BIKE FSU

2013 Campus Bike Study

DEPARTMENT OF URBAN AND REGIONAL PLANNING 2013

An analysis and proposal of recommendations on current and future bicycle and pedestrian conditions at Florida State University.

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FINAL REPORT

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"Every time I see an adult on a bicycle, I no longer despair for the future of the human race." – HG Wells

SPECIAL THANKS & ACKNOWLEDGEMENTS

The Studio Team would like to thank each and every individual who helped us complete our final report.

First and foremost, The Studio Team wants to offer thanks to our Studio Advisory Committee.

- **Dr. Christopher Coutts,** Professor, Department of Urban & Regional Planning
  The Florida State University
- **Dr. Michael Duncan,** Professor, Department of Urban & Regional Planning
  The Florida State University
- **Ms. Elizabeth Swiman,** Director, Sustainable Campus
  The Florida State University

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SCOPE OF WORK

This Bicycle and Pedestrian Studio Planning Project is guided by a scope of work that was developed between the Florida State University's Department of Urban and Regional Planning and FSU Facilities.

Purpose: To increase the understanding of bicycle and pedestrian uses, needs, and preferences on FSU's campus, as well as present recommendations to improve the bicycle and pedestrian experience on campus.

Studio Team: The Studio Team consists of six Urban and Regional Planning graduate students that seek capstone credit for their Master's degree by participating in this project.

Tasks: Collecting and analyzing both qualitative and qualitative information data to increase knowledge on the subject matter for FSU Facilities. These data points and information pieces consist of use patterns, parking rates, stakeholder interviews, focus groups, survey development, and other areas. The four major tasks associated with this project were to:

- **Partner in Developing a Student Commuter Preferences Survey**
- **Study Bicycle Rack Usage**
- **Conduct Focus Groups**
- **Develop Recommendations**

Findings and Recommendations: This document presents the results of the Studio Team's findings and also provides recommendations to FSU Facilities. The findings in this document were developed to be the foundation for creating and implementing a campus-wide bicycle and pedestrian master plan.

Goals: The scope of work detailed throughout this document presents an opportunity for the University to elevate bicycle and pedestrian usage and planning while also becoming an institutional beacon for the Florida State University System affiliates to follow.

Executive Summary

The purpose of this study was to expand the knowledge and understanding of existing bicycle and pedestrian uses, needs, and preferences on and around Florida State University's Main Campus and how they can be improved upon. Through qualitative and quantitative data collection and analysis, the Studio Team developed a vision of what the University can accomplish through the implementation of a set of recommendations. The following is an outline of the Studio Team's methods for collecting data and the recommendations that developed through analysis.

Methodology

The methodology of the 2013 Campus Bike Study conducted by Studio Team included a bike rack analysis, public input process, peer institution research, and a surrounding areas assessment.

Bike Rack Analysis

Part of expanding the knowledge and understanding of bicycle facilities on FSU's campus involved an inventory of the location and analyzing the usage of bicycle racks. FSU's campus has the parking capacity for approximately 4,000 bikes. The Studio Team developed a method to inventory the bicycles parked at bike racks to gauge rack usage while also developing an awareness of the total bike usage by the FSU student body and identifying biking patterns campus-wide.

The Bike Rack Analysis indicated that although rack occupancy campus-wide rarely reaches 50 percent, certain areas are stressed for bike parking while others see little or no usage. Following the trends of rack occupancy, it was estimated that as many as 2,000 bikes may be present on campus on any given day.

Public Input Process

Between the stakeholders associated directly with the University and those in the community, the Team utilized multiple methods of stakeholder outreach for the Study's public input process.

Focus Groups

As part of the stakeholder data collection, the Studio Team conducted three Focus Groups in order to receive student, faculty and staff feedback on the current FSU bicycle facilities and how these facilities can be improved. The variation in the needs and opinions of each group allowed the Team to identify problem areas and prioritize potential improvements in a way that serves all three stakeholder groups.

Stakeholder Interviews

The Studio Team conducted several interviews with stakeholders throughout the community to gain feedback, comments and suggestions regarding bicycle conditions on and around campus. Interviewees included FSU Facilities, Tallahassee bicycle shops and non-profits, Tallahassee-Leon County Planning Department, and FSU Police Department.

Reaching out into the community through stakeholder interviews allowed the Studio Team to gain an understanding of what individuals and groups outside of FSU are doing to improve biking conditions on campus and how they see the University being instrumental in the shift towards becoming a more bike-friendly community.

Social Media

The largest stakeholder group involved with the study was the FSU student body. When determining effective strategies to reach out and get feedback from the students, the Studio Team decided to create a social media group, BikeFSU. BikeFSU was utilized on Facebook and Twitter in order to market the study and receive quality student feedback. As the BikeFSU following grew throughout the semester, the Team posed questions daily for students to answer. This allowed for a continuous dialogue and the ability to probe about specific problems or potential improvements.

Student Commuter Preferences Survey

The Studio Team collaborated with Commuter Services of North Florida (CSNF) to develop and conduct a web-based survey on student transportation habits. The goal of the survey was to measure attitudes, habits and opinions regarding transportation to and from campus. This went

beyond bicycle usage, and instead was a method of assessing how, when, and why students commute by their selected mode.

Peer Institution Research

In order to better understand what steps a university can take towards becoming a bike-friendly environment the Studio Team reviewed 24 peer institutions on what they were doing to address bicycles as a transportation mode. This included looking at their bicycle facilities, bicycle infrastructure, and overall bicycle culture presence. It also was a way to gauge how they planned for improvements by examining if the improvement elements were part of their campus or transportation master plan or if they had a stand-alone bicycle and pedestrian master plan.

A diverse group of institutions was reviewed ranging from those that are exemplary bike-friendly institutions to those with similar features to FSU such as student population, climate, and campus density. Identifying what comparable universities are doing helped to determine which initial steps may be most feasible for FSU. Additionally, the Team focused on how major Florida public institutions are addressing the needs of cyclists since these are the schools that FSU competes most closely with for state funding and prospective students. It is important to recognize what improvements can be made to make sure that the University is not only reaching the standard set by its competition, but also by setting the standard with progressive improvements.

Surrounding Areas Assessment

An element of the Studio Team data collection was a surrounding areas assessment including conducting a 'Handlebar Survey' and connectivity analysis of campus and the surrounding areas. This provided greater insight into what the current conditions for cyclists are off of campus.

Handlebar Survey

The Studio Team conducted a Handlebar Survey by riding bicycles on and around campus and documenting the current road and path conditions. By studying the current bicycle conditions,

the Studio Team was able to identify areas for improvement.

Connectivity Analysis

A connectivity analysis was performed by the Studio Team of campus and the surrounding areas in addition to a handlebar survey. Street connectivity is a measure of how well the roadway network provides a variety of ways to get from Point A to B. Providing a strong connected network of roads and pedestrian facilities can help distribute traffic, reduce travel distances and times, improve routing for transit and reduce walking distances. Most importantly, good connectivity provides cyclists options to avoid routes with high automobile traffic. By analyzing the connectivity of the surrounding corridors, the Team recognized routes that could be improved to make for a more safe and convenient biking trip.

Limitations of the Study

The FSU Bicycle & Pedestrian Studio Team recognizes the importance of several key limitations of our study:

Semester Time-Frame

All of the recommendations are derived from a study conducted over the course of one fall semester. It is unknown whether some elements of the study, such as the Bike Rack Analysis, would have shown different results had the study been conducted in a spring semester. The time restriction also determined how comprehensive the study could be, limiting the amount of data that could be collected for analysis and recommendation development.

Tennessee Street Corridor

The Tennessee Street corridor is a state maintained roadway that is complex by its very nature. It is primarily auto dominated with six lanes of traffic. While being a main boundary and corridor for FSU's main campus, the Team did not undergo problem identification or recommend potential improvements for cyclists on Tennessee Street.

Speed Enforcement

The Team did not address speed enforcement for cars on and around campus as a means of creating a more bike-friendly environment.

Implementation Feasibility

When determining the feasibility of a recommendation, the Studio Team was not required to determine the existing financial resources of the University, nor the projected costs of implementation for each recommendation. Therefore the time frames for implementation were set to each recommendation based on how the Team perceived their relative feasibility and their ability to build upon one another over time.

Importance of the Study

As the Studio Team moved through the data collection, it became clear the increasing number of benefits and advantages for becoming a bike-friendly campus and community. The three major themes that arose repeatedly were: the clear and abundant environmental, equity, and economic benefits of developing a bike culture.

Environment

Reducing the automotive presence and increasing the bike presence has multiple environmental benefits. It may improve air quality on and around campus, reduce runoff pollutants that the University is responsible, reduce noise pollution in the community, and make for an overall healthier student body. Shifting towards a more bike-friendly campus and establishing a bike-oriented campus would make FSU a more sustainable university with an environmentally conscious student body and would become a model for what a responsible institution should look like.

Equity

Providing safe and convenient transportation alternatives creates a more equitable living environment. If FSU wants to attract the best and brightest students as it moves towards becoming a top 25 public institution, then it needs to cater to students from all backgrounds.

If a student cannot or does not want to bring a car to school with them, they should not be inconvenienced by the existing conditions and built environment. They should be welcomed to not have a car, and be shown that it is *more* convenient to commute by bike to all of the resources that they could ever need. Furthermore, if they can't afford their own bike, then the University should be able to help provide them with one in an affordable manner.

Economics

The primary benefit of moving towards a bike-oriented community for the University is the difference in financial stress that a student on a bike brings versus that same student in a car. By examining existing infrastructure and the cost of maintenance, students on bikes do not have the same wear-and-tear impacts on the roadways and parking facilities as a student driving a car which reduces the frequency of required maintenance.

A major expense for the University is parking facilities for cars. This is present as both parking garages and open surface lots. Through the lifetime of a single garage parking space, the cost of construction and maintenance is approximately $15,000 for the University. That same space on an open surface parking lot over its lifetime costs approximately $5,000 for the University. Comparing this with cost of bike parking, a single bike parking space costs the University an average of $245, and the parking is convenient across all areas of campus. These prices are all assuming that the University already owns the land, meaning that if it has to purchase land in order to support car parking demands then the lifetime cost of each space only increases.

Existing Conditions

Assessed as students per acre, FSU is the densest public university in Florida at 92.56 students per acre. The surrounding neighborhoods and districts are primarily populated by students, as well as the resources necessary to serve a student body. The proximity is such that often times driving a car should not be necessary.

Its urban setting puts the value of developable land at a premium, yet significant land resources have been dedicated to parking facilities to accommodate the many students, faculty, and staff that wish to park on campus. Currently, nearly 10 percent of all land on the main campus is covered by parking.

This helps to indicate that even with its proximity to student housing and resources, FSU is currently an auto-dominated campus and community. However, the City of Tallahassee has been instrumental in shifting the development landscape surrounding campus towards more walk-able and bike-able neighborhoods and districts. Thus, the University has an opportunity to be a part of the shift and implement the necessary infrastructure and facilities to ultimately reap the benefits of having a bike-friendly campus and community.

Vision Statement

Through the data collection and analysis, the Studio Team developed a vision that was felt as progressive, yet feasible through the implementation of our recommendations. The vision statement is as follows:

As the Florida State University strides towards being a Top 25 public institution, it is presented with an opportunity to improve the transportation culture within the community. With an increasingly urban environment with student housing developments on the rise in the neighborhoods adjacent to campus, FSU can break free of its auto-dominated mentality and invest in a future where students, faculty and staff alike can commute to, from, and around campus by bicycle through safe and convenient means.

In achieving this goal, the Studio Team envisions a future where cyclists can access campus with the safety and comfort of bike lanes from all directions. Once on campus, cyclists can navigate with minimal pedestrian conflicts with the help of clear signage and reach a variety of adequate bike parking facilities such as covered bike racks and indoor parking. If students do not possess their own bike then they can utilize a bike library on campus where with the swipe of their student ID card they can check out a bike to get across campus or across town. If cyclists need

repairs then they can refer to the central bike hub on campus where they may also participate in bicycle safety courses, purchase cycling gear, or pick up and drop off rental bikes.

The Florida State University is in a position to facilitate a progressive culture shift. Rather than being an afterthought of the transportation realm, an emphasis on bike infrastructure, facilities, and programming would harbor a healthier, more sustainable, and more equitable environment, helping FSU lead the way not only in the classroom but as an exemplary college community.

Recommendations

The Studio Team grouped the recommendations based on their description of contributing towards Facilities and Infrastructure, Security and Enforcement, Planning, Administrative and Programming, or a Central Bike Hub.

Section 1: Central Bicycle Hub (CH)

FSU Campus will harbor a vibrant bike culture through the development of central bike hub, which will provide for a stronger community among bicyclists.

Section 2: Facilities and Infrastructure (FI)

Students will have a conveniently accessible, safe, and navigable campus for all travel modes.

Section 3: Security and Enforcement (SE)

A safer campus will be created for all modes of transportation, increasing comfort for and reducing conflict between drivers, cyclists, and pedestrians.

Section 4: Planning, Administrative and Programming (PA)

The movement towards a more sustainable and accessible campus will be driven from the top-down to meet the demands and desires of those coming up from the bottom up.

Within each recommendation section, the Studio Team ordered the recommendations based on their determined feasibility ranging from immediate to long-term. The recommendations were

also designed to build upon one another, ideally making each recommendation more feasible as the one prior is implemented.

Recommendations Summary List

The following is an annotated summary of all of the Studio Team's recommendations. A summary table of the recommendations can be found in Part One, Recommendations.

Recommendation Section 1: Central Bicycle Hub (CH)

CH 1: **Create a Campus Bike Library**

Recommendation: Implement a campus bike library to increase accessibility and ridership.

Implementation Term: Immediate (0-5 Years)

CH 1.1: Expand FSU reCycle Program

Recommendation: Enhance and expand the existing FSU reCycle Program.

Implementation Term: Immediate (0-5 Years), Near-Term (5-10 Years)

CH 2: Campus Bike Shop and Repair Hub (Central Hub)

Recommendation: Create a Central Bicycle Hub that functions as a bicycle shop and repairs bikes that will serve as the central hub of bicycle activity on campus.

Implementation Term: Implementation Term: Long (10-15 Years)

CH 3: Central Campus Bike Art Structure

Recommendation: Invest in a bicycle-related art structure that will also function as a bike rack to serve as the focal point of the new campus bike hub.

Implementation Term: Long (10-15 Years)

Recommendation Section 2: Facilities and Infrastructure (FI)

Facilities and Infrastructure Category 1: Bicycle Parking Facilities

FI 1: Redistribute Bike Racks

Recommendation: Redistribute underutilized bike racks to problem areas.

Implementation Term: Immediate (0-5 Years)

FI 1.1: Increase Off-Campus Bike Parking

Recommendation: Increase off-campus bicycle parking.

Implementation Term: Immediate (0-5 Years)

FI 2: Outdoor Covered Bike Racks

Recommendation: Create outdoor covered bike racks at locations around campus.

Implementation Term: Immediate (0-5 Years), Near (5-10 Years)

FI 3: Indoor Bike Parking (Bike Rooms)

Recommendation: Create bike rooms in buildings around campus to provide an indoor bike parking option.

Implementation Term: Immediate (0-5 Years), Near (5-10 Years)

FI 4: Future Bike Parking Provisions

Recommendation: Implement the suggested bike parking specifications when installing future bike parking.

Implementation Term: Immediate (0-5 Years)

Facilities and Infrastructure Category 2: Bicycle Road and Street Improvements

FI 5: Improve and Expand Bicycle Roadway Facilities

Recommendation: Expand share-the-road arrow and bike lane placement on and around campus.

Implementation Term: Near (5-10 Years)

FI 5.1 Add Painted Bike Lanes

Recommendation: Create painted bike lanes on and near campus.

Implementation Term: Immediate (0-5 Years), Near (5-10 Years)

FI 6: Expand Bike Box Placement

Recommendation: Expand the bike box program.

Implementation Term: Near (5-10 Years)

FI 7: Bicycle Boulevards

Recommendation: Incorporate bicycle boulevards on campus and in surrounding areas.

Implementation Term: Long (5-10 Years)

FI 8: Dedicated FSU Bike Path System

Recommendation: Implement a dedicated FSU Bike Path system to provide door-to-door convenience for bicyclists.

Implementation Term: Immediate (0-5 Years), Near (5-10 Years), Long (10-15 Years)

Facilities and Infrastructure Category 3: Multi-Modal Infrastructure

FI 9: Improve Crosswalk Standards

Recommendation: Improve overall campus crosswalk standards by updating them to the Uniform Traffic Control Standard, converting to longitudinal-lined crosswalks,

Implementation Term: Immediate (0-5 Years), Near (5-10 Years), Long (10-15 Years)

FI 9.1: Convert Crosswalks to Longitudinal-Lined Crosswalks

Recommendation: Replace lateral-lined crosswalks with longitudinal-lined crosswalks to increase visibility for bicycles and pedestrians.

Implementation Term: Near (5-10 Years)

FI 9.2: Install Midblock Crossing Refuges

Recommendation: Install midblock crossing refuges to reduce crash risks between bicycle and pedestrians and cars.

Implementation Term: Long (10-15 Years)

FI 10: Reduce Automobile Turn Conflicts with Bicyclists and Pedestrians

Recommendation: Reduce automobile turn conflicts with bicyclists and pedestrians by closing and consolidating driveways to increase bicycle and pedestrian safety.

Implementation Term: Near (5-10 Years), Long (10-15 Years)

FI 11: Improve Legacy Walk

Recommendation: Improve Legacy Walk for both pedestrians and bicyclists.

Implementation Term: Near (5-10 Years)

FI 11.1: Install Mode-Split Signage

Recommendation: Implement signage to designate a separation of bicyclists from pedestrians along Legacy Walk on its east to west stretch along Old Call Street.

Implementation Term: Immediate (0-5 Years)

FI 11.2: Extend Legacy Walk to Copeland Street

Recommendation: Extend Legacy Walk along east Call Street to Copeland Street.

Implementation Term: Near (5-10 Years), Long (10-15 Years)

FI 12: Expand Bus Pull-Off Placement

Recommendation: Increase bus pull-off infrastructure on and surrounding FSU campus.

Implementation Term: Near (5-10 Years)

FI 13: Complete Streets

Recommendation: Redesign the streets surrounding campus as Complete Streets.

Implementation Term: Long (10-15 Years)

Facilities and Infrastructure Category 4: Miscellaneous

FI 14: Water Spigots and Misting Stations

Recommendation: Implementation of water spigots and misting stations

Implementation Term: Long (10-15 Years)

Recommendation Section 3: Security and Enforcement (SE)

SE 1: Increase Overall Signage Around Campus

Recommendation: Increase overall signage around campus to increase safety and way-finding.

Implementation Term: Near (5-10 Years)

SE 2: Improve the Bicycle Registration Program

Recommendation: Expand Bicycle Registration Program to be more convenient for bicyclists who wish to register their property.

Implementation Term: Near (5-10 Years)

SE 3: Expand Damaged Bike Removal Program

Recommendation: Expand the existing bike removal program to increase the perception of safety on campus.

Implementation Term: Immediate (0-5 Years)

Recommendation Section 4: Planning, Administrative and Programming (PA)

PA 1: Hire a Joint FSU-City of Tallahassee Bicycle and Pedestrian Planner

Recommendation: Hire an urban planner focused on bicycle and pedestrian transportation planning jointly through City of Tallahassee and FSU

Implementation Term: Immediate (0-5 Years)

PA 2: Create a Bicycle and Pedestrian Master Plan

Recommendation: Create a bicycle and pedestrian master plan for the City of Tallahassee and FSU.

Implementation Term: Near (5-10 Years)

PA 3: Professional Transportation Study

Recommendation: Commission a transportation study to conceptualize all transportation mode shares.

Implementation Term: Immediate (0-5 Years)

PA 4: Tiered Parking Fee Structure

Recommendation: Reassess the fee structure for transportation facilities and infrastructure.

Implementation Term: Immediate (0-5 Years)

PA 5: Bicycle Education Programs

Recommendation: Provide bicycle educational programs that cover bicycle safety and proper riding techniques.

Implementation Term: Near (5-10 Years)

PA 5.1: Student Orientation Bicycle Tour

Recommendation: Include a bicycle tour at student orientation.

Implementation Term: Immediate (0-5 Years)

PA 6: Expand Marketing and Outreach

Recommendation: Expand marketing, outreach, and communication of bike services on and around campus through social media outlets.

Implementation Term: Immediate (0-5 Years.)

PA 7: Bicycle Incentive Program

Recommendation: Develop an incentive program to encourage students, faculty, and staff to bike to campus.

Implementation Term: Immediate (0-5 Years), Near (5-10 Years)

PA 8: Campus-wide Street Cleaning Program

Recommendation: Create a street cleaning program to keep the roads, paths, and bike lanes free of glass and debris.

Implementation Term: Immediate (0-5 Years), Near (5-10 Years)

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Introduction

The following *Bicycle and Pedestrian Studio Action Plan* is divided into three parts:

- **PART ONE: *RECOMMENDATIONS***
- **PART TWO: *DATA ANALYSIS AND RESULTS***
- **PART THREE: *APPENDICES***

Part One: Recommendations details the recommendations that the Studio Team is presenting. *Part One* is divided into four recommendation categories:

1) **SECTION 1: CENTRAL BICYCLE HUB (CH)**
   - *Vision Statement*: The FSU Campus will harbor a vibrant bike culture through the development of central bike hub to provide a stronger community among bicyclists.
2) **SECTION 2: FACILITIES AND INFRASTRUCTURE (FI)**
   - *Vision Statement*: Students will have a conveniently accessible, safe, and navigable campus for all travel modes.
3) **SECTION 3: SECURITY AND ENFORCEMENT (SE)**
   - *Vision Statement*: Create a safer campus for all modes of transportation, increasing comfort for and reducing conflict between drivers, cyclists, and pedestrians.
4) **SECTION 4: PLANNING, ADMINISTRATIVE AND PROGRAMMING (PA)**
   - *Vision Statement*: The movement towards a more sustainable and accessible campus will be driven from the top-down to meet the demands of and desires of those coming up from the bottom-up.

Each recommendation category includes a cover page with the vision statement, purpose, existing conditions, and recommendations list. The recommendations are ordered based on estimated feasibility. Each recommendation includes the expected implementation term which are divided into three categories: Immediate Term (0-5 years), Near Term (5-10 years) and Long Term (10-15 years).

Part Two: Data Collection, Analysis and Results details the methods of data analysis that the Studio Team utilized as well as provides a summary of the results. *Part Two* is divided into four categories:

1) ***BIKE RACK ANALYSIS***
   - Analysis of bike riders and trends on campus analysis
2) ***SURROUNDING AREAS ASSESSMENT***
   - Mode, infrastructure and mobility analysis of campus and surrounding areas
3) ***PUBLIC INPUT PROCESS***
   - Focus Groups, interviews, student commuter survey, and social media
4) ***PEER INSTITUTION RESEARCH***
   - Analysis of bicycle and transportation policies of other universities

Part Three: Appendices includes the further data collection results, maps, images, tables and analysis that were not included in *Part Two*, as well as references used for this document.

STUDY AREA: FSU MAIN CAMPUS

The Studio Team's Study Area is comprised of most of FSU's Main Campus. A map of the Study Area is found on the following page in Illustration *A: FSU Main Campus Study Area.*

Overview of Study Area

FSU's Main Campus is located on 446.2 acres in Tallahassee, which is the 7th largest city in Florida (Florida State University Perspective, 2013). Tallahassee has a humid subtropical climate, with long summers and short, mild winters, which make outdoor activities such as biking, feasible nearly year-round. The main campus is bordered by Stadium Drive to the west, Tennessee Street/U.S. Route 90 to the north, Macomb Street to the east, and Gaines Street to the south. Illustration A: FSU Main Campus Study Area is a map of Main Campus with street boundaries.

Existing Conditions

Assessed as students per acre, FSU is the densest public university in Florida, as seen in Table A. Its urban setting puts the value of developable land at a premium. Significant land resources have been dedicated to parking facilities to accommodate the many students, faculty, and staff that

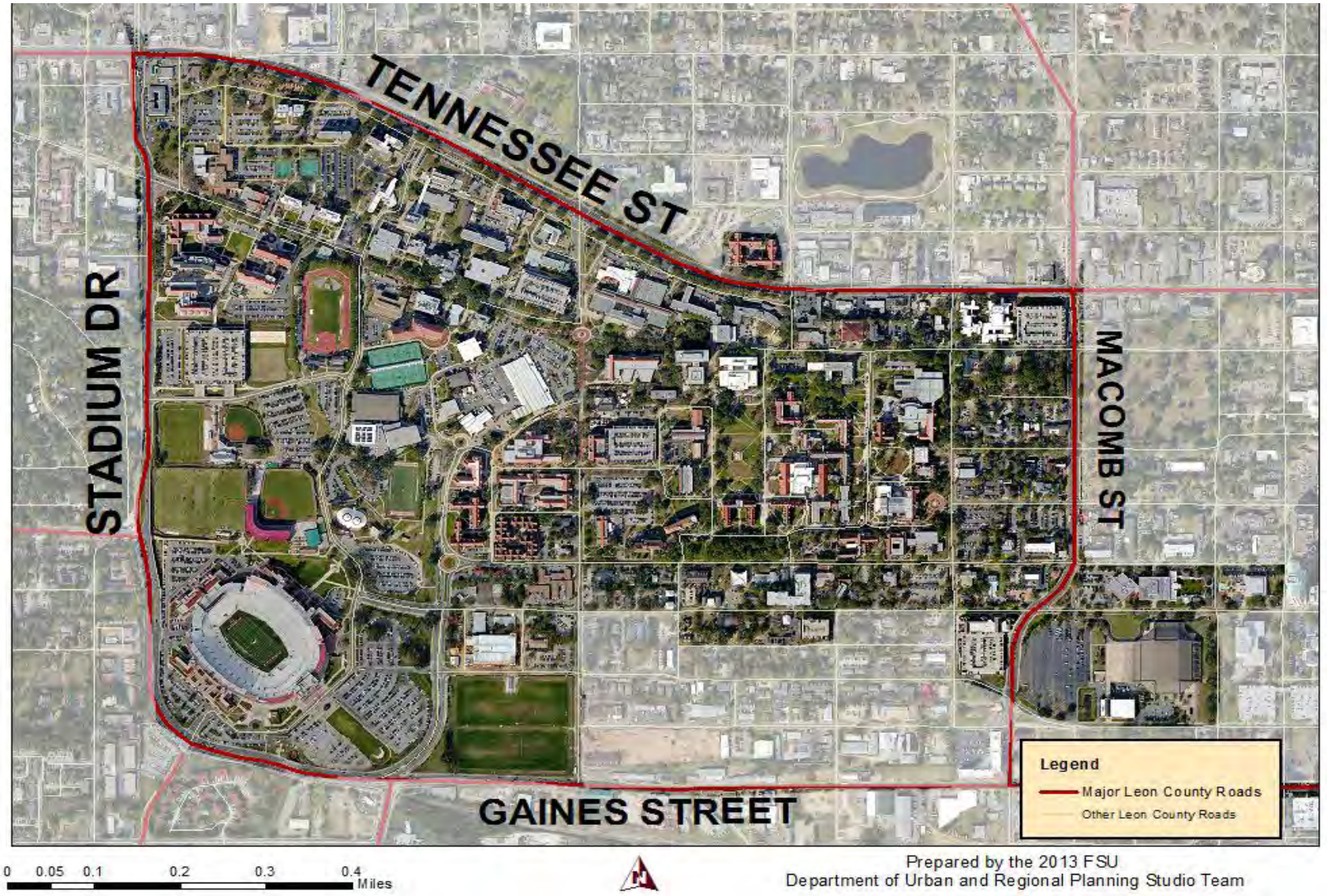
wish to park on campus. The university is subject to grow this population as it advances towards its goal of being a Top 25 Public Institution.

Table A: Florida University Density Ratios, Fall 2012

University	Ratio of Students to Main Campus Acreage	# of Students*	Campus Acreage
Florida State University	**92.56**	**41,301**	**446.2**
Florida International University	87.89	50,394	573
University of Central Florida	42.53	60,181	1,415
Florida Gulf Coast University	37.39	13,461	360
Florida Atlantic University	35.65	30,301	850
Florida A&M University	28.69	12,051	420
University of Florida	24.96	49,913	2,000
University of South Florida	24.91	47,646	1,913

Sources: FSU, 2013; FIU, 2013; UCF, 2013; FGCU, 2013; FAU, 2013; FAMU, 2013; UF, 2013; USF, 2013. *Fall 2012

Illustration A: Bike FSU Study Area



The map above illustrates how the Studio Team set its geographic boundaries for the study. The area is encapsulated by Gaines Street to the South, Macomb and the Civic Center to the east, Tennessee Street to the North, and Stadium Drive to the west.

PART ONE: RECOMMENDATIONS

Part One: Recommendations presents the Studio Team's recommendations for creating a strong campus bike presence and bike community at FSU. Implementing the recommendations throughout this part of the document serves as a step-by-step guide for progressing towards this goal.

Current and Proposed Conditions

Currently, there is little sense of a bicycle community on campus. There are several existing bicycle and interest groups (Florida State Cycling, Tallahassee Mountain Biking Association, and Environmental Clubs), but there is no place existing on campus where these groups can gather, collaborate and coordinate. Taking the steps to create a central bicycle hub spotlighted in the Student Union would be the impetus to bring bicyclists, bicycling groups, and bicycling interest groups together.

This Hub would start out small by expanding on the existing repair facilities, offering bicycle education programs, and incorporating a small bike library that would expand the student body's access to bikes. This Hub could then grow to a fully-functioning student and volunteer run Bicycle Hub where you could rent bikes, purchase bike parts, teach repair classes, hold events and essentially be the center of the campus bicycling community. This Hub could also feature a large, art structure out front to act as a totem for the Hub. This structure would be a tribute to bikes but also act as a functioning bike rack that visitors will be able to come to campus and recognize. Creating a central place like this would create something that people will want to come to and be a part of and will be the crux of a new and thriving campus bicycle community.

There is also a lack of adequate facilities and infrastructure to facilitate a growing bicycle influence. A student now is forced to combat incomplete and faded bike lanes getting to campus, weave through crowds of pedestrians when they arrive on campus, and a lack of secure or weather-protected parking once arriving at the campus destination.

The following chapter of the report encompasses all of the Studio Team's recommendations to create the vision of an improved biking and walking conditions on campus. There are 41 total recommendations divided into the following four sections:

1) ***CENTRAL BICYCLE HUB (CH)***
2) ***FACILITIES AND INFRASTRUCTURE (FI)***
3) ***SECURITY AND ENFORCEMENT (SE)***
4) ***PLANNING, ADMINISTRATIVE AND PROGRAMMING (PA)***

The complete recommendation list along with their recommended implementation time period is displayed in Table B below. The recommendation list is loosely ordered from most easily implemented to most difficult to implement.

Table B: Recommendations List

Recommendation	Immediate (0-5 Years)	Near-Term (5-10 Years)	Long-Term (10-15 Years)
Section 1: Central Bicycle Hub Recommendations (CH)			
CH 1: Create Campus Bike Library	**X**		
CH 1.1Expand FSU ReCycle Program	**X**	**X**	
CH 2: Campus Bike Shop/Repair Hub			**X**
CH 3: Central Campus Bike Art Structure			**X**
Section 2: Facilities and Infrastructure (FI)			
FI Category 1: Bicycle Parking Facilities			
FI 1: Redistribute Bike Racks	**X**		
FI 1.1: Increase Off-Campus Bike Parking	**X**		
FI 2: Outdoor Covered Bike Racks	**X**	**X**	
FI 3: Indoor Bike Parking (Bike Rooms)	**X**	**X**	
FI 4: Future Bike Parking Provisions	**X**		
FI Category 2: Bicycle Road and Street Improvements			
FI 5: Improve Bicycle Roadway Facilities	**X**		
FI 5.1: Add Painted Bike Lanes	**X**	**X**	
FI 6: Expand Bike Box Placement		**X**	
FI 7: Bicycle Boulevards			**X**
FI 8: Dedicated FSU Bike Path System	**X**	**X**	**X**
FI Category 3: Bicycle Road and Street Improvements			
FI 9: Improve Crosswalk Standards	**X**	**X**	**X**
FI 9.1: Lateral-Lined Crosswalks		**X**	
FI 9.2: Midblock Crossing Refuges			**X**
FI 10: Reduce Automobile Turn Conflicts		**X**	**X**
FI 11: Improve Legacy Walk		**X**	
FI 11.1: Mode-Split Signage	**X**		

Recommendation	Immediate (0-5 Years)	Near-Term (5-10 Years)	Long-Term (10-15 Years)
FI 11.2: Extend Legacy Walk to Copeland Street		X	X
FI 12: Expand Bus Pull-Off Placement		X	
FI 13: Complete Streets			X
FI Category 4: Miscellaneous			
FI 14: Water Spigots and Misting Stations			X
Section 3: Security and Enforcement (SE)			
SE 1: Increase Overall Signage	X		
SE 2: Improve Bicycle Registration Program		X	
SE 3: Expand Damaged Bike Removal Program	X		
Section 4: Planning, Administrative and Programming (PA)			
PA 1: Hire a Joint FSU-COT Bike/Ped Planner	X		
PA 2: Bicycle and Pedestrian Master Plan		X	
PA 3: Professional Transportation Study	X		
PA 3.1: Campus Scooter/Skateboard Study	X		
PA 4: Tiered Parking Fee Structure	X		
PA 5: Bicycle Education Programs	X		
PA 5.1: Student Orientation Bicycle Education	X	X	
PA 6: Expand Marketing and Outreach	X		
PA 7: Bicycle Incentive Program	X	X	
PA 8: Road Maintenance Program	X	X	

Recommendation Section 1: Central Bicycle Hub (CH)

Vision Statement: FSU will harbor a vibrant bike culture through the development of a central bike hub.

Purpose: The recommendations provided in this section provide small, incremental changes that over time will lead to a centralized bicycle hub that will be the root of the campus biking community. This hub will not only serve as a natural meeting place for bicyclists, but would also provide the necessary tools and assistance to sustain their bikes, and increase knowledge and awareness while fostering a passionate FSU bicycling community.

Existing Conditions: The current bike culture in and around FSU is disconnected. There is no central place for campus bicyclists and bicycle commuters to gather. The only available tools to bicyclists are three unmanned stations that have no instructions on how to use them. There is also little communication and camaraderie among existing campus bicycle interest groups, and no real pull to attract new and timid bicyclists to be a part of this community. The current bicycle presence on campus is transparent, and should be an encouraged part of the FSU experience.

Recommendations: The recommendations proposed in *Section 1: Central Bicycle Hub (CH)* are listed below. They are designed to build on each other. Once the bike library is created and the reCycle program expanded, then the need for the campus bike shop and repair hub will arise. A part of the repair hub could be a centralized bicycle art structure to act as a beacon and source of pride for campus cyclists.

