



# CREATING COMPLETE CORRIDORS

*Complete Streets Implementation Study*  
MCLEAN COUNTY, ILLINOIS | 2019



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## *Complete Streets Implementation Study for McLean County, Illinois*

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# INTRODUCTION & BACKGROUND

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The McLean County Regional Planning Commission has been working with the cities of Bloomington and Normal, Illinois, to create a livable, healthy, and equitable community. Both cities have worked to provide residents and visitors with choices in transportation mode by adopting various plans and policies. Both cities have adopted complete street policies and the community has both comprehensive transit service through Connect Transit as well as a community-wide trail system. However, challenges exist along major corridors for people walking, bicycling, or using transit due to gaps in the infrastructure both along roadways and for crossing roadways. Developing an implementation plan for complete streets that identifies high priority corridors, including transit routes, will assist the cities, the Metropolitan Planning Organization (MPO), and the transit system in making progress toward a community-wide multimodal transportation system.

## **Both cities have recently updated their comprehensive plans:**

- *Bring It On Bloomington! Plan It. See It. Live It., 2015*

"Bloomington will be a unique, cohesive, and vibrant community, successfully uniting and integrating its downtown core, established neighborhoods, and future developments. Supported by its high quality of life and enduring economic stability, Bloomington will be the destination for people and businesses that seek a culture of innovation and entrepreneurship. Its residents will continue to thrive, surrounded by rich history, arts and culture, lifelong learning opportunities, a healthy environment, and an active lifestyle."

- *Town of Normal 2040 Comprehensive Plan: Complete. Connected. Compact., 2017*

". . . a future Normal that endeavors to create a Complete, Connected, yet Compact community:

- Complete in that it includes diverse and inclusive neighborhoods, streets, centers, and destinations of every kind.
- Connected physically, socially, and technologically in ways that ensure constant and multiple interactions within Normal and with our global society.
- Compact with a wide variety of all uses contained in a contiguous community with a minimum of sprawl."

### Both cities have passed complete streets policies:

- *City of Bloomington Complete Streets Ordinance, 2016*

"... the City of Bloomington has placed a priority on implementing policies that recognize the importance of addressing the transportation needs of pedestrians, bicyclists, and public transportation riders ... works to improve the safety of city streets, enhance the quality of life of residents, encourage active living, and reduce traffic congestion."

- *Complete Streets Policy, Town of Normal, Illinois, 2016*

"The Town of Normal shall strive to accommodate all users of the road network, including bicyclists, pedestrians, transit users, and the drivers of automobiles, transit vehicles, and freight vehicles, in roadway projects so as to create a connected, comprehensive, integrated network for all roadway users."

### Both cities have bicycle and/or pedestrian plans:

- *City of Bloomington Bicycle Master Plan, 2015*

—Plan for a target audience of casual adult cyclists. At the same time, address the needs of those who are more advanced and those who less traffic-tolerant, including children.

—Strive for a network that is continuous, forming a grid of target spacing of 1/2 to 1 mile to facilitate bicycle transportation throughout the City.

- *Town of Normal Bicycle and Pedestrian Master Plan, 2009*

"The Normal Bicycle and Pedestrian Master Plan presents the 20-year vision of a fully-developed bicycle and pedestrian system throughout the Town, serving residents, commuters, children and visitors alike. A complete bikeway and walkway network will enhance overall connections within the community and promote the overall health of area residents by making walking and bicycling safe, comfortable, and attractive travel modes. Included in these plans are goals and objectives that are focused on creating choices in mobility and access via multiple modes including walking, bicycling, transit, and driving."



## EXISTING PLANS— PRIORITY CORRIDORS



*The City of Bloomington Bicycle Master Plan* identified the following projects as high priority for implementation. Only those recommendations involving changes to the roadway or the addition of sidewalk and/or sidepaths are listed below.

## **Bloomington Recommendations (High Priority)**

### **Road diet conversions with bike lanes or buffered bike lanes**

- Cottage Grove Avenue
- Emerson Street (Center to Linden)
- Fairway Avenue (Empire to Eastland)
- Lincoln Street
- Main Street (Normal border to Locust)
- Martin Luther King Jr. Drive
- Regency Avenue
- Washington (Lee to Towanda)
- Washington (Kreitzer to St. Joseph)

### **Bike lanes**

- Albert/East (Grove to Constitution Trail)
- Emerson (Linden Street to Towanda)
- Fairway (Towanda to Empire)
- Grove (State to Vale)
- Hinshaw (Locust to Market)
- Lincoln (Constitution Trail to Mercer)
- Locust (Catherin to Allin)
- Locust (Western to Morris)
- Mercer (Lincoln to Ireland Grove)
- Morris (Veteran's to Hamilton)

### **Sidewalks**

- Bunn (railroad crossing to Hamilton)
- Cottage Grove (White Oak Park north edge to Seminary)
- Locust (Colton to Towanda)
- Main (Center to Hamilton)
- Towanda (Empire to Washington)
- Wylie (Normal border to IL 9/Market)

## **Sidepaths**

- Empire (Airport to Towanda Barnes)
- Fox Creek (Danbury to Beich)
- IAA Drive (Vernon to Kurt)
- Ireland Grove (east of Bear Creek to Towanda Barnes)
- Mercer (Ireland Grove to Hamilton)
- Six Points (Springfield to Morris)
- Towanda (Raab to Ireland Grove)

## **Buffered bike lanes**

- Center (Normal border to Locust)
- East (Locust to Olive)
- Locust (Morris to Catherine)
- Madison (Locust to Olive)
- Main (Normal border to Locust)

## **Crossings on major arterials**

- Any Veteran's Parkway project that includes resurfacing of cross streets in their intersection functional areas should study striping reconfiguration and lane narrowing for bike lanes (regular or green bike lanes), combined bike lane/turn lanes
- Business US 51 (Center/Madison to Olive, and Main/East) one-way couplet—restripe to add bike lanes, usually buffered bike lanes and usually with a "road diet" reduction in the number of lanes. South of the couplet, add sidewalks, widen to sidepath width, and use IDOT's new, narrower rumble strip standard with longitudinal gaps for bicyclists.
- Empire—finish sidewalks between Colton and Towanda; add sidepath and/or sidewalk between Towanda and Towanda-Barnes
- Locust—bike lanes between Western and Allin; finish sidewalks Colton to Towanda
- Market—accommodations added during future Sugar Creek bridge reconstruction
- Hinshaw—bike lanes between Locust and Market
- Lee—shared lane markings between Empire and Locust
- Morrissey—sidepath between Croxton and Woodrig
- Veteran's Parkway—sidepath on one side, sidewalk on the other



The *Bloomington Streets Master Plan* identified the following streets for reconstruction. Reconstruction and/or resurfacing of streets is one of the most frequent, successful, and least expensive methods for implementing Complete Streets and adding bicycle and pedestrian infrastructure. Each reconstruction and resurfacing project should be reviewed for opportunities to redesign and improve roadways to provide safer and better access for all roadway users. Only those streets with transit routes and/or proposed bike/ped infrastructure are included.

- Bunn Street (Lafayette to Woodrig)
- Emerson Street/Seminary Avenue (Cottage Grove to Center Street and Linden Street to Towanda)
- Euclid/Brown Streets (Oakland to Market)
- Fox Creek Road (Danbury to Beich)
- Hamilton Road East (Bunn to Commerce)
- Lafayette (Center to Ash)

The *Town of Normal Bicycle and Pedestrian Master Plan* identified the following projects as high priority for implementation. Only those recommendations involving changes to the roadway or the addition of sidewalk and/or sidepaths are listed below.

- Southern Normal Corridor (Bryan/Dale/University/Virginia/Jersey) On-street bikeway
- Fell Avenue/School Street Corridor On-street bikeway
- Lincoln Corridor (Clay/Lincoln/Chippewa) On-/off-street bikeway
- College Avenue/Mulberry Street Corridor On-street bikeway
- Veteran's Parkway Crossings Intersection improvements
- Upgrade the Constitution Trail/Vernon Avenue crossing in eastern Normal

### **Recommended Priority Pedestrian Corridors**

- Main Street/Kingsley Street: South town limits to Raab Road
- College Avenue/Mulberry: Street School Street to Hershey Road
- Towanda Avenue: Jersey Avenue to Raab Road
- Raab Road: Parkside Road to Towanda Avenue
- Linden Street: South town limits to Northtown Road
- Willow Street/Fort Jesse Road: Beech Street to Northpointe Drive
- Airport Road: Fort Jesse Road to Raab Road
- Hershey Road: Fort Jesse Road to Raab Road
- Shepard Road: Hershey Road to Airport Road
- Veteran's Parkway: Vernon Avenue to Shepard Road

**Intersection improvement recommendations where the Constitution Trail crosses major streets include:**

- Northtown Road
- Raab Road
- Shelbourne Drive
- Willow Street
- Locust Street
- Vernon Avenue
- College Avenue
- Mulberry Street

**Bike lanes proposed in the plan include:**

- Streets in Normal that could be retrofitted with bike lanes through parking reduction include:
  - Beech Street—Shelbourne to Raab
  - Blair Drive—College to Fort Jesse
  - Jersey Avenue—Linden Street to Towanda
  - Parkside Road—Hovey to Gregory
  - Summit Street/Shelbourne Drive—Main to Walnut
  - Linden Street—Pine to Shelbourne
- Locations where bike lanes could be accommodated through narrowing existing vehicle travel lanes include:
  - College Avenue—Broadway to Linden
  - Linden Street—Cypress to Pine
  - Mulberry Street—Linden Street to School
  - Shepard Road—Hershey to Airport
- Bike lanes could also be achieved through vehicle travel lane reductions, noted below.
  - Three-to two-lane road diet:
    - Beaufort Street—School to Fell
    - College Avenue—School to Broadway
    - Gregory Street—Cottage to Adelaide
    - Shelbourne Drive—Walnut to Beech
  - Four-to three-lane road diet:
    - Beaufort Street—Main to School
    - Beech Street—Pine to Shelbourne
    - Cottage Avenue—Martin Luther King Jr. to College
    - Hovey Avenue—Cottage to Main
    - Landmark Drive—College to Fort Jesse
    - Linden Street—Shelbourne to Raab
    - Parkside Road—Gregory to Raab
    - Shelbourne Drive—Beech to Towanda

- Bike lanes are recommended through shoulder widening at the following locations:
  - White Oak Road—Martin Luther King Jr. to Raab
  - Cottage Avenue future street extension—Gregory to Raab
  - Linden Street—Raab to Northtown
  - Towanda Avenue—Raab to south of Interstate 55 bridge
  - Hershey Road—Fort Jesse to Raab
- Bike boulevards recommendations in Normal include:
  - Orlando Avenue/Aurora Way/Warren Avenue—Main to School
  - McKinley Street/Clay Street/Lincoln Street—Main to One Normal Plaza
  - Chippewa Street—Redman to Henry
  - Bryan Street/Dale Street/University Street/ Belt Drive—Parkside to Towanda
  - Grove Street—Hovey to Gregory
  - Locust Street/Old Fort Jesse Road/Harter Lane/George Drive/Courtland Avenue—Main to Towanda
  - Karin Drive/Centennial Avenue/Spear Drive/Hammitt Drive/Keller Road—Victor to Towanda
  - Normal Avenue/Bakewell Street—Locust to Orlando, Blair Drive—Vernon to College
  - Susan Drive/Taft Drive—Fort Jesse to Hershey
- Signed connections that are recommended for Normal's bikeway network include:
  - Orlando Avenue—Constitution Trail to Main
  - Fairview Park Service Road—Constitution Trail to Main
  - Bowles Street—Main to Normal
  - Kerrick Road—Main to the Constitution Trail
  - Sycamore Street/Linden Street—Constitution Trail to Pine
  - Arborwalk Drive—North Branch Sugar Creek Trail to Landmark
  - Hanson Drive—Blair to Towanda, Hunt Drive—Sugar Creek Elementary to Landmark
  - Parkinson Street/Dewey Street—Constitution Trail to Maple
  - Brookwood Drive—Jersey to Constitution Trail
  - North Street—Fell to School
  - Schroeder Drive/Orr Drive—Constitution Trail accessway to Spear
  - Watkins Drive/College Hills Mall Loop/Landmark Drive—Towanda to College

The *BN Mobile or Long-Range Metropolitan Transportation Plan 2045 (LRTP)* was completed in November 2017. The plan emphasizes the priority areas introduced in the municipal plans to implement Complete Streets. More so, in the Mobility, Access and Choice chapter, an entire section is dedicated to considering Complete Streets under Engineering Strategies. Section 2.2 which states:

*"Incorporate Complete Streets Principles into project design, planning and implementation process."*

Other key considerations for Complete Streets in the LRTP include:

- Formulate and adopt a regional definition for Complete Streets, including criteria through which project proposals may be evaluated
- Apply Complete Streets ordinance provisions in restoration or reconstruction of existing streets and roads as resources permit
- Where Complete Streets provisions are implemented, incorporate pedestrian and bicycle accommodations to enhance bicycle connectivity and safety.

