

Chapter 7. Implementation Plan

As described in Chapters 4 and 5, Normal’s recommended walkway and bikeway system consists of a comprehensive network of sidewalks, on-street bikeways, shared use paths, and various programmatic measures. This chapter presents planning-level cost opinions for these proposed pedestrian and bicycle improvements, as well as for maintenance activities. Grant funding sources are identified on federal, state and local levels, as well as anticipated Town budget for improvements from existing revenue sources. An implementation strategy follows, presenting a targeted methodology for how Normal can implement projects and programs under different funding availability scenarios. Finally, the chapter closes with a discussion of supportive policies that can bolster and institutionalize the development of a high-quality walkway and bikeway network.

Cost Opinions

This section summarizes planning level cost opinions associated with the recommended pedestrian and bicycle improvement projects. Cost opinions were provided by Town of Normal Staff, as well as similar Bicycle/Pedestrian Master Plans and experience in nearby communities. Table 20 shows cost opinions for elements of pedestrian improvement projects, while Table 21 following shows costs for bicycle improvements.

Table 20. Costs for Pedestrian Improvements

Improvement	Unit	Planning-Level Cost Opinion
Pedestrian Refuge Island	EA	\$8,000
High-Visibility Crosswalks	LF	\$0.60
ADA-Compliant Curb Ramps	EA	\$1,000
Pedestrian-Actuated Push Buttons	EA	\$600
Audible Pedestrian Signal	EA	\$500
Pedestrian Countdown Signal	EA	\$800
Signal Timing Modification	EA	\$1,000
Remove Existing Raised Median	LF	\$25
Flashing Warning Lights	EA	\$2,500
Warning Signs	EA	\$600
Reconstruct Corners	LF	\$45
Curb Extensions	EA	\$12,500
Sidewalk Infill - 6' Width	LF	\$30
Sidewalk Widening	LF	\$21
Planter Strips	LF	\$0.05
Remove Sidewalk Obstructions	EA	\$1,000*

* Cost of sidewalk obstruction removal averages a variety of obstacles, from newspaper boxes that are inexpensive to relocate, to utility poles that can cost more than \$1,500 to remove and replace.

Table 21. Unit Costs for Bicycle Improvements

Improvement	Unit	Planning-Level Cost Opinion
Shared Use Path (12' wide)	LF	\$30
Roadway Re-Striping	LF	\$0.50
Shoulder Widening	LF	\$8
Shared Lane Markings*	LF	\$0.80
Bicycle Boulevard**	LF	\$9
Signed Connection	LF	\$4
Bicycle Loop Detector†	EA	\$2,500
Overcrossing	EA	\$1,500,000
Trail Bridge	EA	\$100,000
Roadway Bridge Widening	LF (longitudinal)	\$3,000
HAWK Signal	EA	\$40,000

* Includes pavement marking every 200' warning sign every 500.'

† Included in intersection project estimates.

** Includes 18 wayfinding/warning signs and 24 pavement markings per mile; also includes minor intersection treatments.

An overview of the phased cost opinions is presented at the beginning of this section, followed by specific project costs by facility type and phase. A discussion of potential funding sources for implementing projects in this Plan is provided later in this Chapter.

Cost Opinions Overview

The total implementation cost of the Normal Bicycle and Pedestrian Plan is estimated at approximately \$31.5 million, as shown in Table 22. Short-term recommendations account for less than \$1 million.

Table 22. Summary of Plan Cost Opinion

Phase	Pedestrian Projects*	Bicycle Projects†	Four "E's" Programs	Total Plan Cost
Short-Term	\$473,000	\$378,000	\$30,000	\$850,000
Medium-Term	\$6,402,000	\$3,672,000	\$108,000	\$10,158,000
Long-Term	\$2,990,000	\$5,238,000	\$0	\$8,490,000
Total	\$9,865,000	\$9,288,000†	\$138,000	\$19,498,000

* Pedestrian projects include intersection improvements, pedestrian priority corridors, and community-wide improvements (see Table 23)

† Bicycle projects include bicycle corridor improvements and community-wide improvements (see Table 24).

‡ A considerable proportion of the long-term bikeway cost opinion is from the Phase II widening of the Towanda Avenue Bridge over I-55 to provide bike lanes (\$1 million) and from the Bicycle/Pedestrian crossing of Veterans Parkway on the East-West Connector Trail (\$2.6 million).

Dividing the costs out further, Table 23 presents the overview of costs for pedestrian projects summarized above. Costs include: intersection improvement costs from Table 25, pedestrian priority corridor costs (including length and construction cost from Table 26 and annual maintenance cost described later in this chapter), and community-wide improvement costs from Table 27.

Table 23. Planning-Level Cost Opinions for Pedestrian Projects

Phase	Intersection Improvements	Pedestrian Priority Corridors			Community-Wide Improvements
		Length (miles)	Construction Cost	Annual Maintenance	
Short-Term	\$268,000	0	\$0	\$0	\$205,000
Medium-Term	\$176,000	16	\$6,006,000	\$822,000	\$220,000
Long-Term	\$0	5	\$2,990,000	\$329,000	\$0
Total	\$444,000	22	\$8,996,000	\$1,152,000	\$425,000

Table 24 shows similar information for bicycle recommendations. Corridor costs include length and construction costs from Table 28, maintenance costs shown in Table 30, and community-wide improvement costs from Table 29.

Table 24. Planning-Level Cost Opinions for Bicycle Projects

Phase	Bicycle Corridor Improvements			Community-Wide Improvements
	Length (miles)	Construction Cost	Annual Maintenance	
Short-Term	10	\$358,000	\$25,000	\$20,000
Medium-Term	41	\$3,572,000	\$103,000	\$100,000
Long-Term	21	\$5,238,000*	\$52,000	\$0
Total	72	\$9,168,000	\$180,000	\$120,000

* A considerable proportion of the long-term bikeway cost opinion is from the Phase II widening of the Towanda Avenue Bridge over I-55 to provide bike lanes (\$1 million) and from the Bicycle/Pedestrian crossing of Veterans Parkway on the East-West Connector Trail (\$2.6 million).

Individual Project Cost Opinions

Table 25 through Table 29 list the recommended projects by category and include planning-level cost opinions. The cost opinions include contingency and construction management costs, which represent a proportion of the original project costs.

