

2024 Campus Bicycle Plan

Campus Bicycle Network Master Plan for the University of Illinois Urbana-Champaign

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Definitions

Abbreviation	Full form
AASHTO	American Association of State Highway and Transportation
	Officials
ACES	The College of Agricultural, Consumer, and Environmental
	Sciences
ACUPCC	American College and University Presidents' Climate
	Commitment
ADA	American Disability Act
ADT	Average Daily Traffic
АРВР	Association of Pedestrian and Bicycle Professionals
BFU	Bicycle Friendly University
BIF	Business Instructional Facility
BPAC	Bicycle & Pedestrian Advisory Commission of City of Urbana
САМ	Campus Administrative Manual
CATS	Campus Area Transportation Study
ССВ	Champaign County Bikes
CCRPC	Champaign County Regional Planning Commission
CTAC	Campus Transportation Advisory Committee
CUUATS	Champaign Urbana Urbanize Area Transportation Study
DIA	Division of Intercollegiate Athletics
DRES	Division of Disability Resources and Educational Services
DURP	Department of Urban and Regional Planning
FAR	Florida Avenue Residence Hall
F&S	Facilities & Services
FY	Fiscal Year
GHG	Greenhouse Gas
iCAP	Illinois Climate Action Plan
IDOT	Illinois Department of Transportation
iSEE	Institute of Sustainability, Energy, and Environment
ITEP	Illinois Transportation Enhancement Program
КСН	Department of Kinesiology and Community Health
LAB	League of Illinois Bicyclists
LCI	League Certified Instructor
LEED	Leadership in Energy and Environmental Design
LINC	Learning in Community
LRTP	Long Range Transportation Plan
MCORE	Multi Corridor Enhancement Project
miPLAN	Mobility Implementation Plan



MTD	Champaign-Urbana Mass Transit District
MUTCD	Manual for Uniform Traffic Control Devices
PAR	Pennsylvania Avenue Residence Hall
PCC	Prairie Cycle Club
PSRC	Parking System Review Committee
RSO	Registered Student Organization
SECS	Students for Environmental Concerns
SRTS	Safe Routes to School
SSC	Student Sustainability Committee
SSLC	Student Sustainability Leadership Committee
ТВР	The Bike Project of Urbana-Champaign
TDM	Transportation Demand Management
UI	University of Illinois Urbana-Champaign
UDTCS	University District Traffic Circulation Study
UIPD	University of Illinois Police Department
VMT	Vehicle Miles Traveled

Terms	Definitions
Bikeway	A generic term for any road, street, path or way, which is
	somehow designated for bicycle travel, regardless of
	whether designated for exclusive use of bicycles or shared
	with other transportation modes
Bicycle Lane	On vehicular streets, a striped lane intended for exclusive
	bicycle use
Bicycle Route	A street or road noted for higher bicycle volumes, to be
	shared by vehicles and bicycles, which provide connections
	to the overall bicycle system
Shared Use Side Path	Parallel to but physically separated from a street, a wide
	path intended to be shared by pedestrians, bicycles, and
	other non-motorized transportation (e.g. wheelchairs).
Dedicated Bicycle Side Path	Parallel to but physically separated from a street, a path
	intended for the exclusive use of bicycles.
Off-Road Shared Use Path	Completely separate from a street, a path intended to be
	shared by pedestrians, bicycles, and other non-motorized
	transportation
Off-Road Dedicated Bicycle	Separate from a street or sidewalk, a path intended for
Path	exclusive bicycle use
Off-Road Trail	Unpaved trail to be shared by cyclists, walkers, joggers, and
	other non- motorized transportation



Fiscal Year	A one-year period that is used for financial planning and budgeting. On Illinois' campus, a Fiscal Year starts on July 1st and ends June 30th.
Bicycle	A vehicle composed of two wheels held in a frame one behind the other, propelled by pedals and steered with handlebars attached to the front wheel.
Departmental Bicycle Sharing Program	A program in which departmentally owned bicycles will be available for to check-out free of charge to departmental employees during working hours.
Dockless Bicycle Sharing Program	A program which provides campus and the community access to short term bike rentals from one or more bike share companies.
Peak Times	Highest traffic counted during/within a specific hour of the day/week
Multimodal Transportation	The movement of people including but not limited to motorists, transit-riders, bicyclists, and pedestrians.
Micromobility devices	A range of small, lightweight vehicles, driven by users personally.
Bicycle Rack	A device attached to a vehicle to transport bicycles
Bicycle Repair Station	A stand to mount a bicycle and contain the basic tools needed to preform minor bicycle repairs. Additionally, they will often include bicycle pumps as well.
E-Bike	A bicycle that can be run on lectic power as well as by pedaling.
E-Scooter	A stand-up scooter powered by an electric motor.
Injury Types	
A - Incapacitating Injury	Any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred. This includes severe lacerations, broken/distorted limbs, skull injuries, chest injuries, abdominal injuries.
B - Non-incapacitating Injury	Any injury, other than a fatal or incapacitating injury, which is evident or observers at the scene of the crash. This includes lumps on the head, abrasions, bruises, minor lacerations.
C - Reported/Not evident	Any injury reported or claims of injuries not evident, limping complaints of pain nausea bysteria
Complete Streets	A roadway designed to safely accommodate all modes of
	transportation, including vehicles, transit, bicycles, and pedestrians, while integrating landscape enhancements.



Comprehensive Plan	An ordered process that intends to proactively and comprehensively address future growth of a community.
529 Shield Sticker	A tamper-resistant/weather-resistant decal that has a unique, 7 seven character ID code which adds an extra identifier and layer of protection for your bike. All bicycles on campus must be registered in the University's bicycle registration system in addition to obtaining this sticker.



Executive Summary

Since the 2014 Campus Bicycle Master Plan, a clearer vision of a bicycle friendly campus has been encapsulated within the University of Illinois Urbana-Champaign. One of the original goals of the 2014 plan was to regain a place as a leader in bicycle infrastructure and safety that the Urbana-Champaign campus once had in the 1950s. Within the past decade, bicycle registrations have skyrocketed and the bicycle usage has increased. All the 2014 high priority projects and most of the medium priority projects have been completed. In 2023, the Urbana-Champaign campus renewed the silver-level Bicycle-Friendly University by the League of American Bicyclists (which in 2011 it was awarded bronze-level). Therefore, strides in this campus' bicycle infrastructure and safety can be quantitatively seen. Nonetheless, there is more work that can be done with a still-increasing bicycle-riding campus, occasional bicycle accidents, and frequent bicycle safety violations.

Building off the work of the 2014 Campus Bicycle Master Plan, the 2024 Campus Bicycle Master Plan goals are outlined as:

- 1. Continue to increase safety for all campus users, including pedestrians, bicyclists, transit riders, and motorists, in support of Champaign-Urbana Urban Area Safety Plan.¹
- 2. Increase sustainability of campus transportation, in support of the Illinois Climate Action Plan.
- 3. Continue to improve the mobility and convenience for cyclists on campus.
- 4. Identify funding needs and secure funding for future improvements of campus bicycle facilities, services, and programming.
- 5. Improve the university's standing as a national leader in bicycle friendliness.
- 6. Incorporate technological advances to the university's bicycle infrastructure for the best bicycle experience on campus.

The primary focus of this plan is on infrastructure improvements which can further enhance the university-owned bicycle network and bikeways on campus within the University District. This plan has identified new areas for improvement for the bicycle network on campus and reevaluated the unfinished projects from the 2014 Campus Bicycle Master Plan. In later chapters, this plan also describes increasing education programs, increasing bicycle sharing programs, and other non-infrastructure related campus goals for bicycle safety.

¹ Champaign-Urbana Urban Area Safety Plan



Chapter 1: Introduction

Bicycling not only alleviates urban traffic congestion and reduces carbon emissions but also offers numerous benefits to users, including improved health and savings in both time and money. In the quest for sustainable and environmentally conscious transportation solutions, communities are increasingly promoting bicycling as a preferred mode of transportation. As an institution committed to the safety of its students, employees, and visitors and to the sustainability of its campus, the University of Illinois Urbana-Champaign continually strives for excellence in promoting and improving active transportation options. University policies prioritize walking, bicycling, and transit over automobiles in the core campus area. As a result, bicycling is one of the primary forms of transportation on campus.

Providing improved bicycle facilities for the university's 53,948 students and 15,620 full time employees² is critical to improving public safety, reducing injuries and fatalities resulting from crashes, ensuring efficiency and ease of movement, improving livability and quality of life, improving energy efficiency and meeting sustainability targets, and promoting active lifestyles. In 2011, the University of Illinois Urbana-Champaign was recognized as a bronze-level Bicycle Friendly University (BFU) by the League of American Bicyclists (LAB). The University was awarded the Silver-level BFU certification in 2019 and retained the Silver-level certification in 2023.

The 2024 Campus Bicycle Plan was developed to provide a road map for the university to become more bicycle friendly and to achieve the necessary goals of improved safety, sustainability, and health. This plan has identified new areas for improvement for bicycle network on campus and reevaluated the unfinished projects from the 2014 Campus Bicycle Master Plan to improve connectivity and convenience in the University District. This document includes specific prioritized projects to implement the recommended network, including updates where new information or guidelines are available, as well as specific, measurable goals. The primary focus of this plan is improving the infrastructure of the campus bikeway network. These bikeways will improve the campus in three major areas: safety of bicycling through better visibility and predictability; reduction of conflict with other transportation modes; and increased convenience for cyclists. Additionally, recommendations are made in the areas of education, enforcement, encouragement, evaluation, and equity to further support bicycle transportation on campus.

² <u>https://dmi.illinois.edu</u>



Background and Context

University of Illinois:

The Transportation Demand Management (TDM)³ department in Facilities & Services (F&S) at the University of Illinois Urbana-Champaign is responsible for coordinating and maintaining the university-owned transportation network for all modes of travel on campus, including walking, bicycling, transit, and vehicles. F&S is the owner of this plan and is responsible for encouraging bicycle use in several ways, such as exploring bicycle sharing options for campus, supporting the Campus Bike Center, installing and maintaining bicycle parking and storage, arranging bicycle education opportunities, and promoting the use of bicycles through encouragement events and programs. TDM also works with the Campus Recreation, Division of Public Safety, Auxiliary units, Disability Resources and Educational Services (DRES) and other key campus stakeholders (Appendix A. Stakeholders) to make improvement recommendations to campus leadership.

Ridership data

Bike Registration information

All bicycles on campus must be registered in the University's new bicycle registration system.⁴ Registration stickers (529 Shields) act as theft deterrent which reduces the risk of bike theft. Bicycle registration also supports the Bicycle Friendly University program. As stated in the *University Bicycle Ordinance*⁵, bicycle registration is mandatory for all bicycles parked or operated on campus and owned by students, staff, faculty, University departments, community members and bike share vendors. This system is available to anyone on campus and anyone in the community. TDM department has collaborated with eight locations on campus and throughout the community to distribute the 529 Shields.

Figure 1 shows the comparison of number of users who have made the bicycle registration fee payment with the number of users who registered their bicycles on the Project 529 website and the number of users who have collected the Shield stickers since the inception of the program in July 2020. Monthly bicycle registration data is posted on the iCAP Portal.⁶

Note: Bicycle registration is not a true reflection of the total number of bicycles on campus, as there are users that have not yet registered their bicycles.

³ <u>https://fs.illinois.edu/Providers/transportation-demand-management/</u>

⁴ <u>https://bike.illinois.edu/register-your-bike/</u>

⁵ <u>University Bicycle Ordinance</u>

⁶ <u>https://icap.sustainability.illinois.edu/project/bicycle-registration</u>





Bike registration Information



Bicycle Census

The bicycle census⁷ is a collaborative, community-wide effort between F&S and Champaign County Bikes that began in 2013 as part of ongoing efforts to support the campus' BFU status. The university aims to organize at least one (1) bicycle census every year, where volunteers walk around the campus to count bicycles during peak hour. The data collected by volunteers is used to update the university bicycle database, which helps identify high-ridership locations for mobility and safety improvements. Recent censuses counted more than 5,000 parked bicycles on campus over onehour.

Mode Choice Survey 2022

In 2022, the TDM department conducted a Mode Choice survey, gathering responses from over 600 students, staff, and faculty members on campus. The survey revealed that nearly 29% of respondents walk to campus, while another 29% use private vehicles, and public transportation (bus transit) is the main mode of commuting for over 23% of the participants. Additionally, more than 13% choose bicycles for their daily commute.

⁷ https://bike.illinois.edu/bikecensus/



Although currently a small portion of respondent ride their bikes to campus, there is significant potential to increase bicycle ridership. Nearly 48% of respondents live within one mile of the campus, and nearly 70% live within two miles. This means the majority can reach their destination by biking for just 10 to 15 minutes.

Figure 2 and Figure 3 illustrate the preferred transportation modes for students, staff, and faculty, as well as the average distance from their residences to the campus. As shown in these charts, more than 70% of students live within one mile of the campus. Currently, only 11% choose bicycle as their primary mode of transportation, while over 45% walk, and just 10% drive. This aligns with our goal to increase the percentage of students using bicycles as their primary mode of transportation on campus to 20% by FY35. With the right infrastructure and resources, this goal is not only achievable but can potentially exceed expectations.

For faculty and staff, over 35% live within two miles of the campus, yet only 16% use bicycles as their primary mode of transportation. This could potentially support our objective to raise the percentage of faculty and staff riding bikes to 25% by FY35 (it takes approximately 15-20 minutes to travel 2 miles by bicycle). With adequate resources, this target is well within reach. However, other considerations should be taken into account, such as the exact reasons for not choosing a bicycle, including physical conditions and providing rides to family members who do not have a driver's license.

This survey has provided valuable insights for future planning and goal setting to boost bicycle commuting among students, staff, and faculty on campus.



Figure 2: Primary mode of transportation and commute distance for students





Primary mode of transportation for Faculties and Staff

Figure 3: Primary mode of transportation and commute distance for faculty and staff

Bicycle and pedestrian counters:

To better understand the demand for bicycle infrastructure, programming, and services, as well as to better track the impact of past improvements, regular bicycle counts are recommended. This allows the university to know exactly how many bikes are on campus at any given time throughout each school year. By analyzing this information, we can identify trends, peak usage times, and areas with high demand for bike facilities. Pedestrian counters, likewise, provide valuable insights into pedestrian data, as walking is a primary mode of transportation for most people on campus. This comprehensive data supports informed decision-making, ensuring that bicyclist needs are effectively addressed in the Bike Plan.

The university has installed several bicycle and pedestrian counters (Eco-Counters) on campus to capture this data. In 2020, the first Eco-Counter bicycle and pedestrian counter was installed at the Illini Union location on Green Street. Since then, the university has added four other locations on campus with Eco-Counters: intersection of Wright St and Healey St (in 2021), intersection of Armory Ave and Sixth St (in 2021), intersection of Green St and Goodwin Ave (in 2022), and Illini Union Bookstore/Transit Plaza (in 2023). Each location has two counters on either side of the street.

Figure 4 depict the bicycle and pedestrian counts by each Eco-Counter location from FY2020 to FY2024. It is important to note that the data provided during the lockdown period of the pandemic, which started in March 2020 and continued until students returned and campus life resumed in the beginning of FY23, may not accurately capture all the data regarding bicycle and pedestrian counts on campus.





Figure 4: Pedestrian and Bicycle count per FY for each Eco Counter location on campus

Crash Analysis

As part of the analysis of the current conditions of bicycle safety on campus, Facilities & Services (F&S) referred to the Champaign County Traffic Crash Dashboard⁸. This dashboard presents crash data for the University District, Champaign County, the City of Champaign, the City of Urbana, and the Village of Savoy. The Champaign County Regional Planning Commission (CCRPC) produces this website and its data presentation.

To enhance safety for all campus users, including pedestrians, bicyclists, transit riders, and motorists, these data provide a broader perspective on injury types and crash causes. The data show the prevalence of crashes on a yearly, monthly, and even hourly basis, considering light and surface conditions. This information helps us understand the causes of crashes and how to plan our campus infrastructure to reduce these incidents, moving closer to our goal of Vision Zero and increased campus safety.

Additionally, the data offer valuable insights into the surrounding communities, including the City of Urbana, the City of Champaign, and Village of Savoy. This can further facilitate stakeholder contributions and define shared goals for the campus and the surrounding communities.

There is also a crash risk map that showcases areas with low, medium, and high risk of traffic accidents. This map can help us identify high-risk areas and potential causes of accidents, enabling us to plan improvements in infrastructure and provide the necessary foundations to decrease crashes.

⁸ <u>https://crashdashboard.ccrpc.org/</u>





Bicycle Related Crash Causes

Figure 5 shows crashes involving bicycles within the University District from 2018 through 2022, categorized by the type of injury that occurred. The average of almost 12 crashes per year indicates a relatively low rate of bike crashes in the University District. Injuries are categorized by severity, ranging from Fatal, Injury A, Injury B, Injury C, to No Injuries. Injury A is the most severe, followed by Injury B, and then Injury C.

