 17.6            | B     |   | 55.8 |       | E     |     |  |      |  |
| Intersection Delay, s/veh / LOS                 |  |  |                 | 41.9   |   |                          |          |                 |       | D               |       |   |      |       |       |     |  |      |  |
| Multimodal Results                              |  |  |                 | EB   |   |                          | WB       |                 |       | NB              |       |   | SB   |       |       |     |  |      |  |
| Pedestrian LOS Score / LOS                      |  |  |                 | 2.33   |   | B                        | 2.33     |                 | B     | 0.67            |       | A   | 1.90 |       | B     |     |  |      |  |
| Bicycle LOS Score / LOS                         |  |  |                 |  |   | F                        |          |                 |       | 1.88            |       | B   | 2.39 |       | B     |     |  |      |  |

### HCS Signalized Intersection Results Summary

| General Information                             |       |  |     |               | Intersection Information |                      |             |                 |       |  |       |      |      |       |         |     |  |      |  |
|---|-------|--|-----|---------------|--------------------------|----------------------|-------------|-----------------|-------|---|-------|------|------|-------|---------|-----|--|------|--|
| Agency  |       | Diane B. Zimmerman Traffic Engineering |     |               |                          |                      | Duration, h |                 | 0.250 |   |       |      |      |       |         |     |  |      |  |
| Analyst   |       | DBZ                                    |     | Analysis Date |                          | 9/19/2021            |             | Area Type       |       |   |       |      |      |       | Other   |     |  |      |  |
| Jurisdiction                                    |       |  |     | Time Period   |                          | PM Peak              |             | PHF             |       |   |       |      |      |       | 0.96    |     |  |      |  |
| Urban Street                                    |       | Bardstown Road                         |     | Analysis Year |                          | 2041 No Build        |             | Analysis Period |       |   |       |      |      |       | 1> 4:15 |     |  |      |  |
| Intersection                                    |       | Thixton                                |     | File Name     |                          | Thixton PM 41 NB.xus |             |                 |       |   |       |      |      |       |         |     |  |      |  |
| Project Description                             |       | Windcrest Farms 3                      |     |               |                          |                      |             |                 |       |   |       |      |      |       |         |     |  |      |  |
| Demand Information                              |       |  |     | EB            |                          |                      | WB          |                 |       | NB  |       |      | SB   |       |         |     |  |      |  |
| Approach Movement                               |       |  |     | L             | T                        | R                    | L           | T               | R     | L   | T     | R    | L    | T     | R       |     |  |      |  |
| Demand ( v ), veh/h                             |       |  |     | 147           |                          | 290                  |             |                 |       | 214   | 1735  |      |      | 2499  | 210     |     |  |      |  |
| Signal Information                              |       |  |     |               |                          |                      |             |                 |       |   |       |      |      |       |         |     |  |      |  |
| Cycle, s  | 140.0 | Reference Phase                        | 2   |               |                          |                      |             |                 |       |   |       |      |      |       |         |     |  |      |  |
| Offset, s                                       | 0     | Reference Point                        | End | Green         | 15.1                     | 76.5                 | 28.2        | 0.0             | 0.0   | 0.0   |       |      |      |       |         |     |  |      |  |
| Uncoordinated                                   | No    | Simult. Gap E/W                        | On  | Yellow        | 3.6                      | 5.0                  | 3.6         | 0.0             | 0.0   | 0.0   |       |      |      |       |         |     |  |      |  |
| Force Mode                                      | Fixed | Simult. Gap N/S                        | On  | Red           | 3.0                      | 2.0                  | 3.0         | 0.0             | 0.0   | 0.0   |       |      |      |       |         |     |  |      |  |
| Timer Results                                   |       |  |     | EBL           |                          | EBT                  |             | WBL             |       | WBT   |       | NBL  |      | NBT   |         | SBL |  | SBT  |  |
| Assigned Phase                                  |       |  |     |               |                          | 4                    |             |                 |       |   |       | 5    |      | 2     |         |     |  | 6    |  |
| Case Number                                     |       |  |     |               |                          | 9.0                  |             |                 |       |   |       | 1.0  |      | 4.0   |         |     |  | 7.3  |  |
| Phase Duration, s                               |       |  |     |               |                          | 34.8                 |             |                 |       |   |       | 21.7 |      | 105.2 |         |     |  | 83.5 |  |
| Change Period, ( Y+R c ), s                     |       |  |     |               |                          | 6.6                  |             |                 |       |   |       | 6.6  |      | 7.0   |         |     |  | 7.0  |  |
| Max Allow Headway ( MAH ), s                    |       |  |     |               |                          | 3.3                  |             |                 |       |   |       | 3.0  |      | 0.0   |         |     |  | 0.0  |  |
| Queue Clearance Time ( g s ), s                 |       |  |     |               |                          | 27.6                 |             |                 |       |   |       | 15.0 |      |       |         |     |  |      |  |
| Green Extension Time ( g e ), s                 |       |  |     |               |                          | 0.6                  |             |                 |       |   |       | 0.1  |      | 0.0   |         |     |  | 0.0  |  |
| Phase Call Probability                          |       |  |     |               |                          | 1.00                 |             |                 |       |   |       | 1.00 |      |       |         |     |  |      |  |
| Max Out Probability                             |       |  |     |               |                          | 0.22                 |             |                 |       |   |       | 0.51 |      |       |         |     |  |      |  |
| Movement Group Results                          |       |  |     | EB            |                          |                      | WB          |                 |       | NB  |       |      | SB   |       |         |     |  |      |  |
| Approach Movement                               |       |  |     | L             | T                        | R                    | L           | T               | R     | L   | T     | R    | L    | T     | R       |     |  |      |  |
| Assigned Movement                               |       |  |     | 7             |                          | 14                   |             |                 |       | 5   | 2     |      |      | 6     | 16      |     |  |      |  |
| Adjusted Flow Rate ( v ), veh/h                 |       |  |     | 153           |                          | 302                  |             |                 |       | 223   | 1807  |      |      | 2603  | 219     |     |  |      |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |       |  |     | 1810          |                          | 1610                 |             |                 |       | 1795  | 1766  |      |      | 1781  | 1572    |     |  |      |  |
| Queue Service Time ( g s ), s                   |       |  |     | 10.2          |                          | 25.6                 |             |                 |       | 13.0  | 43.8  |      |      | 77.5  | 10.3    |     |  |      |  |
| Cycle Queue Clearance Time ( g c ), s           |       |  |     | 10.2          |                          | 25.6                 |             |                 |       | 13.0  | 43.8  |      |      | 77.5  | 10.3    |     |  |      |  |
| Green Ratio ( g/C )                             |       |  |     | 0.21          |                          | 0.21                 |             |                 |       | 0.68  | 0.70  |      |      | 0.55  | 0.55    |     |  |      |  |
| Capacity ( c ), veh/h                           |       |  |     | 377           |                          | 336                  |             |                 |       | 258   | 2479  |      |      | 1972  | 859     |     |  |      |  |
| Volume-to-Capacity Ratio ( X )                  |       |  |     | 0.406         |                          | 0.900                |             |                 |       | 0.864   | 0.729 |      |      | 1.320 | 0.255   |     |  |      |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |       |  |     | 205           |                          | 444                  |             |                 |       | 343   | 551   |      |      | 2610  | 170     |     |  |      |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |       |  |     | 8.2           |                          | 17.8                 |             |                 |       | 13.6  | 21.5  |      |      | 102.7 | 6.6     |     |  |      |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |       |  |     | 0.00          |                          | 0.00                 |             |                 |       | 1.14  | 0.00  |      |      | 0.00  | 0.00    |     |  |      |  |
| Uniform Delay ( d 1 ), s/veh                    |       |  |     | 47.9          |                          | 54.0                 |             |                 |       | 48.8  | 12.8  |      |      | 31.2  | 16.7    |     |  |      |  |
| Incremental Delay ( d 2 ), s/veh                |       |  |     | 0.3           |                          | 19.2                 |             |                 |       | 17.6  | 1.9   |      |      | 147.8 | 0.7     |     |  |      |  |
| Initial Queue Delay ( d 3 ), s/veh              |       |  |     | 0.0           |                          | 0.0                  |             |                 |       | 0.0   | 0.0   |      |      | 0.0   | 0.0     |     |  |      |  |
| Control Delay ( d ), s/veh                      |       |  |     | 48.2          |                          | 73.2                 |             |                 |       | 66.5  | 14.7  |      |      | 179.0 | 17.4    |     |  |      |  |
| Level of Service ( LOS)                         |       |  |     | D             |                          | E                    |             |                 |       | E   | B     |      |      | F     | B       |     |  |      |  |
| Approach Delay, s/veh / LOS                     |       |  |     | 64.8          |                          | E                    |             |                 | 0.0   | 20.4  | C     |      |      | 166.5 | F       |     |  |      |  |
| Intersection Delay, s/veh / LOS                 |       |  |     | 101.9         |                          |                      |             |                 | F     |   |       |      |      |       |         |     |  |      |  |
| Multimodal Results                              |       |  |     | EB            |                          |                      | WB          |                 |       | NB  |       |      | SB   |       |         |     |  |      |  |
| Pedestrian LOS Score / LOS                      |       |  |     | 2.33          |                          | B                    | 2.33        |                 | B     | 0.67  |       | A    | 1.90 |       | B       |     |  |      |  |
| Bicycle LOS Score / LOS                         |       |  |     |               |                          | F                    |             |                 |       | 2.16  |       | B    | 2.82 |       | C       |     |  |      |  |



