# B-TOP $3^{\text {rd }}$ and 46 Bypass Pedestrian Report <br> Nov 7, 2007 

## Introduction

The intersection of $3^{\text {rd }}$ and the 46 Bypass is considered hostile for pedestrians. This is a walkable area of town as far as having multiple businesses within walkable distances, but getting across this intersection, as designed, deters walking and encourages driving. This intersection is within the jurisdiction of INDOT. The intersection is large, 5 lanes on each of the four leg.


A number of requests to improve the amenities for pedestrians at this intersection have been submitted. The latest by B-TOP received by B-TOP indicated that a study had been done and the warrants were not met.

We do not know what warrants are necessary to require pedestrian amenities, nor do we know what the pedestrian count results were from INDOT's study. We would like to know what these are.

This document is a count of pedestrian traffic done by citizens of Bloomington on August 22, 2007 from 10:30am to $8: 00 \mathrm{pm}$, a $91 / 2$ hour period. On that day, numerous people took part sitting about 70 ft northwest of the northwest corner of the intersection, keeping track of pedestrian crossings. The raw data (see Appendix A) includes which leg of the intersection was crossed, which direction, the time, the sex of the pedestrian, and if the pedestrian looked younger than 25 or older than 25 . It was a very hot day, very sunny, and the temperature approached 100 at the peak of the day.

## Results

The results are as follows:
$91 / 2$ hours ( $10: 30 \mathrm{am}-8: 00 \mathrm{pm}$ )
253 crossings

| Crossing | $\#$ | $\%$ | E-W | W-E | N-S | S-N |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| North side | 36 | $14 \%$ | 16 | 20 |  |  |
| East side | 120 | $47 \%$ |  |  | 64 | 56 |
| South side | 63 | $25 \%$ | 32 | 31 |  |  |
| West side | 34 | $13 \%$ |  |  | 13 | 21 |
| Males 165 | $65 \%$ |  |  |  |  |  |
| Female 88 | $35 \%$ |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Young (<25) | 182 | $72 \%$ |  |  |  |  |
| Older $(>25)$ | 71 | $28 \%$ |  |  |  |  |




Hourly distribution of crossings over time: note the first bar is only $\mathbf{3 0}$ minutes.

Below is the direction of crossing that occurred on the south side over time. This shows that in the morning, more are crossing toward town (east to west), and more are crossing away from town (west to east) in the afternoon and evening.


## Conclusion

There were 253 pedestrian crossings during this $91 / 2$ hour period. At 8:00pm, the rate of crossings were steady at above 35 crossings/hour but were slowly declining. Most of the businesses remain open until 9:00pm, Target remains open until 10:00pm, and many of the restaurants remain open much later. Early morning numbers were not collected, but the data indicates that a morning rush may exist given that in 30 minutes there were as many crossings as there were each of the next 3 hours. Given this data and the trends, we believe that there are likely more than 400 daily pedestrian crossings at this intersection.

We believe that whether or not this meets INDOT's warrants, the current design is unsafe and puts hundreds of our citizens in peril daily that could be significantly reduced by well marked crossings and pedestrian signals.