Figure 5: Bicycle Related Crash Causes in University District





Bicycle Crashes by Injury Type

Figure 6: Bicycle Crashes by Injury Type in University District

As evident from Figure 6, there have been no fatal crashes over the last five years in the University District. The most common type of injury for bicycle crashes each year is Injury B. **Error! Reference source not found.** depicts the University District Crash Causes (Includes pandemic reduction in traffic). Understanding these factors in bike-related incidents can significantly enhance our ability to achieve a vision zero goal and improve safety at the campus level. As elaborated further in our plan, these incidents have guided us to set goals such as incorporating clear signage, improving infrastructure, implementing bike-specific enforcement and education programs, designing separate lanes for bicyclists, and establishing dismount zones in crowded areas with a higher risk of crashes involving pedestrians.

Bike Theft Analysis

Like many large communities with many bicycles, bike theft is a problem in Champaign-Urbana. Bike theft is a real barrier that prevents theft victims from riding bicycles and discourages some riders from bringing high-quality bicycles to campus. The University aims to reduce bike thefts on campus by providing better, more secure bicycle parking and storage facilities, a robust bicycle registration system, and by working with local police enforcement, bicycle shops, and community groups to identify theft deterrents on campus.



A master's in urban planning student presented a data driven approach for a new bike shelter location on campus using bike theft data as well as the bike usage data.⁹ This data has been used as a source for identifying potential locations for bike shelters on campus.

Equity and Inclusion

The University is dedicated to foster an inclusive environment for all students, staff and faculty. To support an inclusive environment, the Campus Bike Plan prioritizes equity and inclusion to ensure accessible and safe biking for everyone. The projects proposed in the 2024 Campus Bike Plan are designed such that they align with the mission statement of DRES.¹⁰ Additionally, the routes which are most used for training by wheelchair athletes¹¹ are included in the list of projects of the Bike Plan. The Bike plan aims to make these routes ADA compliant. For street level improvements, F&S TDM and Capital Programs will coordinate with the campus. The goals of the Bike Plan include incorporating cargo, tandem, electric bike and other types of bikes and sheltered bike parking for students to commute within campus.

Health and Wellbeing

Bicycling and other forms of active transportation are integral to promoting the health and wellbeing of our campus community. University students are particularly at risk to suffer from physical and psychological complaints and not fulfilling health-oriented physical activity recommendations. By prioritizing infrastructure that supports these activities, the U. of I. encourages a community and culture that promotes active transportation that contributes to the physical and mental health of students, staff, and faculty. The amount of cycling per week is positively corelated with the students' residence in the university town, automobile traffic, mental benefits, such as reduced stress, and physical benefits, such as fitness (Teuber & Sudeck, 2021).¹²

In addition to the physical benefits, active transportation options like bicycling and walking contribute to a more sustainable campus environment by reducing the reliance on vehicles. This reduction in vehicle usage leads to lower greenhouse gas emissions, improved air quality, and an overall more friendly campus experience for everyone.

⁹ Data-driven approach for a new bike shelter on campus - presentation by Pranjali Shah (MUP-1)

¹⁰ See Disability Resources and Education Services (DRES)

¹¹ <u>https://icap.sustainability.illinois.edu/project-update/routes-taken-about-wheelchair-athletes</u>

¹² Teuber, M.; Sudeck, G. Why Do Students Walk or Cycle for Transportation? Perceived Study Environment and Psychological Determinants as Predictors of Active Transportation by University Students. Int. J. Environ. Res. Public Health **2021**, 18, 1390. <u>https://doi.org/10.3390/ijerph18041390</u>



Chapter 2: Planning Process

Scope

The starting point for the planning process of this document is the 2014 Campus Bicycle Master Plan, which was published in May 2014. Picking up where that document and its projects left off, the 2024 plan seeks to complete any unfinished projects, identify new projects, and promote new programs that encourage bike usage and bike safety. This plan focuses on the bicycle network and programming within the campus boundary only.

The 2024 Campus Bicycle Master Plan aims to increase safety for all, increase the sustainability of campus transportation in support of the Illinois Climate Action Plan (iCAP), and continue to improve mobility and convenience for cyclists on campus. To achieve these goals, the Campus Bicycle Master Plan identifies future improvements of campus bicycle facilities, services, and programming, and incorporates technological advances into the university's bicycle infrastructure for the best bicycle experience on campus. In light of our efforts, we hope to improve the university's standing as a national leader in bicycle friendliness.

The adopted methodology for the 2024 Campus Bicycle Master Plan includes assessment and analysis, planning and design, stakeholder engagement, and public input. In the assessment and analysis stage, we reviewed existing conditions and the performance of the current bicycle infrastructure, conducted safety audits and user surveys to identify problem areas, and analyzed bicycle and pedestrian counter data to understand usage patterns. In the planning and design phase, we included APBP and AASHTO guidelines, feedback from the League of American Bicyclists, and other design standards and connectivity with surrounding bicycle infrastructure, we developed design plans for new infrastructure projects. For stakeholder engagement, we collaborated with campus and community entities, including students, faculty, and staff to achieve a holistic approach to our plan. For public input, we conducted online surveys and open comment periods to integrate suggestions and concerns into the final draft.

The main components of the 2024 Campus Bicycle Master Plan include the expansion and improvement of the bicycle network, focusing on the area most in need on campus, and enhancing connectivity between campus and community bikeways. The effectiveness of the 2024 Campus Bicycle Master Plan will be measured by the reduction in bicycle-related crashes and incidents, increased usage of the bicycle network, positive feedback from campus users in follow-up surveys, achievement of higher Bicycle Friendly University status levels, and enhanced connectivity and user-friendliness of the bike network.

As mentioned earlier, public input is a critical component of the 2024 Campus Bicycle Master Plan. The plan emphasizes continuous engagement with the campus community through events, surveys, and workshops, incorporating community feedback, providing regular updates on the



progress of plan implementation, and ensuring that the needs and concerns of all campus users, including those with disabilities and other underrepresented groups, are addressed.

Campus Bike plan Timeline



Figure 7: 2024 Campus Bike Plan Timeline





Map 1: University of Illinois Urbana-Champaign Campus Map (updated September 2022)

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Public Input

The university has a rich history of public engagement since its founding in 1867, and this bicycle plan was developed in the same tradition. From the 1999 Campus Area Transportation Study to the 2022 Campus Landscape Master Plan, there have been many public input opportunities which have all helped guide the university's decision-making related to bicycle infrastructure and programs.

In 1999, the CATS Phase I¹³ report recorded numerous issues and concerns with the bicycle infrastructure on campus. That study included regular input from a Citizens Advisory Committee and public input opportunities throughout the study, including surveys, workshops, focus groups, a web page with email input, and newsletters/project bulletins. The 2005 CATS Phase II report included two public input sessions during 2001. CATS Phase III began in 2011 and CUUATS staff along with CATS member agencies organized a public workshop for the University District Traffic Circulation Study in March 2013. Additionally, all CATS and CUUATS committee meetings follow the Open Meetings Act and allow public input during each meeting.

As part of the 2007 Multi-Modal Study, a campus open house was held in November 2006 to solicit input from the campus community about transportation recommendations. Nearly 200 students, staff, faculty, and visitors attended the open house, and written comments are included in that final report.¹⁴ Also, the Parking System Review Committee held multiple focus group meetings with various campus representatives, including students, faculty, staff, and cyclists.

The 2009 University District Bikeway Network and draft Campus Bicycle Plan were posted online and reviewed at a public workshop during Sustainability Week 2010. The network was also reviewed by the Campus Transportation Committee, the Urbana Bicycle and Pedestrian Advisory Commission, and the local cycling community via meetings with Champaign County Bikes.

The 2010 iCAP was created through an open dialog with campus and the public at large. The transportation section was developed in cooperation with local cycling advocates from the CATS agencies and non-profit organizations. The 2011 University District Bicycle/Transit Safety Study consisted of a workshop and guided bicycle tour of existing infrastructure in the University District, as well as a survey of MTD bus operators.¹⁵

In December 2012, TDM initiated the web-based Campus Bicycle Feedback Form,¹⁶ to help inform this bicycle plan as well as to continually guide future efforts to improve and enhance bicycle facilities and programs. Feedback received via this online form was used to help determine the

¹³ <u>https://www.ccrpc.org/transportation/_campus_area_transportation_study.php</u>

¹⁴ Multi-Modal Study, page 2

¹⁵ University District Traffic Circulation Study (UDTCS) 2011, page 6

¹⁶ Campus Bicycle Feedback Form



order in which recommendations should be prioritized for implementation, as well as to gain insights into the problems that the Campus Bicycle Plan must address and potential solutions.

In March 2013, there was a four week public comment period for the 2014 Campus Bicycle Plan, which resulted in 116 comments. These comments were incorporated into the 2014 Campus Bike Plan document.¹⁷ The Campus Landscape Master Plan, also included a month-long public input period in April 2022.

In addition to this, the feedback collected through various historical documents, studies, and reports (Appendix B. Related Plans and Studies), there was a six-week public comment period for this plan in August and September 2024, during which time anyone could review and submit feedback on the plan through the online form, or in person at a number of hosted events during the four-week period. The draft was posted online to the iCAP Portal and announced through various communications channels. The draft was also shared directly with numerous stakeholders (Appendix A. Stakeholders), including randomly selected 5,000 current students through Demographic Management Institute (DMI), more than 3,000 users who have registered their bicycles, and more. Their comments have been added to this document in the Appendix F. Public Input section.

¹⁷ 2014 Campus Bicycle Plan.pdf, page 202



Chapter 3: Existing Conditions

The existing bicycle network on campus is shown in Map 2. The network includes a mixture of dedicated and shared use side paths, a number of off-road dedicated and shared use paths, as well as some on-street bicycle lanes. Many low volume campus streets are not specifically marked for bicycle traffic, but the Illinois Vehicle Code allows cyclists to ride on any street, whether or not that street contains designated bicycle lanes or bicycle route signage.¹⁸

The majority of bikeways on campus were constructed in the 1960's and 1970's and were not consistently maintained or repaired, due to funding cutbacks. Additionally, piecemeal changes over time had resulted in disconnections and unclear directions for travel. As a result, by 2014, the campus contained many degraded and interrupted bicycle paths in need of improvement. As a result of the 2014 Campus Bike Plan, the bicycle conditions have improved significantly. The 2007 Multi-Modal Transportation Study identified a number of specific issues, listed here:

- The bicycle paths are most problematic at intersections. Typically, the paths end before they reach the intersection, leaving bicyclists to mix with pedestrians at street corners.
- Where the bicycle path system is segregated from the roadway, bicyclists cannot operate as vehicles in most intersections, causing unpredictability and introducing conflicts with pedestrians and vehicles.
- The bicycle paths are poorly marked and difficult to distinguish in many areas from the sidewalk since there is no physical separation.
- Of the few two-way paths that exist, most are of sub-standard width.
- Some paths are partially blocked with potentially hazardous obstructions.
- Poor geometric design at some locations makes turning precarious.¹⁹

These issues are re-examined in this chapter and can be summarized as five major problems: safety, maintenance, connectivity, user-friendliness, and equity and inclusion.

¹⁸ <u>625 ILCS 5/Ch. 11 Art. XV</u>

¹⁹ 2007 Multi-Modal Transportation Study, Final Report, 2-13





Facilities & Services

Existing Bicycle Infrastructure



Bicycle Sharrow Shared-Use Path

Map 2: Existing Campus Bicycle Network in 2024

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Campus Bike Plan Progress reports FY20 – FY24

Based on the progress reports published in FY20²⁰, FY22²¹, FY23²², and FY24²³, 100% of the high priority project, 72% of the medium priority projects, and about 54% of the total projects established in the 2014 Bike Plan have been completed. The remaining projects have been re-evaluated and incorporated in the 2024 Bike Plan. Map 2 shows the existing bike network on campus. The campus north of Kirby Avenue is well connected with bicycle infrastructure. Most of the projects proposed in the 2024 Campus Bike Plan are located to the south of Kirby Avenue and west of Campus to improve safety and connectivity.

The university has 17 bicycle repair stations on campus as shown in Map 3. As part of the smart campus campaign, the university has purchased and installed several bicycle and pedestrian counters (Eco-Counters) on campus. As of May 2024, ten Eco-Counters have been installed on campus and 14 more have been purchased and approved (by the Architecture Review Committee²⁴) to be installed on campus.²⁵

As of May 2024, the university can accommodate secured parking for up to 13,813 bicycles on campus.²⁶ Additionally, in 2021, the university installed an enclosed bicycle shelter close to Ikenberry Commons, which can accommodate up to 96 bicycles.²⁷ This shelter is highly utilized, so additional shelters would be beneficial at high bike traffic locations on campus.

The U. of I. brought a national bicycle registration system through Project 529 to the campus and community in July 2020.²⁸ Also in 2021, the \$47M Multimodal Corridor Enhancement (MCOREs) project was completed, which converted Green Street, Wright Street, and Armory Avenue on campus to complete streets. This project added raised painted bike lanes, bike boxes, bicycle traffic lights, shared use paths, landscaping, bus islands, etc. in these corridors. This project significantly enhanced the bicycling experience on campus and made it much safer for all.

All these changes contributed to the University renewing the Silver-level Bicycle Friendly University (BFU) status in fall 2023.

²⁰ 2019 Report for 2014 Campus Bicycle Plan

²¹ Campus Bike Plan progress report FY22

²² Campus Bike Plan progress report FY23

²³ Campus Bike Plan progress report FY24

²⁴ <u>https://fs.illinois.edu/Providers/architectural-review-committee-arc/</u>

²⁵ <u>https://icap.sustainability.illinois.edu/project/pedestrian-and-bicycle-counts</u>

²⁶ <u>https://bike.illinois.edu/maps/biking-map/</u>

²⁷ https://icap.sustainability.illinois.edu/project/bike-shelter-flagg-hall

²⁸ https://bike.illinois.edu/register-your-bike/https://bike.illinois.edu/register-your-bike/





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Opportunities for Infrastructure Improvement

Safety

The safety of bicyclists, as well as that of nearby pedestrians, motorists, and transit users, is a top priority for the university. Poorly marked, inconsistent and unpredictable bikeways pose difficulties for cyclists trying to navigate campus. This commonly leads to unpredictable riding behavior, which not only puts cyclists at risk, but also adversely affects other users of paths and roadways. Even when a cyclist is trying to follow the traffic laws, locations where a campus path ends without forewarning and without any indication of where the cyclist is expected to go next, can cause uncertainties. The cyclist may make a sudden decision while in motion, which can be very dangerous for the rider and surrounding passersby.

There is an opportunity to improve visibility at bi-directional side paths intended for bicycles that motorists may have of bicycles on these paths when approaching flow of adjacent traffic, as motorists crossing or turning left or right at driveways and intersections may not look for bicyclists traveling on the sidewalk.

The original design of some outdated paths is not optimal, with features such as sharp turns, narrow widths, and curbed edges. Among the few dedicated bicycle paths being kept under the updated bicycle plan, the majority will need to be widened or resurfaced to meet safety standards. Nearly all existing bi-directional dedicated bicycle paths are only six feet wide, rather than eight feet (as recommended by The Guide for the Development of Bicycle Facilities [AASHTO, 2012²⁹]).

Maintenance

As mentioned previously, some existing bikeways on campus have fallen into disrepair because of funding cuts limitations. Some of the dedicated bicycle paths have fallen victim to degraded concrete and edge drop offs. Broken and crumbling concrete poses a danger to cyclists, particularly on poorly lit pathways where the rugged terrain may not be visible at night. As shown in Map 4, U. of I. repaints and restripes all the university-owned dedicated bicycle paths (white border with yellow centerline) as well as on-street bicycle lanes every year.

²⁹ <u>https://njdotlocalaidrc.com/perch/resources/aashto-gbf-4-2012-bicycle.pdf</u>





Map 4: Bike Network Striping Map

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Connectivity

As the original bikeway system has slowly been changed and moved over time, from a cohesive network to a disconnected series of bikeway segments. The lack of connectivity makes it difficult to travel across campus by bicycle in an efficient, lawful manner, and it encourages cyclists to take dangerous or illegal alternatives such as bicycling on pedestrian-only sidewalks or traveling the wrong direction on one-way streets.

Just as there are connectivity issues within the campus bicycle system, existing connections between the campus bikeways and the community bikeways are hard to find. The university is nestled within the city limits of Urbana and Champaign and the bikeways on campus must connect with city-owned streets and bikeways to offer true connectivity. While the Multi-Modal Study recommends "the campus bicycle plan should be closely coordinated with bicycle planning for Champaign and Urbana to enhance regional connectivity and promote uniformity within the University District," some of the actual connections between campus bicycle paths and community bicycle paths have yet to be built. Map 5 shows the bicycle network vision from the 2008 City of Champaign Bicycle Plan and Map 6 shows the proposed bicycle infrastructure improvement projects from the 2016 City of Urbana Bicycle Master Plan.