Table 25. Proposed Intersection Improvements

Project	Cost Opinion	Tier
Veterans Parkway at Fort Jesse Road	\$29,000	Short-Term
Veterans Parkway at Jumer Drive	\$26,000	Short-Term
Cottage Avenue at Hovey Avenue	\$9,000	Short-Term
Veterans Parkway at Vernon Avenue	\$26,000	Short-Term
Veterans Parkway at Parkway Plaza Dr	\$33,000	Short-Term
Veterans Parkway at Shepard Road	\$145,000	Short-Term
Constitution Trail (north/south segment) roadway crossings	\$122,000	Medium-Term
Kingsley Street at Hovey Avenue	\$48,000	Medium-Term
Parkside Road at Hovey Avenue	\$6,000	Medium-Term

Table 26. Proposed Pedestrian Priority Corridors

Project	Length (miles)	Cost Opinion	Tier
Main Street/ Kingsley Street - south town limits to Raab Rd	5.2	\$1,993,000	Medium-Term
College Ave/ Mulberry Street - School Street to Hershey Rd	2.0	\$737,000	Medium-Term
Towanda Avenue - Jersey Avenue to Raab Road	2.4	\$851,000	Medium-Term
Linden Street - south town limits to Northtown Road	3.6	\$1,349,000	Medium-Term
Willow St/ Fort Jesse Rd - Beech St to Northpointe Drive	2.4	\$898,000	Medium-Term
Hershey Road - Fort Jesse Road to Raab Road	1.0	\$178,000	Medium-Term
Airport Road - Fort Jesse Road to Raab Road	1.0	\$420,000	Long-Term
Shepard Road - Hershey Road to Airport Road	1.0	\$329,000	Long-Term
Raab Road - Parkside Road to Towanda Avenue	3.1	\$1,153,000	Long-Term
Veterans Parkway - Vernon Avenue to Shepard Road	1.5	\$1,088,000	Long-Term

Table 27. Proposed Community-Wide Pedestrian Improvements

Project	Cost Opinion	Tier
Sidewalk infill	\$100,000	Short-Term
Crosswalk marking upgrades	\$20,000	Short-Term
Damaged sidewalk repair/replacement	\$75,000	Short-Term
Drainage grate retrofits	\$10,000	Short-Term
ADA improvements in parks	\$50,000	Medium-Term
ADA-compliant curb ramp upgrades	\$20,000	Medium-Term
At-grade railroad crossing upgrades	\$50,000	Medium-Term
Transit stop upgrades	\$100,000	Medium-Term

Table 28. Bikeway Improvement Projects

Project	Length (miles)	Cost Opinion	Tier
College Avenue/ Mulberry Street*	2.1	\$12,000	Short-Term
McKinley Street/ Clay Street/ Lincoln Street/ Lincoln Avenue/ Chippewa Street	1.8	\$114,000	Short-Term
Fell Avenue/ North Street/ School Street	1.9	\$19,000	Short-Term
Bryan Street/ Dale Street/ University Street/ Virginia Avenue/ Belt Drive/ Jersey Avenue	4.1	\$155,000	Short-Term
Constitution Trail at Vernon Avenue	N/A	\$58,000	Short-Term
Main Street/ Kingsley Street	5.1	\$377,000	Medium-Term
Hovey Avenue/ Beaufort Street	2.4	\$12,000	Medium-Term
Linden Street: Cypress to Shelbourne	1.1	\$4,000	Medium-Term
Raab Road: Constitution Trail to Linden Street	0.8	\$188,000	Medium-Term
Route 66 Trail	0.2	\$44,000	Medium-Term
Constitution Trail/ Spear Drive Connector (includes bridge over Sugar Creek)	0.4	\$27,000	Medium-Term
College Avenue: Mitsubishi Motorway to Parkside Road	2.3	\$528,000	Medium-Term
Orlando Avenue/ Aurora Way/ Warren Avenue/ Heritage Road/ Regal Drive/ Basswood Lane	1.4	\$73,000	Medium-Term
Kerrick Road	0.5	\$14,000	Medium-Term
Sycamore Street/ Linden Street/ Pine Street	1.1	\$99,000	Medium-Term
Gregory Street: Parkside to Normal	2.6	\$245,000	Medium-Term
Susan Drive/ Taft Drive	1.0	\$32,000	Medium-Term
Pheasant Run Creek Trail: Hovey Avenue to Constitution Trail (ISU campus)	1.0	\$218,000	Medium-Term
Brookwood Drive	0.3	\$8,000	Medium-Term
Parkinson Street/ Dewey Street	0.3	\$9,000	Medium-Term
Karin Drive/ Centennial Avenue/ Spear Drive/ Hammitt Drive/ Keller Road	0.8	\$54,000	Medium-Term
Towanda Avenue: Vernon to Raab	2.1	\$485,000	Medium-Term
White Oak Road	3.3	\$962,000	Medium-Term
Adelaide Street	1.7	\$10,000	Medium-Term
Towanda Avenue at I-55 (Phase 1 - Shared Lane Markings) ¹	N/A	\$500	Medium-Term
Cottage Avenue	2.3	\$303,000	Medium-Term
Linden Street: Shelbourne to Raab	0.5	\$2,000	Medium-Term
Hoose Elementary School campus/ Blair Drive	1.0	\$66,000	Medium-Term
Towanda Avenue: I-55 to Northtown*	0.5	\$3,000	Medium-Term
Sugar Creek Elementary Connector	0.3	\$36,000	Medium-Term

Project	Length (miles)	Cost Opinion	Tier
Grandview Drive/ Karin Drive/ Beech Street	3.6	\$77,000	Medium-Term
Airport Road	1.0	\$26,000	Medium-Term
Locust Street/ Old Fort Jesse Road/ Harter Lane/ George Dr/ Courtland Avenue/ Arborwalk Drive/ Parkway Plaza Drive	3.0	\$236,000	Medium-Term
Main Street: Raab Road to Constitution Trail	0.7	\$171,000	Medium-Term
Parkside Road	2.0	\$8,000	Long-Term
Linden Street: Raab to Northtown	1.1	\$309,000	Long-Term
Oakdale Elem Accessway	0.1	\$21,000	Long-Term
Summit Street/ Shelbourne Drive	1.7	\$7,000	Long-Term
Raab Road: Hershey Road to Normal Community High	0.5	\$106,000	Long-Term
Normal Avenue/ Bakewell Avenue	1.0	\$65,000	Long-Term
Greenbriar Park Trail	0.4	\$97,000	Long-Term
Hershey Road	2.9	\$4,000	Long-Term
Raab Road: Mabel Road to Heartland College	2.4	\$563,000	Long-Term
Towanda Avenue: Raab to I-55*	0.4	\$129,000	Long-Term
Northtown Road [†]	0.5	\$110,000	Long-Term
Watkins Drive/ College Hills Mall Loop/ Landmark Drive	0.8	\$12,000	Long-Term
Raab Road: Henry Street to Towanda Avenue	0.3	\$58,000	Long-Term
East-West Connector Trail	2.1	\$2,666,000	Long-Term
Hanson Drive	0.6	\$17,000	Long-Term
Henry Street	0.9	\$5,000	Long-Term
Maxwell Park Trail	0.7	\$152,000	Long-Term
Shepard Road: Greenbriar to Airport	1.3	\$91,000	Long-Term
Mitsubishi Motorway/Mabel Road	0.1	\$32,000	Long-Term
Grove Street	1.0	\$66,000	Long-Term
Towanda Avenue at I-55 (Phase 2 - Bridge Widening)	N/A	\$1,066,000	Long-Term

* The proposed bikeway project on Mulberry Street could be constructed in conjunction with planned roadway improvements on Mulberry Street between Fell Avenue and the Union Pacific Railroad, budgeted for FY2009-2010.