The *Main Street Transportation Improvement Feasibility Study: Bloomington-Normal, Illinois* was completed in March of 2012. Main Street is an Illinois Department of Transportation owned and operated roadway. Key elements of the "Statement of Purpose" include:

- Main Street supports all modes of transportation; the movement of autos and trucks, pedestrians, bicycles and transit.
- Accordingly, the corridor and the roadway have multimodal needs and demands that require an integrated approach for all modes, as espoused in a Complete Streets environment.
- The corridor must be designed to accommodate both current and future transportation and land uses. This includes a variety of businesses, institutional uses, and housing.

Complete streets design is called out in the statement of purpose in this plan:

*"A key component of the Statement of Purpose is the 'complete street' design approach, which refers to the integration of features that safely accommodate all users, including various modes of transportation such as automobile drivers, bus riders, bicyclists, and pedestrians of varying ages and capabilities."*

A summary of the feasible transportation improvements in this study are provided in Exhibit A on the next page.



## Exhibit A: Summary of Feasible Transportation Improvements

| Segment Description              | Description of Improvement   |
|----------------------------------|--|
| <b>SEGMENT 1</b>                 |  |
| 1-39 to 1-55                     | <ul style="list-style-type: none"> <li>■ Landscaped median</li> </ul>  |
| <b>SEGMENT 2</b>                 |  |
| 1-55 to College, Raab to College | <ul style="list-style-type: none"> <li>■ Landscaped median</li> <li>■ Arrow travel lanes to 11'</li> <li>■ Stripe bike lanes OR widen parkway</li> <li>■ Widen sidewalk</li> <li>■ Reduce and consolidate driveways</li> </ul>   |
| <b>SEGMENT 3</b>                 |  |
| Main/College                     | <ul style="list-style-type: none"> <li>■ Traffic signal timing modifications</li> <li>■ Increase southbound left-turn lane</li> </ul>  |
| Main/McKinley OR Summit          | <ul style="list-style-type: none"> <li>■ New traffic signal</li> </ul>   |
| Main (College–Division)          | <ul style="list-style-type: none"> <li>■ Narrow travel lanes to 11'</li> <li>■ Stripe bike lanes OR widen parkway</li> <li>■ Widen sidewalk</li> <li>■ Curb and gutter reconstruction</li> </ul>   |
| Main (Division–Locust)           | <ul style="list-style-type: none"> <li>■ Remove one northbound travel lane</li> <li>■ Narrow travel lanes to 11'</li> <li>■ Curb and gutter reconstruction</li> <li>■ Retain parking stripe buffered bike lane OR widen parkway/sidewalk</li> </ul>  |
| Kingsley/Center (College–Locust) | <ul style="list-style-type: none"> <li>■ Narrow travel lanes to 11'</li> <li>■ Stripe bike lane OR widen parkway</li> <li>■ Widen sidewalk</li> <li>■ Curb and gutter reconstruction</li> <li>■ Fill in sidewalk gaps</li> </ul>   |
| <b>SEGMENT 4</b>                 |  |
| Locust Street                    | <ul style="list-style-type: none"> <li>■ Convert to two-way operations</li> <li>■ Lee-Main to create truck route (2 eastbound lanes and 1 westbound lane)</li> <li>■ Place IL 9/US 150 designation along Locust instead of Lee</li> <li>■ Acquire ROW NWQ</li> <li>■ Locust/Center and turn lane improvements</li> </ul> |
| Center & Main (Locust–Front)     | <ul style="list-style-type: none"> <li>■ Convert to two-way traffic operations</li> <li>■ Roadway extension to intersect Madison and east traffic signal modifications</li> <li>■ Curb bump-outs</li> <li>■ Extend streetscape to Center</li> </ul>  |
| Madison & East (Locust–Olive)    | <ul style="list-style-type: none"> <li>■ Reduce to 3 lanes</li> <li>■ Narrow travel lanes to 11' travel lanes</li> <li>■ Stripe buffered bike lane OR widen parkway/sidewalk</li> </ul>  |
| <b>SEGMENT 5</b>                 |  |
| Main (Oakland–RT Dunn)           | <ul style="list-style-type: none"> <li>■ Maintain 3 NB lanes and narrow travel lanes to 11'</li> <li>■ Stripe bike lane OR widen parkway/sidewalk</li> </ul>   |
| Main (Lafayette–Brigham School)  | <ul style="list-style-type: none"> <li>■ Construct 10' off-street path</li> <li>■ Reduce and consolidate driveways</li> </ul>  |
| Main (RT Dunn–Brigham School)    | <ul style="list-style-type: none"> <li>■ Landscaped median</li> </ul>  |



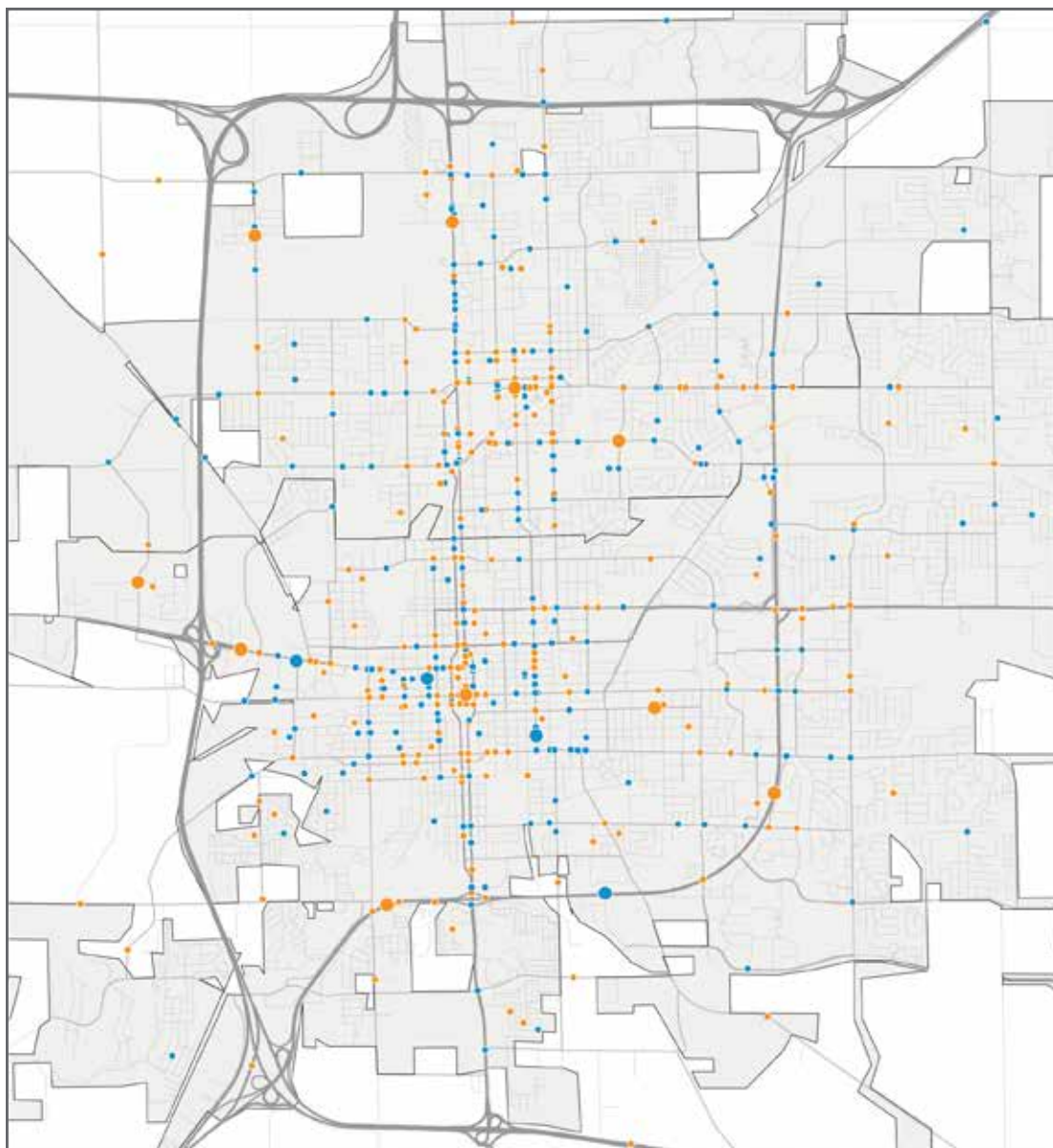
## CRASH DATA ANALYSIS

The lack of adequate infrastructure for people walking and bicycling can be a factor in bike and pedestrian related crashes. Insufficient facilities and/or inadequate design may increase the potential for conflicts with motorized vehicles. Figure 1 shows the locations of bike and pedestrian crashes in Bloomington-Normal for both injury and fatal crashes.

The results show that:

1. Over 80% of crashes occurred at intersections, and about one-third happen within a 150-foot distance from bus stops. Though the causes of these crashes are not provided, safety improvements should target those locations where people walking or biking will encounter conflicts with vehicles.
2. Due to the higher number of people walking and biking, there is a higher concentration of crashes in the downtown areas for both Bloomington and Normal.
3. Major roads with high traffic volumes and/or high speeds increase the risk and severity of crashes for all roadway users. Frequent crashes have occurred along traffic corridors like W. Market Street, Clinton Street, and Veteran's Parkway in Bloomington and Main Street and Linden Street in Normal.

**Figure 1: Crash Data Analysis**



**All crashes, 2005–2016, involving:**

|             |           |         |
|-------------|-----------|---------|
| Bicyclists  | • Serious | • Fatal |
| Pedestrians | • Serious | • Fatal |

**City Boundaries** 

0 0.5 1 2 3 4 Miles



## COMMUTING PATTERNS

### Employment

Commuter travel patterns indicate the relationship between where people live and where they work. The American Community Survey (ACS), which is conducted by the U.S. Census, provides “County to County Commuting Flows.” These data estimates show where people work, based on both residence and workplace. The data show the major counties to which residents in the study area travel for employment. Nearly 90% of community residents work within McLean County with a small percentage commuting to other communities such as Peoria and Champaign-Urbana.

Employment by industry shows McLean County’s strength in finance, leisure and hospitality, and education and health service industries as shown in Table 1. Over one-fifth of employees work in the financial sector, with a significant portion employed by major institutions including State Farm Insurance Co., County Financial, Heartland Bank & Trust, and Afni, Inc. Employment in the Educational & Health Services sector is also clustered in major employers, which include Illinois State University, Unit 5 Schools, Advocate BroMenn Healthcare, and OSF St. Joseph Medical Center.



