



POLICY COMMITTEE

September 14, 2012; 1:30 – 3:00 p.m.
Council Chambers (#115)

- I. Call to Order
 - II. Approval of Minutes:
 - A. June 8, 2012
 - III. Communications from the Chair
 - IV. Reports from Officers and/or Committees
 - A. Citizens Advisory Committee
 - B. Technical Advisory Committee
 - V. Reports from the BMCMPO Staff
 - A. 2012 MPO Conference
 - B. Transportation Legislation Reauthorization
 - C. Long Range Transportation Plan
 - D. 2011 Crash Report
 - E. TIP Administrative Modifications
 - VI. Old Business
 - VII. New Business
 - A. A. FY 2012-2015 TIP Amendments*
 - a. INDOT TIP Amendments
 - i. New Signal Installation – SR 46 & Matthews Drive
 - ii. Bridge Deck Overlay – SR 46 & Stephens Creek
 - iii. Statewide Underwater Bridge Inspections
 - iv. Statewide Fracture Critical Bridge Inspections
 - v. Statewide Post-Tensioned Bridge Inspections
 - vi. Statewide Bridge Load Rating Inspections
 - B. Complete Streets Exemption*
 - a. Old SR 37 & Dunn Street (City of Bloomington)
 - C. MPO UAB & MPA Boundary Updates*
 - D. MPO ADA Policy*
 - E. 2013 Meeting Schedule
- VIII. Communications from Committee Members (*non-agenda items*)
 - A. Topic Suggestions for Future Agendas
- IX. Upcoming Meetings
 - A. Technical Advisory Committee – September 26, 2012 at 10:00 a.m. (McCloskey Room)
 - B. Citizens Advisory Committee – September 26, 2012 at 6:30 p.m. (McCloskey Room)
 - C. Policy Committee – November 9, 2012 at 1:30 p.m. (Council Chambers)

Adjournment

**Action Requested / Public comment prior to vote (limited to five minutes per speaker)*



**Policy Committee Meeting Minutes
June 8, 2012 Council Chambers 115, City Hall**

*Policy Committee minutes are transcribed in a summarized outline manner. Audio recordings are on file with the City of Bloomington Planning Department. **Technical difficulties –an incomplete audio recording was produced for this meeting. See DVD for complete recording.***

Policy Committee: Lynn Coyne (IU), Kathy Eaton-McKalip (INDOT), Susie Johnson (Public Works), Richard Martin (County Plan Commission), Kent McDaniel (BT), Patrick Murray (CAC Chair), Mark Stoops (County Commissioner), Dan Swafford (proxy--Ellettsville Town Council), and Bill Williams (County Highway).

Others: Michelle Allen (FHWA), Mary Jo Hamman (Michael Baker), Adrian Reid (City Engineering), Dawn Replogle (URS), and Steve Walls (INDOT).

MPO Staff: Josh Desmond, Scott Robinson, and Jane Weiser.

- I. Call to Order** – Mr. McDaniel called the meeting to order (~1:35 PM).
- II. Approval of Minutes: April 13, 2012 & May 11, 2012** – Richard Martin moved approval of both sets of minutes. Dan Swafford seconded. The minutes were approved by a unanimous voice vote.
- III. Communications from the Chair** – Mr. McDaniel said he was looking forward to hearing Todd Litman speak at the MPO conference.
- IV. Reports from Officers and/or Committees**
 - A. Citizens Advisory Committee**—Mr. Murray said the CAC approved the revised text for the ADA policy statement. They approved an amendment to FY 2011-2012 UPWP to add the Bloomington Community Bicycle Facilities Study to the Work Program.
 - B. Technical Advisory Committee** – No report
- V. Reports from the BMCMPPO Staff**
 - A. 2012 MPO Conference** – Mr. Desmond reported on plans for the MPO Conference. The Conference now has a website. He will email conference registration information to MPO committee members.
 - B. Transportation Legislation Reauthorization** – Mr. Desmond reported that the reauthorization legislation still has not passed. June 30 is the deadline. He expects another extension of SAFETEA-LU.
 - C. FY 2011-2012 UPWP Administrative Modification** – Staff took care of this item on an administrative level Mr. Desmond reported. The City of Bloomington asked the MPO for \$75,000 for the Greenways Implementation Plan and 80% of this money will be reimbursed through the PL funds of the MPO. The TAC and CAC heard this as an amendment request at their May meetings with their unanimous support. INDOT informed staff that this can be dealt with administratively since no new PL funds are involved and this is only a transfer within work program elements.
- VI. Old Business -- None**

VII. New Business

A. Long Range Transportation Plan Consultant Selection **Action Requested* – Mr.

Desmond reported that a subgroup of the LRTP Task Force has chosen to hire The Corradino Group as consultants. What they offered in services and their vision seemed most compatible with our needs. They have a very talented modeler who will be working closely with us on this project. They will provide support after the plan is completed. Mr. McDaniel asked what this might cost. Mr. Desmond said that this was a qualification-based search at this point and we will move into contract negotiations soon. The City and the County will split the final cost. Mr. McDaniel noted that Corradino has worked for BT in the past. Mr. Stoops asked about the scope of work. Mr. Desmond said staff will do the plan development while the consultant focuses on the travel demand modeling. Mr. Stoops said he was hoping to see an analysis of the 2009 Emissions Data and how it affects the area. In an on-going lawsuit with I-69, there was a discovery motion on the lack of use of the 2009 emissions data that generated 30,000 pages of correspondence and documentation. Part of the emails show that the only way that I-69 could proceed was to only use the 2004 emissions data so that's what INDOT did. When you look at the 2009 data, emissions are shown to have increased 30% over the 2004 data. That put several counties that I-69 goes through out of attainment. It was not clear that Bloomington would not become out of attainment with I-69 or even are now. It affects local businesses that might need to increase their present emissions. He hoped that a 2009 emissions analysis could be performed by Corradino. Mr. Desmond said he would talk to them about that. Mr. Martin said that the discussions with the consultants made sure that they were aware that the project management aspect would be minimized. The overhead with Corradino will be minimized since the project manager is the principal. The Travel Demand Analysis is required by statute. He wasn't sure that Corradino is the right firm to do the air quality work. It is important for us to understand up front the air quality impacts since it would drastically change the modeling. He would prefer to have two separate entities doing the work and deal with both contractors directly. He asked staff to look for companies that do air quality analysis. Mr. Desmond said he thought staff could talk to Corradino about their ability. We have to consider that we had not anticipated funding this. Mr. Martin said he would consider this part of the LRTP but not part of the modeling component. Mr. Mc Daniel asked when staff would start. Mr. Desmond said as soon as the contract is signed. We anticipate public workshops this fall. The time frame of both an air quality study and the LRTP were discussed. Mr. Martin thought that modeling wouldn't start for 6 months or so. Mr. McDaniel asked if since the next PC meeting is in Sept., would we be able to do an email vote on this air quality component if necessary. Mr. Desmond thought they could. *****Mr. Martin moved that the PC request that the staff begin negotiating a contract for services with Corradino Group to provide the technical work that is necessary to create a travel demand model for our 2035 Metropolitan Transportation Plan. Lynn Coyne seconded. There was no public comment and the motion was approved by unanimous voice vote.**

VIII. Communications from Committee Members (*non-agenda items*)

Mr. Martin asked if the I-69 people could present an update. Mr. Walls said that Ms. Replogle would report on Section 4 and Ms. Hamman on section 5. Ms. Replogle said they are analyzing

the PC comments from May 18 and will produce a recommendation that will go to FHWA for approval. There is no change in schedule for letting dates. Ms. Johnson had asked for information the location of mitigation areas in the Section might be particularly in the Garrison Chapel Valley area. She has not heard back. Mr. Walls said he would get the information to Ms. Johnson. Mr. Martin requested digitized files that would be compatible with our system for I-69 from URS or INDOT. Ms. Replogle said there are some areas where the boundaries are not completely set yet. Mr. Walls will contact the Mr. Martin about that next week.

Mary Jo Hamman with Baker reported on Section 5. They continue to receive comments and are working on the DEIS. There will be a public meeting when it is released. Participating agency meetings continue. Baker had received similar requests from the County and will be sending the requested material when the information is less preliminary. They have posted the maps at the improved clarity level on their website.

Mr. Williams reported that the County will be holding their 1st Citizens Advisory Meeting on June 20 at Jackson Creek Middle School at 5:00 pm.

IX. Upcoming Meetings

A. Technical Advisory Committee – August 22, 2012 at 10:00 a.m. (McCloskey Room)

B. Citizens Advisory Committee – August 22, 2012 at 6:30 p.m. (McCloskey Room)

C. Policy Committee – September 14, 2012 at 1:30 p.m. (Council Chambers)

The meeting was adjourned (~2:20 PM).

*Bloomington/Monroe County
Metropolitan Planning Organization*

Crash Report

Calendar Years 2009 through 2011

September 2012



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Executive Summary

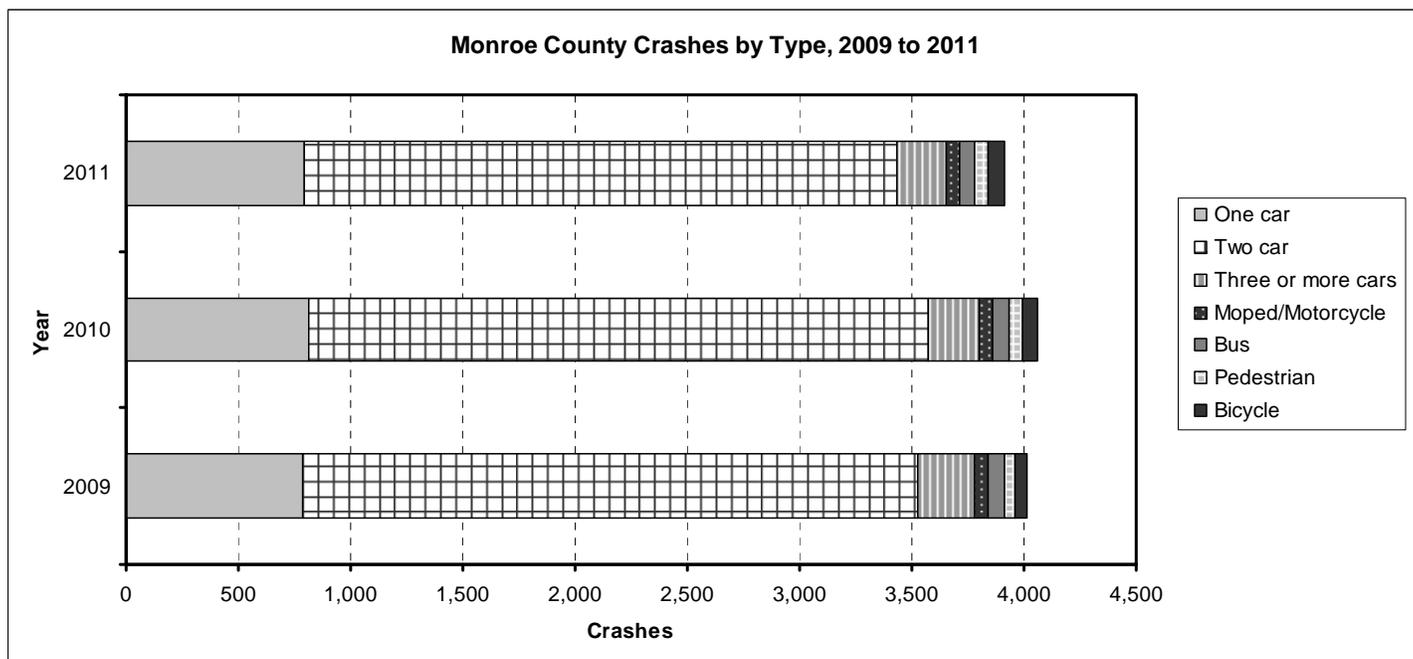
The current version of the Bloomington/Monroe County Metropolitan Planning Organization (MPO) Crash Report continues the MPO's effort to provide a thorough analysis of the causes and trends of crashes in Monroe County. This year's report includes crash data from 2009 to 2011.

This report has been compiled to provide information to the Citizen's Advisory Committee, Technical Advisory Committee, and Policy Committee of the MPO. Additionally, the report will be available to local government agencies, Indiana University, and the general public through the MPO website and the office of the Bloomington Planning Department.

A summary of the crash trends reported within Monroe County is provided below to highlight general information on crash data within Monroe County. In the following sections, detailed tables, charts, and summaries are provided to highlight information on the frequency, severity, and other related characteristics of crashes that occurred from 2009 to 2011. Additionally, the appendix contains information and analysis that may be of interest to some readers.

Summary of Crash Trends from 2009 to 2011

A total of 11,988 crashes were reported between 2009 and 2011 (Table 1). This figure represents a 3.4% decline from the previous period, 2008 to 2010, as reported in last year's crash report (12,415 crashes from 2008 to 2010). Total crashes for 2011 declined 3.6% compared to 2010. These trends mirror national data, where the total number of crashes declined by 1.6% from 2009 to 2010. Just over three quarters of the total crashes reported in Monroe County involved no injuries (property damage or unknown), and the rest reported various levels of severity in injuries sustained.



A further breakdown of the total 11,988 crashes provides useful insights into trends involving pedestrians, bicyclists, buses, mopeds/motorcycles, and crashes that resulted in fatalities. Over the course of the three years analyzed, there were 29 fatalities (Table 4), somewhat more than the 22 fatalities reported from 2007 to 2009. Of the 31 fatalities, almost half (13) were from single car crashes, six were from two-car crashes, six involved mopeds/motorcycles, and five involved a pedestrian. There were no fatalities involving a bicycle or a bus.

The time distribution of crashes continues to follow a predictable pattern. The greatest number of crashes occurred during weekday rush hours between 4:00 P.M. and 6:00 P.M., with an average slightly greater than 1 crash per hour (Figure 1).

The weekend also follows a predictable pattern in terms of frequency of crashes, but the crash rate has a more even distribution through the day and early evening hours. Between the hours of 7:00 PM and 4:00 PM, the weekend experiences a higher crash frequency than during the week. Friday continued to have the highest number of crashes overall, while Sunday had the lowest number of crashes (Figure 2).