† These projects could be combined with the planned roadway improvements on Towanda Avenue between Raab Road and Ironwood Country Club Drive, budgeted for FY 2011-2012 and FY 2012-2013.

‡ This project could be incorporated into roadway improvements on Northtown Road between Main Street and Towanda Avenue, budgeted for FY 2011-2012, FY 2012-2013 and FY 2013-2014.

Table 29. Costs for Community-Wide Bikeway Improvements

Project	Cost Opinion	Tier
Shared use path pavement upgrades	\$20,000	Short-Term
Bicycle Wayfinding Signage Plan	\$50,000	Medium-Term
Uptown Normal "Bike Oasis"	\$50,000	Medium-Term

Maintenance Costs

On- and off-street walkways and bikeways require regular maintenance and repair as previously discussed in Chapter 5. Walkway maintenance includes: fixing potholes, sidewalk decay, damaged benches and re-striping crosswalks. Sidewalk repair is usually the responsibility of individual property owners, although the Town of Normal sponsors a 50/50 sidewalk program to provide half the funding required to install a new sidewalk.

On-street bikeways are typically maintained as part of standard roadway maintenance programs, and extra emphasis should be put on keeping bike lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility or creeping into the roadway. Typical maintenance costs for on-street bikeway facilities are shown in Table 30.

Table 30. On-Street Bikeway Maintenance Frequency and Cost Opinions

Activity	Materials Type	Frequency	Cost Opinion
Pavement resurfacing	Asphalt	Every 20 years	\$50,000/mile
	Concrete	Every 20 years	\$50,000/mile
	Aggregate	Every 3 years	\$3,000/mile
Pavement sweeping	All	Weekly/monthly as needed	Part of regular street sweeping activities
Snow removal	All	Weekly/as needed	Depends on conditions*, ~\$146/mile
Tree/shrub trimming	All	5 months - 1 year	Part of regular street maintenance activities
Sign repair/replacement	Worn	Every 10 years	\$600/sign
	Stolen	As needed	\$600/sign
Re-striping	Paint	Annually	\$2,600/mile
	Thermoplastic striping	Every 10-15 years	\$10,600/mile
	Move signs, patch and sweep	2 times/year	\$200/mile

* Average estimated maintenance cost for snow removal in Mammoth, CA is \$190 per hour of sidewalk with an assumed speed of 1.3 mph or \$146 per mile, after each storm event.

Funding Sources

Acquiring funding for projects and programs is considerably more likely if it can be leveraged with a variety of local, state, federal and public and private sources. This section identifies potential matching and major funding sources available for bicycle and pedestrian projects and programs as well as their associated need and criteria.

Federal Funding Sources

Federal funding is primarily distributed through a number of different programs established by the Federal Transportation Act. The latest act, The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was enacted in August 2005 as Public Law 109-59. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period 2005-2009.

In Illinois, Federal funding is administered through the State (IDOT). Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

H.R. 1, The American Recovery and Reinvestment Act of 2009

The *American Recovery and Reinvestment Act* is commonly referred to as the ‘Stimulus Bill’ and was signed into law on February 13, 2009. The Act provides \$64.1 billion for transportation and infrastructure investment “*to enhance the safety, security and efficiency of our highway, transit, rail, aviation, environmental, inland waterways, public buildings and maritime transportation infrastructure.*”

Local governments can use highway program funds for projects eligible for Surface Transportation Program funds (described later), including bicycle and pedestrian infrastructure. In addition, three percent or \$10 million of the highway program funds are allocated to Transportation Enhancements (TE, also described later), including bicycle and pedestrian infrastructure. These funds will be administered through the TE committee and will go through TE or similar grant processes.

SAFETEA-LU

There are a number of programs identified within SAFETEA-LU that provide for the funding of bicycle and pedestrian projects, described in the following section.

Surface Transportation Program

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a wide variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities.

Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, bike parking, and other ancillary facilities. SAFETEA-LU also

specifically clarifies that the modification of sidewalks to comply with *Americans with Disabilities Act* requirements is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects such as maps, coordinator positions, and encouragement programs are also eligible for STP funds.

Highway Safety Improvement Program

This program funds projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways and walkways. This program includes the Railway-Highway Crossings Program and the High Risk Rural Roads Program and replaces the Hazard Elimination Program from TEA-21.

Transportation Enhancements

Administered by IDOT, this program is funded by a set-aside of STP funds. Ten percent of STP funds are designated for Transportation Enhancement Activities (TEAs), which include “*provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists,*” and the “*preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails.*” (23 USC Section 190 (a) (35)). The Illinois Transportation Enhancement Program (ITEP) provides funding for community-based projects that “*expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure.*”

ITEP provides 80 percent reimbursement for project costs to project sponsors. Projects must provide a mode of transportation or make a facility more accommodating for pedestrians or bicyclists, be included in a local, regional or statewide plan, and include signing in bikeway projects for directions, permitted users and rules. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems. Projects must have a local government or state agency sponsor, and the statewide grant process is competitive.

Recreational Trails Program

The Recreational Trails Program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Example trail uses include hiking, bicycling, in-line skating, and equestrian use. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails

- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

Safe Routes to School (SR2S)

Under the SR2S Program, Federal funds are administered by IDOT. The grants can be used to identify and reduce barriers and hazards to children walking or bicycling to school (70 to 90 percent of funds) or for non-infrastructure encouragement and education programs (10 to 30 percent). Eligible projects are fully funded with no local match requirement. One infrastructure and/or non-infrastructure application will be accepted, with three projects maximum that can be funded per school district. There is a \$250,000 funding limit for the total infrastructure project application and \$100,000 maximum for non-infrastructure projects.

IDOT combined the remaining SR2S funds for the Federal Fiscal Years 2008 and 2009 for the 2008 Funding Cycle. There was approximately \$13 million available in 2008.

New Freedom Initiative

SAFETEA-LU creates a new formula grant program providing capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act.