**Table 1: Major Employers (Employees>400) in Bloomington-Normal, 2016**

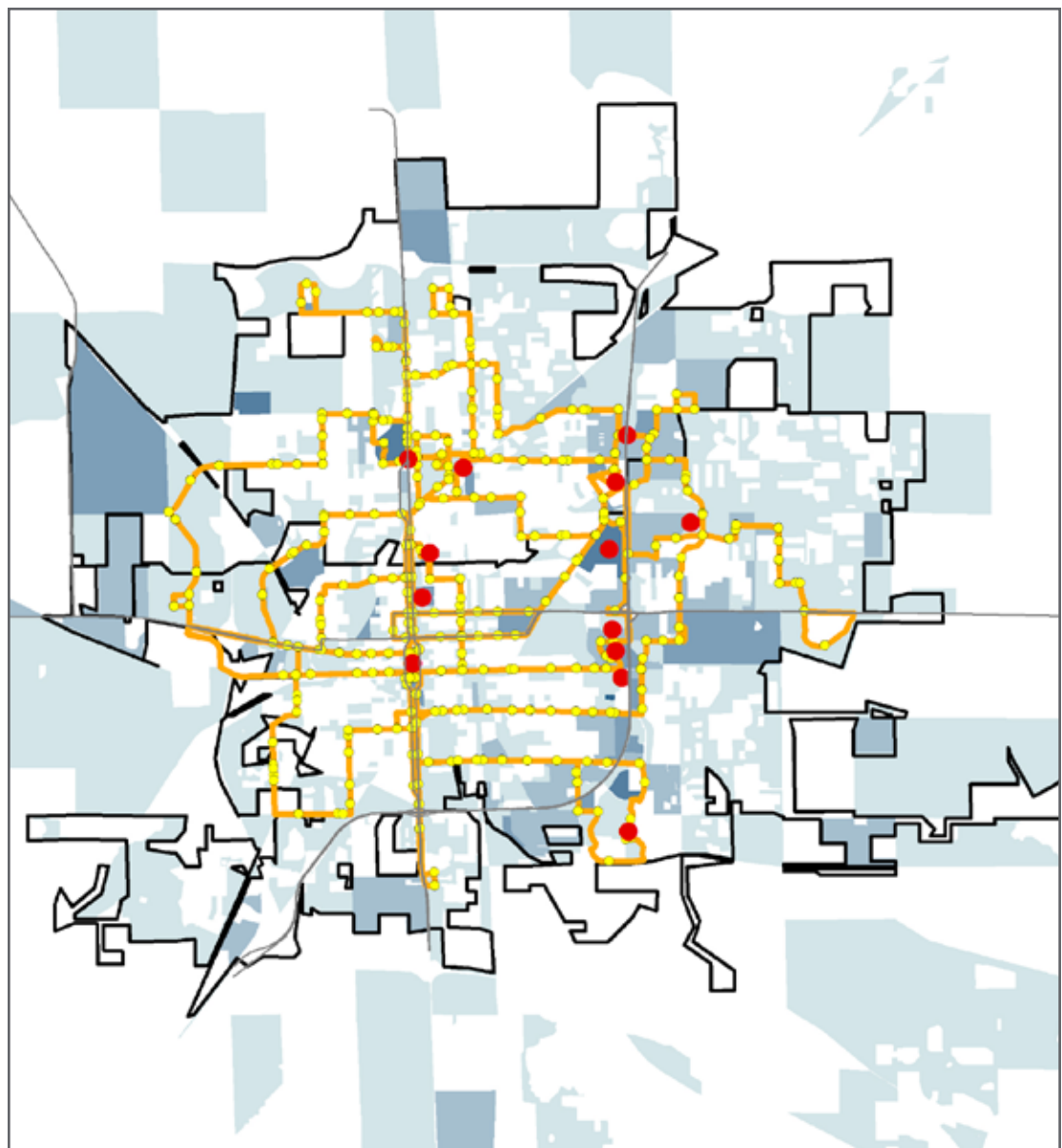
|   |                                 |        |    |                                    |     |
|---|---------------------------------|--------|----|------------------------------------|-----|
| 1 | State Farm Insurance Co.        | 14,532 | 9  | McLean County, Government          | 713 |
| 2 | Illinois State University (ISU) | 3,300  | 10 | City of Bloomington                | 691 |
| 3 | County Financial                | 1,939  | 11 | District 87 Schools                | 594 |
| 4 | Unit 5 Schools                  | 1,669  | 12 | Illinois Wesleyan University (IWU) | 507 |
| 5 | Advocate BroMenn Healthcare     | 1,271  | 13 | Town of Normal                     | 499 |
| 6 | OSF St. Joseph Medical Center   | 894    | 14 | GROWMARK, Inc.                     | 480 |
| 7 | Heartland Bank & Trust          | 763    | 15 | Heritage Enterprises               | 465 |
| 8 | Afni, Inc.                      | 760    | 16 | Nestle USA                         | 415 |

Source: HR Representatives from each company/organization. Numbers aggregated by Bloomington-Normal Economic Development Council in the report of McLean County, Illinois, 2017 Demographic Profile (<https://www.bnbiz.org/wp-content/uploads/2017/06/2017-Demographic-Profile-Website-Final.pdf>).

U.S. Census Bureau's LEHD Origin-Destination Employment Statistics (LODES) data provides spatial patterns of employees by their residence and workplace locations at the census block level, and the commuting flows between them. Figure 2 presents the number of jobs by census block and the locations of major employers in Bloomington-Normal area. The concentration of major employers at the city center and on existing bus routes increases the opportunity to provide public transportation as a viable means of commuting, especially for young people who may prefer to drive less and live closer to workplaces.



Figure 2: Number of Jobs by Census Block and Bus Services



**Existing Employment and Bus Services**

- Highways
- Major Employers
- Transit Stops
- Bus route
- Bloomington-Normal

0 0.5 1 2 3 4 Miles

**Employment**

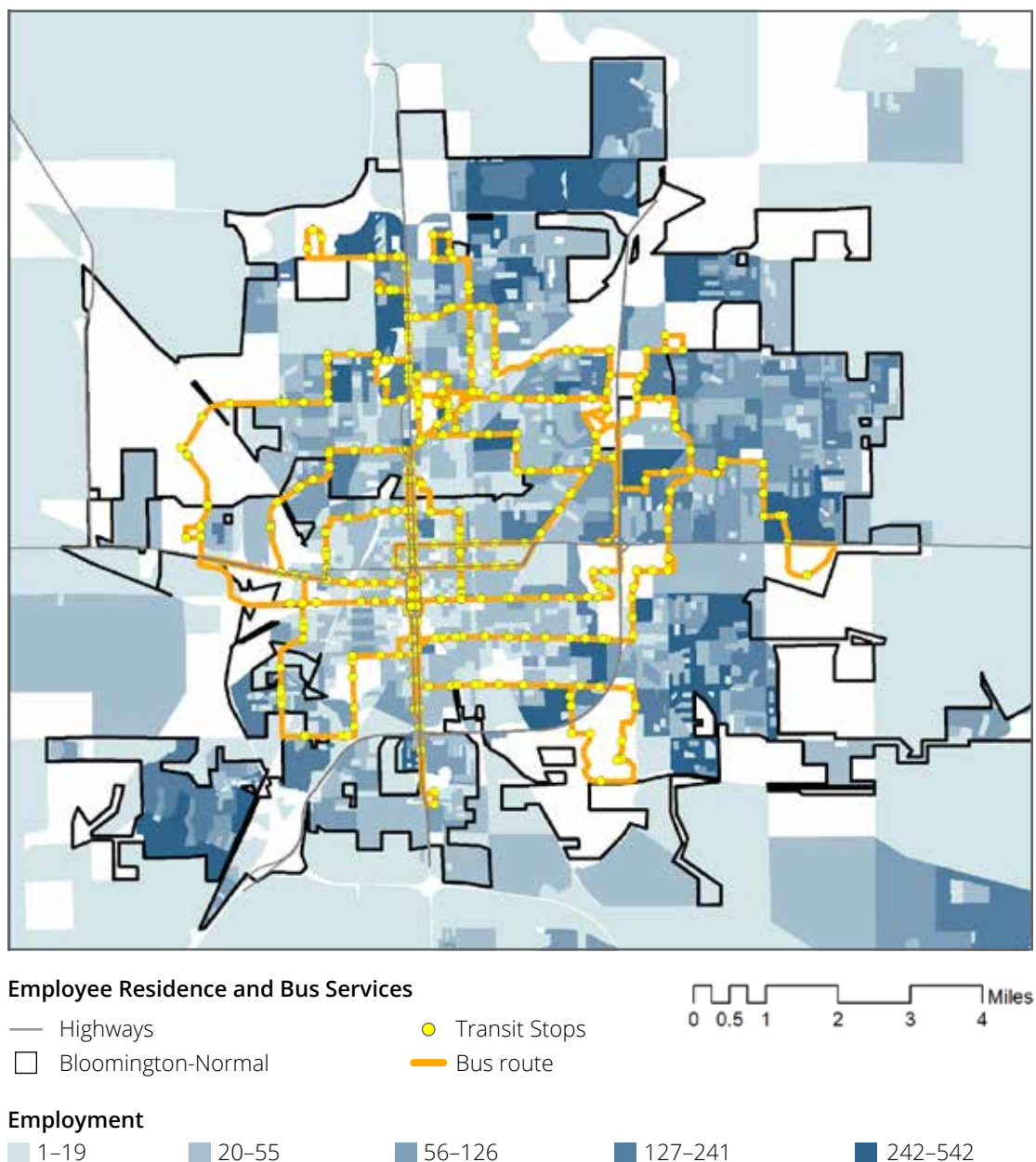
1-136    137-502    503-1,481    1,482-4,193    4,194-16,218

## Residence

While nearly 90% of community residents also work in McLean, based on the ACS County to County Commuting Flows data, about 85% of those who work in Bloomington also live within McLean County. This is a good statistic for our community economy as it means that more people are coming here to work than people who live here are leaving to work somewhere else.

Figure 3 maps the geographic pattern of the number of workers living in the Bloomington-Normal area. The existing bus service does not cover some populated areas in the north, southeast and southwest, which indicates the potential for expansion of public transportation to better connect these neighborhoods and improve their job accessibility.

