## 2023 Complete Streets Leadership Academy: Dickerson Pike, Nashville

Anna Dearman, AICP, Walking & Biking Manager, Nashville Department of Transportation (NDOT)

Meshach Adams, Graduate Student, Alabama A&M University; Intern, Nelson\Nygaard

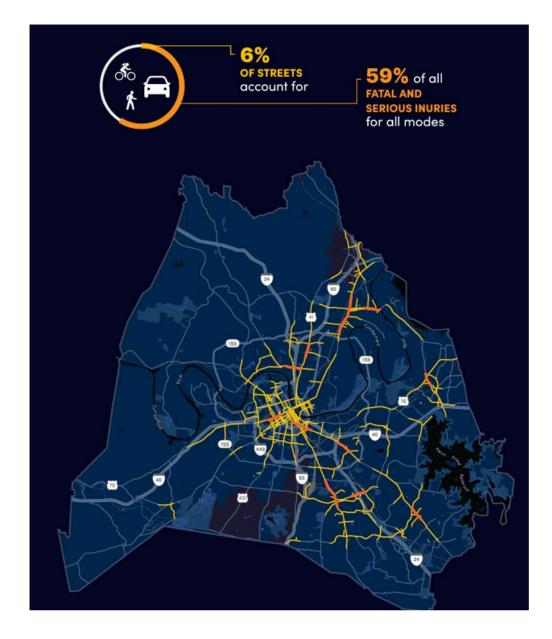