State highways are prominently featured in the list of intersections with the highest crash frequency, or total number of crashes over the time period (Table 2). This could be attributable to several factors, but higher traffic volumes and speeds on these roads are likely factors. The intersection at State Road 37 & W Bloomfield Rd topped the list, followed by State Road 46 & E 3rd St then State Road 45/46 Bypass & N College Ave/N Walnut St. Because these intersections continue to exhibit high numbers of crashes from year to year, safety improvements should be considered. Locations that show a high number of crashes, but do not involve state managed highways, should also be considered for safety improvements through the MPO's Highway Safety Improvement Program (Table A1).

The leading cause of crashes during the study period was once again failure to yield right of way with 2,455 incidents (Table 3). Other leading causes include following too closely, reaction to other driver behaviors, and unsafe backing. These causes can be addressed through law enforcement and education efforts as well as through physical improvements. Running off the right side of the road and speeding in adverse weather present opportunities for physical safety improvements, such as guard rails, rumble strips, and interactive signage. These types of improvements should be explored further to reduce crashes.

Bicycle and pedestrian crashes are an important consideration due to a relatively high number of non-motorized trips in the area, and the sensitivity to injury of individuals using these modes. It is well understood that when compared to other types of crashes, those involving bicyclists and pedestrians are much more likely to result in a fatality or incapacitating injury. Therefore, reducing the frequency of these crashes is a priority. The intersection of E 7th St & Jordan Ave had the highest number of bicycle crashes, while the intersection of N Dunn St & E Kirkwood Ave topped the list for pedestrian crashes in the third consecutive crash report, both locations warranting further investigation.

Introduction

Mobility continues to be a defining aspect of life in the United States and around the world. Investment in transportation infrastructure has led to new opportunities for trade, travel, recreation, relocation, and economic growth. The BMCMPO receives approximately \$3.1 million per year of federal transportation funding allocated from the Indiana Department of Transportation to invest in our local transportation network. Despite this continued investment, the effectiveness of our transportation system is undermined by human, economic, and financial costs attributable to motor vehicle crashes.

Motor vehicle crashes are a significant cause of death, injury, property loss and productivity loss in the United States. Data for 2009 shows that unintentional accidents were the 5th leading cause of death overall, and of the 118,021 total unintentional accidents reported, 39,031 (33%) are attributed to transportation.¹ While it may not be possible to completely eliminate motor vehicle crashes, gaining a better understanding of their causes can help transportation planners and engineers reduce their frequency and severity. This report attempts to characterize the motor vehicle crashes in Monroe County, Indiana, providing the basis for informed transportation policies and infrastructure investments.

The annual Crash Reports demonstrate that motor vehicle crashes contribute to a significant loss of life, property, and productivity in Monroe County. Through continued efforts in crash reporting and analysis, a better understanding of crash trends will be attained. From this information, targeted infrastructure investments should further improve safety on roads within the county. Therefore, the purpose of this report is twofold. First, the report provides a consistent and straightforward means to disseminate annual crash data which can be utilized by any interested individual or organization. Second, the report provides another tool for civil engineers, transportation planners, and local policy makers to use when considering mitigation strategies aimed to reduce the frequency and severity of transportation related crashes. Specifically, the Indiana Department of Transportation and the BMCMPO require Local Public Agencies (LPAs) to use crash data as part of the Highway Safety Improvement Program (HSIP). This program provides federal funding to target areas with high incidences of crashes. It is the overall goal of HSIP to reduce the number of fatal and incapacitating injury crashes. Through annual reporting and analysis, effective mitigation strategies can be implemented to further curtail crashes within Monroe County.

This report focuses on a three year period from 2009 to 2011. By focusing on a longer time horizon, random variations in annual crashes do not unduly influence the trends reported. For instance, annual variations in bicycle and pedestrian crashes, fatalities and incapacitating injuries, and location-specific crashes can be significant, even though there may not be an actual change in the likelihood of those crashes. By using a three-year window, identified trends are more likely to be meaningful. However, results from 2011 alone are often highlighted to provide a snapshot of the most recent year.

¹ Centers for Disease Control, National Center for Health Statistics. National Vital Statistics Reports – Deaths: Final Data for 2009. Volume 59, Number 10. http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf. Accessed on August 14, 2012.

Methodology and Data Considerations

The data for the Bloomington/Monroe County Crash Report originates from the “Automated Report and Information Exchange System” (ARIES) of the Indiana State Police. This system contains crash data from police reports since 2003. The police report data is organized by collisions, units (vehicles), and individuals. These entities are related to one another by a field in each table (Master Record Number), but can also be analyzed independently. It is possible to retrieve information regarding collisions (e.g., where and when did the greatest number of crashes occur?), vehicles involved (e.g., how many crashes involved bicycles?), and individuals involved (e.g., how old were the crash victims?). It is also possible to perform more complex analyses using attributes from each of these entities (e.g., which location had the most elderly crash victims?).

As with any database, the validity of conclusions resulting from the data is contingent upon accurate and complete data entry. Lack of information from hit-and-run collisions, confusion surrounding alternate names of roads (e.g., Country Club Drive, Winslow Road), misspelled or mis-entered street names, GPS errors, and incomplete data entry undoubtedly introduce some error into the results of this report. Therefore, results should not be interpreted rigidly.

A significant effort was made to correct data errors and validate results. It is important to note that the methodology was improved for this report. Consequently, some minor inconsistencies may be evident when comparing crash reports from different years. Therefore, it should be understood that the most recently issued crash report reflects the best and most accurate crash information. Regardless of methodological changes and slight differences between reports, the overall findings of this report are consistent with those of past years.

Collisions were categorized for analysis based on the type and severity of the crash. If the crash included a moped, motorcycle, bus, bicyclist or pedestrian, it was classified as a “moped/motorcycle”, “bus”, “bicycle” or “pedestrian” crash, accordingly, regardless of the number of vehicles involved. If the crash involved only motor vehicles, the “crash type” classification was based on the number of cars: one car, two cars, or three or more cars. The “severity” classification of a collision was based on the most severe injury that resulted from the crash. For example, if a crash resulted in a fatality as well as a non-incapacitating injury, the severity of the crash was classified as “Fatal Injury.” Most data methods used in the report are self-explanatory.

Collisions were analyzed using available geographic, road inventory, and traffic count data. Individual crashes were located based on the reported geographic coordinates, which were available for more than 92% of all records. A crash frequency was determined for each intersection by tabulating the total number of crashes that occurred within a 250-ft radius of the center of the intersection. Crash rates were determined from available traffic counts conducted by the City of Bloomington, Monroe County, and the Indiana Department of Transportation, utilizing standard adjustments and engineering judgment as necessary.

When reading the report, it is important to understand the distinction between “crashes” and “individuals.” The term “crash” is used when the characteristics of the crash itself are under consideration, whereas the terms “individual” and “fatality” are used when the focal point is the people involved. For example, the “Fatal Injury” column of Table 1 (“Crash by Type and Severity, 2009-2011”) shows how many crashes resulted in a fatal injury in 2010, but it would be incorrect to interpret this column as the number of fatalities in 2010, since more than one fatality can result from a single crash.

Analysis

Crash Characteristics

This section provides a summary of crash characteristics in Monroe County, including the type and severity of crashes from 2009-2011. These factors reflect trends in the overall safety of the transportation system.

In 2011, a total of 3,914 motor vehicle crashes were reported in Monroe County (Table 1). Of these, nine resulted in one or more fatalities, while sixty-two caused incapacitating injuries. For the vast majority of crashes (3,074), injuries were not reported. Two-car crashes were the most common, comprising 68% of the total. One-car crashes and those involving three or more cars were also common, accounting for 20% and 6% of total crashes reported, respectively. Crashes involving a pedestrian, cyclist, moped/motorcycle, or bus were much less frequent. However, with the exception of crashes involving a bus, these were much more likely to involve injury than vehicle crashes.

Compared with 2009 and 2010, the overall number of crashes in 2011 decreased slightly.

Table 1. Crashes by Type and Severity, 2009-2011

	Crash Type	Severity				Annual Total	Percent of Annual Total
		Fatal Injury	Incapacitating Injury	Non-incapacitating	No injury/unknown		
2009	One car	3	9	157	620	789	19.7%
	Two car	0	13	453	2273	2739	68.2%
	Three or more cars	1	4	94	151	250	6.2%
	Bus	0	1	5	57	63	1.6%
	Moped/Motorcycle	2	10	54	19	85	2.1%
	Bicycle	0	1	30	6	37	0.9%
	Pedestrian	1	6	41	3	51	1.3%
	Total	7	44	834	3129	4014	100.0%
	Percent of Annual Total	0.2%	1.1%	20.8%	78.0%	100.0%	
2010	One car	6	8	160	642	816	20.1%
	Two car	5	25	465	2265	2760	68.0%
	Three or more cars	0	3	93	125	221	5.4%
	Bus	0	0	5	57	62	1.5%
	Moped/Motorcycle	1	12	56	17	86	2.1%
	Bicycle	0	3	40	8	51	1.3%
	Pedestrian	1	10	46	7	64	1.6%
	Total	13	61	865	3121	4060	100.0%
	Percent of Annual Total	0.3%	1.5%	21.3%	76.9%	100.0%	
2011	One car	3	13	123	652	791	20.2%
	Two car	3	17	428	2194	2642	67.5%
	Three or more cars	0	6	71	146	223	5.7%
	Bus	0	0	2	55	57	1.5%
	Moped/Motorcycle	3	13	48	19	83	2.1%
	Bicycle	0	3	34	4	41	1.0%
	Pedestrian	0	10	63	4	77	2.0%
	Total	9	62	769	3074	3914	100.0%
	Percent of Annual Total	0.2%	1.6%	19.6%	78.5%	100.0%	
3-Year	Total	29	167	2468	9324	11988	
	Percent of 3-Year Total	0.2%	1.4%	20.6%	77.8%	100.0%	

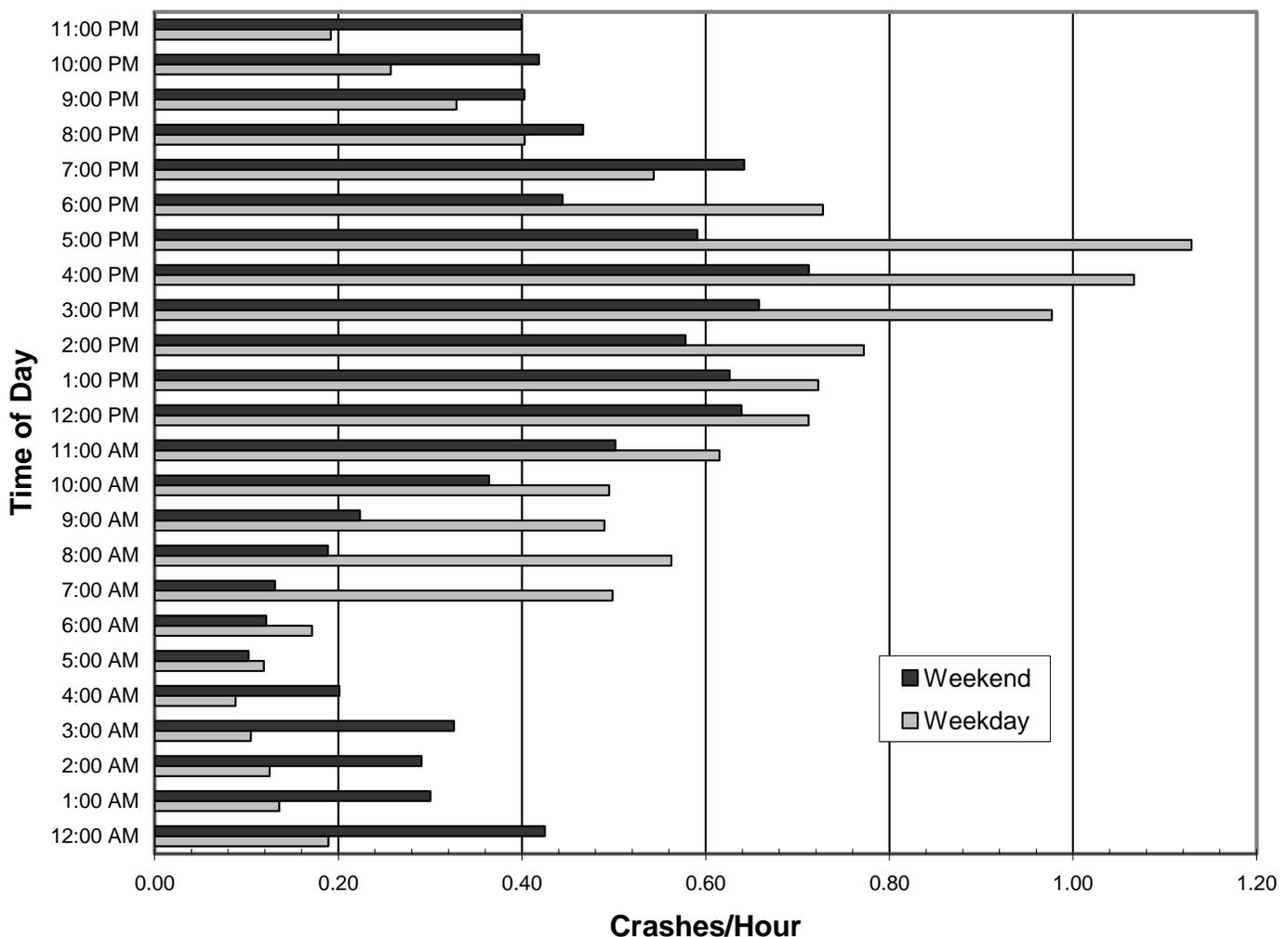
Time of Crashes

This section summarizes the number of crashes by hour and day. Information relating to the timing of crashes can be used by law enforcement agencies and emergency responders for planning purposes. Additionally, decision makers may use this information in an attempt to reduce peak crash times.

On weekdays, the number of crashes typically peaked in conjunction with the morning rush hour, 7:00 AM to 9:00 AM, and then increased gradually throughout the day until peaking again in conjunction with the evening rush hour, 5:00 PM to 7:00 PM. The late afternoon was the most likely time for a crash to occur, with more than one per hour.