**Figure 3: Number of Workers by Residence Census Block and Bus Services**

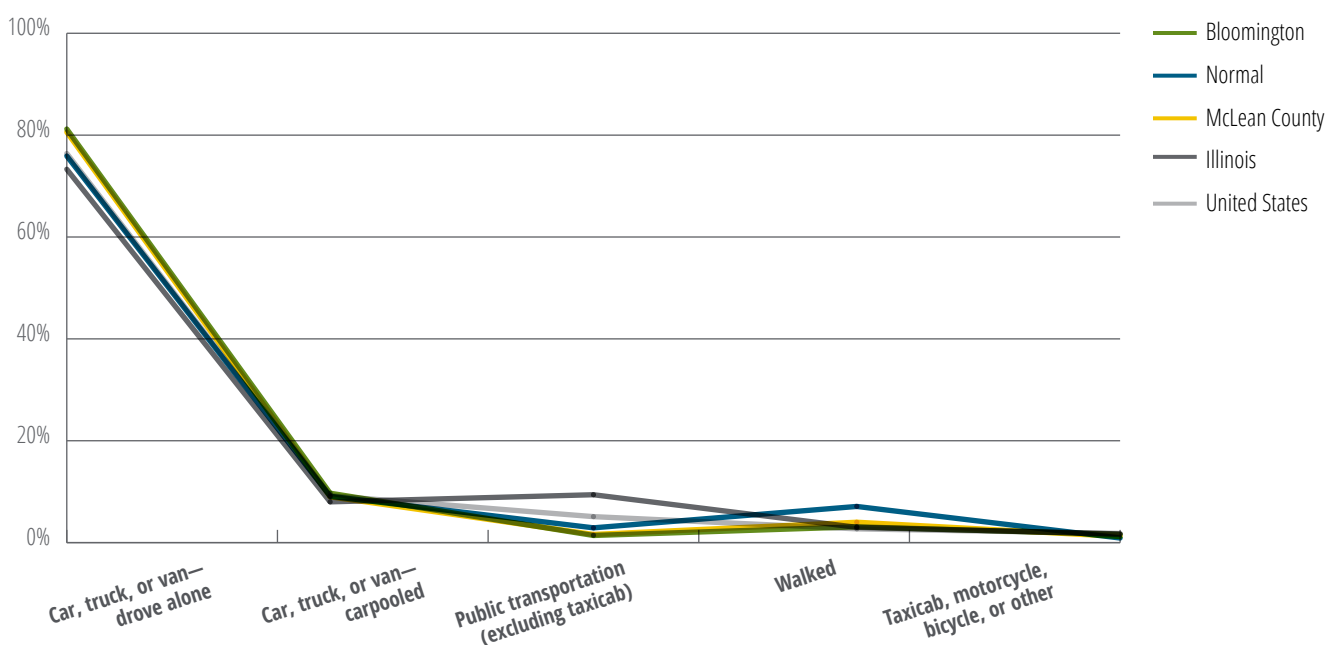


## Mode Choice

Table 2 provides trips-to-work data by transportation mode and shows that over 80% of workers in Bloomington and Normal drive to work alone. The second largest commute mode is carpooling with around 10% of workers sharing a ride to and from work. The share of trips via public transportation is about 2%, compared with 9.2% in the State of Illinois 5.1% in the United States.

Studies show that the benefit of public transportation in mitigating urban congestion justifies transit infrastructure investments.<sup>1</sup> The City of Bloomington Comprehensive Plan has also identified expansion of public transportation as a way of reducing air pollutants.<sup>2</sup>

**Table 2: Journey to Work by Mode of Transportation**



Source: U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates, Means of Transportation to Work by Age: B08101. Retrieved June 26, 2019 from <http://factfinder.census.gov>.

- 1 Anderson, Michael L. "Subways, Strikes, and Slowdowns: The Impacts of Public Transit on Traffic Congestion." No. w18757. National Bureau of Economic Research, 2013.
- 2 McLean County Regional Planning Commission. "Bring it Bloomington, City of Bloomington Comprehensive Plan 2035." Adopted August 24, 2015. Retrieved May 28, 2018 from <http://www.cityblm.org/home/showdocument?id=12032>.





## TRANSIT PROPENSITY

### Goals and Methodology

This analysis, conducted by McLean County Regional Planning Commission, identifies the different areas of the community that are the most likely to use transit by estimating the residents' propensity to utilize transit to access to work, schools, and shopping. This study uses the following local data to identify the population areas most likely to want or need transit:

- Student Apartments—weight 1–4

College students and college-age persons are large users of Connect Transit Services. This population is not just using the Redbird Express and Yellow lines, but several others to move around Bloomington-Normal according to the Connect Survey conducted in the spring.

- Subsidized Housing Units and Mobile Homes—weight 4

According to Connect Transit's 2018 survey, almost 85% of respondents who gave an answer to the income question made under \$35,000 annually. For this reason, subsidized housing units and mobile homes were weighted heavily in this model.

- Assessed Value<\$40,000—weight 1–4

Subsidized units and mobile homes do not capture home owners making under \$35,000 annually. For this reason, homes with assessed values under \$40,000 were accounted for as possible transit-dependent locations.

- Connect Mobility Drop-offs and Pick-ups—weight 4

It is clearly more expensive for Connect to send out mobility shuttles than to run fixed-routes, hence the location of frequent mobility users was mapped and weighted heavily. Transit accessibility is measured at 1/8th mile or less to the bus stop.

- Housing Density—weight 1–4

This is a simple measure to identify existing locations of population densities.

- Senior Tax Exemptions—weight 1–4

Often, seniors are unable to drive on their own, and having more accessible transit would allow them to become independent of help from family or others.

- Jobs Density—weight 1–4

2015 Census Bureau’s Longitudinal Employer-Household Dynamics program employment data at block level was used to measure job density.

- Key Transit Destinations—weight 1–4

In future analysis, we hope to have a more comprehensive list of these locations, but in this model, hospitals and grocery stores were considered key transit destinations.

Medical Centers allow people to seek treatment before health declines too far or before it declines at all, saving expensive trips to the ER. These facilities include urgent cares, outpatient centers, behavioral health centers, and more.

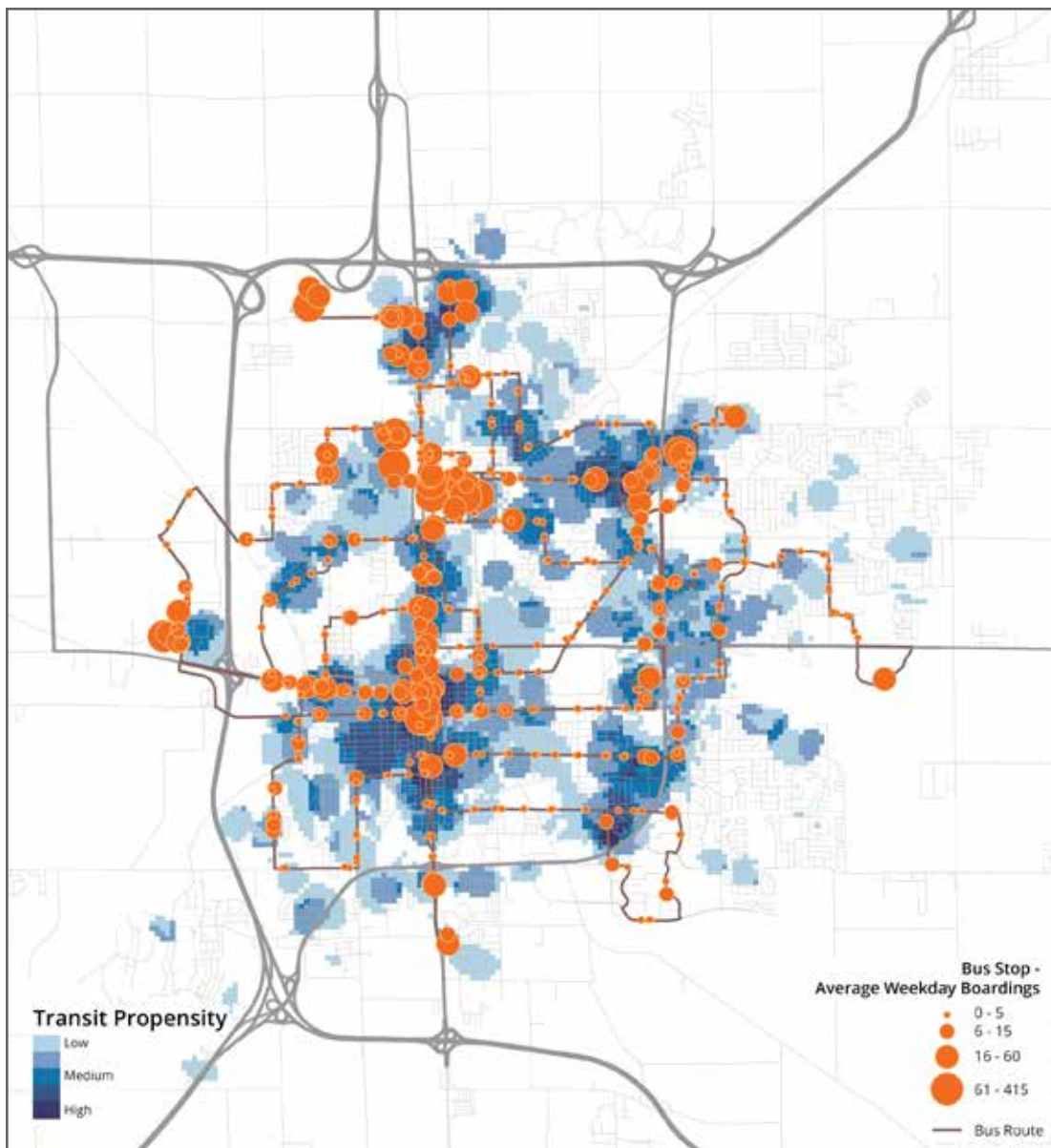
- Medical Centers—weight 1–4

Unless otherwise noted, all attributes are measured by counting the instances of the attribute within a quarter-of-a-mile, of every 250 by 250-foot square (cell) across Bloomington-Normal. These ten attributes are each ranked from 1–4, 1 being a low number of instances and 4 being a very high number of instances. The output sums these numbers and gives an overall score displayed between 10 and 40 with 40 being the maximum score possible. The highest score achieved was just 26, found just west of Downtown Bloomington. The output highlights concentrations of multiple populations with high transit propensity.

## Transit Propensity Analysis in Bloomington-Normal

Figure 4 overlays transit propensity with current bus routes and average daily boardings for all bus stops. The propensity is measured in the blue gradient with low propensity as light colors and higher propensity as the darker colors. At locations where ridership is low, and the calculated propensity is high, it’s worth checking bus frequency, connections and bus stop locations for any possible service gaps that may have dampened transit use. Meanwhile, areas that exhibit high ridership will be given priority of service improvement.

Figure 4: Transit Propensity in the Bloomington-Normal Area







Complete Streets are designed and operated to enable safe access and mobility for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. With increasing local interest in active transportation modes, e.g., walking, bicycling, and transit, it is important to consider a community-wide approach to implementation of the existing Complete Streets policies.

The advocacy group Smart Growth America notes that nearly 40% of all vehicle trips are less than 3 miles, 17% are less than a mile, and of that 17%, 47% are made by a car. The background behind some of these statistics is that 73% of Americans have no access to sidewalks or bike lanes, making the car the most convenient and safest option. Over two-thirds of Americans say that they want more transportation options so that they have more freedom to choose how they move around. This is important because at least 30% of Americans do not drive. As a result of these statistics there has been a shift toward more multi-modal policies and legislation to support additional mobility choices.

This section provides background information to help MCRPC build an understanding of national Complete Streets concepts and implementation options as well as resources to guide future conversations about Complete Streets policies and implementation approaches.

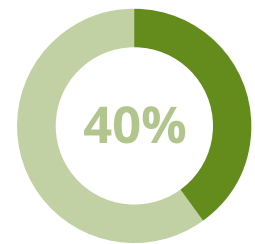


The National Complete Streets Coalition provides guidance on how to develop an implementation plan in the document *Complete Streets Implementation: A Brief Guidebook* as seen below:

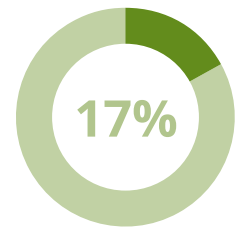
*“Creating an implementation plan or framework can maintain the momentum picked up during policy adoption. . . . An implementation plan provides the opportunity to assess current practices, to assign responsibility for the following activities in this report, and to create estimated timelines for accomplishing those tasks. The community can use the resulting document as a tool to communicate its work with other agencies, with community leaders, and with supporters.”*

The passage of a Complete Streets Policy is the first step toward creating a complete transportation system. Successful implementation of the policy involves a number of steps including:

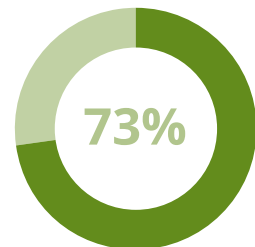
- Establishing an Implementation Committee, consisting of representatives of all departments with responsibility and/or impact on roadway projects, to oversee the process internally
- Use of an “external” committee with representation from city agencies, bicycle advocates, pedestrian advocates, older adult groups, and disability groups
- Evaluating development, maintenance, and project development policies, processes, and procedures to determine how to best integrate Complete Streets practices into the current city systems. This may include:
  - Procedures that do not yet consider all users of all ages and abilities as routine practice
  - Current training processes
  - Design standards and guides
  - Current performance measures and outcomes
- Identifying principles for the integration of “Complete Streets thinking” into the local, collector and arterial network and land use planning in each city and on Illinois Department of Transportation roadways;
- Identifying early opportunities for the implementation of Complete Streets strategies while acknowledging the diversity of urban and rural contexts within the community;
- Identifying priority locations to serve as opportunities for faster implementation of Complete Streets;
- Consulting with the cities and IDOT to develop a citywide list of Complete Streets projects in conjunction with current plans for transit, bicycle, and pedestrian infrastructure for future funding opportunities;
- Identifying possible incentives for the planning and development of Complete Streets projects;
- Requiring annual reports that include Complete Streets progress.