### HCS Signalized Intersection Results Summary

| General Information                             |  |  |                 |               | Intersection Information   |                     |                 |       |         |  |       |       |     |      |       |       |     |  |
|---|--|--|-----------------|---------------|--|---------------------|-----------------|-------|---------|---|-------|-------|-----|------|-------|-------|-----|--|
| Agency  |  | Diane B. Zimmerman Traffic Engineering |                 |               | Duration, h  |                     | 0.250           |       |         |   |       |       |     |      |       |       |     |  |
| Analyst   |  | DBZ                                    | Analysis Date   |               | 9/19/2021  | Area Type           |                 | Other |         |   |       |       |     |      |       |       |     |  |
| Jurisdiction                                    |  |  | Time Period     |               | PM Peak  | PHF                 |                 | 0.96  |         |   |       |       |     |      |       |       |     |  |
| Urban Street                                    |  | Bardstown Road                         |                 | Analysis Year |  | 2041 Build          | Analysis Period |       | 1> 4:15 |   |       |       |     |      |       |       |     |  |
| Intersection                                    |  | Thixton                                |                 | File Name     |  | Thixton PM 41 B.xus |                 |       |         |   |       |       |     |      |       |       |     |  |
| Project Description                             |  | Windcrest Farms 3                      |                 |               |  |                     |                 |       |         |   |       |       |     |      |       |       |     |  |
| Demand Information                              |  |  |                 |               | EB   |                     |                 | WB    |         |   | NB    |       |     | SB   |       |       |     |  |
| Approach Movement                               |  |  |                 |               | L  | T                   | R               | L     | T       | R   | L     | T     | R   | L    | T     | R     |     |  |
| Demand ( v ), veh/h                             |  |  |                 |               | 166  |                     | 318             |       |         |   | 261   | 1735  |     |      | 2499  | 241   |     |  |
| Signal Information                              |  |  |                 |               |  |                     |                 |       |         |   |       |       |     |      |       |       |     |  |
| Cycle, s  |  | 140.0                                  | Reference Phase |               |  |                     |                 |       |         |   |       |       |     |      |       |       | 2   |  |
| Offset, s                                       |  | 0                                      | Reference Point |               |  |                     |                 |       |         |   |       |       |     |      |       |       | End |  |
| Uncoordinated                                   |  | No                                     | Simult. Gap E/W |               |  |                     |                 |       |         |   |       |       |     |      |       |       | On  |  |
| Force Mode                                      |  | Fixed                                  | Simult. Gap N/S |               |  |                     |                 |       |         |   |       |       |     |      |       |       | On  |  |
| Green   |  |  |                 |               | 16.3   | 73.0                | 30.5            | 0.0   | 0.0     | 0.0   | 0.0   | 0.0   | 0.0 | 0.0  | 0.0   |       |     |  |
| Yellow  |  |  |                 |               | 3.6  | 5.0                 | 3.6             | 0.0   | 0.0     | 0.0   | 0.0   | 0.0   | 0.0 | 0.0  | 0.0   |       |     |  |
| Red   |  |  |                 |               | 3.0  | 2.0                 | 3.0             | 0.0   | 0.0     | 0.0   | 0.0   | 0.0   | 0.0 | 0.0  | 0.0   |       |     |  |
| Timer Results                                   |  |  |                 |               | EBL  | EBT                 | WBL             | WBT   | NBL     | NBT   | SBL   | SBT   |     |      |       |       |     |  |
| Assigned Phase                                  |  |  |                 |               |  | 4                   |                 |       | 5       | 2   |       | 6     |     |      |       |       |     |  |
| Case Number                                     |  |  |                 |               |  | 9.0                 |                 |       | 1.0     | 4.0   |       | 7.3   |     |      |       |       |     |  |
| Phase Duration, s                               |  |  |                 |               |  | 37.1                |                 |       | 22.9    | 102.9   |       | 80.0  |     |      |       |       |     |  |
| Change Period, ( Y+R c ), s                     |  |  |                 |               |  | 6.6                 |                 |       | 6.6     | 7.0   |       | 7.0   |     |      |       |       |     |  |
| Max Allow Headway ( MAH ), s                    |  |  |                 |               |  | 3.3                 |                 |       | 3.0     | 0.0   |       | 0.0   |     |      |       |       |     |  |
| Queue Clearance Time ( g s ), s                 |  |  |                 |               |  | 30.1                |                 |       | 19.2    |   |       |       |     |      |       |       |     |  |
| Green Extension Time ( g e ), s                 |  |  |                 |               |  | 0.4                 |                 |       | 0.0     | 0.0   |       | 0.0   |     |      |       |       |     |  |
| Phase Call Probability                          |  |  |                 |               |  | 1.00                |                 |       | 1.00    |   |       |       |     |      |       |       |     |  |
| Max Out Probability                             |  |  |                 |               |  | 0.99                |                 |       | 1.00    |   |       |       |     |      |       |       |     |  |
| Movement Group Results                          |  |  |                 |               | EB   |                     |                 | WB    |         |   | NB    |       |     | SB   |       |       |     |  |
| Approach Movement                               |  |  |                 |               | L  | T                   | R               | L     | T       | R   | L     | T     | R   | L    | T     | R     |     |  |
| Assigned Movement                               |  |  |                 |               | 7  |                     | 14              |       |         |   | 5     | 2     |     |      | 6     | 16    |     |  |
| Adjusted Flow Rate ( v ), veh/h                 |  |  |                 |               | 173  |                     | 331             |       |         |   | 272   | 1807  |     |      | 2603  | 251   |     |  |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |  |  |                 |               | 1810   |                     | 1610            |       |         |   | 1795  | 1766  |     |      | 1781  | 1572  |     |  |
| Queue Service Time ( g s ), s                   |  |  |                 |               | 11.5   |                     | 28.1            |       |         |   | 17.2  | 46.2  |     |      | 74.0  | 12.7  |     |  |
| Cycle Queue Clearance Time ( g c ), s           |  |  |                 |               | 11.5   |                     | 28.1            |       |         |   | 17.2  | 46.2  |     |      | 74.0  | 12.7  |     |  |
| Green Ratio ( g/C )                             |  |  |                 |               | 0.23   |                     | 0.23            |       |         |   | 0.67  | 0.68  |     |      | 0.53  | 0.53  |     |  |
| Capacity ( c ), veh/h                           |  |  |                 |               | 408  |                     | 363             |       |         |   | 273   | 2419  |     |      | 1882  | 820   |     |  |
| Volume-to-Capacity Ratio ( X )                  |  |  |                 |               | 0.424  |                     | 0.913           |       |         |   | 0.997 | 0.747 |     |      | 1.383 | 0.306 |     |  |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |  |  |                 |               | 223  |                     | 490             |       |         |   | 489   | 591   |     |      | 2822  | 209   |     |  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |  |  |                 |               | 8.9  |                     | 19.6            |       |         |   | 19.4  | 23.1  |     |      | 111.1 | 8.2   |     |  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |  |  |                 |               | 0.00   |                     | 0.00            |       |         |   | 1.63  | 0.00  |     |      | 0.00  | 0.00  |     |  |
| Uniform Delay ( d 1 ), s/veh                    |  |  |                 |               | 46.5   |                     | 52.9            |       |         |   | 50.9  | 14.2  |     |      | 33.0  | 19.1  |     |  |
| Incremental Delay ( d 2 ), s/veh                |  |  |                 |               | 0.3  |                     | 23.0            |       |         |   | 53.5  | 2.2   |     |      | 175.7 | 1.0   |     |  |
| Initial Queue Delay ( d 3 ), s/veh              |  |  |                 |               | 0.0  |                     | 0.0             |       |         |   | 0.0   | 0.0   |     |      | 0.0   | 0.0   |     |  |
| Control Delay ( d ), s/veh                      |  |  |                 |               | 46.7   |                     | 75.9            |       |         |   | 104.4 | 16.4  |     |      | 208.7 | 20.0  |     |  |
| Level of Service (LOS)                          |  |  |                 |               | D  |                     | E               |       |         |   | F     | B     |     |      | F     | C     |     |  |
| Approach Delay, s/veh / LOS                     |  |  |                 |               | 65.9   |                     | E               |       | 0.0     |   | 27.9  |       | C   |      | 192.1 | F     |     |  |
| Intersection Delay, s/veh / LOS                 |  |  |                 |               |  |                     | 117.6           |       |         |   |       |       | F   |      |       |       |     |  |
| Multimodal Results                              |  |  |                 |               | EB   |                     |                 | WB    |         |   | NB    |       |     | SB   |       |       |     |  |
| Pedestrian LOS Score / LOS                      |  |  |                 |               | 2.33   |                     | B               | 2.33  |         | B   | 0.68  |       | A   | 1.91 |       | B     |     |  |
| Bicycle LOS Score / LOS                         |  |  |                 |               |  |                     | F               |       |         |   | 2.20  |       | B   | 2.84 |       | C     |     |  |

| HCS Two-Way Stop-Control Report                            |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
|--|--|-----------|-----|---|----------------------------|---|-----|----|---------------------|---|---|---|------------|------|----|------|--|
| General Information  |  |           |     |   |                            |   |     |    | Site Information    |   |   |   |            |      |    |      |  |
| Analyst  | DBZ  |           |     |   | Intersection               |   |     |    | Thixton at Street B |   |   |   |            |      |    |      |  |
| Agency/Co.   | Diane B. Zimmerman Traffic Engineering LLC |           |     |   | Jurisdiction               |   |     |    |                     |   |   |   |            |      |    |      |  |
| Date Performed   | 9/6/2024                                   |           |     |   | East/West Street           |   |     |    | Thixton Lane        |   |   |   |            |      |    |      |  |
| Analysis Year  | 2031                                       |           |     |   | North/South Street         |   |     |    | Street B            |   |   |   |            |      |    |      |  |
| Time Analyzed  | AM Peak                                    |           |     |   | Peak Hour Factor           |   |     |    | 0.90                |   |   |   |            |      |    |      |  |
| Intersection Orientation                                   | East-West                                  |           |     |   | Analysis Time Period (hrs) |   |     |    | 0.25                |   |   |   |            |      |    |      |  |
| Project Description  | Windcrest Farms 3                          |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| <b>Lanes</b>   |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| <p style="text-align: center;">Major Street: East-West</p> |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| <b>Vehicle Volumes and Adjustments</b>                     |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| 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)   |  | 12        | 139 |   |                            |   | 251 | 15 |                     |   |   |   |            | 55   |    | 28   |  |
| Percent Heavy Vehicles (%)                                 |  | 0         |     |   |                            |   |     |    |                     |   |   |   |            | 0    |    | 0    |  |
| Proportion Time Blocked                                    |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| Percent Grade (%)  |  |           |     |   |                            |   |     |    |                     |   |   |   |            | 0    |    |      |  |
| Right Turn Channelized                                     |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| Median Type   Storage                                      |  | Undivided |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| <b>Critical and Follow-up Headways</b>                     |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| Base Critical Headway (sec)                                |  | 4.1       |     |   |                            |   |     |    |                     |   |   |   |            | 7.1  |    | 6.2  |  |
| Critical Headway (sec)                                     |  | 4.10      |     |   |                            |   |     |    |                     |   |   |   |            | 6.40 |    | 6.20 |  |
| Base Follow-Up Headway (sec)                               |  | 2.2       |     |   |                            |   |     |    |                     |   |   |   |            | 3.5  |    | 3.3  |  |
| Follow-Up Headway (sec)                                    |  | 2.20      |     |   |                            |   |     |    |                     |   |   |   |            | 3.50 |    | 3.30 |  |
| <b>Delay, Queue Length, and Level of Service</b>           |  |           |     |   |                            |   |     |    |                     |   |   |   |            |      |    |      |  |
| Flow Rate, v (veh/h)                                       |  | 13        |     |   |                            |   |     |    |                     |   |   |   |            | 92   |    |      |  |
| Capacity, c (veh/h)  |  | 1277      |     |   |                            |   |     |    |                     |   |   |   |            | 606  |    |      |  |
| v/c Ratio  |  | 0.01      |     |   |                            |   |     |    |                     |   |   |   |            | 0.15 |    |      |  |
| 95% Queue Length, Q <sub>95</sub> (veh)                    |  | 0.0       |     |   |                            |   |     |    |                     |   |   |   |            | 0.5  |    |      |  |
| 95% Queue Length, Q <sub>95</sub> (ft)                     |  | 0.0       |     |   |                            |   |     |    |                     |   |   |   |            | 12.5 |    |      |  |
| Control Delay (s/veh)                                      |  | 7.8       | 0.1 |   |                            |   |     |    |                     |   |   |   |            | 12.0 |    |      |  |
| Level of Service (LOS)                                     |  | A         | A   |   |                            |   |     |    |                     |   |   |   |            | B    |    |      |  |
| Approach Delay (s/veh)                                     |  | 0.7       |     |   |                            |   |     |    |                     |   |   |   |            | 12.0 |    |      |  |
| Approach LOS   |  | A         |     |   |                            |   |     |    |                     |   |   |   |            | B    |    |      |  |