## Appendix A

Raw data

| N |  | E |  | S |  | W |  | E-W | W-E | $\mathrm{N}-\mathrm{S}$ | S-N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E-W | W-E | N-S | S-N | E-W | W-E | N-S | S-N |  |  |  |  |
|  |  |  |  | 1 |  |  |  | 1 | 10:28 | M | Y |
| 1 |  |  |  |  |  |  |  | 1 | 10:31 | F |  |
|  |  | 2 |  |  |  |  |  | 2 | 10:35 | F |  |
|  |  |  |  | 1 |  |  |  | 1 | 10:42 | F | 0 |
| 1 |  |  |  |  |  |  |  | 1 | 10:45 | F | 0 |
|  |  |  |  |  |  | 1 |  | 1 | 10:46 | M | Y |
|  |  |  |  |  | 1 |  |  | 1 | 10:46 | M |  |
|  |  |  | 1 |  |  |  |  | 1 | 10:53 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 10:53 | M | 0 |
|  | 1 |  |  |  |  |  |  | 1 | 10:53 | M | 0 |
|  |  |  |  | 1 |  |  |  | 1 | 10:54 | F | 0 |
|  |  |  |  | 1 |  |  |  | 1 | 11:08 | M | 0 |
|  |  |  |  | 2 |  |  |  | 2 | 11:10 | M | Y |
|  |  |  |  | 1 |  |  |  | 1 | 11:11 | M | O |
|  |  |  |  |  |  |  | 1 | 1 | 11:13 | M | Y |
| 1 |  |  |  |  |  |  |  | 1 | 11:36 | F | Y |
|  |  |  |  |  |  | 1 |  | 1 | 11:50 | F | O |
|  |  |  |  | 2 |  |  |  | 2 | 11:55 | M |  |
|  |  |  |  |  | 1 |  |  | 1 | 12:00 | F | Y |
|  |  |  |  |  |  |  | 1 | 1 | 12:03 | F | 0 |
|  |  |  |  |  |  |  | 1 | 1 | 12:06 | M | 0 |
|  |  |  |  | 1 |  |  |  | 1 | 12:20 | M | 0 |
|  |  |  |  |  | 1 |  |  | 1 | 12:23 | M | 0 |
|  |  |  |  |  |  |  | 1 | 1 | 12:25 | F | 0 |
|  |  | 1 |  |  |  |  |  | 1 | 12:35 | F | 0 |
|  |  |  |  | 1 |  |  |  | 1 | 12:43 | M | 0 |
|  |  |  |  |  |  | 1 |  | 1 | 12:48 | M | 0 |
|  | 1 |  |  |  |  |  |  | 1 | 12:53 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 12:53 | F | Y |
|  |  |  |  | 1 |  |  |  | 1 | 12:54 | M | 0 |
|  | 2 |  |  |  |  |  |  | 2 | 13:05 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 13:06 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 13:06 | F | Y |
|  |  |  | 1 |  |  |  |  | 1 | 13:10 | F | 0 |
|  | 1 |  |  |  |  |  |  | 1 | 13:29 | M | 0 |
|  | 1 |  |  |  |  |  |  | 1 | 13:36 | F | Y |
|  |  |  |  |  |  | 1 |  | 1 | 13:36 | F | Y |
|  |  |  |  |  |  |  | 2 | 2 | 13:42 | F | Y |
|  |  |  | 2 |  |  |  |  | 2 | 13:55 | M | 0 |
|  |  |  | 1 |  |  |  |  | 1 | 14:00 | M | 0 |
|  |  |  | 1 |  |  |  |  | 1 | 14:00 | F | 0 |
|  |  |  | 3 |  |  |  |  | 3 | 14:01 | M | 0 |
|  |  | 1 |  |  |  |  |  | 1 | 14:03 | F | 0 |


|  |  |  | 1 |  |  | 1 | 14:03 | M | O |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 |  |  |  | 1 | 14:10 | F | Y |
| 1 |  |  |  |  |  | 1 | 14:13 | M | Y |
|  |  |  |  |  | 1 | 1 | 14:15 | M | Y |
|  |  |  |  |  | 1 | 1 | 14:20 | M | Y |
|  | 1 |  |  |  |  | 1 | 14:25 | M | Y |
|  |  | 2 |  |  |  | 2 | 14:28 | F | Y |
|  |  |  |  | 1 |  | 1 | 14:29 | M | Y |
|  |  |  |  | 1 |  | 1 | 14:29 | F | Y |
|  |  | 1 |  |  |  | 1 | 14:30 | F | Y |
|  |  | 1 |  |  |  | 1 | 14:30 | M | Y |
|  |  |  | 1 |  |  | 1 | 14:35 | M | Y |
|  |  |  |  | 1 |  | 1 | 14:36 | F | Y |
|  |  | 1 |  |  |  | 1 | 14:38 | F | Y |
|  |  | 1 |  |  |  | 1 | 14:38 | M | Y |
|  |  |  |  |  | 1 | 1 | 14:40 | F | Y |
|  |  | 2 |  |  |  | 2 | 14:42 | M | Y |
|  | 1 |  |  |  |  | 1 | 14:45 | F | Y |
|  | 1 |  |  |  |  | 1 | 14:50 | M | Y |
|  | 2 |  |  |  |  | 2 | 14:53 | M | Y |
|  |  |  |  | 1 |  | 1 | 14:54 | F | Y |
|  |  |  |  | 1 |  | 1 | 14:55 | M | Y |
|  | 1 |  |  |  |  | 1 | 15:00 | F | Y |
|  |  |  |  | 1 |  | 1 | 15:02 | M | Y |
|  |  |  |  | 1 |  | 1 | 15:02 | F | Y |
|  | 1 |  |  |  |  | 1 | 15:05 | M | Y |
|  |  | 1 |  |  |  | 1 | 15:06 | M | Y |
|  |  | 1 |  |  |  | 1 | 15:12 | M | Y |
|  |  | 1 |  |  |  | 1 | 15:12 | F | Y |
|  | 1 |  |  |  |  | 1 | 15:15 | F | Y |
|  |  |  | 2 |  |  | 2 | 15:16 | M | Y |
| 1 |  |  |  |  |  | 1 | 15:22 | M | Y |
| 1 |  |  |  |  |  | 1 | 15:22 | F | Y |
|  |  |  | 1 |  |  | 1 | 15:31 | F | Y |
|  |  | 1 |  |  |  | 1 | 15:33 | F | Y |
|  |  | 1 |  |  |  | 1 | 15:37 | F | Y |
|  |  | 1 |  |  |  | 1 | 15:37 | M | Y |
|  |  |  |  | 2 |  | 2 | 15:41 | M | Y |
| 1 |  |  |  |  |  | 1 | 15:41 | M | Y |
|  | 1 |  |  |  |  | 1 | 15:42 | M | Y |
|  |  |  |  | 1 |  | 1 | 15:43 | M | Y |
|  |  |  |  | 1 |  | 1 | 15:45 | M | Y |
|  |  |  |  | 1 |  | 1 | 15:45 | F | Y |
|  | 1 |  |  |  |  | 1 | 15:49 | F | Y |
|  |  | 1 |  |  |  | 1 | 15:59 | M | Y |
|  |  |  |  | 1 |  | 1 | 16:00 | F | Y |
|  |  |  |  | 1 |  | 1 | 16:00 | M | Y |
|  |  | 1 |  |  |  | 1 | 16:00 | F | Y |