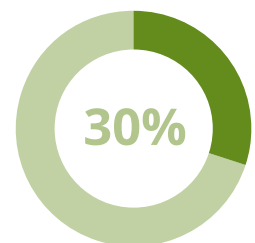
**40%**  
of all vehicle trips  
are less than 3 miles



**17%**  
of all vehicle trips  
are less than a mile



**73%**  
of Americans have  
no access to sidewalks  
or bike lanes



**30%**  
of Americans  
do not drive

The overall strategy will include the following workflow components:

- Development of the goals and objectives that drive policy implementation including identification of high priority corridors to support transit services
- Development of action steps, both internally and externally, with local partners and development of specific Complete Streets tools and approaches
- Needed plan updates
- Needed design updates
- Development of performance measures and outcomes
- Development of a method for annual reporting

The Illinois Department of Transportation Complete Streets Law states:

*Sec. 4-220. Bicycle and pedestrian ways.*

- (a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into State plans and programs.
- (b) In or within one mile of an urban area, bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any State transportation facility except:
  - 1) in pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders; or
  - 2) where approved by the Secretary of Transportation based upon documented safety issues, excessive cost or absence of need.
- (c) Bicycle and pedestrian ways may be included in pavement resurfacing projects when local support is evident or bicycling and walking accommodations can be added within the overall scope of the original roadwork.

As previously noted, both Bloomington and Normal have adopted Complete Streets policies. For the purposes of this study Complete Streets are defined as:

**Complete Streets** are streets designed, constructed, operated, and maintained to safely accommodate all users of the road network and to provide a safe and efficient transportation system that improves the quality of life for all users.



**Figure 5: Complete Streets Road Diet with Mid-Block Crosswalk at Bus Stop**



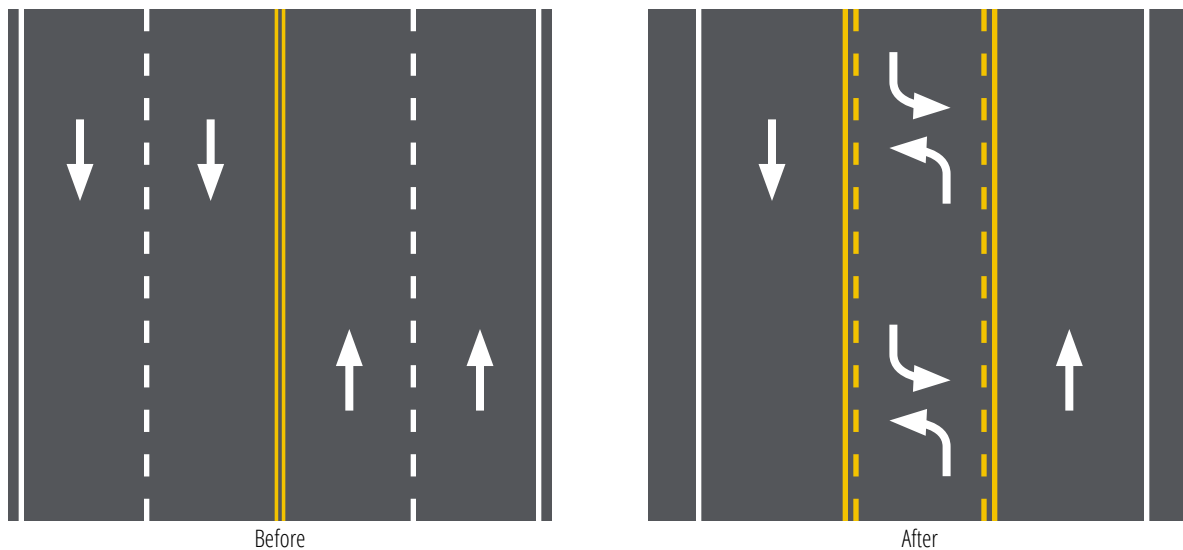
## Complete Streets Design

The design of a complete street can vary significantly based on location, roadway design, traffic volume, vehicle speeds, and adjoining land use. Roadways that have two lanes each direction and traffic volumes of less than 20,000 vehicles per day are often good candidates for implementing a new design with fewer lanes, sometimes called a road diet. FHWA describes road diets as follows<sup>3</sup>:

**A Road Diet** is generally described as “removing travel lanes from a roadway and utilizing the space for other uses and travel modes . . . the most common Road Diet reconfiguration, which is the conversion of an undivided four lane roadway to a three-lane undivided roadway made up of two through lanes and a center two-way left-turn lane (TWLTL). The reduction of lanes allows the roadway cross-section to be reallocated for other uses such as bike lanes, pedestrian refuge islands, transit uses, and/or parking.”

3 FHWA, “Road Diet Informational Guide” “Section 1.1. What is a Road Diet?” [https://safety.fhwa.dot.gov/road\\_diets/guidance/info\\_guide/ch1.cfm#s11](https://safety.fhwa.dot.gov/road_diets/guidance/info_guide/ch1.cfm#s11)

**Figure 6: Typical Road Diet Basic Design<sup>4</sup>**



The FHWA includes road diets in its recommendations for “Proven Safety Countermeasures.” The benefits of installing a road diet may include:

- An overall crash reduction of 19% to 47%
- Reduction of rear-end and left-turn crashes due to the dedicated left-turn lane
- Reduced right-angle crashes as side street motorists cross three versus four travel lanes
- Fewer lanes for pedestrians to cross
- Opportunity to install pedestrian refuge islands, bicycle lanes, on-street parking, or transit stops
- Traffic calming and more consistent speeds.<sup>5</sup>

Road diets have been successfully implemented in numerous locations in Illinois. One example from Downtown Bloomington is provided below.



<sup>4</sup> Ibid.

<sup>5</sup> FHWA. Office of Safety Proven Safety Countermeasures. <https://safety.fhwa.dot.gov/provencountermeasures/>

The research has shown that roadway safety is improved by lowering vehicle speed. Additionally, lower average speeds increase roadway capacity. The World Health Organization has reported that “The relationship between speed and injury severity is particularly critical for vulnerable road users such as pedestrians and cyclists. For example, pedestrians have been shown to have a 90% chance of survival when struck by a car travelling at 30 km/hr (19–20 mph) or below, but less than 50% chance of surviving an impact at 45 km/h (28–30 mph). Pedestrians have almost no chance of surviving an impact at 80 km/hr (50 mph).”<sup>6</sup>

Lowering speeds by 5 mph can have a significant impact: “New research conducted by the Insurance Institute for Highway Safety indicates that lowering the speed limit by 5 mph on city streets can improve safety for motorists, pedestrians and bicyclists alike . . .”<sup>7</sup> Additionally, the research found that reducing speeds on city streets that have lower speed limits had a bigger impact than on higher speed roadways: “In 2016, IIHS noted that the percentage of U.S. crash deaths related to speeding was higher on roads with 35 mph or lower speed limits than on roads with higher speed limits; some 33 percent versus 26 percent.”<sup>8</sup>

Research has shown that lane widths on a street are directly linked to vehicle speeds. The Texas Transportation Safety Institute research has shown that “On suburban arterial straight sections away from a traffic signal, higher speeds should be expected with greater lane widths.”<sup>9</sup> Past research from the Transportation Research Board has shown that “lane widths exclusively of 10 feet or more [rather than 12 feet] resulted in accident rates that were either reduced or unchanged.”<sup>10</sup> Narrowing lanes and changing the design of city streets can be a very effective tool for reducing roadway crashes, fatalities, and, in many cases, also improve traffic flow.

Implementing complete streets designs via road diets and other measures can significantly reduce roadway crashes and reduce fatalities without increasing congestion. “The Federal Highway Administration has determined that road diets do not cause congestion on roads that carry fewer than 20,000 cars daily. Adding center-turn lanes actually increases capacity because traffic is not stopped for vehicles waiting to make left turns.”<sup>11</sup>

6 World Health Organization. “Road Safety—Speed.” [http://www.who.int/violence\\_injury\\_prevention/publications/road\\_traffic/world\\_report/speed\\_en.pdf](http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/speed_en.pdf)

7 AASHTO Journal October 17, 2018. “Studies Say Lower Speed Limits Will Help Improve Roadway Safety.” <https://aashtojournal.org/2018/08/31/studies-say-lower-speed-limits-will-help-improve-roadway-safety>

8 Ibid.

9 Kay Fitzpatrick, P.E., Paul J. Carlson, P.E., Mark D. Wooldridge, P.E., and Marcus A. Brewer. “Report 1769-3, Design Factors That Affect Driver Speed on Suburban Arterials.” Texas Transportation Institute. <https://d2dtl5nnlprf0r.cloudfront.net/tti.tamu.edu/documents/1769-S.pdf>

10 Douglas Harwood. “Effective Utilization of Street Width on Urban Arterials.” National Cooperative Highway Research Program Report 330. [http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp\\_rpt\\_330.pdf](http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_330.pdf)

11 Institute for Local Government. “Road Diets Make Streets Leaner, Safer, and More Efficient”. [http://www.ca-ilg.org/sites/main/files/file-attachments/sustainability\\_road\\_diets.pdf](http://www.ca-ilg.org/sites/main/files/file-attachments/sustainability_road_diets.pdf)



## Complete Streets Design Challenges on Bus Routes

**Pedestrian access:** Bus stops with incomplete pedestrian design may discourage people from using public transportation. In many cases, bus riders are forced to walk in a busy street that lacks sidewalks or cross a street that does not have a safe roadway crossing at the bus stop, or they may have to wait at a bus stop in the grass not connected to pedestrian paths, sidewalks, or curb ramps. A lack of pedestrian links within the bus stop catchment area can be a barrier for bus riders, especially for people in wheelchairs, senior citizens, and youth.