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| HCS Two-Way Stop-Control Report                  |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
|--|--|-----------|-----|---|-----------|---|-----|----|----------------------------|---------------------|---|---|------------|------|----|------|--|--|
| General Information                              |  |           |     |   |           |   |     |    | Site Information           |                     |   |   |            |      |    |      |  |  |
| Analyst  | DBZ  |           |     |   |           |   |     |    | Intersection               | Thixton at Street B |   |   |            |      |    |      |  |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |           |     |   |           |   |     |    | Jurisdiction               |                     |   |   |            |      |    |      |  |  |
| Date Performed                                   | 9/6/2024                                   |           |     |   |           |   |     |    | East/West Street           | Thixton Lane        |   |   |            |      |    |      |  |  |
| Analysis Year                                    | 2041                                       |           |     |   |           |   |     |    | North/South Street         | Street B            |   |   |            |      |    |      |  |  |
| Time Analyzed                                    | AM Peak                                    |           |     |   |           |   |     |    | Peak Hour Factor           | 0.90                |   |   |            |      |    |      |  |  |
| Intersection Orientation                         | East-West                                  |           |     |   |           |   |     |    | Analysis Time Period (hrs) | 0.25                |   |   |            |      |    |      |  |  |
| Project Description                              | Windcrest Farms 3                          |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| <b>Lanes</b>                                     |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
|  |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| 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)                                   |  | 12        | 169 |   |           |   | 306 | 15 |                            |                     |   |   |            | 55   |    | 28   |  |  |
| Percent Heavy Vehicles (%)                       |  | 0         |     |   |           |   |     |    |                            |                     |   |   |            | 0    |    | 0    |  |  |
| Proportion Time Blocked                          |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| Percent Grade (%)                                |  |           |     |   |           |   |     |    |                            |                     |   |   |            | 0    |    |      |  |  |
| Right Turn Channelized                           |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| Median Type   Storage                            |  | Undivided |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| <b>Critical and Follow-up Headways</b>           |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| Base Critical Headway (sec)                      |  | 4.1       |     |   |           |   |     |    |                            |                     |   |   |            | 7.1  |    | 6.2  |  |  |
| Critical Headway (sec)                           |  | 4.10      |     |   |           |   |     |    |                            |                     |   |   |            | 6.40 |    | 6.20 |  |  |
| Base Follow-Up Headway (sec)                     |  | 2.2       |     |   |           |   |     |    |                            |                     |   |   |            | 3.5  |    | 3.3  |  |  |
| Follow-Up Headway (sec)                          |  | 2.20      |     |   |           |   |     |    |                            |                     |   |   |            | 3.50 |    | 3.30 |  |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |           |     |   |           |   |     |    |                            |                     |   |   |            |      |    |      |  |  |
| Flow Rate, v (veh/h)                             |  | 13        |     |   |           |   |     |    |                            |                     |   |   |            | 92   |    |      |  |  |
| Capacity, c (veh/h)                              |  | 1213      |     |   |           |   |     |    |                            |                     |   |   |            | 541  |    |      |  |  |
| v/c Ratio  |  | 0.01      |     |   |           |   |     |    |                            |                     |   |   |            | 0.17 |    |      |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  | 0.0       |     |   |           |   |     |    |                            |                     |   |   |            | 0.6  |    |      |  |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  | 0.0       |     |   |           |   |     |    |                            |                     |   |   |            | 15.0 |    |      |  |  |
| Control Delay (s/veh)                            |  | 8.0       | 0.1 |   |           |   |     |    |                            |                     |   |   |            | 13.0 |    |      |  |  |
| Level of Service (LOS)                           |  | A         | A   |   |           |   |     |    |                            |                     |   |   |            | B    |    |      |  |  |
| Approach Delay (s/veh)                           |  | 0.6       |     |   |           |   |     |    |                            |                     |   |   |            | 13.0 |    |      |  |  |
| Approach LOS                                     |  | A         |     |   |           |   |     |    |                            |                     |   |   |            | B    |    |      |  |  |

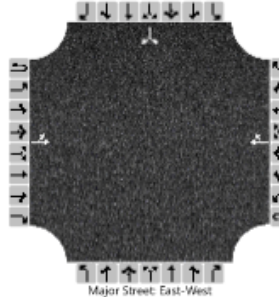
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| HCS Two-Way Stop-Control Report                  |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
|--|--|------|-----|---|-----------|---|-----|----|----------------------------|---------------------|---|---|------------|------|------|------|--|
| General Information                              |  |      |     |   |           |   |     |    | Site Information           |                     |   |   |            |      |      |      |  |
| Analyst  | DBZ  |      |     |   |           |   |     |    | Intersection               | Thixton at Street B |   |   |            |      |      |      |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |     |   |           |   |     |    | Jurisdiction               |                     |   |   |            |      |      |      |  |
| Date Performed                                   | 9/6/2024                                   |      |     |   |           |   |     |    | East/West Street           | Thixton Lane        |   |   |            |      |      |      |  |
| Analysis Year                                    | 2031                                       |      |     |   |           |   |     |    | North/South Street         | Street B            |   |   |            |      |      |      |  |
| Time Analyzed                                    | PM Peak                                    |      |     |   |           |   |     |    | Peak Hour Factor           | 0.96                |   |   |            |      |      |      |  |
| Intersection Orientation                         | East-West                                  |      |     |   |           |   |     |    | Analysis Time Period (hrs) | 0.25                |   |   |            |      |      |      |  |
| Project Description                              | Windcrest Farms 3                          |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| <b>Lanes</b>                                     |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
|  |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| 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)                                   |  | 32   | 320 |   |           |   | 249 | 62 |                            |                     |   |   |            | 38   |      | 19   |  |
| Percent Heavy Vehicles (%)                       |  | 0    |     |   |           |   |     |    |                            |                     |   |   |            | 0    |      | 0    |  |
| Proportion Time Blocked                          |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| Percent Grade (%)                                |  |      |     |   |           |   |     |    |                            |                     |   |   | 0          |      |      |      |  |
| Right Turn Channelized                           |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| Median Type   Storage                            | Undivided                                  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| <b>Critical and Follow-up Headways</b>           |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| Base Critical Headway (sec)                      |  | 4.1  |     |   |           |   |     |    |                            |                     |   |   |            | 7.1  |      | 6.2  |  |
| Critical Headway (sec)                           |  | 4.10 |     |   |           |   |     |    |                            |                     |   |   |            | 6.40 |      | 6.20 |  |
| Base Follow-Up Headway (sec)                     |  | 2.2  |     |   |           |   |     |    |                            |                     |   |   |            | 3.5  |      | 3.3  |  |
| Follow-Up Headway (sec)                          |  | 2.20 |     |   |           |   |     |    |                            |                     |   |   |            | 3.50 |      | 3.30 |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |     |   |           |   |     |    |                            |                     |   |   |            |      |      |      |  |
| Flow Rate, v (veh/h)                             |  | 33   |     |   |           |   |     |    |                            |                     |   |   |            |      | 59   |      |  |
| Capacity, c (veh/h)                              |  | 1247 |     |   |           |   |     |    |                            |                     |   |   |            |      | 474  |      |  |
| v/c Ratio  |  | 0.03 |     |   |           |   |     |    |                            |                     |   |   |            |      | 0.13 |      |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  | 0.1  |     |   |           |   |     |    |                            |                     |   |   |            |      | 0.4  |      |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  | 2.5  |     |   |           |   |     |    |                            |                     |   |   |            |      | 10.0 |      |  |
| Control Delay (s/veh)                            |  | 8.0  | 0.3 |   |           |   |     |    |                            |                     |   |   |            |      | 13.7 |      |  |
| Level of Service (LOS)                           |  | A    | A   |   |           |   |     |    |                            |                     |   |   |            |      | B    |      |  |
| Approach Delay (s/veh)                           | 1.0  |      |     |   |           |   |     |    |                            |                     |   |   | 13.7       |      |      |      |  |
| Approach LOS                                     | A  |      |     |   |           |   |     |    |                            |                     |   |   | B          |      |      |      |  |

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| HCS Two-Way Stop-Control Report   |  |      |     |   |           |   |     |    |                            |   |   |   |                     |      |      |      |
|---|--|------|-----|---|-----------|---|-----|----|----------------------------|---|---|---|---------------------|------|------|------|
| General Information   |  |      |     |   |           |   |     |    | Site Information           |   |   |   |                     |      |      |      |
| Analyst   | DBZ  |      |     |   |           |   |     |    | Intersection               |   |   |   | Thixton at Street B |      |      |      |
| Agency/Co.  | Diane B. Zimmerman Traffic Engineering LLC |      |     |   |           |   |     |    | Jurisdiction               |   |   |   |                     |      |      |      |
| Date Performed  | 9/6/2024                                   |      |     |   |           |   |     |    | East/West Street           |   |   |   | Thixton Lane        |      |      |      |
| Analysis Year   | 2041                                       |      |     |   |           |   |     |    | North/South Street         |   |   |   | Street B            |      |      |      |
| Time Analyzed   | PM Peak                                    |      |     |   |           |   |     |    | Peak Hour Factor           |   |   |   | 0.96                |      |      |      |
| Intersection Orientation  | East-West                                  |      |     |   |           |   |     |    | Analysis Time Period (hrs) |   |   |   | 0.25                |      |      |      |
| Project Description   | Windcrest Farms 3                          |      |     |   |           |   |     |    |                            |   |   |   |                     |      |      |      |
| 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)  |  | 32   | 390 |   |           |   | 308 | 62 |                            |   |   |   |                     | 38   |      | 19   |
| Percent Heavy Vehicles (%)  |  | 0    |     |   |           |   |     |    |                            |   |   |   |                     | 0    |      | 0    |
| 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)  |  | 4.10 |     |   |           |   |     |    |                            |   |   |   |                     | 6.40 |      | 6.20 |
| Base Follow-Up Headway (sec)  |  | 2.2  |     |   |           |   |     |    |                            |   |   |   |                     | 3.5  |      | 3.3  |
| Follow-Up Headway (sec)   |  | 2.20 |     |   |           |   |     |    |                            |   |   |   |                     | 3.50 |      | 3.30 |
| Delay, Queue Length, and Level of Service   |  |      |     |   |           |   |     |    |                            |   |   |   |                     |      |      |      |
| Flow Rate, v (veh/h)  |  | 33   |     |   |           |   |     |    |                            |   |   |   |                     |      | 59   |      |
| Capacity, c (veh/h)   |  | 1184 |     |   |           |   |     |    |                            |   |   |   |                     |      | 402  |      |
| v/c Ratio   |  | 0.03 |     |   |           |   |     |    |                            |   |   |   |                     |      | 0.15 |      |
| 95% Queue Length, Q <sub>95</sub> (veh)   |  | 0.1  |     |   |           |   |     |    |                            |   |   |   |                     |      | 0.5  |      |
| 95% Queue Length, Q <sub>95</sub> (ft)  |  | 2.5  |     |   |           |   |     |    |                            |   |   |   |                     |      | 12.5 |      |
| Control Delay (s/veh)   |  | 8.1  | 0.3 |   |           |   |     |    |                            |   |   |   |                     |      | 15.5 |      |
| Level of Service (LOS)  |  | A    | A   |   |           |   |     |    |                            |   |   |   |                     |      | C    |      |
| Approach Delay (s/veh)  | 0.9  |      |     |   |           |   |     |    |                            |   |   |   | 15.5                |      |      |      |
| Approach LOS  | A  |      |     |   |           |   |     |    |                            |   |   |   | C                   |      |      |      |