- **CH 1: Create a Campus Bike Library**
  - CH 1.1: Expand FSU ReCycle Program
- **CH 2: Create a Campus Bike Shop and Repair Hub**
- **CH 3: Centralized Campus Bicycle Art Structure**

CH 1: Create a Campus Bike Library

Recommendation: *Implement a* ***campus bike library*** *to increase bicycle accessibility and ridership.*

Implementation Term: *Immediate (0-5 Years)*

Why a Bike Library

Bike libraries are found on college campuses because of the short-term use of bikes and availability. Bike libraries provide potential new riders with quick and easy access to a bike. A bike library program is an avenue for new bicycle riders who may be interested in biking, but are deterred by the cost and commitment of buying or renting a bike for a long period of time.

Illustration 1.1: Bikes at the Fort Collins Bike Library ready for check-out. Photo credit: The Coloradoan, 2012.

How a Bike Library Works

Under the program, anyone with an FSU ID card would be able to check-out a bike for free, just like a library book. Prior to check-out, a liability waiver would be collected. The check-out term could vary from a few hours to a week.

Illustration 1.2: Borrowers line up to check-out a bike at Iowa City Bikes as early as 7 AM to secure their bike for the day. Photo Credit: **(The University of Iowa, 2011)**.

Similar Programs

Bike library programs have been successful on other campuses and cities, such as the University of Kentucky who started its Wildcat Wheels program in 2004, Portland State University, University of California, Santa Cruz

and University of California, Los Angeles, and Iowa City Bike Library (Toole Design Group, 2005).

Implementation

Following the successful model from other campuses, FSU's Bike Library program could be started by partnering with our non-profit organizations, local bicycle shops, and student organizations to utilize bikes donated from the FSUPD and FSU Transportation Services' pool of recovered bicycles. The bike library program could be implemented in the Immediate Term (0-5 years).

Illustration 1.3: A photo the University of Kentucky's Bike Library logo on a bike. Photo Credit: **(UK Office of Sustainability)**.

Recommended Placement

The bicycle library would ideally be placed in or near the Central Bicycle Hub. A central bike library for Residence Halls is another option. The potential for success of the bike library program could be increased by labeling it with a catchy name, such as 'Seminole Spokes'.

CH 1.1: Expand FSU reCycle Program

Recommendation: *Enhance and expand the existing* ***FSU reCycle Program.***

Implementation Term: *Immediate (0-5 Years), Near-Term (5-10 Years)*

Context

With the increased ease of accessibility to bicycles, the Studio Team anticipates that demand for longer term bicycle rental will increase. The Studio Team recommends that the FSU reCycle bike program be enhanced and expanded to better accommodate and the rising demand and encourage increased bicycle ridership.

Illustration 1.4: FSU reCycle program logo. Photo Credit: **(Horton, 2013)**.

Currently, Commuter Services of North Florida (CSNF) provides FSU with a bike rental service through the reCycle program. The program is a low-cost bicycle rental program that provides FSU students a used bike for $35 a semester or $65 for the entire school year. This price includes maintenance, a helmet, a lock, and a BEST subscription (Horton, 2013).

How to Expand

If the FSU Bicycle Library program is implemented, it could potentially encompass the existing FSU reCycle program. The Bicycle Library would provide short-term bicycle rentals whereas the reCycle program will provide a longer-term (semester or year) rental option. The reCycle program should be expanded in the following ways:

- Increase Inventory
- Provide re-enrollment opportunities
- Provide bicycle purchase options:
  - Purchase the rented bike at a deep discount

- Offer a one-time discount coupon to buy a refurbished bicycle from a local non-profit or bicycle shop

Recommended Placement and Implementation

The FSU reCycle program will ideally be housed in or near the Bike Library. The expansion of this program should span over an immediate inventory expansion of 0-5 years and a near-term program expansion which is encompassed in the Bike Library from 5-10 years.

CH 2: Campus Bike Shop and Repair Hub (Central Hub)

Recommendation: *Create a* ***Central Bicycle Hub*** *that functions as a bicycle shop and repairs bikes that will serve as the central hub of bicycle activity on campus.*

Implementation Term: *Implementation Term: Long (10-15 Years)*

Why a Central Hub?

A stronger bicycle community is needed before a viable campus bicycle hub could be made self-sustaining. The primary feature of the bicycle hub would be the bicycle shop, which would be staffed and equipped to fix bikes and teach repair classes. As the bike library and reCycle programs are expanded, the bicycle shop will serve as a valuable resource in keeping the operational costs of those programs down as the bike repairs will no longer have to be outsourced. This bike hub, in addition to housing the bike repair shop, could provide a location to administer bicycle resources and related programs.

Illustration 1.5: A look inside of a bicycle shop in Raleigh, North Carolina. Photo Credit: **(Raleigh)**

Existing Campus Repair Services

There are three existing bicycle repair stations located on campus. These locations are at the:

- Oglesby Student Union
- Leach Center Gymnasium
- Kellum Residence Hall

These repair stations offer a variety of tools to allow users to repair their bikes as a rack to mount their bike on while they are working on it. However, these stations do not offer repair advice or information to people untrained on basic bike maintenance and repairs.

Illustration 1.6: Student learning at a campus bike shop. Photo from: Repair Class, 2013

Implementation

As the bike shop becomes more established, it could be expanded to include a meeting space for additional classes and related student organization meetings. Office space for staff to run bicycle related programs should also be added.

Recommended Placement

The Studio Team suggests that a campus bicycle shop should be developed at Oglesby Student Union.

CH 3: Central Campus Bike Art Structure

Recommendation: *Invest in a* ***bicycle-related art structure*** *that will also function as a bike rack to serve as the focal point of the new campus bike hub.*

Implementation Term: *Long (10-15 Years)*

Artist Racks and Examples

Artistic bike racks are growing as local expression and are intended to create conversation (Beyond the Hoop & Inverted U Bike Rack, 2013). There are examples of bicycle-related art structures all over the country, and are symbols of local expression of the cities that they are home to.

Illustration 1.7: 'Arty' Bike Rack in Sacramento. Photo Credit: **(Arttake: Arty Bike Racks, Part 3, 2013)**

- *Sacramento*: 'Arty' bike racks are part of Sacramento street culture. "Sacramento is full of clever bike racks" and has several websites and blogs that document the 'arty' bike racks around the city like 'The Arty bike racks of Sacramento', and 'The Amusing Bike Racks of Sacramento' (Arttake: Arty Bike Racks, Part 3, 2013).

- *Boston*: Illustration 1.8 to the right shows bike rack art in Boston. Possibly a structure like this one but spelling 'Noles' could be installed.

Illustration 1.8: Artistic Bike Rack piece in Boston. Photo Credit: **(Streets, 2012)**

- *Nashville:* Nashville held a contest in 2009 to design creative bike racks. The photo in Illustration 1.9, "Microphone Rack" is one of the winners. This rack was chosen because it "represents Nashville's history" (Ehl, 2012). The future art piece at FSU can also be a representative of FSU history and culture.

Illustration 1.9: Displays "Microphone Rack", Nashville's 2009 bike rack design contest winner. Photo Credit: **(Ehl, 2012)**

Recommended Placement and Implementation

The addition of a bike art structure like the ones pictured above would expand the character of the Central Hub and stimulate conversation about the FSU bicycling community. This structure should be placed near the new bicycle hub to symbolize the bicycle community. Ideally, this structure will be able to be seen from a distance to spark interest and curiosity in order to draw people into the Central Hub. This structure would not be an immediate addition, but something that would be added as the Central Hub grows and becomes established. A city or campus design contest can be held to create a local-artist driven art piece. If this art piece is successful, it could potentially lead to other public art bicycle pieces in other campus locations.

Recommendation Section 2: Facilities and Infrastructure (FI)

Vision Statement: Students will have a conveniently accessible, safe, and navigable campus for all travel modes.

Purpose: Provide easily accessible and amenity-driven bike parking which would ensure protection from natural hazards to bikes such as theft and weather, and would have more accessible pathways for cyclists.

Existing Conditions: Much of the infrastructure in and around campus is in need of improvements. Issues include worn and incomplete bike lanes in and around campus as well as limited facilities are offered bicycle and pedestrian commuters.

Recommendations: The recommendations posed in *Recommendation Section 2: Facilities and Infrastructure (FI)* are listed below. Due to the number of recommendations in this section, they are also grouped into four categories: 1) Bicycle Parking Facilities, 2) Bicycle Road and Street Improvements, 3) Multi-Modal Infrastructure, and 4) Miscellaneous.

1. **Bicycle Parking Facilities**
   - **FI 1: Redistribute Bike Racks**
   - **FI 2: Outdoor Covered Parking**
   - **FI 3: Indoor Bike Parking (Bike Rooms)**
   - **FI 4: Bike Infrastructure For New Buildings**

2. **Bicycle Road And Street Improvements**
   - **FI 5: Improve and Expand Bicycle Road way Facilities**
   - **FI 6: Expand Bike Box Placement**
   - **FI 7: Bicycle Boulevards**
   - **FI 8: Dedicated FSU Bike Path System**

3. **Multi-Modal Infrastructure**
   - **FI 9: Improve Crosswalk Standards**
     - FI 9.1: Lateral-Lined Crosswalks
     - FI 9.2: Midblock Crossing Refuges
   - **FI 10: Consolidate Campus Driveways**
   - **FI 11: Improve Legacy Walk**
     - FI 11.1: Mode-Split Signage
     - FI 11.2 Extend Legacy Walk To Copeland Street
   - **FI 12: Bus Pull-Offs**
   - **FI 13: Complete Streets**

4. **Miscellaneous**
   - **FI 14: Water Spigots And Misting Stations**

Facilities and Infrastructure Category 1: Bicycle Parking Facilities

Recommendations to expand and improve campus bicycle parking. Expanding on the existing bicycle parking facilities will not only help build the sense of community among campus bicyclists but will also provide more secure locations for bicycles around campus.

These recommendations are put in order by feasibility and ease of implementation.

Bicycle Parking Facilities

- **FI 1: Redistribute Bike Racks**
  - **FI 1.1:** Increase Off-Campus Bike Parking
- **FI 2: Outdoor Covered Bike Racks**
- **FI 3: Indoor Bike Parking (Bike Rooms)**
- **FI 4: Future Bike Parking Provisions**
  - **FI 4.1:** Inverted U-Rack Design Alteration
  - **FI 4.2:** Improved Wall-Mount Implementation and Placement
  - **FI 4.3:** Integrate Bike Parking into Design Process

FI 1: Redistribute Bike Racks

Recommendation: *Redistribute* ***underutilized bike racks*** *to problem areas.*

Implementation Term: *Short (0-5 Years)*

Following the Studio Team's Bike Rack Analysis it was determined that the University does not have a shortage in bike parking. Rack occupancy campus-wide rarely, if ever, gets above 40% (Appendix 1). However, the racks could be redistributed to provide more bike parking in areas of campus that have racks which are frequently near full capacity or in areas where bikes are consistently parked illegally to structures such as hand rails. Additionally, there are several racks that see little or no usage that are easily removable. Therefore, it may be in the best interest of the University to relocate these underutilized removable racks to an area in need of more bike parking.

Illustration 1.10: Bike Problem Areas and Rack Recommendations on the following page displays the problem areas identified by the Studio Team, underutilized racks, and recommended new rack placement.

Existing Conditions

FSU currently has the parking capacity for about 4,000 bikes distributed across approximately 150 bike racks of five different styles on the identified Main Campus Study Area. The rack styles present are Inverted-U, Ribbon, Bollard, Wall Mount, and Wheel Bender. Photos of these rack styles are found in the Section 1: Bike Rack Analysis. While only a select few racks see frequently high utilization, the majority of them are set into concrete and thus not easily removable (Appendix 1). Recently, the University has begun constructing the bike racks on campus and designing them to be bolted to the concrete rather than set into it, making them more easily removable.

Illustration 1.10: Map of Bike Parking Problem Areas and Rack Recommendations.
This map displays the identified bike parking problem areas and rack recommendations. The parking issue areas in boxed in red, the new rack location recommendations are in green, the underutilized racks are in blue.

Recommended Bike Rack Additions

The following lists the recommended bike rack additions as recognized by the Studio Team. These recommendations were fueled by observation during the bike rack inventory, bike rack analysis results, specific Focus Group comments, and stakeholder interviews.

Oglesby Student Union

Two of the bike racks located immediately next to Oglesby Student Union, 69 and 79, are consistently overcrowded. Although there is additional rack space located nearby with available capacity (60 and 80), their discrete locations leave them overlooked and virtually unused. Additionally, the Studio Team observed that Oglesby Student Union has a high frequency of bikes parked illegally on hand railings. Therefore, clearly visible racks should be located near entranceways bringing students to and from Oglesby Student Union.

King Life Sciences Building

It has been expressed by students and supported by gathered data that the bike racks at King Library of FSU's Medical School are frequently over capacity and the area should be assessed for additional parking facilities.

Suwannee Room

Coupling its usage as the primary dining hall for on-campus residents with its proximity to on-campus housing, the bike racks nearest Suwannee Room are consistently identified as being near or over capacity. The addition of racks near major entrances to the building will help to support capacity needs during peak times for dining.

Fisher Lecture Hall

Students have expressed a need for additional bike parking at Fisher Lecture Hall due to crowded racks and issues with bikes parked illegally along railings.

Marching Chiefs Practice Field

The Studio Team has identified a lack of bike parking near the field and building used by the Marching Chiefs for practice. Members of the Marching Chiefs that participated in the Focus

Groups have also informed the Studio Team that they have no available bike parking near their storage building (Focus Groups, 2013). As a result, all members of the Marching Chiefs that bike to practice are forced to lock their bikes to the railing along the adjacent walkway or to the fence surrounding the practice field.

Old Intramural Fields

Although no longer used for intramural sports, these fields are still actively used throughout each day by students. The Studio Team has been informed by students during Focus Groups that once arriving at the fields, there is not ample bike parking (Focus Groups, 2013).

Health and Wellness Center

The most convenient bike rack for the Health and Wellness Center only has the capacity for eight bikes (Rack 28). This rack is also shared with the Student Life Center. Both of these buildings are used for a diverse number of reasons, bringing student traffic at all times of the day. Additional rack space servicing the Health and Wellness Center should be considered, particularly near a more primary entryway such as the location of the skateboard parking.

Mendenhall Building

Faculty and staff have indicated to the Studio Team that bike parking facilities are needed near the main entrances into the Mendenhall Building.

Bellamy Building

The entrance into the first floor atrium of Bellamy is a high traffic area for students, faculty and staff moving in and out of the building. Outside of this entrance is also a frequent location for illegally parked bikes. This is an ideal location for bicyclists approaching Bellamy from the direction of Landis Green to park their bikes and reduce the number of bikes along the handrails in that area. It may also reduce the number of bicyclists that have to come down the hill and into pedestrian traffic on Legacy Walk where the other major entrance into the building is located.

Dodd Hall

The rack servicing this building is reflected in the data as frequently being near or full capacity. The building sits between Jefferson Avenue and University Way, bringing a high level of bicyclist traffic by it. Therefore this area should be considered for additional bike parking facilities.

Underutilized Removable Racks

The following racks have been identified as being at less than 15% capacity on average and are removable. It is recommended that these racks be relocated to areas in higher demand of bike parking facilities.

Table 1.1: Underutilized Removable Racks and Capacities

Rack Number	Bike Capacity (Spaces)
96	16
51	4
123	8
34	8
22	42
Total Underutilized Capacity	78

FI 1.1 Increase Off-Campus Bike Parking

Recommendation: *Increase off-campus bicycle parking.*

Implementation Term: *Immediate (0-5 Years)*

Existing Conditions

Through the Studio Team's Handlebar Survey (Section 2) and Focus Groups (Section 3.2), it was recognized that the majority of businesses in the neighborhoods and districts surrounding campus do not provide adequate bike parking facilities. This often equates to cyclists having to leave their bikes parked along structures such as railings and light poles or simply leaning up against buildings and unlocked altogether and ultimately a decrease in ridership by not providing a safe place to park bikes.

Implementation

Coordinate with City of Tallahassee to encourage businesses to begin providing parking for bikes in addition to their automobile parking facilities. It should be emphasized that this will not only benefit cyclists, but the businesses as well. Improved bike parking will make the businesses more accommodating towards consumers that commute by bike in an increasingly bike-friendly environment.

FI.2: Outdoor Covered Bike Racks

Recommendation: *Create* ***outdoor covered bike racks*** *at locations around campus.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years)*

What are covered bike racks?

Covered bike racks provide protection of bicycles from weather conditions such as sun or rain. Covered bike racks would provide an important amenity for cyclists because it shows that the University is putting value to the bike by recognizing that bicycles require protection. For instance, when you park your car, would you rather park it in the parking garage, or on the roof of the parking garage? Parking a vehicle under a covering, whether it is a car or a bicycle, ensures that your vehicle will be in the same condition you left it and not effected by the weather. Covered spaces will also create a sense of place for bicyclists to gather, particularly at Residence Halls or other high-volume areas. To create covered bike racks, a structure is installed over bike racks like the ones pictured in Illustrations 1.11 through 1.13.

Illustration 1.12: A covered bike rack at Virginia Commonwealth University (VCU). Photo credit: **(Take Over LA: Urban Bike Adventures)**

Recommended Locations

The Studio Team recommends three general locations for covered bike racks:

- Residence Halls
- Classroom Buildings
- Strozier Library

Illustration 1.11: Example of Covered Parking at Cambridge University. Photo Credit: **(New Bicycle Parking Spaces, 2013)**

Location 1 - Residence Halls: The most important place to initially put the covered racks would be near Residence Halls. Often when students are ready to use their bicycles, the students find that their bicycle chain is rusted and needs to be repaired (BicycleHouse, 2013). Installing covered structures to protect the bikes near the Residence Halls would help alleviate this problem. Creating covered bicycle structures outside of Residence Halls would also provide a place for students to gather and would create a sense of community among campus bicyclists (BicycleHouse, 2013).

Location 2 - Classroom Buildings: There are several locations situated outside and near classroom buildings where there is room to install a covering over bike racks. The most important locations would be the ones that are not already shaded for much of the day. Providing covered bike racks for classroom buildings would protect students who are in class and wish to have their bike protected from the elements. A list of shaded and non-shaded racks can be found in Appendix 1.

Illustration 1.13: Example of Covered Parking at Virginia Tech. Photo Credit: **(Virginia Tech News, 2011)**

Location 3 – Strozier Library: There is a high volume of bicyclist activity around Strozier library, with most of the racks near capacity over most of the day. Installing coverings for these racks would be ideal for such a heavily utilized bicycle parking location. Installing coverings for the Strozier Library bike racks would provide a crucial amenity for many campus cyclists.

Implementation

To create covered bike racks on FSU's campus a structure would be installed over existing bike racks. These structures can be made out of several types of material and can be visually appealing. Installing covered bike racks would greatly improve campus bicycle facilities in an immediate way and can be immediately implemented within the next five years.

FI.3: Indoor Bike Parking (Bike Rooms)

Recommendation: *Create* ***bike rooms*** *in buildings around campus to provide an indoor bike parking option.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years)*

What is a bike room?

Bike rooms provide a dedicated indoor space for the secure parking of bicycles. Bike rooms are locked rooms located inside of buildings that act as dedicated storage space for bicycles. They typically have rows of bicycle racks that can only be accessed by code or key (Alta Planning and Design & Kimley-Horn and Associates, Inc., 2012). Examples of bike rooms are displayed in Illustrations 1.14 through 1.16 in this section. Bike rooms are an ideal amenity for Florida State to offer because it would provide a safe space for faculty and staff to house their bikes instead of their offices. They would also provide a secure space for students living in dorms to keep their bikes, especially overnight.

Illustration 1.14: Example of Indoor Bike Parking (Corral Style) at Portland State University. Photo Credit: **(PSU Indoor Bike Parking)**

Existing Conditions

The only bike parking currently provided by the University is outside, mostly uncovered parking at bicycle racks. Many of the Focus Group participants noted that they found it uncomfortable to leave their 'nicer bikes' outside with the 'other bikes' or 'student bikes' (Focus Groups, 2013). Many faculty members store their bikes in their office, while some students will keep them in their dorm rooms. Worst case

Illustration 1.15: Example of Indoor Bike Room at the Olin College of Engineering. Photo Credit: **(The OLINsider)**

scenario, they will not even bring their bike to campus because they do not feel comfortable parking it anywhere because their bike is "too nice to bring to campus" (Focus Groups, 2013). FSU Facilities was also concerned about potential fire and safety hazards with having bikes in the hallways when people take their bikes to their dorm rooms or offices. A secure bike room is the answer to that.

Illustration 1.16: An indoor bike parking facility at a Chicago Housing Facility. Photo Credit: **(Chicago Summer Housing)**

Recommended Placement

The university can use existing facilities and convert them into bike rooms. The comparable University of Arizona has started putting bike rooms in all of their new dorms (Alta Planning and Design; Kimley-Horn & Associates, INC, 2012). Bike rooms should be placed in Residence Halls and classroom buildings where a need for a bike room facility is established.

Implementation

The university should provide an alternative means for people to store their bikes to not only encourage more bike commuting, but to provide a comfortable and secure space for the faculty, staff, and students to store their bicycles other than their offices and dorm rooms. These bike rooms should be implemented in the immediate term within the next two years to new Residence Halls, and implemented in other campus locations in the Near Term in the next 5-10 years.

FI 4: Future Bike Parking Provisions

Recommendation: *Implement the suggested bike parking specifications when installing future bike parking*

Implementation Term: *Immediate (0-5 Years)*

There are several considerations that FSU Facilities faces when implementing additional bike parking. These range from the aesthetic integrity of the campus to available space and the structure of the rack being placed.

Current Conditions

Bike parking facilities are not taken into consideration when FSU completes the design and development of new structures such as classroom buildings and residence halls. This leaves FSU Facilities with the burden of finding viable space around the new developments to place racks that does not compromise the aesthetic integrity of the campus and minimize the amount of space consumed doing so.

One solution to the issue of available space for bike racks has been to test out the Wall Mount rack style (Section 7.1). This style of rack reduces the amount of ground space that each bike consumes as compared to other styles. There is currently one located at Oglesby Student Union which has been monitored to gage the feasibility of implementing this style in additional locations moving forward.

Illustration 1.17: How bikes should be Parked. Photo Credit: Studio Team

However, the University is primarily moving forward with the Inverted-U style racks in the future installments. These are manufactured on campus and provide a 30” gap between each individual Inverted-U structure to ideally accommodate two bikes. (See: Figure 1.17: How Bikes Should be Parked).

Sub-Recommendations: Spacing and Wall Mounts

The Studio Team recommends that at least 36" to 42" be considered as the new standard for space between bicycle spots. The Studio Team has determined through focus group feedback and stakeholder interviews that the 30" gap between each Inverted-U structure is too small for two bikes, which consequently makes these spaces occupied primarily by one bike rather than two, and therein making the rack space utilized inefficiently (Illustration 1.17). If this gap were to be widened to a more comfortable width, it would allow for racks to be used more efficiently in the future.

Illustration 1.18: Wall Mount rack on FSU Main Campus. Photo Credit: Studio Team.

Information from the Bike Rack Analysis, Focus Groups and stakeholder feedback indicated that if wall mounts are to be implemented in the future, they should be located in easily visible and conveniently accessible areas. Design alterations for the racks should also be considered to make the racks more user-friendly. In particular, the racks should be placed lower to the ground such that they do not require cyclists to lift their bikes completely off of the ground. Some wall mount designs also have a ramp associated with it to help people get their bikes up the wall.

Moving forward with placement of bike parking facilities should be incorporated into the design process rather than trying to find feasible placement after-the-fact. If bike racks are considered during the design process then they can be implemented in a manner that is both aesthetically pleasing and functional.

Facilities and Infrastructure Category 2: Bicycle Road and Street Improvements

The recommendations listed in this section cover road and street improvements specific to bicycles. They are listed in order of feasibility and ease of implementation, with the recommendations building on one another. To further explain, the FSU Bike Path System will come to fruition once there are established bicycle boulevards, and there is more quality bicycle infrastructure such as improved bike lanes and more bike boxes. These improvements were designed to be implemented incrementally to facilitate the gradual process of a becoming a more bike-friendly campus.

Bicycle Road and Street Improvements

- **FI 5: Expand Share-The-Road Arrow Placement**
- **FI 6: Improve Bike Lanes**
  - **FI 6.1:** Add Painted Bike Lanes
- **FI 7: Expand Bike Box Placement**
- **FI 8: Bicycle Boulevards**
- **FI 9: Dedicated FSU Bike Path System**

FI 5: Improve and Expand Bicycle Roadway Facilities

Recommendation: *Expand* ***share-the-road arrow*** *and* ***bike lane placement*** *on and around campus.*

Implementation Term: *Near (5-10 Years)*

FSU and the City of Tallahassee should collaborate to improve and expand Bike Lane and Share-The-Road Arrows (sharrows) markings on and around FSU's main campus. Bike lanes are meant to create a separation from automotive traffic on the right hand side of the lane and encourage cyclists to ride in the correct direction. Sharrows are meant to allow cyclists to utilize the entire lane and increase awareness among motorist that cyclists are present. Both bike lanes and sharrows improve safety by creating a path for cyclists in the roadway and signaling to drivers that they are sharing the road with cyclists.

What is a Share-Road-Arrow?

A share-the-road arrow is a shared-use marking (sharrow) that indicates a bicyclist may utilize an entire lane in traffic. Typically, sharrows are found on lower-speed, low-traffic roads. Sharrows can be painted onto sidewalks or streets and provide a number of uses, including:

- Alerting motorists that cyclists are likely to occupy the same lane
- Encouraging safe passing of cyclists by motorists
- Assisting cyclists with lane positioning to reduce the possibility of a cyclist impacting the open door of a parked vehicle
- Reducing the incidence of wrong-way cycling (Federal Highway Administration, 2013).

Illustration 1.19: Sharrow Example. Photo Credit: Federal Highway Administration, 2013.

These types of markings encourage cyclists to ride outside the area where they are prone to being struck by an on-street parked car door, and reduce the occurrence of cyclists riding in the wrong direction of the road (Federal Highway Administration, 2013).

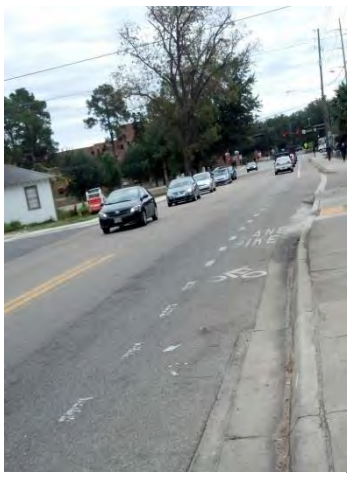


Illustration 1.20: Existing Bike Lane on W. Call Street. Photo Credit: Studio Team, 2013

What is a Bike Lane?

A bike lane is meant to give a bicycle a place to ride that is separated from traffic. A bike lane helps a user feel more comfortable in traffic. The other option is riding on the sidewalk which can cause pedestrian and bike conflicts. Bicyclists often have to move outside of the bike lane into traffic due to hazards in the lane such as glass or foliage. Many stakeholders have noted that there should be an increased amount of bike lanes on and around campus to increase the perception of safety for cyclists. Typically, a bike lane requires giving up a portion of the automotive dedicated lane and could require an entity to purchase the right of way. Implementing bike lanes would make new riders feel especially safe as they have a designated place to be (See Illustration 1.20 and 1.21).

Existing Conditions

a. Sharrows

Sharrows exist on a few roads on and around the University. The Studio Team attempted to note significant sharrows infrastructure; however, many of the existing sharrows markings were found to be worn or only placed along limited segments of the road. The most significant sharrows identified within the study area can be found on Gaines Street (See Illustration 1.23: Map of Recommended Sharrow and Bike Lane Placements).

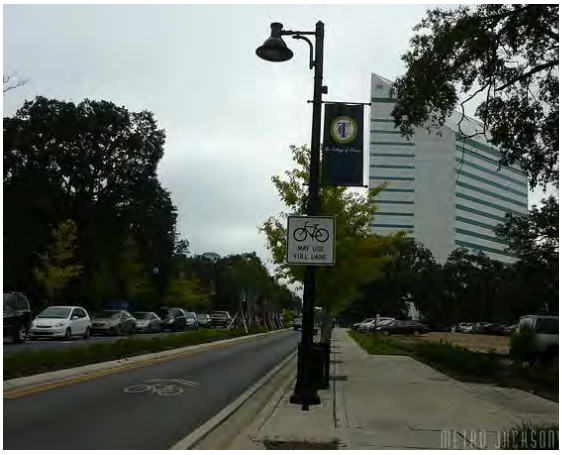


Illustration 1.21: Existing Sharrow on Gaines Street
Photo Credit: MetroJacksonville.com, 2013.

b. Bike Lanes

Illustration 1.23 Recommended Sharrow Locations (four pages away) is a map featuring existing bike lanes on and around campus. The existing bike lane infrastructure on this map is blue, and many are in need of restriping and painting, per feedback from the Public Input Process and Surrounding Areas Assessment. Furthermore, there are a number of lanes in and around the study area that are not consistently placed along the street. For example, Stadium Drive is a two-lane road with a bike lane that ends close to the intersection with W. Call Street. This is problematic because the flow of traffic on that road is much faster than a bike can travel, resulting in cyclists having to wait for an opportune moment to re-enter traffic.

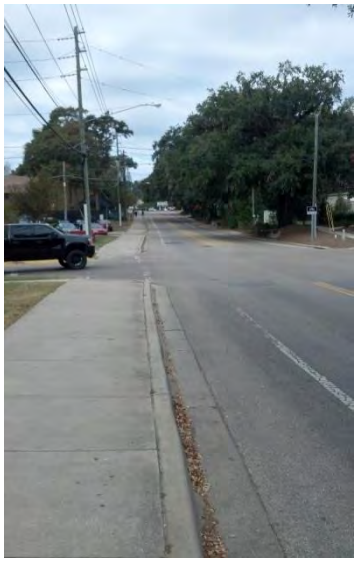


Illustration 1.22: Example of Existing (Worn) Bike Lane on W. Call Street facing west. Photo Credit: Studio Team.

Recommended Placement and Criteria:

a. ***Sharrows***

The Studio Team recommends placing new sharrows on streets on and around campus with low traffic speeds. By placing sharrows on these roads, the City of Tallahassee and FSU show motorists that cyclists can be present on a road and may use the whole lane. The Team developed three criteria to consider (below) when placing sharrows vs. bike lanes.

Table 2.1: Criteria for Sharrows or Bike Lane Placement

Criteria	Sharrow	Bike Lane
Automobile Traffic on Street	Low-speed traffic	High-speed traffic
Right-of-Way (ROW) Acquisition	No additional ROW needed	ROW is available
Terrain	Flat, downhill, minimal uphill	Flat, downhill, uphill

Sharrows are recommended for downhill or flat terrain, where right of way is not available, and where automotive traffic speeds are lower than surrounding roads. As cyclists utilize the entire lane on a sharrow road, sharrows are recommended for roads with low-speed traffic where cyclists and automobile traffic speeds will be similar and reduce conflicts and inconvenience for both roadway users. Sharrows require no additional right-of-way as the cyclists utilizes the same existing space as automobiles. Sharrows are not recommended for terrain where cyclists must climb steep hills. On flat ground or going downhill, cyclists can maintain speeds comparable to cars, but quickly slow when having to go uphill. This slowing will slow any automobile traffic behind the cyclists, causing conflict between the cyclists and automobiles.

The recommended sharrow improvements are shown in the map titled *Illustration 1.23 Recommended Sharrow Locations*. Development of these sharrow recommendations came from the public input process and direct observations from the surrounding areas assessment. The Studio Team has developed a list of off- and on-campus recommendations for FSU and the City of Tallahassee to consider, listed below by jurisdiction:

City

- Brevard Street
- Georgia Street
- Carolina Street
- Virginia Avenue
- Park Avenue and On Campus East/West Connections
- Lafayette Street
- Copeland Street (entire length)
- Gay Street
- Collier Street North and South Pathway (Requires North and South Pathway Development and Construction Pending)
- Chapel Drive MLK Jr. Blvd. from Brevard Street to All Saints Street
- Bike Boulevards
    1) Belle Vue Way
    2) W. Georgia Street
    3) S. Adams Street
    4) N. Woodward Avenu

The streets numbered one through four are also recommended to become Bicycle Boulevards, which include a sharrow component as part of the infrastructure (See Recommendation FI 7 for more details).

FSU

- Convocation Way from University Way to W. Call Street
- Academic Way
- Chieftain

b. Bike Lanes

Recommended Placement

The Team developed three criteria points to consider (Table 2.2 below) when placing sharrows vs. bike lanes. Bike lanes are recommended for roads with higher automotive speeds, more sloped terrain, and when right of way is available. In other words, bike lanes are recommended on roads where sharrows are not feasible. Due to the space required for a bicycle lane, additional right-of-way may be required as the bike lanes are separate facilities from the road or sidewalk. In some areas, this right-of-way acquisition may be a challenge when property has developed at the edge of the roadway. Since bike lanes separate cyclists from automobile traffic, a cyclist may safely and slowly travel uphill without conflict from cars waiting behind the cyclist.

Table 2.2: Criteria for Sharrows or Bike Lane Placement

Criteria	Sharrow	Bike Lane
Automobile Traffic on Street	Low-speed traffic	High-speed traffic
Right-of-Way (ROW) Acquisition	No additional ROW needed	ROW is available
Terrain	Flat, downhill, minimal uphill	Flat, downhill, uphill

The University and City of Tallahassee should consider placing bike lanes in areas that would contribute to connectivity improvements in the surrounding area. A number of different information sources have stated that there is a significant lack of bike lane infrastructure in the area (see Focus Groups and Stakeholder Interviews for more information). More students would be encouraged to take their bikes to school if these infrastructure improvements were put in place

around campus. A list of proposed bike lanes to be improved is listed below by jurisdiction. Additionally, the Studio Team recommends restriping and painting existing bike lanes to be considered as part of a campus bike path system (Recommendation FI 5.1).