Community Development Block Grants

The Community Development Block Grants program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal Community Development Block Grant grantees may *“use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.”*

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program providing technical assistance via direct staff involvement to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based on criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) is a Federally-funded program, providing grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. These funds are administered by the Illinois Department of Agriculture.

Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation Program provides Federal funding for transit-oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. The Transportation, Community and System Preservation Program funds require a 20 percent match.

The National Scenic Byways Program

Administered by the Federal Highway Administration (FHWA), the National Scenic Byways Program funds 80 percent of an eligible project's costs. Projects must be along a designated scenic highway and meet accessibility guidelines under ADA. Eligible projects include, *“Improvements for enhancing access to a recreation area include bicycle and pedestrian facilities ... to the extent that the project and recreational area have a clear, demonstrated role in enhancing the byway traveler experience (rather than primarily serving the existing customer base of the operator of the recreational area).”*

State Funding Sources

Open Space Lands Acquisition and Development Program

A state-funded grant program, the Open Space Lands Acquisition and Development Program (OSLAD) provides funding to local governments for land acquisition and/or development of land for public parks and open space. It is funded by Illinois' Real-Estate Transfer Tax and provides funding assistance up to half of approved project costs. Grants can be awarded up to \$750,000 for land acquisition and \$400,000 for development or renovation.

Illinois Bicycle Path Grant Program

Created in 1990, the Illinois Bicycle Path Program is administered by the Illinois Department of Natural Resources (IDNR). The Program assists with the acquisition, construction and rehabilitation of public, non-motorized bicycle paths and directly related support facilities. Local government agencies with statutory authority can receive grant funding for up to half of approved project costs to acquire and develop public bicycle paths. This program is funded by vehicle title fees collected pursuant to Section 3-821 (f) of the Illinois Vehicle Code.

Local Funding Sources

Tax Increment Financing/Urban Renewal Funds

Tax Increment Financing (TIF) is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage development or redevelopment in the area. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meets certain economic criteria and are approved by a local governing body. To be eligible for this financing, a project (or a portion of it) must be located within the URA.

The Illinois Tax Increment Association provides additional guidance for establishment of TIF zones and using the funding. The Town of Normal established a TIF district in 2003 as part of the Uptown Renewal Effort (Figure 50).

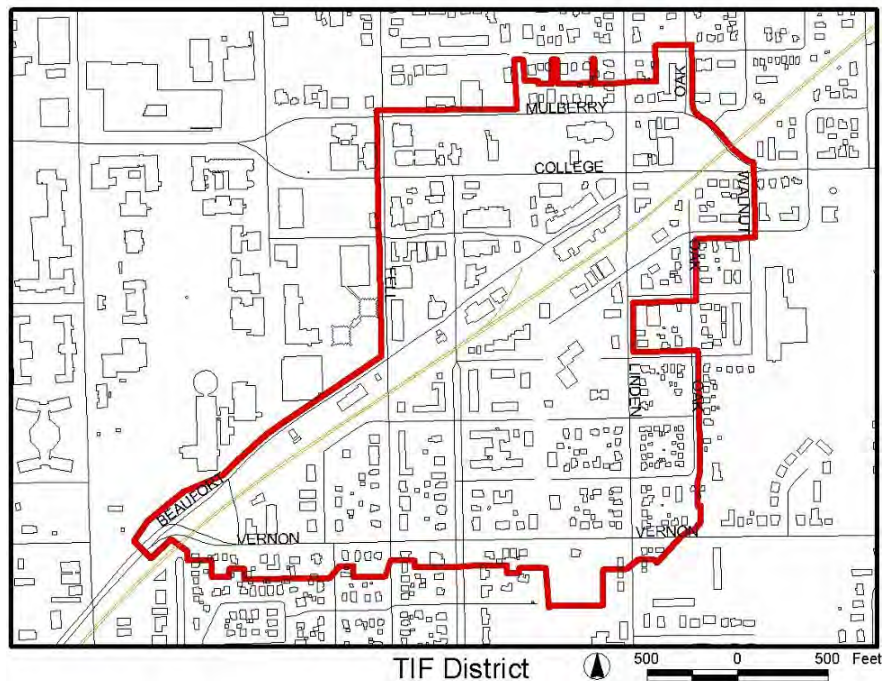


Figure 50. Uptown Normal's TIF District Boundaries⁹

Two additional TIF districts have been planned for the FY 2009-2014 Five-Year Budget. These include Main/Osage Redevelopment and Main/Interstate 55. Each district has money allocated to roadway projects, which could include sidewalks, curb ramps, and bicycle facilities. These areas represent important opportunities for Normal to provide high-quality bicycle and pedestrian connections. The Main/Osage TIF for example, includes segments of Beaufort, Main and Kingsley streets identified as on-street bikeways in this Plan (see Figure 51),.