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| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
|--|--|------|------|------|-----------|---|---|----------------------------|------------|------|-----|--------------------------------|------------|---|-----|----|
| General Information                              |  |      |      |      |           |   |   | Site Information           |            |      |     |                                |            |   |     |    |
| Analyst  | DBZ  |      |      |      |           |   |   | Intersection               |            |      |     | Thixton at Independence School |            |   |     |    |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   | Jurisdiction               |            |      |     |                                |            |   |     |    |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   | East/West Street           |            |      |     | Independence School Rd         |            |   |     |    |
| Analysis Year                                    | 2024                                       |      |      |      |           |   |   | North/South Street         |            |      |     | Thixton Lane                   |            |   |     |    |
| Time Analyzed                                    | AM Peak                                    |      |      |      |           |   |   | Peak Hour Factor           |            |      |     | 0.89                           |            |   |     |    |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   | Analysis Time Period (hrs) |            |      |     | 0.25                           |            |   |     |    |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
|  |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0                          | 0          | 0    | 1   | 0                              | 0          | 0 | 1   | 0  |
| Configuration                                    |  |      | LR   |      |           |   |   |                            |            | LT   |     |                                |            |   |     | TR |
| Volume (veh/h)                                   |  | 39   |      | 0    |           |   |   |                            |            | 4    | 81  |                                |            |   | 114 | 88 |
| Percent Heavy Vehicles (%)                       |  | 5    |      | 0    |           |   |   |                            |            | 25   |     |                                |            |   |     |    |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| Percent Grade (%)                                | 0  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| Right Turn Channelized                           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| Median Type   Storage                            |  |      |      |      | Undivided |   |   |                            |            |      |     |                                |            |   |     |    |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |                            |            | 4.1  |     |                                |            |   |     |    |
| Critical Headway (sec)                           |  | 6.45 |      | 6.20 |           |   |   |                            |            | 4.35 |     |                                |            |   |     |    |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |                            |            | 2.2  |     |                                |            |   |     |    |
| Follow-Up Headway (sec)                          |  | 3.55 |      | 3.30 |           |   |   |                            |            | 2.43 |     |                                |            |   |     |    |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |
| Flow Rate, v (veh/h)                             |  |      | 44   |      |           |   |   |                            |            | 4    |     |                                |            |   |     |    |
| Capacity, c (veh/h)                              |  |      | 703  |      |           |   |   |                            |            | 1217 |     |                                |            |   |     |    |
| v/c Ratio  |  |      | 0.06 |      |           |   |   |                            |            | 0.00 |     |                                |            |   |     |    |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 0.2  |      |           |   |   |                            |            | 0.0  |     |                                |            |   |     |    |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 5.2  |      |           |   |   |                            |            | 0.0  |     |                                |            |   |     |    |
| Control Delay (s/veh)                            |  |      | 10.5 |      |           |   |   |                            |            | 8.0  | 0.0 |                                |            |   |     |    |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |                            |            | A    | A   |                                |            |   |     |    |
| Approach Delay (s/veh)                           | 10.5                                       |      |      |      |           |   |   |                            | 0.4        |      |     |                                |            |   |     |    |
| Approach LOS                                     | B  |      |      |      |           |   |   |                            | A          |      |     |                                |            |   |     |    |

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| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
|--|--|------|------|------|-----------|---|---|----------------------------|------------|------|-----|--------------------------------|------------|---|-----|-----|--|
| General Information                              |  |      |      |      |           |   |   | Site Information           |            |      |     |                                |            |   |     |     |  |
| Analyst  | DBZ  |      |      |      |           |   |   | Intersection               |            |      |     | Thixton at Independence School |            |   |     |     |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   | Jurisdiction               |            |      |     |                                |            |   |     |     |  |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   | East/West Street           |            |      |     | Independence School Rd         |            |   |     |     |  |
| Analysis Year                                    | 2031                                       |      |      |      |           |   |   | North/South Street         |            |      |     | Thixton Lane                   |            |   |     |     |  |
| Time Analyzed                                    | AM Peak No Build                           |      |      |      |           |   |   | Peak Hour Factor           |            |      |     | 0.89                           |            |   |     |     |  |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   | Analysis Time Period (hrs) |            |      |     | 0.25                           |            |   |     |     |  |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
|  |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0                          | 0          | 0    | 1   | 0                              | 0          | 0 | 1   | 0   |  |
| Configuration                                    |  |      | LR   |      |           |   |   |                            |            | LT   |     |                                |            |   |     | TR  |  |
| Volume (veh/h)                                   |  | 47   |      | 0    |           |   |   |                            |            | 5    | 96  |                                |            |   | 140 | 109 |  |
| Percent Heavy Vehicles (%)                       |  | 5    |      | 0    |           |   |   |                            |            | 25   |     |                                |            |   |     |     |  |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| Percent Grade (%)                                |  | 0    |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| Right Turn Channelized                           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| Median Type   Storage                            | Undivided                                  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |                            |            | 4.1  |     |                                |            |   |     |     |  |
| Critical Headway (sec)                           |  | 6.45 |      | 6.20 |           |   |   |                            |            | 4.35 |     |                                |            |   |     |     |  |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |                            |            | 2.2  |     |                                |            |   |     |     |  |
| Follow-Up Headway (sec)                          |  | 3.55 |      | 3.30 |           |   |   |                            |            | 2.43 |     |                                |            |   |     |     |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |     |  |
| Flow Rate, v (veh/h)                             |  |      | 53   |      |           |   |   |                            |            | 6    |     |                                |            |   |     |     |  |
| Capacity, c (veh/h)                              |  |      | 649  |      |           |   |   |                            |            | 1162 |     |                                |            |   |     |     |  |
| v/c Ratio  |  |      | 0.08 |      |           |   |   |                            |            | 0.00 |     |                                |            |   |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 0.3  |      |           |   |   |                            |            | 0.0  |     |                                |            |   |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 7.8  |      |           |   |   |                            |            | 0.0  |     |                                |            |   |     |     |  |
| Control Delay (s/veh)                            |  |      | 11.0 |      |           |   |   |                            |            | 8.1  | 0.0 |                                |            |   |     |     |  |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |                            |            | A    | A   |                                |            |   |     |     |  |
| Approach Delay (s/veh)                           | 11.0                                       |      |      |      |           |   |   |                            | 0.4        |      |     |                                |            |   |     |     |  |
| Approach LOS                                     | B  |      |      |      |           |   |   |                            | A          |      |     |                                |            |   |     |     |  |

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| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
|--|--|------|------|------|-----------|---|---|---|----------------------------|--------------------------------|-----|---|------------|---|-----|-----|--|
| General Information                              |  |      |      |      |           |   |   |   | Site Information           |                                |     |   |            |   |     |     |  |
| Analyst  | DBZ  |      |      |      |           |   |   |   | Intersection               | Thixton at Independence School |     |   |            |   |     |     |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   |   | Jurisdiction               |                                |     |   |            |   |     |     |  |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   |   | East/West Street           | Independence School Rd         |     |   |            |   |     |     |  |
| Analysis Year                                    | 2031                                       |      |      |      |           |   |   |   | North/South Street         | Thixton Lane                   |     |   |            |   |     |     |  |
| Time Analyzed                                    | AM Peak Build                              |      |      |      |           |   |   |   | Peak Hour Factor           | 0.89                           |     |   |            |   |     |     |  |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   |   | Analysis Time Period (hrs) | 0.25                           |     |   |            |   |     |     |  |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
|  |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0 | 0                          | 0                              | 1   | 0 | 0          | 0 | 1   | 0   |  |
| Configuration                                    |  |      | LR   |      |           |   |   |   |                            | LT                             |     |   |            |   |     | TR  |  |
| Volume (veh/h)                                   |  | 53   |      | 0    |           |   |   |   |                            | 5                              | 102 |   |            |   | 154 | 123 |  |
| Percent Heavy Vehicles (%)                       |  | 5    |      | 0    |           |   |   |   |                            | 25                             |     |   |            |   |     |     |  |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Percent Grade (%)                                |  | 0    |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Right Turn Channelized                           |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Median Type   Storage                            | Undivided                                  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |   |                            | 4.1                            |     |   |            |   |     |     |  |
| Critical Headway (sec)                           |  | 6.45 |      | 6.20 |           |   |   |   |                            | 4.35                           |     |   |            |   |     |     |  |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |   |                            | 2.2                            |     |   |            |   |     |     |  |
| Follow-Up Headway (sec)                          |  | 3.55 |      | 3.30 |           |   |   |   |                            | 2.43                           |     |   |            |   |     |     |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Flow Rate, v (veh/h)                             |  |      | 60   |      |           |   |   |   |                            | 6                              |     |   |            |   |     |     |  |
| Capacity, c (veh/h)                              |  |      | 623  |      |           |   |   |   |                            | 1130                           |     |   |            |   |     |     |  |
| v/c Ratio  |  |      | 0.10 |      |           |   |   |   |                            | 0.00                           |     |   |            |   |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 0.3  |      |           |   |   |   |                            | 0.0                            |     |   |            |   |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 7.8  |      |           |   |   |   |                            | 0.0                            |     |   |            |   |     |     |  |
| Control Delay (s/veh)                            |  |      | 11.4 |      |           |   |   |   |                            | 8.2                            | 0.0 |   |            |   |     |     |  |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |   |                            | A                              | A   |   |            |   |     |     |  |
| Approach Delay (s/veh)                           | 11.4                                       |      |      |      |           |   |   |   | 0.4                        |                                |     |   |            |   |     |     |  |
| Approach LOS                                     | B  |      |      |      |           |   |   |   | A                          |                                |     |   |            |   |     |     |  |

| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
|--|--|------|------|------|-----------|---|---|---|----------------------------|--------------------------------|-----|---|------------|---|-----|-----|--|
| General Information                              |  |      |      |      |           |   |   |   | Site Information           |                                |     |   |            |   |     |     |  |
| Analyst  | DBZ  |      |      |      |           |   |   |   | Intersection               | Thixton at Independence School |     |   |            |   |     |     |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   |   | Jurisdiction               |                                |     |   |            |   |     |     |  |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   |   | East/West Street           | Independence School Rd         |     |   |            |   |     |     |  |
| Analysis Year                                    | 2041                                       |      |      |      |           |   |   |   | North/South Street         | Thixton Lane                   |     |   |            |   |     |     |  |
| Time Analyzed                                    | AM Peak No Build                           |      |      |      |           |   |   |   | Peak Hour Factor           | 0.89                           |     |   |            |   |     |     |  |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   |   | Analysis Time Period (hrs) | 0.25                           |     |   |            |   |     |     |  |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <p>Major Street: North-South</p>                 |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0 | 0                          | 0                              | 1   | 0 | 0          | 0 | 1   | 0   |  |
| Configuration                                    |  |      | LR   |      |           |   |   |   |                            | LT                             |     |   |            |   |     | TR  |  |
| Volume (veh/h)                                   |  | 57   |      | 0    |           |   |   |   |                            | 6                              | 117 |   |            |   | 133 | 171 |  |
| Percent Heavy Vehicles (%)                       |  | 5    |      | 0    |           |   |   |   |                            | 25                             |     |   |            |   |     |     |  |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Percent Grade (%)                                | 0  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Right Turn Channelized                           |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Median Type   Storage                            |  |      |      |      | Undivided |   |   |   |                            |                                |     |   |            |   |     |     |  |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |   |                            | 4.1                            |     |   |            |   |     |     |  |
| Critical Headway (sec)                           |  | 6.45 |      | 6.20 |           |   |   |   |                            | 4.35                           |     |   |            |   |     |     |  |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |   |                            | 2.2                            |     |   |            |   |     |     |  |
| Follow-Up Headway (sec)                          |  | 3.55 |      | 3.30 |           |   |   |   |                            | 2.43                           |     |   |            |   |     |     |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |   |                            |                                |     |   |            |   |     |     |  |
| Flow Rate, v (veh/h)                             |  |      | 64   |      |           |   |   |   |                            | 7                              |     |   |            |   |     |     |  |
| Capacity, c (veh/h)                              |  |      | 604  |      |           |   |   |   |                            | 1100                           |     |   |            |   |     |     |  |
| v/c Ratio  |  |      | 0.11 |      |           |   |   |   |                            | 0.01                           |     |   |            |   |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 0.4  |      |           |   |   |   |                            | 0.0                            |     |   |            |   |     |     |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 10.4 |      |           |   |   |   |                            | 0.0                            |     |   |            |   |     |     |  |
| Control Delay (s/veh)                            |  |      | 11.7 |      |           |   |   |   |                            | 8.3                            | 0.1 |   |            |   |     |     |  |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |   |                            | A                              | A   |   |            |   |     |     |  |
| Approach Delay (s/veh)                           | 11.7                                       |      |      |      |           |   |   |   | 0.5                        |                                |     |   |            |   |     |     |  |
| Approach LOS                                     | B  |      |      |      |           |   |   |   | A                          |                                |     |   |            |   |     |     |  |

| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
|--|--|------|------|------|-----------|---|---|----------------------------|--------------------------------|------|-----|---|------------|---|-----|-----|
| General Information                              |  |      |      |      |           |   |   | Site Information           |                                |      |     |   |            |   |     |     |
| Analyst  | DBZ  |      |      |      |           |   |   | Intersection               | Thixton at Independence School |      |     |   |            |   |     |     |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   | Jurisdiction               |                                |      |     |   |            |   |     |     |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   | East/West Street           | Independence School Rd         |      |     |   |            |   |     |     |
| Analysis Year                                    | 2041                                       |      |      |      |           |   |   | North/South Street         | Thixton Lane                   |      |     |   |            |   |     |     |
| Time Analyzed                                    | AM Peak Build                              |      |      |      |           |   |   | Peak Hour Factor           | 0.89                           |      |     |   |            |   |     |     |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   | Analysis Time Period (hrs) | 0.25                           |      |     |   |            |   |     |     |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| <p>Major Street: North-South</p>                 |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0                          | 0                              | 0    | 1   | 0 | 0          | 0 | 1   | 0   |
| Configuration                                    |  |      | LR   |      |           |   |   |                            |                                | LT   |     |   |            |   |     | TR  |
| Volume (veh/h)                                   |  | 63   |      | 0    |           |   |   |                            |                                | 6    | 123 |   |            |   | 147 | 185 |
| Percent Heavy Vehicles (%)                       |  | 5    |      | 0    |           |   |   |                            |                                | 25   |     |   |            |   |     |     |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| Percent Grade (%)                                | 0  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| Right Turn Channelized                           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| Median Type   Storage                            |  |      |      |      | Undivided |   |   |                            |                                |      |     |   |            |   |     |     |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |                            |                                | 4.1  |     |   |            |   |     |     |
| Critical Headway (sec)                           |  | 6.45 |      | 6.20 |           |   |   |                            |                                | 4.35 |     |   |            |   |     |     |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |                            |                                | 2.2  |     |   |            |   |     |     |
| Follow-Up Headway (sec)                          |  | 3.55 |      | 3.30 |           |   |   |                            |                                | 2.43 |     |   |            |   |     |     |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |     |
| Flow Rate, v (veh/h)                             |  |      | 71   |      |           |   |   |                            |                                | 7    |     |   |            |   |     |     |
| Capacity, c (veh/h)                              |  |      | 580  |      |           |   |   |                            |                                | 1070 |     |   |            |   |     |     |
| v/c Ratio  |  |      | 0.12 |      |           |   |   |                            |                                | 0.01 |     |   |            |   |     |     |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 0.4  |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |     |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 10.4 |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |     |
| Control Delay (s/veh)                            |  |      | 12.1 |      |           |   |   |                            |                                | 8.4  | 0.1 |   |            |   |     |     |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |                            |                                | A    | A   |   |            |   |     |     |
| Approach Delay (s/veh)                           | 12.1                                       |      |      |      |           |   |   |                            | 0.4                            |      |     |   |            |   |     |     |
| Approach LOS                                     | B  |      |      |      |           |   |   |                            | A                              |      |     |   |            |   |     |     |

| HCS Two-Way Stop-Control Report                  |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
|--|--|-----------|------|------|-----------|---|---|---|----------------------------|--------------------------------|-----|---|------------|---|-----|----|--|
| General Information                              |  |           |      |      |           |   |   |   | Site Information           |                                |     |   |            |   |     |    |  |
| Analyst  | DBZ  |           |      |      |           |   |   |   | Intersection               | Thixton at Independence School |     |   |            |   |     |    |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |           |      |      |           |   |   |   | Jurisdiction               |                                |     |   |            |   |     |    |  |
| Date Performed                                   | 9/6/2024                                   |           |      |      |           |   |   |   | East/West Street           | Independence School Rd         |     |   |            |   |     |    |  |
| Analysis Year                                    | 2024                                       |           |      |      |           |   |   |   | North/South Street         | Thixton Lane                   |     |   |            |   |     |    |  |
| Time Analyzed                                    | PM Peak                                    |           |      |      |           |   |   |   | Peak Hour Factor           | 0.97                           |     |   |            |   |     |    |  |
| Intersection Orientation                         | North-South                                |           |      |      |           |   |   |   | Analysis Time Period (hrs) | 0.25                           |     |   |            |   |     |    |  |
| Project Description                              | Windcrest Farms 3                          |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| <b>Lanes</b>                                     |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| <p>Major Street: North-South</p>                 |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| 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                                  |  | 0         | 1    | 0    |           | 0 | 0 | 0 | 0                          | 0                              | 1   | 0 | 0          | 0 | 1   | 0  |  |
| Configuration                                    |  |           | LR   |      |           |   |   |   |                            |                                | LT  |   |            |   |     | TR |  |
| Volume (veh/h)                                   |  | 126       |      | 5    |           |   |   |   |                            | 3                              | 137 |   |            |   | 138 | 51 |  |
| Percent Heavy Vehicles (%)                       |  | 0         |      | 0    |           |   |   |   |                            | 0                              |     |   |            |   |     |    |  |
| Proportion Time Blocked                          |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| Percent Grade (%)                                |  | 0         |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| Right Turn Channelized                           |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| Median Type   Storage                            |  | Undivided |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| <b>Critical and Follow-up Headways</b>           |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| Base Critical Headway (sec)                      |  | 7.1       |      | 6.2  |           |   |   |   |                            | 4.1                            |     |   |            |   |     |    |  |
| Critical Headway (sec)                           |  | 6.40      |      | 6.20 |           |   |   |   |                            | 4.10                           |     |   |            |   |     |    |  |
| Base Follow-Up Headway (sec)                     |  | 3.5       |      | 3.3  |           |   |   |   |                            | 2.2                            |     |   |            |   |     |    |  |
| Follow-Up Headway (sec)                          |  | 3.50      |      | 3.30 |           |   |   |   |                            | 2.20                           |     |   |            |   |     |    |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |           |      |      |           |   |   |   |                            |                                |     |   |            |   |     |    |  |
| Flow Rate, v (veh/h)                             |  |           | 135  |      |           |   |   |   |                            | 3                              |     |   |            |   |     |    |  |
| Capacity, c (veh/h)                              |  |           | 686  |      |           |   |   |   |                            | 1390                           |     |   |            |   |     |    |  |
| v/c Ratio  |  |           | 0.20 |      |           |   |   |   |                            | 0.00                           |     |   |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |           | 0.7  |      |           |   |   |   |                            | 0.0                            |     |   |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |           | 17.5 |      |           |   |   |   |                            | 0.0                            |     |   |            |   |     |    |  |
| Control Delay (s/veh)                            |  |           | 11.5 |      |           |   |   |   |                            | 7.6                            | 0.0 |   |            |   |     |    |  |
| Level of Service (LOS)                           |  |           | B    |      |           |   |   |   |                            | A                              | A   |   |            |   |     |    |  |
| Approach Delay (s/veh)                           |  | 11.5      |      |      |           |   |   |   |                            | 0.2                            |     |   |            |   |     |    |  |
| Approach LOS                                     |  | B         |      |      |           |   |   |   |                            | A                              |     |   |            |   |     |    |  |