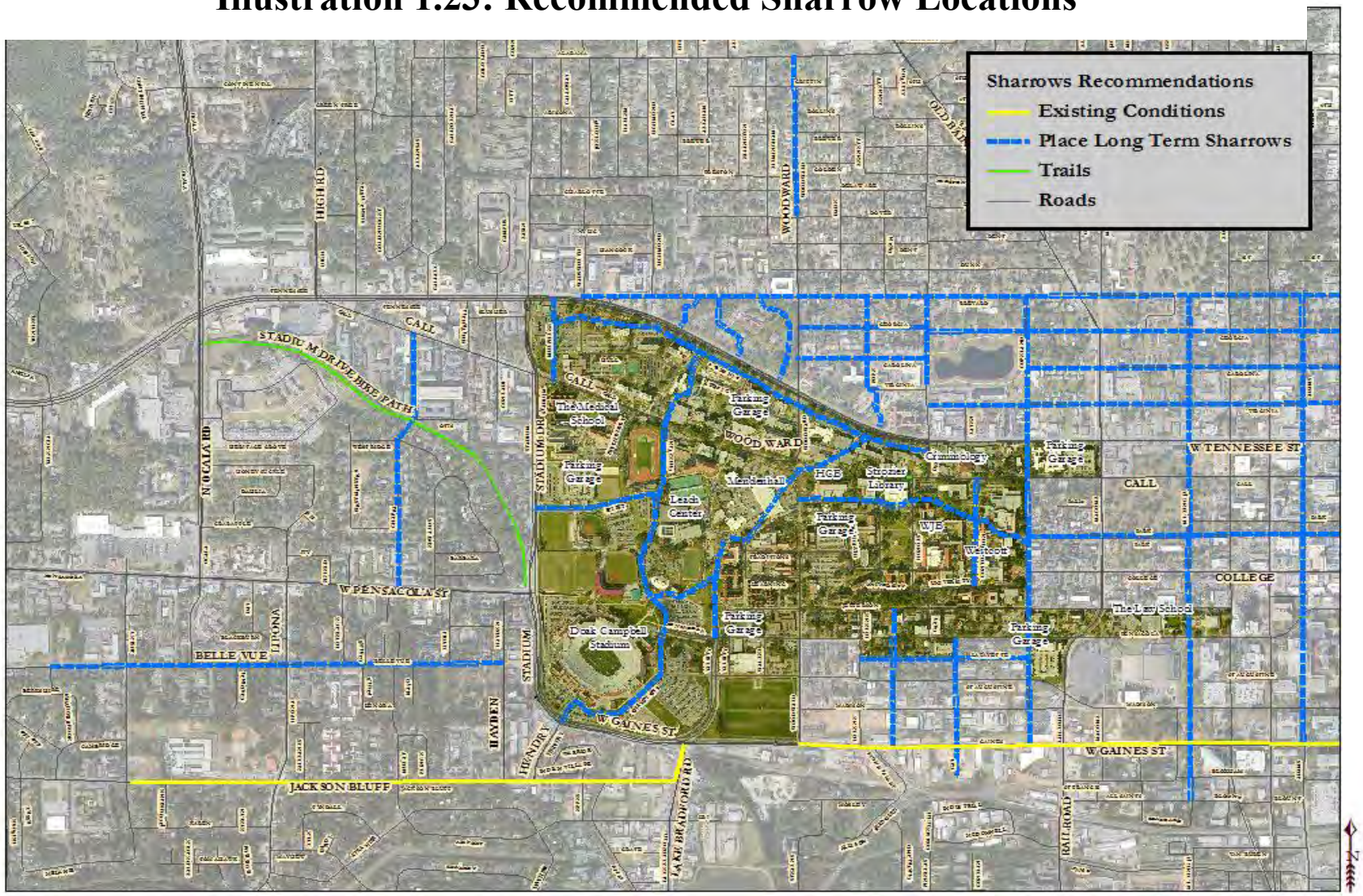
FSU

- Woodward Avenue
- W. Call Street
- Stadium Drive
- Legacy Walk Connections

City

- Woodward Avenue
- W. Call Street
- High Road
- Ocala Road
- West Pensacola Street
- Jackson Bluff Road
- Hendry Road.
- Stadium Drive
- Madison Avenue
- Saint Augustine Street
- Pensacola Street
- Jefferson Street
- Macomb Street

Illustration 1.23: Recommended Sharrow Locations



This map illustrates roads with existing sharrows in yellow, and long term in blue. These recommendations were developed based off of stakeholder interviews, focus group meetings, and direct observations during our handlebar survey.

FI 5.1 Add Painted Bike Lanes

Recommendation: *Create* ***painted bike lanes*** *on and near campus.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years)*

In addition to the restriping and addition of bike lanes, the Studio Team recommends creating bike lanes that are painted in the near term.

Current Conditions

Currently, the University and City of Tallahassee have a painted bike lane immediately east of campus on West Call Street. This garnet-painted bike lane originally alerted drivers of the bicycle facility, potentially increasing cyclist safety. Illustration 1.24 shows an example of a painted bike lane. Painted bike lanes show cyclists that this is their area to move about and reminds them of the correct direction to travel in.

While most painted bike lanes are bright green, many lanes painted around campus could fit the University "feel" by being painted an garnet or gold alternative, similar to that of the fading infrastructure on West Call Street (see Illustration 1.25).

Illustration 1.25: Example of a Well-Painted Bike Lane Photo Credit: University of North Carolina

Illustration 1.24: Example of Once-Painted Bike Lane on W. Call Street. Photo Credit: Studio Team.

FI 6: Expand Bike Box Placement

Recommendation: *Expand the* ***bike box*** *program.*

Implementation Term: *Near (5-10 Years)*

What is a bike box?

A bike box is a colored area at a signalized intersection that helps prevent bicycle and car collisions by allowing cyclists to pull in front of waiting traffic (see Illustration 1.26). A bike box is intended to be used only at red light intersections with a high volume of bicyclists, with a primary intent of:

- Preventing collisions between motorists turning right and cyclists going straight
- Improving visibility of cyclists
- Reducing delay for cyclists by providing space for "jumping the queue" of waiting vehicles
- Allowing a left-turning bicyclist to reach a better position for making a safe turn
- Allowing bicyclists to reduce exposure to vehicle tailpipe emissions (Doherty, 2013).

Illustration 1.26: Typical Bike Box
Photo Credit: The City of Tallahassee

Existing Conditions

Currently, there are two bike boxes located near FSU's Main Campus facing east and west at the intersection of West Call and Stadium Drive (See *Illustration 1.27 Recommended Roadway Improvements for Bikes and Buses*for locations). City of Tallahassee planners have planned for additional placement of bike boxes throughout the area, located at the following intersections and are also found on Illustration 1.27 for visual representation

- W. Call Street and Bronough Street (facing east and west)
- W. Call Street and Macomb Street (facing west)
- Railroad Avenue and Gaines Street (facing north and south)

Recommended Placement

The results from the Studio Team's analyses speak to the need for more bike box locations being put throughout the surrounding area as a means to increase cyclist safety as determined above. The recommended locations for locations for new bike box locations are:

- Stadium Drive and West Call Street (facing north and south)
- North Woodward Avenue (facing north and south)
- Hendry and Stadium Drive (facing north and south)
- West Call Street and Macomb (facing east)

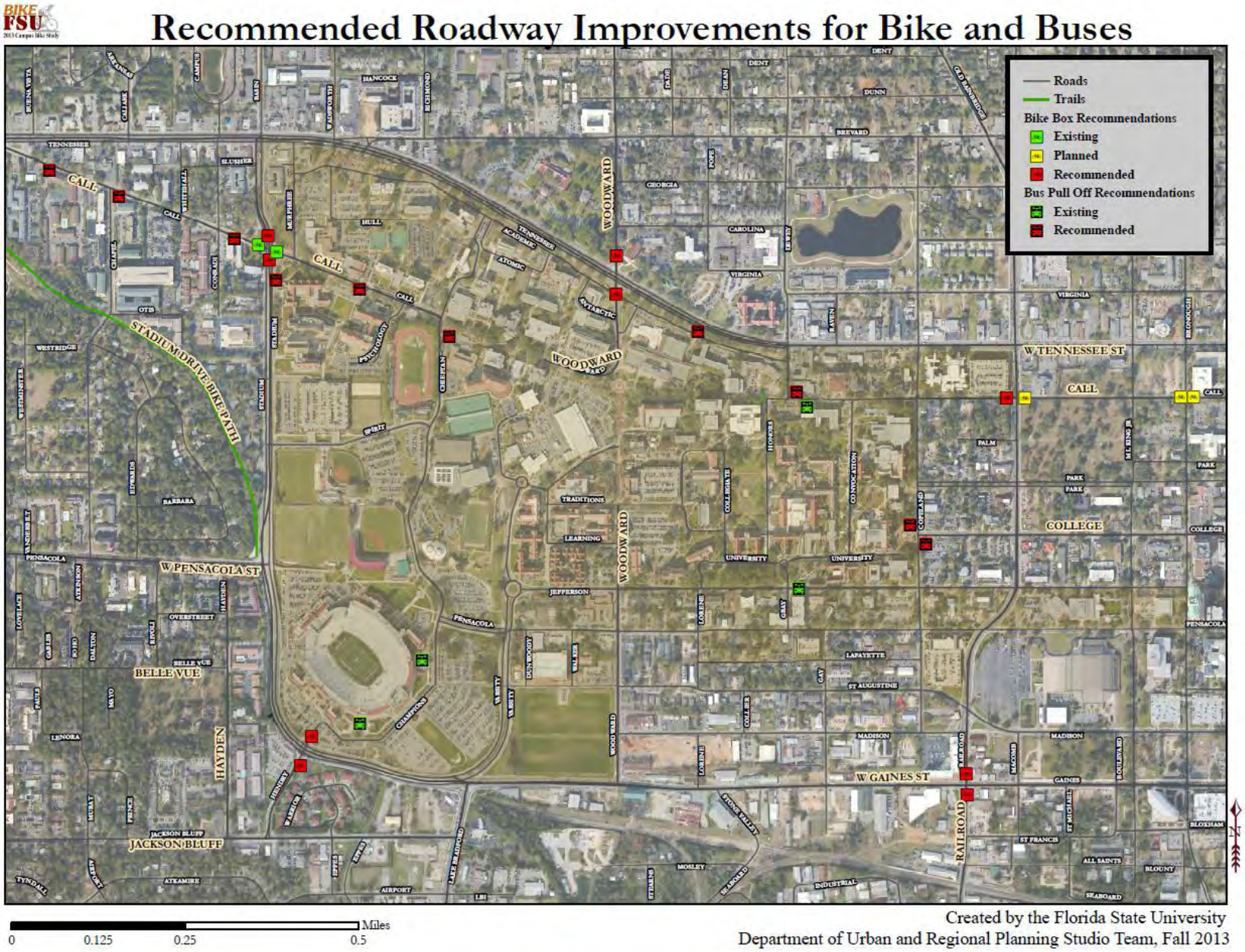


Illustration 1.27: Bike Boxes and Bus Pull offs.
This map illustrates expanded bike box recommendations for all the surrounding areas. Existing bike boxes are in green, planned are in yellow, and recommended are in red.

FI 7: Bicycle Boulevards

Recommendation: *Incorporate bicycle boulevards on campus and in surrounding areas.*

Implementation Term: *Long (5-10 Years)*

What are bicycle boulevards?

Bicycle boulevards are designed to discourage cut-through motor-vehicle traffic while allowing local motor-vehicle traffic to go through. They also give priority to bicyclists as through-going traffic. Bicycle boulevards can improve safety by reducing bicycle exposure to vehicles, which is appealing to inexperienced riders. Characteristics of bicycle boulevards are as follows:

- Found in low-traffic neighborhood streets
- Quieter, prettier, and healthier than busy car-filled streets
- Welcoming to novice cyclists and attractive for all kinds of cyclists
- Extremely safe, typically having had zero crashes over the last decade.

Illustration 1.28: A bicycle boulevard in Berkeley, CA. Photo Credit: **(Streetfilms: The Case for Bicycle Boulevards in NYC., 2009)**

An example of a bicycle boulevard encompassing the above descriptors can be found in Illustration 1.28.

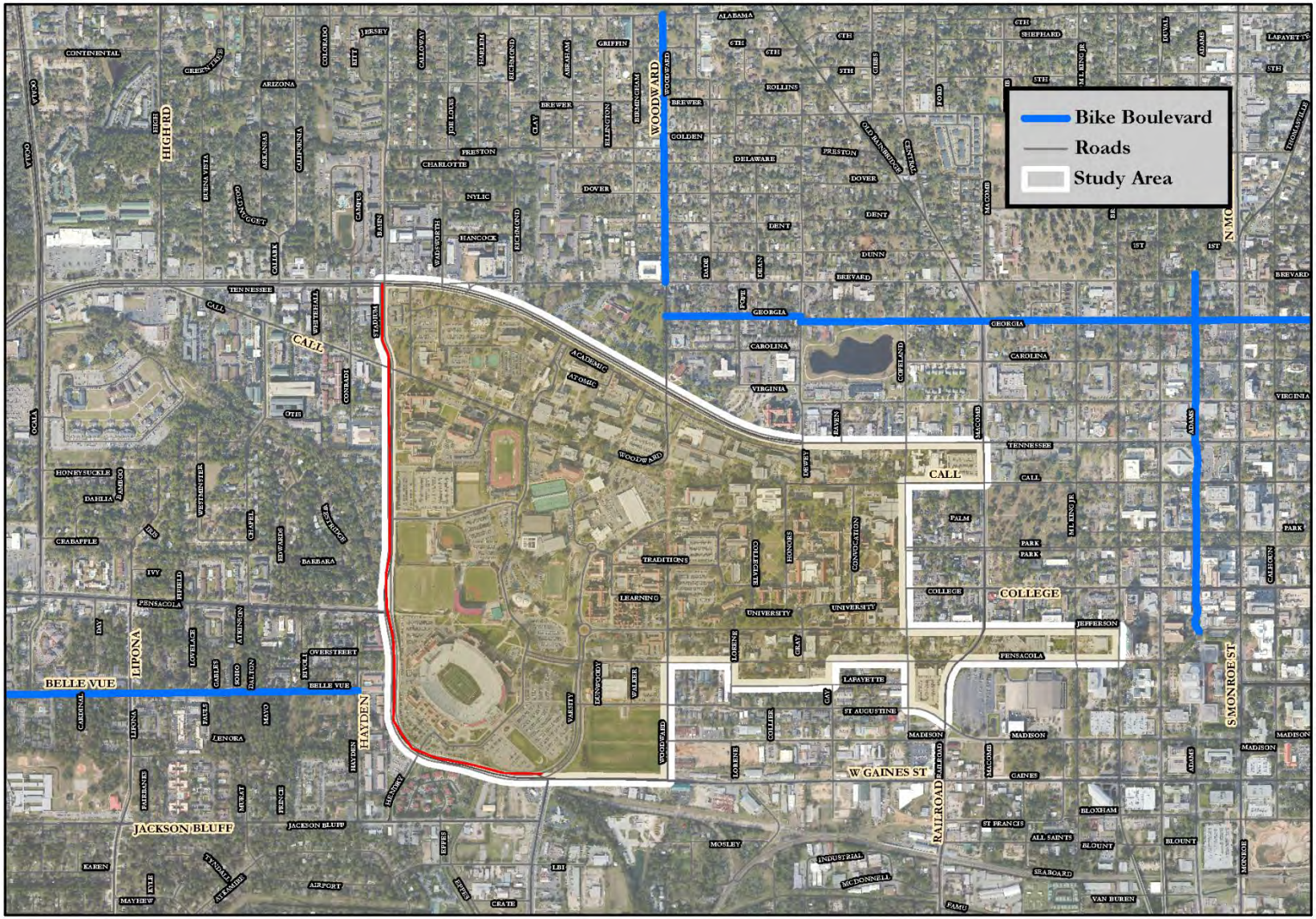
Recommended Placement and Implementation

The Studio Team recommends creating bicycle boulevards on low traffic roads where appropriate. The Team has identified West Georgia Street, North Woodward Avenue, Belle Vue Way, and North Adams Street as potential bike boulevards, shown below on Illustration 1.30.

These boulevards should receive signage, traffic calming, and crossing improvements. Illustration 1.29 is an example of a typical bike boulevard in Tucson, AZ.

Illustration 1.29: An example of a typical bicycle boulevard. Photo Credit: City of Tucson, AZ.

Recommended Bike Boulevard Roadway Improvements



Created by the Florida State University
Department of Urban and Regional Planning Studio Team, Fall 2013

Illustration 1.30: Map of Recommended Bike Boulevards.

FI 8: Dedicated FSU Bike Path System

Recommendation: *Implement a* ***dedicated FSU Bike Path system*** *to provide door-to-door convenience for bicyclists.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years), Long (10-15 Years)*

Context

The results of the stakeholder interviews and Focus Groups held by the Studio Team showed that cyclists like the "door-to-door" convenience of bicycling. Door-to-door convenience means that bicyclists leave their front door or point of origin and arrive at the door of their destination. An FSU Bike Path System would allow for cyclists to have a clear path to get to, from and around campus in a safe and convenient way. This system would consist of existing road, sidewalk and multi-use path infrastructure while considering safety and convenience along routes as a means to promote cycling as a means of transportation for students. This system would need to be well marked, marketed online, and maintained to keep cyclists from beginning to fear the area. By creating a bike path system, FSU would be setting the bar for institutions within the state to move forward modes of commuting other than cars.

Examples of University Bike Path Systems

A number of institutions have already implemented a campus-wide network of paths for bicycles throughout the country. These bike path systems are usually developed in the vision process for a Campus Bicycle and Pedestrian Plan, and are incorporated into a larger bike plan for a citywide context (Champaign County Bikes, 2010). For example, the University of Illinois at Urbana-Champaign (UIUC) has a developed network already in place that is marked and published online for users to review before beginning their commute (see Illustration 1.31 on the next page).

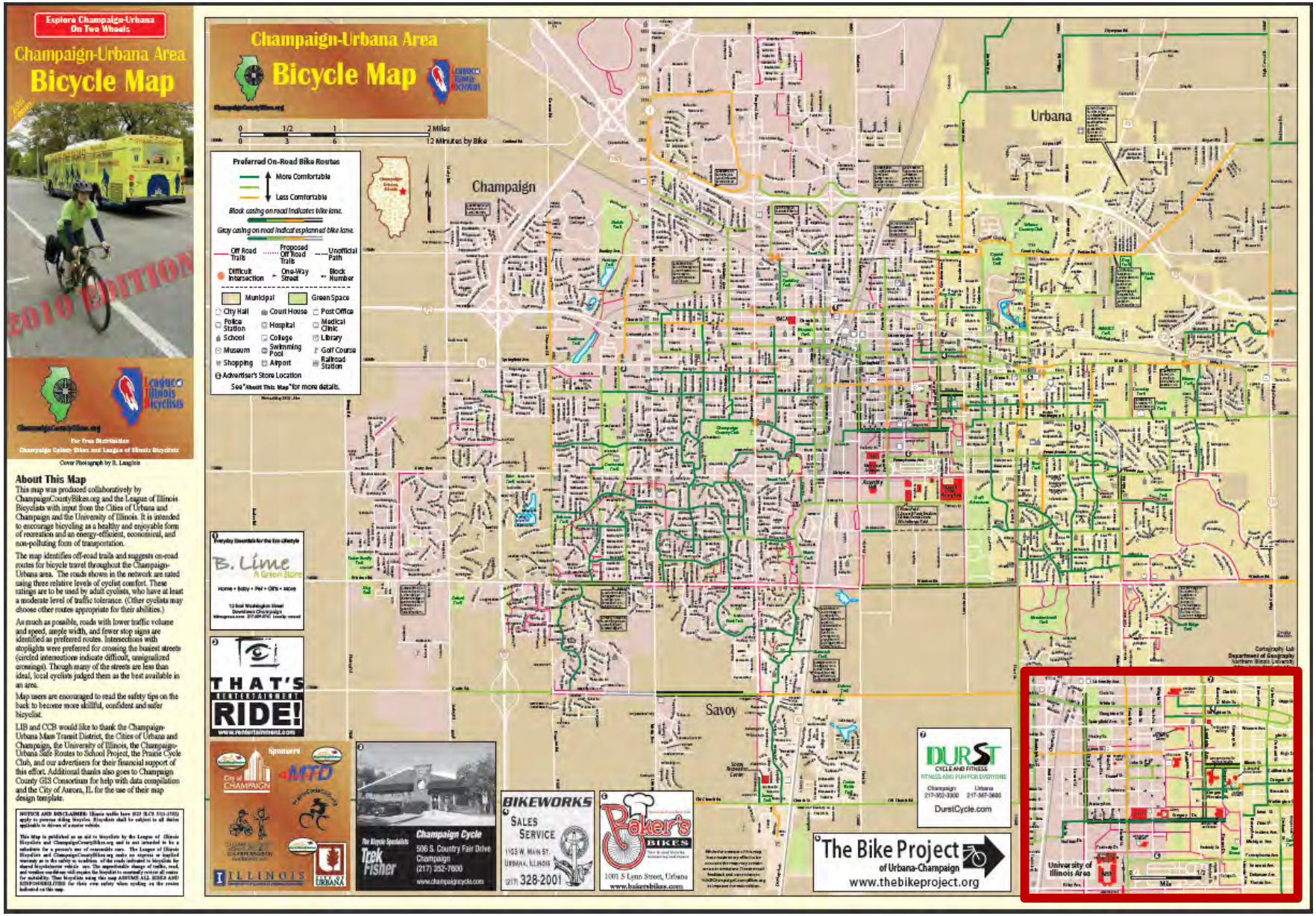


Illustration 1.31: Champaign-Urbana Area Bicycle Map **(Champaign County Bikes, 2010)**.
University dedicated bike path system is found on the bottom right hand corner of this map.

Existing conditions – Short term infrastructure in place

FSU should consider developing this path system using immediate infrastructure and plan for additional infrastructure. Immediate infrastructure consist of sidewalks, roads, paths and other routes that cyclists take while existing infrastructure is known because a number of existing cyclists already utilize these routes and areas. However, many bicycle shops and non-profits have noted that most cyclists do not know a safe or convenient route to campus, which acts as a barrier because they feel the area is not conducive or safe to biking.

Existing infrastructure and amenities for cyclists

- Roads
- Sidewalks
- Multi-Use Paths

Additionally, the University's current context for encouraging safe and convenient cyclist activity consist of diverting cyclists to outside websites (Florida State University, 2013). See Illustration 1.32 for existing infrastructure and recommendations on a new path system.

Recommended Immediate Action – Create Publications for Existing Infrastructure Network

The Studio Team's first recommendation for the path system is to create the *FSU Bike Path System*. Adopting the *Recommended FSU-Tallahassee Joint Bike Path Full System* shown in Illustration 1.32 with its north and south, and east and west corridors as potential routes are the first steps to having a path system in place the is safe and convenient for cyclists. Having a bike network is similar to having a bus network in that it tells people how to get from place to. The Studio Team has already considered the question of what infrastructure exists and thus places special emphasis on the usage of mapping the path system for users in the near future. Creating a mapped bike path system for the area surrounding campus would allow for bicyclists to understand a route to campus that is substantially safer than the one which they would drive.

The following are the steps associated with this implementing this recommendation.

- Adopt routes for the FSU Bike Path System, either from the Studio Team's recommendations or a new path system developed with input from stakeholders
- Create maps, multimedia publications, and other published materials for users to create a new and safe route to campus
- Place these materials online, within existing mobile phone applications, and in physical publications

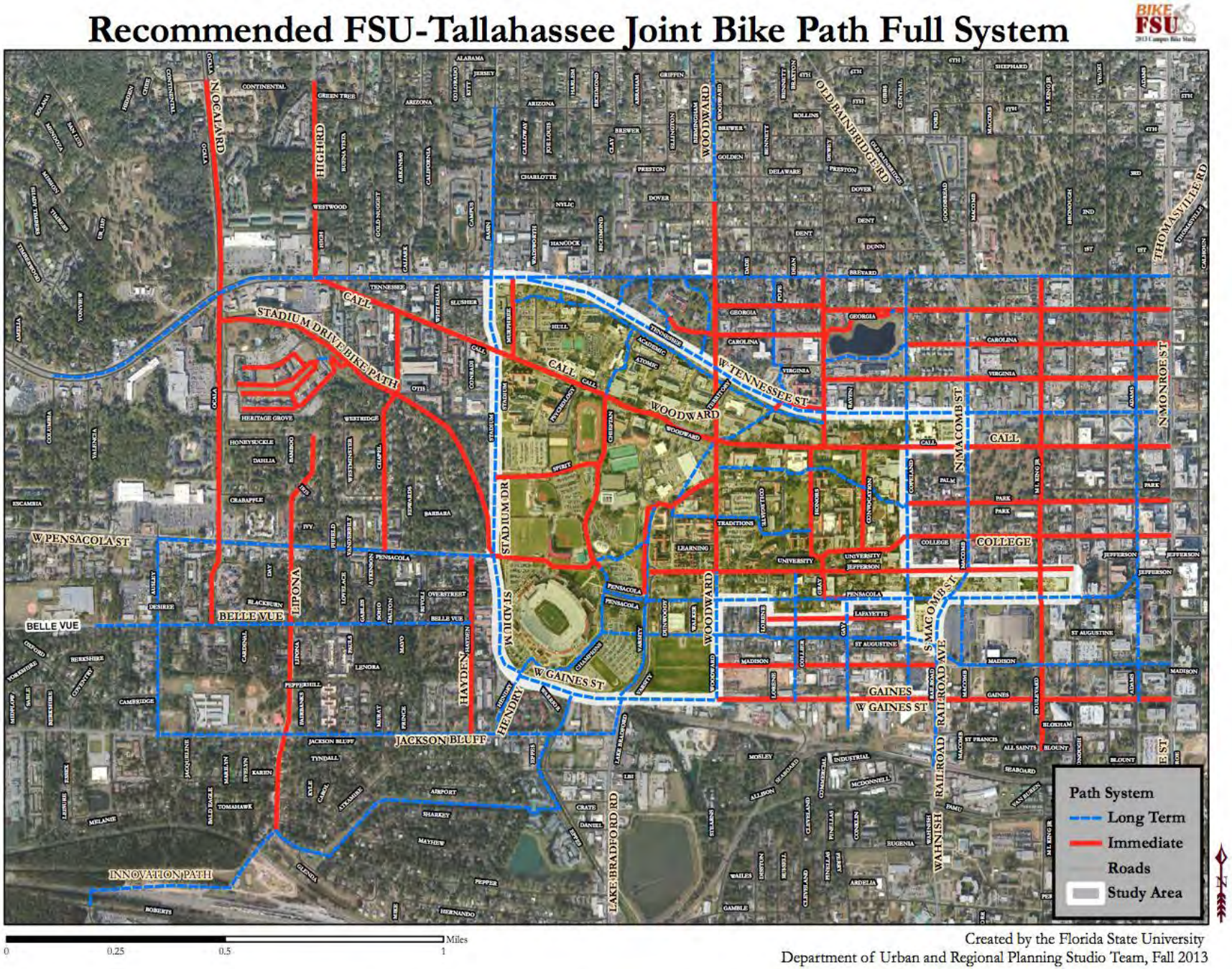


Illustration 1.32: Recommended Path System for Tallahassee and FSU.
The recommended immediate system utilizes red lines to show existing infrastructure and routes already utilized by cyclists. The blue lines indicate improvements that could be made to the path system in the future as development continues to occur surrounding campus and the FSU population continues to grow.

Long term existing conditions and Infrastructure Improvements

In addition to short term infrastructure, the Studio Team recommends a special emphasis on implementing a long term plan for a joint FSU-City of Tallahassee Bike Path System. Implementing a long term vision for FSU's bicyclist population helps to guide developments of the city and university in a way that would promote a more healthy and sustainable lifestyle among students and residents. Similar to the more immediate bike path system recommendations, much of the infrastructure is in place to address the implementation of the long term system. Nevertheless, improvements in infrastructure would give a sense of place to certain parts of this path system.

Illustration 1.33: Example of a Well-Painted Bike Lane

a. Example Improvements – Bike Lanes

Recommendation FI 5 covers the creation and painting of bike lanes throughout the area. These improvements could be made with an FSU Bike Path System in mind, designating routes to be the "Garnet" or "Gold" Bike Route with matching paint colors. This would give an attractive, FSU spirit oriented, and improved bike infrastructure to the area. Additionally, improved signage could be utilized to give context to the location of cyclists that are now to cycling around campus.

b. Example Improvements – Increased Signage

FSU has an abundance of aesthetically pleasing signs that assist campus users with finding what building way finding. These signs could go through repurposing to include path way finding, or at least directions to major landmarks to direct users around campus. Illustration 1.34 on the following page shows the sign located off of N. Woodward Avenue as a way finding measure for pedestrians to realize that the alumni center is in the direction of the arrow. However, there is additional room on this sign for "Student Union" direction, or to classroom buildings, or other landmarks. The Studio Team considers pathways as vital to the movement throughout, around, and on main campus.

The infrastructure and amenities vision in place for cyclists in the long term through improvements should be:

- **Mapped Bike Path system with corresponding road markings and signs**
- **Improved bike and road infrastructure**

Illustration 1.34: Potential Signage Improvements for Campus Bike Path System. Additional space available on this sign in **green.** Photo Credit: Studio Team.

Facilities and Infrastructure Category 3: Multi-Modal Infrastructure

The following facilities and infrastructure category covers infrastructure for all modes of travel. The recommendations in this category are organized by ease of implementation, and they also build on each other. For example, *FI 14: Complete Streets* is the last recommendation listed as it requires improvements from earlier recommendations such as crosswalk standards and bus pull-offs to be fully implemented and feasible.

Multi-Modal Infrastructure

- **FI 9: Improve Crosswalk Standards**
  - **FI 9.1**: Lateral-Lined Crosswalks
  - **FI 9.2:** Midblock Crossing Refuges
- **FI 10: Reduce Automobile Turn Conflicts**
- **FI 11: Improve Legacy Walk**
  - **FI 11.1:** Mode-Split Signage
  - **FI 11.2** Extend Legacy Walk To Copeland Street
- **FI 12: Bus Pull-Offs**
- **FI 13: Complete Streets**

FI 9: Improve Crosswalk Standards

Recommendation: *Improve campus* ***crosswalk*** *standards.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years), Long (10-15 Years)*

Many intersection facilities for pedestrians and bicyclists crossing onto campus need improvements. Few intersections have adequate crosswalks, crossing signals, or warnings to motorists to yield. These conditions create safety hazards for all users of the roadway system.

Uniform Traffic Control Standard

All current and future intersections on and around campus with a moderate level of bicycle and pedestrian traffic should be updated to include the intersection crossing best practices identified by the US Manual on Uniform Traffic Control Devices (MUTCD), as outlined below:

- All marked and unmarked crosswalks should have accessible curb ramps
- Marked crosswalks should be highly visible. Treatments that can be used include:
  - "Yield to Pedestrians" bollards are bright yellow signs placed in the middle of the road at marked crosswalks. They remind drivers of their responsibility to yield to pedestrians in the crosswalk (See Illustration 1.36).
  - Countdown signals show how much time a pedestrian or cyclists have remaining to cross the street. They can be designed to begin counting down at the beginning of the walk phase or at the beginning of the clearance (flashing "DON'T WALK") interval (See Illustration 1.35).
  - Flashing crosswalks for midblock, uncontrolled locations with heavy night activity. Flashing crosswalks have in-pavement lights that flash when a pedestrian or bicyclist is crossing within the crosswalk. The flashing lights make drivers more aware of those crossing (See Illustration 1.36).
- In cases where crossings are more than 60' long, a raised median should be provided as a refuge.

Illustration 1.35: Countdown Pedestrian Signal

Illustration 1.36: Flashing Crosswalk with 'Yield to Pedestrians' Bollard

Recommended Placement

The Studio Team identified a number of opportunities to improve crosswalks through its public input process and through observations during the handlebar survey. The Team prioritized intersections at busy streets that serve as entry ways to campus. Due to the high vehicle traffic at these intersections, crosswalk improvements would drastically improve cyclists and pedestrian safety. The following intersections have been identified as hazardous for bicyclists and in need of improved crossing treatments:

- Lake Bradford Road/Varsity Drive and West Gaines Street
- West Tennessee Street and:
  - Stadium Drive
  - Woodward Avenue
  - Dewey Street
- Copeland Street/South Macomb Street and:
  - St. Augustine Street
  - West Pensacola Street
  - West Jefferson Street
  - East Call Street
- Stadium Drive and:
  - West Call Street
  - Hendry Street

FI 9.1: Convert crosswalks to Longitudinal Lined Crosswalks

Recommendation: *Replace lateral-lined crosswalks with* ***longitudinal-lined crosswalks*** *to increase visibility for bicycles and pedestrians.*

Implementation Term: *Near (5-10 Years)*

Why Convert?

Many of the crosswalks around campus use two lateral lines to demark the crossing area. The Studio Team recommends replacing these lateral lines with longitudinal lines which are easier for drivers to see, as shown in Illustration 1.37 below. Crosswalks with lateral lines are also less desirable since drivers are more likely to edge into the crosswalk area if they are not sure which line to stop at (Harkey & Zegeer, 2004).

Existing Conditions/Context

The City of Tallahassee has already adopted a preference for longitudinal lined crosswalks in its design standards. The city re-stripes its crosswalks with longitudinal markings when it resurfaces pavement. However, there are currently many crosswalks, both on campus and off, that still use the deficient lateral stripping pattern. There are also many crosswalks that are worn and ready to be re-striped (Federal Highway Administration, 2013).