⁹ Source: <http://www.normal.org/images/TIFDistrictMap.jpg>

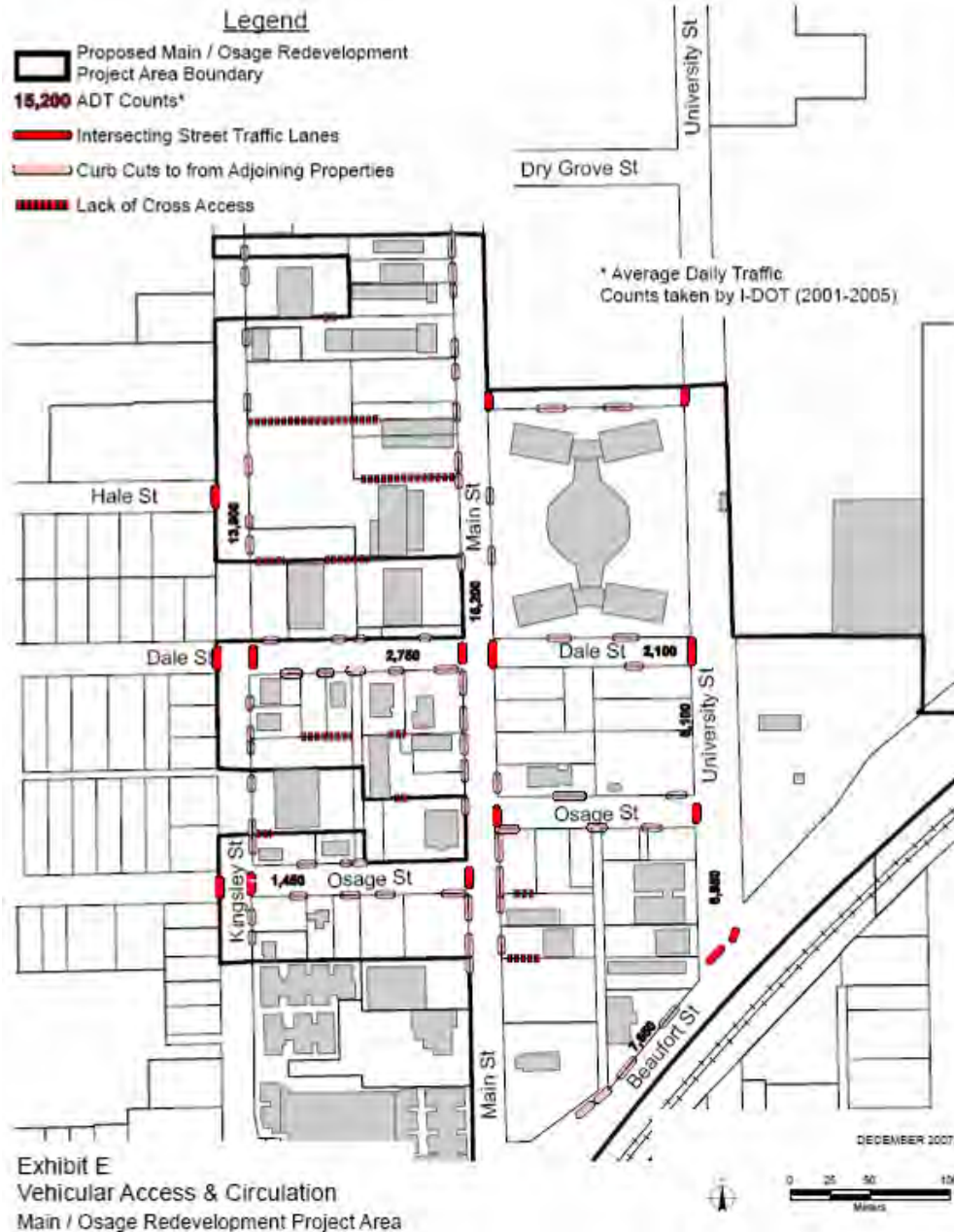


Figure 51. Vehicle Access & Circulation in Main/Osage Redevelopment¹⁰ Project Area

¹⁰ Source: Main/Osage TIF Plan (2008). Available at: <http://www.normal.org/files/main%20osage%20tif%20plan.pdf>

Storm Water Fund

The Town of Normal Storm Water Utility and Storm Water Fund “*provides for the management, protection, control, regulation, use, construction, and enhancement of the storm water system and facilities owned and operated by the Town*” (SEC. 7.30). Storm drains and grates in the town are installed through this fund. While not a significant source of capitol for bikeway projects, the Storm Water Fund can potentially be used to provide bicycle-safe drainage grates during regular repair or construction.

Business Improvement Districts

Pedestrian improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Districts collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve access for customers. These districts may include provisions for pedestrian and bicycle improvements, such as wider sidewalks, landscaping, and ADA compliance.

Other Local Sources

Residents and community members are excellent resources for garnering support and enthusiasm for a bicycle and pedestrian facility, and the Town of Normal should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may adopt project, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new path or maintain existing facilities where needed. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. The Town should look to its residents for additional funding ideas to expedite completion of the bicycle and pedestrian system.

Other Funding Sources

American Greenways Program

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local, regional or statewide non-profit organizations and public agencies. The maximum award is \$2,500, but most awards range from \$500 to \$1,500. American Greenways Program monies may be used to fund unpaved trail development.

Bikes Belong Grant Program

The Bikes Belong Coalition of bicycle suppliers and retailers has awarded \$1.2 million and leveraged an additional \$470 million since its inception in 1999. The program funds corridor improvements, mountain bike trails, BMX parks, trails, and park access. It is funded by the Bikes Belong Employee Pro Purchase Program.

Future Potential Funding Sources

Complete Streets Act of 2008

The Complete Streets Act was proposed to the U.S. Senate on March 3, 2008, and would ensure that *“future transportation investments made by State Departments of Transportation and Metropolitan Planning Organizations create appropriate and safe transportation facilities for all those using the road – motorists, transit vehicles and riders, bicyclists, and pedestrians of all ages and abilities.”*

Existing Town Revenues

Existing funding sources within the Town of Normal include a 1.25 percent local sales tax, a five percent utility tax, a two percent food and beverage tax, a six percent hotel/motel tax, and a 0.5 percent vehicle use tax. Normal can use this funding to construct bicycle facilities and develop programs over the next five years, which is the recommended timeframe associated with full implementation of the short-term Projects. Table 31 and Table 32 show the allocation of funding for roadway construction projects.

Funding source availability may vary from that shown in the tables, depending on how the State and Town apportion funding. These funds are generally available for environmental, feasibility, design, preliminary engineering and construction of pedestrian and bicycle facilities. Funds cannot be used to pay for a bicycle coordinator position, but some funding sources allow a portion of the monies to be used to administer the development and construction of specific bicycle facilities. It may be possible for Normal to receive enough grant funding to hire part-time or full-time staff to administer development and construction of all grant-funded bicycle/pedestrian projects.

Table 31. 2009-2014 Projected Bicycle and Pedestrian Funding Sources*

Funding	Revenue (FY 2009-2010)	Proposed (FY 2013-2014)	Description
001 - General Fund	\$48,699,898	\$55,528,413	Maintenance of streets, trails and parks
213 - Motor Fuel Tax Fund	\$2,952,400	\$1,912,500	Street improvements
250 - Park Land Dedication Fund	\$42,000	\$66,200	Parks and Recreation Dept. can potentially use this fund for acquisition of land for and construction of trails
333 - Uptown Roads	\$2,243,000	\$0	For Uptown Improvement Project, completed in 2010
380 - Uptown TIF Fund	\$379,000	\$1,333,000	The majority of these funds are already allocated
381 - Main & Osage TIF Fund	\$0	\$65,000	Project includes \$6,000,000 for streets, sidewalks, curbs, gutters, utilities and pedestrian amenities over duration of project
382 - Main & I-55 TIF Fund†	\$0	\$130,000	Project includes \$2,000,000 for streets, sidewalks, curbs, gutters, utilities and pedestrian amenities over duration of project

* Source: Town of Normal, Illinois Five Year Operating and Capital Improvement Budget (2009-2014).

Available at: <http://www.normal.org/Files/Budget2009-2014.pdf?B2=Accept+and+Download>

† Town of Normal Tax Increment Main/I-55 Redevelopment Plan. (2008) Available at:

<http://www.normal.org/files/main-i55%20tif%20plan.pdf>

Table 32. Funding Allocation on Construction Services (2008-2014)

Project	Est. Expenditure (FY 2008-2009)	Proposed (FY 2009-2010)	Proposed (FY 2013-2014)
Traffic Signals Upgrading	35,520	21,200	22,800
Bridge Repair & Maintenance	31,180	49,450	22,515
Street Resurfacing	167,938	0	20,000
Sidewalks & Curbs	23,000	112,915	46,300
Curbs	27,500	25,000	25,000

Normal's existing revenue sources will require substantial supplemental funds from the previously-discussed grant sources. A complete table of which grants may be appropriate for each identified grant funding source is provided in Appendix E.