Because the university only owns roughly a third of the streets in the University District, many of the improvements needed to upgrade the overall University District bicycle network fall under the jurisdiction of Champaign or Urbana, rather than the university. While this plan does not specifically call out solutions for the city-owned bikeways, TDM has worked closely with those planning and implementing the city-owned bikeways to coordinate efforts and ensure that a well-connected network is put into place. In several instances, coordination is particularly needed where the university owns the sidewalks or off-road bicycle paths, while another jurisdiction owns the adjacent street where an on-street bicycle lane or bicycle route is recommended. Examples of this include Springfield Avenue from Wright Street to Goodwin Avenue, and Mathews Avenue south of Springfield Avenue.



CHAPTER 6: BICYCLE VISION



FIGURE 19: BICYCLE VISION PLAN



Map 5: 2008 Bicycle Vision Plan, City of Champaign

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Map 6: 2016 Bicycle Master Plan, City of Urbana

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Equity & Inclusion

Each of the aforementioned problems results in a lack of user-friendliness among the existing bikeways. Poorly maintained and disconnected routes are unsafe and are often confusing and discouraging for new or potential riders. In order to make bicycling an attractive mode of transportation for campus residents and visitors, the university must provide a clean, convenient, and efficient network of bikeways on which to travel.

The University of Illinois prides itself in striving for equity and inclusion for all people, which includes being accountable and considerate for providing safe infrastructure for wheelchair athletes and users as well as those using different type of bicycle, like tandem, cargo, three-wheel, e-bikes, etc. The University includes equity and inclusion in its mission statement and emphasizes both of these points in its 2017 Campus Master Plan Update³⁰ and 2020 Illinois Climate Action Plan.

The U. of I. has several wheelchair athletes, and other organizations/RSOs that emphasize diversity on campus. To ensure that the University upholds these values, including equity and accessibility into this plan is vital for fulfilling that vision and to implement as impactful and inviting a transportation network as possible.

The BFU application process also considers equity, inclusion, and accessibility as factors for awarding levels. For the University of Illinois to reach its ultimate goal of being awarded Platinum-level, equitable and accessible bicycle networks and programs need to be integrated onto campus.

Through this plan, the University is committing to numerous equitable and inclusive goals as described in the "Chapter 4: Goals and Objectives" of this document. This plan aims to bring equity, unity, and positive social change by both providing necessary transportation and by making everyone feel safe and included.

³⁰ <u>https://www.uocpres.uillinois.edu/resources/uiucplan</u>



Chapter 4: Goals and Objectives

The following goals and objectives are meant to direct planning efforts, independently of time frame and individual projects. A goal is defined as an end state that will be brought about by implementing the Campus Bicycle Plan. Building off the work of the 2014 Campus Bicycle Master Plan, the 2024 Campus Bicycle Master Plan goals are outlined as:

- 1. Continue to increase safety for all campus users, including pedestrians, bicyclists, transit riders, and motorists.
- 2. Increase sustainability of campus transportation, in alignment with the Illinois Climate Action Plan.
- 3. Continue to improve the mobility, enjoyment, and convenience for cyclists on campus.
- 4. Identify funding needs and secure funding to support campus bicycle facilities, services, and programming.
- 5. Improve the university's standing as a national leader in bicycle friendliness.
- 6. Incorporate technological advances to the university's bicycle infrastructure for the best bicycle experience on campus.

Objectives are prioritized based on the following factors:

- 1. Safety for users is the highest priority: this includes all modes of transportation, including multi modal interactions.
- 2. Location: this refers to the impact on the overall networks and the perception of that impact.
- 3. Volume of Traffic: this reflects the number of users in the respective areas.
- 4. Condition: this considers the condition of the pavement and the scale of improvements needed in the respective area.
- 5. Alignment with campus plans: this considers the connections to strategic priorities and potential coordination with other campus projects.

This plan has identified areas of intervention to achieve these goals and objectives. Objectives are sub-goals that help organize the implementation of the plan into measurable and manageable parts. Implementation measures are specific activities that must be completed to achieve goals.



Areas of intervention

Objectives are organized under three key areas as follows:



Figure 7: Areas of Intervention



Infrastructure

Existing Infrastructure

- Plan and implement a safe, contiguous network of bikeways throughout campus that adhere to campus facility standards and bikeway design guidelines³¹ included in Appendix D. Design Guidelines.
 - a) 100% of the network installed are up to standard.
- 2. Conduct a thorough audit of the bicycle network and infrastructure by FY27.
- 3. Perform maintenance of campus bicycle repair stations at least once every year.
- 4. Ensure 100% of short-term bicycle parking meets the APBP Guidelines³² by FY35.
- 5. Increase user friendliness of the campus bikeway network with improved signage and markings on all bikeway segments.
 - a) Bring 100% of university-owned bikeway facilities to have proper signage and markings by FY30.
- 6. Ensure all bicycle paths and shared use paths on campus have appropriate lighting by FY35.

New Infrastructure

- 1. Implement seasonal storage for students living in Housing facilities by FY25.
- 2. Provide a storage facility for the annual summer bicycle roundup by FY25.
- 3. Add three more covered bike parking or bike shelters on campus by FY35 and two additional covered bike parking or bike shelters by FY40 with location priority to high density/ traffic parking areas.
- 4. Install Bike Repair Stations around the Campus for convenient access to all students, faculty, and staff on campus, as needed.
- 5. Implement bicycle related infrastructure projects from the Campus Landscape Master Plan.

Programming

Education

- 1. Develop more educational videos by FY27
 - a) Rules of the Road
 - b) Bicycle Safety
- 2. Continue to provide information packets about bicycle safety to new students.
 - a) Include information on Bike Safety Quiz.
- 3. Host or participate in bicycle-related engagement events on campus.

³¹ AASHTO bikeway design guidelines, 2012

³² APBP Bicycle Parking Guidelines, 2015


- 4. Send the Bike at Illinois Newsletter at least once per semester. Information could include, but not be limited to,
 - a) Upcoming events
 - b) Reminder to register and collect shield stickers
 - c) Bike Safety Quiz
 - d) Properly locking bicycles
- 5. Promote the use of safe bike practices via digital signs, with information like Rules of Road.
- 6. Continue to tailor the safety and operational education program to incorporate micromobility devices.
- 7. Encourage proper maintenance of bicycles by supporting the Campus Bike Center and mechanics courses.
- 8. Support Champaign County's Vision Zero goal.³³

Encouragement

- 1. Support the ongoing work at the Campus Bike Center.
- 2. Increase Campus Bike Center memberships by 5% per year.
- 3. Increase the number of visitors to the Campus Bike Center by 5% every year.
- 4. Increase incentives and services that encourage bicycle commuting.
- 5. Increase bicycle registration
 - a. Register at least 800 new bicycles per year starting FY24.
 - b. Increase the shield sticker distribution to 75% by FY28.
 - c. Increase the shield sticker distribution to 90% by FY32.
 - d. Increase the shield sticker distribution to 95% by FY35.
- 6. Enhance bicycle sharing program on campus for short-term or long-term use
 - a. Support departmental bike share programs on campus.
 - b. Offer long-term (monthly or semester-long) bicycle rentals through Campus Bike Center.
 - c. Increase the number of Bike Share Bicycles for public.
- 7. Develop a Bicycle Ambassadors program³⁴ by FY27.
- 8. Develop a Bike buddy program on campus by FY30.
- 9. Have at least one League Certified Instructor (LCI) on campus by FY25.
- 10. Implement a Guaranteed/Emergency Ride Home³⁵ program on campus for users who do not purchase an annual parking permit by FY30.

³³ Champaign-Urbana Urban Area Safety Plan

³⁴ https://icap.sustainability.illinois.edu/project/bicycle-ambassador-program

³⁵ https://icap.sustainability.illinois.edu/project/emergency-ride-home



Equity and Inclusion

- 1. Continue to improve connectivity within and beyond the University District by working with the Cities of Champaign and Urbana and the Village of Savoy to implement bicycle facilities that connect the campus with the greater community.
 - a. Continue collaborative planning efforts through CUUATS and other opportunities as they occur.
- 2. Ensure a bikeway network that is convenient and accessible for a range of ridership skill levels, by providing an integrated mix of facility types.
 - a. Incorporate parking for cargo, tandem, oversized, electric bike and other types of bikes into the most popular bike parking locations by FY35.
- 3. Continue to improve bicycle and street infrastructure for routes³⁶ taken by wheelchair athletes and make them ADA compliant.

Evaluation and Planning

- 1. Reduce motor vehicle trips in the community and associated emissions by increasing mode shift toward bicycles.
 - a) Reduce single occupied vehicle usage for faculty and staff to 45% by FY35.
 - b) Develop a Commuter Program to incentivize those who relinquish their parking permit.
 - c) Increase the share of trips taken by bicycle
 - i. Increase the percentage of faculty and staff using bicycles as their primary mode of transportation on campus to 25% by FY35.
 - ii. Increase the percentage of students using bicycles as their primary mode of transportation on campus to 20% by FY35.
- 2. Update the university facility standards based on technological advancement, to comply with industrial or universal standards, or as needed.
 - a) Form a task force to come up with a solution to manage E-bike charging and operations on campus in FY25.
- 3. Improve the university's standing as a national leader in bicycle friendliness
 - a) Achieve Platinum-level Bicycle Friendly University status from the League of American Bicyclists.
 - i. Achieve Gold-level status by FY28.
 - ii. Apply for and achieve Platinum-level status by FY36.
 - b) Publish an annual report on progress made towards the projects and objectives listed in the 2024 Campus Bicycle Master Plan.
 - c) Update the Campus Bicycle Master Plan once every ten years at a minimum to reflect best practices and existing opportunities.

³⁶ DRES wheelchair athletes training route



i. Publish next updated Campus Bicycle Plan no later than FY34.

Enforcement

- 1. Keep the University's Bicycle Ordinance³⁷ updated to ensure safe and legal behavior of cyclists.
 - a. Enforce impound fee by FY25.
- 2. Evaluate dismount zones on high pedestrian hotspots on-campus including locations such as Main Quad and Engineering Quad and implement zones as needed by FY30.
- 3. Continue to provide bicycle registration for the University, City of Champaign, City of Urbana, and Village of Savoy through a national bicycle registration system.³⁸

Community Engagement

- 1. Organize, promote, participate, and report on bicycle-related engagement events held on campus.
- 2. Report the events in the community where the university participated or promoted.
- 3. Continue to participate in the Bicycle & Pedestrian Advisory Commission of City of Urbana.
- 4. Continue to work with local groups and organizations on bicycle related projects and events.

Academic Collaboration

- 1. Collaborate with students, faculty, and staff to improve bicycling on campus.
- 2. Work with at least one student or student group on a bicycle related project every year.
- 3. Continue to engage with RSOs on bicycle related projects or activities.

Resources

Funding Resources

- 1. Continue to have an ongoing source of funding for regular maintenance and upkeep of the bikeway network and other bicycle infrastructure and programs.
- 2. Develop a plan and identify funding for the ongoing maintenance of the bikeway network.
 - a) Allocate funding to repaint all university owned in-road bicycle lanes and off-road bicycle paths each year.
 - b) Allocate funding to implement at least one bike network improvement project on campus each year.
 - c) Appropriately fund the maintenance and improvement bicycle parking on campus every year.
 - d) Allocate funding for the maintenance of Bike Repair Stations.
- 3. Define specific budgets for the projects described in this plan

³⁷ <u>https://go.illinois.edu/bikeordinance</u>

³⁸ https://bike.illinois.edu/register-your-bike/



- a) Identify the appropriate funding and project requests each year, starting with FY25.
- b) Request funding for at least two bikeway project phases per year.
- 4. Secure funding for ongoing bicycle improvements and programming
 - a) Continue to include related bicycle infrastructure needs in project scope and budget for all Capital Construction Projects.
 - b) Allocate funding to increase covered and/or secured bicycle parking capacity oncampus every year.
- 5. Annually request SSC to fund at least one project directly related to this plan.

Staff Resources

- 1. Appropriately staff Sustainable Transportation efforts for the campus to oversee continual improvements, evaluation, and future planning at F&S.
 - a. Continue to fund the full-time sustainable transportation position or similar position every year.
 - b. Allocate funding for at least one intern in F&S focused on sustainable transportation.
- 2. Maintain appropriately staffed Campus Bike Center.
 - a. Continue to fund the full-time staff to oversee operation at Campus Bike Center every year.
 - b. Continue to allocate funding to support part-time and student employees at Campus Bike Center.

State or National Resources

- 1. Continue to have an active member in Association of Pedestrian and Bicyclist Professionals.³⁹
- 2. Continue to have an active member in League of American Bicyclists.⁴⁰
- 3. Continue to work with Ride Illinois.⁴¹

³⁹ <u>https://www.apbp.org/</u>

⁴⁰ <u>https://bikeleague.org/</u>

⁴¹ <u>https://rideillinois.org/</u>



Chapter 5: Network

Recommendations

The recommendations provided in this plan seek to address the five major problems described in Chapter 3: Existing Conditions. By implementing the following general changes to the campus bikeway network, safety, maintenance, connectivity, and equity & inclusion will be improved.

Summary of Solutions

Improved Safety

A review of the impact of transportation infrastructure on bicycling injuries and crashes highlights the significant role that purpose-built bicycle-specific facilities play in reducing these incidents. The road geometry, maintenance levels, and their interactions are crucial factors influencing injury severity in single-bicycle crashes. Specifically, crashes on road sections tend to result in more severe injuries compared to those on bicycle lanes. This is exacerbated when crashes occur on roads with poorly maintained bicycle lanes, as cyclists are often forced to move into the vehicle lanes, increasing the risk of severe injury. Low traffic volumes and nighttime conditions further elevate the risk of severe injuries, likely due to higher cycling speeds and reduced visibility, respectively.⁴²

To reduce the number of dangerous interactions between bicyclists, motorists, and pedestrians, the Campus Bicycle Plan recommends replacing most existing side paths with on-street bicycle lanes or designated on-street bicycle routes. Bicycle lanes are safer for cyclists because cyclists are more visible and predictable when following the Rules of the Road.⁴³ In the absence of dedicated bicycle lanes, clearly marked designated bicycle routes provide additional safety measures for on-street cycling.⁴⁴ As noted in the Urbana Bicycle Plan, "Using the road often improves safety by increasing cyclist visibility, especially at intersections, where most crashes occur. On-street bikeways are especially appropriate on moderate to lower speed roads with more than a few intersections, driveways, and entrances. They also eliminate bicycle-pedestrian conflicts because they keep bicycles off of sidewalks, which are too narrow to safely accommodate both modes."⁴⁵

Improved Maintenance

While the initial bikeway improvements recommended in this plan are critical to ensuring the safety of cyclists and others, continuing to maintain the new and improved network is essential to the ongoing success of the plan. Because many existing side paths will be replaced by on-street bicycle

⁴² Myhrmann et al. (2020) Factors influencing the injury severity of single-bicycle crashes. <u>https://doi.org/10.1016/j.aap.2020.105875</u>

⁴³ http://www.ilga.gov/legislation/ilcs/ilcs5.asp?ActID=1815&ChapterID=49

 ⁴⁴ Brady, et al. (2011) *Effects of Shared Lane Markings on Bicyclist and Motorist Behavior*.
<u>https://library.ctr.utexas.edu/ctr-publications/iac/coabike_sharrows-final.pdf</u>
⁴⁵ Urbana Bicycle Master Plan – Facility Types, Page 78, section 5.2

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lanes, the maintenance of these new bikeways will vary from historical needs of the old off-street paths. Although the plan effectively reduces the number of dedicated bicycle paths requiring upkeep, on-street bicycle lanes will likely have an increased need for striping maintenance due to the added wear caused by vehicle traffic crossing over painted bicycle lanes. This will be particularly apparent where bicycle lanes are along bus routes, so buses must cross through the bicycle lane to pull into bus stops. Most significantly, on-street bicycle lanes will mean that the maintenance of bicycle lanes will be paired with the maintenance of streets. Pavement upgrades for the street will mean pavement upgrades for the bicycle lane, and funding limitations for road maintenance can adversely affect maintenance of on-street bicycle lanes and routes.

For off-road shared use and dedicated bicycle paths, occasional motor traffic from service vehicles, as well as normal wear from daily use and inclement weather will continue to result in faded paint and degraded pavement over time. To prevent the future network from falling into the same state of disrepair that was found on campus prior to the 2014 Campus Bike Plan, a regular maintenance plan will need to be followed. Potential funding sources for the ongoing maintenance of bikeways include:

- Increasing the annual F&S budget to support bikeway network repairs;
- Increasing donations to the UI Foundation fund for bicycle-related projects⁴⁶ and programming, including ongoing maintenance of the bikeway network;
- Creating a campus "Adopt a Path" program that would allow departments, student groups, or local businesses to provide funding to sponsor the ongoing upkeep of specific segments of the bikeway network; and,
- Additional needs for all bikeways include ongoing regular maintenance such as sweeping of leaves and landscaping debris as well as snow removal.