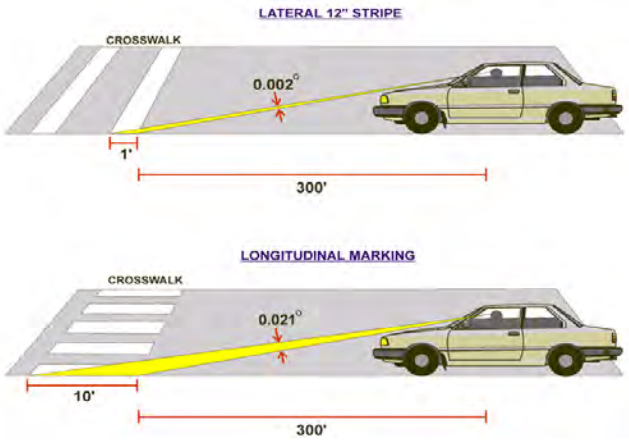


Illustration 1.37: Crosswalk Striping Typology (Harkey & Zeegeer, 2004)

Recommended Placement

The recommended conversion intersections are located on the following page in *Illustration 1.38 Recommended Crosswalk Improvements.*

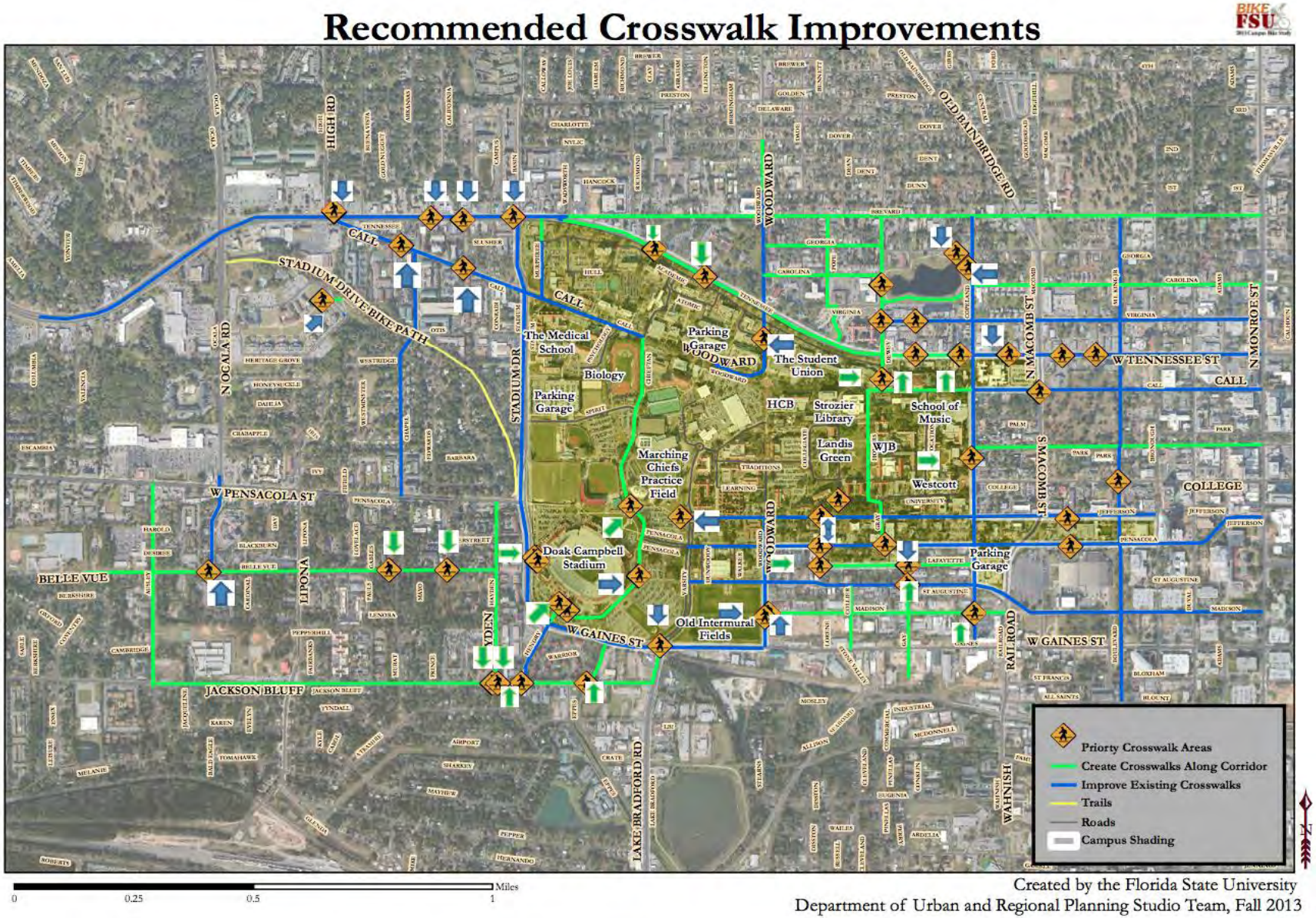


Illustration 1. 38: Recommended Crosswalk Improvements
This illustration shows where the University and City of Tallahassee can improve crosswalks. Each road is colored to either represent creating or improving crosswalks, with directional arrows representing which way improvements should be made.

FI 9.2: Midblock Crossing Refuges

Recommendation: *Install midblock crossing refuges to reduce crash risks between bicycle and pedestrians and cars.*

Implementation Term: *Long (10-15 Years)*

According to the Federal Highway Administration, 65% of pedestrian crashes are mid-block crashes, or crashes that occur at non-intersections (Harkey & Zegeer, 2004). Part of this higher rate is due to the fact that people will cross where it is convenient. A median refuge island reduces the chance that a pedestrian will begin to cross, become trapped by traffic, and is hit as a result of being trapped in the roadway (like a real-life game of Frogger). Being able to use medians as refuge islands is much easier than finding a gap long enough to cross all at once.

FSU Area Example

Pictured in Illustration 1.39, Side A has many destinations such as bars and restaurants. Side B has restaurants and the FSU campus. Since both sides have many destinations, as well as residences in close proximity, heavy amounts of cyclists and pedestrian traffic can be expected. There are signalized crossings available at the Copeland and Dewey Intersections. Illustration 1.39 shows the hundreds of feet someone at point A would have to travel to cross at one of the current signalized crossings (pictured by the red and yellow lines in the top aerial), vs. the 84 feet to quickly cross mid-block. Instead of going far out of their way to a signalized crossing, many cyclists and pedestrians dart across the middle of the street, the cause of many pedestrian crashes and fatalities (Harkey & Zegeer, 2004).

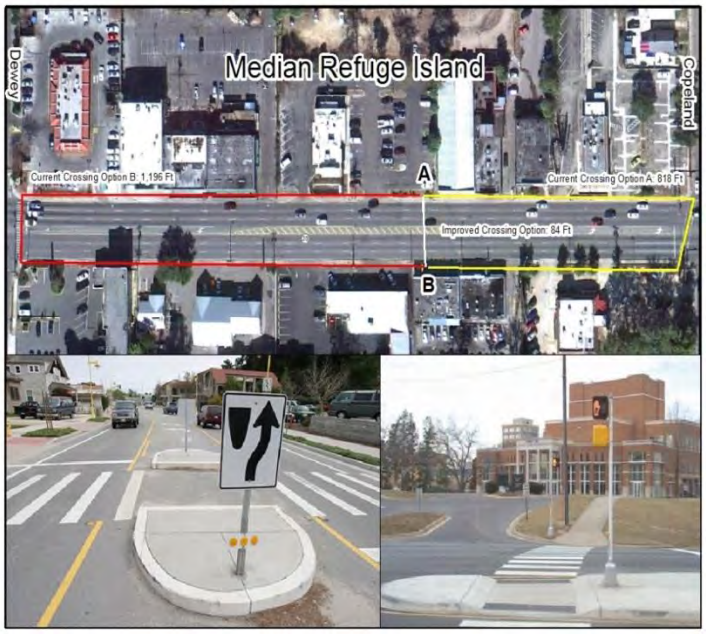


Illustration 1.39: W. Tennessee Mid-Block Crossing Example

Existing Conditions

FDOT has recently conducted a Roadside Safety Audit in advance of a resurfacing project on W. Tennessee St. that started September 2013. That report identifies a need for additional pedestrian crossings of W. Tennessee St. as it notes that about 120 jaywalker's attempt to cross W. Tennessee St. at a non-cross-walk hourly (Road safety assessment, 2012). The Audit also reports that a total of 126 pedestrian and bicycle crashes have been reported in the period from 2003 to 2010, including 2 deaths and 114 injuries (Road safety assessment, 2012).

Currently, FDOT is constructing a 4 foot high fence in the median along Tennessee St. to deter jaywalkers from crossing at unapproved locations. There will also be two mid-block crossings constructed; one at the Burger King near the intersection of W. Tennessee Street and Brevard Street, and one at 'The Strip', near the intersection of Raven and West Tennessee Street.

Implementation

The Studio Team recommends that FSU work in conjunction with the City of Tallahassee (responsible for Stadium Dr.) and Florida Department of Transportation (responsible for W. Tennessee St.) to identify opportunities for midblock crossings in the Immediate Term (0-5 years). This identification could be done as part of the holistic transportation study proposed in Recommendation PA3: Professional Transportation Study. In the Long Term (10-15 years), the Team recommends that the previously mentioned entities design and implement mid-block crossing improvements at the identified sites. Future mid-block crossing improvements may utilize existing painted medians for the improvements, as shown in Illustration 1.40 below.

Illustration 1.40: Potential Midblock Crossings. Photo Credit: Road safety assessment 2012. Florida Department of Transportation, (2012). Road safety assessment report Tennessee Street US 90/SR 10(Ocala Road to Monroe Street).

FI 10: Reduce Automobile Turn Conflicts with Bicyclists and Pedestrians

Recommendation: *Reduce* ***automobile turn conflicts*** *with bicyclists and pedestrians by closing and consolidating driveways.*

Implementation Term: *Near (5-10 Years), Long (10-15 Years)*

Context

Cars turning into driveways or onto other streets are a significant source for automobile-bicycle and pedestrian conflicts. Pictured in Illustration 1.41 is a typical street where the 'X's indicate conflict points between automobiles and bicycles and pedestrians. Limiting and consolidating driveways reduces the number of conflict points between automobiles and bicycles and pedestrians. Installing a median to restrict left-turns further reduces these conflicts. Closing and consolidating driveways and converting driveways to right-in-right-out via a median where appropriate will reduce conflicts and increase bicycle and safety.

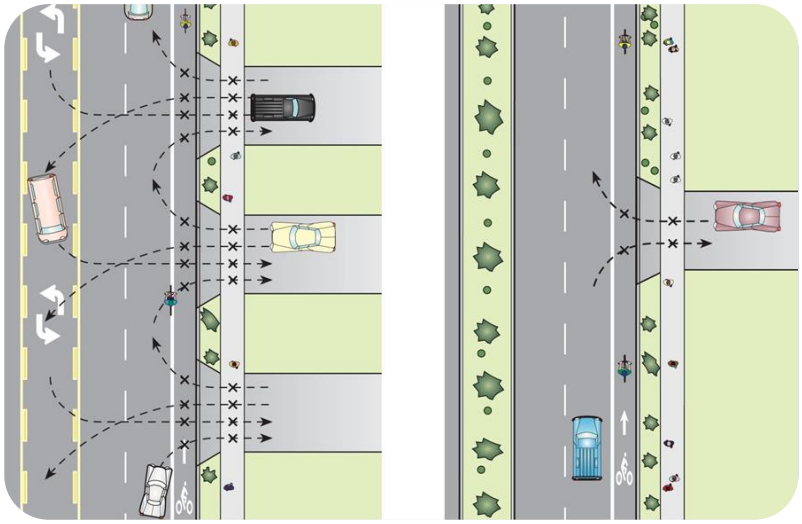


Illustration 1.41: Method to Reduce Automobile-Bicycle/Pedestrian Conflicts. Photo Credit: FDOT Pedestrian Safety Presentation (Eun & Miller, 2011)

Implementation

In the Immediate (0-5 years) to Near Term (5-10 years), FSU and the City of Tallahassee should identify opportunities to consolidate driveways and install medians on and around campus. This identification could be done as part of the holistic transportation study proposed in Recommendation PA3: Professional Transportation Study. In the Long Term (5-10 years), FSU and the City of Tallahassee should consolidate driveways and install medians at the locations to be identified.

FI 11: Improve Legacy Walk

Recommendation: *Improve* ***Legacy Walk*** *to be more accommodating to both pedestrians and bicyclists.*

Implementation Term: *Near (5-10 Years)*

Context and Summary

Legacy Walk is a high traffic path that winds through FSU's campus. At peak times, portions of Legacy Walk become congested with walkers and cyclists, particularly the stretch that follows Old Call Street from Honors Way to Chieftain Way (hereafter referred to as Legacy Walk). The basis for this recommendation comes from a number of sources including: repeated comments and suggestions from social media, discussion in focus groups, and from the members of the Studio Team based on our personal observations. The Studio Team recommends improving Legacy Walk to be more accommodating to both pedestrians and bicyclists.

Current Conditions

When classes are in session, Legacy Walk is utilized by thousands of students, faculty, and staff making their way across campus. A typical day traveling via Legacy Walk includes dodging large crowds of pedestrians or trying to avoid being run into by a bicyclist. Through feedback from focus groups, stakeholder interviews, and observations, it is clear that there are multi-modal conflicts between cyclists and pedestrians.

Legacy Walk connects to Call Street on both its east and west entry points. In these areas, it is common for bicyclists to ride on the sidewalks to avoid sharing the road with automobiles. This creates many conflicts with pedestrians especially, when bikes pass quickly by them without a warning that they are approaching.

Implementation

The overall improvement of Legacy Walk is a near-term recommendation that should occur within the next 5-10 years. The improvement of Legacy Walk includes two sub-

recommendations, which are installing mode-split signage to reduce multi-modal conflicts, and extending Legacy Walk east to N. Copeland Street.

FI 11.1: Install Mode-Split Signage

Recommendation: *Implement* ***signage*** *to designate a* ***separation of bicyclists*** *from pedestrians along Legacy Walk on its east to west stretch along Old Call Street.*

Implementation Term: *Immediate (0-5 Years)*

Summary

The Studio Team recommends implementing signage to encourage the separation of cyclists from pedestrians along Legacy Walk to reduce the potential for bicycle-pedestrian crashes.

Current Conditions

In its existing state, Legacy Walk has no designated area for cyclists to ride without coming in close contact with pedestrians. Often, cyclists end up weaving in and out of the crowds which can prove to be dangerous if various groups are not paying attention to their immediate surroundings. In its current design, the center part of Legacy Walk is paved with bricks (as seen in Illustration 1.42) and is where the majority of pedestrians already travel. The bricked part of the path is flanked to either side by several feet of concrete where there are occasional trashcans placed along the path.

Illustration 1.42: Legacy Walk looking east towards Fischer Hall.

Recommended Placement

The desired outcome of this recommendation is to separate bicyclists and pedestrians; pedestrians to travel along the brick center while the outside concrete lanes of Legacy walk are dedicated for bicycle use. This outcome will be achieved by installing attractive signage that

notifies pedestrians and cyclists of the separation of uses along Legacy Walk. Illustration 1.44 is an example of basic 'Cyclists Keep Right' signage that could be aesthetically improved. The increase in signage suggesting bikes to keep right would be located along both sides of the pathway. This would ensure that bicyclists follow similar rules to riding on the road, and would allow for quicker movement for bicyclists without too much exchange with pedestrians. To further distinguish the outer lanes from the pedestrian walkway, the Team is recommending attractive pavement markings (Illustration 1.43) along the outside concrete lanes of Legacy Walk to better provide a clear indication of mode separation

Illustration 1.43: Example of Painted Bike Lane.

Illustration 1.44: Cyclists Keep Right Signage.

FI 11.2: Extend Legacy Walk to Copeland Street

***Recommendation: Extend Legacy Walk** along east Call Street to N. Copeland Street.*

***Implementation Term:** Near (5-10 Years), Long (10-15 Years)*

Summary

The Studio Team proposes extending Legacy Walk along East Call Street to North Copeland Street. This extension would be accomplished by reducing East Call Street from a two-lane, two-directional road to a one lane east-bound road. This lane reduction would provide the needed right-of-way to extend Legacy Walk from Honors Way to North Copeland Street. This proposed extension of Legacy Walk would greatly improve student, faculty, and staff safety, as well as improve the aesthetics of the campus community.

Current Conditions

The portion of East Call Street from Honors Way to Copeland Street currently has inadequate facilities to support the amount of bike and foot traffic it sees on a daily basis. The existing sidewalks are very narrow and there are no existing bike lanes, forcing bicyclists to be very close to automobile traffic or impeding on pedestrians travelling on the side walk. The high bicycle and pedestrian traffic along this corridor justifies significant bicycle and pedestrian facility improvements.

There are challenges to expanding Legacy Walk along the East Call Street corridor due to the right-of-way limitations (ROW). There are many large trees that line East Call Street, as noted in the pictures below (Illustration 1.45). Near North Copeland Street some of the buildings are built very close to the existing sidewalk (Illustration 1.45). The location of these trees and buildings make it a difficult and costly proposition to simply expand the sidewalk and/or roadway to implement the needed bicycle and pedestrian facility improvements

.Recommended Placement

The needed right-of-way to expand Legacy Walk can be acquired without significant impacts to the trees or buildings fronting the street by simply reducing East Call Street from a two-lane, two-directional road to a one lane east-bound road, as depicted in Illustration 1.46. The Studio Team recommends implementing the Legacy Walk extension in three phases.

Illustration 1.45: ROW Challenges along E. Call Street: Trees near Dewey St. Intersection (Top-Left), Trees near Convocation Way Intersection (Top-Right), and Buildings Adjacent to Sidewalk near Copeland Intersection.

Phase 1

In the first phase, the portion of East Call Street that runs through Campus from Honors Way to North Copeland Street (hereafter referred to as Call Street) will be closed to non-local traffic (i.e.: traffic other than buses or service vehicles). This section of Call Street experiences automobile traffic from students/ faculty/ staff/ visitors looking for parking, service vehicles, and the Seminole Express buses. Closing this portion of Call Street to non-local traffic will reduce the number of vehicles traversing the road, making it more cyclist friendly.

Phase 2

Next, traffic along Call Street will be further reduced as the road is converted from a two lane, East-Westbound road to a one lane, eastbound road, as depicted in Illustration 1.46. The southern portion of Call Street that formerly carried eastbound traffic would no longer carry automobile traffic while the northern portion of Call Street that formerly carried westbound traffic would instead carry eastbound traffic. The lane reduction redesign would terminate at the intersection of North Copeland Street and Call Street.

Illustration 1.46: Legacy Walk Extension Phase 2

This Call Street redesign would have the following impacts:

- Service vehicles would continue to have access the many buildings along Call Street.
- The Seminole Express buses could continue their Eastbound Campus loop route along Call Street, though the Westbound Campus loop route would have to be reconfigured.
- Convocation Way traffic would be cut off from Call Street by this redesign, but the buildings serviced by Convocation Way would remain unaffected since those buildings would still have automobile access via University Way.
- Honors Way access would be restricted where it meets Call Street/Legacy Walk. Service vehicles would still have access to Honors Way via University Way to the South. However, large vehicles, such as food delivery trucks, may have access issues due to the elevated walkway between Landis and Gilchrist halls (maximum height clearance to avoid hitting the walkway is 8’5”).

- Existing parking lots utilizing access on Call Street. (Faculty/Staff and private lots totaling 115 spaces) could remain open. However, the Studio Team recommends that they be closed to reduce automobile conflicts pedestrians and cyclists.

Additionally, the Studio Team recommends closing the Call Street entrance to the new Conradi parking lot (Corner of Dewey Street and Call Street) to reduce automobile conflicts with pedestrians and cyclists. However, the parking lot would still have access via its Academic Way entrance.

Phase 3

Finally, construction of the Legacy Walk improvements can begin utilizing the newly acquired ROW from the lane reduction, as well as ROW from the existing sidewalk area. Illustration 1.47 provides a rough idea of the potential added pedestrian/bicycle facility space.

Illustration 1.47: Legacy Walk Extension Phase 3

FI 12: Expand Bus Pull-Off Placement

Recommendation: *Increase* ***bus pull-off*** *infrastructure on and surrounding FSU campus.*

Implementation Term: *Near (5-10 Years)*

What is a bus pull-off?

A bus pull-off is an area that allows for a bus to separate itself from traffic, allowing traffic behind the bus to pass and prevent congestion (see Illustration 1.48 below). The City of Tallahassee and FSU have recently begun to implement bus pull-off lanes, which has received positive reviews from a number of stakeholders and participants in focus groups. These pull-offs present a way for buses to remove themselves from loading and unloading passengers in the bike lanes and have been deemed useful in certain areas around and on campus.

Existing Conditions

Bus pull-offs are currently placed at the following locations: (see *Illustration 1.49: Map of Bike Boxes and Bus Pull Offs*)

- **W. Call Street (Heading east towards Convocation Way)**
- **Jefferson Street (Heading west towards stadium)**
- **Two at Doak Campbell Stadium**

Illustration 1.48: Existing Bus Pull Off Lane (E. Call Street.) Photo Credit: Studio Team.

Recommended Placement

The Studio Team has developed a number of recommendations for bus pull-offs from our collective results. Areas of particular concern for these pull offs would be where a road narrows and a bike lane potentially disappears or is swallowed by a bus near an intersection. When a bus enters into the bike lane an immediate traffic conflict is caused between the two modes; and, between a cyclist who is entering the roadway and a car that is attempting to legally pass the bus. While this situation is merely hypothetical, it does present a need for consideration of campus

bus stops design, or at a minimum, training for bus drivers who enter into bike lanes when loading and unloading passengers. A map displaying proposed new bus pull-off locations can be found on Illustration 1.49, with textual locations given below.

- W. Call Street from W. Tennessee Street to Chieftain Way
- Stadium Drive Approaching W. Call Street facing north
- Chieftain Way across the Street from the Mike Long Track
- Copeland and College Avenue, both north and south
- W. Call Street and Dewey Street heading west.
- Academic Way heading east towards Dewey Street.

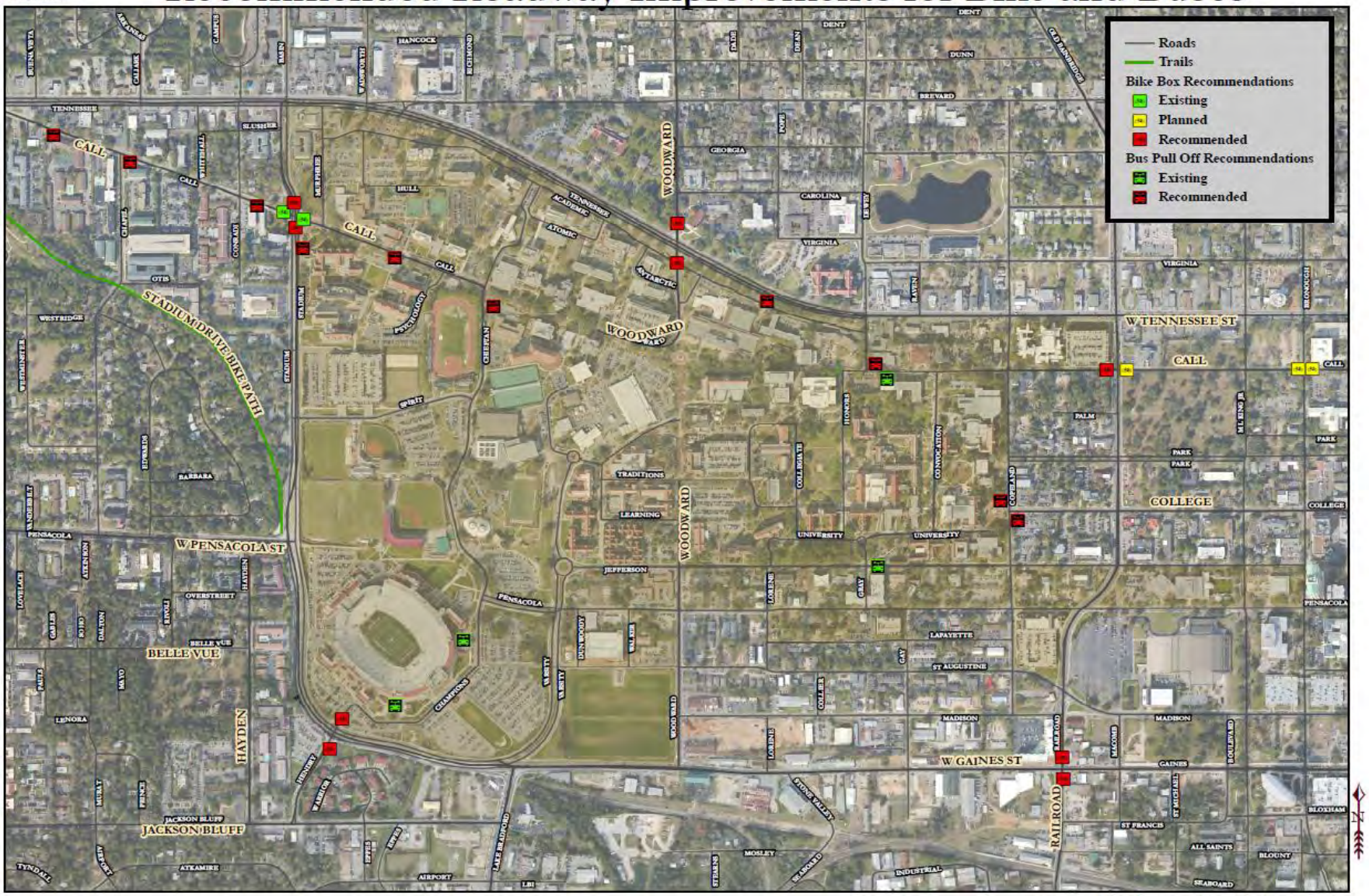


Illustration 1.49: Map of Bike Boxes and Bus Pull Offs

This map illustrates existing infrastructure in green, planned infrastructure in yellow and recommended infrastructure in red. The types of infrastructure are bike boxes and bus pull offs.

FI 13: Complete Streets

Recommendation: *Redesign the streets surrounding campus as* ***Complete Streets.***

Implementation Term: *Long (10-15 Years)*

Summary

The Studio Team recommends redesigning Madison Street, St. Augustine Street, West Pensacola Street, and North Woodward Avenue as Complete Streets to create holistic and safe routes for cyclists, pedestrians, and automobiles. The Team suggests that the right-of-way needed to implement the complete street improvements should be acquired through a road a road diet, which is where part of the existing roadway is reallocated to a purpose other than as a travel lane for automobiles. A road diet is further explained later in this section.

What are Complete Streets?

Typical roadways are designed for automobiles, with pedestrian/bicycle use as a second thought if those users are even considered at all. In contrast, Complete Streets are designed to enable safe travel for bicycles, pedestrians, and motorists of all ages and abilities. An example of the drastic improvement of converting an incomplete street (top) to a complete street (bottom) can be seen to the right in Illustration 1.50.

Illustration 1.50: Incomplete Street (Top) and Compete Street Design (Bottom). Source: (Reid, Complete Street Makeover for S. 2nd Street Before and After)

Each street has special features to consider in their individual designs, but at a minimum, each complete street should be improved to include:

- A bike lane for each direction of traffic
- Sidewalks on both sides of the street

- Frequent and safe street crossing opportunities
- Street trees and other landscaping improvements to improve the aesthetics and encourage bicycle/pedestrian travel in the area.

Existing Conditions and Context

The neighborhoods around campus continue to increase in density as new apartment complexes and mixed-use developments are built. In these surrounding neighborhoods, there is significant pedestrian and bicycle traffic between the residences, campus, and the increasing number of commercial establishments. The non-motorized traffic is growing in spite of a lack of bike lanes or complete sidewalk network in most of the area.

Feedback from the public input process and observations from the handlebar survey show that the current roadway designs negatively impact transportation choices by making walking, bicycling, and taking public transportation inconvenient, unattractive, and dangerous. There is heavy automobile traffic that speeds through the neighborhoods, posing serious conflicts to pedestrian and cyclist traffic. Significant improvements are needed to increase pedestrian and bicycle safety. Feedback from public input repeatedly noted that traffic calming and better bicycle/pedestrian infrastructure is needed, especially along the East-West bound streets in the Collegetown neighborhood.

Below, Figures A-D in Illustration 1.51 show the current conditions of Madison Street, St. Augustine Street, W. Pensacola Street, and N. Woodward Avenue. St. Augustine Street and W. Pensacola Street are two-lane, one-way roadways. Madison Street and N. Woodward Avenue are two-lane, two way roadways. All four of these roadways have additional street width that provides on-street parking and/or turning lanes. These streets currently have a sidewalk on one side of the road, but no bike lanes. The Team has identified these roadways for complete street improvements because these streets are poised to see increased bicycle/pedestrian traffic and connect Campus to large residential area, but lack bike lanes, complete sidewalk networks, and see dangerous high speed automobile traffic.

Figure A: W. Pensacola Street

Source: Studio Team

Figure B: Saint. Augustine Street

Source: Studio Team

Figure C: Madison Street

Source: Studio Team

Figure D: N. Woodward Avenue

Source: Studio Team

Illustration 1.51: Figures A-D; Potential Complete Street Locations. Photo Credit: Studio Team

Recommended Improvements

The Studio Team recommends that Madison Street, St. Augustine Street, West Pensacola Street, and North Woodward Avenue be redesigned as complete streets by:

- expanding the current sidewalk and adding a sidewalk to the other side of the roadway
- creating a bike lane for both sides/travel direction
- Adding street trees, improved lighting, benches, and other streetscape improvements

With these improvements, pedestrian and bicycle mode share may rise as people feel more comfortable traveling in the area outside of their car.

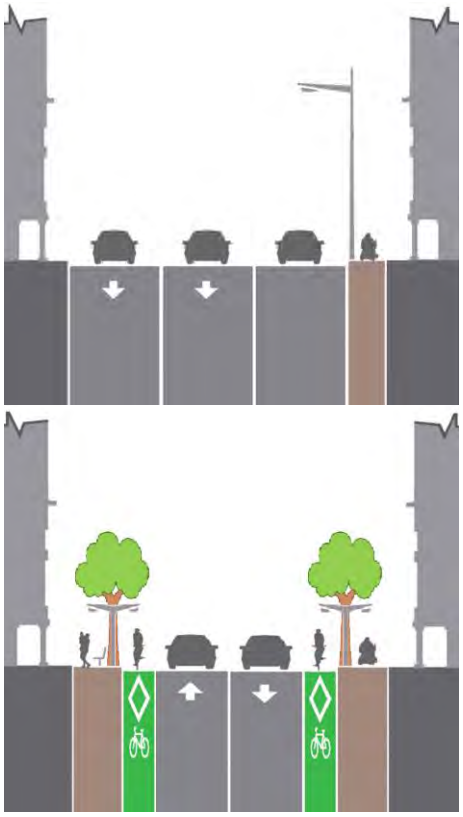


Illustration 1.52: Current Roadway Design (Top) and Proposed Compete Street Redesign (Bottom). Photo Credit: Studio Team

An example of this redesign can be seen in Illustration 1.52. The top image shows the 2 lanes of vehicle traffic and the additional lane represents on-street parking or turning lanes. The bottom image shows the proposed redesign. Currently, developed property abuts the roadway, making it infeasible to acquire additional right-of-way to implement these improvements. The Studio Team instead proposes using a road diet to acquire the necessary right-of-way, as pictured in the bottom picture of Illustration 1.52.

Table FI 13: Estimated Roadway Width

Current Average Roadway Width	
Two 11ft. Vehicle Lanes	22 ft.
On-street parking/Turning Lane	11 ft.
One 5ft. Sidewalk	5 ft.
Total	**38 ft.**

Proposed Roadway Width	
Two 9ft. Vehicle Lanes	18 ft.
Two 4ft. Bike Lanes	8 ft.
Two 6ft Sidewalks	12 ft.
Total	**38 ft.**

What is a Road Diet?

A road diet is where part of the existing roadway is reallocated to a purpose other than as a travel lane for automobiles. For the purposes of this recommendation, the road diet will consist of repurposing existing turning lanes and on-street parking for bicycle and pedestrian facilities. Additionally, the lane width will be slightly

reduced as shown in Table FI13. The current roadway widths in Table FI 13 are an estimate as the design of the roadway varies along each individual street.

Traffic Calming and Improved Safety

In addition to creating bicycle and pedestrian facilities, the redesign calms traffic, both of which make biking and walking safer and more attractive options. The traffic calming is achieved principally through the narrowing of the vehicle lanes. The street trees and bike lanes *create a sense of enclosure that discourages drivers from speeding.* The actual lane narrowing gives drivers less maneuvering space, causing them to pay attention to the roadway, effectively slowing vehicle speeds in the process.

Road diets have multiple safety and operational benefits for vehicles as well as pedestrians and cyclists:

- Researchers have found that road diets can be expected to reduce overall crash frequency by 19% to 43%, with the higher crash reductions occurring in small urban areas than in metropolitan areas. Additional studies have shown that road diets often achieve these positive effects without reducing traffic volumes (Tan, 2010).
- Improving safety for bicyclists when bike lanes are added (such lanes also create a buffer space between pedestrians and vehicles) (Tan, 2010).
- Improving speed limit compliance and decreasing crash severity when crashes do occur (Tan, 2010).

Recommended Placement

The Studio Team recommends implementing complete streets on Madison Street, St. Augustine Street, W. Pensacola Street, and N. Woodward Avenue as identified in below Illustration 1.53. In the future, there will likely be additional opportunities for implementing complete streets.

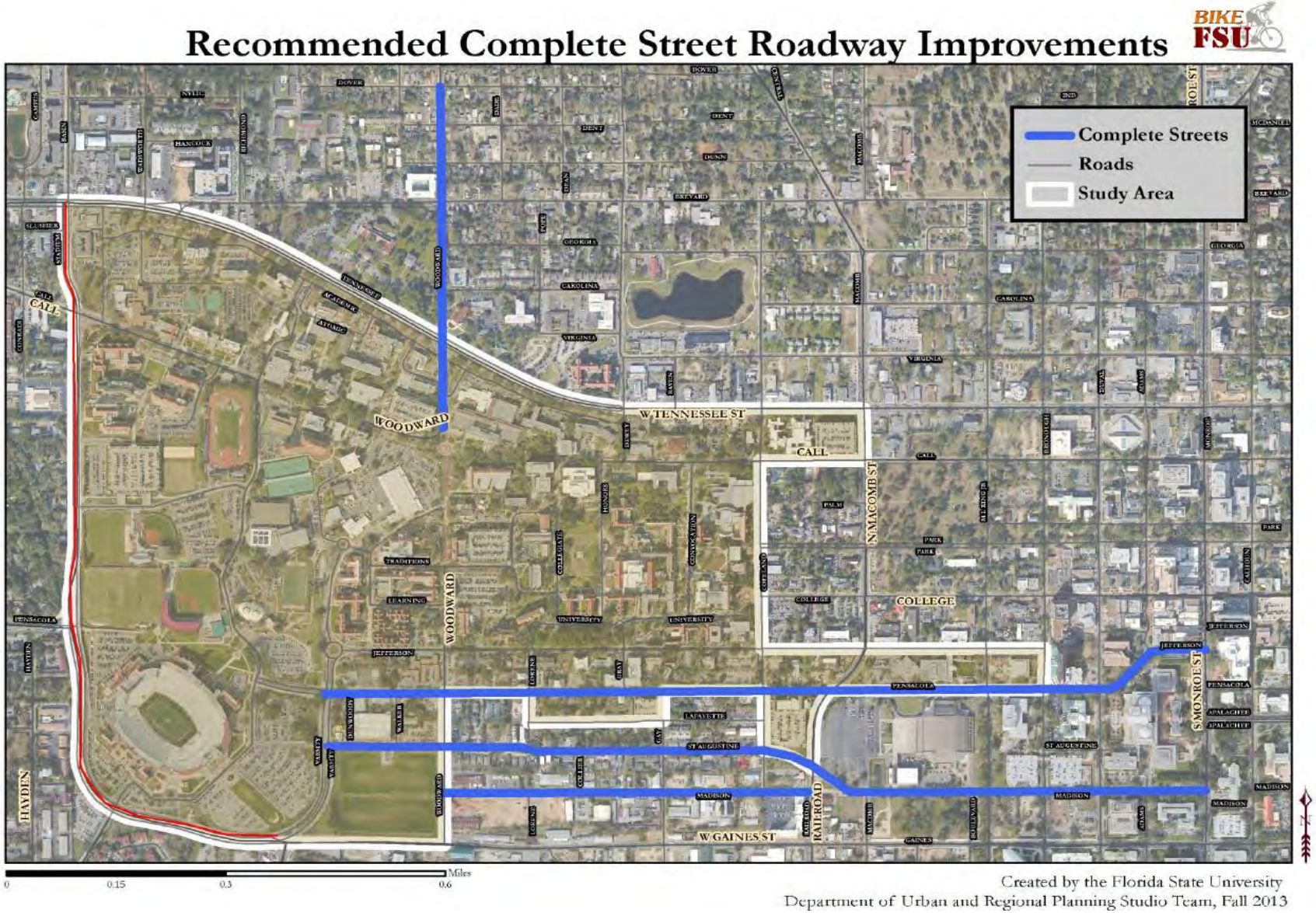


Illustration 1.53: Map of Recommended Bike Boulevards.
This map illustrates the Studio Team's recommended bike boulevards in blue and busier roadways in red.