Implementation Policies

The Normal Bicycle and Pedestrian Master Plan provides the long-term vision for the development of a community-wide bikeway network usable by all residents for all trip types. Implementation of the Plan will take place in small steps over many years. The following strategies and action items are provided to guide Normal toward the vision identified in the Plan.

Strategy 1: Strategically Pursue Infrastructure Projects

Normal staff should strategically pursue infrastructure projects. Ideally, staff should pursue capital improvements funding or grant funding for short-term bicycle and pedestrian improvements first. However, if grant requirements or construction in conjunction with another roadway project make construction of a lower priority project possible, then the community should pursue funding sources for that project regardless of priority.

Action Items:

At the end of each fiscal year, Normal should publish a public report documenting the status and on-going actions for all bicycle and pedestrian projects. This report may be combined with the prioritization review discussed below.

- Policy 1.1 Pursue capital improvements funding or grant funding for higher-priority bicycle and pedestrian improvements first.
- Policy 1.2 In the case where grant requirements or construction in conjunction with another roadway project make construction of a lower priority project possible or required by law, pursue funding sources for that project regardless of priority.
- Policy 1.3 Install approved bicycle and pedestrian projects simultaneous with road improvement projects scheduled in the same area, regardless of the priority placed upon the bicycle or pedestrian project.
- Policy 1.4 Review current posted speeds on major streets; identify opportunities for posted speed reductions, especially on roadways where bicyclists and motorists will share the same lanes.
- Policy 1.5 Publish a public report documenting the status and on-going actions for all bicycle and pedestrian projects at the end of each fiscal year.

Strategy 2: Regularly Revisit Project Prioritization

Projects have been prioritized based on system connectivity, overcoming barriers, community support, and other criteria described in Chapter 6. This list should be reviewed every fiscal year, with new projects added, completed projects removed, and the priorities revised as conditions change. This strategy also represents an opportunity to correspond with nearby jurisdictions to collaborate on regionally-important walkways and bikeways.

Action Items:

Annually review and update the bikeway and walkway project list with input from appointed persons within the Town of Normal, McLean County, and other relevant agencies. The updated list should be shared with the public.

- Policy 2.1 Annually review and update the Bicycle and Pedestrian Master Plan project and program list.
- Policy 2.2 Share updated Bicycle and Pedestrian Master Plan project list with the public and other jurisdictions, including McLean County and the City of Bloomington.
- Policy 2.3 Review and update the Plan as needed, at a minimum of every five years.

Strategy 3: Integrate Bicycle Planning into Normal’s Planning Processes

This Plan presents a vision for the future of bicycling in Normal. To ensure that that vision is implemented, the Plan must become a living document that is incorporated into the day-to-day activities of planning, design, funding, construction and maintenance in Normal. This plan recommends several ways for bicycle planning to be integrated into the planning process.

Action Items:

- Policy 3.1 Incorporate a bicycle facilities checklist into the Plan review process.
- Policy 3.2 Adopt a bicycle parking ordinance and other local policies that promote bicycling.
- Policy 3.3 Consider adopting a “Complete Streets” policy to ensure that bicycle and pedestrian facilities are included in all major construction and reconstruction projects. Bicycle and pedestrian facilities should be addressed at the project scoping stage.
- Policy 3.4 Require sufficient right-of-way to be set aside for bicycle and pedestrian facilities as redevelopment projects occur.
- Policy 3.5 Ensure that appropriate bicycle and pedestrian facilities are built in new developments in accordance with this Plan and other relevant plans.

Strategy 4: Encourage Private Donors to Support the Walkway/Bikeway System

Many trails have a “Friends of” group that can provide volunteer construction and maintenance services as well as funding small projects, such as signage and wayfinding programs. Through such a program, or an “Adopt a Bikeway” program, corporations, institutions and individual private donors can support the existing and proposed walkway/bikeway system. This program can be leveraged to enhance maintenance through volunteer work and can connect philanthropy with fundraising to sustain the system.

Action Items:

- Policy 4.1 Support the “Friends of the Constitution Trail” program and encourage corporations, institutions and individual private donors to support the existing and proposed walkway/bikeway system.
- Policy 4.2 Leverage this program to enhance maintenance through volunteer work, and connect philanthropy with fundraising to sustain the system.
- Policy 4.3 Evaluate opportunities for establishing a philanthropic giving program that can be used to support the construction and maintenance of Normal’s walkways and bikeways.

Strategy 5: Implement Education, Encouragement and Enforcement Activities

Augment the expanded bicycle and pedestrian network with education, encouragement and enforcement activities to encourage more walking and cycling among Normal residents. These supporting programs are critical to the success of the Plan and have been prioritized based on ease of implementation and cost.

Action Items:

- Policy 5.1 Pursue grant funding for higher-priority programs first.
- Policy 5.2 Seek funding for other supporting programs as appropriate.
- Policy 5.3 Work with schools, youth groups, and other parties to provide education and encouragement programs to Normal residents.
- Policy 5.4 Work with the Police Department, media, advocacy and safety groups to create an educational program to educate pedestrians, bicyclists, and drivers of rights, responsibilities and safe practices to share the road comfortably and safely.

Recommended Complete Streets Policy

There is a growing movement in the U.S. to integrate non-motorized transportation in the planning, design and operation of roads, bridges and transit projects, called ‘Complete Streets.’ At the national level, the US Department of Transportation (USDOT) developed a model bicycle and policy framework in 2001. The policy is based on the principle that bicyclists and pedestrians have the right to move along or across all roadways unless specifically prohibited from doing so. The national policy has served as guidance for State DOT’s and public works agencies throughout the U.S. It has recently evolved into the idea that streets are only complete when they address the needs of all modes of transportation, including walking and bicycling. This approach includes providing for transit, ADA compliance and facilities for people of all ages and abilities.

Complete Streets principles are “*federal, state, local, or regional level transportation laws, policies, or principles which ensure that the safety and convenience of all users of a transportation system, including pedestrians, bicyclists, public transit users, children, older individuals, motorists, and individuals with*

disabilities, are accommodated in all phases of project planning and development.”¹¹ This section provides guidance for Complete Streets policy elements.

Elements of Complete Streets Policies¹²

1. The Principle

- Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.
- Creating complete streets means changing the policies and practices of transportation agencies.
- A complete streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.
- Transportation agencies must ensure that all road projects result in a complete street appropriate to local context and needs.