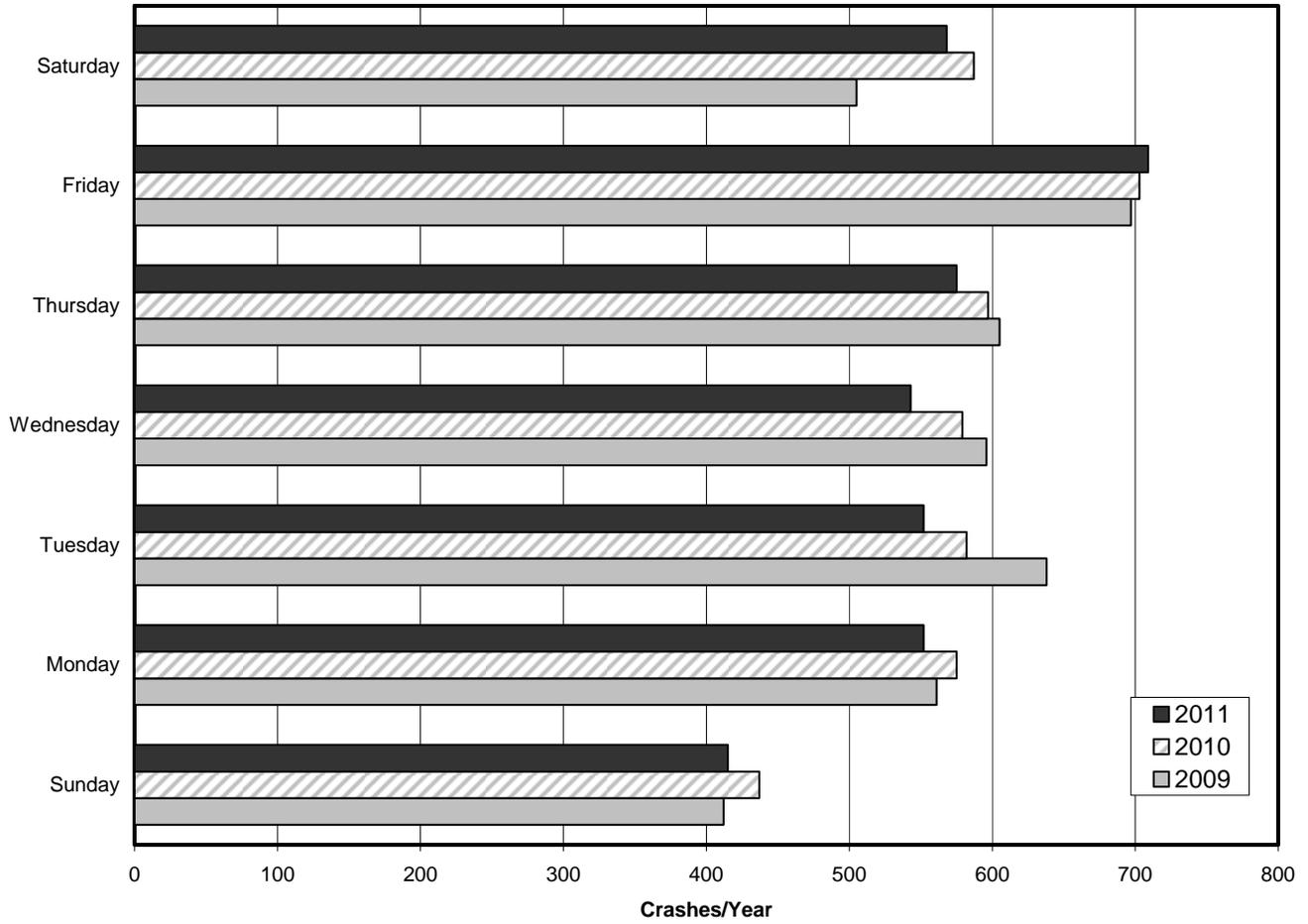
The hourly distribution of crashes for the weekend was less varied than for the work week. Crashes in the late evening and early morning were much more common during the weekend, and rush hour peaks were not as prevalent as on weekdays. During the study period, a greater number of crashes occurred on Fridays than on any other day and the fewest crashes occurred on Sundays (Figure 2).

Figure 1. Crashes by Time of Day, 2009-2011 ²



² Hours shown represent the beginning of the hour. For example, "12:00 AM" represents the time period from 12:00 AM to 12:59 AM.

Figure 2. Crashes by Day of Week, 2009-2011



Crash Locations

This section addresses the spatial distribution of crashes in Monroe County in order to highlight problematic intersections. Two methods are used. First, all of the intersections in Monroe County are ordered based on crash frequency, or the total number of crashes that occurred at each location over the 3-year period. The top 50 intersections in Monroe County with the highest crash frequency are listed in Table 2. Second, the highest frequency crash locations are ranked based on crash rate, or the total number of crashes divided by the total number of entering vehicles over the time period (Table 3). Analyzing crash frequency and crash rates can help transportation planners, engineers, and officials to identify locations that may have hazardous geometric or operational deficiencies.

In 2011, the intersection with greatest crash frequency was State Road 37 & W Bloomfield Rd, where 36 crashes were reported (Table 2). This intersection also had the greatest number of total crashes during the period from 2009 to 2011, with 108 reported crashes. The highest frequency crash locations have remained consistent over time, with 83% of the locations in Table 2 having appeared in the previous year's analysis, covering the period 2008 to 2010.

However, locations with a high crash frequency are not necessarily more hazardous than locations with a lower crash frequency. To account for the effect of traffic volume on the total number of crashes at a particular location, a normalized crash rate was calculated for each of the intersections in Table 2 (Table 3)³. Available traffic counts were used to estimate the number of vehicles entering the intersection over the time period, utilizing standard adjustment factors and engineering judgment as necessary^{4,5}. During the period from 2009 to 2011, the intersection with the greatest crash rate was State Road 46 & S Pete Ellis Dr, followed by E 13th St & N Indiana Ave.

The methodology used in this report does not help identify intersections that have high crash rates but relatively few crashes overall, nor does it help to identify intersections that tend to have more severe crashes. Therefore, future reports should consider new additional analyses such as a comparison of intersections based on crash severity, and a comparison of crash rates among intersections with similar operating characteristics. These additional analyses will further aid transportation planners, engineers, and officials in effectively identifying hazardous locations, and securing funding to fix them.

³ Crash Rate = $N / ((\text{Intersection_AADT}) * 3 \text{ years} * 365 \text{ days} * 10^{-6})$,
where N = total number of crashes from 2009 to 2011, and
where Intersection_AADT = sum of average annual daily traffic entering the intersection

⁴ Indiana Department of Transportation. 2011 Traffic Adjustment Factors.
http://www.in.gov/indot/files/TrafficStatistics_AdjustmentFactors_05112011.pdf. Accessed on August 10, 2012.

⁵ Traffic counts were available for 97% of all intersection approaches. In six instances, standard estimates based on roadway classification were used. Traffic counts adjustment factors were applied for seasonal, yearly, and weekday variation, as applicable.

Table 2. Top 50 Crash Locations by Crash Frequency, 2009-2011

Crash Frequency Rank	Previous Rank	Intersection	Jurisdiction	Year			3-Year Total
				2009	2010	2011	
1	2	State Road 37 & W Bloomfield Rd	IN	30	42	36	108
2	5	State Road 46 & E 3rd St	IN	36	33	35	104
3	1	State Road 45/46 Bypass & N College Ave/N Walnut St	IN	41	29	29	99
4	3	State Road 37 & State Road 48/W 3rd St	IN	37	28	32	97
5	4	State Road 46 & S Pete Ellis Dr	IN	26	47	21	94
6	7	State Road 45 & S Curry Pike/S Leonard Springs Rd	IN	31	27	25	83
7	9	State Road 45/46 Bypass & E 10th St	IN	22	30	27	79
8	6	State Road 37 & W Vernal Pike	IN	33	24	20	77
9	8	State Road 45 & S Liberty Dr	IN	23	36	15	74
10	10	State Road 48 & S Liberty Dr	IN	25	24	21	70
11	11	State Rd 48 & S Gates Dr	IN	22	21	20	63
12	12	State Rd 46 & S Kingston Dr	IN	24	19	18	61
13	13	State Road 45/46 Bypass & N Kinser Pike	IN	19	19	21	59
14	36	W 3rd St & S Cory Ln	COB	9	23	24	56
15	15	W 10th St & N College Ave	COB	15	22	17	54
15	14	E 10th St & N Fee Ln	COB	15	24	15	54
17	20	E 3rd St & S Washington St	COB	24	17	12	53
18	54	State Road 45 & S Gillham Dr	IN	16	11	24	51
18	22	E 3rd St & S Jordan Ave	COB	11	18	22	51
18	18	State Road 46 & S Smith Rd	IN	20	14	17	51
21	17	W 2nd St & S College Ave	COB	23	15	12	50
22	26	W 3rd St & S College Ave	COB	12	18	17	47
23	50	E 17th St & N Jordan Ave	COB	6	14	26	46
24	23	State Road 37 & W Tapp Rd	IN	11	23	11	45
24	18	W 7th St & N Walnut St	COB	15	18	12	45
26	47	E 10th St & N Union St	COB	10	13	21	44
26	23	State Road 45 & N Pete Ellis Dr/N Range Rd	IN	21	12	11	44
28	16	E 10th St & N Jordan Ave	COB	16	17	10	43
28	32	W 17th St & N Kinser Pike/N Madison St	COB	14	14	15	43
30	23	W 3rd St & N Walnut St	COB	19	11	10	40
31	20	S Walnut Street Pike & E Winslow Rd	COB	16	12	10	38
31	28	W Kirkwood Ave & N Walnut St	COB	14	12	12	38
31	36	E 10th St & N Sunrise Dr	COB	13	14	11	38
31	28	State Road 46 & E Eastgate Ln	IN	14	17	7	38
31	64	E 17th St & N Dunn St	COB	12	8	18	38
36	43	E 3rd St & S Woodlawn Ave	COB	7	13	16	36
36	50	State Road 46 & S Park Ridge Rd	IN	13	12	11	36
36	33	E 17th St & N Fess Ave	COB	17	10	9	36
39	43	E 3rd St & S Fess Ave	COB	10	13	12	35
39	35	W 7th St & N College Ave	COB	14	14	7	35
41	36	E Rhorer Rd & S Walnut Street Pike	MC	9	13	12	34
41	70	State Road 45/46 Bypass & E 17th St	IN	10	11	13	34
41	41	State Road 45/46 Bypass & N Dunn St	IN	13	12	9	34
44	29	W 2nd St & S Rogers St	COB	10	17	6	33
44	70	E 10th St & N Jefferson St	COB	11	10	12	33
44	64	E 10th St & N Woodlawn Ave	COB	9	13	11	33
47	58	State Road 46 & N Centennial Dr	IN	8	14	10	32
47	45	W 4th St & S Walnut St	COB	6	14	12	32
47	40	E 13th St & N Indiana Ave	COB	10	11	11	32
50	28	W Grimes Ln & S Walnut St	COB	12	13	6	31
50	76	E 3rd St & S Jefferson St	COB	11	10	10	31
50	58	W 2nd St & S Patterson Dr	COB	11	15	5	31

Table 3. Top 50 Crash Locations by Crash Rate, 2009-2011

Crash Rate Rank	Crash Frequency Rank	Intersection	Jurisdiction	3-Year Total	Crashes per Million Entering Vehicles
1	5	State Road 46 & S Pete Ellis Dr	IN	94	1.83
2	47	E 13th St & N Indiana Ave	COB	32	1.72
3	31	E 10th St & N Sunrise Dr	COB	38	1.46
4	12	State Rd 46 & S Kingston Dr	IN	61	1.44
5	15	E 10th St & N Fee Ln	COB	54	1.39
6	2	State Road 46 & E 3rd St	IN	104	1.37
7	15	W 10th St & N College Ave	COB	54	1.33
8	36	State Road 46 & S Park Ridge Rd	IN	36	1.31
8	18	State Road 45 & S Gillham Dr	IN	51	1.31
10	17	E 3rd St & S Washington St	COB	53	1.28
10	36	E 17th St & N Fess Ave	COB	36	1.28
12	44	E 10th St & N Jefferson St	COB	33	1.26
13	14	W 3rd St & S Cory Ln	COB	56	1.22
14	26	State Road 45 & N Pete Ellis Dr/N Range Rd	IN	44	1.20
14	26	E 10th St & N Union St	COB	44	1.20
16	6	State Road 45 & S Curry Pk/S Leonard Springs Rd	IN	83	1.18
17	36	E 3rd St & S Woodlawn Ave	COB	36	1.16
18	39	E 3rd St & S Fess Ave	COB	35	1.14
19	31	S Walnut Street Pk & E Winslow Rd	COB	38	1.13
19	41	E Rhorer Rd & S Walnut Street Pk	MC	34	1.13
19	3	State Road 45/46 Bypass & N College Ave/N Walnut St	IN	99	1.13
19	31	State Road 46 & E Eastgate Ln	IN	38	1.13
19	7	State Road 45/46 Bypass & E 10th St	IN	79	1.13
24	10	State Road 48 & S Liberty Dr	IN	70	1.12
25	9	State Road 45 & S Liberty Dr	IN	74	1.10
26	24	W 7th St & N Walnut St	COB	45	1.06
27	18	State Road 46 St & S Smith Rd	IN	51	1.05
28	31	E 17th St & N Dunn St	COB	38	1.02
29	44	E 10th St & N Woodlawn Ave	COB	33	1.01
30	23	E 17th St & N Jordan Ave	COB	46	1.00
31	21	W 2nd St & S College Ave	COB	50	0.99
31	11	W 3rd St & S Gates Dr	IN	63	0.99
33	18	E 3rd St & S Jordan Ave	COB	51	0.97
34	28	W 17th St & N Kinser Pk/N Madison St	COB	43	0.96
34	22	W 3rd St & S College Ave	COB	47	0.96
36	28	E 10th St & N Jordan Ave	COB	43	0.92
37	8	State Road 37 & W Vernal Pk	IN	77	0.91
38	1	State Road 37 & W Bloomfield Rd	IN	108	0.89
39	39	W 7th St & N College Ave	COB	35	0.87
40	31	W Kirkwood Ave & N Walnut St	COB	38	0.83
40	13	State Road 45/46 Bypass & N Kinser Pk	IN	59	0.83
42	47	W 4th St & S Walnut St	COB	32	0.78
43	4	W 3rd St & State Road 37	IN	97	0.75
44	44	W 2nd St & S Rogers St	COB	33	0.66
45	50	E 3rd St & S Jefferson St	COB	31	0.64
46	30	W 3rd St & N Walnut St	COB	40	0.61
47	41	State Road 45/46 Bypass & E 17th St	IN	34	0.60
48	41	State Road 45/46 Bypass & N Dunn St	IN	34	0.58
49	50	W 2nd St & S Patterson Dr	COB	31	0.53
50	24	State Road 37 & W Tapp Rd	IN	45	0.52
51	47	State Road 46 & N Centennial Dr	IN	32	0.51
52	50	E Grimes Ln & W Grimes Ln & S Walnut St	COB	31	0.43

Crash Factors

This section summarizes the primary crash factors from 2009 to 2011. An understanding of these causes informs infrastructure investments, enforcement activities, and educational efforts. For instance, unsafe speeds can be addressed by traffic enforcement and road design, while the tendency of motorists to drive off the road can be mitigated with a guardrail or rumble strips. Similarly, enforcement and education could reduce the number of crashes attributable to alcohol.