Facilities and Infrastructure Category 4: Miscellaneous

The Miscellaneous category is designated for the recommendations that did not fall under other categories. The only recommendation for this category is FI 15: Water Spigots and Misting Stations. This category also covers two other discussed amenities that the Studio Team is not recommending, which are Bike Showers and Bike Lockers.

Miscellaneous

- FI 14: Water Spigots And Misting Stations

Not Recommended:

- Bike Showers
- Bike Lockers

FI 14: Water Spigots and Misting Stations

Recommendation: *Implementation of* ***water spigots and misting stations***

Implementation Term: *Long (10-15 Years)*

Summary

One of the more creative ideas that was proposed to the Studio Team during focus group discussion was the installation of water spigots and misting stations throughout campus. This would provide bicyclists and pedestrians alike, the opportunity to cool down on Tallahassee's hot days. Water spigots and misting stations were a suggestion in response to the proposal of more accessible showers. The idea of showers was not as warmly received as the inclusion of these mist stations.

Current Conditions

Many current bicyclists feel that campus lacks amenities that allow them to freshen up after biking to campus. Being a university in subtropical climate can be tough on cyclists, with only three, limited access, shower facilities on campus.

Illustration 1.54: A cyclist enjoying a misting station. Photo Credit: Urban Space and Places Blogspot (2012)

Recommended Placement

In the initial implementation of this amenity, the Studio Team suggests incorporating them within a close proximity to the three most utilized bike racks on campus. Over time, the inclusion of these water spigots and misting stations can be more widespread on campus.

Excluded Recommendations

The Studio Team did not include recommendations for bike lockers or bike showers due to feedback from the Focus Groups, Stakeholder Interviews, and judgment of the Studio Team members.

Bike Lockers

Bike lockers were not recommended because the Studio Team was not convinced that they would be a viable option at FSU. They would not be aesthetically pleasing, and people did not seem enthusiastic about them in the Focus Groups. An example of bike lockers is pictured in Illustration 1.55. There is the argument that bike lockers can be placed underneath the ramps in parking garages to provide a secure parking option. However, cyclists want door-to-door service, and parking your bike in a garage a ten to fifteen minute walk away would not supply that service. The Studio Team is recommending Bike Rooms as the solution to more secure parking.

Illustration 1.55: An example of bike lockers with capacity for 10 bikes. Photo Credit: (Wilder Center Features: Green Features, 2013)

Bike Showers

Our research from interviews and focus group data does not support a bike shower recommendation. When Focus Group participants were asked if one of the reasons they did not ride to campus was because of the limited access to showers, they said it was not reason. It was also stated that if showers were provided it would not necessarily encourage them to ride to campus. Bike showers were also mentioned in stakeholder interviews. It was recognized that bike showers could potentially convince more people to ride to campus, but there are many other amenity and infrastructure barriers to address first. Overall, bike showers were not recommended due to lack of enthusiasm by stakeholders and lack of demand. The lack of bike showers did not appear to be a primary deterrent to people bike commuting.

Recommendation Section 3: Security and Enforcement (SE)

Vision Statement: Create a safer campus for all modes of transportation, increasing comfort for and reducing conflict between drivers, cyclists, and pedestrians.

Purpose: To spread awareness of transportation to create a safe environment for students, faculty, and staff while commuting to and from campus.

Existing Conditions: There is currently an underutilized Bike Registration system, and a lack of sufficient signage and awareness to provide for the enforcements of existing transportation regulations. For example, FSUPD cannot ticket a car that is pulled into the bicycle-only area of an existing bike box on campus because there is not existing signage that can be enforced.

Recommendations: The recommendations posed in Section 3: Security and Enforcement (SE) are listed below.

- **SE 1: Increase Overall Signage**
- **SE 2: Improve Bicycle Registration Program**
- **SE 3: Expand Damaged Bike Removal Program**

SE 1: Increase overall signage around campus

Recommendation: *Increase* ***overall signage*** *around campus to increase safety and way-finding.*

Implementation Term: *Near (5-10 Years)*

Signage is an important part of enforcing laws, way finding, and directing users to be "good cyclists". For example, laws related to bike parking or operation on a road help to encourage safe behavior for all involved and allows for campus safety enforcement officers to take the appropriate actions against violators of the law. Signage also helps to direct users to specific locations to assist them with finding the appropriate entrances to building, such as persons who use wheelchairs. Signage also encourages cyclists to be courteous to other commuters by allowing them to understand where they should be riding. Illustration 1.56 is a collection of photos that complete all of these actions; however their aesthetic appeal could be improved.

Illustration 1.56: Example Bicycle signage. Photo Credit: City of Tallahassee, 2013; Bu.bostonbiker.org, 2013; and, Active.org, 2013.

Existing Conditions

The state of cyclist signage on campus is in need of improvement. Currently, there is signage that exists for a dismount zone in the union, which is posted at only two of the four major entrances and occasional signage for parking on handrails (Illustration 1.57). Illustration 1.57 shows how current signage is limited in size and often disregarded by cyclists on campus. The need for increased signage is apparent as many stakeholders, focus group participants, and other information sources point to a need for greater respect for FSU Rules, and infrastructure put into place for disabled populations.

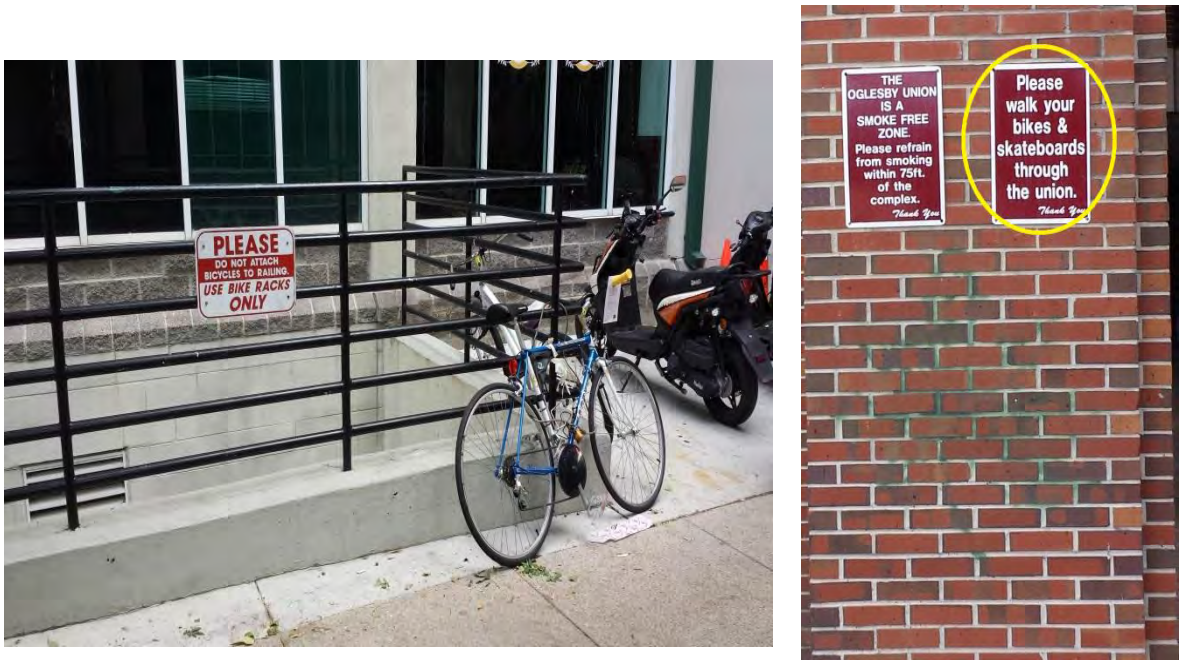


Illustration 1.57: Existing Bicycle Signage on Campus. Left: Southgate No Parking Sign. Right: Student Union Dismount Sign. Photo Credit: Studio Team.

Recommended Placement

Most cyclists on FSU's campus do not abide by, or are not knowledgeable of laws and rules related to cycling on sidewalks or in the road, parking, and other issues. The Studio Team advocates that the signage that FSU post around campus should be as attractive as the campus itself, yet realizes this endeavor is an extensive task. The Studio Team recommends that the University consider signage as a vital tool to the safety of all commuters, and recommends special emphasis be placed on the following signage topics throughout the campus.

a) Parking on handrails and other objects

Parking on handrails and other objects is a particular issue on campus and increasing signage in this area can help populations who are visually impaired navigate campus, and also help people who have difficulty navigating campuses sloped terrain. Currently, the only example sign found by the Studio Team on campus is at Southgate Dormitory (Illustration 1.57). The Studio Team assumes this sign is not obeyed because of the lack of parking at this privately-run dormitory and because there is no bicycle parking in sight of the entrance to the building. The Studio Team recommends bike parking at particular areas problem areas in FI 1: Redistribute Bike Racks.

b) Cyclists Keep Right on Paths

Illustration 1.59: Cyclist Keep Right Signage.

The Studio Team has recommended that Legacy Walk be both expanded and painted to encourage cyclists to ride along the sides of the area. Placing signage similar to that of Illustration 1.58 along Legacy Walk and other strategic locations of campus with wide sidewalks would help to improve the flow of traffic in these corridors. Additionally, it could reduce bicycle and pedestrian conflict along these routes. Other potential areas for increased signage include the brick walkway between Woodward Avenue on either side of campus, and by Doak Campbell Stadium, and Dick Howser Stadium.

c) Increase and Improve way finding signage

Many stakeholders and focus group participants noted that there should be increased signage for the student population that commutes to campus via bike. Increased signage can come in the form of that in Illustration 1.59, where there is substantial space for walking commuters to find their way to another part of campus. Signs similar to this are found throughout campus and could be repainted with more infrastructure, paths, or other notifications on them for users. For example, a campus bike path system has been recommended, which could be placed onto signage new bike users to their destinations.

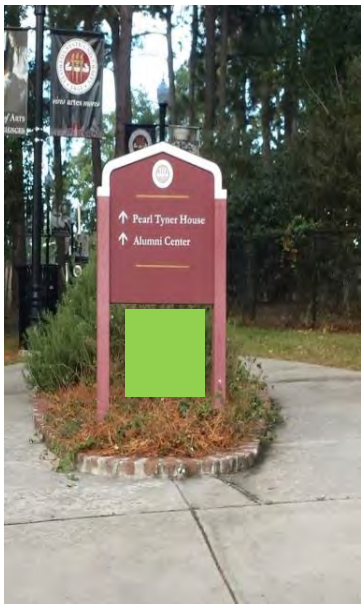


Illustration 1.58: Potential Signage Improvements for Campus Bike Path System.
Additional space available on this sign in **green.** Photo Credit: Studio Team.

Illustration 1.60: Poor Sign Maintenance. Photo credit: Studio Team.

Illustration 1.60 shows a sign that is outside of Bellamy which is being 'consumed' by the foliage that surrounds it. The sign makes a crucial attempt at providing information to those who use wheelchairs by giving them a route to get to doors which are powered to assist them in entering the building. The Studio Team recommends that signs such as this could also provide bike parking areas to alleviate illegal bike parking in this area.

SE 2: Improve the Bicycle Registration Program

Recommendation: *Expand the* ***Bicycle Registration Program*** *to be more convenient for bicyclists who wish to register their property.*

Implementation Term: *Near (5-10 Years)*

Context

As noted by the FSU Police Department (FSUPD), the University has two means of registering bicycles as property (Stakeholder Interview, 2013). Having a bicycle property registration system in place is important for a number of reasons. First, it allows for users to have their property checked in the event that it is stolen and recovered at a later date. Second, it allows for police to contact the user before forcibly removing a bike if it is improperly attached to a structure other than a bike rack.

One registration system available is through an online system where the user inputs the properties serial numbers in a secure place. This system can include bikes or other expensive items and maintains their property identity in case of theft (Stakeholder Interviews). The second is a program where you can register your bicycle at the FSU Police Station or at a bicycle shop that is in partnership with the police department. Because the structure of the first system is regarded as a voluntary system where the user takes the initiative, police do not have access to the owner's information and cannot use it to check abandoned bicycles on campus.

Existing conditions

According to the FSU Police Department, in order to register your bike you need to go in person to FSUPD or at a partner bicycle shop (Stakeholder Interviews). This has been noted by stakeholder interviews to be an inconvenient way for modern, young cyclists who may wish to conduct their business online or through processes that the already have to do to complete their registrations.

Recommended Actions

The Studio Team Recommends that the Police Department and FSU Transportation collaborate on a way to provide an online registration for bicycles that is similar to that for cars. A registration process for bicycles would create a means for which both entities are able to capture data on the cyclists vehicle in the instance that there is an issue with where it is parked, and allow for the University to have a greater understanding of how many of its populace bikes as a means of commuting. Permits for registered bikes could be issued as identifiers for bicycles, and could also be mailed to cyclists, similar to the system in place for motorist, or could be registered throughout the year as a measure to encourage cyclists to register their bicycles.

The University of Virginia has made bicycle registration mandatory campus wide (University of Virginia, No date), which the Studio Team recommends against within the current FSU context because ridership should be encouraged through a safety application of registration rather than discouraged through mandatory processes. The university should consider a mandatory registration only if ridership on campus substantially increases and because a safety threat beyond the issues described above.

SE 3: Expand Damaged Bike Removal Program

Recommendation: *Expand the* ***existing bike removal program.***

Implementation Term: *Immediate (0-5 Years)*

Context

In order to encourage new bicyclists to campus, they need to feel comfortable parking their bike on campus. During the Focus Groups, it was common that participants did not feel safe leaving their bikes parked on campus (Focus Groups, 2013). This was because they see bikes around campus with missing parts, bent wheels, and rusty chains as pictured in Illustration 1.61 and 1.62. People do not their bikes damaged at all, and some focus group participants said they elected to not bring a bike to campus at all (Focus Groups, 2013).

Illustration 1.61: The remnants of a damaged bicycle located near classroom building HCB. Photo Credit: Studio Team

It was also evident during the Bike Rack analysis that dilapidated bikes surveyed by the Studio Team remain immobile for the duration of the term. Removing these damaged bikes will remove campus eyesores, increase applicable bike parking, and increase the perception of bicycle property safety on-campus.

Illustration 1.62: A damaged bike on campus. Photo Credit: Studio Team.

Existing Conditions

Currently, FSUPD removes bikes once a year during the summer. During this time, FSUPD removes both damaged bikes and bikes they believe to have been abandoned. Prior to removal, FSUPD will leave a courtesy notice to alert the bike's owner that the bike is intended for removal. The courtesy notice will include resource information on where the bike can be

recovered. If after a month the battered bike is still on the rack, FSUPD will then remove the damaged bike.

Implementation

The damaged bicycle removal program can be expanded by increasing the frequency of bicycle removal from once a year to at least once a semester. This will improve the impression of bike safety for riders and non-riders by reducing the number of dilapidated bikes. This program can be implemented immediately within the next two years.

Recommendation Section 4: Planning, Administrative and Programming (PA)

Vision Statement: The movement towards a more sustainable and accessible campus should be driven from the top-down to meet the demands of and desires of those coming up from the bottom-up.

Purpose: To create a foundational and leadership base that will manage the implementation of the recommendations. FSU can be the first major university in the state of Florida to have a dedicated Bicycle and Pedestrian Master Plan. To also spread education and awareness about the new improvements, policies, and community that will be building on campus through marketing and social media.

Existing Conditions: There is no dedicated Bicycle and Pedestrian Plan for FSU or any other major university in the state of Florida, nor is there a dedicated Bicycle and Pedestrian Planner for FSU or the City of Tallahassee. There is also a lack of education about many of the existing programs and policies around campus.

Recommendations: The recommendations posed in *Section 4: Planning, Administrative and Programming* are listed below.

- **PA 1: Hire a FSU-COT Bicycle and Pedestrian Urban Planner**
- **PA 2: Bicycle and Pedestrian Master Plan**
- **PA 3: Professional Transportation Study**
    - **PA 3.1:** Campus Scooter and Skateboard Study
- **PA 4: Tiered Parking Fee Structure**
- **PA 5: Bicycle Education Programs**
    - **PA 5.1:** Student Orientation Bicycle Education
- **PA 6: Expand Marketing and Outreach**
- **PA 7: Bicycle Incentive Program**
- **PA 8: Road Maintenance Program**

PA 1: Hire a Joint FSU-City of Tallahassee Bicycle and Pedestrian Planner

Recommendation: *Hire an* ***urban planner focused on bicycle and pedestrian transportation*** *planning jointly through City of Tallahassee and FSU*

Implementation Term: *Immediate (0-5 Years)*

Context

Hiring a specialized bicycle and pedestrian planner is integral to the success in transforming FSU and Tallahassee into bike-friendly communities. Addressing the transportation issues involving transportation modes other than automobiles is necessary to create a cohesive, sustainable community. This planner would be solely responsible for the bicycle and pedestrian needs of the city and the University, the management and implementation of recommendations identified in this Action Plan.

How will it work?

The planning position will be a shared position between the two entities that will work between the stakeholders to assist in planning efforts for the urban environment and implement programs to encourage more people to utilize other modes of transportation. A shared position such as this was mentioned in Alta Planning and Design that noted that city and university coordination in bicycle and pedestrian planning for urban campuses is one of the largest issues in developing facilities (Alta Planning and Design & Kimley-Horn and Associates, Inc., 2012).

Implementation

Creating a dedicated professional planning position will be the first step in implementing the recommendations, and should be implemented immediately within the next five years.

PA 2: Create a Bicycle and Pedestrian Master Plan

Recommendation: *Create a* ***bicycle and pedestrian master plan*** *for the City of Tallahassee and FSU.*

Implementation Term: *Near (5-10 Years)*

Context

A bicycle and pedestrian master plan addresses the vision of a campus which encourages the use of non-automotive dominated infrastructure as a means of commuting. Multiple universities reviewed in the Studio Teams Peer Institutions Review already had a bicycle and pedestrian master plan which made recommendations for the development for the specific university context. The development of an independent Bicycle and Pedestrian Master Plan would increase the awareness of bicycle and pedestrian activity on campus by incorporating a vision for how to make these modes of commuting more safe and convenient. Additionally, this Master Plan would be an indication of the University's plan to have development focus on other, non-automotive modes of transportation to the stakeholders in the area.

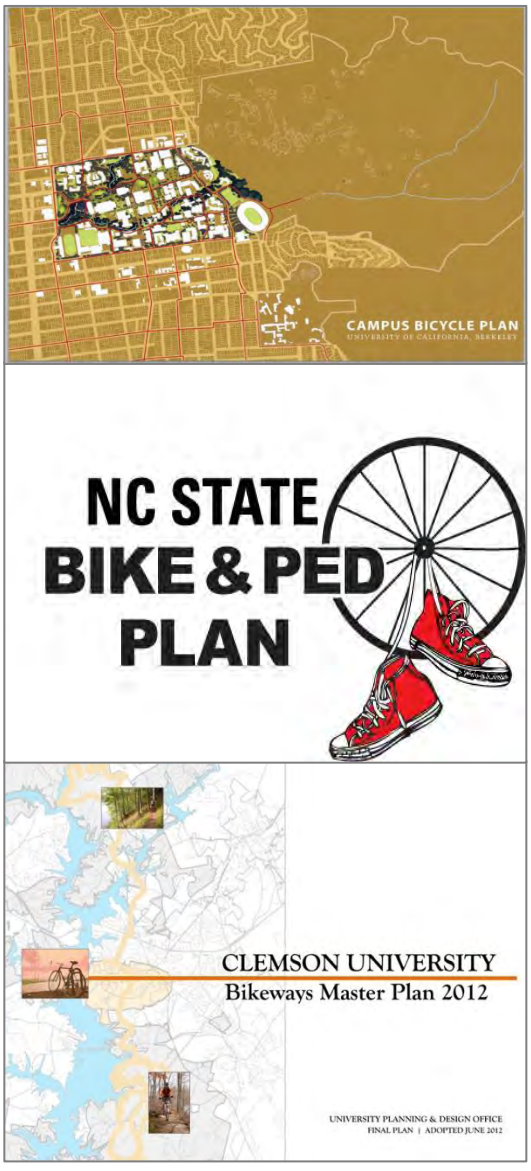


Illustration 1.63: Examples of University Bicycle Master Plans. Photo Credit (Top to Bottom): U. of California at Berkeley (2006); U. of Louisville (2011); NC State (2006); Clemson U. (2012).

Existing Conditions

The current FSU Campus Master Plan indicates in several areas policies for making non-vehicular (read bicycle) transportation improvements.

Policy 4A-10 states:

"Begin immediately to expand, enhance and promote the following programs to increase utilization of pedestrian and non-vehicular facilities:

- *Increase bicycle racks/parking facilities throughout campus;*
- *Increase the availability of bicycle lanes throughout the campus;*
- *Promote use of perimeter auto parking then using bicycles or walking modes from there into campus;*
- *Work with city bicycle groups when bicycle plan is published to coordinate on and off-campus improvements and to coordinate promotional activities; and*
- *Install special signs and paint roads and pathways denoting bicycle paths and parking zones."*

The implementation of these policies and objectives to improve bicycling use to campus and on campus would be more effective if there was an enhanced interaction between elements of the current master plan through a proposed bike and pedestrian plan.

Recommended Actions

If FSU is to increase the share of its population that commutes by bicycle to- and on- campus, then a bicycle master plan could be very effective goal to that end. The Studio Team encourages FSU to gather information that could inform said bicycle master plan beyond the recommendations and analysis of this action plan. Areas of study will for a bicycle and pedestrian master plan could be:

- ***Further identify campus bicycle mode share***
- ***Identify challenges to increased bicycle use on- and around campus***
- ***Formulate recommendations for encouraging new bicycle use on- and to- the FSU campus***
- ***Create a university Bicycle and Pedestrian Master Plan similar to existing plans throughout the country***

PA 3: Professional Transportation Study

Recommendation: *Commission a* ***transportation study*** *to conceptualize all transportation mode shares.*

Implementation Term: *Immediate (0-5 Years)*

Context

A professional transportation study of the University transportation system would give the FSU community an understanding of how campus commuters arrive and depart from the campus. A transportation study includes automotive and non-automotive aspects of transportation, including cyclists, motorcyclists, skateboarders, pedestrians, and public transit users. This analysis should give the University an understanding of what peak times all for all mode shares, if there is sufficient facilities for users, and if what alternatives could be proposed to roads beyond this study. The transportation study should ultimately provide the information needed for FSU to understand all mode shares of student, faculty, and staff commuters, and to better understand how the University can make comprehensive transit changes (Alta Planning and Design & Kimley-Horn and Associates, Inc., 2012).

Existing Transportation Context

Currently, there is little information available to the public on the existing transportation context, especially for non-automotive commute methods. The university commissioned this study, the first of its nature on main campus for an understanding of the bicyclist context, yet there is little information on pedestrian, bus, and other mode share commute numbers.

Recommended Actions

- *Commission an independent study to analyze all transportation mode share types among campus users.*
- *Direct study group to pay particular attention to major modes of transit among campus users and create recommendations based off of results on the potential to increase the non-automotive share of commuters.*
- *Encourage the study to consider transportation elements of master plans that exist at the time of conducting the study.*

PA 4: Tiered Parking Fee Structure

Recommendation: *Reassess the* ***fee structure*** *for* ***transportation facilities*** *and infrastructure.*

Implementation Term: *Immediate (0-5 Years)*

A major component of understanding how FSU has become such an auto-dominated institution is determining what makes driving a car so much for appealing and feasible than biking or walking, even on an urban campus with the close proximity of student housing. A foremost factor in this is the financial benefits and drawbacks of driving to campus. At most institutions this is significantly impacted by the parking or transportation fees present. Therefore the Studio Team analyzed the transportation and parking fee structure of the peer institutions reviewed, with a focus on the major Florida state universities of The University of Florida, University of South Florida, and University of Central Florida.

Context

Every peer institution that the Studio Team reviewed explicitly charged students for parking permits, leaving FSU as the only institution recognized by the Team for not charging a permitting fee for student parking. Although FSU assesses a Transportation Access Fee of $8.90 per credit hour to all students to fund transportation expenses, the Florida public universities reviewed by the team assess similar fees while charging for parking permits as well (Table PA-4.1). Therefore FSU currently sits at a financial disadvantage to its major in-state peer institutions by not capitalizing on this revenue source.

Table PA 4.1: Transportation Access and Parking Permit Fees, Major Florida Public Institutions

Institution	Transportation Access Fee (Per Credit Hour, 2013)	Average Annual Student Parking Permit Fee (12 credit hour enrollment)
FSU	**$8.90**	**No Fee**
UF	$8.91	$154.00
UCF	$9.10	$143.82
USF	$3.00	$226.00

Sources: (University of Florida, 2013) (University of South Florida, 2008) (University of Central Florida, 2013) (State University System of Florida, 2013) (Florida State University, 2013)

Recommendation

The university should reassess its fee structure for transportation facilities and infrastructure. The current political climate within the state is not ideal for increasing fees, but as a change to the current structure becomes more feasible, the University should capitalize on the opportunity to bring itself level with its peer institutions by charging a parking permit in addition to the assessment of the Transportation Access Fee. A tiered structure may vary the parking permit pricing based on such details as hours enrolled and year in school.

The university may benefit from the implementation of a parking permit fee by increasing revenue to put towards transportation improvements. By encouraging students to utilize other modes of transportation, it may reduce the stress on the existing parking infrastructure or increase the efficiency and usage of other facilities provided by FSU such as the mass transit system. A better understanding of the feasibility and potential success of a change in the fee structure could be developed by a Professional Transportation Study for the University (PA 3: Professional Transportation Study).

PA 5: Bicycle Education Programs

Recommendation: *Provide* ***bicycle educational programs*** *that cover bicycle safety and proper riding techniques.*

Implementation Term: *Near (5-10 Years)*

Context

There is a need for providing bicycle education to students. Not only does Tallahassee have a tough topography for new bike commuters, but there are also laws and regulations that bicyclists need to be made aware of. Educational Programs were also a request found in Focus Groups, the Student Commuter Survey, and Stakeholder Interviews.

Current Programs

Bicycle education programs in Tallahassee are focused on educating children. At FSU, FSUPD does an "Adopt-a-Cop" program in which an officer visits the dormitories to teach students where to park and how to properly park their bike. FSUPD will also offer supplies such as helmets and bike lights (SH (Gianetti) Interview, 2013). There are currently no FSU-sponsored programs offered to students and bike commuters that teach them the local bicycle laws and riding techniques such as properly shifting to navigate hills.

Illustration 1.64: An adult bicycle education class in Newport Beach, CA. Photo credit: **Invalid source specified.**

Suggested Courses

Bicycle education courses should be taught to cover bicycle safety as well as proper riding techniques.

Proper Riding Techniques

Proper riding techniques such as proper mounting and dismounting a bike, turning, changing lanes, braking, and shifting are an important part of bike safety and should also be covered in this education program. A challenge to new bicyclists around FSU is the hills. It became known in the Focus Groups that these hills are one of the big things preventing people from riding to and around campus. However, when the Studio Team offered the suggestion of having a bike education class where they could learn how to properly shift up those hills to make it easier, it was widely accepted. Offering these types of classes would encourage new riders and will hopefully break down the barrier between riding to campus and not riding.

Illustration 1.65: A 'smart' bike education class offered by the League of American Bicyclists. Photo Credit: (The League of American Bicyclists)

Bicycle Safety

The bike safety classes would also go over state and local laws such as how to legally ride in the road, proper signaling, and how to be a predictable rider. These safety classes will also go over the importance of wearing a helmet and having front and rear bicycle lights. If current riders and new riders felt safe and confident about riding it would attract more bicycle commuters to campus.

Implementation

Educational programs can be taught by certified people from local bike shops and nonprofits and can be implemented in the Immediate Term (0-5). Some similar campus programs would be the Bicycle Ambassador's Program at the University of Arizona and Know the Road Workshops that are held at the University of Washington (Alta Planning and Design; Kimley-Horn & Associates, INC, 2012; University of Washington Facilities Services, 2013).

PA 5.1: Student Orientation Bicycle Tour

Recommendation: *Include a bicycle tour option at student orientation.*

Implementation Term: *Immediate (0-5 Years)*

One of the most memorable experiences for students and their families is visiting campus and familiarizing themselves with the history, layout, and land uses on the walking tour of campus. Student Orientation is a crucial time to introduce new students and their families to bicycling on the campus of Florida State.

How it would work

While at student orientation, a student and their family (optional) could opt to participate in a bicycle education course and bicycle tour of campus. This tour could also be accompanied with a small fee to cover the bike rental and lunch. This tour would take the student and/or their family around campus and the surrounding Tallahassee area to showcase campus landmarks as well as promote the idea of bike commuting as a sustainable and viable transportation option.

Implementation

These bicycle tours can be implemented within the next five years, and can be hosted in-house or by local non-profits and bike shops that are familiar with the area.

PA 6: Expand Marketing and Outreach

Recommendation: *Expand* ***marketing, outreach, and communication*** *of bike services on and around campus through social media outlets.*

Implementation Term: *Immediate (0-5 Years.)*

FSU should expand its marketing and outreach efforts with bicyclists through the social media outlets that were originally created by the Studio Team. Through these avenues, the Team has had success with creating dialogue among bicyclists on campus that have given some insight and aid to what amenities many cyclists would like to see incorporated in the future on FSU's campus.

Current Conditions

Over the course of the Study, the Studio Team has been able to create dialogue amongst bicyclists. The Studio Team utilized Facebook and Twitter to post questions to the biking community that chose to like or follow the group. Over the span of the semester, the Team saw an increase of comments and discussion occurring almost daily on the pages. Some of these were directly related to the questions the Team posted, but some were also develop freely amongst the followers.

PA 7: Bicycle Incentive Program

Recommendation: *Develop an* ***incentive program*** *to encourage students, faculty, and staff to bike to campus.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years)*

Context

To encourage students, faculty, and staff to get out of their cars and begin utilizing bikes more, FSU could develop and incentive program. This program can be developed solely for campus or it could be developed in conjunction with the already existing incentive program within Tallahassee.

Illustration 1.66: Logo for Local Bike Program, Bike-Eat-Shop-Tallahassee. Photo Credit: Bike-eat-shop-tallahassee.com (2013).

Current Conditions

Tallahassee currently has an incentive program that encourages residents to utilize their bikes instead of personal automobiles while running errands around town. Bike-Eat-Shop-Tallahassee, better known as BEST is a partnership among cyclists and local businesses to encourage people to get out of their cars and onto their bikes.

PA 8: Campus-wide Street Cleaning Program

Recommendation: *Create a* ***street cleaning program*** *to keep the roads, paths, and bike lanes free of glass and debris.*

Implementation Term: *Immediate (0-5 Years), Near (5-10 Years)*

Context

The condition of the roads and bike lanes in and around FSU campus are poor and at times detrimental to bicyclists and their bikes. Particularly after football games and other major events, the roads and bike lanes are cluttered with glass and other debris that does not get taken care of in a timely manner. Broken glass is a common sight through the Stadium Tunnel, and is a deterrent for bicyclists as it can result in flat tires. The university should expand current and/or develop new street cleaning programs to better maintain the roads and to promote the image around campus while increasing the safety of cyclists.

Implementation Recommendations

Some ideas that have arisen regarding street cleaning implementation are:

Illustration 1.67: Group Adopt a Road Volunteers (Photo Credit: http://www.ktlcb.com/)

a. ***Adopt a Road:***

Keep Tallahassee-Leon County Beautiful oversees an "Adopt a Street" program in which many FSU student organizations already participate. The Studio Team recommends that FSU work in coordination with Keep Tallahassee-Leon County Beautiful to direct FSU student organizations to adopt street segments within a mile of campus as well as the paths on campus and the Stadium Drive Bike Path.

b. Post-Football Home Games:

Hold events during the morning on days after football home games to clean up the streets and sidewalks around campus. Students could be enticed to participate in these clean-up events by potentially being rewarded with Loyalty Points as part of the FSU Student Loyalty Point Program, which lets students order FSU Athletics tickets in an earlier window than other students.

c. Work off Parking Tickets:

A Street cleaning program can also provide an alternative to paying parking tickets and future bike tickets. Instead of paying the $30 or so fine, the student can elect to work a designated amount of hours cleaning the glass and debris off of the roads.

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PART TWO: DATA COLLECTION, ANALYSIS AND RESULTS

Part Two: Data Collection, Analysis and Results provides an overview of the data gathered under the *Scope of Work*. Data from this section established the foundation on which the previous recommendations were established by helping the Studio Team establish current bicycling conditions and identify opportunities for improvement.

Part Two Sections

The following chapter of the report titled, *Part Two: Data Collection, Analysis and Results,* holds the background data to support the recommendations in *Part 1. Part Two* is divided into the following four sections:

Section 1: BIKE RACK ANALYSIS

Section 1: Bike Rack Analysis covers the methodology and results of the bike rack inventory conducted by the individual Studio Team members on FSU campus.

Section 2: SURROUNDING AREAS ASSESSMENT

Section 2: Surrounding Areas Assessment details the handlebar survey and connectivity analysis used to determine the biking conditions surrounding campus.

Section 3: PUBLIC INPUT PROCESS

Section 3: Public Input Process describes the various stakeholder data collected. This process included Focus Groups, social media, interviews and the Student Commuter Preferences Survey.

Section 4: PEER INSTITUTION RESEARCH

Section 4: Peer Institution Research discusses the standard evaluation criteria and results of the 24 reviewed peer institutions.

Section 1: Bike Rack Analysis

Part of expanding the knowledge and understanding of bicycle facilities on FSU's campus involved an inventory of the location and analyzing the usage of bicycle racks. FSU's campus has the parking capacity for approximately 4,000 bikes. The Studio Team developed a method to inventory the bicycles parked at bike racks to gage rack usage while also developing an idea of the total bike usage by the FSU student body and identifying biking patterns campus-wide.