Improved Connectivity

Although this plan does not make recommendations for the cities on specific bikeways to implement or change, it does recognize the need for the university to continue to work closely with the cities to ensure that campus bikeways are aligned with the greater area's bicycle network. This plan intends to connect and coordinate the campus bikeway network with facilities constructed and planned in the municipal jurisdictions of Champaign, Urbana, and Savoy. Every effort has been made to ensure that the recommendations included in this plan provide connectivity with non-university-owned bikeways.

Additionally, many of the plan's recommendations are designed to improve connectivity throughout the existing and proposed network. Bicycle lanes and bicycle routes are often recommended because they take advantage of existing road infrastructure, though significant capital improvements are necessary with some proposed projects. The proposed bicycle network

⁴⁶ <u>http://go.illinois.edu/bikefund</u>



will create a more cohesive and coherent network, allowing cyclists to move across campus with ease.

Improved Equity & Inclusion

To make the bikeway network not only more safe but also more appealing and user-friendly for experienced and novice cyclists alike, this plan includes recommendations for improved signage and markings that would guide cyclists through campus. More consistent bikeways that are well maintained and clearly marked will help cyclists navigate the campus by bicycle. This will also encourage more predictable riding behavior for the benefit and safety of all transportation modes.

This plan identifies areas for improvement in including bike infrastructure that can accommodate different types of bicycles, including cargo, tandem, or e-bikes, etc. The bicycle infrastructure is also used by wheelchair athletes and the university should make sure that these facilities are safe for their use. For education campaigns and engagement campaigns, the material should be accessible as well.

Overview of Changes

The resulting campus bicycle network will be very different from the disjointed collection of existing bicycle paths currently in place. Map 7 shows the proposed full network of campus bikeways.





Map 7: Proposed Campus Bicycle Network Page 44 of 122



Chapter 6: Implementation

Updating and continually improving the bicycle network is a high priority for the campus. Providing improved bicycle facilities is critical to improving public safety, preventing injuries and fatalities resulting from crashes, ensuring efficiency, and ease of movement, improving livability and quality of life, improving energy efficiency and meeting sustainability targets, and promoting active lifestyles. With safer, better- connected infrastructure, bicycling becomes a more attractive mode of transportation in the campus community.

Improved bicycle infrastructure will pave the way for other bicycle-related projects. It will improve our standing among other universities in terms of bicycle- friendliness and attract active students.

While projects in this plan are rated by priority, available funding often varies significantly. Many projects will be completed along with other major infrastructure projects. For example, when streets are rebuilt, proposed bicycle lanes should be added regardless of that project priority.

Funding

The actual cost to the University for each of these recommended bikeways will depend on many variables, including engineering details, grant opportunities, and partnership with other jurisdictions.

The University should place a priority on funding projects that assist with implementation of this plan. This should include providing enough funding to renovations, expansions and deferred maintenance projects for existing facilities, along with new facilities, so the adjacent bike infrastructure can be upgraded. The University follows complete street policy when upgrading street pavement.

While the source of funding is still unclear for the complete implementation of this plan, the campus, in recent years, has been granted one-time allocations by campus administration, occasional allocations from the Illinois Student Senate and the Student Sustainability Committee, and several bike facilities were improved in combination with other capital projects.

Bicycle Infrastructure and Programming Fee

Bikeway and bike parking maintenance and improvements are not funded, except for what is possible through the Bicycle Infrastructure and Programming Fee (Bike Fee) and special allocations from campus. The student-initiated Bike Fee accounts for \$1 per student per semester, which yields nearly \$90,000 annually, of which approximately \$70K per year is used for small scale infrastructure improvements, and \$20K for programs. The Student Fee Advisory Committee requires F&S to provide an annual report as well as plans for Bike Fee expenditure over the following fiscal year.



Prioritization Process

The projects making up this plan are ranked in order of priority, and each project has been broken into one or more phases. Projects were prioritized using these criteria:

- 1. Safety for users: this includes all users, both in the related traffic mode and those interacting in that space.
- 2. Location: this refers to the impact on the overall networks and the perception of that impact.
- 3. Volume of Traffic: this reflects the number of users of the affected area.
- 4. Condition: this considers the scale of the improvements needed at the affected area.
- 5. Alignment with campus plans: this considers the connections to strategic priorities and potential coordination with other campus projects.

Projects that fall entirely under the jurisdiction of the university have received priority over projects that need assistance or cooperation from another local governmental agency or where connectivity relies heavily on additional upgrades by neighboring jurisdictions. There will be several stakeholders and responsible parties involved in each project, even for projects that are entirely under university jurisdiction.

Using the above criteria, projects were categorized in high, medium, and low priority levels. A fourth category, Study Areas, includes projects that do not yet have recommended designs. Table 1 outlines the full implementation plan by priority.



Project Summaries

The following pages contain information about specific project recommendations. Projects are listed in priority order.

Full Implementation List

High Priority Projects	
•	Florida Avenue
•	Gregory Drive
•	Mathews Avenue
•	North-South Mathews Avenue
	Extended Shared Use Path
Medium Priority Projects	
•	Hazelwood Drive
•	Oak Street
•	Peabody Drive
•	Stadium Drive
•	Lincoln Avenue shared use path
Low Priority Projects	
•	ACES Legacy Trail
•	FAR/PAR Bicycle routes
•	Main Street
•	St. Mary's Road

Table 1: Full Implementation List



High Priority Projects

Florida Avenue Shared Use Path

This project outlines a shared use path on the South side of Florida Avenue from Lincoln Avenue to Race Street. This path will provide a safe route for bicyclists to travel along Florida Avenue and connect to Orchard Downs. This path is in the University of Illinois Urbana-Champaign jurisdiction and will go through in front of the President's House. The City of Urbana has received an Illinois Transportation Enhancement Program (ITEP) grant in the amount of \$1M for this project.

Project scope:

- 8' wide shared use path on the South side of Florida Avenue connecting Lincoln Avenue and Race Street, including upgrading the pedestrian lighting for the path.
- The project has a completion timeline of FY26.



Florida Avenue

Existing Bicycle Infrastructure



0.22 Miles



Map 8: Existing Bicycle Infrastructure, Florida Avenue shared use path Page **49** of **122**



Florida Avenue

Proposed Bicycle Infrastructure

0 0.030.06 0.11 0.17

7 0.22 Miles



Map 9: Proposed Bicycle Infrastructure, Florida Avenue shared use path Page 50 of 122



Gregory Drive Bicycle Lane

The Campus Bike Center is located on Gregory Drive between First Street and Oak Street. This project envisions a bike lane for Gregory Drive. This will connect to the bike lane along First Street and Gregory Drive east of First Street as well as the planned bike route along Oak Street.

Project scope:

• Bike lane along Gregory Drive between First Street and Oak Street



Gregory Drive 0.1 Miles 0.05 0.08 0 0.01 0.03 Existing Bicycle Infrastructure Locust Street Armory Avenue Oak Street Gregory Dr First Street Stadium Drive Ν **Bicycle Infrastructure Legend Bicycle Lane** Proposed Project Area Shared-Use Path

Map 10: Existing Bicycle Infrastructure, Gregory Drive bike route Page **52** of **122**





Map 11: Proposed Bicycle Infrastructure, Gregory Drive bike lane

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Mathews Avenue Shared Use Path

Mathews Avenue is a high-volume street for pedestrians and bicyclists. This street, with its on-street parking, belongs to the City of Urbana, and the existing dedicated bicycle side path from south of Green Street to south of Smith Memorial Hall belongs to the university.

Project scope:

- Remove the existing bike path and sidewalk from Mathews Avenue.
- Add an 8' wide Shared use Path along Mathews Avenue from Green Street to south of Smith Memorial Hall.
- Covered bike parking at south of Lincoln Hall, west of Smith Memorial Hall, and north of Literatures, Cultures and Linguistics Building.



Mathews Avenue

Existing Bicycle Infrastructure

0.12 Miles 0.06 0.09 0 0.010.03



Map 12: Existing Bicycle Infrastructure, Main Quad and Mathews Avenue

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Map 13: Proposed Bicycle Infrastructure, Main Quad and Mathews Avenue Page **56** of **122**



North-South Mathews Avenue Extended Shared Use Path

This bike path is owned and maintained by the University. The Bike plan envisions the removal of existing deteriorated bike path and replace it with an 8" wide shared use path. The planned project area extends from the south of ACES Library, Information, and Alumni Center to the Agricultural Bioprocess laboratory.

Project scope:

- 10' wide shared use path.
- Solar cat's eyes lighting,⁴⁷ may need further investigation of application.
- Pedestrian lighting along the new path.

⁴⁷ Solar cat's eyes lights create highly visible delineation along walking or cycling paths for general route marking and way-finding





Map 14: Existing Bicycle Infrastructure, North-South Mathews Avenue Extended Shared Use Path

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North-South Mathews Ave

Proposed Bicycle Infrastructure





Map 15: Proposed Bicycle Infrastructure, North-South Mathews Avenue Extended Shared Use Path



Medium Priority Projects

Hazelwood Drive Shared Use Path

This project will connect Orchard Downs to Lincoln Avenue and Vet Med along Hazelwood Drive. Currently, there is an off-street unpaved bike path with no lighting. This project envisions a new shared use path along Hazelwood Drive. This project will be completed in conjunction with the Doris Kelley Christopher Illinois Extension Center (U21054) project and is expected to begin construction in summer 2025.

Project scope:

- 8' wide shared use path.
- Pedestrian lighting.
- In-pavement solar cat's eyes, may need further investigation of application.





Bicycle Infrastructure Legend

Existing Shared-Use Path

Proposed Project Area



Map 16: Existing Bicycle Infrastructure, Hazelwood Drive shared use path Page 61 of 122





Map 17: Proposed Bicycle Infrastructure, Hazelwood Drive shared use path

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Oak Street Bicycle Lane and Route

The Oak Street project runs from John Street on the north to Gerty Drive on the south. The street from Armory Avenue to Gerty Drive is under university jurisdiction. To the north of Armory Avenue, Oak Street is under the jurisdiction of the City of Champaign.

Project scope:

- Add a bike route or share the road sign along Oak Street from John Street to Kirby Avenue.
- Add a bicycle lane along Oak Street from Kirby Avenue to St. Mary's Road.
- Add a bike route or share the road sign along Oak Street from St. Mary's Road to Gerty Drive.



Oak Street 0 0.05 0.1 0.2 0.3 0.4 Existing Bicycle Infrastructure Miles John Street **Daniel Street** Wright Street Sixth Street Fifth Street **Chalmers Street** Armory Avenue **Gregory Drive** Stadium Drive Peabody Drive Oak Street Fourth Street Pennsylvania Avenue First Street Kirby Avenue Neil Street (USR Route 45) St. Mary's Road Wright Street **Griffith Drive** Hazelwood Drive Ν **Bicycle Infrastructure Legend** Existing Bicycle Lane Existing Shared-Use Path Existing Bicycle Path Proposed Project Area Existing Bicycle Sharrow

Map 18: Existing Bicycle Infrastructure, Oak Street

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Oak Street

0.2 0.3 0.4 0 0.05 0.1 Proposed Bicycle Infrastructure Miles John Street Daniel Street Wright Street Sixth Street Fifth Street **Chalmers Street** Armory Avenue **Gregory Drive** Stadium Drive Peabody Drive Fourth Street Oak Street Pennsylvania Avenue First Street Kirby Avenue Neil Street (US Route 45) St. Mary's Road Wright Street **Griffith Drive**



Map 19: Proposed Bicycle Infrastructure, Oak Street

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Peabody Drive Paths

Peabody Drive is under university jurisdiction from First Street to Dorner Drive. The Bike Plan envisions removing the existing bike path and replacing it with a shared use path. The project area extends from Fourth Street to Sixth Street. This project also envisions a shared use path from the Mathews Avenue Path to Goodwin Avenue and a bicycle route on Goodwin Avenue from Peabody Drive to Pennsylvania Avenue. There is a plan to expand the Integrated Bioprocessing Research Laboratory, and this project will work in collaboration with that expansion project.

Project scope:

- Removal of existing bicycle path along Peabody Drive from Fourth Street to Sixth Street.
- Add a shared use path along Peabody Drive from Fourth Street to Sixth Street.
- 10' wide shared use path along Peabody Dr from Mathews Ave to Goodwin Ave.
- Add a bicycle route or share the road sign on Goodwin Ave from Peabody Dr to Pennsylvania Ave.





Map 20: Existing Bicycle Infrastructure, Peabody Drive

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Peabody Drive 0.22 Miles 0 0.030.06 0.11 0.17 Proposed Bicycle Infrastructure -Wright St Nevada Street Fifth Street Armory Avenue Goodwin Ave Gregory Drive Street Sixth Lorado Taft Drive Peabody Drive Peabody Drive Fourth Stre Pennsylvania Avenue Florida Avenue Kirby Avenue Aver Goodwin Ν **Bicycle Infrastructure Legend** Existing Bicycle Lane Proposed Project Area Existing Bicycle Path Proposed Shared-Use Path Existing Bicycle Sharrow Proposed Bicycle Route

Map 21: Proposed Bicycle Infrastructure, Peabody Drive

Existing Shared-Use Path

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Stadium Drive Shared Use Path

Stadium Drive starts at Neil Street in Champaign and ends at First Street, where it will connect to the proposed bicycle lanes on First Street. Stadium Drive provides a key connection to campus bicycle commuters between the City of Champaign and the University District, with a railroad viaduct and a traffic signal for crossing US Route 45 / Neil Street.

Project scope:

• Add a bike route or share the road sign along Stadium Drive from Neil Street to First Street.



Stadium Drive 0.12 Miles 0 0.010.03 0.06 0.09 Existing Bicycle Infrastructure Gregory Drive Neil Street (US Route 45) Stadium Drive Oak Street Peabody Drive First Street Ν **Bicycle Infrastructure Legend** Existing Bicycle Lane Proposed Project Area Existing Bicycle Sharrow Existing Shared-Use Path

Map 22: Existing Bicycle Infrastructure, Stadium Drive

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Map 23: Proposed Bicycle Infrastructure, Stadium Drive Page **71** of **122**



Lincoln Avenue shared use path

Lincoln Avenue is under the jurisdiction of the U. of I. from Florida Avenue to Windsor Road. The Bike Plan envisions a shared use path on the east side of Lincoln Avenue connecting the planned shared use path on Florida Avenue to the planned shared use path along Hazelwood Drive. This project will enhance accessibility and provide a safe connection to Arboretum.

Project scope:

- 8' wide shared use path on the east side of Lincoln Ave between Florida Ave and Hazelwood Dr.
- Pedestrian lights for the shared use path




Map 24: Existing Bicycle Infrastructure, Lincoln Avenue Page **73** of **122**



Lincoln Avenue 0 0.020.04 0.09 0.14 0.18 Proposed Bicycle Infrastructure Miles Florida Avenue Lincoln Avenue St. Mary's Road 111 Hazelwood Drive Ν **Bicycle Infrastructure Legend** Existing Shared-Use Path Proposed Project Area Proposed Shared-Use Path

Map 25: Proposed Bicycle Infrastructure, Lincoln Avenue

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Low Priority Projects

ACES Legacy Trail Shared Use Path

ACES Legacy Trail loop was recommended in the 2022 Campus Landscape Master Plan.⁴⁸ Following is an excerpt from the document about this project:

"The ACES Legacy Corridor was designated in the Campus Master Plan as an important corridor to celebrate the agricultural legacy of campus and create an improved entry experience for visitors. Numerous stakeholders indicated the desire to better connect the core of campus to the South Farms as well as generate more exposure to the incredible research and testing happening in this district. "

This concept positions Lincoln Avenue as the north-south "eco-corridor" of campus, while it connects the newly envisioned Military Axis, across the South Quad District to the Red Oak Rain Garden, the Dorner Pond restoration area, Illini Grove, the Arboretum and the South Arboretum Woods, to the south and onward to the Student Sustainable Farm, across the Embarras River, through Illini Forest and into Meadowbrook Park. The proposed concept demonstrates the overall campus-wide goal of connecting the existing ecological assets on campus. These incredible assets are somewhat underutilized and are under celebrated. Through a shared use path on the east side of Lincoln Avenue and a continued trail along the Embarras River, the campus will be connected to the larger regional ecological context, while creating access and exposure to these spaces through new experiences.