Failure to yield right of way was once again the most common cause of crashes, contributing to over 2,500 crashes from 2009 to 2011. Following too closely, driver errors, and unsafe backing were also significant crash factors. Table 3 shows the top 10 primary crash factors for 2009-2011, which account for over three-quarters of total crashes.

Table 4. Top 10 Primary Crash Factors by Severity, 2009-2011

Rank	Primary Factor	Severity				3-Year Total
		Fatal Injury	Incapacitating Injury	Non-Incapacitating Injury	No Injury/Unknown	
1	Failure to yield right of way	3	36	637	1,779	2,455
2	Following too closely	0	13	417	1,262	1,692
3	Other driver errors	2	15	199	1,049	1,265
4	Unsafe backing	0	3	33	1,167	1,203
5	Ran off road right	5	14	174	508	701
6	Speed too fast for weather conditions	0	4	120	404	528
7	Driver distracted	0	3	119	322	444
8	Animal/object in roadway	1	8	46	388	443
9	Disregard signal/reg sign	0	11	159	263	433
10	Improper turning	0	3	31	350	384

Fatalities

This section provides a focused look at motor vehicle fatalities in Monroe County from 2009 to 2011. As with previous sections, the material presented here can be useful for enforcement, education, and decision-making.

In 2011, there were nine fatalities in Monroe County (Table 5). Of these, three resulted from single-car crashes, three from two-car crashes, three from crashes involving a moped or motorcycle. Over the period from 2009 to 2011, the average annual number of fatalities per 100,000 residents was 7.3 for Monroe County. This figure is below the U.S. average of 10.63 fatalities per 100,000 people for 2010⁶.

Table 5. Fatalities by Crash Type, 2009-2011

Year	Crash Type						Total	Fatalities per 100,000 Population
	One car	Two cars	Three cars or more	Moped and Motorcycle	Bicycle	Pedestrian		
2009	3	0	1	2	0	1	7	5.4
2010	6	5	0	1	0	1	13	9.9
2011	3	3	0	3	0	0	9	6.5
Total	12	8	1	6	0	2	29	7.3

⁶ U.S. Department of Transportation, National Center for Statistics & Analysis. Fatality Analysis Reporting System, Web-Based Encyclopedia. <http://www-fars.nhtsa.dot.gov/> Accessed on July 27, 2012.

Fatal Crash Locations

This section summarizes the locations for crashes that resulted in fatalities. From 2009 to 2011, there were 29 fatal crashes, which resulted in 29 fatalities. The locations of these fatal crashes are identified in Table 6. Location information will aid transportation planners and engineers to identify problematic locations. Fatalities are a major factor in determining HSIP funding eligibility (see the Table A1 in the appendix for more information).

Table 6. Fatal Crash Locations by Type, 2009-2011

Location	Jurisdiction	Total	Crash Type				
			One Car	Two Cars	Three or More Cars	Moped or Motorcycle	Pedestrian
State Road 37 @ W Wayport Rd	IN	2	0	2	0	0	0
E 13th St @ N Fee Ln	COB	1	0	0	0	0	1
E Monroe Dam Rd From S Strain Ridge Rd To S Foggy Morning Rd	MC	1	1	0	0	0	0
E North Dr @ S Walnut St	COB	1	0	1	0	0	0
N Dunn St @ N Old State Road 37	COB	1	0	0	0	1	0
N Old State Road 37 From W Gourley Pk To W Club House Dr	COB	1	0	0	0	1	0
N Thomas Rd from W Vernal Pike to W Ratliff Rd	MC	1	1	0	0	0	0
S Fairfax Rd @ E Schacht Rd	MC	1	0	1	0	0	0
S Leonard Springs Rd @ W Stapleton Ave	MC	1	0	1	0	0	0
State Road 37 & W Sample Rd	IN	1	0	1	0	0	0
State Road 37 From E Ellis Rd To E Wylie Rd	IN	1	1	0	0	0	0
State Road 37 From E Zikes Rd To E Smithville Rd	IN	1	0	0	0	1	0
State Road 37 From W Simpson Chapel Rd To S Lee Paul Rd	IN	1	1	0	0	0	0
State Road 446 @ E Chandler Rd	IN	1	0	0	0	1	0
State Road 446 From E Kent Rd To N Brummetts Creek Rd	IN	1	0	1	0	0	0
State Road 446 From Moores Pk To Old State Road 446	IN	1	1	0	0	0	0
State Road 446 From S Chapel Hill Rd To E Allens Creek Rd	IN	1	1	0	0	0	0
State Road 45 & W Sparks Rd	IN	1	1	0	0	0	0
State Road 46 @ E Kings Rd	IN	1	1	0	0	0	0
State Road 46 From W Flatwoods Rd To N Red Hill Rd	IN	1	0	0	1	0	0
State Route 446 From S Old Richardson Rd To E Merritt Drive	IN	1	0	1	0	0	0
W 3rd St @ S Patterson Dr	COB	1	0	0	0	1	0
W Airport Rd From S Cave Rd To S Kirby Dr	MC	1	1	0	0	0	0
W Arlington Rd @ N Canterbury Ct	MC	1	1	0	0	0	0
W Beasley Dr @ S Curry Pike	MC	1	1	0	0	0	0
W Cockrell Rd From S Rockport Rd To S Sweetwater Ln	MC	1	0	0	0	0	1
W Eller Rd @ S Garrison Chapel Rd	MC	1	0	0	0	1	0
W Howard Rd @ N Starnes Rd	MC	1	1	0	0	0	0

Bicycle and Pedestrian Crashes

This section reports on the number of bicycle and pedestrian crashes in Monroe County from 2009 to 2011. Such crashes are an important consideration in Bloomington and Monroe County due to a relatively high number of non-motorized trips in the area. For instance, data from the 2010 American Community Survey indicates that 2.7% of commuters in Bloomington use a bicycle as their primary mode of transportation, while 10.7% walk⁷. By comparison, 0.6% of US commuters reported bicycling and 2.9% reported walking as their primary modes in 2010⁸. Individuals using these modes of transportation are particularly vulnerable to injury.

In 2011, there were 41 reported crashes involving a cyclist and 77 involving a pedestrian (Table 1). This included ten pedestrian and three bicycle crashes that resulted in incapacitating injuries. During the period from 2009 to 2011, 321 pedestrian and bicycle crashes were reported, resulting in two pedestrian fatalities. It is well understood that crashes involving these modes of transportation more often result in injury when compared with other crash types, therefore there is a need to reduce the frequency and severity of these crashes.

Table 7. Top Bicycle and Pedestrian Crash Locations, 2009-2011

Current Rank	Previous Rank	Intersection	Jurisdiction	Crash Type		Total
				Bicycle	Pedestrian	
1	-	E 7th St & N Jordan Ave	COB	5	1	6
2	1	N Dunn St & E Kirkwood Ave	COB	0	5	5
2	2	E 10th St & N Jordan Ave	COB	2	3	5
2	5	E 10th St & N Fee Ln	COB	3	2	5
2	5	N Fee Ln & E Law Ln	COB	2	3	5
7	5	W 7th St & N College Ave	COB	0	4	4
7	2	W 7th St & N Walnut St	COB	1	3	4
9	-	State Road 45 & S Curry Pk	IN	0	3	3
9	-	E Miller Dr & S Walnut St	COB	1	2	3
9	5	S College Mall Rd & Eastland Plaza	COB	2	1	3
9	5	E 3rd St & S Woodscrest Dr	COB	2	1	3
9	5	State Road 46 & S Kingston Dr	IN	0	3	3
9	-	N Grant St & E Kirkwood Ave	COB	1	2	3
9	-	E 10th St & N Union St	COB	2	1	3
9	-	E 13th St & N Indiana Ave	COB	3	0	3

⁷ US Census Bureau. 2010 American Community Survey, 1-Year Estimate. <http://www.census.gov/acs/> Accessed on July 27, 2012.

⁸ Ibid.

Conclusion

This report has demonstrated a number of meaningful trends relating to motor vehicle crashes in Monroe County. The information should inform transportation decision-making and, ultimately, lead to a safer, more efficient transportation system.

Some problem areas noted in this and past reports have already been improved or are in the process of being addressed. For example, in 2009, the City of Bloomington completed improvements to the intersection of E 17th Street and N Fee Ln, and Monroe County finished improvements to the dangerous curve at E Rogers Rd and S Smith Rd. Post-construction data from this report shows a 37% reduction in the crash frequency at the intersection of 17th Street and Fee Lane following the completion of these improvements⁹. In future years, we will be able to analyze the impact of improvements at the E Atwater Ave and S Henderson St intersection which were completed in 2011. Evaluation of past and future crash data at these, and other, locations will further aid in implementing appropriate and effective mitigation strategies to reduce crashes.

There are many additional locations that will require further study to see if physical improvements could be implemented to improve safety. Several intersections along State Roads (37, 45, 46, Bypass) continue to be problematic due to the sheer frequency of crashes. Due to jurisdictional boundaries at these locations, state and local officials, engineers, and staff will need to coordinate targeted safety improvements and reach agreements before any improvements can occur.

Data and analysis on other attributes are included within the report (e.g. bus, moped, motorcycle, fatalities, causes, locations, severity of crashes), providing additional information to identify trends and/or areas of concern. Future versions of this report may consider a more detailed analysis of the circumstances of fatal and incapacitating crashes and the characteristics of individuals involved. In particular, age-related factors and impacts could be explored. An improved understanding of these factors would help the community to better focus its efforts on reducing serious traffic injuries and their impact on our community, which is one of the primary purposes of this report.

By identifying potentially problematic locations, this report has taken the first step to improving safety on our local roadways. It is expected that transportation planners, engineers, and local officials together will use this information to determine locations that need attention, and seek funding for necessary physical improvements or other means (enforcement, education) to improve safety.

⁹ At this location, 30 crashes occurred from 2007 to 2009, while 19 crashes occurred from 2009 to 2011.

Appendix

Figure A1. Top 50 Total Crash Locations, 2009-2011

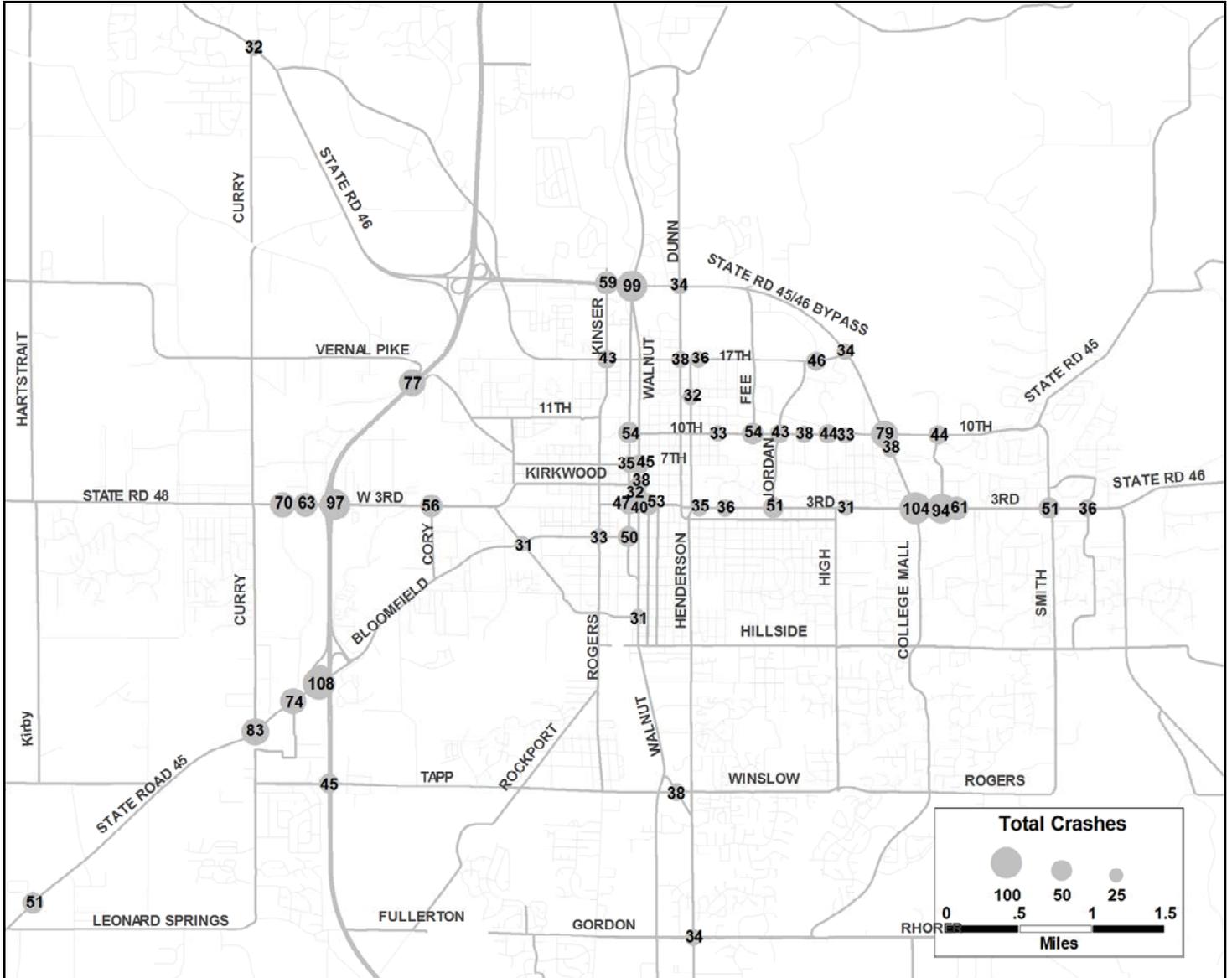


Figure A2. Intersections with Three or More Bicycle and Pedestrian Crashes, 2009-2011