2. Elements of a Good Complete Streets Policy

A good complete streets policy:

- Specifies that ‘all users’ includes pedestrians, bicyclists, transit vehicles and users, and motorists of all ages and abilities.
- Aims to create a comprehensive, integrated, connected network.
- Recognizes the need for flexibility: that all streets are different and user needs will be balanced.
- Is adoptable by all agencies to cover all roads.
- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way.
- Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
- Directs the use of the latest and best design standards.
- Directs that complete streets solutions fit in with context of the community.
- Establishes performance standards with measurable outcomes.

3. Implementation

An effective complete streets policy should prompt transportation agencies to:

- Restructure their procedures to accommodate all users on every project.
- Re-write their design manuals to encompass the safety of all users.

¹¹ H.R. 1445: Complete Streets Act of 2009, <http://www.govtrack.us/congress/bill.xpd?bill=h111-1443>

¹² Source: <http://www.completestreets.org/changing-policy/policy-elements/>

- Re-train planners and engineers in balancing the needs of diverse users.
- Create new data collection procedures to track how well the streets are serving all users.

What are the Benefits of Complete Streets?

Complete streets improve safety. They reduce crashes through safety improvements. One study found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian risk by 28 percent.¹³ Complete streets also improve safety indirectly by increasing the number of people bicycling and walking. A recently published international study found that as the number and portion of people bicycling and walking increases, deaths and injuries decline.¹⁴

Complete streets encourage more walking and bicycling. Public health experts are encouraging walking and bicycling as a response to the obesity epidemic, and complete streets can help. One study found that 43 percent of people with safe places to walk within ten minutes of home met recommended activity levels, while just 27 percent of those without safe places to walk were active enough.¹⁵ Residents are 65 percent more likely to walk in a neighborhood with sidewalks.¹⁶ A study in Toronto documented a 23 percent increase in bicycle traffic after the installation of a bike lane.¹⁷

Complete streets can help ease transportation woes. Streets that provide travel choices can give people the option to avoid traffic jams, and increase the overall capacity of the transportation network. Several smaller cities have adopted complete streets policies as one strategy to increase the overall capacity of their transportation network and reduce congestion. An analysis by the Victoria Transportation Policy Institute found that non-motorized transportation options can replace some vehicle trips, and in urban areas where more people commute by foot or bicycle, people drive fewer miles overall.¹⁸ In Portland, Oregon, a complete streets approach has resulted in a 74 percent increase in bicycle commuting in the 1990s.¹⁹

Complete streets help children. Streets that provide room for bicycling and walking help children get physical activity and gain independence. More children walk to school where there are sidewalks. Also, children who have and use safe walking and bicycling routes have a more positive view of their neighborhood.²⁰ Gaining in popularity across the country, Safe Routes to School programs, will benefit from complete streets policies that help turn all routes into safe routes.

¹³ M.R. King, J.A. Carnegie, and R. Ewing, "Pedestrian Safety Through a Raised Median and Redesigned Intersections" Transportation Research Board 1828 (2003): 56-66.

¹⁴ Jacobsen, PL, "Safety in Numbers: More Walkers and Bicyclists, Safer Walking and Biking," Injury Prevention 9 (2003): 205-209.

¹⁵ Powell, K.E., Martin, L., & Chowdhury, P.P. (2003). Places to walk: convenience and regular physical activity. American Journal of Public Health, 93, 1519-1521.

¹⁶ Giles-Corti, B., & Donovan, R.J. (2002). The relative influence of individual, social, and physical environment determinants of physical activity. Social Science & Medicine, 54 1793-1812.

¹⁷ St. George Street Revitalization. www.tc.gc.ca/programs/environment/UTSP/st.georgestreetrevitalization.htm

¹⁸ Littman, Todd TDM Encyclopedia (ADONIS, 1999; Mackett, 2000; Socialdata Australia, 2000; Cairns et al, 2004).

¹⁹ City of Portland, Office of Sustainable Development. Local Action Plan on Global Warming, 2005 Progress Report.

²⁰ Ewing, R. Will Schroeder, William Greene. School location and student travel: Analysis of factors affecting mode choice. Transportation Research Record: Journal of the Transportation Research Board, No. 1895, TRB, National Research Council, Washington, D.C., 2004, pp. 55-63.

Complete streets make fiscal sense. Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spares the expense of retrofits later. Jeff Morales, the Director of Caltrans when the state of California adopted its complete streets policy in 2001, said, "*By fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, and persons with disabilities) early in the life of a project, the costs associated with including facilities for these travelers are minimized.*"²¹

Implementation Help

An effective complete streets policy should prompt transportation agencies to:

- Restructure their procedures to accommodate all users on every project
- Re-write their design manuals to encompass the safety of all users
- Re-train planners and engineers in balancing the needs of diverse users
- Create new data collection procedures to track how well the streets are serving all users

Policy Recommendations

America Bikes requests that Congress establish a series of performance measures for state and local agencies to ensure that bicycling and walking become safe and convenient options throughout the transportation system.

Policy 1. As an element of good roadway design, all projects involving new construction or reconstruction of roadways shall consider accommodation of bicyclists and pedestrians. This principle shall apply to all federal, state and local recipients of funds authorized under Titles 23 and 49, including federal land management agencies.

Exceptions to this requirement would be possible where:

- Bicyclists and/or pedestrians are not permitted to operate (e.g., on limited access highways).
- There is a demonstrable lack of need (e.g., in cul-de-sacs).
- Provisions would exceed a reasonable percentage of the overall costs of the project (e.g., 20 percent).

Municipal Code and Manual of Practice Update Recommendations

In addition to the above implementation policies for ensuring Plan implementation and for encouraging bicycling and walking in Normal, elements of the Municipal Code and Manual of Practice could be modified to be more supportive of walking and bicycling infrastructure and programs.

Code and Manual amendments are provided below in italics.

²¹ <http://www.americantrails.org/resources/trans/completestreets08.html>

Municipal Code Updates

Bicycles

SEC. 23.8-4 REQUIRED USE OF BICYCLE LANES. When a bicycle lane exists, it shall be unlawful for any person to ride a bicycle in any portion of the roadway other than a bicycle lane, *except under the following situations:*

1. *When approaching a place where a right turn is authorized.*
1. *When overtaking and passing another bicycle or vehicle proceeding in the same direction.*
2. *When preparing for a left turn at an intersection or into a private road or driveway.*
3. *When reasonably necessary to avoid conditions (including, but not limited to, fixed or moving objects, vehicles, bicycles, pedestrians, animals, surface hazards, or substandard width lanes) that make it unsafe to continue along the right-hand curb or edge. For purposes of this section, a “substandard width lane” is a lane that is too narrow for a bicycle and a vehicle to travel safely side by side within the lane.*

Pedestrians

SEC. 23.4-2 PEDESTRIANS CROSSING ROADWAY.