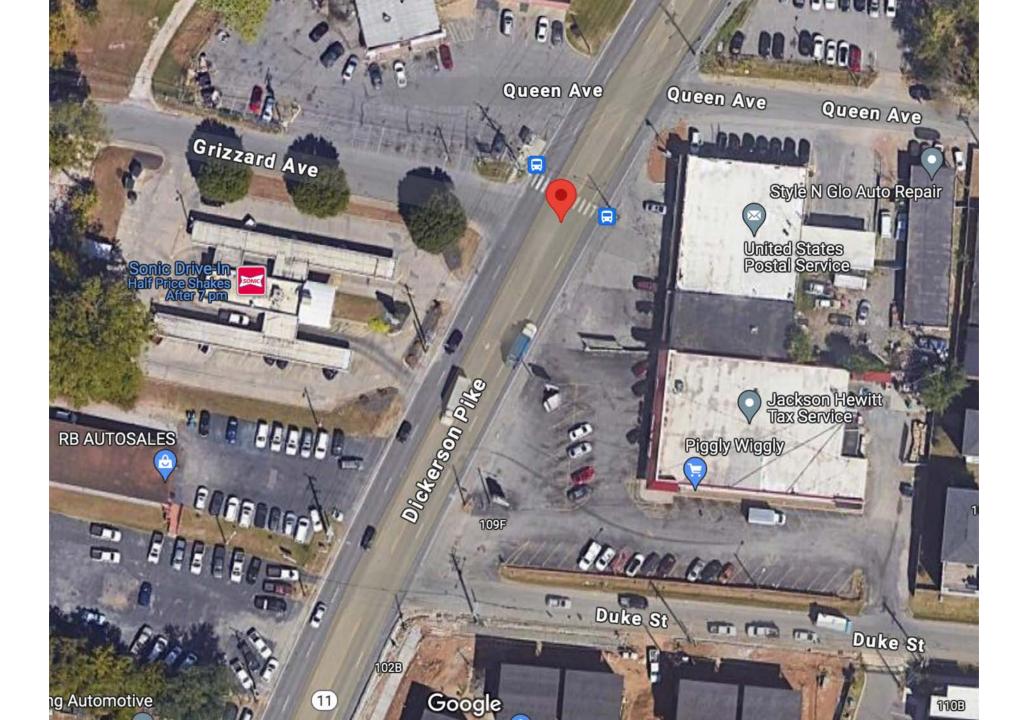




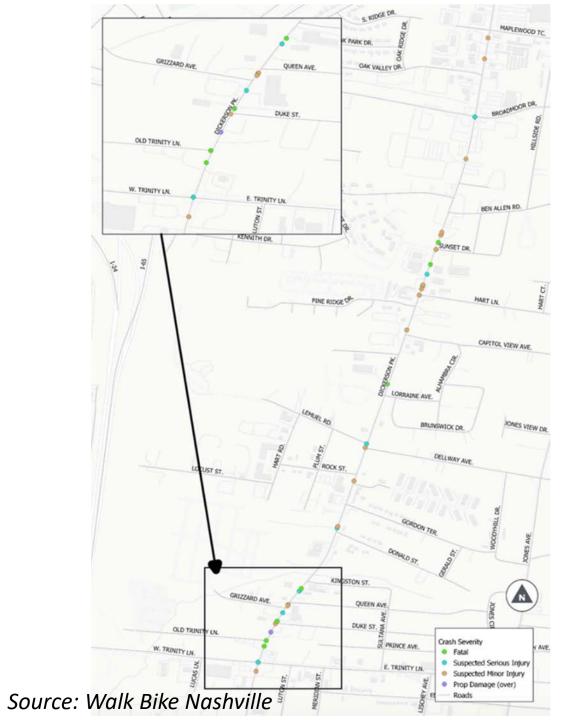


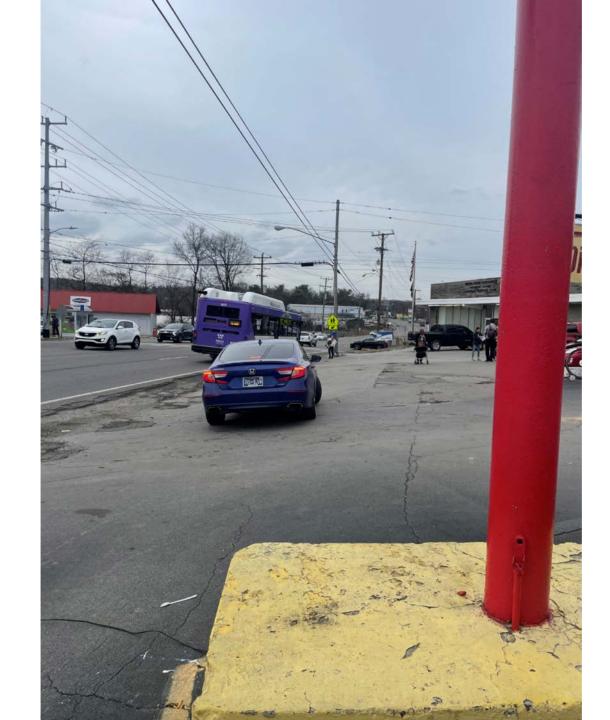














IDEAS FOR DICKERSON AND QUEEN/GIRZZARD

04.24.2023

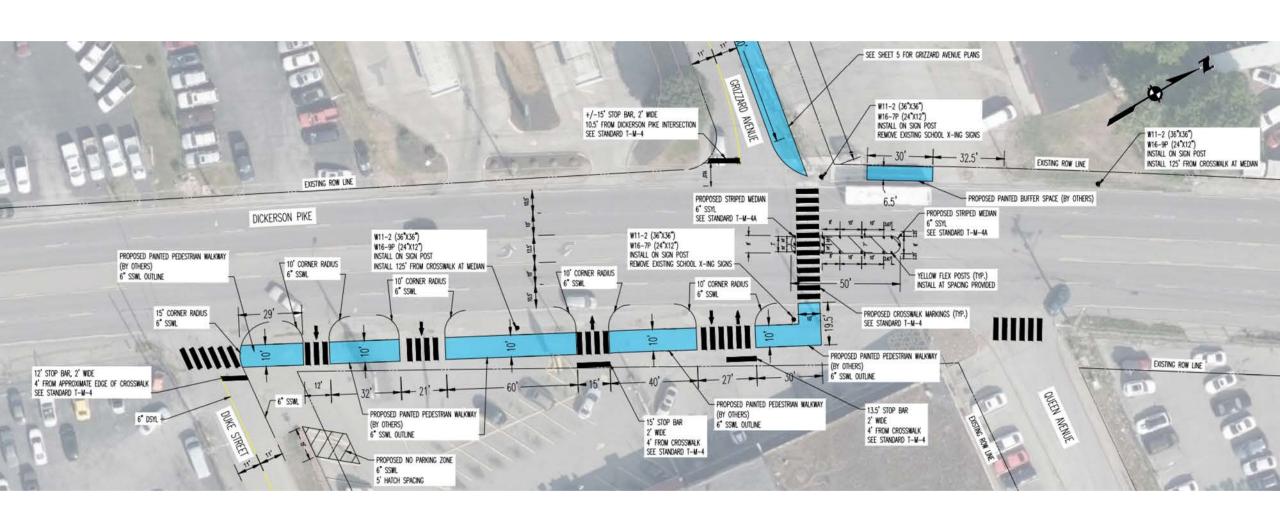
- Reclaimed
  Public Space
  (Painted)
- Property Line
- DetectableWarning Mats