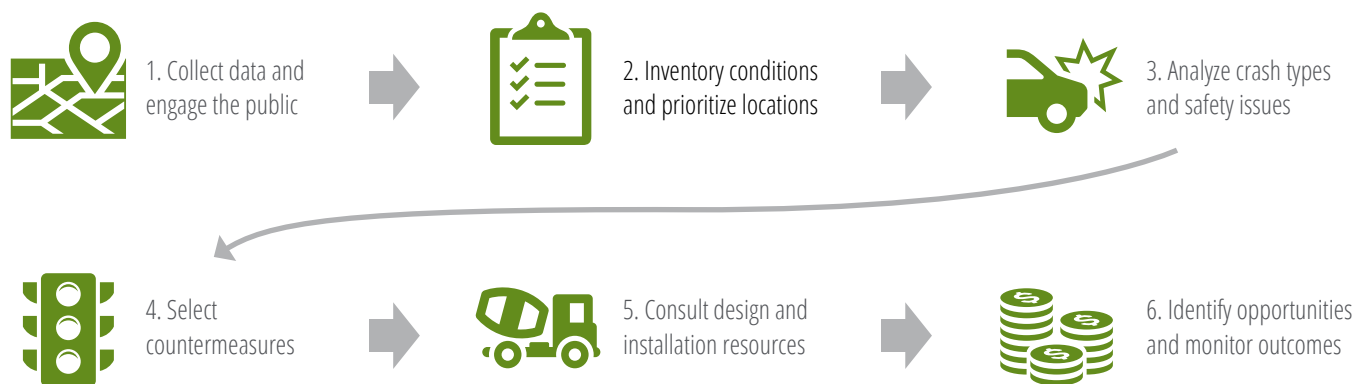
**Bicycle compatibility:** Transit systems can interconnect with bicycling networks to expand the transit catchment area. Many transit agencies in the U.S. incorporate bike racks at transit stops. More than 100 transit systems carry bikes on buses and trains.<sup>12</sup> Considering the Bloomington-Normal community's investment in the bikeway network, bicycle-friendly bus routes can be expected to extend the range of people who can reach and use transit.

**Implementation priority:** Complete Streets design along transit routes can support neighborhoods with higher transit propensity by considering factors such as land use, road design and classification, vehicle target speed, and traffic volume. Street segments that are listed as high priority for implementation in the City of Bloomington Bicycle Master Plan, the Bloomington Streets Master Plan, and the Town of Normal Bicycle and Pedestrian Master Plan are discussed in this study.

## Crosswalk Design Guidance

Uncontrolled pedestrian crossing locations correspond to higher pedestrian crash rates than controlled locations, frequently due to inadequate pedestrian crossing accommodations. Application of the appropriate design for crosswalks at unsignalized locations is critical. Factors such as the number of lanes, speed limits, and average number of vehicles per day are key factors in determining the best design. The Federal Highway Administration has created a program named Safe Transportation for Every Pedestrian (STEP) to help transportation agencies address crashes by using countermeasures with known safety benefits at uncontrolled crossing locations. A process for identifying the best design is outlined in the following graphic, Figure 7, that is included in the report, Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations.

**Figure 7: Process Diagram for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations**



<sup>12</sup> <https://www.smartgrowthamerica.org/app/legacy/documents/cs/factsheets/cs-transit.pdf>

Table 3 provides a summary of measures by roadway type from the same report. The table offers guidance for review, design, and implementation of the best countermeasures for the priority locations discussed later in this study.

**Table 3: Application of Pedestrian Crash Countermeasures by Roadway Feature<sup>13</sup>**

|  |                     |                |                | SPEED LIMIT               |                |                |                      |                |                |
|--|---------------------|----------------|----------------|---------------------------|----------------|----------------|----------------------|----------------|----------------|
|  | ≤30 mph             | 35 mph         | ≥40 mph        | ≤30 mph                   | 35 mph         | ≥40 mph        | ≤30 mph              | 35 mph         | ≥40 mph        |
| Roadway Configuration                  | Vehicle AADT <9,000 |                |                | Vehicle AADT 9,000–15,000 |                |                | Vehicle AADT >15,000 |                |                |
| <b>2 lanes*</b>                        | 1 2 3 4<br>5 6      | 1 3<br>5 6 7   | 1 3<br>5 6 7   | 1 3 4<br>5 6              | 1 3<br>5 6 7   | 1 3<br>5 6 7   | 1 3 4<br>5 6 7       | 1 3<br>5 6 7   | 1 3<br>5 6 7   |
| <b>3 lanes with raised median*</b>     | 1 2 3 4<br>5        | 1 3<br>5 7     | 1 3<br>5 7     | 1 3 4<br>5 7              | 1 3<br>5 7     | 1 3<br>5 7     | 1 3 4<br>5 7         | 1 3<br>5 7     | 1 3<br>5 7     |
| <b>3 lanes without raised median†</b>  | 1 2 3 4<br>5 6 7    | 1 3<br>5 6 7   | 1 3<br>5 6 7   | 1 3<br>5 6 7              | 1 3<br>5 6 7   | 1 3<br>5 6 7   | 1 3<br>5 6 7         | 1 3<br>5 6 7   | 1 3<br>5 6 7   |
| <b>4+ lanes with raised median‡</b>    | 1 3<br>5            | 1 3<br>5 7     | 1 3<br>5 7     | 1 3<br>5 7                | 1 3<br>5 7     | 1 3<br>5 7     | 1 3<br>5 7           | 1 3<br>5 7     | 1 3<br>5 7     |
| <b>4+ lanes without raised median‡</b> | 1 3<br>5 6 7 8      | 1 3<br>5 6 7 8 | 1 3<br>5 6 7 8 | 1 3<br>5 6 7 8            | 1 3<br>5 6 7 8 | 1 3<br>5 6 7 8 | 1 3<br>5 6 7 8       | 1 3<br>5 6 7 8 | 1 3<br>5 6 7 8 |

Given the set of conditions in a cell,

● 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 the countermeasure is a candidate treatment at a marked uncontrolled crossing location.

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

1 High-visibility crosswalk markings, parking restriction on crosswalk approach, adequate nighttime lighting levels

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 Pedestrian Hybrid Beacon

8 Road

\*1 lane in each direction    †1 lane in each direction with 2-way left-turn lane    ‡2 or more lanes in each direction

*This table was developed using information from: Zegeer, C. V., Stewart, J. R., Huang, H. H., Lagerwey, P. A., Feaganes, J., & Campbell, B. J. (2005). Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines (No. FHWA-HRT-04-100); Manual on Uniform Traffic Control Devices, 2009 Edition, Chapter 4F. Pedestrian Hybrid Beacons; the Crash Modification Factors (CMF) Clearinghouse website (<http://www.cmfclearinghouse.org>); and the Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE) website (<http://www.pedbikesafe.org/PEDSAFE>).*

13 Lauren Blackburn (VHB), Charles Zegeer (HSRC) and Kristen Brookshire (HSRC). "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations." FHWA-SA-17-072. Pg. 16.

## Proposed Infrastructure Projects

Locations for infrastructure improvement are based on the following four considerations:

- Pedestrian access to bus stops:

To provide safe access for bus riders, bus stops should be connected with sidewalks and close to intersections or pedestrian crossings. Where bus stops are in-between roadway intersections that are 800 to 1,000 feet apart, a mid-block crosswalk should be provided to reduce the number of pedestrians crossing the street at unmarked locations. This study identified bus stops that are not supported by a crosswalk within a 400-foot distance in ArcGIS, or not connected with existing sidewalk or side path systems.

- Existing roadway conditions regarding pedestrian safety:

Major roads with higher traffic volumes, greater width and/or higher speeds can increase the risk and severity of pedestrian crashes while people are crossing the street. This study evaluates road conditions in terms of pedestrian safety considering the parameters of roadway classification (e.g., highway, major arterial, collector), posted speed and number of travel lanes.

- McLean County transit propensity model:

This study takes into consideration both transit ridership and the propensity results from the McLean County transit propensity model. The priority bus stops are aligned with the criteria adopted by the Connect Transit Board, which includes locations that have at least 15 passenger boardings a day.

- Complete Streets plans and proposed implementation:

Sidewalk, crosswalk and side-path implementation recommendations are consistent with the guidelines in the City of Bloomington Bicycle Master Plan, the Normal Bicycle and Pedestrian Master Plan, the Main Street Transportation Improvement Feasibility Study, and other municipal plans and policies.

Table 4 identifies 13 street segments as the candidates for complete street implementation and summarizes the method as an evaluation matrix that highlights how much each segment has fulfilled the criteria and at what level of priority they should be considered for implementation. Figure 9 shows the locations of these street segments along with major trip destinations and the bus stops that are either less connected or have a high ridership.

**Table 4: Evaluation Matrix**

|  | N. Main (Raab to Gregory), Normal | S. Main (College to Division couplet), Normal | N. Main (Division to Locust), Bloomington | N. Main (Oakland to RT Dunn), Bloomington | N. Main (Veteran's Pkwy to Hamilton), Bloomington | E. College (Grandview to Veteran's Pkwy), Normal | Gregory (Adeiaide to Main), Normal | Lincoln (Mercer to Veteran's Pkwy), Bloomington | N. University (Willow to Beaufort), Normal | W. Market (Morris to East), Bloomington | E. Front (Madison to East), Bloomington | IAA Drive (Kurt to Vista), Normal-Bloomington | Parkway Plaza (Veteran's Pkwy to Susan), Normal | W. Beaufort (Main to Linden), Normal | E. Washington (N. Regency to I-55), Bloomington | Wylie (Enterprise to US 150), Bloomington |
|--|-----------------------------------|---|---|---|---|--|------------------------------------|---|--|---|---|---|---|--------------------------------------|---|---|
| <b>Pedestrian access to bus stops</b>                          | High                              | High  | High                                      | Medium-high                               | High  | Medium-high                                      | Medium-high                        | High  | Medium-high                                | Medium-high                             | Medium-high                             | Medium-high                                   | Medium-high                                     | Medium-high                          | Medium-high                                     | Medium-low                                |
| <b>Existing roadway conditions regarding pedestrian safety</b> | High                              | Medium-high                                   | Medium-high                               | Medium-high                               | High  | Medium-high                                      | Medium-high                        | Medium-high                                     | Medium-low                                 | Medium-low                              | Medium-high                             | Medium-high                                   | Medium-high                                     | Medium-high                          | Medium-high                                     | Medium-low                                |
| <b>McLean County transit propensity model</b>                  | High                              | Medium-high                                   | High                                      | Medium-high                               | Medium-low  | Medium-high                                      | Medium-high                        | Medium-low                                      | Medium-high                                | Medium-high                             | High                                    | Medium-low                                    | Medium-high                                     | Medium-high                          | Medium-low                                      | Medium-high                               |
| <b>Complete street plans and proposed implementations</b>      | High                              | Medium-high                                   | Medium-high                               | Medium-high                               | Medium-low  | Medium-high                                      | Medium-high                        | Medium-low                                      | Medium-high                                | Medium-high                             | Medium-low                              | Low   | Medium-low                                      | Low                                  | Medium-high                                     | Medium-high                               |
| <b>ENERGIZE</b>  |                                   |   |   | <b>CATALYZE</b>                           |   |  |                                    |   |  |   |   |   |   | <b>STRATEGIZE</b>                    |   |   |

### Implementation Continuum

**Energize.** Bus stop areas where there are above average market conditions for complete streets improvement. These areas typically need targeted, short-term actions to achieve intensified pedestrian activity and transit ridership.

**Catalyze.** Bus stop areas with average market conditions for transit-oriented development (TOD) and that are of less priority in existing plans for specific infrastructure or amenity improvements. Catalytic amenity investments should yield sought-after complete street improvement results.

**Strategize.** Bus stop areas that show infrastructure deficiencies but are of low market potential, or low development readiness, for complete street development in the near term. Planning is needed to guide future investment and infrastructure projects in these locations.