Project scope:

- 8' wide shared use path
- Pedestrian lighting
- Landscape enhancement

⁴⁸ 2022 Campus Landscape Master Plan, pg. 107





Map 26: Existing Bicycle Infrastructure, ACES Legacy Trail

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Map 27: Proposed Bicycle Infrastructure, ACES Legacy Trail Page **77** of **122**



FAR/PAR Bicycle Routes

There is an existing shared use side path located to the south of the Florida Avenue Residence (FAR) Hall.

Project scope:

- Create bicycle route by painting sharrows on Maryland Drive, Virginia Drive, and College Court.
- Covered bike parking close to Saunders Hall





Map 28: Existing Bicycle Infrastructure, FAR/PAR Page **79** of **122**





Map 29: Proposed Bicycle Infrastructure, FAR/PAR

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Main Street Bicycle Route

The Main Street Path is the primary connection for cross-town bicycle commuters through the north side of the University District. Main Street from Goodwin Avenue to Harvey Street has been purchased by the university, but it remains under the maintenance of Urbana until all properties belong to either the university or the Foundation. The planned bike route connects the Oval Alley to Harvey Street.

Project scope:

- Remove the existing bike path and sidewalk from Main Street.
- Add a bike route or share the road sign along Main Street from Goodwin Avenue to Harvey Street.
- Covered bike parking to the west of Mathews Avenue near Transportation Building.



Main Street 0.1 Miles 0 0.010.03 0.05 0.08 Existing Bicycle Infrastructure Harvey Street **Clark Street** Main Street Mathews Avenue Goodwin Avenue Stoughton Street Springfield Avenue N Bicycle Infrastructure Legend Existing Bicycle Lane Existing Shared-Use Path Existing Bicycle Path Proposed Project Area

Map 30: Existing Bicycle Infrastructure, Main Street bike route

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Main Street



Map 31: Proposed Bicycle Infrastructure, Main Street bike route

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St. Mary's Road Bicycle Lane and Shared Use Path

The project area extends along St. Mary's Road from Oak Street to Lincoln Avenue. It will connect the existing bicycle lanes along St. Mary's Road at from Oak Street to the existing shared use path on Lincoln Avenue. This will require a major reconfiguration of the profile of St. Mary's Road prior or in conjunction with this path addition.

Project scope:

- Add bicycle lanes along St. Mary's Road from Oak Street to Fourth Street.
- Add an 8' wide shared use path along St. Mary's Road from Fourth Street to Lincoln Avenue.





Map 32: Existing Bicycle Infrastructure, St. Mary's Road Page **85** of **122**





Map 33: Proposed Bicycle Infrastructure, St. Mary's Road Page **86** of **122**



Chapter 7: Additional Considerations

Engineering

Chapter 5: Network and Chapter 6: Implementation outlined the specific infrastructure improvements needed for the bikeway network. Coinciding with the bikeway network, additional engineering investments are needed for bicycle parking/storage and other bicycle-related facilities. These recommendations are described below.

Bicycle Parking and Storage Facilities

As of February 2024, there are an estimated 14,000 bicycle parking spaces in roughly 500 bicycle parking areas on campus property. Of these areas, nearly 84% meet current facility standards for bicycle parking. Previous bicycle censuses counted more than 5,000 parked bicycles on campus during a single hour of a school day. As described in Chapter 1: Introduction, the actual volume of bicycles on campus on a typical day could be as high as 20,000. In the 2023 bicycle census, less than 10% of the counted bicycles were parked on structures other than bicycle racks such as trees, fences, parking meters, and sign posts.

In addition to upgrading non-standard existing bicycle racks, new locations for additional bicycle parking should be identified to ensure there is adequate parking available for all campus cyclists, particularly as the number of bicycles on campus continues to increase.

Bicycle Parking Facility Standards

The University of Illinois Urbana-Champaign has developed facilities standards⁴⁹ for bicycle parking and network, listed below:

- "Streets, Driveways, Sidewalks and Bicycle Network" under Sites and Grounds section of General Guidelines
- "Drawing 12 93 13-01, Bicycle Rack Installation" under Drawing Details
- "Drawing 32 17 23-01, Bicycle Parking Dimensional Guidelines" under Drawing Details

Indoor/Covered bicycle parking

In addition to standard outdoor bicycle parking, the university intends to provide sheltered bicycle parking throughout campus, particularly near residence halls. The community of Champaign-Urbana experiences all types of weather, and many cyclists continue to ride in inclement weather. Current campus policies prohibit bringing bicycles into university-owned buildings, including offices, academic buildings, and residence halls, unless approved by authorized a facility or departmental manager. Students who live in University Housing and own bicycles must leave their bicycle outside in rain, snow, and ice storms that are damaging to bicycles. Additionally, some

⁴⁹ <u>https://fs.illinois.edu/facilities-standards</u>



campus residents have requested more secure bicycle parking to help deter theft and vandalism. Where possible, exceptions should be considered to allow indoor bicycle parking.⁵⁰

Where indoor bicycle parking is not an option or does not provide enough storage for the number of bicycles needing protection, sheltered bicycle parking should be considered. Aside from funding, there are restrictions in the Campus Master Plan Design Guidelines, managed through the Architecture Review Committee (ARC),⁵¹ which may make it difficult to install bike lockers throughout all of campus.

Seasonal Bicycle Storage

For students who live on campus and do not continue to use their bicycle during winter months or who leave for the summer and have nowhere to store their bicycle while away, there is a clear need for long-term, protected storage of bicycles. The university should work to identify a space where bicycles can be safely stored for several months in the summer and winter, and develop a system for students to utilize the storage program. This effort will also require solidifying the programmatic details including the process by which bicycles are dropped off and picked up, any fees associated to cover the cost of storage and staff time, and inventorying requirements to keep the program well organized. It is also important to recognize that many students rely on their bicycles for transportation year-round and would not necessarily be willing to give up access during the entire winter.

Temporary Parking during Construction

Construction projects on campus often results in neighboring bicycle parking areas being blocked for staging areas and dumpster or equipment storage. Facilities & Services is authorized to prohibit parking and work with the Parking Department to remove bicycles in any bicycle parking area during designated periods for building construction, grounds maintenance and improvements, university functions, or for other business reasons. The University Bicycle Ordinance⁵² requires notice of such special regulations to be posted in the regulated parking area at least two weeks in advance. The Traffic Closure Request Form⁵³ asks if pedestrian/bicycle traffic will be impacted by any closure, including bike parking.

Showers and Lockers for Bicycle Commuters

To encourage bicycle commuting, the university should consider offering shower and locker facilities to allow commuters to clean up for work or class after arriving by bicycle. Currently, 15-25 buildings on campus have showers, but few of these showers are accessible to most commuters. As part of their LEED Certification, some new and renovated buildings on campus,

⁵⁰ University Building Indoor Bicycle Parking Application

⁵¹ ARC oversees the allowance of the structures to be built on campus property.

⁵² <u>https://go.illinois.edu/bikeordinance</u>

⁵³ https://docs.fs.illinois.edu/wp-content/uploads/2023/08/Traffic Closure Request Form.docx



such as the Business Instructional Facility (BIF) and Lincoln Hall are constructed with shower facilities for cyclists. The showers are accessible only by swiping an i-Card and can be locked from the inside once in use. The university should continue to include shower and locker facilities in new and reconstructed buildings, and also work to make the existing showers on campus more easily accessible to cyclists.

Bicycle Repair Stations

In 2011, Champaign, Urbana, MTD, and the University purchased bicycle repair stations to be strategically placed around the Champaign-Urbana community. There are now nine repair stations in the community, including three on campus. The Campus Bike Center maintains two of the on-campus repair stations, and an academic unit installed and maintains the third. Maintaining the stations includes posting stickers on each station with instructions for use, with a phone number to report broken or missing parts, and then dispatching a staff person to replace or repair missing or broken parts. As of February 2024, there are 17 bicycle repair stations (Map 3) spread across the campus to give equidistant access to all the commuters or users⁵⁴.

Education

Incoming Students, Faculty and Staff

Education and awareness about biking and bike services on campus is done through bike safety video(s), educational bike tours of campus, presentation to all incoming students, faculty, and staff, handouts and tabling at resource fairs. Bicycling information is also included in the Student Handbook, all welcome packets for new students, faculty, and staff, Family & Parent newsletter, parent handbook, or other communications for students' parents or families. All faculty and staff are encouraged to complete a sustainability training,⁵⁵ which includes transportation. The F&S TDM department participates in monthly Illinois Human Resources (IHR) new employee orientation programs to promote the alternative modes of transportation available on campus. TDM also participates in several educational tabling and bicycle related events on campus every year. Additionally, Public Safety, Campus Recreation, Dean of Students, and University Housing provide bicycle education efforts. Educational videos are also available on the Bike at Illinois website,⁵⁶ which also contains information about the Campus Bike Center, bicycle related events, bicycle registration, bike safety, rules of the road, bike maps, etc.

Educational Events

There are several events throughout each academic year at which the university provides and promotes bicycle safety education. The Campus Bike Center also hosts a table on Quad Day every

⁵⁴ https://bike.illinois.edu/maps/biking-map/

⁵⁵ <u>https://sustainability.illinois.edu/campus-sustainability/sustainability-training-videos/</u>

⁵⁶ https://bike.illinois.edu/resources/instructional-videos/



year during Welcome Week in late August. Every September, the Division of Public Safety hosts Public Safety Day on the Quad to provide safety information related to all modes of transportation, particularly focusing on bicycling, motorcycling, and walking. TDM will continue supporting the promotion and staffing at Public Safety Day, and should incorporate more bicycle safety elements, such as bicycle mechanics from the Campus Bike Center.

Light the Night⁵⁷ is an annual bicycle light giveaway event hosted in September every year and coordinated by MTD in collaboration with community agencies and The Bike Project of Urbana-Champaign. Since 2008, Light the Night volunteers have installed 800-1,200 sets of bicycle lights each year for no charge. This approach has been proven effective in informing riders about the State of Illinois mandate requiring the usage of a front light and back reflector when cycling at night. Volunteers also share information regarding the significance of following rules of the road when cycling. They encourage and assist cyclists to register their bicycles and provide additional resources about safe cycling behavior. The success and popularity of this event indicates the potential need for additional education and distribution of bike lights. In addition to looking for ways to expand Light the Night, the university should also explore ways to use the same model for promoting the use of helmets, reflective gear, bells, locks, and other safety accessories for cyclists.

During Sustainability Week in the fall, and Earth Week in the spring, the university normally sponsors a bicycle safety course to be offered for free. The low participation for these courses indicates that organizers should allocate more resources towards promotion, advertising efforts or enhancing the appeal of the course itself.

The Campus Bike Center offers mechanics classes⁵⁸ every two weeks during fall and spring semesters. These classes cost about \$10 and give participants hands-on experience with various facets of bicycle repair. Each class focuses on one type of repair, e.g. shifting and derailleurs, brakes, or general maintenance.

Materials, Campaigns, & Multi-Media

Over the years, the university and its partners have conducted public service announcements, promoted safe cycling concepts through campus newsletter and local newspaper articles, and produced several educational materials to promote cycling and raise awareness about the rights and responsibilities of cyclists. Key partners in the community include the CATS agencies,⁵⁹ the Champaign-Urbana Safe Routes to School (SRTS) Project, The Bike Project of Urbana-Champaign, and Champaign County Bikes.

⁵⁷ https://icap.sustainability.illinois.edu/project/light-night

⁵⁸ <u>https://icap.sustainability.illinois.edu/project/mechanics-classes-campus-bike-center</u>

⁵⁹ CATS included the U of I, City of Urbana, City of Champaign, and MTD



During the summer of 2013, TDM developed a visual identity for bicycle education, under the name Bike at Illinois⁶⁰.

As the primary cycling advocacy group in the community, Champaign County Bikes (CCB) developed the C-U Area Bicycle Map. This contains a detailed map of recommended bicycle routes in the Champaign-Urbana area, as well as safety information for cyclists and tips for drivers interacting with cyclists. The routes are rated for comfort level by active cyclists in the community. The bicycle map is typically updated every two-to-three years. The C-U Area Bicycle Map includes information on state traffic laws, rules of the road, safe cycling techniques, and tips such as how to use a bicycle lock and proper helmet fitting. As revisions of the map are produced, the university should continue to engage with CCB to ensure that the maps remain relevant and useful.

Funding obtained from the Student Sustainability Committee for bicycle education programming has been used to purchase 16 permanent metal signs around campus.⁶¹ Bike Fee funding is used to post digital signage in many places around campus, including residence halls, dining halls, and the Illini Union. They are very useful because messages can be specific and targeted. For example, signage could be shown in a residence hall that has experienced a high amount of bicycle theft. Signage advertising for programming are also displayed at strategic times to attract the most students, faculty, and staff.

Outside of the university, a number of past and ongoing efforts have promoted bicycle and traffic safety in the community at large. In 2008, CCB volunteers organized a highly successful bicycle education program called "Share the Road." Through partnerships with governmental agencies, local and state bicycle groups, and various businesses, they created and distributed bicycle safety literature at over 50 public events during the campaign. CCB also raised funds to print a bus wrap saying "Same Road, Same Rights" in cooperation with the MTD. The "Share the Road" campaign initiated the highly successful C- U Area Bicycle Map. Through a number of grants over the years the CU-SRTS Project has displayed educational information on billboards, bus cards, and interior bus posters for motorists and cyclists about roadway safety and laws. In late 2012, the MTD launched a new safety campaign titled 'The Bee Scene' targeting pedestrians, transit riders, cyclists, and drivers, emphasizing the importance of visibility and awareness.

Social Media and Online Resources

In 2018, the Bike at Illinois website was published to have all bicycle related information in one location. TDM should continue to work with students to build this audience base, and TDM should encourage responsible bicycle usage on campus. Information related to bicycle projects, including the eco-counter data are posted on the iCAP Portal which can be accessed by students.⁶² The

⁶⁰ https://bike.illinois.edu/

⁶¹ https://icap.sustainability.illinois.edu/project-update/15-permanent-bicycle-registration-signs-installed

⁶² https://icap.sustainability.illinois.edu/collections/bicycle-related-projects



university should continually identify new opportunities to produce and air educational videos, particularly those focused on educating the campus community about new bicycle infrastructure or programming. In addition to airing education videos online and through local media, existing information monitors throughout campus could regularly show short, silent videos throughout the year.

Bicycle Courses

Currently, there are limited number of bicycle safety classes offered annually on campus and in the community, taught by experienced instructors certified by national bicycle organizations including the League of American Bicyclists. As of August 2023, Champaign County has seven League Cycling Instructors (LCIs) who are certified by the League of American Bicyclists to teach formal bicycle safety courses, such as Traffic Skills 101. In addition to partnering with the existing LCIs in the community to offer safety courses on campus regularly, at least one university staff or faculty member associated with the campus bicycle program or Public Safety should also receive LCI certification to be able to offer courses by university staff.

CU-SRTS organizes Bike Rodeo events⁶³ every year for young bicyclists to practice and develop skills that will help them to become better bicyclists and avoid typical crashes. The main focus of a Bike Rodeo is teaching cycling safety to young cyclists ages kindergarten to approximately 14 years old. The University has also started providing "Learn How to Ride" class for adults at least once a year. This class is funded by the Bike Fee and is provided to university students, faculty, and staff for free.⁶⁴

Bicycle Ambassadors Program

Bike Ambassadors are bicycling enthusiasts who are working to improve bicycle culture at the University of Illinois Urbana-Champaign. The role of bike ambassadors is to encourage and promote the use of bicycles for transportation, fitness and fun. Bike Ambassadors can be students, staff, or faculty. Previously, the Bike Ambassador program⁶⁵ was overseen by the TDM department under Facilities & Services, with funding support from the Student Sustainability Committee. This program needs to be investigated for reinstatement on campus.

Encouragement

As bicycle programs and services are implemented on campus, additional incentives and benefits for bicycling should be implemented to further promote and encourage cycling as a transportation mode.

⁶³ http://www.cu-srtsproject.com/bike-rodeos.html

⁶⁴ https://icap.sustainability.illinois.edu/project/learn-how-ride-bicycle-and-bike-rodeo

⁶⁵ https://icap.sustainability.illinois.edu/project/bicycle-ambassador-program



Bicycle Sharing

Bike sharing is a system for sharing bicycles on a short-term basis. The University also offers short-term Dockless Bike Share through Veo (started in September 2018) to the students, faculty, staff, and visitors, and similarly, Bird Bikeshare started operation on campus in FY25.