| EXPENSE TYPE (add rows as needed)                   | DATE        | AMOUNT     |
|---|-------------|------------|
| Traffic Control                                     | 7/25/2023   | \$1,750.00 |
| Plastic Pavement Marking: Stop Line                 | 7/25/2023   | \$1,900.00 |
| Plastic Pavement Marking: Longitudinal Crosswalk    | 7/25/2023   | \$6,080.00 |
| Plastic Pavement Marking: 6" Line (0.205 LM)        | 7/25/2023   | \$1,230.00 |
| Plastic Pavement Marking: 6" Line (0.074 LM)        | 7/25/2023   | \$444.00   |
| Plastic Pavement Marking: 12" Barrier Line (259 LF) | 7/25/2023   | \$3,885.00 |
| Plastic Pavement Marking: 12" Barrier Line (33 LF)  | 7/25/2023   | \$495.00   |
| Plastic Pavement Marking: Sraight Arrow             | 7/25/2023   | \$1,125.00 |
| Channelizer Post                                    | 7/25/2023   | \$1,875.00 |
| Signage   | 7/25/2023   | \$528.00   |
| Paint Supplies                                      | 8/4/2023    | \$357.21   |
| Paint Supplies                                      | 8/4/2023    | \$78.53    |
| Paint Supplies                                      | 8/5/2023    | \$32.14    |
| Paint Supplies                                      | 8/6/2023    | \$14.70    |
| Paint Supplies                                      | 8/7/2023    | \$04.94    |
| TOTAL REIMB   | \$19,858.62 |            |

Materials: \$19,858.62

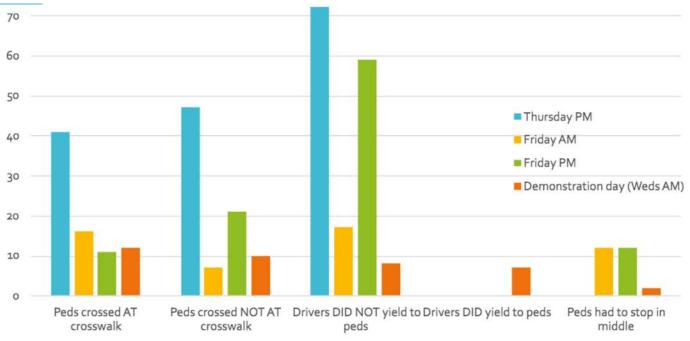
+

\$4,000 artist fee

**Grand Total \$23,858.62** 

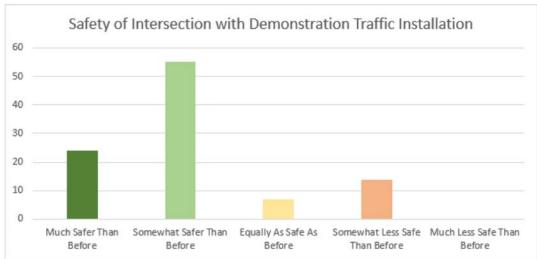


|         | Before                       | After                        | Change      |
|---------|------------------------------|------------------------------|-------------|
| Crashes | 1 every 30 days<br>(13/year) | 1 every 37 days<br>(10/year) | -19%        |
| Speeds  | 34.8 mph NB,<br>35.7 SB      | 33.6 NB,<br>35.6 SB          | -o.6 mph/2% |



|                               | Thursday PM | Friday AM | Friday PM | Demonstration<br>day (Weds AM) |
|-------------------------------|-------------|-----------|-----------|--------------------------------|
| Peds crossed AT crosswalk     | 41          | 16        | 11        | 12                             |
| Peds crossed NOT AT crosswalk | 47          | 7         | 21        | 10                             |
| Drivers DID NOT yield to peds | 72          | 17        | 59        | 8                              |
| Drivers DID yield to peds     | 0           | 0         | 0         | 7                              |
| Peds had to stop in middle    |             | 12        | 12        | 2                              |





#### Before

# "It is an extreme risk to your life to stand at this bus stop or use the crosswalk.

Cars back out of the post office into you. No cars ever stop for pedestrians in the cross walk. The cross walk is on a blind hill with a curve. There isn't even a flashing light or button you can hit to engage a flashing light.