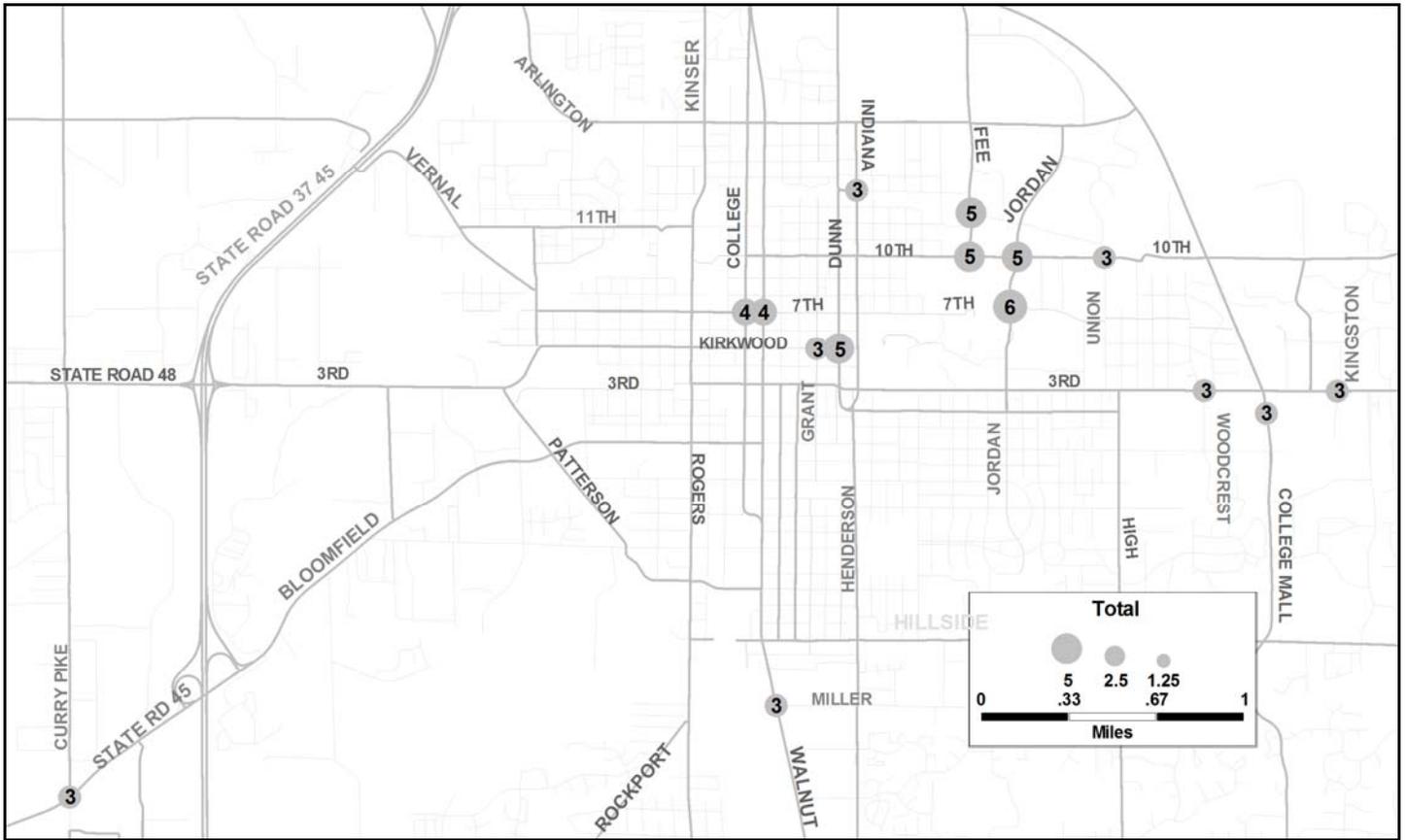


Figure A3. Fatal Crashes in Monroe County, 2009-2011

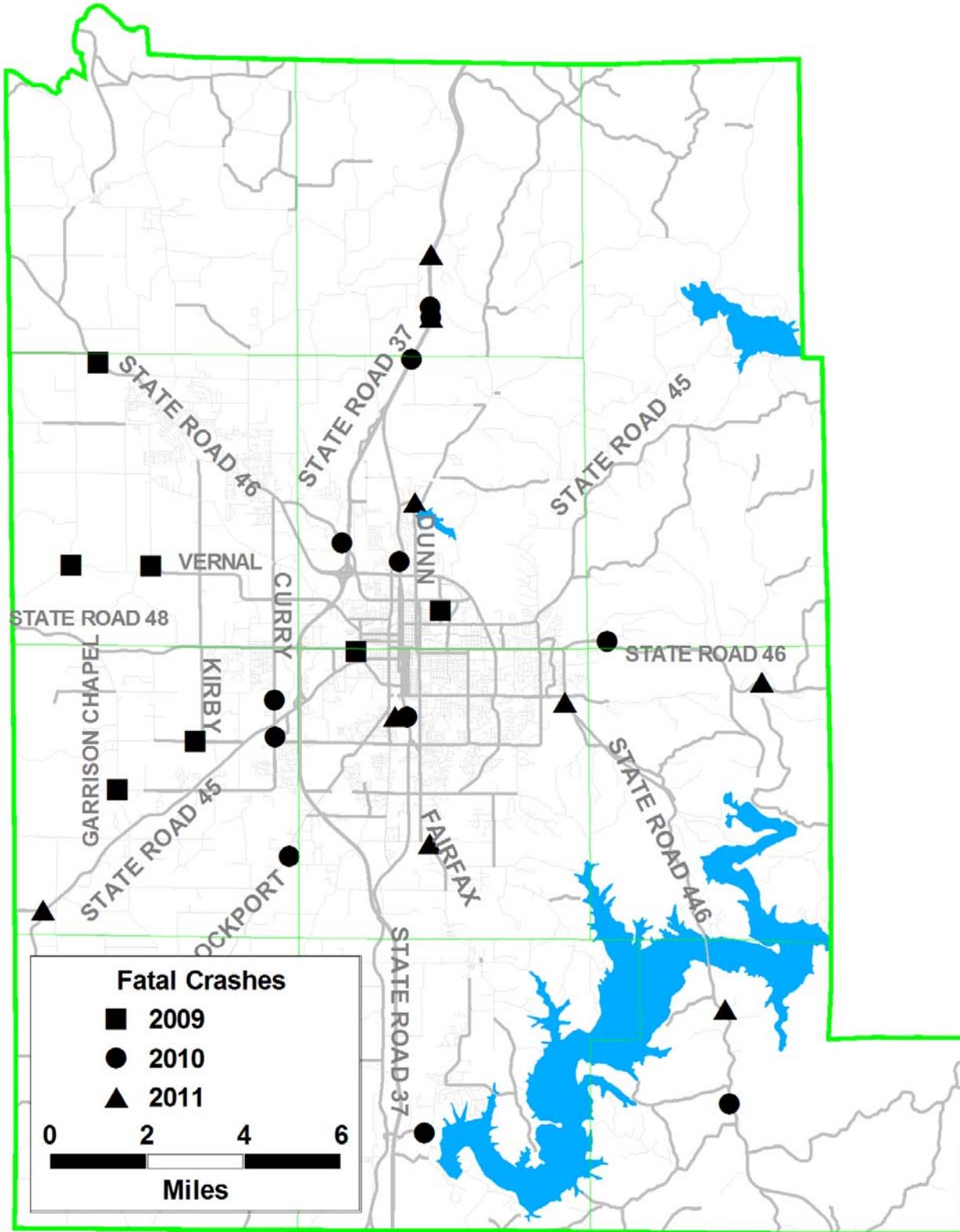


Figure A4. Fatalities by Gender and Crash Type, 2009-2011

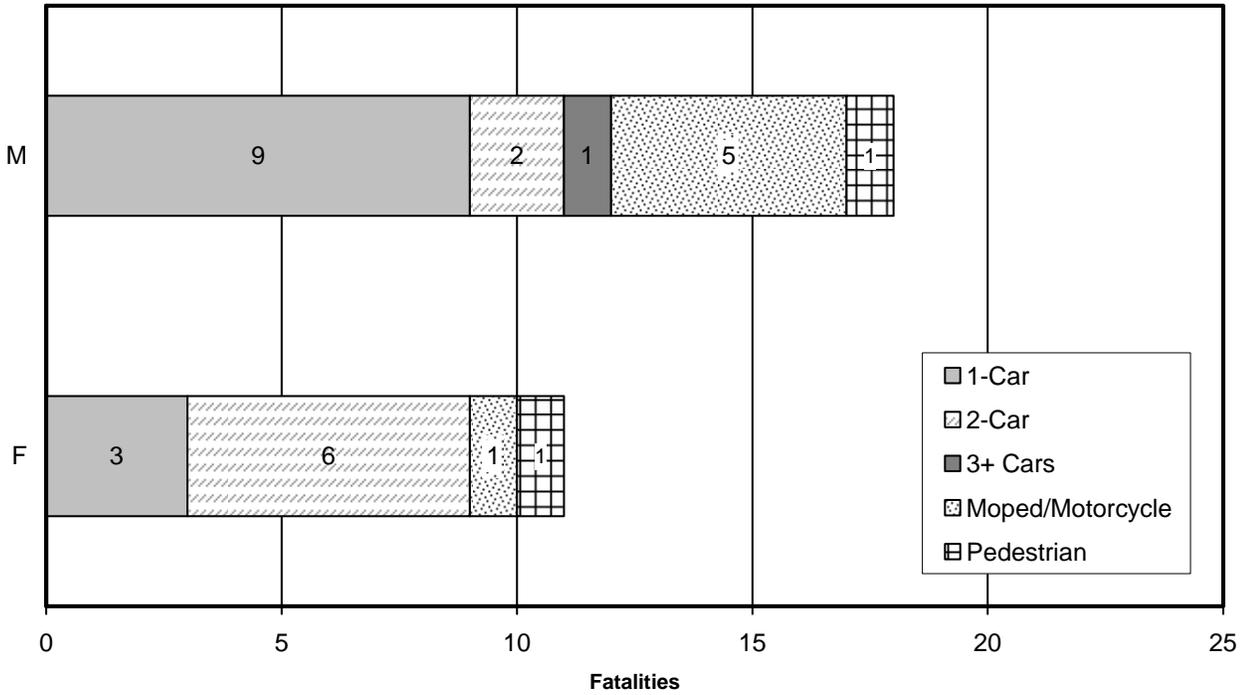
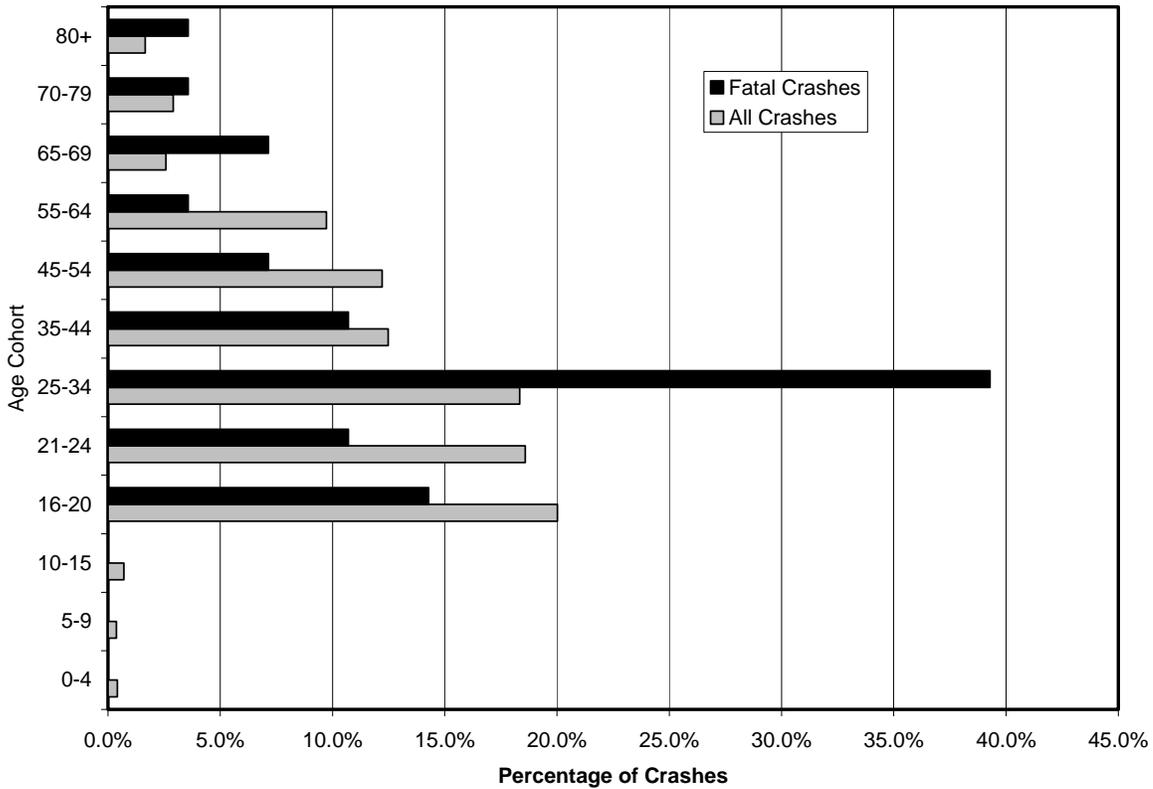


Figure A5. Portion of Individuals in All Crashes and Individuals Fatally Injured, by Age, 2009-2011¹⁰



¹⁰ For the purposes here, individuals whose age was not reported were excluded from the total number of individuals.

HSIP Eligibility List

The Highway Safety Improvement Program (HSIP) is a program that provides federal funding for areas with a high incidence of crashes, as identified through the annual crash reports. Emphasis is paid to locations which have a high frequency of crashes resulting in fatal or incapacitating injuries. The intent of the funding is to leverage effective safety improvements in a timely fashion to reduce the severity and frequency of crashes.

Table A1 is the list of locations that are automatically eligible for HSIP funding. According to BMCMPO guidelines, there are three criteria that determine eligibility. In order to be eligible, a location must be: 1) within the Urban Area of the BMCMPO, 2) exclusive of INDOT facilities, and 3) rank in the top 50 locations when locations are ordered first by the frequency of crashes resulting in fatal or incapacitating injury, and then by the frequency of crashes of any type.