1. No pedestrian shall cross any street except at crosswalks if the pedestrian is within 150 feet of a marked crosswalk.

Manual of Practice Updates

Chapter 3: General Subdivision Design Standards

3.02 SUBDIVISION PRINCIPLES OF PLANNING. Basic consideration in the design of local circulation systems must recognize the factors of: (1) safety - for both vehicular and pedestrian traffic, (2) efficiency of service - for all users, (3) livability or amenities - especially as affected by traffic elements in the circulation system, and (4) economy - of both construction and use of land.

Principles pertaining to bicycle and pedestrian planning in subdivisions include:²²

1. Adequate vehicular, *bicyclist* and pedestrian access should be provided to all parcels.
2. Local street systems should be designed to minimize through-traffic movements.
9. The local street system should be designed for a relatively uniform low volume of street traffic.
10. Local streets should be designed to discourage excessive speeds.
11. Pedestrian-vehicular conflict points should be minimized.
12. An optimum amount of space should be devoted to street uses.

²² Only sections pertaining to pedestrians and/or bicyclists are included in this analysis; items are numbered as they are in the source documents.

28. Accessways should be provided in new developments to provide direct walking or bicycling connections to schools, community or retail centers or other destinations that otherwise would not be provided by the local street system.

Chapter 5: Design and Construction Standards for Sidewalks and Pedestrian Ways and Trails

DESIGN STANDARDS: Subdivisions shall be designed so that sidewalks or pedestrian ways are provided in such locations and in such a manner as to accomplish the following:

Sidewalks and pedestrian ways shall be not less than *five* (5) feet (1.5m) in width; except adjacent to arterial and collector streets, where sidewalks shall not be less than *eight* (8) feet (2.4 m) in width; and except in the B-2, Central Business District, where sidewalks shall not be less than six (6) feet (1.8m) in width.

Transverse slope on sidewalks, pedestrian ways and trails should not be less than 2% nor greater than 4%.

PEDESTRIAN PATH

A Pedestrian path (*also known as an "accessway"*) is designed to provide safe, convenient routes for pedestrians. A pedestrian path is required for a block over 800 feet in length and is encouraged throughout the Traditional Neighborhood Development (TND). A pedestrian path should provide efficient connections to other paths or walkways and should be designed to maximize visibility and security.

Path Right-of-Way Width: 25 feet (not less than 20 feet)

Path Paving Width: 10 feet minimum

Recommended Internal Circulation Standards

Pedestrian circulation in larger residential and commercial developments is influenced by the infrastructure provided for the pedestrian and the infrastructure and design of the automotive circulation and parking. This sections recommends internal circulation standards to encourage and support walking and bicycling in Normal.

Automobile Infrastructure

Parking lots should be located in such a manner as to encourage pedestrian access to the development, connect uses to the street and decrease the distance between adjacent developments. To accomplish this, parking should be located behind and to the side of buildings wherever possible.

Landscaping should be provided between the pedestrian circulation system and automobile areas to provide protection, security and accessibility for the pedestrian. Parallel parking can also be used to buffer pedestrian routes from moving vehicles.

Pedestrian Infrastructure

An internal pedestrian circulation system should:

- Be barrier-free and designed for safety and security
- Ensure continuous sidewalks and safe crossing points
- Connect all uses within a development (buildings, parking areas, pad buildings etc.)
- Clearly link public sidewalks with all internal walkways
- Clearly link the individual sites within a development to each other and to surrounding off-site uses (mixed-use and residential areas)
- Be defined with landscaping, paving, and pedestrian scaled lighting

Pedestrian circulation routes should be composed of treated surfaces such as scored, brushed, stamped and colored concrete, or brick pavers in order to differentiate the pedestrian system from the auto system. Where pedestrian routes cross driveways or auto circulation route, a continuous raised crossing composed of a different paving material should be provided.

Pedestrian connections should be designed to provide the most direct route to BNPTS stops to avoid out-of-direction travel and minimize travel distance. Connections should be a continuation of the sidewalks and trail system to reduce dead-end paths.

To provide greater opportunity for pedestrian connectivity and to prevent autos from having to use the public street system to travel between adjacent developments, parking and pedestrian circulation should be designed to accommodate connections between developments.

Pedestrian circulation plans should be required with each large lot development. These plans must emphasize connectivity through sidewalk design, traffic circulation, landscaping, and lighting.

Construction of New Streets in New Rights-of-Way

All construction of new public streets will include sidewalk improvements on both sides.

Exception:

For new streets, provision of a sidewalk improvement on only one side will be considered under the following conditions:

- Right-of-way has severe topographic or natural resource constraints; or
- Street is a cul-de-sac with four or fewer dwelling units.

Street Improvements to Existing Rights-of-Way

All major improvements to existing streets will include sidewalk construction. Street improvements will be provided with sidewalk improvements on both sides of all streets in high pedestrian use areas and most walkways throughout the Town.

When the existing right-of-way is too narrow to accommodate both street and sidewalk improvements, the following steps to allow room for a sidewalk improvement should be considered:

- Acquire additional right-of-way or walkway easement
- Narrow existing roadway in accord with established minimum roadway standards

Exceptions:

For improvements to existing street rights-of-way and on walkways in high pedestrian use areas, approval for a sidewalk on only one side will be considered under the following conditions:

- Right-of-way has severe topographic or natural resource constraints
- For improvements to existing street rights-of-way on walkways in neighborhoods, approval for a sidewalk on only one side only will be considered under any of the following conditions:
 - Right-of-way has topographic or natural resource constraints
 - Right-of-way has existing development or mature landscaping constraints
 - Street is a cul-de-sac with fewer than 20 dwelling units
- For improvements to existing street rights-of-way on neighborhood walkways, approval for providing no sidewalk will be considered under the following condition:
 - Right-of-way has very severe topographic or natural resource constraints

Frontage Improvements on Existing Streets

Sidewalk improvements will be required as part of all new infill building development on existing streets to the extent practicable.

Where the existing road has no curb or is otherwise substandard and it is not practicable to construct full street improvements for a limited street segment, the Town Engineer may require an interim path to be constructed.

Exceptions:

A waiver of remonstrance, covenant or other legal agreement may be accepted in lieu of immediate sidewalk construction under either of the following conditions:

- The existing road has no curb or is otherwise substandard and it is not practicable to construct full street improvements or an interim path for a limited street segment
- Infill development of single-family residential use is proposed for three or fewer contiguous lots where the majority of lots on the block have already been developed and there is no pattern of existing sidewalk improvements in the area