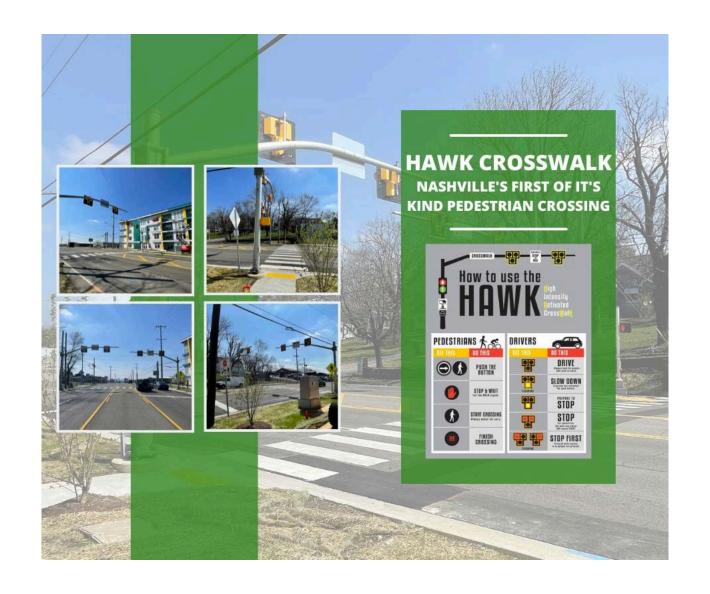
## This area is unsafe in every way.

I'd challenge the city leaders to come on any random day and attempt to use this cross walk, or tell me how safe they feel standing at this bus stop."

#### Demonstration day

## "This helps a lot.

In the evening, traffic is jammed up so bad and the cars don't want to stop. It'll take 20 mins to cross the road in the evening...lots of bad wrecks here in the past couple of weeks...I don't want to drive—I could, but I'd rather catch the bus and let them worry about it."