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| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
|--|--|------|------|------|-----------|---|---|----------------------------|--------------------------------|------|-----|---|------------|---|-----|----|--|
| General Information                              |  |      |      |      |           |   |   | Site Information           |                                |      |     |   |            |   |     |    |  |
| Analyst  | DBZ  |      |      |      |           |   |   | Intersection               | Thixton at Independence School |      |     |   |            |   |     |    |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   | Jurisdiction               |                                |      |     |   |            |   |     |    |  |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   | East/West Street           | Independence School Rd         |      |     |   |            |   |     |    |  |
| Analysis Year                                    | 2031                                       |      |      |      |           |   |   | North/South Street         | Thixton Lane                   |      |     |   |            |   |     |    |  |
| Time Analyzed                                    | PM Peak                                    |      |      |      |           |   |   | Peak Hour Factor           | 0.97                           |      |     |   |            |   |     |    |  |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   | Analysis Time Period (hrs) | 0.25                           |      |     |   |            |   |     |    |  |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
|  |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0                          | 0                              | 0    | 1   | 0 | 0          | 0 | 1   | 0  |  |
| Configuration                                    |  |      | LR   |      |           |   |   |                            |                                | LT   |     |   |            |   |     | TR |  |
| Volume (veh/h)                                   |  | 154  |      | 6    |           |   |   |                            |                                | 3    | 167 |   |            |   | 166 | 63 |  |
| Percent Heavy Vehicles (%)                       |  | 0    |      | 0    |           |   |   |                            |                                | 0    |     |   |            |   |     |    |  |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Percent Grade (%)                                |  | 0    |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Right Turn Channelized                           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Median Type   Storage                            | Undivided                                  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |                            |                                | 4.1  |     |   |            |   |     |    |  |
| Critical Headway (sec)                           |  | 6.40 |      | 6.20 |           |   |   |                            |                                | 4.10 |     |   |            |   |     |    |  |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |                            |                                | 2.2  |     |   |            |   |     |    |  |
| Follow-Up Headway (sec)                          |  | 3.50 |      | 3.30 |           |   |   |                            |                                | 2.20 |     |   |            |   |     |    |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Flow Rate, v (veh/h)                             |  |      | 165  |      |           |   |   |                            |                                | 3    |     |   |            |   |     |    |  |
| Capacity, c (veh/h)                              |  |      | 629  |      |           |   |   |                            |                                | 1343 |     |   |            |   |     |    |  |
| v/c Ratio  |  |      | 0.26 |      |           |   |   |                            |                                | 0.00 |     |   |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 1.0  |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 25.0 |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |    |  |
| Control Delay (s/veh)                            |  |      | 12.7 |      |           |   |   |                            |                                | 7.7  | 0.0 |   |            |   |     |    |  |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |                            |                                | A    | A   |   |            |   |     |    |  |
| Approach Delay (s/veh)                           | 12.7                                       |      |      |      |           |   |   |                            | 0.2                            |      |     |   |            |   |     |    |  |
| Approach LOS                                     | B  |      |      |      |           |   |   |                            | A                              |      |     |   |            |   |     |    |  |

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| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
|--|--|------|------|------|-----------|---|---|----------------------------|--------------------------------|------|-----|---|------------|---|-----|----|--|
| General Information                              |  |      |      |      |           |   |   | Site Information           |                                |      |     |   |            |   |     |    |  |
| Analyst  | DBZ  |      |      |      |           |   |   | Intersection               | Thixton at Independence School |      |     |   |            |   |     |    |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   | Jurisdiction               |                                |      |     |   |            |   |     |    |  |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   | East/West Street           | Independence School Rd         |      |     |   |            |   |     |    |  |
| Analysis Year                                    | 2031                                       |      |      |      |           |   |   | North/South Street         | Thixton Lane                   |      |     |   |            |   |     |    |  |
| Time Analyzed                                    | PM Peak Build                              |      |      |      |           |   |   | Peak Hour Factor           | 0.97                           |      |     |   |            |   |     |    |  |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   | Analysis Time Period (hrs) | 0.25                           |      |     |   |            |   |     |    |  |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
|  |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0                          | 0                              | 0    | 1   | 0 | 0          | 0 | 1   | 0  |  |
| Configuration                                    |  |      | LR   |      |           |   |   |                            |                                | LT   |     |   |            |   |     | TR |  |
| Volume (veh/h)                                   |  | 170  |      | 6    |           |   |   |                            |                                | 3    | 183 |   |            |   | 176 | 72 |  |
| Percent Heavy Vehicles (%)                       |  | 0    |      | 0    |           |   |   |                            |                                | 0    |     |   |            |   |     |    |  |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Percent Grade (%)                                |  | 0    |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Right Turn Channelized                           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Median Type   Storage                            | Undivided                                  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |                            |                                | 4.1  |     |   |            |   |     |    |  |
| Critical Headway (sec)                           |  | 6.40 |      | 6.20 |           |   |   |                            |                                | 4.10 |     |   |            |   |     |    |  |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |                            |                                | 2.2  |     |   |            |   |     |    |  |
| Follow-Up Headway (sec)                          |  | 3.50 |      | 3.30 |           |   |   |                            |                                | 2.20 |     |   |            |   |     |    |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |  |
| Flow Rate, v (veh/h)                             |  |      | 181  |      |           |   |   |                            |                                | 3    |     |   |            |   |     |    |  |
| Capacity, c (veh/h)                              |  |      | 603  |      |           |   |   |                            |                                | 1321 |     |   |            |   |     |    |  |
| v/c Ratio  |  |      | 0.30 |      |           |   |   |                            |                                | 0.00 |     |   |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 1.3  |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 32.5 |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |    |  |
| Control Delay (s/veh)                            |  |      | 13.5 |      |           |   |   |                            |                                | 7.7  | 0.0 |   |            |   |     |    |  |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |                            |                                | A    | A   |   |            |   |     |    |  |
| Approach Delay (s/veh)                           | 13.5                                       |      |      |      |           |   |   |                            | 0.1                            |      |     |   |            |   |     |    |  |
| Approach LOS                                     | B  |      |      |      |           |   |   |                            | A                              |      |     |   |            |   |     |    |  |

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| HCS Two-Way Stop-Control Report                  |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
|--|--|------|------|------|-----------|---|---|----------------------------|------------|------|-----|--------------------------------|------------|---|-----|----|--|
| General Information                              |  |      |      |      |           |   |   | Site Information           |            |      |     |                                |            |   |     |    |  |
| Analyst  | DBZ  |      |      |      |           |   |   | Intersection               |            |      |     | Thixton at Independence School |            |   |     |    |  |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |      |      |           |   |   | Jurisdiction               |            |      |     |                                |            |   |     |    |  |
| Date Performed                                   | 9/6/2024                                   |      |      |      |           |   |   | East/West Street           |            |      |     | Independence School Rd         |            |   |     |    |  |
| Analysis Year                                    | 2041                                       |      |      |      |           |   |   | North/South Street         |            |      |     | Thixton Lane                   |            |   |     |    |  |
| Time Analyzed                                    | PM Peak No Build                           |      |      |      |           |   |   | Peak Hour Factor           |            |      |     | 0.97                           |            |   |     |    |  |
| Intersection Orientation                         | North-South                                |      |      |      |           |   |   | Analysis Time Period (hrs) |            |      |     | 0.25                           |            |   |     |    |  |
| Project Description                              | Windcrest Farms 3                          |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| <b>Lanes</b>                                     |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
|  |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| 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                                  |  | 0    | 1    | 0    |           | 0 | 0 | 0                          | 0          | 0    | 1   | 0                              | 0          | 0 | 1   | 0  |  |
| Configuration                                    |  |      | LR   |      |           |   |   |                            |            | LT   |     |                                |            |   |     | TR |  |
| Volume (veh/h)                                   |  | 188  |      | 7    |           |   |   |                            |            | 4    | 204 |                                |            |   | 202 | 77 |  |
| Percent Heavy Vehicles (%)                       |  | 0    |      | 0    |           |   |   |                            |            | 0    |     |                                |            |   |     |    |  |
| Proportion Time Blocked                          |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| Percent Grade (%)                                |  | 0    |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| Right Turn Channelized                           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| Median Type   Storage                            | Undivided                                  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| <b>Critical and Follow-up Headways</b>           |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| Base Critical Headway (sec)                      |  | 7.1  |      | 6.2  |           |   |   |                            |            | 4.1  |     |                                |            |   |     |    |  |
| Critical Headway (sec)                           |  | 6.40 |      | 6.20 |           |   |   |                            |            | 4.10 |     |                                |            |   |     |    |  |
| Base Follow-Up Headway (sec)                     |  | 3.5  |      | 3.3  |           |   |   |                            |            | 2.2  |     |                                |            |   |     |    |  |
| Follow-Up Headway (sec)                          |  | 3.50 |      | 3.30 |           |   |   |                            |            | 2.20 |     |                                |            |   |     |    |  |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |      |      |           |   |   |                            |            |      |     |                                |            |   |     |    |  |
| Flow Rate, v (veh/h)                             |  |      | 201  |      |           |   |   |                            |            | 4    |     |                                |            |   |     |    |  |
| Capacity, c (veh/h)                              |  |      | 562  |      |           |   |   |                            |            | 1286 |     |                                |            |   |     |    |  |
| v/c Ratio  |  |      | 0.36 |      |           |   |   |                            |            | 0.00 |     |                                |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |      | 1.6  |      |           |   |   |                            |            | 0.0  |     |                                |            |   |     |    |  |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      | 40.0 |      |           |   |   |                            |            | 0.0  |     |                                |            |   |     |    |  |
| Control Delay (s/veh)                            |  |      | 14.9 |      |           |   |   |                            |            | 7.8  | 0.0 |                                |            |   |     |    |  |
| Level of Service (LOS)                           |  |      | B    |      |           |   |   |                            |            | A    | A   |                                |            |   |     |    |  |
| Approach Delay (s/veh)                           | 14.9                                       |      |      |      |           |   |   |                            | 0.2        |      |     |                                |            |   |     |    |  |
| Approach LOS                                     | B  |      |      |      |           |   |   |                            | A          |      |     |                                |            |   |     |    |  |