Table A1. Eligible HSIP Locations, 2009–2011

Current Rank	Previous Rank	Location	Jurisdiction	Fatal or Incapacitating Injury Crashes	Total Crashes	Fatal	Any Injury
1	8	E 3rd St & S Jordan Ave	COB	2	51	0	22%
2	15	N Dunn St & N Old State Road 37	COB	2	24	1	46%
3	2	W 3rd St & S Patterson Dr	COB	2	21	1	33%
4	1	W 2nd St & S Walker St	COB	2	9	0	67%
5	34	N Elm St & W Kirkwood Ave	COB	2	8	0	38%
5	33	S Fairfax Rd & E Schacht Rd	MC	2	8	1	63%
7	4	N Curry Pk & W Jonathan Dr	MC	2	6	0	67%
8	5	W 7th St & N Walnut St	COB	1	45	0	20%
9	10	W 17th St & N Kinser Pk/N Madison St	COB	1	43	0	33%
10	11	E 10th St & N Sunrise Dr	COB	1	38	0	18%
11	9	W 2nd St & S Rogers St	COB	1	33	0	30%
12	-	W Grimes Ln & S Walnut St	COB	1	31	0	39%
13	16	E 3rd St & S Swain Ave	COB	1	29	0	3%
14	-	N Smith Pk & W Woodyard Rd	MC	1	27	0	30%
14	-	E Miller Dr & S Walnut St	COB	1	27	0	26%
16	13	N Jordan Ave & E Law Ln	COB	1	25	0	8%
17	19	E 17th St & N Lincoln St	COB	1	24	0	25%
18	-	W 3rd St & S Kimble Dr	COB	1	23	0	48%
19	-	E Longview Ave & N Pete Ellis Dr	COB	1	20	0	25%
19	20	S Fairfax Rd & S Walnut Street Pk	MC	1	20	0	50%
21	-	N Curry Pk & W Vernal Pk	MC	1	18	0	22%
21	21	E 3rd St & S Ballantine Rd	COB	1	18	0	11%
23	17	E 13th St & N Fee Ln	COB	1	17	1	29%
24	18	W 15th St & N Walnut St	COB	1	16	0	31%
25	27	S Curry Pk & W Roll Ave	COB	1	15	0	33%
25	30	S Walnut St & S Walnut Street Pk	COB	1	15	0	7%
27	26	E 18th St & N Dunn St	COB	1	14	0	14%
27	29	N Grant St & E Kirkwood Ave	COB	1	14	0	29%
29	-	W 11th St & N Rogers St	COB	1	13	0	31%
30	-	E 4th St & S Grant St	COB	1	12	0	8%
30	21	W 3rd St & S Yancy Ln	COB	1	12	0	25%
30	27	S College Mall Rd & Eastland Plaza	COB	1	12	0	58%
30	3	S Curry Pk & W Gifford Rd	MC	1	12	0	50%
34	23	E 10th St & N Fess Ave	COB	1	11	0	18%
35	-	N Jacob Dr & W Whitehall Crossing Blvd	COB	1	10	0	20%
35	35	W Allen St & S Patterson Dr	COB	1	10	0	40%
35	-	E 1st St & S Fess Ave	COB	1	10	0	40%
38	23	W 15th St & N College Ave	COB	1	9	0	11%
38	35	W 11th St & N Morton St	COB	1	9	0	11%
38	-	E 8th St & N Washington St	COB	1	9	0	11%
41	42	E 11th St & N Indiana Ave	COB	1	7	0	29%
41	-	W Fullerton Pk & S Leonard Springs Rd	COB	1	7	0	14%
41	-	W Gordon Pk & S Rogers St	MC	1	7	0	14%
44	-	E 6th St & N Indiana Ave	COB	1	6	0	33%
44	37	W Fullerton Pk & S Rockport Rd	MC	1	6	0	17%
46	-	E Burks Dr & S Walnut Street Pk	COB	1	5	0	40%
46	-	N Curry Pk & W Grand Ave	MC	1	5	0	40%
46	-	E Atwater Ave & S Park Ave	COB	1	5	0	20%
46	-	W Howe St & S Rogers St	COB	1	5	0	40%
46	-	W Grimes Ln/W Patterson Dr & S Morton St	COB	1	5	0	60%
46	-	S Rogers St & W That Rd	MC	1	5	0	40%

MEMORANDUM



To: BMCMPO Policy Committee

From: Joshua Desmond, AICP
BMCMPO Director

Date: September 7, 2012

Re: Transportation Improvement Program Administrative Modifications

In compliance with the BMCMPO Public Participation Plan (PPP), this memo documents the Administrative Modifications made to the FY 2012-2015 TIP since the last Policy Committee meeting. All of the modifications listed below were presented via email to the Policy Committee and were approved without objection per the procedures outlined in the PPP. They have since been submitted to INDOT for inclusion in the Statewide TIP.

Amendments to City of Bloomington Projects:

City of Bloomington Projects	Funding Source	Fiscal Year			
		2012	2013	2014	2015
Project: S. Rogers Street	PE				
Location: Rockport Road to Watson Street					
Description: Roadway improvement (sidepath, sidewalk, curb & gutter, etc.) for 0.6 miles of S. Rogers Rd.	ROW				
DES#: 0600496, 1297261	CON	STP	\$ 2,780,747	\$ 2,780,747	
Support: LRTP, GPP, BBPTGSP		Local	\$ 695,188	\$ 1,312,188	
Allied Projects: Rogers & Country Club Intersection Improvement	TOTAL	\$ 3,475,935	\$ 4,092,935	\$ -	\$ -

Changes: Moved CON phase from Fiscal Year 2012 to Fiscal Year 2013 to accommodate project letting scheduled for this Fall. Added DES # and local funding in CON phase to reflect utility upgrade portion of project.

City of Bloomington Projects	Funding Source	Fiscal Year			
		2012	2013	2014	2015
Project: University Courts Brick St. Restoration	PE	Local	\$ 52,300		
Location: Park Avenue from 7th St to 8th St. (~.1mi)					
Description: Phased restoration of brick streets in the University Courts Historic District including 8th St. intersection and replacement of sidewalks and curbing	ROW				
DES#: 0902258	CON	TE	\$ 130,000	\$ 130,000	
Support: Historic Survey		Local	\$ 134,354	\$ 134,354	
Allied Projects:	TOTAL	\$ 264,354	\$ 316,654	\$ -	\$ -

Changes: Moved CON phase from Fiscal Year 2012 to Fiscal Year 2013. Added local funding in PE phase in Fiscal Year 2013.

Bloomington/Monroe County Metropolitan Planning Organization

City of Bloomington Projects		Funding Source	Fiscal Year			
			2012	2013	2014	2015
Project: Upgrade Signs (Zone 1)						
Location: Various locations	PE					
Description: Replace outdated regulatory, warning, and guide signs to meet the Manual on Uniform Traffic Control Devices (MUTCD) retroreflectivity requirements on roadways	ROW					
DES#: 1006383	CON	HSIP	\$ 90,000	\$ 90,000		
Support: MUTCD		Local	\$ 10,000	\$ 10,000		
Allied Projects:		TOTAL	\$ 100,000	\$ 100,000	\$ -	\$ -

Changes: Moved CON phase from Fiscal Year 2012 to Fiscal Year 2013 to accommodate project work scheduled for this Fall.

Amendments to Bloomington Transit Projects:

Bloomington Transit Projects		Funding Source	Fiscal Year			
			2012	2013	2014	2015
Project: Bike Lockers		FTA 5309	\$ 24,000	\$ 24,900		
Description: Bicycle storage lockers will be purchased and installed in the downtown transfer station		Local	\$ 6,000	\$ 5,100		
DES#: 1297175						
Support:		TOTAL	\$ 30,000	\$ 30,000	\$ -	\$ -

Changes: Moved project from Fiscal Year 2013 to Fiscal Year 2012 to allow obligation of funds by FTA.

Amendments to Monroe County Projects:

Monroe County Projects		Funding Source	Fiscal Year			
			2012	2013	2014	2015
Project: Upgrade Signs						
Location: Various locations	PE	Local		\$ 32,500		
Description: Replace outdated regulatory, warning, and guide signs to meet the Manual on Uniform Traffic Control Devices (MUTCD) retroreflectivity requirements on roadways	ROW					
DES#: 1006377	CON	HSIP	\$ 58,500	\$ 58,500		
Support: MUTCD		Local	\$ 6,500	\$ 6,500		
Allied Projects:		TOTAL	\$ 65,000	\$ 97,500	\$ -	\$ -

Changes: Moved CON phase from Fiscal Year 2012 to Fiscal Year 2013 to accommodate project letting scheduled for this Fall. Added funding in PE phase.

MEMORANDUM



To: BMCMPO Policy Committee

From: Joshua Desmond, AICP
BMCMPO Director

Date: September 7, 2012

Re: Transportation Improvement Program Amendments

Amendments to the Indiana Department of Transportation Project List:

The Indiana Department of Transportation (INDOT) has identified six new projects that must be amended into the BMCMPO TIP in order for INDOT to undertake them within the Metropolitan Planning Area. These projects include four different types of bridge inspections, a new traffic signal, and a bridge deck overlay.

INDOT requests that the following projects be added to the BMCMPO FY2012-2015 Transportation Improvement Program:

State of Indiana Projects	Funding Source	Fiscal Year			
		2012	2013	2014	2015
Project: Bridge Inspections	PE BR State		\$ 480,000	\$ 480,000	\$ 480,000
Location: Various			\$ 120,000	\$ 120,000	\$ 120,000
Description: Statewide underwater bridge inspections	ROW				
DES#: 1297250	CON				
Support:					
Allied Projects: n/a	TOTAL	\$ -	\$ 600,000	\$ 600,000	\$ 600,000

State of Indiana Projects	Funding Source	Fiscal Year			
		2012	2013	2014	2015
Project: Bridge Inspections	PE BR State		\$ 400,000		
Location: Various			\$ 100,000		
Description: Statewide fracture critical bridge inspections	ROW				
DES#: 1297452	CON				
Support:					
Allied Projects: n/a	TOTAL	\$ -	\$ 500,000	\$ -	\$ -

State of Indiana Projects	Funding Source	Fiscal Year			
		2012	2013	2014	2015
Project: Bridge Inspections	PE BR State		\$ 400,000		
Location: Various			\$ 100,000		
Description: Statewide post-tensioned bridge inspections	ROW				
DES#: 0901464	CON				
Support:					
Allied Projects: n/a	TOTAL	\$ -	\$ 500,000	\$ -	\$ -

Bloomington/Monroe County Metropolitan Planning Organization

State of Indiana Projects		Funding Source	Fiscal Year			
			2012	2013	2014	2015
Project: Bridge Inspections						
Location: Various	PE	TBD		\$ -	\$ -	\$ -
Description: Statewide bridge load rating inspections	ROW					
DES#: 1297451	CON					
Support:						
Allied Projects: n/a		TOTAL	\$ -	\$ -	\$ -	\$ -

State of Indiana Projects		Funding Source	Fiscal Year			
			2012	2013	2014	2015
Project: SR 46						
Location: Intersection of W SR 46 & Matthews Drive (Ellettsville)	PE					
Description: New traffic signal at intersection of W SR 46 & Matthews Drive (Ellettsville)	ROW					
DES#: 1173647	CON	HSIP			\$ 207,500	
Support:						
Allied Projects: n/a		TOTAL	\$ -	\$ -	\$ 207,500	\$ -

State of Indiana Projects		Funding Source	Fiscal Year			
			2012	2013	2014	2015
Project: SR 46						
Location: 3.00 Miles E of SR 446	PE	NHS State		\$ 16,000		
Description: Bridge deck overlay at bridge over Stephens Creek (3.00 miles E of SR 446)	ROW			\$ 4,000		
DES#: 1297004	CON					
Support:						
Allied Projects: n/a		TOTAL	\$ -	\$ 20,000	\$ -	\$ -

Recommendation Requested

The Technical Advisory Committee and Citizens Advisory Committee reviewed the proposed amendments at their August 22, 2012, meeting and unanimously recommended their approval by the Policy Committee.

MEMORANDUM



To: BMCMPO Policy Committee

From: Joshua Desmond, AICP
BMCMPO Director

Date: September 7, 2012

Re: Complete Streets Exemption: Old SR 37 & Dunn Street

Background

The BMCMPO Complete Streets Policy requires that all new projects entering the Transportation Improvement Program (TIP) comply with that Policy. If a project cannot comply, an exemption to the Policy must be approved by the BMCMPO Policy Committee. In this case, a joint City-County project, the Old State Road 37 & Dunn Street project, entered the TIP as a Complete Streets Policy compliant project. However, after some design work has been completed, a number of factors have emerged that lead the project sponsors to seek exemption from the Complete Streets Policy. An overview of the justification for that exemption is below.

Exemption Request

Please see the following pages provided by Bloomington City Engineer Adrian Reid for a detailed explanation of the requested exemption. The exemption is being sought based on the factors that are highlighted in the excerpt from the Complete Streets Policy below.

“IV: Exemption

- (A) Complete Streets Exemption: The BMCMPO Policy Committee shall certify through resolution that justification exists for a roadway project to be exempted from any of the following requirements listed in section **II Policy, (B) Requirements: B1 through B4**. The Policy Committee may allow such an exemption under certain circumstances, including the following:
- 1) Ordinary maintenance activities designed to keep assets in serviceable condition (e.g. mowing, cleaning, sweeping, spot repair, and regular/seasonal maintenance);
 - 2) The project involves a roadway that bicyclists and pedestrians are prohibited by law from using. In such case, efforts should be made to accommodate bicyclists and pedestrians elsewhere;
 - 3) There are extreme topographic or natural resource constraints;
 - 4) The Long Range Transportation Plan’s 20-or-more year Average Daily Traffic projection is less than 1000 vehicles per day; 5) When other available means or factors indicate an absence of need presently and in the 20-or-more year horizon;
 - 6) A reasonable and equivalent alternative already exists for certain users or is programmed in the TIP as a separate project;
 - 7) The project is not a roadway improvement project and/or the Bloomington/Monroe County Metropolitan Planning Organization has no programming authority (e.g. State, Bloomington Transit, Rural Transit, and other projects).”

Recommendation Requested

The Technical Advisory Committee and Citizens Advisory Committee reviewed the proposed Complete Streets Exemption at their August 22, 2012, meetings and unanimously recommended that the Policy Committee approve the request.