Source: Stansell Electric Company



|                     | Posted Speed Limit and AADT |  |              |   |   |  |                      |   |  |   |  |  |   |   |  |   |   |  |   |  |  |   |   |   |  |  |
|---------------------|-----------------------------|--|--------------|---|---|--|----------------------|---|--|---|--|--|---|---|--|---|---|--|---|--|--|---|---|---|--|--|
| Vehicle AADT <9,000 |                             |  |              |   |   |  |                      | Vehicle AADT 9,000-15,000   |  |   |  |  |   |   |  |   | Vehicle AADT >15,000  |  |   |  |  |   |   |   |  |  |
| ≤3                  | 0 m                         | ph   | 35           | 5 m   | ph  | ≥40 m  |                      | ≥40 mph   |  | ≤30 mph   |  | 35   | 5 mph   |   | ≥40 mph  |   |   | ≤30 mph  |   |  | 35 mph   |   |   | ≥40 mph   |  |  |
| 0                   |                             | i  | ^            | Ę   | ,   |  | -                    |   | 1  | -   |  | ^  | į.  | ,   |  | _   | ,   | 1  | _   |  |  | -   | ,   |   | _  |  |
| 4                   | 5                           |  | 7            | 5   | 9   | 0  | 5                    | 0   | 4  | 5   | 6  | 7  |   | Ĭ   | 0  | 5   | 0   | 7  | 5   | 9  | 7  | 5   | 9   |   | _  | 6  |
| U                   |                             | 3  | 0            |   | 0   | 0  |                      | 0   |  |   | 3  | 0  |   | 8   | 0  |   | 0   |  |   | 0  | 0  |   | 0   | 0   |  | 0  |
| 4                   | 5                           |  | 7            | 5   | 9   | 0  | 5                    | O   | 4 7  | 5   | 9  | a  | 5   | Q   | 0  | 5   | O   | 4  | 5   | 9  | 0  | 5   | 0   |   | 5  | O  |
| 0                   | 2                           | 3  | 0            |   |   | -  |                      | _   |  |   | 3  | 0  |   | _   |  | _   |   | 0  |   | -  | 0  |   |   | ①   |  | 0  |
| 4                   | 5                           | 6  | Sev          | 5   | 6   |  | 5                    | 6   | 4  | 5   | 6  |  | _   |   |  | 5   | 6   | 4  | 5   | 6  |  | 5   | 6   | 5   | 6  |  |
| 7                   |                             | 9  | 7            |   | 9   |  |                      | 0   | 7  |   | 9  | 0  |   |   |  | - 1   | 0   | 7  |   | 9  |  |   | 0   |   |  | 0  |
| 0                   |                             | 0  | 0            |   | 0   | 0  |                      | 0   | 0  |   | 0  | 0  | -   | 8   | 1  |   | 0   | 0  |   | 0  | 0  |   | 0   | 0   |  | 0  |
|                     | 5                           |  |              | 5   |   |  | 5                    |   |  | 5   |  |  | 5   |   |  | 5   |   |  | 5   |  |  | 5   |   |   | 5  |  |
| 7                   | 8                           | 9  | 7            | 8   | 9   |  | 8                    | 0   | 7  | 8   | 9  | 0  | 8 (   | 0   |  | 8   | 0   | 0  | 8   | 0  |  | 8   | 0   |   | 8  | 0  |
| 0                   |                             | 0  | 0            |   | 0   | 0  |                      | 0   | 0  |   | 0  | 0  | (   | 8   | 1  | · V   | 0   | 0  |   | 0  | 0  |   | 0   | 0   |  | 0  |
|                     | 5                           | 6  |              | 5   | 0   |  | 5                    | 0   |  | 5   | 0  |  | 5 (   | 0   |  | 5   | 0   |  | 5   | 0  |  | 5   | 0   |   | 5  | 0  |
| 7                   | 8                           | 9  | 7            | 8   | 9   |  | 8                    | 0   | 7  | 8   | 0  | 0  | 8 (   | 0   |  | 8   | 0   | 0  | 8   | 0  |  | 8   | 0   |   | 8  | 0  |
|                     | 4<br>0<br>4<br>7<br>0       | ≤30 m<br>4 5<br>U 2<br>4 5<br>7<br>U 5<br>7 8<br>U 5 | ≤30 mph<br>1 | ≤30 mph 38  4 5  7  1 2 3 1  4 5  7  0 2 3 1  4 5 6  7 9 7  0 3 0  5 7  8 9 7  0 6 0  5 6 | ≤30 mph 35 m<br>4 5 5<br>7<br>U 2 3 U<br>4 5 6 5<br>7 9 7<br>U 2 3 U<br>5 6 5<br>7 8 9 7 8<br>U 3 0 U<br>5 5 5<br>7 8 9 7 8 | ≤30 mph 35 mph  4 5 5 6 7 9  1 2 3 1 6 4 5 6 5 6 7 9 7 9  1 5 6 5 6 7 9 7 9  1 6 6 5 6 7 9 7 8 9 1 6 5 6 5 6 5 6 5 6 5 6 7 8 9 7 8 9 1 6 5 6 5 6 5 6 5 6 | ≤30 mph 35 mph ≥4  1 | ≤30 mph 35 mph ≥40 m<br>4 5 5 6 5<br>7 9 0<br>1 2 3 0 6 1<br>4 5 6 5 6 5<br>7 9 7 9<br>1 3 0 6 1<br>5 5 5<br>7 9 7 9<br>1 5 6 5 6 5<br>7 8 9 7 8 9 8<br>1 5 6 5 6 5<br>5 5 5 5<br>7 8 9 7 8 9 8 | Vehicle AADT <9,000         ≤30 mph       35 mph       ≥40 mph         4 5       5 6       5 6         7 9       9       9         4 5       5 6       5 6         7 9       9       9         0 2 3       0 9       0 9         4 5 6       5 6       5 6         7 9 7 9       9         0 5 5 6       5 6         5 5 5       5 5         7 8 9 7 8 9 8 9       9         0 5 6       5 6       5 6 | Vehicle AADT <9,000       Vehicle | Vehicle AADT <9,000       Vehicle         ≤30 mph       35 mph       ≥40 mph       ≤30 m         4 5       5 6       5 6       4 5         7 9       9       9       9         4 5       5 6       5 6 4 5       4 5         7 9       9       9       7         10 2 3       10 9       10 9       10 9         4 5 6 5 6 5 6 4 5       5 6 4 5       5 6 4 5         7 9 7 9 9 7 9       7       7         10 3 0 9       10 9 9       10 9         5 5 5 5 5 5 5       5 5 5 5       5 5 5         7 8 9 7 8 9 8 9 7 8       7 8         10 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6       5 6 5 6 5 6 5 6 | Vehicle AADT <9,000       Vehicle A         ≤30 mph       35 mph       ≥40 mph       ≤30 mph         4 5       5 6       5 6       4 5 6         7 9       9       9       7 9         10 2 3       10 3 10 3 10 3       3 4 5 6       7 9         10 3 10 3 10 3 10 3 10 3 10 3 5 5 5 5 5 5 5       5 5 5 5 5 5 5 5       5 5 5 5 5 5 5 5 5         7 8 9 7 8 9 8 9 7 8 9 8 9 7 8 9 8 9 7 8 9 7 8 9       10 3 10 3 10 3 10 3 10 3 10 3 10 3 10 3 | Vehicle AADT <9,000       Vehicle AADT         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35         4 5       5 6       5 6       4 5 6       7         7 9       9 9       9 7 9       9 7 9       9 9         10 2 3       10 8 10 8 10 3 10 3 10 3 10 3 10 4 5 6 7 9 7 9 9       10 8 10 8 10 8 10 8 10 8 10 8 10 5 5 5 5 5 6 10 8 10 8 10 8 10 8 10 8 10 8 10 8 10 | Vehicle AADT <9,000       Vehicle AADT 9,0         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph         4 5       5 6       5 6       4 5 6       5         7 9       9       9       7       7         10 2 3       10 9       10 9       10 3       10 9       10 9         10 2 3       10 9       10 9       10 3       10 9 | Vehicle AADT        2,000       Vehicle AADT        9,000         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph         4 5       5 6       5 6       4 5 6       5 6         7 9       9       9       7 9       9         4 5       5 6       5 6 4 5 6       5 5       5 5       5 5         7 9       9       9       7 9       9       9       9         10 2 3       10 3 10 3 10 3 10 3 10 3 10 3 10 3 10 3 | Vehicle AADT < 9,000       Vehicle AADT 9,000-15         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40         4 5       5 6       5 6       4 5 6       5 6       7 9       9         4 5       5 6       5 6       4 5 6       7 9       9       9       9         1 2 3       6 9       9 9       9 7 9       9 9< | Vehicle AADT 9,000         Vehicle AADT 9,000       Vehicle AADT 9,000       15,00         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 m         4 5       5 6       5 6       4 5 6       5 6       5       5 7       9 0         10 2 3       10 3 0 <td< td=""><td>Vehicle AADT &lt; 9,000       Vehicle AADT 9,000 − 15,000         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 mph         4 5       5 6       5 6       4 5 6       5 6       7 9       9       9         1 2 3       3 0 8 0 8 0 7 9 0 0 7 9 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>Vehicle AADT &lt; 9,000       Vehicle AADT 9,000 − 15,000         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤40 mph       ≤30 mph<td>Vehicle AADT &lt; 9,000       Vehicle AADT 9,000 − 15,000       Vehicle AADT 9,000 − 15,000</td><td>Vehicle AADT &lt; 9,000       Vehicle AADT 9,000 – 15,000       Vehicle AADT 9,000 – 15,000</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         ADD 9,000         ADD 9,000<td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph         30 mph         30 mph         30 mph</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 1           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 15,000           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40           4 5         5 6         5 6 4 5 6         5 6 5 6 4 5 6         7 9 7 9 7 9 7 9         7 9 7 9 7 9         7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 15,000           ≤30 mph         35 mph         ≥40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≥40 mph         ≤40 mph         ≥40 mph</td></td></td></td<> | Vehicle AADT < 9,000       Vehicle AADT 9,000 − 15,000         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 mph         4 5       5 6       5 6       4 5 6       5 6       7 9       9       9         1 2 3       3 0 8 0 8 0 7 9 0 0 7 9 0 0 0 0 0 0 0 0 0 0 0 0 0 | Vehicle AADT < 9,000       Vehicle AADT 9,000 − 15,000         ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 mph       ≤30 mph       35 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≥40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤40 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤30 mph       ≤40 mph       ≤30 mph <td>Vehicle AADT &lt; 9,000       Vehicle AADT 9,000 − 15,000       Vehicle AADT 9,000 − 15,000</td> <td>Vehicle AADT &lt; 9,000       Vehicle AADT 9,000 – 15,000       Vehicle AADT 9,000 – 15,000</td> <td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         ADD 9,000         ADD 9,000<td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph         30 mph         30 mph         30 mph</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 1           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 15,000           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40           4 5         5 6         5 6 4 5 6         5 6 5 6 4 5 6         7 9 7 9 7 9 7 9         7 9 7 9 7 9         7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7</td><td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 15,000           ≤30 mph         35 mph         ≥40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≥40 mph         ≤40 mph         ≥40 mph</td></td> | Vehicle AADT < 9,000       Vehicle AADT 9,000 − 15,000       Vehicle AADT 9,000 − 15,000 | Vehicle AADT < 9,000       Vehicle AADT 9,000 – 15,000       Vehicle AADT 9,000 – 15,000 | Vehicle AADT < 9,000         Vehicle AADT 9,000 − 15,000         ADD 9,000         ADD 9,000 <td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph         30 mph         30 mph         30 mph</td> <td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 1           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph</td> <td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 15,000           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40           4 5         5 6         5 6 4 5 6         5 6 5 6 4 5 6         7 9 7 9 7 9 7 9         7 9 7 9 7 9         7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7</td> <td>Vehicle AADT &lt; 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT &gt; 15,000           ≤30 mph         35 mph         ≥40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≥40 mph         ≤40 mph         ≥40 mph</td> | Vehicle AADT < 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph         30 mph         30 mph         30 mph | Vehicle AADT < 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT > 1           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         30 mph | Vehicle AADT < 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT > 15,000           ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40 mph         ≤30 mph         35 mph         ≥40           4 5         5 6         5 6 4 5 6         5 6 5 6 4 5 6         7 9 7 9 7 9 7 9         7 9 7 9 7 9         7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9         9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 | Vehicle AADT < 9,000         Vehicle AADT 9,000 − 15,000         Vehicle AADT > 15,000           ≤30 mph         35 mph         ≥40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≤40 mph         ≥40 mph         ≤40 mph         ≥40 mph |