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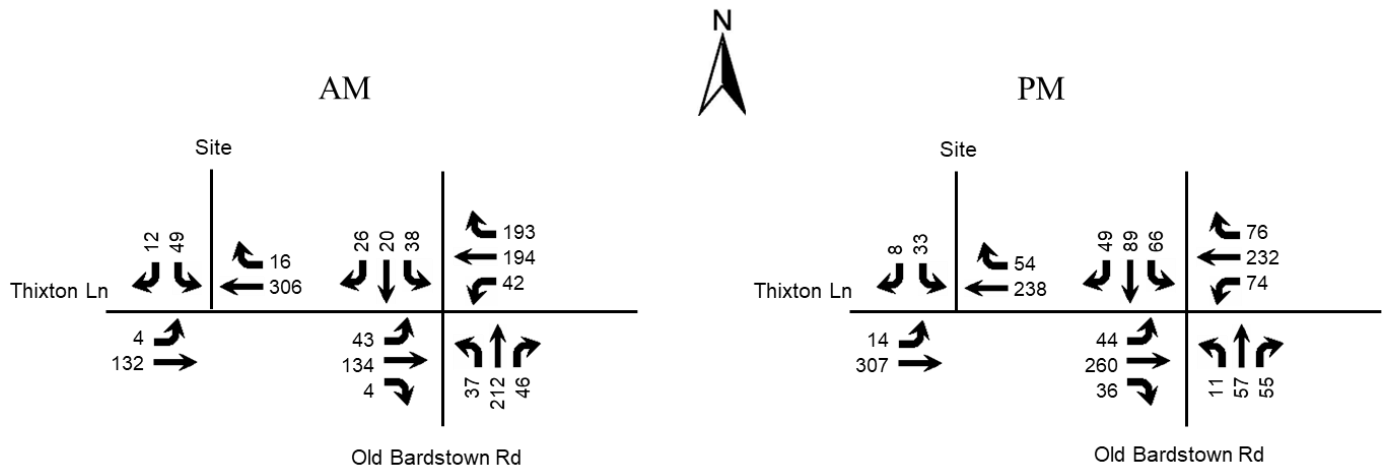
| HCS Two-Way Stop-Control Report                  |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
|--|--|-----------|------|------|-----------|---|---|----------------------------|--------------------------------|------|-----|---|------------|---|-----|----|
| General Information                              |  |           |      |      |           |   |   | Site Information           |                                |      |     |   |            |   |     |    |
| Analyst  | DBZ  |           |      |      |           |   |   | Intersection               | Thixton at Independence School |      |     |   |            |   |     |    |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |           |      |      |           |   |   | Jurisdiction               |                                |      |     |   |            |   |     |    |
| Date Performed                                   | 9/6/2024                                   |           |      |      |           |   |   | East/West Street           | Independence School Rd         |      |     |   |            |   |     |    |
| Analysis Year                                    | 2041                                       |           |      |      |           |   |   | North/South Street         | Thixton Lane                   |      |     |   |            |   |     |    |
| Time Analyzed                                    | PM Peak Build                              |           |      |      |           |   |   | Peak Hour Factor           | 0.97                           |      |     |   |            |   |     |    |
| Intersection Orientation                         | North-South                                |           |      |      |           |   |   | Analysis Time Period (hrs) | 0.25                           |      |     |   |            |   |     |    |
| Project Description                              | Windcrest Farms 3                          |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| <b>Lanes</b>                                     |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
|  |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| <b>Vehicle Volumes and Adjustments</b>           |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| 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                                  |  | 0         | 1    | 0    |           | 0 | 0 | 0                          | 0                              | 0    | 1   | 0 | 0          | 0 | 1   | 0  |
| Configuration                                    |  |           | LR   |      |           |   |   |                            |                                | LT   |     |   |            |   |     | TR |
| Volume (veh/h)                                   |  | 204       |      | 7    |           |   |   |                            |                                | 4    | 220 |   |            |   | 212 | 86 |
| Percent Heavy Vehicles (%)                       |  | 0         |      | 0    |           |   |   |                            |                                | 0    |     |   |            |   |     |    |
| Proportion Time Blocked                          |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| Percent Grade (%)                                |  | 0         |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| Right Turn Channelized                           |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| Median Type   Storage                            |  | Undivided |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| <b>Critical and Follow-up Headways</b>           |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| Base Critical Headway (sec)                      |  | 7.1       |      | 6.2  |           |   |   |                            |                                | 4.1  |     |   |            |   |     |    |
| Critical Headway (sec)                           |  | 6.40      |      | 6.20 |           |   |   |                            |                                | 4.10 |     |   |            |   |     |    |
| Base Follow-Up Headway (sec)                     |  | 3.5       |      | 3.3  |           |   |   |                            |                                | 2.2  |     |   |            |   |     |    |
| Follow-Up Headway (sec)                          |  | 3.50      |      | 3.30 |           |   |   |                            |                                | 2.20 |     |   |            |   |     |    |
| <b>Delay, Queue Length, and Level of Service</b> |  |           |      |      |           |   |   |                            |                                |      |     |   |            |   |     |    |
| Flow Rate, v (veh/h)                             |  |           | 218  |      |           |   |   |                            |                                | 4    |     |   |            |   |     |    |
| Capacity, c (veh/h)                              |  |           | 539  |      |           |   |   |                            |                                | 1265 |     |   |            |   |     |    |
| v/c Ratio  |  |           | 0.40 |      |           |   |   |                            |                                | 0.00 |     |   |            |   |     |    |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  |           | 1.9  |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |    |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |           | 47.5 |      |           |   |   |                            |                                | 0.0  |     |   |            |   |     |    |
| Control Delay (s/veh)                            |  |           | 16.1 |      |           |   |   |                            |                                | 7.9  | 0.0 |   |            |   |     |    |
| Level of Service (LOS)                           |  |           | C    |      |           |   |   |                            |                                | A    | A   |   |            |   |     |    |
| Approach Delay (s/veh)                           |  | 16.1      |      |      |           |   |   |                            |                                | 0.2  |     |   |            |   |     |    |
| Approach LOS                                     |  | C         |      |      |           |   |   |                            |                                | A    |     |   |            |   |     |    |

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110 Single Family Detached Units in 2029 2.2% Annual Growth

AM Trips 81 20 in 61 out

PM 129 Trips 68 in 41 out

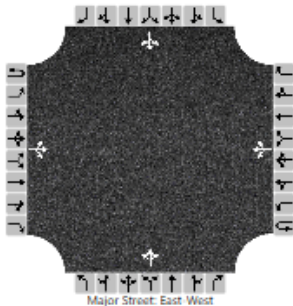


| HCS Two-Way Stop-Control Report                  |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
|--|--|------|-----|-----|-----------|------|-----|----------------------------|--------------------------|---|-------|------|------------|---|------|------|------|
| General Information                              |  |      |     |     |           |      |     | Site Information           |                          |   |       |      |            |   |      |      |      |
| Analyst  | DBZ  |      |     |     |           |      |     | Intersection               | Thixton at Old Bardstown |   |       |      |            |   |      |      |      |
| Agency/Co.                                       | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     | Jurisdiction               |                          |   |       |      |            |   |      |      |      |
| Date Performed                                   | 9/6/2024                                   |      |     |     |           |      |     | East/West Street           | Thixton Lane             |   |       |      |            |   |      |      |      |
| Analysis Year                                    | 2029                                       |      |     |     |           |      |     | North/South Street         | Old Bardstown Road       |   |       |      |            |   |      |      |      |
| Time Analyzed                                    | AM Peak Build                              |      |     |     |           |      |     | Peak Hour Factor           | 0.94                     |   |       |      |            |   |      |      |      |
| Intersection Orientation                         | East-West                                  |      |     |     |           |      |     | Analysis Time Period (hrs) | 0.25                     |   |       |      |            |   |      |      |      |
| Project Description                              | Windcrest Farms 3                          |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| <b>Lanes</b>                                     |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
|  |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| <b>Vehicle Volumes and Adjustments</b>           |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| 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)                                   |  | 43   | 134 | 4   |           | 42   | 194 | 193                        |                          |   | 37    | 212  | 46         |   | 38   | 20   | 26   |
| Percent Heavy Vehicles (%)                       |  | 9    |     |     |           | 16   |     |                            |                          |   | 6     | 1    | 17         |   | 0    | 6    | 0    |
| Proportion Time Blocked                          |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| Percent Grade (%)                                |  |      |     |     |           |      |     |                            | 0                        |   |       |      | 0          |   |      |      |      |
| Right Turn Channelized                           |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| Median Type   Storage                            | Undivided                                  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| <b>Critical and Follow-up Headways</b>           |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| Base Critical Headway (sec)                      |  | 4.1  |     |     |           | 4.1  |     |                            |                          |   | 7.1   | 6.5  | 6.2        |   | 7.1  | 6.5  | 6.2  |
| Critical Headway (sec)                           |  | 4.19 |     |     |           | 4.26 |     |                            |                          |   | 7.16  | 6.51 | 6.37       |   | 7.10 | 6.56 | 6.20 |
| 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)                          |  | 2.28 |     |     |           | 2.34 |     |                            |                          |   | 3.55  | 4.01 | 3.45       |   | 3.50 | 4.05 | 3.30 |
| <b>Delay, Queue Length, and Level of Service</b> |  |      |     |     |           |      |     |                            |                          |   |       |      |            |   |      |      |      |
| Flow Rate, v (veh/h)                             |  | 46   |     |     |           | 45   |     |                            |                          |   | 314   |      |            |   | 89   |      |      |
| Capacity, c (veh/h)                              |  | 1110 |     |     |           | 1354 |     |                            |                          |   | 373   |      |            |   | 166  |      |      |
| v/c Ratio  |  | 0.04 |     |     |           | 0.03 |     |                            |                          |   | 0.84  |      |            |   | 0.54 |      |      |
| 95% Queue Length, Q <sub>95</sub> (veh)          |  | 0.1  |     |     |           | 0.1  |     |                            |                          |   | 7.8   |      |            |   | 2.7  |      |      |
| 95% Queue Length, Q <sub>95</sub> (ft)           |  |      |     |     |           |      |     |                            |                          |   | 201.4 |      |            |   | 68.3 |      |      |
| Control Delay (s/veh)                            |  | 8.4  | 0.4 | 0.4 |           | 7.8  | 0.3 | 0.3                        |                          |   | 49.1  |      |            |   | 49.7 |      |      |
| Level of Service (LOS)                           |  | A    | A   | A   |           | A    | A   | A                          |                          |   | E     |      |            |   | E    |      |      |
| Approach Delay (s/veh)                           | 2.3  |      |     |     | 1.1       |      |     |                            | 49.1                     |   |       |      | 49.7       |   |      |      |      |
| Approach LOS                                     | A  |      |     |     | A         |      |     |                            | E                        |   |       |      | E          |   |      |      |      |