C-U Bike Month

In May 2010, Champaign-Urbana hosted its first C-U Bike to Work Day, in conjunction with the annual National Bike Month. The university has been involved in planning C-U Bike to Work Day each year since it started, including playing the lead role of organizing the event in 2012. Each year, TDM partners with local agencies on the planning committee for Bike to Work Day to organize bicycle stations on campus. Student Affairs and the Campus Bike Center have repeatedly hosted bicycle stations on Bike to Work Day; Housing has donated food and beverages to the three oncampus stations each year; and in 2012, the Illinois Student Senate became the first Platinum level sponsor of Bike to Work Day with a \$1,000 donation. Bike to Work Day is an important initiative to encourage people to commute by bicycle. The university should continue to engage employees and students in this encouragement effort. In 2013, the event was expanded to an entire Bike Month and included a series of events throughout the month of May. As the event grows to a larger scale and audience, the university should continue to participate and to encourage staff, faculty, and students to take advantage of C-U Bike Month activities to learn about cycling and to build new habits by bicycling for transportation and wellness. In 2021, Bike to Work Day was moved to September as it feels more of a welcoming event, rather than a farewell event for students. It also combines the effort for annual Light the Night event.

Sustainability and Earth Weeks

Each fall semester, the iSEE hosts Sustainability Week on campus, featuring a series of events highlighting numerous sustainability efforts and concerns, both locally and globally. Similarly, Students for Environmental Concerns (SECS) hosts Earth Week every spring, in partnership with iSEE. Bicycle events at Sustainability and Earth Weeks have historically included bicycle tune-ups on the Quad, an open house at the Campus Bike Center, free bicycle education courses, and guest speakers from bicycle organizations such as Working Bikes Cooperative⁶⁶ in Chicago. These biannual events encourage new ridership and help foster a strong bicycling community. The university should continue to provide these resources during Sustainability and Earth Weeks and should look for ways to expand these opportunities to larger audiences each year.

Seasonal and Occasional Parking Passes

The Parking System Review Committee report states, "Campus should encourage people to use active transportation options by improving bicycle safety, facilitating carpooling and offering

⁶⁶ https://workingbikes.org/



occasional parking passes. Alternatives to an annual parking permit would allow employees to choose active modes of transportation and decrease the demand for annual parking spaces. Updating the bicycle system on campus would boost ridership which will positively impact the health and safety of campus citizens as well as benefit the environment."

The concept of a "sunk cost" applies to an employee's choice in commute modes. If a person owns a car, has paid for a full year of parking, and is accustomed to paying the standard automobile ownership costs like gasoline, insurance, and upkeep, then the immediate benefit of choosing a different transportation mode is not readily apparent. One method for breaking through this barrier is to provide an alternative to the annual parking permit, so there is a specific economic choice every time an employee drives to work.

Already there are seasonal parking permits available in non-waitlisted lots, which is simply the annual permit pro-rated by number of months. Although this option is available to any employee, it is currently not well advertised and should be more heavily promoted in combination with active transportation. Metered parking provides an additional alternative to the annual parking permit and can be paid for with coins, parking apps, or through day meter permits, with a cost of \$14.00 per day.⁶⁷ The Parking Department should expand and promote these temporary parking options through an occasional parking packet advertised to employees. The university should also develop and implement an incentive program (Commuter Program) for employees to relinquish annual parking passes.

Guaranteed/Emergency Ride Home Program

The Guaranteed/Emergency Ride Home Program would provide direct transportation home in the event of an emergency, inclement weather, or other unplanned events. The TDM Department should work with the F&S Transportation and Building Services department, Parking department and the MTD to implement this program.

Enforcement

Enforcement of legal and safe bicycle riding behavior is an important step to educating the cycling community and normalizing responsible bicycling practices. The University of Illinois Division of Public Safety typically begins each academic year with "educational" enforcement, consisting primarily of warnings intended to inform and educate cyclists about their rights and responsibilities. Over the course of the year, as they work to establish a culture of safety, the UIPD enacts a stricter enforcement approach through written citations for traffic violations by cyclists under the Illinois Vehicle Code, local municipal ordinances, or the University Bicycle Code.

⁶⁷ <u>https://parking.illinois.edu/campus-parking/parking-rates</u>



State and Local Ordinances

According to Article XV of Chapter 11- Rules of the Road of the Illinois Vehicle Code, with only a few exceptions, bicycles upon roadways "shall be granted all of the rights, and shall be subject to all of the duties applicable to the driver of a vehicle."⁶⁸ Citations written under the Illinois Vehicle Code are normally associated with fees ranging from \$50-\$200, owed to the State of Illinois, and they are included on the offender's driving record. Additionally, the Cities of Champaign and Urbana each have municipal ordinances under which traffic citations can be written for cyclists. Although many of the specific rules for cyclists in the municipal laws overlap with state laws, having local versions of the ordinances allows the cities to publish local citation schedules and diversion alternatives to traffic citations, to ensure that bicycle enforcement can serve as an educational tool for the community.

University Bicycle Ordinance

Any bicyclist on university property are subject to the University Bicycle Ordinance,⁶⁹ updated and approved in August 2020. The University Bicycle Ordinance provides enforcement options to encourage safety-oriented behavior on sidewalks, shared use paths, or dedicated bicycle paths on university property.

The University Bicycle Ordinance places primary emphasis on safety-related rules for cyclists on campus property, with additional attention on non-safety issues such as bicycle registration and proper bicycle parking. The University Bicycle Ordinance will continue to be promoted throughout campus so that all students, employees, and campus visitors are made aware of it.

Diversion Alternatives

To further promote education and awareness of safe bicycling behavior, the Cities of Champaign and Urbana and the University of Illinois are offering an educational diversion program for cyclists who receive municipal or university ordinance citations. Under all three jurisdictions, the first traffic citations for cyclists may be reduced or forgiven by completing an online educational tool produced by the Ride Illinois called the Bicycle Safety Quiz.⁷⁰

Bicycle Registration

Bicycle registration⁷¹ is primarily a method to assist with returning stolen or lost bikes when they are recovered. In summer 2020, the University of Illinois Urbana-Champaign Facilities & Services

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https://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=062500050HCh%2E+11+Art%2E+XV&ActID=1815&ChapterI D=49&SeqStart=139400000&SeqEnd=141400000

⁶⁹ <u>https://go.illinois.edu/bikeordinance</u>

⁷⁰ <u>https://bike.illinois.edu/safety/bicycle-safety-quiz/</u>

⁷¹ <u>https://bike.illinois.edu/register-your-bike/</u>



(F&S) department purchased a National Bicycle Registration system through Project 529 for campus and community. There is a one-time \$10 per bicycle registration fee. Users must pay this registration fee before proceeding to the University's Project 529 system registration page. The Registration Fee funds help sustain the community-wide Project 529 bicycle registration system and contribute towards bicycle programs on-campus.

The benefits of registering your bicycle include:

- This is a National Bike Registration system with more than 1.5. Million bicycles registered in the system, i.e. users don't have to register your bicycle again when they move to another city in US and Canada.
- Much larger database will result in a higher chance of bicycle recovery in case of theft.
- The tamper resistant 529 Shield (registration tag) is a theft deterrent.
- It helps the Police Departments in the campus, community, and other cities in the US/Canada as well as bike shops to reconnect bicycle owners with their lost or stolen bikes
- Users can be notified if their bicycle is impounded or mistaken for abandoned
- It helps the University to better plan for bicycles and bicycle infrastructure
- It allows the University to communicate with bicyclists for important bicycle-related announcements including traffic closures and events
- This system is available to be used by the University students, staff, faculty, alumni, retirees, departments, as well as all Champaign county residents.

Bicycle registration can also provide the university with contact information for the owners of all registered bicycles on campus—which could be utilized to communicate important policy changes affecting bicyclists or announcements about new bicycle-related infrastructure, programs, events, and resources.

Abandoned Bicycles

Every summer, F&S tags all bicycles left on campus property and confirms the abandoned bicycles. University Parking cuts the locks, collects, and transports the abandoned and unwanted bicycles on campus. The bicycles are inventoried at the storage facility and the bicycles are searched in the University's registered bicycle database to identify the owners of the impounded bicycle. If the bicycle is registered, the owner is contacted to collect their bicycle. Bicycles are kept in the storage until one month after the fall semester begins.

Typically, bicycle owners have until the end of September to claim their bicycles. If the bicycle is not claimed after this holding period, the unwanted bicycle is donated to The Bike Project of Urbana-Champaign. Many of these bicycles can be refurbished but due to the volume of bicycles collected, most are donated to the non-profit Working Bikes or similar organizations for shipment to overseas partner agencies. The Campus Bike Center Manager goes to the storage facility and collect bicycles for refurbishing and prepare the rest for shipment.



Evaluation and Planning

While every effort has been made to ensure this plan contains a comprehensive list of the current needs and issues related to bicycling at the University of Illinois Urbana-Champaign, continuous evaluation and planning will be needed to ensure that recommendations identified can adapt to a growing campus. With continuous evaluation and planning of bicycle improvement efforts, the university will also be able to assess whether efforts achieve the stated goals and objectives of this plan. Additionally, the Campus Bicycle Plan should be updated at least once every ten years to incorporate new guidelines and best practices, as well as the evolving needs of the campus community. Bicycle Counts are important to understand the issues facing bicycles on campus and to help ensure that the progress toward planning a more bicycle-friendly campus does not end with this document.

Bicycle Counts

To better understand the demand for bicycle infrastructure, programming, and services, as well as to better track the impact of past improvements, regular bicycle counts are recommended for the University to adequately estimate how many bikes are on campus at any given time throughout each school year.

The bicycle census is a collaborative, community-wide effort that began in 2013 as part of ongoing efforts to support the campus' Bicycle Friendly University (BFU) status. In 2023, the University of Illinois Urbana-Champaign renewed its silver-level BFU by the League of American Bicyclists for taking significant steps to address health and environmental challenges by creating safer, more welcoming and accessible areas for people who bike.

The University aims to organize at least one bicycle census every year, where volunteers walk around the campus to count bicycles during peak hour. The data collected by volunteers will update the university bicycle database, which is used to identify high-ridership locations for mobility and safety improvements. The information will also guide future planning efforts for bicycle and active transportation projects such as complete streets and bike rack upgrades.



Chapter 8: Conclusion

The University of Illinois Urbana-Champaign has developed a strong relationship with the surrounding community, working together for increased safety, sustainability, and wellness through promotion of active transportation modes. With support and collaboration from the Cities of Champaign and Urbana, the Village of Savoy, the Champaign-Urbana Mass Transit District, the Champaign-Urbana Urbanized Area Transportation Study committees, the Champaign Urbana Public Health Department and Champaign County Bikes, the university is poised to continue to change the campus into a well-connected bicycle network that is safe and predictable for pedestrians, bicyclists, transit, and motorists.

By providing appropriate infrastructure for bicycles, along with additional bicycle programs and services, the university will continue to encourage cycling as a means of transportation for the betterment of both the individual cyclist and the public. The additional considerations recommended in this plan will amplify the benefits of the infrastructure improvements by increasing the level of awareness for the rights and responsibilities of cyclists, by improving relations and perceptions between cyclists and users of other transportation modes, and by promoting bicycling as a form of transportation.

Bicycling as an active mode of transportation provides numerous benefits: increased activity and health improvements for cyclists; reductions in automobile pollution and greenhouse gas emissions; decrease in cost for governmental agencies by reducing the need for road and parking lot maintenance, and for individuals by reducing the cost of commuting; and safety increases as cycling rate rises and vehicle congestion decreases. The implementation of the 2024 Campus Bicycle Plan will help bring these and many other benefits to the University of Illinois Urbana-Champaign and renew the university's standing as a national leader in bicycle friendliness.



Appendices

Appendix A. Stakeholders

Governmental Agencies

University district or what is deemed on-campus jurisdiction lies roughly between the two adjoined cities of Urbana (east end of campus) and Champaign (west end of campus).

City of Urbana

Urbana's Bicycle and Pedestrian Advisory Commission was established in 2006 with the primary purpose of advising the City Council on how to make bicycling and walking more viable modes of transportation in Urbana. Additionally, Planning and Public Works staff from the City of Urbana⁷² are responsible for developing and implementing the Urbana Bicycle Master Plan, which was originally adopted in 2008. This plan was updated in 2016, and its elements have been considered in the work executed in our current Bike Plan.⁷³

City of Champaign

City of Champaign⁷⁴ created a comprehensive plan for its city called the Champaign Tomorrow Comprehensive Plan which was published in 2021. Under its goal of becoming a sustainable city, one measure of success is "supporting the construction of bicycle and pedestrian infrastructure through the Complete Street policy and biennial Capital Improvement Plan funding." The University adheres to the Complete Street policy when upgrading street pavement and planning for future bike infrastructure improvements in its campus Bike Plan.

Village of Savoy

The Village of Savoy⁷⁵ is an adjacent village southwest of the City of Champaign, with a high commuter rate in and out of campus. Due to their proximity with campus, their high commuter rate, and presence within campus bicycle related committees and events, their stake and input is valued. They are an active member of the Campus Transportation Advisory Committee (CTAC) as well as Champaign Urbana Urbanized Area Transportation Study (CUUATS).

Champaign County Regional Planning Commission (CCRPC)

CCRPC⁷⁶ is an intergovernmental organization that works toward encouraging and expanding programs in regional planning, transportation, and environmentalism. They work county-wide and

⁷² https://urbanaillinois.us/departments/public-works

⁷³ https://urbanaillinois.us/bicycle-master-plan

⁷⁴ <u>https://champaignil.gov/</u>

⁷⁵ https://www.savoy.illinois.gov/

⁷⁶ <u>https://ccrpc.org/</u>



have multiple committees (including CUUATS) and offer online access to many planning documents across the county. As a county-wide organization that supports cohesive planning goals, this document emphasizes the importance of coordinated its objectives and ideas. Producing the Champaign County Traffic Crash Dashboard and publishing the Long Range Transportation Plan, which includes Vision Zero as an objective, are examples of how CCRPC was incorporated during the drafting of this document, emphasizing safety goals and considerations.

Champaign Urbana Urbanized Area Transportation Study

CUUATS⁷⁷ is the transportation entity of the CCRPC. Their mission is to coordinate metropolitan transportation planning with the Illinois Department of Transportation, Federal Highway Administration (FHWA), Champaign County, the Cities of Champaign and Urbana, Village of Savoy, the village of Mahomet, University of Illinois, the Champaign-Urbana Mass Transit District (MTD), and the general public; and to coordinate the use of federal transportation funds within the Champaign-Urbana-Savoy urbanized area.

Champaign-Urbana Mass Transit District (MTD)

MTD⁷⁸ is the provider of public transportation in the greater Champaign-Urbana area. MTD strives to improve mobility and promote excellence in transportation. MTD published its 2014 Long Range Strategic Plan which in its goals includes "MTD will encourage use of a variety of transportation means, including transit, biking, and walking to promote mobility in our community."

Since MTD is the primary provider of bus transit for students, staff, and faculty on campus, their input is crucial to our transportation planning. Public transportation is a key mode of travel for campus members, especially students. To achieve our goal of an integrated transportation system, it is essential to coordinate public transit with bike-sharing programs and strategically place bike racks near bus stops in high-traffic areas. MTD's expertise and collaboration will greatly enhance our efforts to ensure the safety and convenience of our users

University Entities

In addition to the TDM department under F&S, several University entities played crucial roles in our planning process and goal-setting. Their knowledge and resources were invaluable in guiding us along this path.

Campus Transportation Advisory Committee (CTAC)

Campus Transportation Advisory Committee (CTAC)⁷⁹ is an advisory body to TDM at F&S and the campus community on matters relating to campus transportation.

⁷⁷ <u>https://www.ccrpc.org/divisions/planning_and_development/transportation/index.php</u>

⁷⁸ https://mtd.org/

⁷⁹ <u>https://studentaffairs.illinois.edu/about/committees/campus-transportation-advisory-committee</u>



The committee reviews aspects of surface transportation on campus, including pedestrian safety, bicycle facilities, transit, automobile traffic, and the interaction of all modes of travel on campus. The purpose of the committee is to advise F&S on transportation issues affecting students, faculty, staff, and visitors.

CTAC is comprised of key campus and community stakeholders including F&S, Division of Public Safety, Housing, Parking, Campus Recreation, DRES, Division of Intercollegiate Athletics (DIA), Institute of Sustainability, Energy, and Environment (iSEE), Student Affairs, faculty members, student representatives, as well as representatives from City of Urbana, City of Champaign, Village of Savoy, CCRPC, and MTD. The purpose of the committee is to advise Facilities & Services on transportation issues affecting students, faculty and staff. Responsibilities include items such as:

- 1. Help identify needs and share information about pedestrian safety initiatives and priorities.
- 2. Review and make recommendations for prioritizing bicycle infrastructure, education, and enforcement on campus.
- 3. Provide advisory input to the Commuter Program under development.
- 4. Review and comment on matters relating to student, faculty, and staff transportation, when needed.

Campus Recreation

Campus Recreation⁸⁰ provides a welcoming environment with sustainable facilities and programs that inspire the University community to engage in recreation and wellness opportunities. Campus Bike Center is managed by Campus Recreation.