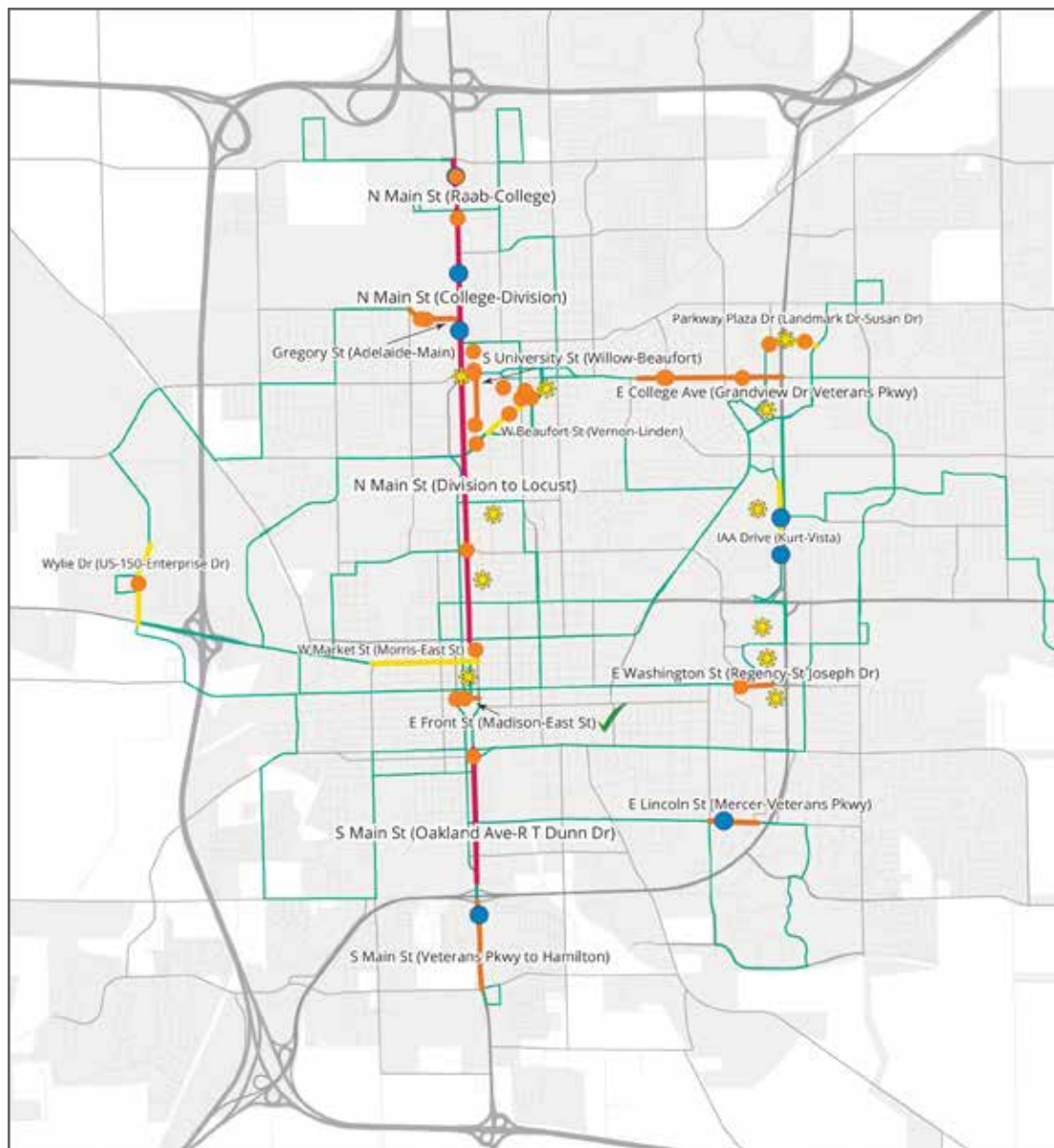
## Current Implementation Progress

The City of Bloomington has recently moved to construction on the projects described below. As of June 2019, the Front Street redesign and construction is complete, some additional landscaping is in progress. Work on IAA Drive is expected to conclude during the summer of 2019 and Market Street construction is expected to begin within 2019. In the *Street Segments Proposed for Priority Complete Streets Implementation* these projects will still be listed to show how they came up in the model with their title italicized to indicate that work is already in progress. Segments 14, 15, and 16 are replacement projects for those where work already had begun in the time it took to create this Plan.

- **Front Street:** sidewalks replaced along most of Front Street between Madison and East and ADA deficiencies were addressed. Intersection curb extensions were added to shorten the crossing distances for pedestrians. A raised median is planned to provide a pedestrian refuge island. Traffic lanes were narrowed to calm vehicular traffic. Wider, high visibility crosswalk markings will be placed following the resurfacing work spring 2019. The intersection of Front and Center is being converted to all-way stop control and Rectangular Rapid-Flashing Beacons will be added at the crosswalk at Front and Main.
- **IAA Drive:** sidewalk curb ramps improved to comply with ADA guidelines. Following resurfacing, the street was striped with 3 lanes rather than two lanes to narrow driving lanes and calm vehicular traffic. A high visibility crosswalk was added where there is a connection to the Veteran's Parkway crosswalk at Clearwater. In the summer of 2019 construction of a sidewalk at the south end of IAA drive, along with a section to be constructed by a developer as part of adjacent site work, will result in a continuous sidewalk on the west side of the road all the way south to the bus stop at Bandana's/McDonalds. In coordination with Connect Transit a crosswalk will be installed at Rowe along with ADA compliant ramps for paved bus stop accommodations.
- **Market Street:** will be resurfaced between Madison and Allin Street in 2019. Ramps will be upgraded where needed for ADA compliance. Coordination with Connect Transit will determine other potential sidewalk improvements that will improve access to bus stops.



**Figure 8: Proposed Street Segments for Complete Streets Implementation**



- Bus stop—over 15 daily boardings
- Less-connected bus stop
- ☀ Major trip generator
- Bloomington-Normal
- Bus route

0 0.5 1 2 3 4 Miles

#### Implementation Continuum

- Energize
- Catalyze
- Strategize

## Street Segments Proposed for Priority Complete Streets Implementation

This section provides a brief summary of characteristics and proposed changes for each of the street sections for implementation of complete streets measures.

### 1. N. Main Street (Rabb Road to Gregory Street), Normal

|                                  |  |              |           |                              |      |
|----------------------------------|--|--------------|-----------|------------------------------|------|
| # of bus stops                   | 10   | Road class   | Highway   | Transit ridership            | High |
| Bus stop connection to sidewalk  | High   | Posted speed | 30–35 mph | Transit-dependent population | High |
| Bus stop connection to crosswalk | Low  | # of lanes   | 4         |                              |      |
| Priority of implementation       | Road Diet High Priority in <i>City of Bloomington Bicycle Master Plan</i> .  |              |           |                              |      |
| Proposed changes                 | Consider implementation of existing road diet plan; focus on intersection treatment at Rabb, Summit, and Bowles; provide mid-block crossing at bus stops. Potential treatments include crosswalks, pedestrian refuge islands, and/or rapid flashing beacons. |              |           |                              |      |



### 2. S. Main Street (College Avenue to Division couplet), Normal

|                                  |   |              |         |                              |             |
|----------------------------------|---|--------------|---------|------------------------------|-------------|
| # of bus stops                   | 3   | Road class   | Highway | Transit ridership            | Medium      |
| Bus stop connection to sidewalk  | High  | Posted speed | 30 mph  | Transit-dependent population | Medium-high |
| Bus stop connection to crosswalk | Medium  | # of lanes   | 2       |                              |             |
| Priority of implementation       | Road Diet High Priority in <i>City of Normal Main Street: A Call for Investment</i> . |              |         |                              |             |
| Proposed changes                 | Provide crosswalks with appropriate signage. Increase bus stop visibility.            |              |         |                              |             |



### 3. N. Main Street (Division to Locust Street), Bloomington

|                                  |  |              |         |                              |      |
|----------------------------------|--|--------------|---------|------------------------------|------|
| # of bus stops                   | 4  | Road class   | Highway | Transit ridership            | High |
| Bus stop connection to sidewalk  | High   | Posted speed | 30 mph  | Transit dependent population | High |
| Bus stop connection to crosswalk | Medium   | # of lanes   | 3       |                              |      |
| Priority of implementation       | Road diet and buffered bike Lanes in <i>City of Bloomington Bicycle Master Plan</i> .      |              |         |                              |      |
| Proposed changes                 | Provide crosswalks, appropriate signs, and/or flashing beacons near bus stops were needed. |              |         |                              |      |



### 4. S. Main Street (Oakland Avenue to RT Dunn), Bloomington

|                                  |  |              |         |                              |             |
|----------------------------------|--|--------------|---------|------------------------------|-------------|
| # of bus stops                   | 4  | Road class   | Highway | Transit ridership            | Medium-high |
| Bus stop connection to sidewalk  | High   | Posted speed | 30 mph  | Transit dependent population | High        |
| Bus stop connection to crosswalk | Medium   | # of lanes   | 3       |                              |             |
| Priority of implementation       | Widen parkway/sidewalk in <i>City of Normal Main Street: A Call for Investment</i> . |              |         |                              |             |
| Proposed changes                 | Provide mid-block crosswalks at key bus stops including ADA ramps.                   |              |         |                              |             |



## 5. S. Main Street (Veteran's Pkwy to Hamilton), Bloomington

|                                  |  |              |         |                              |            |
|----------------------------------|--|--------------|---------|------------------------------|------------|
| # of bus stops                   | 2  | Road class   | Highway | Transit ridership            | Medium     |
| Bus stop connection to sidewalk  | Medium-low   | Posted speed | 45 mph  | Transit dependent population | Medium-low |
| Bus stop connection to crosswalk | Low  | # of lanes   | 4       |                              |            |
| Priority of implementation       | Bus stops at this segment exhibits high ridership but are not well connected with sidewalk and pedestrian safety infrastructure. |              |         |                              |            |
| Proposed changes                 | Crosswalks at signalized intersections should include pedestrian countdown signals.  |              |         |                              |            |



## 6. E. College Avenue (Grandview Drive to Veteran's Pkwy), Normal

|                                  |   |              |                |                              |             |
|----------------------------------|---|--------------|----------------|------------------------------|-------------|
| # of bus stops                   | 6   | Road class   | Minor arterial | Transit ridership            | High        |
| Bus stop connection to sidewalk  | High  | Posted speed | 20–30 mph      | Transit dependent population | Medium-high |
| Bus stop connection to crosswalk | Low   | # of lanes   | 4              |                              |             |
| Priority of implementation       | This is one of the high-ridership, high-propensity areas.   |              |                |                              |             |
| Proposed changes                 | Add pedestrian crossings mid-block near bus stops with refuge island treatment and pedestrian-activated rapid flashing beacons. |              |                |                              |             |





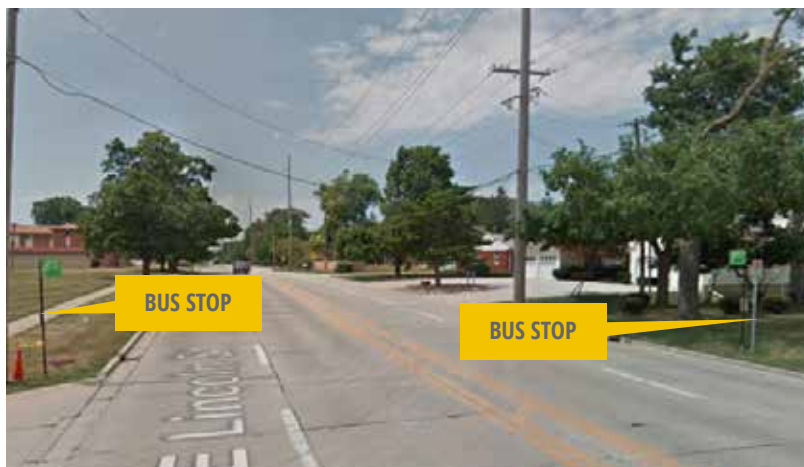
## 7. Gregory (Adelaide to Main Street), Normal

|                                  |   |              |                |                              |             |
|----------------------------------|---|--------------|----------------|------------------------------|-------------|
| # of bus stops                   | 2   | Road class   | Minor arterial | Transit ridership            | High        |
| Bus stop connection to sidewalk  | High  | Posted speed | 30 mph         | Transit dependent population | Medium-high |
| Bus stop connection to crosswalk | Low   | # of lanes   | 4              |                              |             |
| Priority of implementation       | Bus stops on this street have high daily boardings, yet bus riders are likely to find it difficult to cross the four-lane street.   |              |                |                              |             |
| Proposed changes                 | Provide pedestrian crossings mid-block near bus stops with refuge island treatment and pedestrian-activated rapid flashing beacons. |              |                |                              |             |