Additional information was recorded to help the Studio Team understand why certain racks are used more than others. Although the questions of preference can be drawn from the qualitative research strategies, the Team analyzed bike rack usage from multiple data angles identify useful trends that may have influenced recommendations for rack placement moving forward.

The Studio Team was limited to conducting the Bike Rack Analysis over the course of one fall semester, so the results should only be read as reflective of what bike ridership and facility usage in the fall semester and not what it may look like in the spring or summer. The Studio Team was also limited in both time and resources to collect data for the Bike Rack Analysis, so results and trends are assumed to give a general picture of the current conditions as estimates, rather than being assessed for statistical significance.

Inventory

The Studio Team was presented with an initial set of data from Laurie Thomas of FSU Campus Facilities. This included a map of most bike racks and all bike rack styles present on FSU's main campus. The initial data served as a base for the Studio Team to begin the bike rack inventory process. Using the base map of all racks on campus, the racks were divided into six groups so that each Studio Team member was responsible for a set of racks in a general section of campus (Appendix 1).

An initial inventory of the racks was done to document the rack characteristics that would not change throughout the semester and could help to define each rack. The characteristics observed

were total number of spaces, style of rack, and whether the rack is removable or not. This allowed for the Studio Team to establish an initial database identifying every rack.

Primary Inventory

Following the initial inventory was the Primary Inventory. All racks were surveyed each school day at different times of the day (Table 2.1.1). This inventory took place from September 9-20, 2013. Weekends were excluded from this inventory schedule because of the lack of student activity during those days, not including football games. Times of day were designated to be Morning (8 a.m. to 11 a.m.), Midday (11 a.m. to 2 p.m.), afternoon (2 p.m. to 5 p.m.), and evening (5 p.m. to Midnight). The inventory schedule was arranged such that Studio Team members would inventory their assigned racks in the designated time slot for that day. For example, the inventory schedule begins with Monday in the morning, then Tuesday midday, Wednesday in the afternoon, and back to the morning Thursday. This rotation allows for an intensive inventory of bike rack data for three different times of the day, each day of the week. Studio Team members also select one evening each week to inventory their designated racks. Surveying racks during the evening hours will give a look at rack usage when there are typically fewer off-campus residents present on campus.

Table 2.1.1: Primary Inventory Example Survey Schedule

Day of Week	Morning (8 AM-11 AM)	Midday (11 AM-2 PM)	Afternoon (2 PM-5 PM)
Monday		X	
Tuesday			X
Wednesday	X		
Thursday		X	
Friday			X

Secondary Inventory

After the two-week period of inventorying all campus racks, the Studio Team began the Secondary Inventory, to last from September 23 – November 1, 2013. The Studio Team determined a Core Sample of six racks around campus to inventory once daily. In an effort to

diversify the building types that the monitored racks were nearest to, the 6 core racks were established to be at Strozier Library, Fresh Foods, Bellamy Building, Landis Residence Hall, and Rogers Oceanography Building (Appendix 1). The core sample was the focus of observation for any trends amongst the variable characteristics. The core sample was also used to compare with data from the Primary Inventory to develop a multiplier that was applied to all racks campus-wide for each day that the core racks are surveyed. The inventory rotation of six additional random racks for each day was done to develop a range of error between the bike counts designated by the multiplier (Appendix A-1.2) and the actual values.

Table 2.1.2: Secondary Inventory Survey Schedule

Day of Week	Morning (8 AM-11 AM)	Midday (11 AM-2 PM)	Afternoon (2 PM-5 PM)
Monday			**Becca**
Tuesday	**Mike**		
Wednesday		**Amanda**	
Thursday			**Brian**
Friday	**John**		

Omissions

Certain racks were omitted from the study, limiting access to the Studio Team and inhibiting the ability to survey the comprehensively inventory all Campus bike racks. However, the number of bike racks omitted from the survey is negligible in comparison the total number of bicycle racks inventoried. Omitted racks include the racks located within the gates of Degraff Residence Hall and those that were located within designated construction areas.

Constant Characteristics

The constant characteristics recorded were rack style, rack capacity, and whether the rack is removable or not. These characteristics are considered to be those that will not change day-to-day throughout the semester.

Rack Style

The rack styles present on FSU's campus were identified as: Ribbon, Inverted U, Bollard, Wheel-Bender, and Wall Mount (Illustration 2.1). Observing usage based on rack style helped to understand which rack styles have the highest average occupancy.

Rack Capacity

A method of determining the total spaces available at each rack location was developed for each rack style. Capacity for each style was determined as the maximum number of bikes that could be parked at a rack with all bikes parked properly.

Removable Racks

The racks were identified as being removable based on whether they were bolted down to a surface or set in concrete. This was to identify which removable racks may be underutilized and could be moved to an area in need of bicycle racks more easily than those set in concrete.

Figure 1.1: Inverted-U Rack

Figure 1.2: Bollard Rack

Figure 1.3: Ribbon Rack

Figure 1.4: Wheel Bender Rack

Figure 1.5: Wall Mount Rack

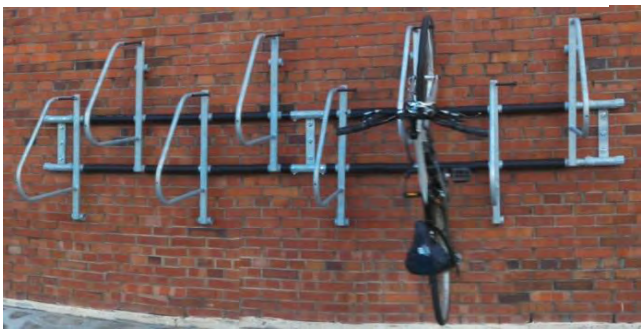


Illustration 2.1: Types of Bike Racks on FSU's Campus
Illustrations of existing bike parking infrastructure on campus. Photo Credit: Studio Team

Variable Characteristics

Variable characteristics are those that can change from one observation to the next. These include bike count, biking conditions, date, time, day of week, pedestrian traffic, abnormalities with bicycles (missing parts, etc.), and improper parking.

Bike Count

The total number of bikes present at each rack was recorded at each inventory time. When analyzing the data, the total number of bikes was assessed to help understand total bike usage on

campus and percent usage, comparing bikes present to total spaces at each rack. Assessing the percent of spaces used helped identify the underutilized and over-utilized racks, as well as factor into analysis of what variable characteristics may play into why cyclists park their bikes on some racks and not others.

Weather Conditions

Weather conditions were recorded as being comfortable, moderately comfortable, or uncomfortable. It was understood that this information would be subjective from one Studio Team Member to another, but comfortable weather conditions would be considered cooler. These conditions will be considered an indicator for higher bike usage. Uncomfortable weather conditions generally meant very hot and humid. The purpose of this was to identify any changes in the number of bikes on campus as weather conditions become more comfortable.

Date

Specific dates were tracked to help record how rack usage and overall bicycle usage varied as the semester progressed. Also, having a date to pair with weather conditions will help to try and identify any trends in changing seasonal conditions and bicycle and rack usage.

Time of Day

Specific time of day was recorded to the minute in an effort to pinpoint what the peak times of day were for bicycle and rack usage for each weekday. By recording the survey time to the minute, it provided the ability to group data as detailed as minute-by-minute or as broad as the general time of day.

Day of Week

Days of the week were monitored to try and identify the busiest days of the week for bicycle activity and rack usage, and to determine how many bikes have been on campus at one time.

Pedestrian Traffic

When each rack was inventoried, the level of pedestrian traffic moving past it at that time was listed as heavy, moderate, light, or none. The purpose of identifying the level of pedestrian traffic

was to identify any trends in rack usage in areas of high pedestrian traffic versus low. Pedestrian traffic was gauged based on a 360 degree assessment of the number of students in sight. This is understood to be an estimate by each Studio Team member, but light pedestrian traffic is considered to be less than 30 people, moderate was 30 to 100 people, and heavy was more than 100 people in sight.

Misuses

While taking inventory of the bike racks, if the Studio Team Member noticed a bike that was parked at something other than a rack, the Studio Team Member identified the location. As the semester progressed, identifying which areas had the highest incidences of misused structures for bike parking helped to identify areas to be considered for bike rack placement in the future.

Flash Survey

The Studio Team's Bike Rack Analysis and surveying schedule was conducted in a way that never captured a complete snapshot of rack occupancy at one time. In an effort to get one count that came as close to a single snapshot as possible, the Studio Team determined a time when all members would count their assigned racks as quickly as possible to try and eliminate time when bikes could move from one rack to another, potentially being counted twice. The Team also looked to survey racks during a popular class time when a high number of students were in class so as to give an idea of the percentage of students that bike to class or other facilities on campus. To more accurately assess this percentage, it was assumed that students biking to class or places such as the library or dining halls do not park at residence halls, and therefore the Studio Team removed all racks located at residence halls from count totals when calculating the percentage. The total number of students enrolled in classes taught at the time of the Flash Survey was determined to give a better idea of the number of students on campus at the time.

The Studio Team conducted the Flash Survey on October 24 starting at 9:30 AM. The Studio Team deemed the weather conditions as comfortable biking weather. The total number of students enrolled in classes that start at 9:30 is 10,550. The results can be seen in Tables 2.1.3 and 2.1.4.

Table 2.1.3: Total Occupation, Flash Survey

Total Rack Spaces Surveyed	Total Bikes Present	Percent Occupied
3,730	1,167	31.29%

Table 2.1.4: Percentage of Enrolled Students at 9:30 AM Represented by Bikes

Total Bikes Not At Residence Halls	Students Enrolled in 9:30 AM Classes	Percent of Enrolled Students Represented By Bikes
729	10,550	6.91%

Rack Analysis Results

The inventory and surveying of racks helped to better understand the general presence of bikes on FSU's campus and the primary patterns of when and where they are coming and going. As Illustration 2.2 demonstrates, it was estimated that the highest number of bikes on campus was 1,908. Accounting for error in the methodology, a general assumption is that there may be as many as 2,000 bikes on FSU's campus at any one time, with average peak occupancy of approximately 1,388 bikes, or 38% of the total capacity on campus.

After analyzing the overall rack occupancy campus-wide for all times of day and developing an average for each weekday, the bike presence on campus follows a simple pattern of increasing from Monday to Wednesday, then decreasing back down towards Friday, the lowest day for average rack occupancy in the week (Illustration 2.2). This pattern may follow closely with the average student presence on campus overall, with Friday likely being the least populous weekday for students attending classes.

The Studio Team analyzed average rack occupancy campus wide to identify that time of day is the peak time of day, and the presence of bikes on campus changes as the day passes. Figure 2.4 demonstrates that the morning hours (before 11 AM) and the evening hours (after 5 PM) are the times when rack occupancy is at its lowest, on average. This is understandable as these times are typically when there are the fewest number of students on campus. Conversely, midday (11 Am to 2 PM) shows to be the peak time for rack occupancy across campus, followed by the afternoon (2 PM to 5 PM). This may correlate to time slots when the greatest number of students is typically on campus and the highest number of classes is offered. By identifying the level of pedestrian traffic around bike racks that are being surveyed, it provided insight into whether or not racks that were located in higher traffic areas have a higher occupancy on average than those that may be tucked into more discrete locations. This concept arose when facing conflicting opinions that cyclists are either more likely to utilize racks located in plainly visible and populated regions of campus, or that students are more likely to utilize racks that are more tucked away or hidden to keep their bikes out of sight of pedestrians.

Illustration 2.2: Peak Presence of Bikes on Campus Based on Multiplier Estimates

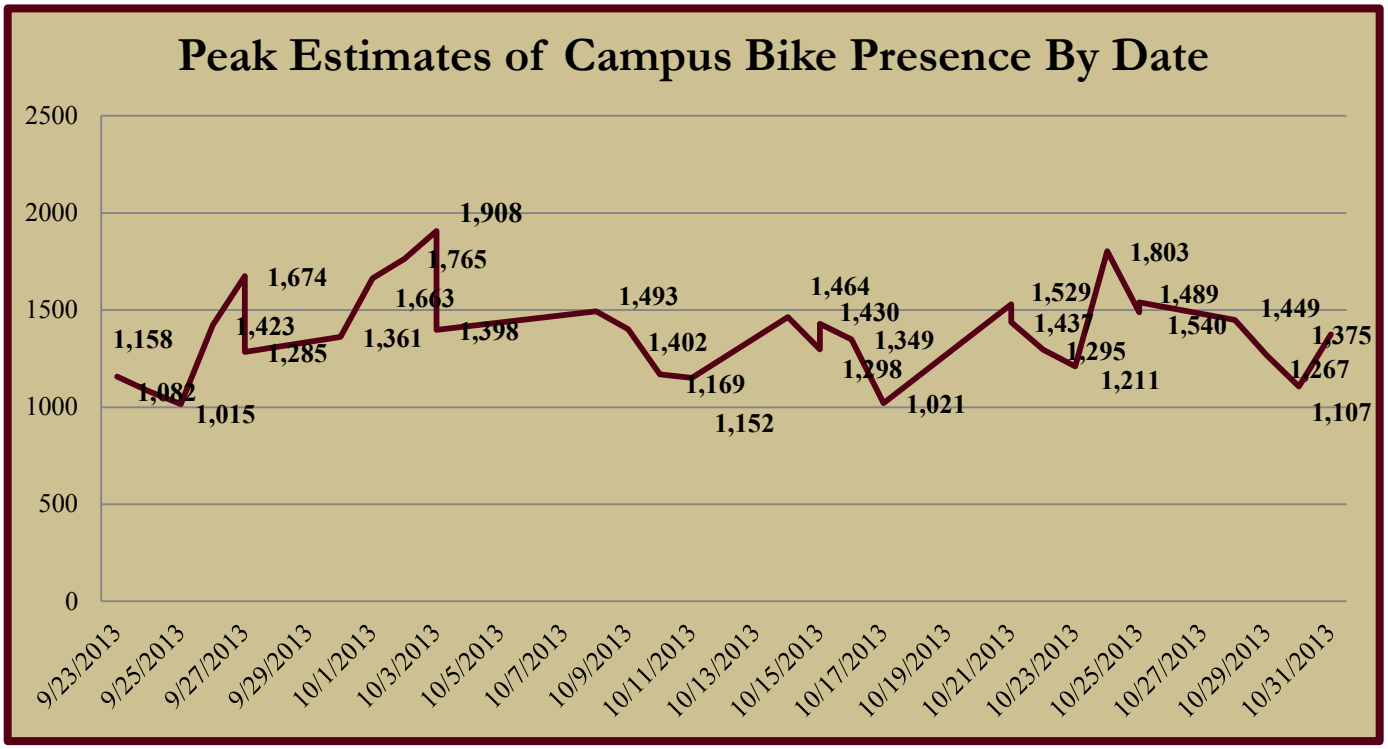


Illustration 2.3: Average Campus-Wide Rack Occupancy for Days of the Week

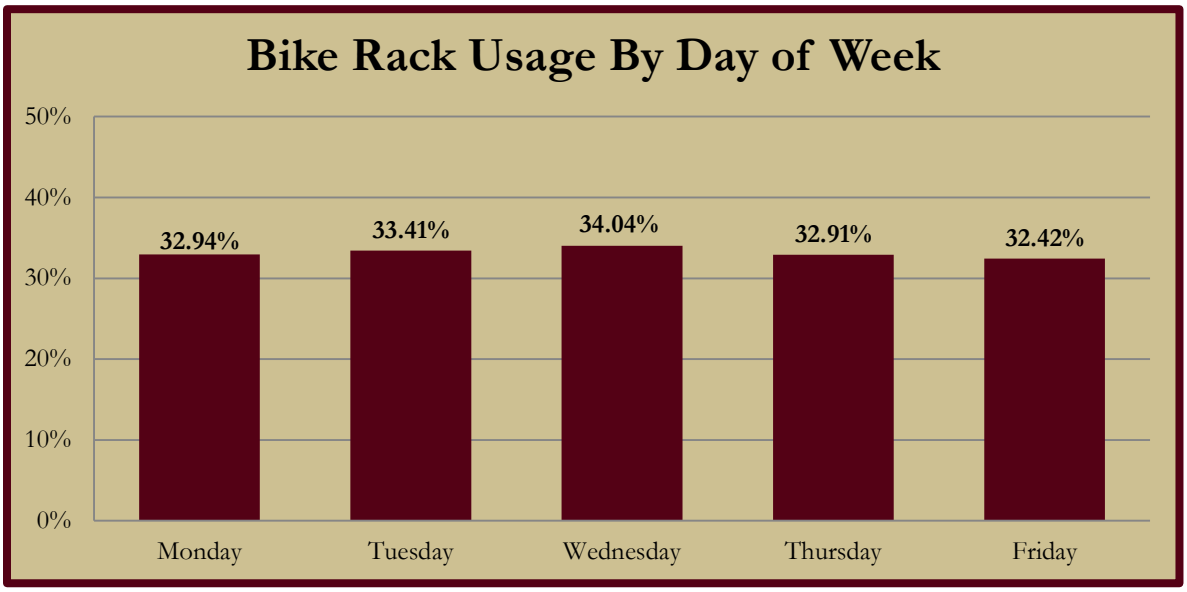


Illustration 2.4: Average Campus-Wide Rack Occupancy for Progressing Through the Day

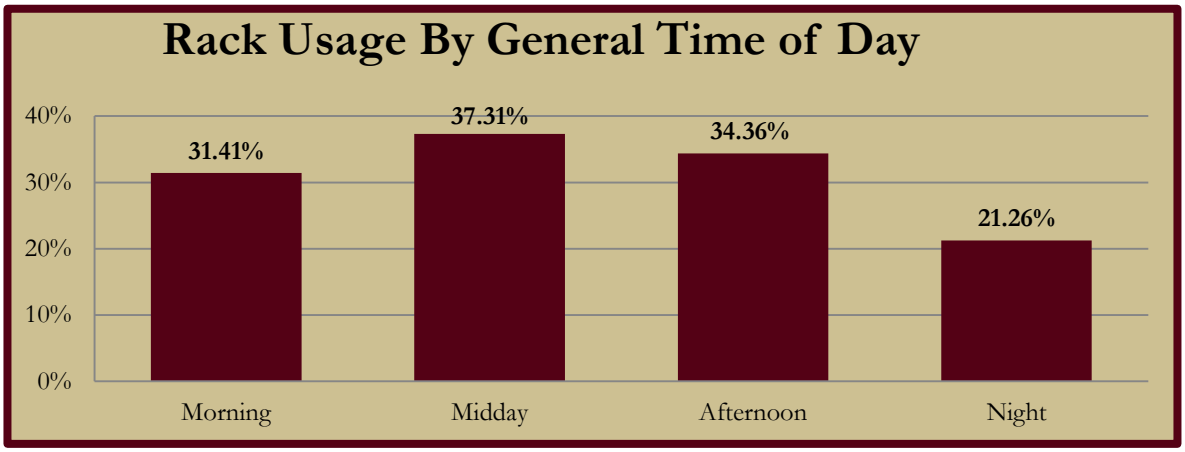


Illustration 2.5: Average Campus-Wide Rack Occupancy by Surrounding Pedestrian Traffic Conditions

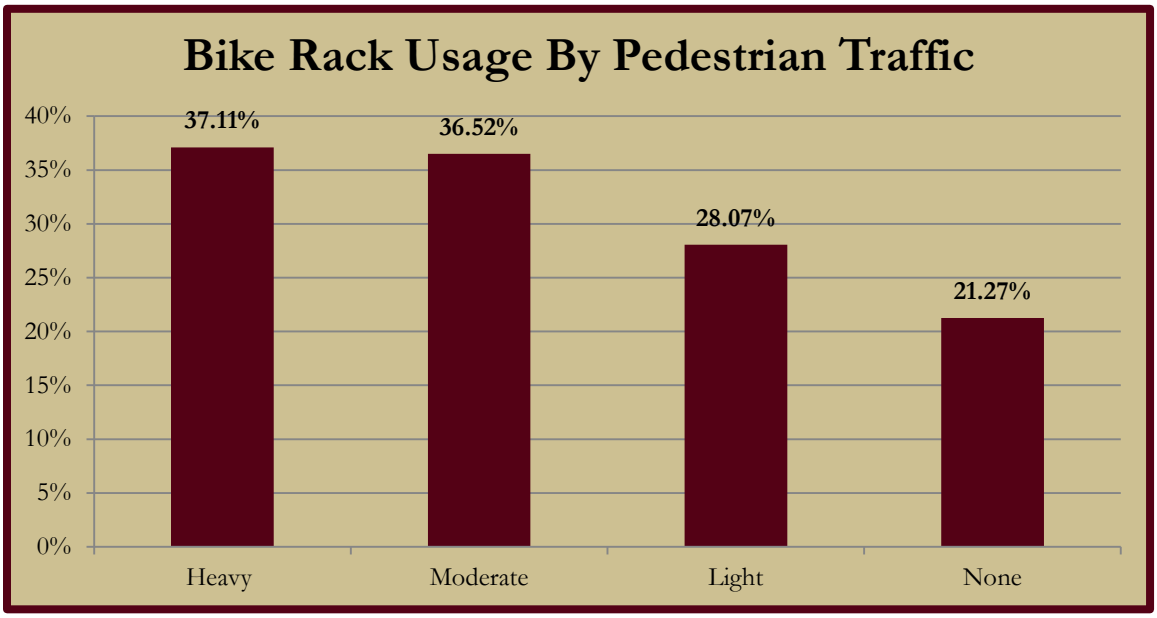
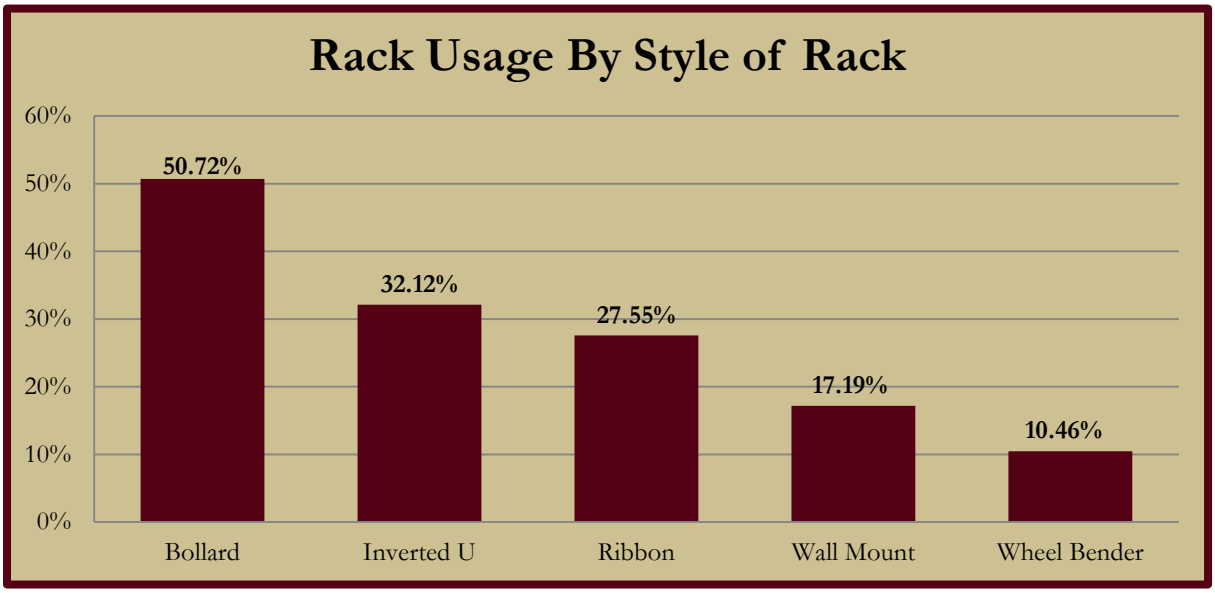


Illustration 2.6: Average Campus-Wide Rack Occupancy for Each Rack Style



The results indicate a consistent decrease in rack occupancy as the level of pedestrian traffic decreases (Illustration 2.5). This may be interpreted as cyclists preferring racks that are located in highly trafficked areas of campus, but it should be noted that the levels of pedestrian traffic are also a factor of the overall number of students and specific time of day that the racks were surveyed. For example, if a rack is surveyed during a popular class time when pedestrian traffic should be higher, the overall campus-wide rack occupancy should generally be higher whether the rack is located in a discrete location or a plainly visible and accessible location. Recommendations were still guided by these results, concluding that racks located adjacent to areas of higher pedestrian traffic will see higher occupancy on average, encouraging the bike parking facilities to be used more efficiently.

The remaining figures illustrate the results of characteristics that showed little or no impact on the overall rack occupancy or ridership through the study.

Section 2: Surrounding Areas Assessment

An element of the Studio Team data collection was a surrounding areas assessment including conducting a 'handlebar survey' and connectivity analysis of campus and the surrounding areas.

2.1 Handlebar Survey

The Studio Team conducted a Handlebar Survey by riding bicycles on and around campus and documenting the current road and path conditions. By studying the current bicycle conditions, the Studio Team was able to identify areas for improvement, which informed the recommendations provided earlier in this document.

The Handlebar Survey ride was conducted by the Studio Team on October 27, 2013. The Handlebar Survey, largely informed by the handlebar survey developed by the Street Plans Collaborative in conjunction with Miami Beach, FL, gathered qualitative and quantitative information. Information collected during the survey process includes, but is not limited to:

- Comfort level and perceived safety felt while bicycling a wide variety of streets
- Existing street characteristics
- Presence of signalized intersections
- Land use characteristics
- Local and regional open space connections
- Public transportation options/bicycle integration
- Bicycle parking supply
- Bicycle trip generators
- Existing bikeway infrastructure
- Interactions between all street users

The routes taken during this handlebar survey are displayed on the following page in Illustration 2.7, Handlebar Survey Routes.

Handlebar Survey Routes

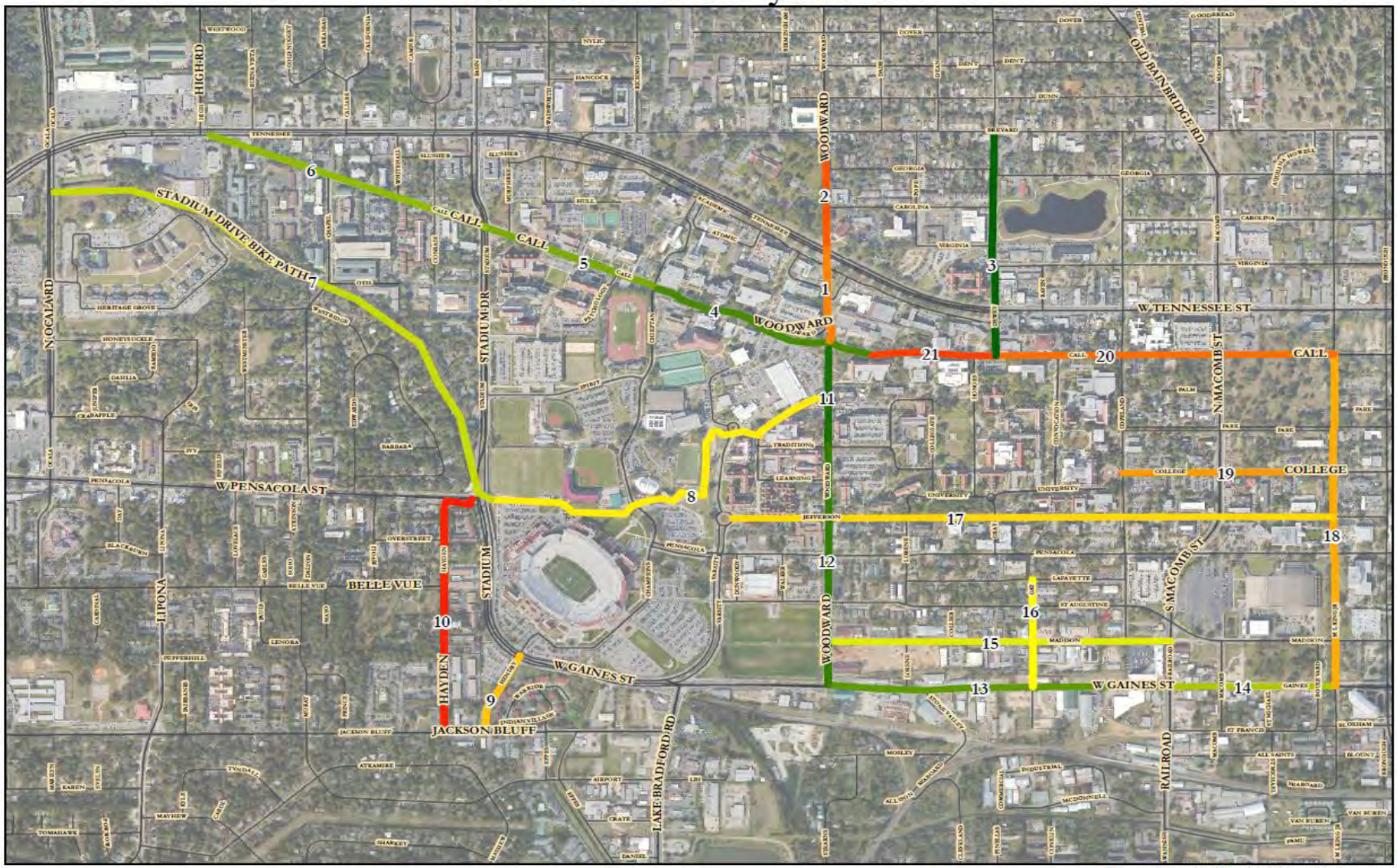


Illustration 2.7: Handlebar Survey routes
This map illustrates the routes taken by the Studio Team during the Handlebar Survey. Each colored line on this map represents a handlebar "segment" that was surveyed.

Results

Based on the information collected, each of these bicycling path segments was given an average "bicycling experience" score. These scores are derived from ratings of the path based on the Team's perceptions of safety and convenience of bicycling along the path. While not comprehensive, the Handlebar Survey certainly provides a representational snapshot of bicycling around FSU's main campus.

Table 2.2.1 below is a summary of the results of each of the 21 surveyed path segments. Reference Appendix 2 for more information on the results of the Handlebar Survey including the individual survey sheets.

Table 2.2.1: Handlebar Results Summary

	Street Segment	Yes	No	N/A	Most Common Response	
Land Use	Commercial Uses	9	12	0	No	
	Residential Uses	18	3	0	Yes	
	Industrial Uses	3	18	0	No	
	Vertical Mixed-Use	6	15	0	No	
	Horizontal Mixed-Use	11	10	0	Yes	
	Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	8	13	0	No	
Bicycle Infrastructure	Bike Lanes?	8	9	4	No	
	Shared-Use Lane Marking (Sharrows)?	2	19	0	No	
	Cycle Track/Physically Separated Lanes?	0	21	0	No	
	Shared Use Paths?	8	13	0	No	
	Paved Shoulders?	7	10	4	No	
	Quality, Accessible Bicycle Racks?	8	13	0	No	
	Intersection Treatments (bike boxes, priority signals, etc.)?	4	17	0	No	
The Street	Is On-Street Parking Available?	9	7	5	Yes	
	Are There More Than 2 Lanes for Traffic?	1	15	5	No	
	If Yes, Are the Rightmost Travel Lanes Wider?	1	2	18	N/A	
	Are There Consistent Signalized Intersections	8	8	5	Equal Yes/No	
	Are There Consistent Turning Lanes?	6	9	6	No	
	Is the Speed Limit Posted Consistently?	6	10	5	No	
	Is There Vehicular Congestion During Peak Travel Hours?	12	4	5	Yes	
	Are There Curbs and Gutters?	19	2	0	Yes	
	Are There Well-Marked Crosswalks at Every Intersections?	7	11	3	No	
	Is the Pavement in a Good State of Repair?	15	6	0	Yes	
	Are There Consistent Conflict Points Between Modes?	8	13	0	No	
	Is Bus Transit Available?	8	13	0	No	
	If Yes, Does It Adequately Accommodate Bicyclists?	8	0	13	Yes	
Public Realm	Continuous Sidewalks?	17	4	0	Yes	
	If Yes, On Both Sides of Roadway?	7	6	8	Yes	
	Are There Street Trees and/or Attractive Landscaping?	17	4	0	Yes	
	Do Adjacent Buildings Form a Consistent Street Wall?	7	13	1	No	
	Are There Many Parking Lots and/or Driveway Curb Cuts?	13	6	2	Yes	
	Are There Quality Street Furnishings and Amenities?	9	12	0	No	
	Is There Direct Access to Local Open Space?	9	12	0	No	
	Are There Plazas, Pocket Parks, Playgrounds, etc.?	8	13	0	No	

		North	West	South	East	Average
Follow-Up	1. I Felt Visible, Safe, and Comfortable While Cycling in this Area:	2.33	3.29	3.29	3.25	**3.04**
	2. Existing Roadway Conditions are Amenable to Cycling:	2.33	2.71	2.71	2.75	**2.63**
	3. Motorists, Including Bus Drivers, Consistently Gave Me at Least 3 ft. when Passing:	2.00	3.14	3.29	2.00	**2.61**
	4. The Speed Differential Between Myself and Passing Motorists was Acceptable:	2.33	3.71	3.29	2.50	**2.96**
	5. I Was Able to Locate High-Quality Bicycle Parking Easily:	1.33	2.29	1.29	1.75	**1.66**
	6. There are Numerous Destinations Along the Corridor or in this Area to Which People Could Bicycle:	2.33	2.71	2.71	2.25	**2.50**
	7. There Are Few Improvements that Could be Made to Make this Area Much More Friendly to Cyclists of all Abilities:	3.67	3.29	2.29	2.00	**2.81**
	AVERAGE	**2.33**	**3.02**	**2.69**	**2.36**	**2.69**

2.2 Connectivity Analysis

A connectivity analysis was performed by the Studio Team of campus and the surrounding areas in addition to a handlebar survey.

Street Connectivity

Street connectivity is a measure of how well the roadway network provides a variety of ways to get from Point A to B. Providing a strong connected network of roads and pedestrian facilities can help distribute traffic, reduce travel distances and times, improve routing for transit and reduce walking distances. Most importantly, good connectivity provides cyclists options to avoid routes with high automobile traffic.

Good and Bad Connectivity

The grid-style street layout provides excellent connectivity. Streets are interlinked at numerous points, intersections are closely spaced, and there are few dead-ends. Areas not built with a grid-style street layout, such as suburban neighborhoods with cul-de-sacs, typically have poor connectivity. In areas with poor connectivity, the distance from Point A to B is longer and inhibits walking and bicycling due to the extended length of trip. Illustration 2.8 below shows good connectivity on the left and poor connectivity below.