Campus Bike Center

The Campus Bike Center⁸¹ is a collaboration between The Bike Project of Urbana-Champaign and the University of Illinois Urbana-Champaign, under Campus Recreation. It empowers individuals with bicycle repair and maintenance knowledge, promoting a shift from single-occupancy vehicle use to bicycling. This center offers hands-on learning experiences beyond the classroom, fostering connections between the campus and the community, and encouraging bicycling, collaboration, and community spirit.

As a distribution site for bicycle registration stickers, the Campus Bike Center maintains campus repair stations and serves as a hub for the bicycling community. It organizes events and classes throughout the year to promote mode-shift, provides educational resources, and teaches basic bicycle maintenance to students, faculty, staff, and visitors. Additionally, it collaborates with campus and community partners on bicycle-related programs.

⁸⁰ <u>https://campusrec.illinois.edu/</u>

⁸¹ <u>https://campusrec.illinois.edu/facilities/campus-bike-center</u>



During open hours each weekday, the Campus Bike Center offers tools, parts, refurbished bicycles for sale, and dedicated volunteers to assist with bicycle maintenance. This handson, educational space aims to provide knowledge and experience, rather than functioning as a "drop-off for repair" shop. Membership in The Bike Project at Urbana-Champaign is valid at both the Campus Bike Center and the Downtown Urbana location, costing \$30 or 4 hours of volunteering annually.

Parking Department

The Parking Department⁸², an Auxiliary Services Department, is responsible for coordinating vehicular parking within university-owned facilities. The Parking Department manages employee parking permits, student permits, temporary passes, and parking meters. Parking staff are responsible for impounding bicycles that pose safety hazards during the school year. TDM and Parking collaborate to manage the annual collection of abandoned bicycles left on campus each summer. The abandoned bicycles are donated to *The Bike Project of Urbana-Champaign (TBP)*, to be refurbished and sold locally, donated to other organizations internationally, or recycled.

University of Illinois Wellbeing Services

The UI Wellness Center⁸³ encourages active living for students, employees, and visitors on campus. The UI Wellness Center supports bicycling initiatives on campus and is a strong advocate for active transportation.

Institute of Sustainability, Energy, and Environment (iSEE)

The Institute of Sustainability, Energy, and Environment (iSEE)⁸⁴ encourages sustainable transportation and the reduction of greenhouse gas emissions. They coordinate various sustainability programs and projects throughout campus, including some related to transportation. The iSEE is responsible for tracking the implementation of the Illinois Climate Action Plan (iCAP), which includes sustainable transportation goals. One such goal is "to complete and implement the Campus Bicycle Plan as soon as possible."

University of Illinois Public Safety

The University of Illinois Public Safety⁸⁵ is responsible for pedestrian, bicycle, motorcycle, and vehicle public safety. This includes coordination of the Public Safety Advisory Committee, Safe Walks, and Public Safety Day. Officers participate in various bicycle related events, such as Light the Night and C-U Bike-to-Work Day. University of Illinois Public Safety officers enforce transportation laws, including those applicable to pedestrians and bicyclists when appropriate. Public Safety is an

⁸² <u>https://www.parking.illinois.edu/</u>

⁸³ <u>https://humanresources.illinois.edu/benefits-and-well-being/well-being/</u>

⁸⁴ <u>https://sustainability.illinois.edu/</u>

⁸⁵ <u>https://police.illinois.edu/</u>



active member of the CTAC. University of Illinois Public Safety participates in discussions about infrastructure safety improvements and is involved in updating the University Bicycle Ordinance in partnership with TDM.

Student Sustainability Committee

Student Sustainability Committee (SSC)⁸⁶ is a student-led organization charged with the distribution of two student fees – the Sustainable Campus Environment Fee and the Clean Energy Technologies Fee. With the goal of making the University of Illinois Urbana-Champaign a leader in campus sustainability, SSC reviews, recommends, and funds projects that increase environmental stewardship, inspire change, and impact students. SSC has provided financial support for several bicycle programs and projects, such as bicycle parking upgrades, bicycle shelter, bicycle and pedestrian counters (Eco-Counters) on campus, installation of bicycle repair stations, start up for the Campus Bike Center, the 2013–2014 Bicycle Education Campaign, installation of Metal Bike Registration signs, Bike Cages, and many more.

Department of Urban & Regional Planning

The Department of Urban & Regional Planning (DURP) at our land-grant university maintains strong connections with the community, the State of Illinois, and the Midwest region. Their influence extends beyond these boundaries, impacting planning practice and scholarship on a national and international scale. DURP provides vital support through community planning initiatives and numerous projects promoting active transportation on campus. Throughout this planning process, several interns from the department collaborated, sharing their knowledge and expertise in bike-related projects.

Disability Resources and Education Services (DRES)

The mission of the Division of Disability Resources and Educational Services (DRES)⁸⁷ is to ensure that qualified individuals with disabilities have equal opportunities to participate in and benefit from the programs, services, and activities of the University of Illinois Urbana-Champaign. DRES aims to create an environment where access for persons with disabilities is provided as immediately and unobtrusively as possible at the point of institutional contact. By supporting thousands of students with disabilities, DRES helps them fully enjoy the Illinois experience, making the university a leader in college education for persons with disabilities. The campus's active transportation infrastructure, including bike lanes and sidewalks, is designed to be ADA-compliant.

⁸⁶ <u>https://studentaffairs.illinois.edu/about/committees/student-sustainability-committee</u>

⁸⁷ https://dres.illinois.edu/



Student Sustainability Leadership Committee

Student Sustainability Leadership Committee (SSLC)⁸⁸ is the student-led body facilitating communications between campus sustainability and the student body as well as relationships among environmentalist student groups on campus.

Made up of the leaders and representatives from numerous campus student organizations focused on sustainability, energy, and environment, SSLC is a place for these student leaders to collaborate on the best practices for effecting positive and eco-friendly change on campus and in the local community. It upholds direct lines of communication between student leaders and campus administration via its positions on the iCAP Working Group, the Committee on Campus Operations, and the Sustainability Council.

Registered Student Organizations

There are a number of Registered Student Organizations (RSOs) at the university that are engaged in cycling or bicycle advocacy. The racing team, Illini Cycling, aims "to introduce and assist students into the sport of bicycle racing." Illini 4000 organizes cross-country bicycle rides to raise money and awareness for cancer support programs.

Circle Cycle

Circle Cycle⁸⁹ started as a capstone project by three new members at Illinois Enactus. The initial goal of the project was aimed at tackling the massive bike waste generated by the Champaign-Urbana college community. Their approach to addressing the bike waste and mobility issue in our local community is to develop a bike repair youth entrepreneurial program using abandoned bikes.

Illini Cycling Club

Illini Cycling Club's⁹⁰ mission is to promote cycling accessibility for everyone, from complete beginners to top-tier athletes. They engage in spreading extensive knowledge that is not limited to but includes: bike maintenance, riding safely on campus, planning a longer bike route, and bike-packing. It also aims to introduce and assist students into the sport of bicycle racing.

Illini 4000

The Illini 4000⁹¹ is a non-profit organization dedicated to documenting the American cancer experience through The Portraits Project, raising funds for cancer research and patient support services, as well as spreading awareness for the fight against cancer through annual cross-country bike rides.

⁸⁸ <u>https://icap.sustainability.illinois.edu/project/student-sustainability-leadership-council-sslc</u>

⁸⁹ <u>https://sites.google.com/illinois.edu/circlecycle/about-us</u>

⁹⁰ <u>https://www.illinicyclingclub.org/index.html</u>

⁹¹ <u>https://www.illini4000.org/</u>



Non-University Entities

Alongside various University entities, numerous non-University organizations also played crucial roles in our planning process and goal-setting. Their knowledge and resources were invaluable in guiding us along this path.

Champaign County Bikes

The mission of Champaign County Bikes (CCB)⁹² is to encourage and facilitate bicycling and walking as transportation and recreation, and to promote public awareness of the benefits that active transportation brings to our community. F&S in partnership with CCB, conduct annual bicycle census, where volunteers count all bicycles parked on campus. This data is valuable as it offers crucial insights into ridership patterns and helps identify areas with deficiencies in bike racks and other potential issues.

The Bike Project of Urbana-Champaign

The Bike Project of Urbana-Champaign (TBP)⁹³ is a non-profit, charitable organization of bicycle users whose mission is to educate and empower the community by providing a welcoming space to learn about bicycle repair, engage in maintenance practices, and promote safe operation through outreach and advocacy activities. The Campus Bike Center is a collaboration between TBP and Campus Recreation.

Prairie Cycle Club

The Prairie Cycle Club (PCC)⁹⁴ is a non-profit community organization established in 1971, catering to bicyclists residing in Champaign and neighboring counties in Illinois. Their aim is to provide a wide range of services for cyclists of all levels, including newcomers, casual riders, tourers, endurance cyclists, commuters, and competitive racers. The club takes the initiative in sponsoring, hosting, coordinating, advocating for, promoting, and assisting various bicycling events.

League of American Bicyclists

The League of American Bicyclists⁹⁵ works towards creating a bicycle-friendly America for everyone, improving lives and strengthening communities through bicycling. They have helped the campus develop bicycle facilities standards.⁹⁶

⁹² <u>https://champaigncountybikes.org/</u>

⁹³ https://thebikeproject.org/

⁹⁴ https://www.prairiecycleclub.org/

⁹⁵ https://bikeleague.org/

⁹⁶ <u>https://fs.illinois.edu/facilities-standards</u>



Association of Pedestrian and Bicycle Professionals

Association of Pedestrian and Bicycle Professionals (APBP)⁹⁷ is a group of professionals dedicated to improving the accessibility of walking and biking areas. The associations focus is on promoting the exchange of ideas among peers, enhancing specialized skills, and nurturing the career growth of our members employed in government, consulting firms, and non-profit organizations related to transportation planning, urban design, public health, and active living.

Ride Illinois

Ride Illinois⁹⁸ is a nonprofit organization focused on bicycle advocacy, education, and awareness. Our efforts, programs, and events aim to make riding a bicycle in Illinois safer, more enjoyable, and accessible to all. Ride Illinois' mission is to make Illinois better through biking! The Ride Illinois has also released their Strategic Plan in May 2023 that supports to achieve their mission.

⁹⁷ https://www.apbp.org/

⁹⁸ https://rideillinois.org/



Appendix B. Related Plans and Studies

The following is a list of University of Illinois plans, studies, recommendations, and achievements that relate to bicycles since 2007. These resources have all been instrumental in the development of this plan, and effort has been made to ensure consistency between this plan and the resources listed below. For a complete list of the additional off-campus studies and plans that influenced this plan, see the Literature Review in the University District Traffic Circulation Study (UDTCS) Existing Conditions Report.

Campus Master Plan 2018

The Campus Master Plan⁹⁹ provides recommendations for the entire campus of the University of Illinois Urbana Champaign. It anticipates a steady growth in enrollment for students online and on campus over the next ten years, focusing on strategies for physical renewal of campus. Additionally, the Campus Master Plan looks beyond the initial planning horizon to illustrate zones for future replacement space, new development, and reinvestment. This Plan is not a mandate to build; it is opportunities plan and framework for continued renewal and change. Following the 2007 Campus Master Plan, the Urbana Campus adopted a complete street policy to better accommodate pedestrian, bicycle, transit, and vehicle movements in a more user-friendly way. This Plan seeks to supplement the current multi-modal system with an innovative approach to closing the physical north-south and east-west gaps on campus.

The Campus Master Plan provided a framework for aligning bike infrastructure improvements with growth areas, closing physical gaps in connectivity, and integrating bike-friendly features. The plan also ensured that improvements are scalable for future demands and align with sustainability and safety goals, resulting in a well-integrated and forward-thinking transportation network on campus.

The Illinois Climate Action Plan (iCAP)

The Illinois Climate Action Plan (iCAP) outlines a path for the University of Illinois Urbana-Champaign to achieve carbon neutrality as soon as possible, and no later than 2050.

In FY19, approximately 13% of campus greenhouse gas (GHG) emissions were traced to the following three categories of transportation: campus vehicle usage, commuting, and air travel. As part of the efforts to reduce these transportation emissions, the objective 3.4.3 of iCAP 2020 is to "Implement Campus Bike Plan."¹⁰⁰

Transportation Demand Management (TDM) Plan

F&S TDM at the university is responsible for oversight of an integrated transportation system, creating, maintaining and coordinating the overall transportation network for all modes of travel

⁹⁹ https://www.uocpres.uillinois.edu/resources/uiucplan

¹⁰⁰ <u>https://icap.sustainability.illinois.edu/files/project/5293/iCAP-2020-FINAL-WEB.pdf</u>; page 73



on campus, including walking, bicycling, transit, and vehicles. TDM works to implement campus and community policies and objectives, including the related transportation objectives in iCAP. The TDM Plan Vision is to provide safe, reliable, and sustainable transportation for all modes at the University of Illinois Urbana-Champaign. The TDM Plan was published in FY19 and will be updated every 5 years.

Our campus Bike Plan ensures bike infrastructure improvements are cohesive, scalable, and incorporate advanced safety features. This alignment supports TDM's goal of creating a well-coordinated, sustainable, and safe transportation network for all travel modes on campus.

Bike Friendly University Application (BFU)

The BFU¹⁰¹ program recognizes institutions of higher education for promoting and providing a more bicycle-friendly campus for students, staff and visitors. The BFU program provides the roadmap and technical assistance to create great campuses for cycling.

In 2011, the University applied for and was granted Bronze-level certification as a Bicycle Friendly University (BFU) from the League of American Bicyclists. The University retained its Bronze-level BFU certification in 2015. The League of American Bicyclists also provides feedback that can be used to implement and achieve the next level of certification. The University filed an application in August 2019 to renew the BFU status and was promoted to the Silver-Level BFU status on October 17th, 2019.

The University strives to provide our students, faculty, staff, visitors, and community with great bicycle infrastructure, and we are continually trying to make the bicycling experience safer, more enjoyable, and better in all ways. The University was re-awarded Silver-level BFU certification in Fall 2023.

This plan has incorporated, as applicable, the feedback from LAB from the most recent BFU application.

University Bicycle Ordinance

The purpose of the University Bicycle Ordinance¹⁰² is to regulate possession, operation, and parking of bicycles at the University of Illinois Urbana-Champaign, so as to provide for the safety, security, and well-being of persons on the campus. The Campus Administrative Manual (CAM) policy for Bicycle Regulations¹⁰³ applies to all persons, including but not limited to faculty, staff, students, other employees, contractors, subcontractors, volunteers, visitors, and members of the public, and all bicycles on the campus.

¹⁰¹ <u>https://bikeleague.org/bfa/university/</u>

¹⁰² <u>https://go.illinois.edu/bikeordinance</u>

¹⁰³ https://cam.illinois.edu/policies/fo-13/


The University Bicycle Ordinance and CAM policy help shape the bicycle master plan by setting safety and security standards, guiding infrastructure design, and ensuring comprehensive coverage for all campus users. These regulations inform the placement of bike parking and operational areas, enhancing user convenience and compliance. Overall, they provide essential guidelines for creating a safe, secure, and well-managed bike network on campus.

Campus Landscape Master Plan 2022

The Campus Landscape Master Plan (CLMP)¹⁰⁴ presents a shared vision for the overall campus landscape and provides specific design guidelines, tested through extensive public engagement and stakeholder input. The campus community desires a landscape that inspires, nurtures, restores, and educates.

The landscape vision set forth in the 2017 Campus Master Plan says: "While streets and buildings define the basic open space framework of campus, its character and the way it is perceived are largely determined by the treatment of the campus landscape." It provides broad landscape objectives and a high-level campus scale landscape approach and reinforces the need for the landscape to achieve the goals set forth in the iCAP.

Vision Zero Commitment (CUUATS)

Vision Zero¹⁰⁵ is a strategy to eliminate traffic fatalities and severe injuries while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe and is now gaining momentum in major American cities. In 2012, Chicago became the first U.S. city to adopt Vision Zero; since then, more than 20 cities across the country have committed to this strategy.

In December 2019, CCRPC published the Long Range Transportation Plan (LRTP) 2045 for the area, including Vision Zero as an objective. The university is an active partner of CUUATS, and therefore supports the Champaign County LRTP 2045 and commits to the Vision Zero objective.

Implementing the Campus Bicycle Network Master Plan and exploring sustainable options for transportation infrastructure and fuels fall under the TDM's purview. In the last five years, the department's efforts and safety measures have resulted in zero transportation-related fatalities on campus streets.

University District Traffic Circulation Study:

The University District Traffic Circulation Study (UDTCS)¹⁰⁶ results have informed the prioritization of the recommendations in this plan.

¹⁰⁴ 2022 Campus Landscape Master Plan pdf

¹⁰⁵ https://icap.sustainability.illinois.edu/project/vision-zero

¹⁰⁶ University District Traffic Circulation Study (UDTCS) 2011



In 2011, CUUATS completed a University District Traffic Circulation Study (UDTCS), using information from a campus-wide statistically relevant survey. The survey was conducted in May–April 2011 and included both students and faculty. It found that 6% of staff, 18% of faculty, and 12% of students use a bicycle as their primary form of transportation.