City of Bloomington Engineering Department

May 14, 2012

Bloomington/Monroe County MPO
401 N. Morton Street, Suite 160
P.O. Box 100
Bloomington, Indiana 47402
Josh Desmond, Director

Re: Request for Complete Streets Exemption

Dear Mr. Desmond:

The City of Bloomington is teaming with Monroe County Highway Department on safety improvements to Old State Route 37 and North Dunn Street. The project is currently in the Preliminary Engineering phase. Our consultant has conducted a traffic analysis and topographic survey of the area is complete. We are still early in design but our initial analysis of the traffic data and site conditions indicate that the primary improvement will be a curve correction on Old 37 east of North Dunn Street.

Both County and City engineering staff have suspected that the poor roadway geometry on Old 37 has factored into an unusual number of fatal and incapacitating accidents. The travel lanes are narrow and there is little in the way of shoulders, both of which contribute to a relatively unforgiving environment for inattentiveness or driver error. Merely observing the guardrail along this stretch of Old 37 reveals evidence that vehicles frequently leave the roadway. The damaged guardrail and array of automotive parts along the roadside provide proof of undesirable driving conditions.

While we believe the curve correction addresses much of the issue, site conditions are very restrictive in terms of adding other roadway amenities which don't exist there today. Old 37 is notched into a rocky hillside with little provision for sidewalks, bike lanes, or multi-use path. The curve correction itself likely will require a certain degree of excavation into the rock wall. However, we would like to minimize the construction impacts to this environmental feature along the inside of the Old 37 curve. The wider the road cross-section, the more invasive constructing the new roadway will be on either side.

Therefore, we are requesting a Complete Streets exemption for Old 37 east of its intersection with North Dunn Street to mitigate environmental impacts to the hillside along the inside of the curve. Provision of bike lanes, sidewalks or other infrastructure both adds construction cost for rock excavation and adversely impacts the site's natural features. In an effort to minimize costs and impacts, the proposed roadway section would include two travel lanes with inside and outside shoulders. We would add new guardrail to the outside shoulder. The shoulder widths would be a function of INDOT guidelines for sight distance and clear distances through the curve. The remainder of the project would include bicycle and pedestrian accommodations in accordance with the MPO Complete Streets policy.

Currently, most bicycle traffic travels Hillview Drive through the Marlin Hills subdivision. This route would remain the preferred route were the exemption granted. We are considering additional accommodations for bicyclists, i.e. signage, striping, etc., along this route to formalize it as the preferred path of travel for cyclists who want to continue east of Dunn Street. The shoulders proposed for the project on Old 37 may also serve as makeshift bike lanes or a pedestrian way.

However, formal facilities for bicycles and pedestrians on Old 37 would end at Dunn Street. This reflects the City's *Bicycle and Pedestrian Transportation and Greenways System Plan*, which proposes multi-use path on the south side of Old 37 and west side of North Dunn Street as well as signed bike route. The Greenways Plan depicts neither of these facilities east of Dunn Street. The Monroe County Greenways System Plan calls for a "Road Improvement Opportunity" in this area but the plan lists no specific facilities for Old 37 east of North Dunn Street.

I thank you for your time and consideration of this matter and look forward to discussing this at the upcoming TAC, CAC and MPO Policy Committee meetings. Please let me know if questions arise or if additional information is needed.

Sincerely,



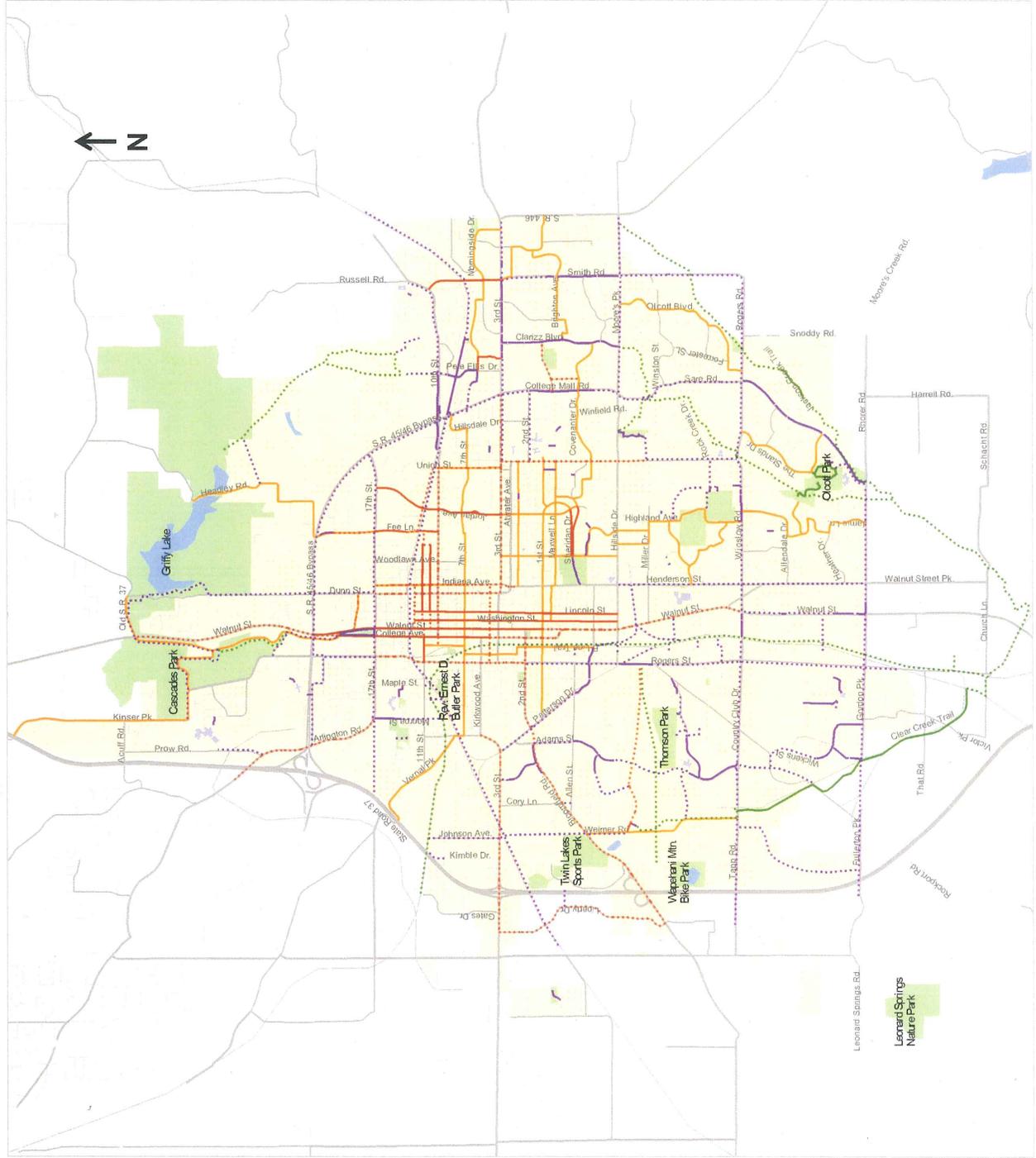
Adrian Reid, P.E.
City Engineer
City of Bloomington

City of Bloomington

Bicycle and Pedestrian Transportation & Greenways System Plan

Bicycle and Pedestrian Facilities Network

- Planning Jurisdiction
- City of Bloomington Parks
- Lakes
- Schools
- Signed bike route
- Existing bike lane
- Future bike lane
- Existing sidepath/connector path
- Future sidepath/connector path
- Existing multi-use trail
- Future multi-use trail





Griffy Lake

Headley Rd

Old S.R. 37

S.R. 45/46 Bypass

Dunn

Walnut St

Cascades Park

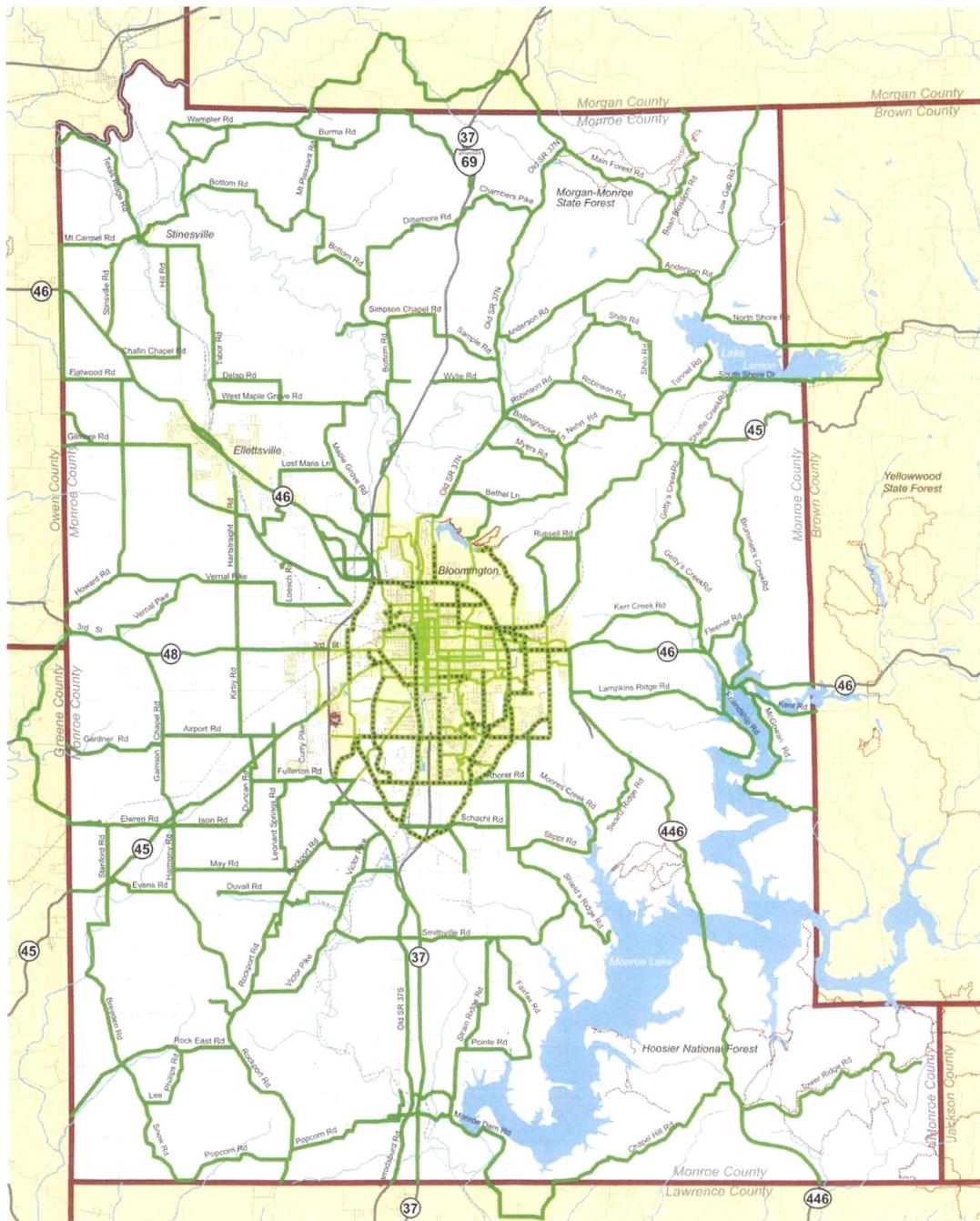
Kinser Pk

Acuff Rd.

Prow Rd.

Arlington

ROAD IMPROVEMENT OPPORTUNITIES



-  Monroe County Road Improvement Opportunity
-  Bloomington ATP Off-Street Opportunity
-  Bloomington ATP On-Street Opportunity
-  Bloomington & DNR Trail (Hiking, Biking, Equestrian)
-  Incorporated Municipality (Bloomington, Ellettsville, Slinesville)



To: BCCMPO Policy Committee
From: Vince Caristo, MPO Staff
Date: September 7, 2012
Re: Urban Area Boundary and Metropolitan Planning Area Update

Background

Following the conclusion of each decennial census, the United States Census Bureau designates a new list of Urbanized Areas (UZA). The UZA is a statistical geographic entity defined by the Census Bureau as a central core and adjacent densely settled territory that together contain at least 50,000 people, generally with an overall population density of at least 1,000 people per square mile.

The UZA that is designated by the U.S. Census Bureau is used by state and federal agencies in the allocation of transportation funding, and its geographic limits serve as the starting point for an MPO's Urban Area Boundary (UAB). Projects that utilize federal Surface Transportation Program (STP) funds must occur within the boundaries of the UAB. The UAB must include the entire area within the census-designated UZA, and should be a single contiguous area that encompasses nearby major traffic generators and areas with urban characteristics. Each MPO has the ability to add, smooth, and adjust the UAB edges to better suit local transportation planning needs, allowing for a slightly larger geographic area than the Census-designated UZA.

Additionally, an MPO must define a Metropolitan Planning Area (MPA), which is the area within which the MPO needs to be fiscally constrained for transportation projects. Projects that occur within the MPA boundaries need to be included in the MPO's Transportation Improvement Program (TIP). At a minimum, the MPA must include the areas within the UAB, as well as the contiguous geographic areas that are likely to become urbanized within the 20 year forecast period covered by the MPO's transportation plan. The MPA boundary is meant to foster an effective planning process that ensures connectivity between modes and promotes overall efficiency.