|  |  |  | 1 |  |  |  |  | 1 | 16:00 | M | Y |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 |  |  |  |  |  | 1 | 16:00 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 16:00 | F | O |
|  |  |  | 1 |  |  |  |  | 1 | 16:00 | M | Y |
|  |  |  |  | 1 |  |  |  | 1 | 16:00 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:03 | M | Y |
|  |  | 2 |  |  |  |  |  | 2 | 16:08 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:09 | M | O |
|  |  | 1 |  |  |  |  |  | 1 | 16:09 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:10 | M | Y |
|  |  |  |  | 2 |  |  |  | 2 | 16:11 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 16:16 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 16:16 | M | O |
|  |  | 2 |  |  |  |  |  | 2 | 16:19 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:19 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:19 | M | Y |
|  |  | 2 |  |  |  |  |  | 2 | 16:20 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:21 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 16:30 | M | O |
|  |  |  | 1 |  |  |  |  | 1 | 16:30 | F | $\bigcirc$ |
|  |  |  | 1 |  |  |  |  | 1 | 16:40 | M | Y |
|  |  |  |  | 2 |  |  |  | 2 | 16:42 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 16:45 | F | O |
| 1 |  |  |  |  |  |  |  | 1 | 16:53 | M | Y |
|  |  |  |  |  |  | 1 |  | 1 | 16:54 | M | Y |
|  |  |  |  |  |  | 2 |  | 2 | 16:55 | M | O |
|  |  |  | 1 |  |  |  |  | 1 | 16:56 | M | Y |
|  |  |  |  |  |  |  | 2 | 2 | 16:58 | M | O |
|  | 1 |  |  |  |  |  |  | 1 | 17:04 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:05 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:05 | M | Y |
|  |  |  |  | 1 |  |  |  | 1 | 17:06 | F | Y |
|  |  | 4 |  |  |  |  |  | 4 | 17:07 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:07 | F | Y |
|  |  |  |  |  |  |  | 1 | 1 | 17:09 | M | O |
|  |  |  |  |  |  |  | 1 | 1 | 17:10 | M | 0 |
|  |  |  |  | 1 |  |  |  | 1 | 17:11 | M | O |
|  |  |  |  |  | 1 |  |  | 1 | 17:12 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 17:13 | M | 0 |
|  | 1 |  |  |  |  |  |  | 1 | 17:14 | M | $\bigcirc$ |
|  |  | 1 |  |  |  |  |  | 1 | 17:16 | M | 0 |
|  |  |  |  |  | 1 |  |  | 1 | 17:21 | M | $\bigcirc$ |
|  |  | 2 |  |  |  |  |  | 2 | 17:25 | F | Y |
|  |  |  | 1 |  |  |  |  | 1 | 17:25 | F | Y |
|  |  |  |  |  |  |  | 1 | 1 | 17:28 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 17:29 | M | O |
|  |  |  | 1 |  |  |  |  | 1 | 17:30 | F | Y |
|  |  |  |  |  | 1 |  |  | 1 | 17:31 | M | Y |