2008 Parking System Review Committee Recommendations

In 2008, Chancellor Richard Herman charged the Parking System Review Committee (PSRC)¹⁰⁷ with recommending "comprehensive parking policies that address the following:

- Salary-based rate concerns;
- Price differentiated parking options; safety enhancements that support current efforts to reduce vehicular traffic on campus;
- Optimize existing parking space;
- promote green transportation; and
- Give consideration to expanded parking services such as
 - Satellite parking with high frequency shuttle access,
 - Access to occasional parking for those who choose not to park on campus on a regular basis (e.g., transit riders, cyclists and car/van pool users),
 - Access to multiple parking facilities, and
 - Demand related pricing for high demand parking areas."

The PSRC's final report recommended the formation of a bicycle committee to resolve issues related to bicycle paths, parking, and services and identify a revenue stream to fund and maintain bicycle facilities.

The PSRC's recommendations also included removing all on-street parking, in favor of off-street parking. In some cases, this bicycle plan recommends bicycle lanes on streets that will only accommodate bicycle lanes if some or all of the on-street parking spaces are removed.

2007 Multi-Modal Transportation Study

The 2007 Multi-Modal Transportation Study for the university addressed pedestrian safety and general mobility issues for campus. The study presented a number of recommendations related to parking, transit, streets, bicycling, walkability, and transportation demand management. The Multi-Modal Study was adopted by campus in 2007 and the TDM department was formed to implement the recommendations.

¹⁰⁷ https://www.senate.illinois.edu/co_psrc.pdf



This document addresses four specific bicycle recommendations from the Multi-Modal Study:

- Recommendation 3.18: Commission a comprehensive campus bicycle plan to plan for upgrading existing facilities and developing new facilities.
- Recommendation 3.19: Implement bicycle lanes on campus streets as part of a "complete streets" program. Bicycle paths should supplement street system in areas inaccessible by street and in areas used for recreational purposes.
- Recommendation 3.22: Implement a comprehensive bicycle education and promotion program.
- Recommendation 3.23: Provide other amenities to accommodate existing bicyclists and attract new ones.

Mobility Implementation Plan (miPlan):

MTD coordinated the miPLAN¹⁰⁸ to find out what mobility options Champaign, Urbana, and Savoy want as a community and how to bring those options to fruition. The first phase of miPLAN was an extensive public input period and market analysis done by asking students, employees, and residents what mobility options they want now and in the future. Surveys conducted in 2007 as part of the miPlan Phase One research helped inform the 2014 Campus Bicycle Plan.

In 2007, the Mobility Implementation Plan (miPlan) survey included questions about bicycle ridership. About half of the students had access to a bicycle, and 42 percent reported using a bicycle at least once a week. Additionally, four percent of employees reported using a bicycle as their primary mode of transportation, while 70 percent owned a bicycle. At the time of the survey, there were 41,495 students and 11,676 employees on campus which implies there were 17,428 student bicyclists and 467 employee bicycle commuters.

From 2000 to 2008, there were over 140 bicycle counts at specific sites in the University District. For example, a bicycle count conducted in 2008 showed an average of 250 bicycles per hour per location at peak travel times. In September 2009, the university participated in the National Bicycle and Pedestrian Documentation Project sponsored by the Institute of Transportation Engineers Pedestrian and Bicycle Council.¹⁰⁹

¹⁰⁸ miPlan 2007 Students and Employee survey.pdf

¹⁰⁹ <u>https://www.bikepeddocumentation.org/</u>



Appendix C. Bicycle Facility Types

This plan identifies the campus streets that should include bicycle lanes or be designated as bicycle routes, shared use paths that should be maintained or developed, and locations selected for enhanced dedicated bicycle paths. Design guidelines for each type of bikeway are included in Appendix D. Design Guidelines, with images of recommended markings and signage.

Bicycle Lanes

Increasing the number of on-street bicycle lanes on campus roads will change the overall transportation network so that pedestrians have safer walkways with more predictable behavior from other users, while bicyclists will share the road with motor vehicles in most cases. Bicycles are legally designated as vehicles by the State of Illinois, and they have the same rights and responsibilities as motor vehicles when using roadways. When a bicycle lane is present on a street, bicyclists are not limited to riding in the bicycle lane according to the Illinois Vehicle Code.

Bicycle Routes

In some locations, rather than painting designated bicycle lanes, campus streets will simply be marked as a Bicycle Route using wayfinding signs. Bicycle Routes will be implemented on streets that have lower traffic volumes, are too narrow for bicycle lanes, or connect with streets that have been designated by Urbana or Champaign as a Bicycle Route. Bicycle Routes are helpful pieces of the full bicycle network because they provide continuity when the street is not suitable for engineered bicycle lanes. The Bicycle Route wayfinding sign is meant to encourage bicyclists to use these streets and to remind motorists to share the road and watch for bicycles. Painted shared lane markings, or "sharrows" are also recommended on certain Bicycle Routes. Sharrows are recommended to "be used to guide bicyclists to a safe position within the lane, alert motorists to the potential presence of bicyclists, encourage safe passing by motorists, and reduce the incidence of wrong-way bicycling."¹¹⁰

Shared Use Side Paths

A shared use side path is a wide sidewalk parallel to a street designed to accommodate bicycle use along with pedestrians. There are certain locations in Urbana and Champaign where bicyclists are not allowed to ride on sidewalks, but in all other locations bicycles are permitted, though not usually encouraged, on sidewalks.¹¹¹ There will be a limited number of shared use side paths implemented as part of this plan, where on-street bicycle lanes or routes are not feasible, and offroad paths are not available to offer alternative routes. The design guidelines for shared use paths

¹¹⁰ Brady, et al. (2011) *Effects of Shared Lane Markings on Bicyclist and Motorist Behavior*. page 33 ¹¹¹ Urbana Municipal Code/Champaign Municipal Code



include a sign that reminds cyclists to yield to pedestrians, but there are no associated pavement markings.

AASHTO notes that shared use side paths should only be used rarely due to potential conflicts, such as motor vehicles crossing at intersections or entering and exiting driveways, and they should give signage for contra-flow riders.¹¹² The AASHTO guide recommends that "although paths in independent rights-of-way are preferred, side paths may be considered" in a number of cases, such as when the adjacent roadway has relatively high-speed and high-volume motor vehicle traffic and where few roadway and driveway crossings exist.¹¹³ This coincides with the Urbana Bicycle Master Plan, which notes that side paths "may be better choices than on-road bikeways for faster, busier roads with few access points and with well-designed intersections."¹¹⁴

Dedicated Bicycle Side Paths

In very few instances dedicated bicycle side paths are recommended on campus. The adjacent street should have low traffic frequency and speed, and on-street bicycle facilities must have been considered unfeasible for dedicated bicycle side paths to be acceptable. An example is the path along Peabody Drive, from Fourth Street to Sixth Street.

Off-Road Shared Use Paths

As the university has grown, various streets have been closed to traffic and converted to pedestrian areas. Because bicycle paths should supplement the street system in areas inaccessible by street, there will continue to be some off-road bicycle paths through pedestrian areas of campus. Generally, off-road paths supplement the on-street facilities when on-street facilities are more than 1,000 feet apart. In some instances, a single shared use path wide enough to accommodate bicyclists, pedestrians, and other non-motorized transportation will be the most appropriate facility type. The minimum paved width for a bi-directional shared use path is 10 feet.¹¹⁵

Off-Road Dedicated Bicycle Paths

The off-road dedicated bicycle paths will improve safety for pedestrians and bicyclists through clear delineation of exclusive bikeway facilities. They will be designed using the AASHTO recommendations for bicycle lane designs on streets with no curb and gutter, with a minimum of four feet in width for each directional travel lane. The bicycle lane markings on the dedicated bicycle paths will indicate the proper use of the paths and minimize the number of pedestrians walking on bicycle paths. The potential for conflicts at pedestrian and street crossings will also be minimized through appropriate design, markings, and signage for all users.

¹¹² AASHTO 2012 Guide, pages 5-8 and 5-9

¹¹³ AASHTO 2012 Guide, page 5-10

¹¹⁴ Urbana Bicycle Master Plan

¹¹⁵ AASHTO 2012 Guide, page 5-3.



Off-Road Trails

The off-road trails are unpaved paths to be shared by cyclists, walkers, joggers, and other non-motorized transportation users.



Appendix D. Design Guidelines

The design of campus bicycle facilities should follow recommendations in the AASHTO Bicycle Guide, and signage should follow the standards established in the Manual on Uniform Traffic Control Devices (MUTCD). Additionally, the campus bikeways should fit into local standards established in the Urbana Bicycle Master Plan, Champaign Moving Forward, and the Champaign County Greenways and Trails Design Guidelines.

Bicycle Lane Signs

- The "Bike Lane" sign (MUTCD R3-17) should be placed at the beginning of each block along bicycle lanes within the University District.
- "Ahead" signs (MUTCD R3-17a) should be placed on a separate sign directly below a "Bike Lane" sign at the beginning of a bicycle lane.
- "Ends" signs (MUTCD R3-17b) should be placed on a separate sign directly below a "Bike Lane" sign at the end of a bicycle lane.
- Sign placement on bicycle lanes shall follow the MUTCD clearance requirements.

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Bicycle Lane Striping

- On-street bicycle lanes should be a minimum of five feet wide. When adjacent to parking, bicycle lanes should be 5-7 feet wide.
- A six-inch solid white stripe should run between the bicycle lane and the motor vehicle lane.
- The white stripe should be dashed with twofoot-long stripes separated by six-foot-long breaks for the length of any bus stops along the bicycle lane.
- Bicycle lanes next to parking lanes should be separated with a four-inch solid white stripe.
- If there is a parking lane adjacent to a bicycle lane, the bicycle lane should be between the parking lane and the travel lane.





- If there is parallel parking next to the bicycle lane, the parking stalls should be marked with ticks that extend two feet into the bicycle lane to warn bicyclists to watch for opening doors. Where space allows, a striped buffer should be placed between the parking lane and the bicycle lane to move bicyclists away from parked cars.
- The minimum width of parallel parking lanes should be seven feet.
- Diagonal parking next to a bicycle lane should be back-in parking only.

Bicycle Lane Symbol Markings

- The bicycle lane symbols shall be white.
- All bicycle lane markings will include the standard MUTCD riding cyclist, followed by the arrow in the direction of travel. The riding cyclist marking will be six feet long, followed by six feet of blank pavement, followed by an arrow six feet long.
- Bicycle lane markings should be used as frequently as necessary to clearly delineate the bicycle lane. Recommended placement includes at major driveways, at bus stops, and at least once mid-block.

Bicycle Lanes at Intersections

- A through bicycle lane may not be placed to the right of a right turn only lane.
- The white stripe should be dashed with two-foot-long stripes separated by six-foot-long breaks for approximately 50-200 feet before any street intersection with right turning motor vehicles. If there is a stop bar at the intersection, the first section of the dashed stripes closest to the stop bar should be the six-foot break. If there is no stop bar at the intersection, the first section closest to the intersection should be the two foot white stripe.
- Bicycle lane markings should not extend into an intersection.
- The bicycle lane symbol should be placed immediately after an intersection.
- No markings should extend through a marked continental pedestrian crosswalk.

Bicycle Route Markings

• The bicycle and chevron marking is known as a "sharrow" and is used to indicate a shared route with vehicular traffic.

When on-street parking is present, each marking should be at least 11 feet from the curb or edge of pavement. When onstreet parking is not present, each marking should be placed at least 4 feet from the curb or edge of pavement.

- Sharrows should be reserved for roadways with a speed limit no greater than 35 miles per hour.
- Sharrows should be placed immediately after an intersection and spaced no more than 250 feet apart.

Bicycle Route Signs

- Bicycle route signs shall be placed according to MUTCD requirements along all street segments designated as a Bicycle Route.
- Way-finding signage is preferred in addition to "Bicycle Route" signs (MUTCD D11-1).

Shared Use Paths

• Shared use paths shall be a minimum of ten feet wide.

Shared Use Path Signs

- The "Bicycles Yield to Peds" sign (MUTCD R9-6) should be placed mid block along each block of a shared use path within the University District.
- On shared use side paths, there should be two signs on one post, facing each direction along the shared use side path. The sign post shall be placed on the far side of the path, away from the street.
- Sign placement on shared use paths shall follow the MUTCD clearance requirements.
- Lateral sign clearance shall be a minimum of three feet and a maximum of six feet from the near edge of the sign to the near edge of the path.
- Mounting height for ground-mounted signs on shared-use paths shall be a minimum of four feet and a maximum of five feet, measured from the bottom edge of the sign to the near edge of the path surface.



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R9-6







Shared Use Path Markings

• No paint markings are required on shared use side paths. Existing paint markings on shared use paths should be removed.

Dedicated Bicycle Paths

- Dedicated bicycle paths should be designed to AASHTO standards for bicycle lanes on streets with no curb and gutter.
- Dedicated bicycle paths shall be a minimum of eight feet wide. This follows the AASHTO guidelines for a bicycle lane on a street with no curb or gutter.

Dedicated Bicycle Path Center Lines

- A four-inch wide yellow center line shall separate bicycles traveling in opposite directions.
- The center line should be dashed when passing is permitted. Dashes should be three feet long, followed by a nine-foot break.
- Center lines should be solid within 20 feet of intersections to indicate a no passing zone.

Dedicated Bicycle Path Markings

- The dedicated bicycle paths will follow the marking recommendations for on-street bicycle lanes.
- The bicycle lane symbols shall be white.
- All bicycle lane markings will include the standard MUTCD riding cyclist, followed by the arrow in the direction of travel. The riding cyclist marking will be six feet long, followed by six feet of blank pavement, followed by an arrow six feet long.
- Bicycle lane markings should be used as frequently as necessary to clearly delineate the bikeway. Recommended placement includes at building entrances, at service drive crossings, and at least every 500 feet.

Dedicated Bicycle Paths at Street Crosswalks

• Bicycle Path street crossings should follow the University District Crosswalk Guidelines standards. These currently state "Use standard two white parallel lines with a bicycle stencil marked in the center of the section."



- A bicycle crossing will be indicated with two 12-inch white parallel lines, spaced eight feet apart.
- The bicycle lane symbol shall be placed in the center of the street intersection.
- At a mid-block bicycle crossing, without a marked pedestrian crosswalk adjacent, a bicycle warning sign with downward pointing arrow (MUTCD W11-1 and W16-7p) should be installed at the bicycle crossing.
- When a bicycle warning assembly is installed to indicate a mid-block bicycle crossing not adjacent to a marked pedestrian crosswalk, an advance warning sign should be installed approximately 25 feet prior to the bicycle crossing, with an "AHEAD" plaque (MUTCD W11-1 and W16-9p).

Dedicated Bicycle Paths at Minor Walkway Intersections

- At minor walkway intersections, the bicycle path shall have two white parallel lines four inches wide and eight feet apart, denoting the location of the path across the walkway.
- The yellow center line should continue through the minor walkway intersection with the same style as leading up to it.

Dedicated Bicycle Paths at Major Walkway Intersections

- At major walkway intersections, the bicycle crossing shall be indicated with white parallel lines, six inches wide and eight feet apart, denoting the location of the path across the walkway.
- The yellow center line should not be extended across major walkway intersections.
- The bicycle lane symbol shall be placed in key locations at major walkway intersections.

Other Signage considerations

- One-way streets should have "Bicycles Wrong Way" (MUCTD R5-1b) and "Ride with Traffic" (MUCTD R9-3c) signs discouraging contra-flow riders.
- Streets without bicycle lane or sharrow markings may include "Bicycles May Use Full Lane" (MUCTD R4-11) signs to inform drivers.



WAY

RIDE

RAFFIC

R5-1b

R9-3c



Appendix E. Bike rack inventory and audit

Figure 8, Figure 9, and Figure 10 present the bike rack inventory information based on photographs taken voluntarily from all bike rack locations on campus during the 2023 census, the latest census conducted on campus. This project involved a thorough evaluation of all campus bike racks according to standard design criteria, revealing that U-loop bike racks bolted to the ground are the most efficient.

Figure 8 shows the condition of the bike racks, categorizing them as good, moderate, or poor based on the provided images. The second diagram illustrates the percentage of bicycles that meet the standard design characteristics compared to those that do not. These figures indicate that while the majority of bike racks are in good condition, most do not meet the necessary standards, highlighting the need for further attention.

Figure 10 displays the various types of bike racks on campus. It is evident that the majority are U-loop bike racks, followed by ladder and donut racks.



Bike Rack Conditions UIUC Campus

Figure 8: Bike Rack Conditions UIUC Campus





Bike Racks that Meet Standard UIUC Campus

Figure 10: Rack Types UIUC Campus



Appendix F. Public Input