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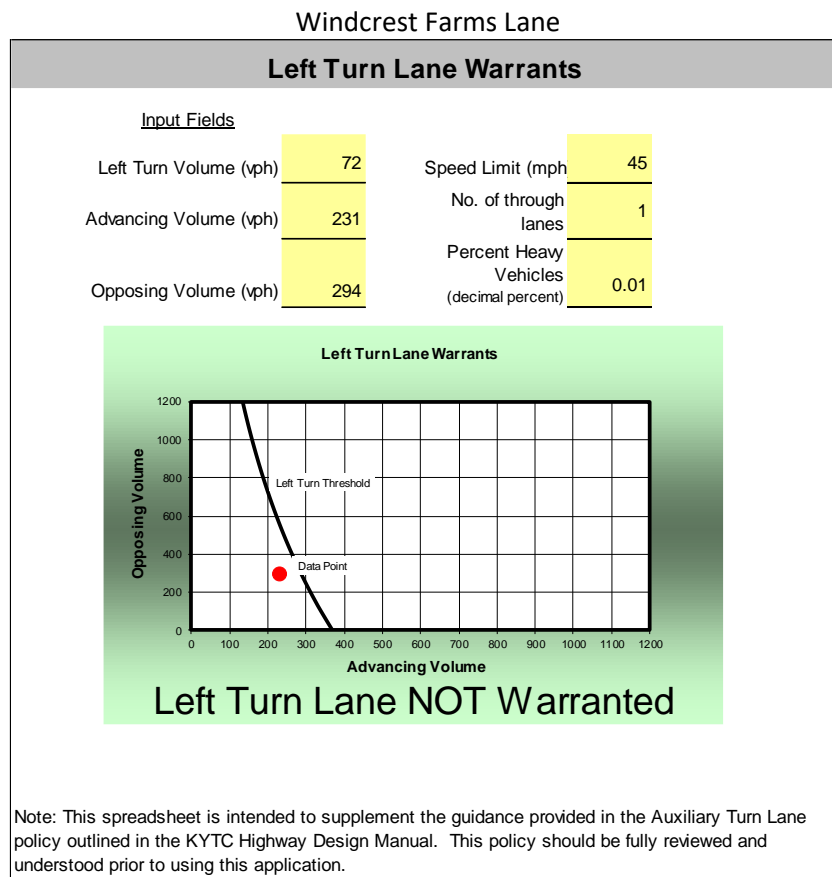
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| HCS Two-Way Stop-Control Report  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |       |      |      |
|--|--|------|-----|-----|-----------|------|-----|-----|----------------------------|------|------|------|--------------------------|-------|------|------|
| General Information  |  |      |     |     |           |      |     |     | Site Information           |      |      |      |                          |       |      |      |
| Analyst  | DBZ  |      |     |     |           |      |     |     | Intersection               |      |      |      | Thixton at Old Bardstown |       |      |      |
| Agency/Co.   | Diane B. Zimmerman Traffic Engineering LLC |      |     |     |           |      |     |     | Jurisdiction               |      |      |      |                          |       |      |      |
| Date Performed   | 9/6/2024                                   |      |     |     |           |      |     |     | East/West Street           |      |      |      | Thixton Lane             |       |      |      |
| Analysis Year  | 2029                                       |      |     |     |           |      |     |     | North/South Street         |      |      |      | Old Bardstown Road       |       |      |      |
| Time Analyzed  | PM Peak Build                              |      |     |     |           |      |     |     | Peak Hour Factor           |      |      |      | 0.96                     |       |      |      |
| Intersection Orientation   | East-West                                  |      |     |     |           |      |     |     | Analysis Time Period (hrs) |      |      |      | 0.25                     |       |      |      |
| Project Description  | Windcrest Farms 3                          |      |     |     |           |      |     |     |                            |      |      |      |                          |       |      |      |
| Lanes  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |       |      |      |
|  <p>Major Street: East-West</p> |  |      |     |     |           |      |     |     |                            |      |      |      |                          |       |      |      |
| 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)   |  | 44   | 260 | 36  |           | 74   | 232 | 76  |                            | 11   | 57   | 55   |                          | 66    | 89   | 49   |
| Percent Heavy Vehicles (%)   |  | 7    |     |     |           | 2    |     |     |                            | 20   | 0    | 2    |                          | 0     | 2    | 0    |
| 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)   |  | 4.17 |     |     |           | 4.12 |     |     |                            | 7.30 | 6.50 | 6.22 |                          | 7.10  | 6.52 | 6.20 |
| 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)  |  | 2.26 |     |     |           | 2.22 |     |     |                            | 3.68 | 4.00 | 3.32 |                          | 3.50  | 4.02 | 3.30 |
| Delay, Queue Length, and Level of Service  |  |      |     |     |           |      |     |     |                            |      |      |      |                          |       |      |      |
| Flow Rate, v (veh/h)   |  | 46   |     |     |           | 77   |     |     |                            | 128  |      |      |                          | 213   |      |      |
| Capacity, c (veh/h)  |  | 1211 |     |     |           | 1252 |     |     |                            | 402  |      |      |                          | 287   |      |      |
| v/c Ratio  |  | 0.04 |     |     |           | 0.06 |     |     |                            | 0.32 |      |      |                          | 0.74  |      |      |
| 95% Queue Length, Q <sub>95</sub> (veh)  |  | 0.1  |     |     |           | 0.2  |     |     |                            | 1.4  |      |      |                          | 5.4   |      |      |
| 95% Queue Length, Q <sub>95</sub> (ft)   |  |      |     |     |           |      |     |     |                            | 35.8 |      |      |                          | 135.9 |      |      |
| Control Delay (s/veh)  |  | 8.1  | 0.4 | 0.4 |           | 8.1  | 0.6 | 0.6 |                            | 18.1 |      |      |                          | 46.2  |      |      |
| Level of Service (LOS)   |  | A    | A   | A   |           | A    | A   | A   |                            | C    |      |      |                          | E     |      |      |
| Approach Delay (s/veh)   | 1.4  |      |     |     | 2.1       |      |     |     | 18.1                       |      |      |      | 46.2                     |       |      |      |
| Approach LOS   | A  |      |     |     | A         |      |     |     | C                          |      |      |      | E                        |       |      |      |

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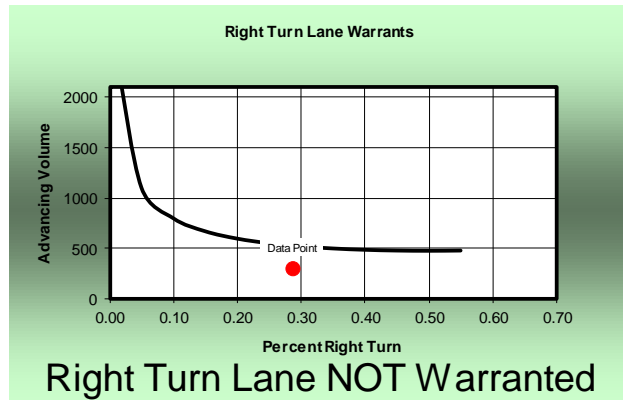
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### Right Turn Lane Warrants

#### Input Fields

|                         |     |                   |    |
|-------------------------|-----|-------------------|----|
| Right Turn Volume (vph) | 84  | Speed Limit (mph) | 45 |
| Advancing Volume (vph)  | 294 |                   |    |



Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

### Thixton Lane at Street B

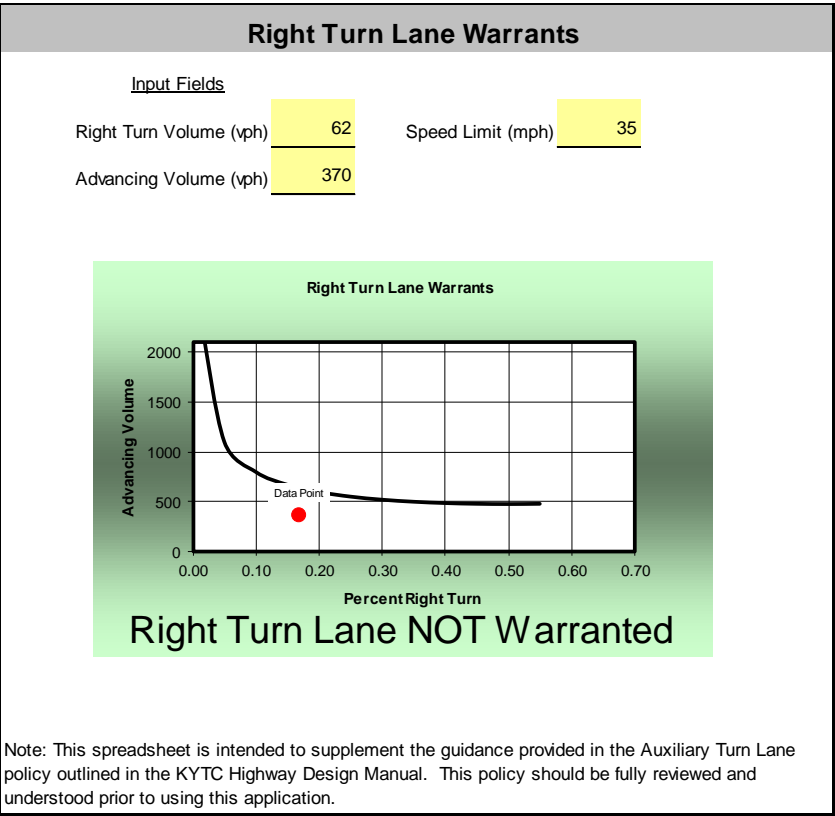
### Left Turn Lane Warrants

#### Input Fields

|                        |     |  |      |
|------------------------|-----|--|------|
| Left Turn Volume (vph) | 32  | Speed Limit (mph)                        | 35   |
| Advancing Volume (vph) | 422 | No. of through lanes                     | 1    |
| Opposing Volume (vph)  | 370 | Percent Heavy Vehicles (decimal percent) | 0.01 |



Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.



I, Diane Bridwell Zimmerman, certify that this Traffic Impact Study has been prepared under my direct supervision, that I am a Professional Engineer registered in the State of Kentucky and have successfully completed the Traffic Impact Study Requirements training course required by KYTC. Furthermore, I certify that this study has been completed in accordance with the KYTC Traffic Impact Study Requirements and in accordance with engineering standards of practice. The results presented have been determined to be accurate representations of existing and anticipated conditions based on the assumptions and methodologies presented in this report.

Diane Bridwell Zimmerman, Professional Engineer License #16462





**TECHNOLOGY  
TRANSFER  
PROGRAM**

**TRAFFIC IMPACT STUDY COURSE  
Certificate of Completion (3.5 PDH)**

Diane Zimmerman  
KY PE License No. 16462

Completed: 02/18/2022  
Expires: 02/18/2026  
Company: University of Kentucky

TIM THARPE  
Tim Tharpe, KYTC  
Director of Traffic Operations

  
Adam Kirk, Instructor

**The official status of this certificate can be verified with the  
KYTC Division of Traffic Operations**