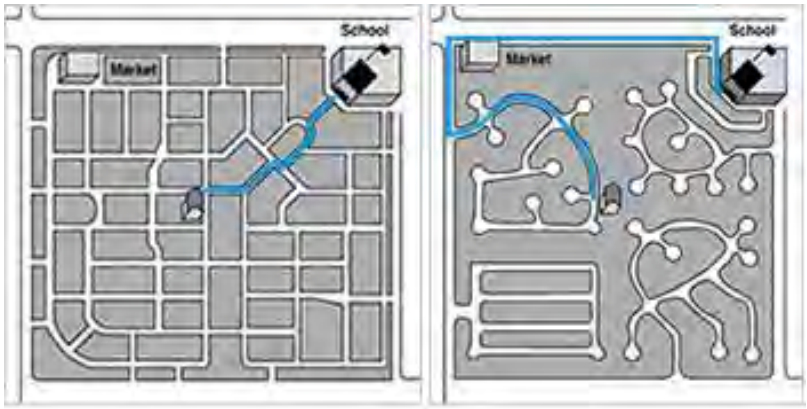


Illustration 2.8: Good Connectivity (left) vs. Poor Connectivity (right). Photo Credit: FDOT Pedestrian Safety Presentation (Eun & Miller, 2011)

Methodology

To analyze connectivity in the Study Area, the Studio Team looked at three factors:

- **Block Length** – how far a pedestrian or cyclist must travel before reaching an intersection.

- **Block Density** – how compactly developed the block is. The more developed the area is, the more important that it have better connectivity as areas of higher levels of development tend to have higher pedestrian and cyclist traffic.
- **Intersection Density** - the number of intersections in an area. It corresponds closely to block size — the greater the intersection density, the smaller the blocks.

The Studio Team considered these three factors when evaluating connectivity in the 14 areas pictured in Illustration 2.9 below. When evaluating an area's connectivity, the Studio Team subjectively rated the area as 'Good' (4), 'Adequate' (3), 'Poor' (2), or 'Very Poor' (1) on each of the three factors previously mentioned. The block length, block density, and intersection density scores were averaged together to get a final Connectivity rating.

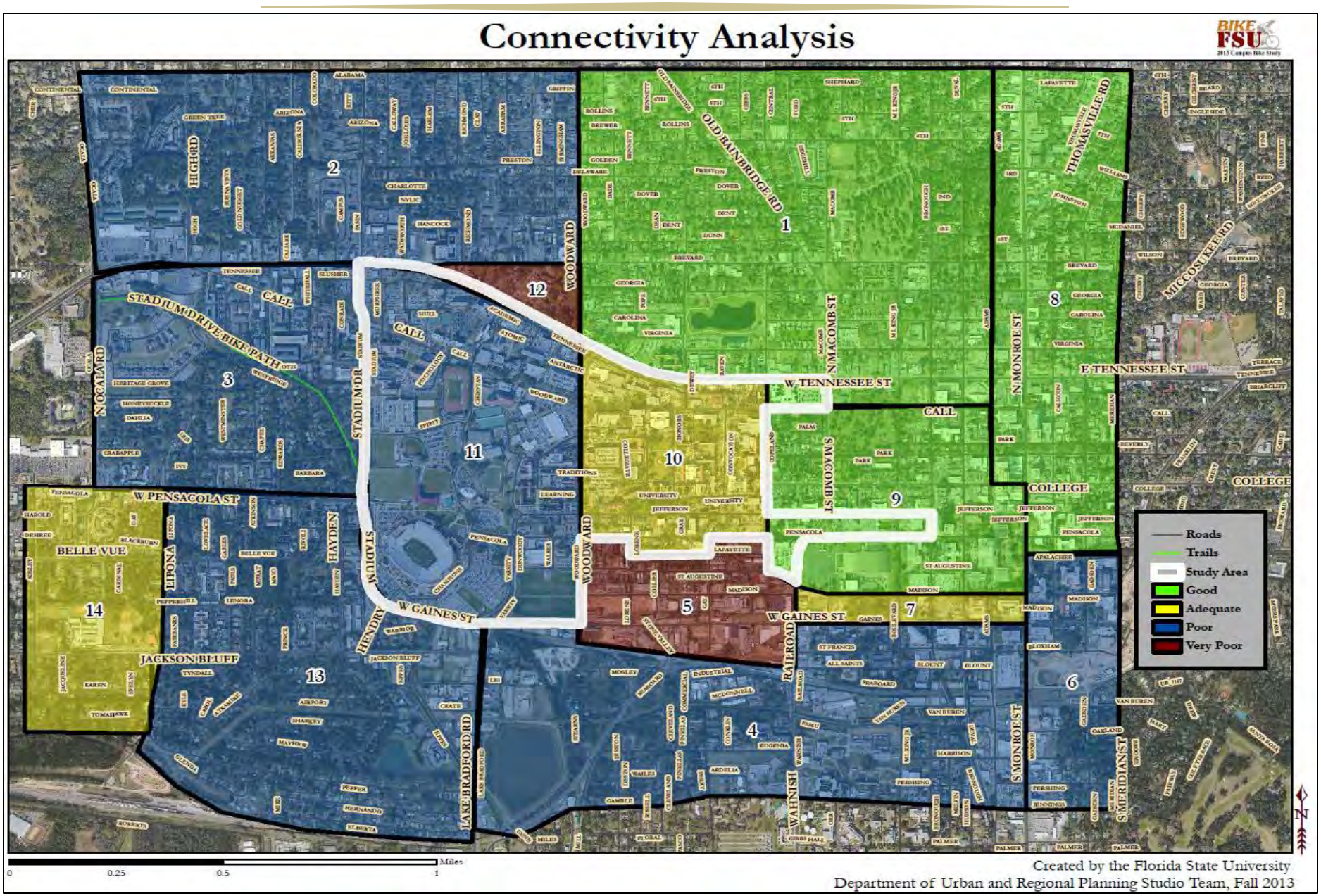


Illustration 2.9: Connectivity Analysis Map
This map illustrates the area's connectivity. Areas in green are well connected, yellow are adequate, blue are poor, and very poor are red. The identified sections are numbered 1-14 and will be referenced as such.

Results

A summary of the connectivity ratings is shown below Table 2.2.2. A further description of the connectivity analysis is found in Appendix 2.

The areas with the best connectivity, segments 1 and 9, follow a grid pattern and provide a wide variety of north-south and east-west paths. This section contains bits of the Frenchtown, Midtown, and Downtown neighborhoods, each containing a mixture of students and non-students. The Studio Team's connectivity analysis helped the Team to better understand where connectivity in the surrounding network can affect decisions to commute via car vs bike/walk or vice versa.

Table 2.2.2: Connectivity Analysis Results

		1 = Very Poor	2 = Poor	3 = Adequate	4 = Good
Segment	Description	Block Length	Block Density	Intersection Density	Average Score
1	Woodward/ 6th/ Adams/ Tennessee	3	4	4	**4**
2	Ocala/ Alabama/ Woodward/ Tennessee	2	2	1	**2**
3	Ocala/ Tennessee/ Stadium/ Pensacola	1	3	1	**2**
4	Lake Bradford/ Seaboard RR/ Gaines/ Monroe/ Gamble	2	1	2	**2**
5	Woodward/ Pensacola/ Railroad/ Seaboard RR	1	2	1	**1**
6	Monroe/ Apalachee/ Meridian/ Jennings	2	2	2	**2**
7	Railroad/ Madison/ Monroe/ Gaines	3	2	4	**3**
8	Adams/ 6th/ Meridian/ Apalachee	4	4	4	**4**
9	Copeland/ Call/ Adams/ Monroe/ Madison	3	4	4	**4**
10	Woodward/ Tennessee/ Copeland/ Pensacola	3	4	2	**3**
11	Stadium/ Tennessee/ Woodward/ Gaines	2	2	1	**2**
12	Brevard/ Woodward/ Tennessee	1	1	1	**1**
13	Lipona/ Pensacola/ Stadium/ Lake Bradford/ Elberta	1	3	1	**2**
14	Ausley/ Pensacola/ Lipona/ Tomahawk	3	3	2	**3**

Section 3: Public Input Process

The following section details the four aspects of the Study's public input process. These four aspects were Stakeholder Interviews, Focus Groups, the Student Commuter Preferences Survey, and Social Media.

Section 3.1: Stakeholder Interviews

The Studio Team interviewed a number of important stakeholders to tap into the many unique and expert perspectives on cycling around campus. The major stakeholders identified in this study are grouped as FSU Entities, Bicycle Shops & Nonprofits, and other Community Partners. Below is a table with the synopsis of stakeholders that were interviewed and some of the recommendations that their unique insights helped shape.

Table 3.1: Stakeholder Analysis Results

FSU Entities					
Stakeholder	**Why is this group a stakeholder?**	**Facilities & Connectivity Recommendations**	**Programing Recommendations**	**Safety/Enforcement Recommendations**	**Planning/Administration/Coordination Recommendations**
FSUPD	On Bicycle & Pedestrian Committee; Oversees bicycle registration and law enforcement.	Bus Pull offs, Increased Bike Lanes and sharrows, increased & improved signage	More ways to increase bicycle registration, training for cyclist safety	Bike Registration expansion, increased signage	Greater Collaboration with City of Tallahassee on how to make cycling safer for all commuters
Sam Staley, Professor	Cyclist and FSU Professor	Separate bike facilities along Legacy Walk	Need for introductory bicycle education.	Barriers to biking: Fear of bike getting stolen, Fear of getting hit by a car,	Parking pass fees; Transportation fees; Alternative revenue streams to implement bicycle improvements.

Bike Shops & Nonprofits					
Stakeholder	**Why is this group a stakeholder?**	**Facilities & Connectivity Recommendations**	**Programing Recommendations**	**Safety/Enforcement Recommendations**	**Planning/Administration /Coordination Recommendations**
Bicycle House	Bicycle repair and advocacy nonprofit.	Covered bicycle parking; Connectivity problem areas; Bicycle route network; Intersection and crossing improvements	Bicycle education	-	Road cleanup program; Study of scooters and skateboards
Bike Shop 1	Bike repair stations with manned technician, campus bike shop (preferred).	Address Connectivity problem areas; Bicycle route network	Bicycle education; Campus bike shop	Increase safety for cyclist through urban design and increased signage	-
Bike Shop 2	Bicycle repair station with manned technician	Bicycle pathway finding, increased ADA considerations	Bicycle education	Increased signage	-
Bike Shop 3	Bicycle repair and advocacy nonprofit.	Bicycle route network; Street design; Water spigots at bike racks.	Bicycle education	Lighting	Road cleanup program

Other Community Partners					
Stakeholder	**Why is this group a stakeholder?**	**Facilities & Connectivity Recommendations**	**Programing Recommendations**	**Safety/Enforcement Recommendations**	**Planning/Administration /Coordination Recommendations**
Megan Doherty, TLC Planning	Local Government Transportation Planner; on Bicycle & Pedestrian Committee.	Bicycle route network; Locations for bike boxes and bike boulevards.	Bike education	-	Bicycle-Pedestrian Master Plan
Jeff Horton, CSNF	On Bicycle & Pedestrian Committee; CSNF offer bicycle services.	-	-	-	Tiered-Parking Fee Structure

3.2: Focus Groups

As part of the stakeholder data collection, the Studio Team conducted three Focus Groups in order to receive student and faculty feedback on the current and future FSU bicycle facilities. The following section summarizes the results from the Focus Groups. A full description of the activities conducted, plan implementation and results can be found in Appendix 3.

Participants

The Studio Team had a total of 43 people participate in the Focus Groups. The majority of the participants were graduate students (20). There were also twelve undergraduate students, ten Faculty and Staff, and one Other participant in the Focus Groups. The summary list of participants can be seen below in Table 3.2.1. The full Focus Group demographics list collected can be found in Appendix 3.

Illustration 2.10: A photo during one of the Focus Group sessions.
Photo Credit: Studio Team.

Summary Comments and Results

During the Focus Group Activities, there were 99 total recorded comments. These comments were broken into positive and negative feedback sections. The positive and negative feedback sections were then grouped into general categories, and also broken down by participant category. Of the 99 comments, 74 were negative comments and 25 were positive comments.

Table 3.2.1: Total Focus Group Participants

Total Focus Group Participants	
Undergraduate Student	12
Graduate Student	20
Faculty/Staff	10
Other	1
Total	**43**

Negative Comments

The 74 negative comments were divided into four (4) categories:

- ***Theft and Safety*** *- Stolen parts, bicycles, traffic and crosswalk safety*
- ***Infrastructure Issues*** *– Bike lanes, ramps, crosswalks, sidewalks and signage*
- ***Multi-Modal Conflicts -*** *Bicycle/pedestrian conflicts, bicycle/bicycle conflicts, and car/bicycle/pedestrian conflicts*
- ***Miscellaneous –*** *Skateboard and other complaints*

The summary table of negative comments is displayed in Table 3.2.2 below.

Table 3.2.2 Negative Feedback Summary Table

Feedback Categories	On-Campus	Off-Campus	Faculty/Staff	Total
Theft/Safety	3	4	1	**8**
Infrastructure Issues	2	14	12	**28**
Multi-Modal Conflicts	4	17	6	**27**
Miscellaneous	1	9	1	**11**
Total	**10**	**44**	**20**	**74**

Positive Comments

The 25 positive comments received were divided into three (3) general categories:

- ***General Infrastructure*** *- bike lanes, crosswalks, sidewalks, bike lanes, ramps, and signage*
- ***Tunnels*** *– Pensacola and Tennessee pedestrian tunnels positive feedback*
- ***Bike Boxes*** *- Call Street and Stadium Drive bike box positive feedback*

The summary table of the negative comments is displayed below in Table 3.2.3.

Table 3.2.3 Positive Feedback Summary Table

Feedback Categories	On-Campus	Off-Campus	Faculty/Staff	Total
General Infrastructure	3	8	4	**15**
Tunnels	**2**	1	**5**	**8**
Bike Box	0	2	0	**2**
Total	**5**	11	**9**	**25**

Master Maps

A Master Map was created for each participant category (on-campus student, off-campus student, and faculty/staff) each featuring walking and biking routes, positive and negative comments, and suggested bike rack placement. The three Master Maps along with their corresponding comment tables are displayed in the following pages, Illustrations 2.11 – 2.13.

Map Description

Routes: Participants drew their **biking** routes in **red** and **walking** routes in **black**. The heavier the line weight, the more frequent that path was used.

Comments: **Negative** comments were depicted with **red dots**, and **positive** comments with **green**. The **yellow** dots were for suggested rack placement

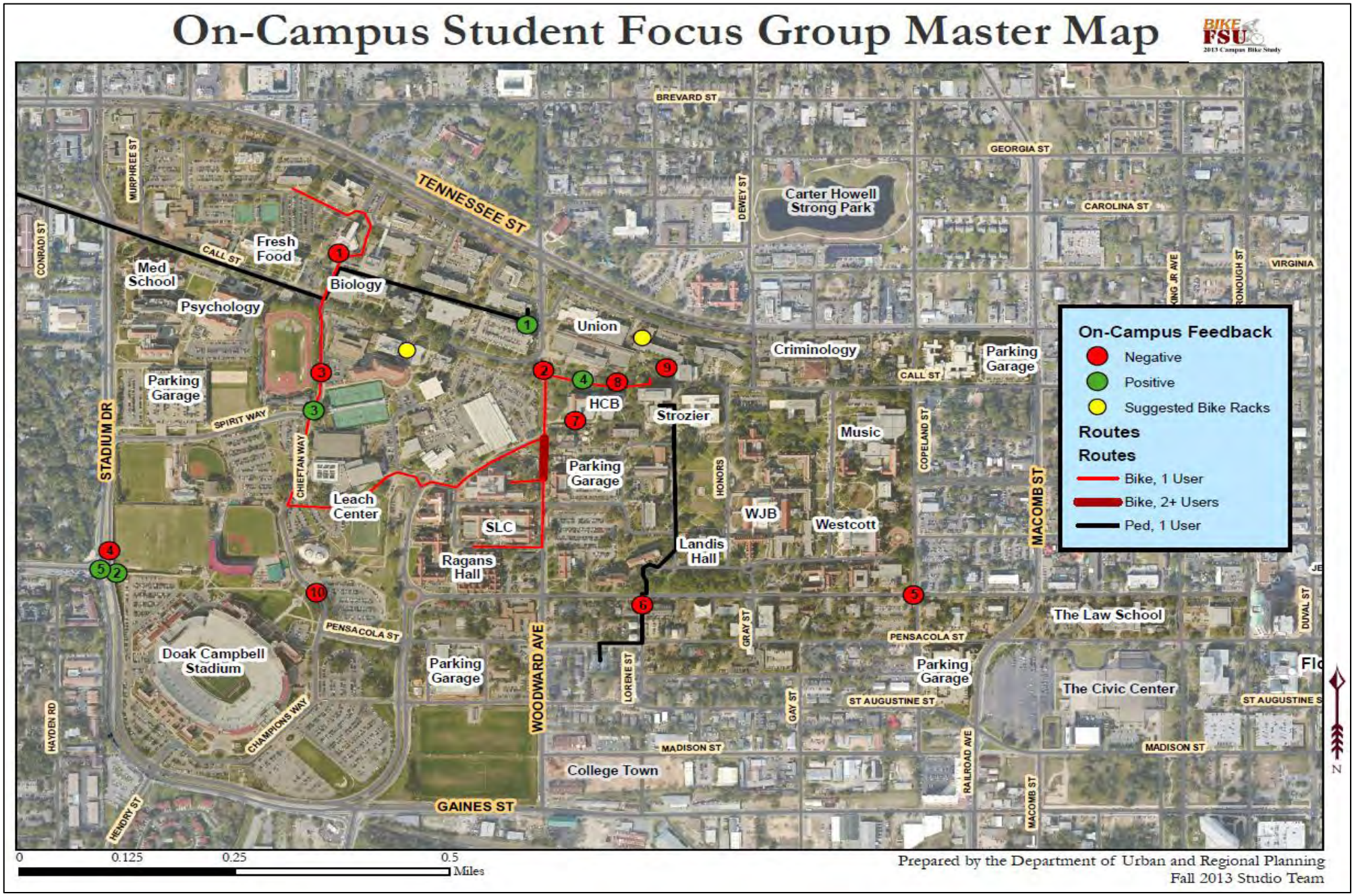


Illustration 2.11: FG On-Campus Dweller Master Map

Comments: **Negative** comments were depicted with **red dots**, and **positive** comments with **green**. The **yellow** dots were for suggested rack placement.

#	Negative comments	#	Positive comments
1	Missing bike parts are visible at rack, creates a perception of theft	1	Does a good job at moving traffic, better than Legacy Walk
2	Bicycle and Pedestrian Conflicts	2	Tunnel allows commuters to avoid automotive traffic
3	Chieftain Way needs bike lanes throughout the road	3	Low usage by cyclists (speculation)
4	Tunnel has blind corners	4	No Cars, very direct route across campus
5	Jefferson needs bike lanes	5	Lighting generally good on campus, through tunnel
6	Cars speed on road, road has poor visibility		*Table 3.2.4 Off-Campus Master Map Comment Table The comments listed match up with the corresponding color and number on the On-Campus Focus Group Master The map is displayed in Illustration 2.11*
7	Recommended Covered Bike Parking		
8	Too many people on Legacy Walk for cyclists and pedestrians		
9	Felt unsafe to park bike, because of missing parts		
10	Crosswalk needed, many cars and pedestrian conflicts could occur		

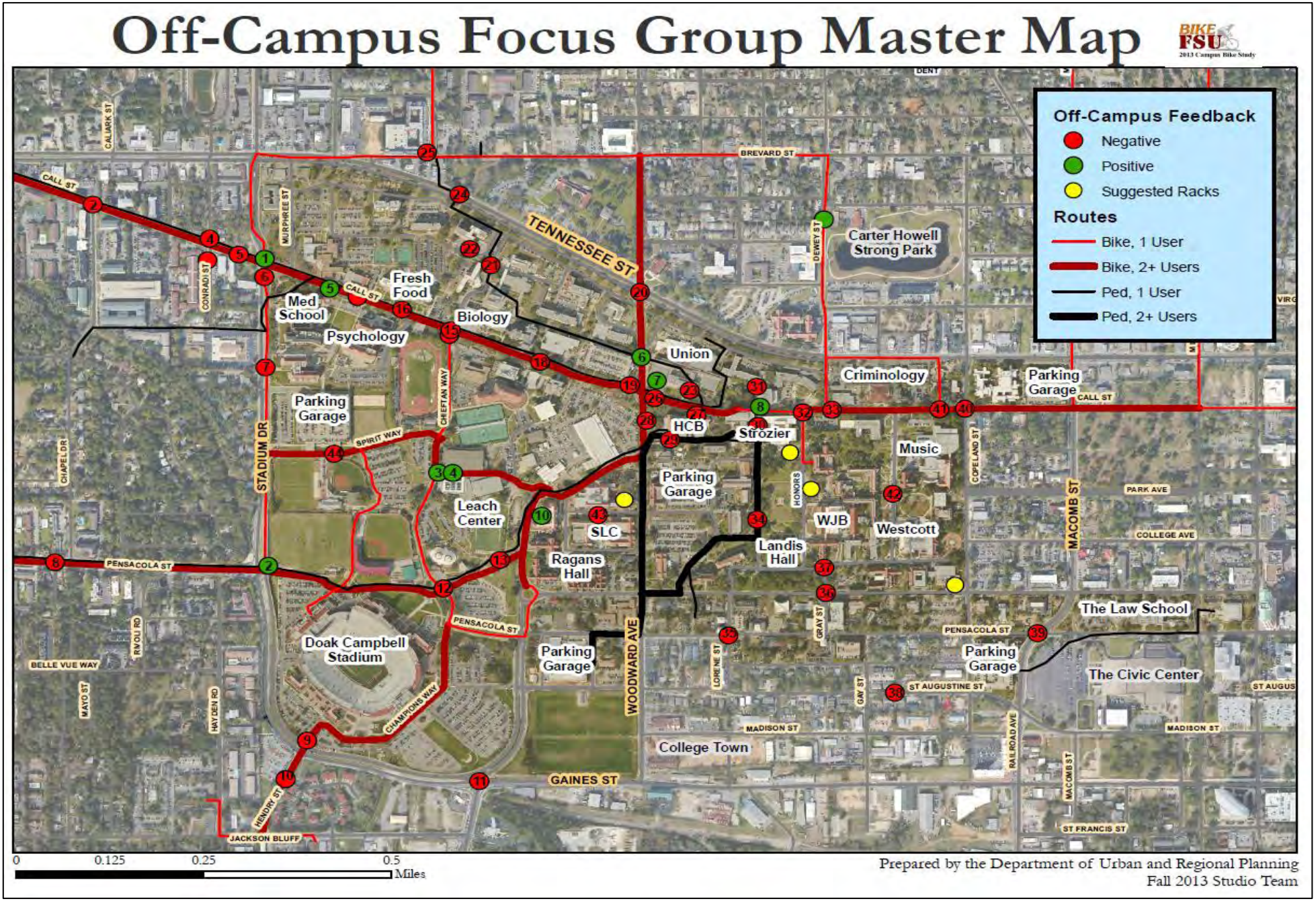


Illustration 2.12: FG On-Campus Dweller Master Map. *Comments*: **Negative** comments were depicted with **red dots**, and **positive** comments with **green**. The **yellow** dots were for suggested rack placement.

Negative Comments		Negative Comments		Positive Comments	
#	Comment	#	Comment	#	Comment
1	Ocala Ramp Needed	23	No Presta valve	1	Bike box helpful
2	Traffic conflict between cyclists and cars	24	Issues crossing Tennessee	2	Tunnel helps to avoid crossing Stadium
3	Needs a better crosswalk for safety	25	Cars park to close to stop signs	3	Safe crossing for pedestrians
4	Skateboarders conflict on sidewalks	26	Legacy Walk is messy, congested, no bike lanes	4	Covered & consistent bike parking,
5	Construction debris, bike lane ends, buses/drivers	27	Theft	5	Consistent bike lanes along corridor
6	Call and Stadium = rough intersection	28	Skateboarders fly down hills	6	Safe crossing for pedestrians
7	No bike lanes, dead things	29	Lots of work trucks, construction	7	Wall racks great
8	Blind spot for cars; can't see cyclists.	30	Skateboarders fly down hills	8	Good covered parking
9	Lack of sidewalks/sidewalk ends	31	Rack underutilized	9	Smooth roads through Frenchtown
10	Incomplete bike lanes	32	Honors and Call: more signs, bike lane?	10	Ramp for bikes
11	Bike/Ped crossing issues, tough intersection	33	Rough road, tough intersection		
12	No crosswalk, hard to cross with fast cars and blind corners	34	Road quality causes bike tires to go flat		
13	Access to Stadium Issues	35	Heavy pedestrian traffic, no crosswalk, visibility issues, speeding traffic		
14	Heavy traffic, buses pull into bike lanes, minimal infrastructure	36	Bikers/walkers don't stop		
15	Call modal and visibility issues	37	Inadequate signage, no stop sign		
16	Pedestrian conflict, bikers riding wrong way	38	Infrastructure needed		
17	Buses block bike lanes	39	Dangerous Crossing		
18	Legacy Walk congested with peds. Hard to safely walk or bike without conflicts	40	Sidewalk ends		
19	Woodward crowded	41	Road quality causes tires to go flat		
20	Visibility and speed issues near Carraway	42	Congested/crowded		
21	Cars jumping sidewalks	43	Racks too close together		
22	No Presta valve	44	Narrow bike lane		

Table 3.2.5 Off-Campus Master Map Comment Table

The comments listed match up with the corresponding color and number on the Off-Campus Focus Group Master Map in Illustration 2.12.

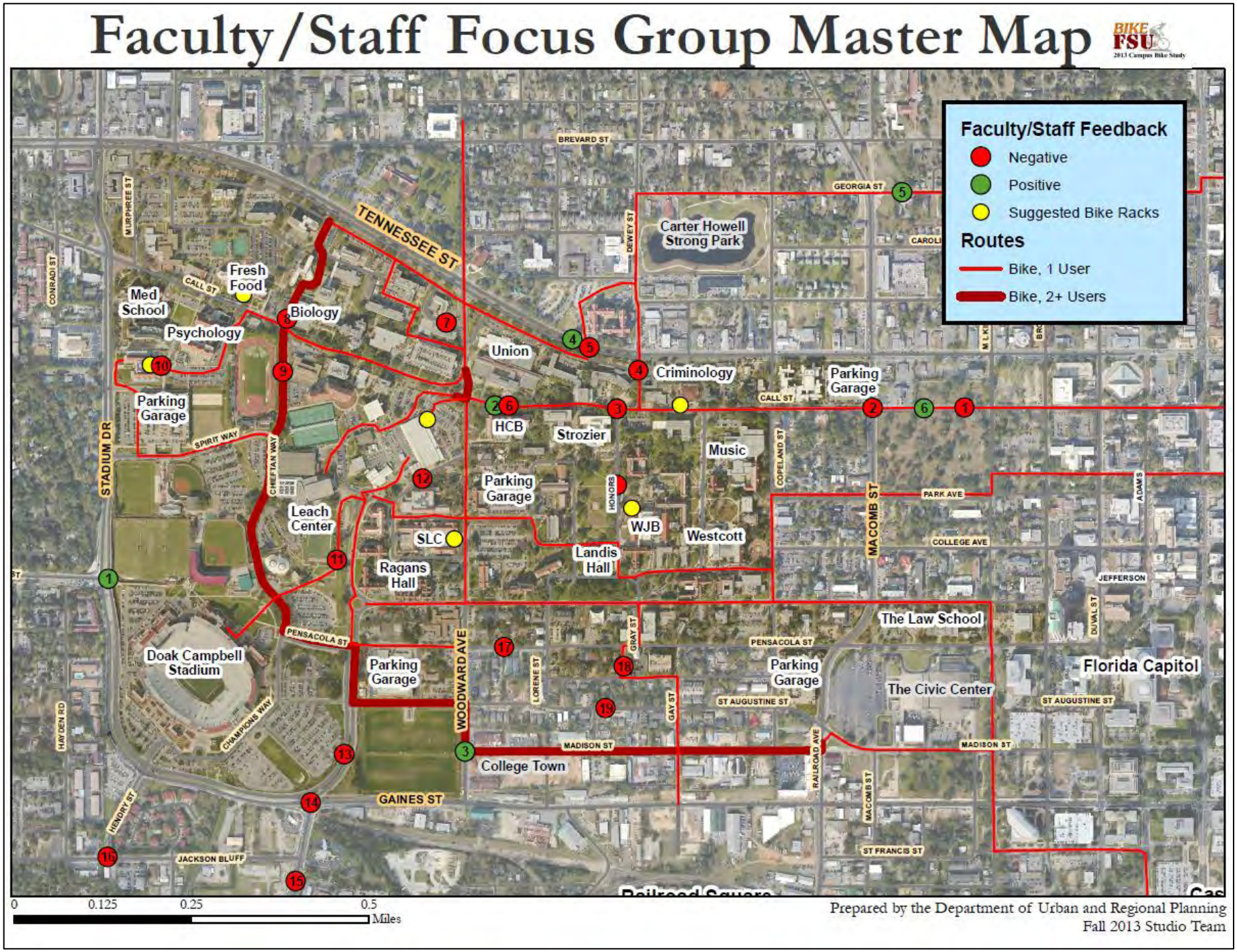


Illustration 2.13: FG Faculty-Staff Master Map. *Comments*: **Negative** comments were depicted with **red dots**, and **positive** comments with **green**. The **yellow** dots were for suggested rack placement.

Negative Comments		Positive Comments	
#	Comment	#	Comment
1	Cars speed come into bike lane	1	Tunnel
2	Needs bike sensor	2	Legacy Walk easy to cross campus no cars
3	Conradi construction debris on road no bike lane	3	Flat Surface
4	Poor connectivity	4	DeGraff Tunnel don't have to cross traffic
5	Dismount at underpass narrow ramp, switchbacks	5	Less traffic vs Georgia Brevard and Tenn.
6	Leg Walk pedestrians spread out have to dodge	6	Bike lane on Call
7	No legal way to turn left		
8	Poor, unorganized crosswalk		
9	No sharrow, pothole, uneven road		
10	Rack always full, staff parks bikes in office		
11	Dirt road needs path improvements		
12	Lack sidewalk ramps, crowded, maint. staff traffic		
13	Narrow road, fast traffic		
14	Poor intersection		
15	Need bike lane		
16	Bike/auto conflict and lots of crashes		
17	Fast, heavy traffic, poor connectivity		
18	No connectivity		
19	Fast traffic, not bike-friendly		
20	Pedestrians crossing improperly, no sharrow/bike lane		

Table 3.2.6 Off-Campus Master Map Comment Table

The comments listed match up with the corresponding color and number on the Faculty& Staff Focus Group Master Map in Illustration 2.13.

3.3: Student Commuter Preferences Survey

The Studio Team collaborated with Commuter Services of North Florida (CSNF) to develop and conduct a web-based survey on student transportation habits. The Student Commuter Preferences Survey played a large role in the Studio Team's strategy to gain public participation for the FSU Bicycle Study. The goal of the survey was to measure attitudes, habits and opinions regarding transportation to and from campus, and to identify issues specific to bicycle commuters.

Prior to release, the survey went through an expedited Institutional Review Board (IRB) review, per the requirements for conducting research on human subjects, and to ensure that proper guidelines are administered. A copy of the survey in final form can be found in Appendix #7. IRB approval was confirmed prior to the survey being administered from October 7th through November 1st. This voluntary survey was hosted on-line and distributed through email list serves and social media. As such, the survey was not a random sample (respondents were self-selected).

Survey Results

A total of 235 survey responses were collected; 70 undergraduate students, 128 graduate students, and 37 non-student. The majority of the respondents indicated that they lived off-campus (210) vs. living on-campus (25), creating potential bias in the data-set. As such, much of the survey analysis focuses on off-campus responses. Unfortunately, as the survey progresses, there are fewer responses, suggesting that participants did not complete all the questions. With over 41,000 students at FSU, the number of survey responses in the data set is not large enough to provide any statistical significance.

Rather than depend on the survey results to determine student commuter preferences, the response data was instead used to provide the Team with secondary feedback that reinforces feedback from other public input process strategies and reinforce recommendations in other areas of the study.

As much of the research for this Study focuses on strategies for increasing bicyclists commuters, responses from off-campus car and bike commuters are of great interest. More than 48% of respondents indicated that their primary mode of transportation to Campus is driving a car (either

alone or with others), while 32% bike to Campus (Appendix 7). Many of the respondents live in the areas within 4 miles of Campus to the north and west; areas that are within biking distance of Campus and lie within Tallahassee Mobility District (Appendix 7) (City of Tallahassee, 2013).

Bicyclists and car commuters agreed on several questions in this survey. For example, convenience is the most important factor influencing motorist and cyclist choice in commute type. Car and bike commuters agreed that dedicated bike lanes would encourage them to ride, or ride more often, to campus. Car and bicycle commuters also indicated that financial incentives to bike instead of drive, greater enforcement of traffic laws, and general safety improvements would encourage them to ride, or ride more often, to campus (Appendix 7).

Car and bike commuters both perceive the City as unfriendly towards bicyclists. This is reflected in the open ended responses as to why commuters don't bike more often and in the desire for dedicated bike lanes or separate paths and greater law enforcement to protect bicyclists (Appendix 7).

Infrastructure was also a significant concern for most respondents. Bike lanes on Campus were consistently rated existing bike lanes as being 'poor' and noted that new bike lanes were needed. Respondents also noted a need for more bicycle education for both all commuters and enforcement of traffic laws to improve bicycle safety was necessary. Survey respondents also called for new or improved bicycle facilities, like bike lanes on Legacy Walk, bike parking off-campus, and secured and/or covered bike parking (Appendix 7).

A summary of the raw survey responses can be found in Appendix 7.

3.3: Social Media Results

The Studio Team utilized social media as a supplementary tool for stakeholder data collection. The following section summarizes the questioning, methodology and results for social media outreach. Social media has provided us with opportunities to carry on conversations and give students and interested parties a voice to present us with novel ideas. A table of the questions posed by the Team can be found in Table A.4.1 (Appendix 4).

Questioning

The Studio Team developed a methodology for creating and posting questions to actively engage the social media audience on a consistent basis.

Methodology

The Team created a *Social Media Question Creation Table* to compile possible questions to ask on the social media networks. In the table, each Studio Team member inserted one question per category to form a question bank from which the Team picked questions to ask on the social media networks. The four categories from which the questions where taken are:

- ***Safety***
- ***Programming***
- ***Facilities and Infrastructure***
- ***Goals and Implementation***

After compiling the question bank, the Team merged the data into one unified schedule, where a new question was asked everyday (Monday through Thursday) until the end of the data collection period. Both of these tables are available in Appendix 4.