## 8. E. Lincoln (Mercer to Veteran's Pkwy), Bloomington

|                                  |  |              |                 |                              |            |
|----------------------------------|--|--------------|-----------------|------------------------------|------------|
| # of bus stops                   | 6  | Road class   | Major collector | Transit ridership            | Medium     |
| Bus stop connection to sidewalk  | High   | Posted speed | 30 mph          | Transit dependent population | Medium-low |
| Bus stop connection to crosswalk | Medium-low   | # of lanes   | 2/4             |                              |            |
| Priority of implementation       | Road diet conversion with bike lanes or buffered bike lanes as recommended in the <i>City of Bloomington Bicycle Master Plan</i> . |              |                 |                              |            |
| Proposed changes                 | Implement the bike lane plan, complete the sidewalk, and improve the connection of bus stops to sidewalks and bikeway.             |              |                 |                              |            |





## 9. N. University (Willow to Beaufort), Normal

|   |   |                     |              |                                     |             |
|---|---|---------------------|--------------|-------------------------------------|-------------|
| <b># of bus stops</b>                   | 4   | <b>Road class</b>   | Local street | <b>Transit ridership</b>            | High        |
| <b>Bus stop connection to sidewalk</b>  | High  | <b>Posted speed</b> | 20 mph       | <b>Transit dependent population</b> | Medium-high |
| <b>Bus stop connection to crosswalk</b> | Medium-low  | <b># of lanes</b>   | 2            |                                     |             |
| <b>Priority of implementation</b>       | This segment is close to ISU and is heavily used by pedestrians and public transport riders. The bus stations show high ridership and medium-to-high level of transit propensity. |                     |              |                                     |             |
| <b>Proposed changes</b>                 | Improve crosswalks at or close to high-volume bus stops. Provide pedestrian safety facilities including warning signs.  |                     |              |                                     |             |



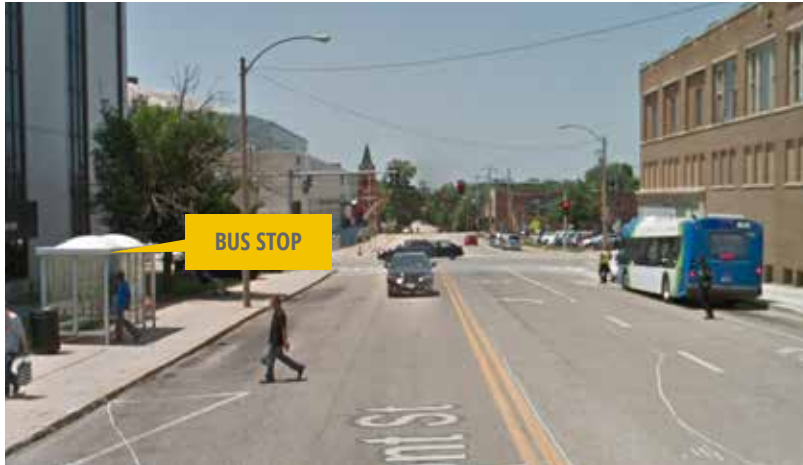
## 10. W. Market (Morris to East), Bloomington

|   |  |                     |                |                                     |             |
|---|--|---------------------|----------------|-------------------------------------|-------------|
| <b># of bus stops</b>                   | 8  | <b>Road class</b>   | Minor arterial | <b>Transit ridership</b>            | Medium-high |
| <b>Bus stop connection to sidewalk</b>  | High   | <b>Posted speed</b> | 30 mph         | <b>Transit dependent population</b> | Medium-high |
| <b>Bus stop connection to crosswalk</b> | Medium   | <b># of lanes</b>   | 2              |                                     |             |
| <b>Priority of implementation</b>       | This area shows high transit propensity.       |                     |                |                                     |             |
| <b>Proposed changes</b>                 | To be resurfaced and updated sometime in 2019. |                     |                |                                     |             |



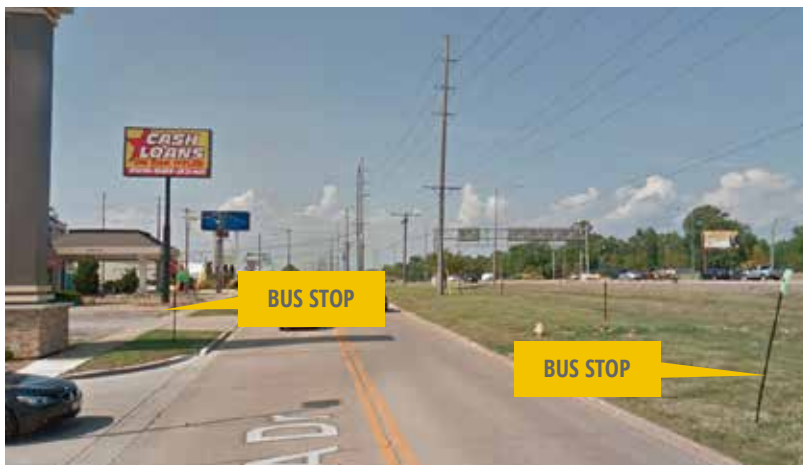
### 11. E. Front (Madison to East), Bloomington

|                                  |   |              |            |                              |      |
|----------------------------------|---|--------------|------------|------------------------------|------|
| # of bus stops                   | 3   | Road class   | Local road | Transit ridership            | High |
| Bus stop connection to sidewalk  | High  | Posted speed | 30 mph     | Transit dependent population | High |
| Bus stop connection to crosswalk | Medium  | # of lanes   | 2          |                              |      |
| Priority of implementation       | Close to Bloomington downtown area, this road segment carries high public transportation ridership and already has pedestrian and bike facilities in place. Recent improvements have added ADA compliant ramps, curb extensions at intersections, and a raised median is planned. |              |            |                              |      |
| Proposed changes                 | Work was completed May 2019.  |              |            |                              |      |



### 12. IAA Drive (Kurt to Vista), Normal-Bloomington

|                                  |  |              |                 |                              |        |
|----------------------------------|--|--------------|-----------------|------------------------------|--------|
| # of bus stops                   | 4  | Road class   | Major collector | Transit ridership            | Medium |
| Bus stop connection to sidewalk  | High   | Posted speed | 30 mph          | Transit dependent population | Medium |
| Bus stop connection to crosswalk | Medium   | # of lanes   | 2               |                              |        |
| Priority of implementation       | This part of the roadway does not have sidewalks on the east side of the street. Bus stops on the other side of major entrance/exits are not conspicuous and have no crosswalk connections. The sidewalk on the west side was recently extended and crosswalk installation is planned for bus stop locations. Recent repaving including reducing the lane width and adding a third center turn lane. |              |                 |                              |        |
| Proposed changes                 | Work is ongoing, to be completed by end of summer 2019.  |              |                 |                              |        |



### 13. Parkway Plaza (Veteran's Pkwy to Susan), Normal

|                                  |  |              |                 |                              |             |
|----------------------------------|--|--------------|-----------------|------------------------------|-------------|
| # of bus stops                   | 2  | Road class   | Minor collector | Transit ridership            | Medium-high |
| Bus stop connection to sidewalk  | Low  | Posted speed | 30 mph          | Transit dependent population | Medium-high |
| Bus stop connection to crosswalk | Low  | # of lanes   | 4               |                              |             |
| Priority of implementation       | The bus stops in front of the Parkway Plaza shopping center have high bus ridership but could be improved for better rider experience, particularly while waiting for the bus. |              |                 |                              |             |
| Proposed changes                 | Provide sidewalk, crosswalks, and bus shelters.  |              |                 |                              |             |



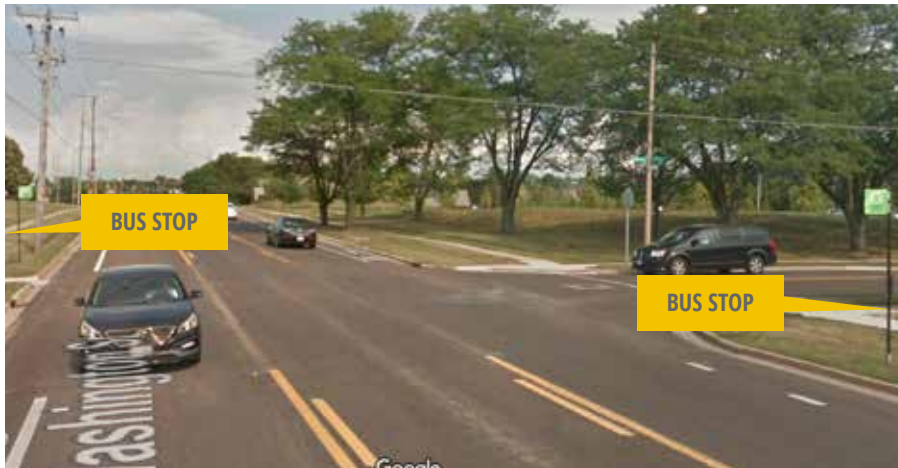
### 14. W. Beaufort (Main Street to Linden), Normal

|                                  |   |              |                 |                              |             |
|----------------------------------|---|--------------|-----------------|------------------------------|-------------|
| # of bus stops                   | 4   | Road class   | Minor collector | Transit ridership            | High        |
| Bus stop connection to sidewalk  | Low   | Posted speed | 30 mph          | Transit dependent population | Medium-high |
| Bus stop connection to crosswalk | Low   | # of lanes   | 2-4             |                              |             |
| Priority of implementation       | This street is in the area with the highest bus ridership in the community. |              |                 |                              |             |
| Proposed changes                 | Improve bus stop facilities, provide sidewalks and crosswalks.              |              |                 |                              |             |



### 15. E. Washington (N. Regency to I55), Bloomington

|                                  |  |              |                |                              |        |
|----------------------------------|--|--------------|----------------|------------------------------|--------|
| # of bus stops                   | 3  | Road class   | Minor arterial | Transit ridership            | Medium |
| Bus stop connection to sidewalk  | High   | Posted speed | 30 mph         | Transit dependent population | Medium |
| Bus stop connection to crosswalk | Medium-low   | # of lanes   | 2              |                              |        |
| Priority of implementation       | Road diet and buffered bike lanes in <i>City of Bloomington Bicycle Master Plan</i> . Road diet has already been implemented on this segment, but mid-block bus stops remain a safety concern. |              |                |                              |        |
| Proposed changes                 | Complete crosswalks at Washington and Rust and install appropriate signage.  |              |                |                              |        |



### 16. Wylie (Enterprise to US 150), Bloomington

|                                  |  |              |                 |                              |             |
|----------------------------------|--|--------------|-----------------|------------------------------|-------------|
| # of bus stops                   | 4  | Road class   | Major collector | Transit ridership            | Medium-high |
| Bus stop connection to sidewalk  | High   | Posted speed | 35 mph          | Transit dependent population | Medium-high |
| Bus stop connection to crosswalk | Medium-low   | # of lanes   | 4               |                              |             |
| Priority of implementation       | Sidewalks in <i>City of Bloomington Bicycle Master Plan</i> . There are shelters for mid-block bus stops but no crosswalks linking to the facilities across the street. Pedestrian crossings are needed based on the posted speed, number of lanes, and width of the road. |              |                 |                              |             |
| Proposed changes                 | Complete crosswalks at Wylie and Hovey and install appropriate signage.  |              |                 |                              |             |





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