|  |  | 1 |  |  |  |  |  | 1 | 17:33 | M | Y |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1 |  |  |  | 1 | 17:34 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 17:39 | M | Y |
| 1 |  |  |  |  |  |  |  | 1 | 17:42 | M | Y |
| 1 |  |  |  |  |  |  |  | 1 | 17:42 | M | O |
|  |  |  | 1 |  |  |  |  | 1 | 17:42 | M | Y |
|  |  |  |  |  | 1 |  |  | 1 | 17:51 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:52 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:52 | F | O |
|  |  |  | 1 |  |  |  |  | 1 | 17:54 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 17:54 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:57 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:57 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 17:58 | M | Y |
| 1 |  |  |  |  |  |  |  | 1 | 17:59 | M | Y |
|  |  |  | 4 |  |  |  |  | 4 | 18:00 | M | Y |
|  |  | 2 |  |  |  |  |  | 2 | 18:02 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 18:11 | M | O |
|  | 1 |  |  |  |  |  |  | 1 | 18:12 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 18:12 | M | Y |
|  |  |  |  |  |  | 1 |  | 1 | 18:24 | M | Y |
|  |  |  |  |  |  | 1 |  | 1 | 18:24 | F | Y |
|  |  | 1 |  |  |  |  |  | 1 | 18:26 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 18:27 | M | O |
|  |  |  |  |  | 1 |  |  | 1 | 18:28 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 18:32 | M | Y |
|  |  |  |  |  | 2 |  |  | 2 | 18:38 | F | Y |
|  |  |  | 2 |  |  |  |  | 2 | 18:39 | F | Y |
| 1 |  |  |  |  |  |  |  | 1 | 18:41 | M | Y |
|  |  |  |  |  | 1 |  |  | 1 | 18:44 | M | O |
|  |  |  |  | 1 |  |  |  | 1 | 18:44 | M | O |
|  |  |  | 2 |  |  |  |  | 2 | 18:50 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 18:52 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 18:52 | F | Y |
|  | 1 |  |  |  |  |  |  | 1 | 18:52 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 18:52 | F | Y |
|  |  |  |  |  | 1 |  |  | 1 | 18:56 | M | Y |
|  |  |  |  |  | 1 |  |  | 1 | 18:56 | F | O |
|  |  |  |  |  |  |  | 1 | 1 | 18:56 | M | Y |
|  |  |  |  | 1 |  |  |  | 1 | 18:56 | M | Y |
|  | 1 |  |  |  |  |  |  | 1 | 18:57 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 18:57 | M | Y |
|  |  |  | 1 |  |  |  |  | 1 | 18:57 | F | O |
|  |  |  |  | 1 |  |  |  | 1 | 18:58 | M | O |
|  |  | 1 |  |  |  |  |  | 1 | 18:59 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 18:59 | M | Y |
|  |  |  |  | 1 |  |  |  | 1 | 19:01 | M | Y |
|  |  |  |  | 1 |  |  |  | 1 | 19:01 | F | Y |


|  |  |  |  |  | 1 |  |  | 1 | 19:01 | M | O |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 |  |  |  |  | 1 | 19:03 | M | O |
|  |  | 1 |  |  |  |  |  | 1 | 19:03 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 19:03 | F | Y |
|  |  |  |  |  |  |  | 1 | 1 | 19:05 | M | Y |
|  |  | 2 |  |  |  |  |  | 2 | 19:10 | F | Y |
|  |  |  |  |  |  |  | 1 | 1 | 19:16 | F | Y |
|  |  |  |  |  |  | 1 |  | 1 | 19:16 | F | Y |
| 1 |  |  |  |  |  |  |  | 1 | 19:17 | F | Y |
|  | 1 |  |  |  |  |  |  | 1 | 19:19 | M | O |
|  | 1 |  |  |  |  |  |  | 1 | 19:19 | F | O |
|  |  | 1 |  |  |  |  |  | 1 | 19:20 | M | O |
|  |  | 1 |  |  |  |  |  | 1 | 19:20 | F | O |
|  |  |  | 1 |  |  |  |  | 1 | 19:21 | F | Y |
|  | 1 |  |  |  |  |  |  | 1 | 19:22 | M | O |
|  |  |  |  | 1 |  |  |  | 1 | 19:25 | M | O |
|  |  |  |  | 1 |  |  |  | 1 | 19:25 | F | O |
|  |  |  | 1 |  |  |  |  | 1 | 19:25 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 19:26 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 19:26 | F | Y |
| 1 |  |  |  |  |  |  |  | 1 | 19:27 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 19:29 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 19:38 | F | Y |
|  |  |  |  |  | 1 |  |  | 1 | 19:42 | F | Y |
|  |  | 2 |  |  |  |  |  | 2 | 19:45 | M | Y |
|  |  | 1 |  |  |  |  |  | 1 | 19:47 | M | O |
|  |  | 1 |  |  |  |  |  | 1 | 19:47 | M | Y |
|  |  |  |  |  | 1 |  |  | 1 | 19:49 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 19:49 | M | Y |
|  |  |  |  |  |  |  | 1 | 1 | 19:49 | F | Y |
| 1 |  |  |  |  |  |  |  | 1 | 19:50 | M | Y |
| 1 |  |  |  |  |  |  |  | 1 | 19:50 | F | Y |
|  |  |  |  |  | 1 |  |  | 1 | 19:54 | M | Y |
| 16 | 20 | 64 | 56 | 32 | 31 | 13 | 21 |  | 253 | 141 | 156 |
| 36 |  | 120 |  | 63 |  | 34 |  |  | 253 | 220 | 216 |