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.\*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

- High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)\*\*
- 8 Road Diet
- 9 Pedestrian Hybrid Beacon (PHB)\*\*

Civic Design Center leads the Nashville Youth Design Team in a pedestrian safety intervention on Dickerson Pike in 2021 Source: Civic Design Center

# DICKERSON PIKE PEDESTRIAN SAFETY PLAN

Concepts for a Complete Street Safe for Walking and Driving on Dickerson Pike

January 2023



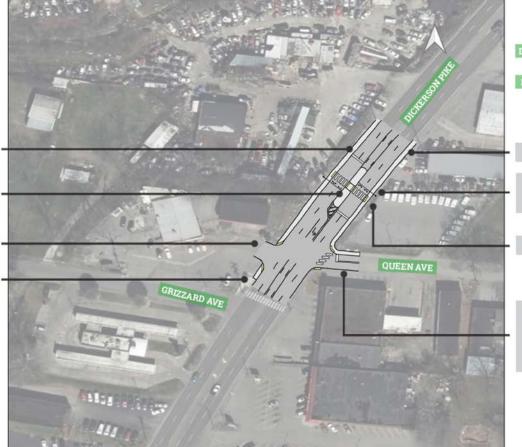
### DICKERSON PIKE @ QUEEN AVENUE/GRIZZARD AVENUE

SIDEWALK STUB

MEDIAN REFUGE ISLAND

EDUCED DRIVEWAY

TIE INTO EXISTING SIDEWALK



DICKERSON PIKE

EWING DR

SIDEWALK STUB

PEDESTRIAN HYBRID BEACON

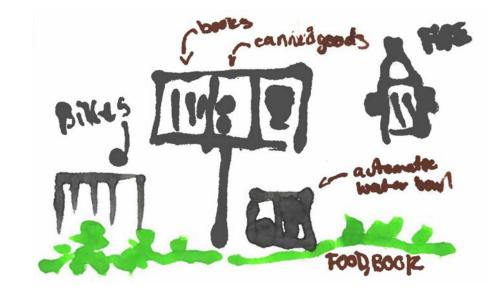
**DRIVEWAY CLOSURE** 

ADDED CENTERLINE, STOPBAR, & CROSSWALK MARKINGS











DESIGN CENTER

Sources: Walk Bike Nashville, Civic Design Center



Walk Bike Nashville

Black Men Vent Too

Source: Black Men Vent Too