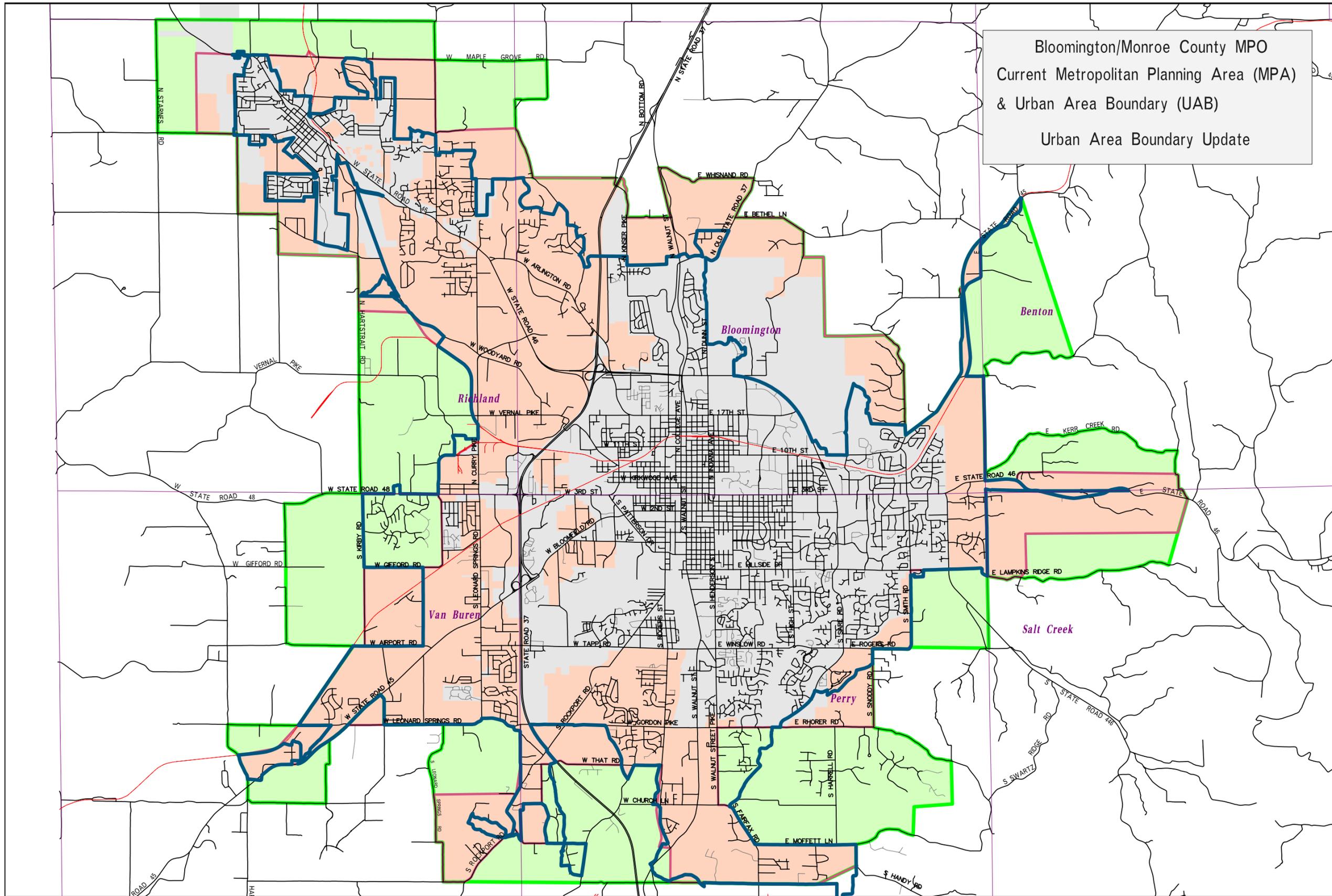
2010 Census UAB/MPA Update

The current UAB and MPA boundaries are based on the results of the 2000 Census. They were officially approved by The Indiana Department of Transportation (INDOT) in September, 2006. Based on the results of the 2010 Census, the UZA for the Bloomington/Monroe County has changed to reflect the new population density information. As a result, the MPO needs to propose an updated UAB to incorporate the revised UZA. Additionally, the MPA must be revised to capture the expanded UAB as well as any new areas that are likely to become urbanized in the next 20 year forecast period. Once approved by the MPO, the proposed UAB and MPA boundaries are sent to INDOT for review and concurrence.

MPO Staff has coordinated closely with personnel from the City of Bloomington, Monroe County, and the Town of Ellettsville in crafting the proposed UAB and MPA boundaries. After a preliminary review, the Indiana Department of Transportation (INDOT) has not identified any issues with either of the proposed boundaries. Please see the attached maps indicating the existing and proposed new UAB and MPA boundaries.

Action Requested

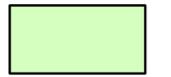
MPO Staff requests that the Policy Committee approve the proposed UAB and MPA boundaries. The TAC and CAC approved the proposed UAB and MPA boundaries unanimously at their August 22 meetings. Following approval by the Policy Committee, the UAB and MPA boundaries will be sent to INDOT and FHWA for concurrence.



Bloomington/Monroe County MPO
 Current Metropolitan Planning Area (MPA)
 & Urban Area Boundary (UAB)
 Urban Area Boundary Update



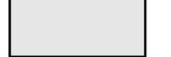
City of
 Bloomington



Existing MPA



Existing UAB



Incorporated Areas



2010 Census
 Urbanized Area (UA)

Jun 6, 2012



Scale: 1" = 6000'



This map was produced by the
 City of Bloomington GIS for
 use as map information only.
 Map is NOT warranted.

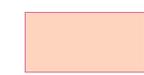
Tmpopa12pB

Bloomington/Monroe County Metropolitan Planning Organization

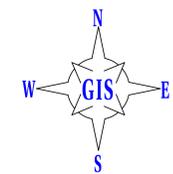
2012 Urban Area Boundary Update

Proposed Metropolitan Planning Area (MPA) & Urban Area Boundary (UAB) Updates Proposal 1

Legend

-  Proposed Metropolitan Planning Area
-  Proposed Urban Area Boundary
-  Incorporated Areas
-  2000 MPA Boundary
-  2000 UAB Boundary
-  2010 Census Urbanized Area (UAZ)

July 11, 2012

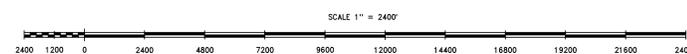


City of Bloomington, Indiana
Geographic Information System
This map was produced by the City of Bloomington GIS for use by the City and general public as map information. The topographic and planimetric information is based on aerial photography flown in March 1993 and March 1992. Updates from aerial photography took place in April 1993, April 2003, March 2006, and April 2010. Information is updated by GIS technicians from development drawings, plans, and other sources. The accuracy of information contained in this document is based on National Mapping Standards, however it is NOT warranted.
The Corporation boundary reflects annexations effective January 1, 2012.
Information and Technology Services Department
3 January 2012

Bloomington Geographic Information System

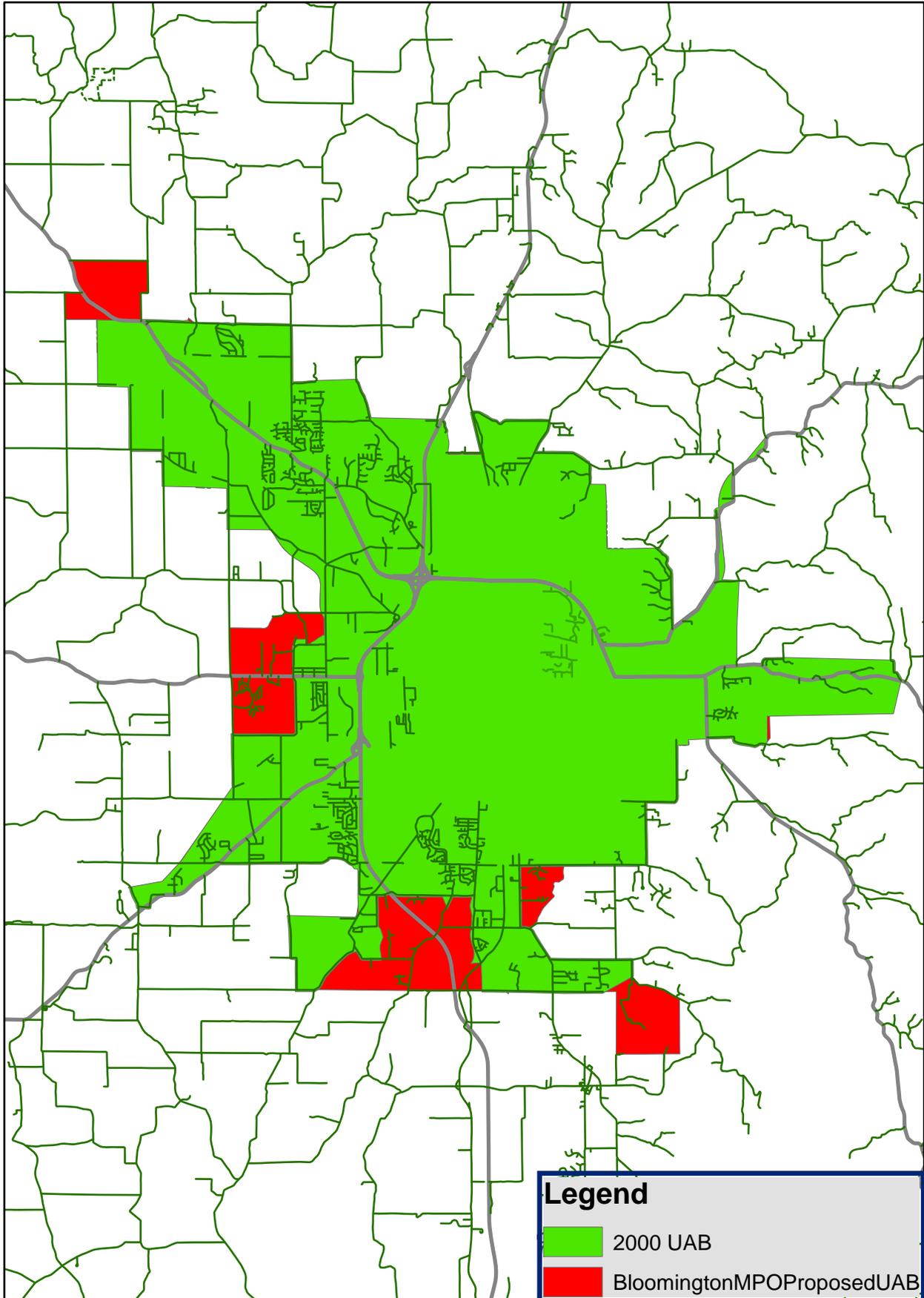


City of Bloomington, Indiana
Planning Department



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BMCMPO AUAB Comparison



MEMORANDUM



To: BMCMPO Policy Committee

From: Scott Robinson, Long Range/Transportation Manager

Date: September 7, 2012

Re: BMCMPO Accessibility and Design Principles Policy Statement

Background:

The Citizens Advisory Committee (CAC) drafted an Accessibility and Design Principles Policy Statement over the course of several months. The Policy Statement was first approved by the Citizens Advisory Committee on June 22, 2011, but since has been reviewed and revised by the Technical Advisory Committee (TAC) and again by the CAC ADA Subcommittee. The most recent round of revisions has addressed all concerns. Both the CAC and TAC recommend approval of the Policy at their respective May 23, 2012 and August 22, 2012 meetings.

Since the TAC and CAC have recommended approval of the policy, and per item v. of the policy, staff has made one final edit. Reference to the Citizens Advisory Committee has been struck through in the third paragraph such that the language would now embody the overall support by the BMCMPO. A final copy of the Policy Statement, with the edit, is included in the meeting packet for review.

Recommendation Requested

The Technical Advisory Committee and Citizens Advisory Committee reviewed the Accessibility and Design Principles Policy Statement and unanimously recommended its approval by the Policy Committee.

Accessibility and Design Principles Policy Statement

Developed by the BMCPO Citizens Advisory Committee

Approved by the CAC 6/22/11

Revised 04/26/12 and approved by the CAC 5/23/12 and TAC 8/22/12

Introduction

The Bloomington/Monroe County Metropolitan Planning Organization (BMCMPPO) is responsible for federally funded transportation projects within the urbanized area. The BMCMPPO adopted a Complete Streets Policy to ensure transportation corridors accommodate all users, including people with disabilities. In July 2010, the Director of the BMCMPPO signed a proclamation of recommitment to full implementation of the Americans with Disabilities Act (ADA).

These directives of the BMCMPPO ensure that all transportation planning activities will strive to achieve accessibility for persons with disabilities by:

- i. Using direct access approaches to participation, information dissemination, and thoroughfare design and implementation for all people regardless of their abilities, mobility, age, and other physical characteristics; and
- ii. Using other approaches to further augment direct access approaches through the use of assistive technologies.

Therefore, ~~the Citizens Advisory Committee~~ of the BMCMPPO adopts the following recommendations and strategies to further enhance the policy directives already established:

- i. Proactively seek direction on transportation investments from citizens with disabilities such that any investment can improve their ability to travel within the BMCMPPO area.
 1. Designate disability advocates or local mobility experts to be on the project stakeholder list for federally funded projects (Complete Streets Policy – Sections II.B.6 & 7; TIP Call For Projects Form – section III.7); and
 2. Specify clear, concise, and realistic performance measures, measurable outcomes, and key milestones in relation to issues of accessibility and fully integrated user design principles¹ for federally funded transportation projects (Complete Streets Policy – Section II.B.4 & 5; TIP call For Projects Form – Section III, items 2 and 3).
- ii. Encourage participation on BMCMPPO committees and subcommittees by citizens with disabilities.
 1. Annually invite local organizations representing persons with disabilities to serve on the Citizens Advisory Committee; and
 2. Explore the possibility to have disability experts or persons with credentials represented on other BMCMPPO Committees, including but not limited to the Technical Advisory Committee and the Transportation Enhancement Selection Committee.
- iii. Hold regular educational training for BMCMPPO members organized by staff on best practices of accessibility, ADA compliance, and universal design for public spaces and thoroughfares.
- iv. Require adoption of ADA Transition Plans (Plans) for BMCMPPO local member agencies.
 1. Plans will prioritize or target areas of need;
 2. Plans will benchmark performance measures;

¹ As defined by BMCMPPO as the design of products to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. Designs shall be guided by the following principles: equitable use; flexibility in use; simple and intuitive use; perceptible information; tolerance for error; low physical effort; size and space for approach and use.

3. Plans will specify funding priorities, timelines, and other implementation actions;
 4. Plans will set indicators to measure progress;
 5. LPAs will be held accountable to their Plans through project selection for the TIP;
- v. Seek adoption of this policy by the Policy Committee.

MEMORANDUM



To: BMCMPO Policy Committee
From: Scott Robinson, Long Range/Transportation Manager
Date: September 7, 2012
Re: Calendar Year 2013 Meeting Schedule

The Committees of the Bloomington/Monroe County Metropolitan Planning Organization must consider their meeting schedules for the 2013 calendar year. If the Policy Committee wishes to keep a similar meeting schedule as 2012, (1:30 PM, second Friday of the month, Council Chambers) the meeting schedule would be as follows:

- February 8, 2013
- March 8, 2013
- April 12, 2013
- June 14, 2013
- July – Summer Recess
- September 13, 2013
- November 8, 2013
- December – Winter Recess

Consensus Requested

The Policy Committee is asked to come to consensus on their meeting schedule for 2013, so that the Council Chambers can be reserved accordingly. Additional meetings can be arranged on an as-needed basis for January, May, August, and October in accord with the meeting schedules of the Citizens and Technical Advisory Committees.