Results

The Social Media efforts of the Team have resulted in substantial feedback and suggestions from the FSU community. The Team began data collection on our social media networks September 5th 2013, and concluded on October 31st 2013. The Team has compiled the data from this time period including questions and comments from the Twitter and Facebook accounts which can be found in the appendix. Instagram data was omitted, as it is primarily a way of sharing pictures.

Usable feedback or data on the Instagram account was not received, although it was a primary way of sharing pictures for the Team.

Community Building

After the data collection period ended on October 31st 2013, the Team determined that the Social Media Accounts will act as a vital resource for FSU Facilities. As such, the Team has continued to stimulate conversation to develop an interest in the topic of bicycling at Florida State University; this was done through consistent postings of relevant articles, links, pictures, and thought probing questions. The Studio Team believes that the community of passionate people who follow BikeFSU on the social media networks will continue to interact, provide valuable ideas and feedback as long as the accounts are managed properly. The Team has experienced continued participation from followers, and will continue to monitor and update the social media sites, until such time as they are handed off to FSU Facilities. The Studio Team believes that preserving the community we have built from the ground up is an integral part of the success of creating a bike culture at Florida State University.

Section 4: Peer Institution Research

The information that the Studio Team was able to gather from its review of peer institutions has built a strong base to provide recommendations for the future of bicycling on FSU's campus. Many of the ideas that the Team has incorporated into its recommendations will greatly benefit the draw to increase ridership on campus. The following section describes the peer institution master plan evaluation as well as their parking fee structure.

Tasks

The Studio Team was tasked with finding new, innovative ideas that could be incorporated in to planning for the future of bicycling on FSUs campus. The Team conducted reviews of peer institution Master Plans and Bike Plans from across the nation. This effort was aimed to provide an insight on methods other campuses are using to improve the following:

- Bike Facilities
- Infrastructure
- Bike Culture

Institution Selection

A list of 24 universities was compiled for peer institution review. A more in depth description of how these universities were chosen can be seen in Appendix 6. The complete list of universities is listed below:

University of Arizona
North Carolina State
New York University
University of Louisville
University of North Carolina (Chapel Hill)
Portland State University
University of Minnesota
University of Illinois Champagne Urbana
University of Washington
University of New Hampshire
Clemson University
University of Texas Austin
University of North Carolina (Greensboro)
University of Kentucky
University of Maryland
University of San Francisco
University of Houston
University of California Berkeley
University of Utah
Virginia Tech
Oregon State University
University of Florida
University of Central Florida
University of South Florida

General Plan Review Results

Each of the Universities went under a general plan review by members of the Studio Team. A checklist was created which included the following aspects:

- Plan Element (standalone or part of a larger transportation plan)
- Existing Infrastructure
- Bike Encouragement Methods
- Bike Parking
- Existing Transportation

The full checklist for the bike plan review can be found in Appendix 6.

Based on this general plan review, a summary results table was created displaying the type of plan element, bike share and rental programs, multi-modal connections, bike lanes and programming. Special attention was also given to Portland State University due to the extent of their bike culture and to other schools in the state of Florida.

Standalone Plans

Thirteen of the twenty-four institutions that were reviewed have stand-alone bike plans, meaning that these plans are a document on their own and do not exist within a larger campus or city wide plan. The Studio Group evaluated several data points throughout these plans to find the most innovative and helpful tools that could be incorporated into the future of biking on FSU's campus. Comparatively, many other universities are expanding the bike plans they are currently using by conducting research similar to what the Studio Team was tasked with this semester.

Bike Share and Rental Programs

The Studio Team also found that bike sharing and other rental programs are becoming increasingly popular across campuses nationwide. While only 10 of the 25 universities currently are using bike share programs, many others, such as Clemson and the University of Utah, are currently in the process of researching the implementation of similar programs on their

campuses. The universities that are already using bike sharing have several variations and examples of ways that these programs can be successful. At the University of New Hampshire, students, faculty, and staff can rent a bicycle for up to a week on their "Cat Cycles." The rental is free and users are only charged a fee if the bike is returned damaged or if the borrower holds the bike longer than the designated week. Some universities, like New York University, University of San Francisco, and University of Maryland have a bike share opportunity that is available and managed by the city in which the University resides. Other campuses such as North Carolina State University offer programs like "Wolfwheels," which is rental program that allows students, faculty, and staff to rent bicycles for a day, a week, or an entire semester.

Multi-Modal Connections

Multi-modal connections on campuses is another important facet of plans that the Studio Team took note of. It is important to understand how different transportation methods are interacting with each other in order to properly plan for the safety of each. Within the evaluation criteria, the Studio Team looked for mentions of multi-modal connections within the plans.

Bike Lanes

Eighteen out of the twenty-five peer universities mentioned bike lanes that already existed on campus, and included the goal to incorporate more over the next planning phases at the particular university. The existence and use of bike lanes provides safety for cyclists, pedestrians, and other transit users. Without bike lanes, potential conflicts exist between automobiles and bicyclists, bicyclists and pedestrians, and all other modes. The Studio Team utilized this feedback and was able to create recommendations for the inclusion of bike lanes on FSU's main campus, which can be found in Section Two of the document.

Programming

Programming is being incorporated across many plans reviewed to educate potential bicyclists as well as existing riders. These programs can aide in the awareness of safety while biking. These include the importance of road sharing, as well as the safest routes to travel to campus. Some campuses are also including public workshops that attempt to gain community feedback on preferred bike facility types, and other related amenities and programs. Through the

implementation of programming, cyclists have the opportunity to become informed of safety issues as well as provide feedback and recommendations.

Central Hub: Portland State University

One institution that's bicycle culture stood out to the Studio Team was Portland State University. They have created a Bicycle Hub on their campus that covers all aspects that a cyclist may want to have available to them. The Bicycle Hub at PSU is structured so that participants utilizing their facilities are actually members of the program. For an individual to become a member they must be a current student, faculty, or staff member. The membership costs $15 per term or $30 per year and allows members to have access to tools, workspace, and other resources offered. Membership provides the opportunity for stock pricing on in-stock parts and merchandise. The Bike Hub allows members to utilize an onsite professional for assistance on repairs but also provides a professional service and repair opportunity if a member does not have the time or knowledge available to make the repairs themselves.

Florida Universities

University of Florida (UF), University of Central Florida (UCF), and University of South Florida (USF), all, to some extent, have aspects and amenities within their plans that speak to biking culture. However, it is evident that pending the acceptance of the Studio Team's recommendation to develop a standalone bike plan, which can be found in PA 2, Florida State would be the first of these universities to develop one.

University of Florida

The University of Florida currently does not have a designated plan element for biking, although they do have a website, *Sustainable UF,* which speaks to the culture of biking and promoting a more bike friendly and walkable campus. This website collaborates in part with the UF Facilities' website in providing information on the available amenities for current cyclists, as well as the alternative methods of transit to campus.

University of South Florida

The University of South Florida has minimal information on biking and improvements within their Master Plan, but they do include goals to expand the accessibility by bikes on campus. For Florida State to develop their own standalone Bike Plan, they would be the one's setting the standard for moving towards a stronger bike culture, comparatively to their closest peers.

Peer Institution Parking Fee Structure

One of the key issues that arose through stakeholder interviews was the lack of parking permit fee for students at FSU. This was expressed by multiple stakeholders as a reason why so many students are driving to campus, even when they live nearby. The Studio Team looked to see how other peer institutions structured their parking permit. As Table 2.5.1 illustrates, all 24 peer institutions reviewed by the Studio Team charge a fee to students, and do so in a tiered fashion based on such details as location of parking, year in school, or credit hours enrolled.

Table 2.5.1: Peer Institution Student Parking Permit Fee

Institution	Fee	Tiered
Florida State University		
University of Arizona	X	X
North Carolina State University	X	X
New York University	X	X
University of Louisville	X	X
University of North Carolina at Chapel Hill	X	X
Portland State University	X	X
University of Minnesota	X	X
University of Illinois-Urbana-Champaign	X	X
University of Washington	X	X
University of New Hampshire	X	X
Clemson University	X	X
University of Texas at Austin	X	X
University of North Carolina-Greensboro	X	X
University of Kentucky	X	X
University of Maryland	X	X
University of San Francisco	X	X
University of Houston	X	X
University of California-Berkeley	X	X
University of Utah	X	X
Virginia Tech	X	X
Oregon State University	X	X
University of Florida	X	X
University of Central Florida	X	X
University of South Florida	X	X

Following this information, the Studio Team went on to learn that rather than charging students for parking permits, FSU assesses a Transportation Access Fee of $8.90 per credit hour to all students to pay for parking facilities and mass transit. Knowing that the three major public institutions the Studio Team compared FSU to (UF, UCF, and USF) all have parking permit fees, a comparison was done to see how they structured their transportation fees differently as a whole. As Table 2.5.2 illustrates, all three institutions charge for their parking permit fees in addition to a Transportation Access Fee. Of the three, University of Florida and University of

Table 2.5.2: Transportation Access and Parking Permit Fees, Major Florida Public Institutions

Institution	Transportation Access Fee (Per Credit Hour, 2013)	Average Annual Student Parking Permit Fee (12 credit hour enrollment)
Florida State University	**$8.90**	**No Fee**
University of Florida	$8.91	$154.00
University of Central Florida	$9.10	$143.82
University of South Florida	$3.00	$226.00

Central Florida has a Transportation Access Fee that exceeds that of Florida State University. This shows that not only are they receiving more funding per credit hour from their Transportation Access Fee, but they are also gaining funds in an area that FSU is not by charging for parking permits.

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PART THREE: APPENDICES AND FURTHER REFERENCES

The following appendices outline the methodologies that have been referenced throughout the preceding sections of the document. In the following appendices, there are more detailed descriptions of research and data collection, conducted by the Studio Team, to prove scientific validity and a more thorough understanding of the work that was completed over the course of the semester.

The appendices to follow include:

- ***Bike Rack Analysis Methodology***
- ***Surrounding Areas Analysis***
- ***Focus Groups***
- ***Social Media Tables***
- ***Stakeholder Identification***
- ***Peer Institution Evaluation***
- ***Student Commuter Preferences Survey***

The information found within these areas is much more descriptive of the findings the Team discovered while completing the tasks that were tasked by Facilities. They provide not only the methodologies created to complete the tasks but the results and findings as well. These areas include a much more in depth description of the approach made by the Team in the bike inventory data collection.

Appendix 1.1: Bike Rack Methodology

An initial inventory of the racks was conducted during the week of September 2 through September 6, 2013 to observe the rack characteristics that would not change throughout the semester. The characteristics observed were total number of spaces, style of rack, and whether the rack is removable or not. This allowed for the Studio Team to establish an initial database identifying every rack's location and characteristics.

Primary Inventory

Following the initial inventory is the Primary Inventory. All racks were surveyed each school day at different times of the day to record variable characteristics. This inventory took place from September 9 through 20, 2013. Weekends were excluded from this inventory schedule because of the lack of student activity during those days, not including football games. Times of day were designated to be Morning (8 a.m. to 11 a.m.), Midday (11 a.m. to 2 p.m.), Afternoon (2 p.m. to 5 p.m.), and Evening (5 p.m. to Midnight). The inventory schedule was arranged such that Studio Team members would inventory their assigned racks in the designated time slot for that day (Table A.1.1). For example, the inventory schedule begins with Monday in the morning, then Tuesday midday, Wednesday in the afternoon, and back to the morning Thursday. This rotation allows for an intensive inventory of bike rack data for three different times of the day, each day of the week. Studio Team members also select one evening each week to inventory their designated racks. Surveying racks during the evening hours will give a look at rack usage when there are typically fewer off-campus residents present on campus.

Secondary Inventory

After the two-week period of inventorying all campus racks, the Studio Team began the Secondary Inventory, to last from September 23 through November 8, 2013 (Table A.1.2). The Studio Team determined a core sample of six racks around campus to inventory once daily. In an effort to diversify the building types that the monitored racks were nearest to, the 6 core racks have been determined to be at Strozier Library, Fresh Foods, Bellamy Building, Landis Residence Hall, and Rogers Oceanography Building (Appendix Illustration 1). The core sample

was the focus of observation for any trends amongst the variable characteristics and to determine a multiplier for usage estimates across the campus as the semester progresses.

Table A.1.1: Initial Inventory Structure of Constant Characteristics

Rack Number	Style of Rack	Total Number of Spaces	Removable or Not
1	Ribbon	35	No
2	Inverted-U	18	No
3	Ribbon	24	Yes

Table A.1.2: Variable Characteristic Surveying Structure

Rack Number	Date	Time	Day of Week	Bikes Present	Weather	Shading	Pedestrian Traffic
1	9/8/2013	4:41 PM	Monday	1	Uncomfortable	No	Light
2	9/8/2013	4:44 PM	Monday	10	Uncomfortable	Yes	Light
3	9/8/2013	4:46 PM	Monday	3	Uncomfortable	Partial	Light

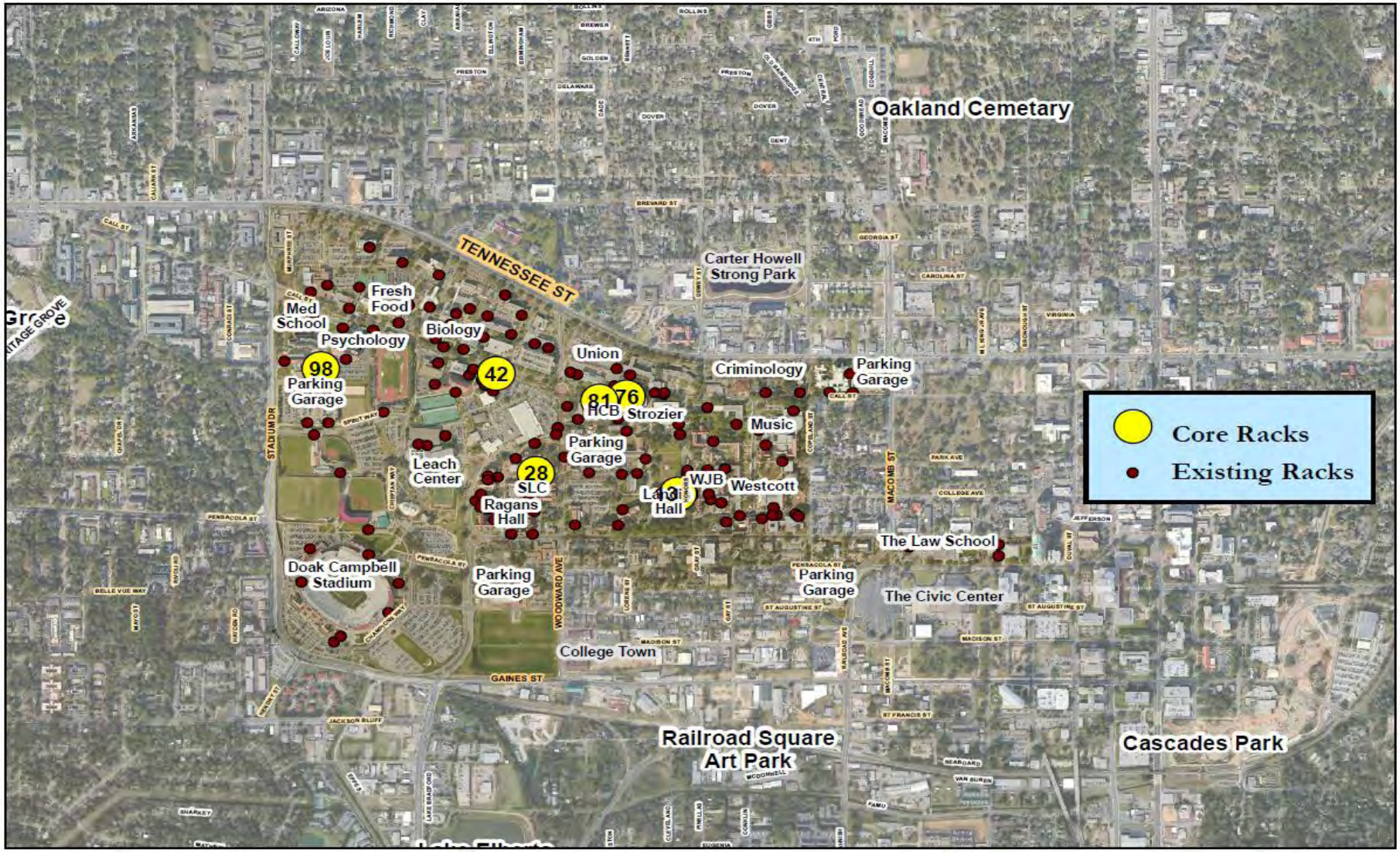
Multiplier

In an effort to estimate rack occupancies campus-wide, the Studio Team used the data from the Primary Inventory to develop a method of determining these estimates.

The six core racks in the Secondary Inventory were each classified by the building or area that they serviced. These classifications were a residence hall, dining hall, classroom/office building, library, student resource building (e.g. Leach Center), and general space or walkways (e.g. Legacy Walk). The purpose of defining these core racks is because of the different patterns of usage for racks on campus based on the main buildings that the racks service. For example, racks at residence halls may have higher occupancy during the evenings, where racks outside of classroom buildings may have lower occupancies during the evenings.

Following this concept, every bike rack under study was assigned to fit the classification of one of the six core racks. The average occupancy for all racks over the Primary Inventory period was calculated. All non-core racks' values were compared to the value of the core rack within their classification. These comparisons were used for all core rack inventories through the semester to determine an estimate of campus-wide rack occupancy and bike counts. An example of the deviations and applications are as follows.

Study Area Core Racks



Appendix Illustration 1: Map of Study Area Core Racks.
This map illustrates the core racks used to establish a multiplier in this study.

Appendix A.1.2: Rack Summary Spreadsheet

Appendix A-1.2 defines each rack surveyed as part of the Bike Rack Analysis. This table demonstrates the constant characteristics associated with each rack, as well as its occupancy trends through the different times of the day.

Table A.1.3: Rack Summary Spreadsheet

Rack Number	Capacity	Style	Removable or Not	Morning	Morning to Midday Change in Occupancy	Midday	Midday to Afternoon Change In Occupancy	Afternoon	Afternoon to Night Change In Occupancy	Night	Total Average
1	24	Inverted U	Yes	25.99%	13.68%	39.68%	-9.62%	30.05%	-23.17%	6.88%	25.65%
2	8	Inverted U	Yes	21.94%	16.66%	38.59%	-12.08%	26.52%	-23.38%	3.14%	22.55%
3	6	Inverted U	Yes	8.91%	12.25%	21.16%	-5.61%	15.54%	-15.54%	0.00%	11.40%
4	16	Ribbon	No	7.01%	8.98%	15.98%	-7.09%	8.89%	-8.44%	0.45%	8.08%
5	20	Inverted U	No	68.27%	19.58%	87.84%	-11.50%	76.35%	-27.05%	49.29%	70.44%
6	12	Inverted U	Yes	96.32%	0.98%	97.31%	-2.60%	94.71%	-3.08%	91.63%	94.99%
7	8	Inverted U	Yes	13.38%	2.76%	16.14%	-7.35%	8.79%	-1.20%	7.59%	11.48%
8	22	Inverted U	Yes	110.31%	0.67%	110.98%	-3.31%	107.67%	-2.19%	105.47%	108.61%
9	30	Ribbon	No	61.91%	0.96%	62.87%	-2.97%	59.90%	-1.36%	58.54%	60.80%
10	8	Inverted U	No	24.96%	11.71%	36.68%	-7.90%	28.77%	-21.64%	7.14%	24.39%
11	44	Inverted U	No	58.33%	-1.59%	56.74%	0.67%	57.40%	-4.39%	53.01%	56.37%
12	30	Inverted U	No	51.48%	0.96%	52.44%	-2.42%	50.03%	-2.63%	47.40%	50.34%
13	32	Ribbon	No	50.38%	2.61%	52.99%	-4.27%	48.72%	-2.08%	46.63%	49.68%
14	8	Inverted U	No	35.25%	6.81%	42.06%	-4.59%	37.46%	-24.48%	12.99%	31.94%
15	15	Inverted U	No	23.98%	9.91%	33.88%	-8.29%	25.60%	-20.79%	4.81%	22.07%
16	14	Inverted U	Yes	34.85%	14.65%	49.49%	-6.90%	42.59%	-21.81%	20.78%	36.93%
17	30	Inverted U	No	79.04%	-0.94%	78.10%	-1.32%	76.78%	-2.92%	73.86%	76.94%
18	2	Inverted U	No	0.83%	8.60%	9.43%	-8.08%	1.35%	-1.35%	0.00%	2.90%
19	16	Ribbon	No	51.28%	-2.23%	49.06%	1.20%	50.25%	-3.98%	46.27%	49.22%

Rack Number	Capacity	Style	Removable or Not	Morning	Morning to Midday Change in Occupancy	Midday	Midday to Afternoon Change In Occupancy	Afternoon	Afternoon to Night Change In Occupancy	Night	Total Average
20	36	Ribbon	No	28.58%	1.30%	29.88%	5.11%	34.99%	-11.51%	23.47%	29.23%
21	90	Ribbon	No	60.19%	-2.15%	58.04%	1.39%	59.43%	-3.51%	55.92%	58.40%
22	11	Ribbon	No	75.90%	-1.38%	74.52%	-0.82%	73.70%	-1.36%	72.34%	74.11%
23	32	Inverted U	Yes	19.60%	-2.06%	17.54%	0.57%	18.11%	-2.70%	15.40%	17.66%
24	42	Ribbon	No	56.46%	-3.30%	53.16%	2.51%	55.67%	-4.60%	51.07%	54.09%
25	36	Ribbon	No	49.45%	-2.27%	47.18%	-0.36%	46.81%	-0.93%	45.88%	47.33%
26	24	Ribbon	Yes	16.55%	11.60%	28.15%	-7.95%	20.20%	-15.57%	4.63%	17.39%
27	20	Ribbon	Yes	17.83%	8.99%	26.82%	-5.56%	21.27%	-15.41%	5.86%	17.94%
28	8	Inverted U	No	37.50%	31.25%	68.75%	-9.82%	58.93%	-7.54%	51.39%	54.14%
29	8	Inverted U	No	45.75%	24.06%	69.81%	-10.52%	59.29%	-8.72%	50.56%	56.35%
30	14	Inverted U	No	14.38%	15.16%	29.53%	-8.87%	20.66%	-3.52%	17.14%	20.43%
31	24	Ribbon	No	11.00%	-0.13%	10.87%	-4.51%	6.36%	-5.43%	0.94%	7.29%
32	24	Ribbon	No	7.56%	-0.05%	7.51%	-3.70%	3.81%	-3.65%	0.16%	4.76%
33	4	Ribbon	No	9.02%	2.01%	11.03%	-6.92%	4.11%	-4.11%	0.00%	6.04%
34	18	Ribbon	No	51.91%	-7.94%	43.98%	-0.87%	43.10%	-19.09%	24.01%	40.75%
35	8	Inverted U	Yes	8.90%	10.61%	19.51%	-9.21%	10.30%	-10.30%	0.00%	9.68%
36	20	Inverted U	Yes	49.17%	12.33%	61.50%	-8.85%	52.65%	-30.64%	22.02%	46.34%
37	8	Inverted U	Yes	66.20%	9.69%	75.90%	-8.03%	67.86%	-27.88%	39.99%	62.49%
38	8	Inverted U	Yes	56.37%	-12.30%	44.08%	-12.86%	31.22%	-21.70%	9.52%	35.30%
39	8	Inverted U	No	8.74%	12.23%	20.97%	-9.83%	11.14%	-10.76%	0.38%	10.31%
40	8	Inverted U	Yes	58.91%	21.91%	80.82%	-20.15%	60.67%	-28.49%	32.17%	58.14%
41	8	Inverted U	No	14.65%	9.35%	24.00%	-7.94%	16.06%	-16.06%	0.00%	13.68%
42	40	Ribbon	No	32.00%	-0.93%	31.07%	-4.48%	26.59%	-11.90%	14.69%	26.09%
43	8	Inverted U	No	13.91%	12.33%	26.24%	-8.65%	17.59%	-15.49%	2.10%	14.96%
44	16	Ribbon	No	22.23%	-2.36%	19.87%	-4.08%	15.78%	-10.32%	5.47%	15.84%
45	21	Ribbon	No	31.65%	0.87%	32.51%	-5.10%	27.41%	-13.35%	14.07%	26.41%
46	5	Ribbon	No	25.92%	23.59%	49.51%	-18.49%	31.03%	-23.80%	7.23%	28.42%

Rack Number	Capacity	Style	Removable or Not	Morning	Morning to Midday Change in Occupancy	Midday	Midday to Afternoon Change In Occupancy	Afternoon	Afternoon to Night Change In Occupancy	Night	Total Average
47	10	Wheel Bender	Yes	16.31%	6.59%	22.90%	-2.09%	20.81%	-18.57%	2.24%	15.57%
48	26	Inverted U	Yes	38.34%	14.05%	52.39%	-5.18%	47.21%	-30.54%	16.67%	38.65%
49	8	Inverted U	No	29.75%	10.65%	40.40%	-9.82%	30.59%	-19.71%	10.88%	27.91%
50	8	Inverted U	No	11.00%	9.61%	20.61%	-4.40%	16.21%	-16.21%	0.00%	11.96%
51	24	Inverted U	No	32.25%	8.50%	40.75%	-8.91%	31.84%	-23.94%	7.90%	28.19%
52	4	Inverted U	No	2.42%	4.65%	7.07%	-4.34%	2.73%	-2.73%	0.00%	3.06%
53	56	Inverted U	No	16.06%	-1.56%	14.50%	-3.68%	10.81%	-8.15%	2.67%	11.01%
54	36	Inverted U	No	31.49%	1.32%	32.81%	-12.41%	20.41%	-17.39%	3.02%	21.93%
55	32	Inverted U	No	35.43%	11.61%	47.03%	-2.30%	44.73%	-29.32%	15.41%	35.65%
56	20	Inverted U	No	10.42%	8.73%	19.15%	-8.43%	10.73%	-9.48%	1.25%	10.39%
57	32	Inverted U	No	25.09%	15.48%	40.57%	-6.80%	33.77%	-25.06%	8.71%	27.04%
58	10	Ribbon	No	20.29%	-3.68%	16.61%	6.63%	23.24%	-13.51%	9.73%	17.47%
59	14	Ribbon	No	89.49%	8.62%	98.11%	1.96%	100.06%	-12.62%	87.44%	93.77%
60	16	Wall Mount	No	17.68%	2.10%	19.78%	2.41%	22.19%	-11.47%	10.71%	17.59%
61	27	Ribbon	No	59.73%	3.64%	63.37%	-10.41%	52.96%	-14.64%	38.32%	53.60%
62	27	Ribbon	No	25.77%	20.50%	46.27%	-13.67%	32.60%	-24.99%	7.61%	28.06%
63	24	Ribbon	No	8.40%	0.47%	8.87%	-3.64%	5.23%	-5.08%	0.16%	5.67%
64	34	Inverted U	No	14.06%	8.33%	22.39%	-7.95%	14.44%	-13.34%	1.10%	13.00%
65	6	Inverted U	No	50.34%	12.79%	63.13%	18.59%	81.72%	-48.77%	32.95%	57.04%
66	22	Inverted U	No	11.91%	10.64%	22.56%	-9.49%	13.07%	-12.50%	0.57%	12.03%
67	22	Inverted U	No	23.22%	2.74%	25.95%	-6.03%	19.93%	-13.15%	6.78%	18.97%
68	4	Ribbon	No	21.94%	6.01%	27.95%	-1.95%	25.99%	-25.85%	0.14%	19.00%
69	12	Inverted U	No	56.75%	-16.46%	40.29%	-6.83%	33.46%	-22.38%	11.08%	35.40%
70	18	Inverted U	No	19.85%	14.68%	34.53%	-6.39%	28.14%	-25.97%	2.17%	21.17%
71	48	Ribbon	No	27.46%	10.84%	38.29%	0.38%	38.67%	-9.26%	29.41%	33.46%

72	68	Inverted U	No	27.06%	11.18%	38.24%	0.00%	38.24%	-7.17%	31.07%	33.65%
Rack Number	**Capacity**	**Style**	**Removable or Not**	**Morning**	**Morning to Midday Change in Occupancy**	**Midday**	**Midday to Afternoon Change In Occupancy**	**Afternoon**	**Afternoon to Night Change In Occupancy**	**Night**	**Total Average**
73	34	Inverted U	No	19.54%	10.80%	30.34%	-9.89%	20.45%	-18.35%	2.09%	18.11%
74	30	Inverted U	No	28.71%	10.35%	39.06%	-7.33%	31.72%	-26.06%	5.66%	26.29%
75	28	Inverted U	Yes	26.48%	12.48%	38.96%	-10.66%	28.30%	-23.71%	4.60%	24.58%
76	24	Ribbon	No	36.52%	13.80%	50.32%	-10.18%	40.14%	-22.81%	17.33%	36.08%
77	28	Ribbon	No	36.64%	13.87%	50.51%	-12.63%	37.88%	-26.89%	10.98%	34.00%
78	35	Ribbon	No	11.38%	10.61%	21.99%	-7.84%	14.16%	-12.73%	1.43%	12.24%
79	18	Inverted U	No	62.17%	-3.73%	58.44%	6.40%	64.84%	-7.92%	56.92%	60.59%
80	24	Ribbon	No	39.15%	4.18%	43.33%	-5.51%	37.82%	-13.03%	24.79%	36.27%
81	30	Ribbon	No	28.05%	11.69%	39.74%	-10.76%	28.98%	-21.62%	7.36%	26.03%
82	56	Ribbon	No	19.50%	12.35%	31.85%	-11.36%	20.49%	-18.03%	2.46%	18.57%
83	11	Ribbon	No	11.53%	1.94%	13.46%	-4.83%	8.63%	-6.78%	1.85%	8.87%
84	8	Inverted U	No	0.91%	5.84%	6.75%	-6.75%	0.00%	2.50%	2.50%	2.54%
85	196	Inverted U	No	30.64%	-1.26%	29.38%	-0.73%	28.65%	-5.02%	23.63%	28.08%
86	72	Inverted U	No	31.08%	-2.01%	29.07%	-0.34%	28.73%	2.85%	31.58%	30.11%
87	48	Inverted U	No	39.57%	-1.87%	37.70%	-0.81%	36.89%	-2.91%	33.97%	37.03%
88	20	Ribbon	No	26.88%	13.73%	40.61%	-7.59%	33.01%	-22.13%	10.89%	27.85%
89	12	Inverted U	No	14.24%	13.03%	27.27%	-9.09%	18.18%	-10.51%	7.67%	16.84%
90	30	Ribbon	No	31.44%	22.18%	53.61%	-2.52%	51.09%	-12.48%	38.61%	43.69%
91	82	Inverted U	No	52.21%	0.49%	52.70%	-6.17%	46.54%	-5.91%	40.62%	48.02%
92	42	Ribbon	No	80.50%	0.12%	80.62%	0.42%	81.04%	-2.78%	78.26%	80.11%
93	40	Inverted U	Yes	64.78%	-0.69%	64.09%	-0.63%	63.46%	-1.92%	61.55%	63.47%
94	42	Ribbon	No	50.89%	-7.56%	43.33%	8.52%	51.85%	-8.65%	43.20%	47.32%
95	40	Ribbon	No	22.70%	1.83%	24.52%	-6.60%	17.93%	-10.37%	7.56%	18.18%
96	14	Ribbon	No	14.48%	12.20%	26.68%	-10.21%	16.47%	-12.67%	3.80%	15.36%
97	16	Wheel Bender	Yes	4.27%	8.46%	12.73%	-6.83%	5.90%	-5.12%	0.78%	5.92%

98	15	Ribbon	No	96.85%	0.41%	97.26%	-4.37%	92.89%	-25.76%	67.14%	88.53%
Rack Number	**Capacity**	**Style**	**Removable or Not**	**Morning**	**Morning to Midday Change in Occupancy**	**Midday**	**Midday to Afternoon Change In Occupancy**	**Afternoon**	**Afternoon to Night Change In Occupancy**	**Night**	**Total Average**
99	6	Ribbon	No	21.17%	-5.16%	16.01%	-6.71%	9.30%	-8.59%	0.70%	11.80%
100	20	Ribbon	No	9.98%	11.42%	21.40%	-7.64%	13.76%	-13.11%	0.65%	11.45%
101	5	Ribbon	No	6.91%	11.20%	18.11%	-5.03%	13.08%	-13.08%	0.00%	9.52%
102	15	Ribbon	No	24.63%	13.48%	38.11%	-5.86%	32.24%	-26.27%	5.98%	25.24%
103	12	Ribbon	No	24.31%	14.87%	39.18%	-10.88%	28.30%	-22.08%	6.22%	24.50%
104	46	Inverted U	No	9.89%	13.17%	23.05%	-1.19%	21.87%	-9.94%	11.92%	16.68%
105	82	Inverted U	No	14.06%	14.63%	28.68%	-5.55%	23.13%	-7.24%	15.89%	20.44%
106	32	Inverted U	No	3.94%	5.48%	9.42%	-5.13%	4.29%	1.11%	5.41%	5.76%
107	4	Ribbon	No	3.35%	6.96%	10.30%	-4.31%	5.99%	-5.99%	0.00%	4.91%
108	16	Inverted U	Yes	25.97%	14.54%	40.51%	-9.07%	31.44%	-15.76%	15.68%	28.40%
109	16	Inverted U	Yes	26.08%	12.03%	38.11%	-6.21%	31.91%	-18.70%	13.20%	27.33%
110	16	Inverted U	No	14.24%	9.29%	23.53%	-6.47%	17.06%	-6.96%	10.11%	16.23%
111	16	Inverted U	No	6.59%	6.80%	13.39%	-2.74%	10.65%	-9.73%	0.93%	7.89%
112	20	Ribbon	No	12.29%	0.04%	12.33%	-2.04%	10.29%	-8.18%	2.11%	9.25%
113	12	Ribbon	No	15.14%	-0.30%	14.84%	-5.00%	9.84%	-7.81%	2.03%	10.46%
114	27	Ribbon	No	33.39%	-3.44%	29.95%	1.31%	31.26%	-3.39%	27.86%	30.61%
115	72	Ribbon	No	18.34%	-2.57%	15.77%	1.30%	17.07%	-3.78%	13.29%	16.12%
116	22	Ribbon	No	27.81%	-2.52%	25.29%	3.21%	28.50%	-5.16%	23.34%	26.24%
117	22	Ribbon	No	69.30%	-4.38%	64.91%	2.97%	67.88%	-2.72%	65.16%	66.81%
118	8	Inverted U	No	50.63%	-1.62%	49.01%	-5.49%	43.52%	-15.55%	27.97%	42.78%
119	24	Inverted U	No	54.11%	-3.20%	50.91%	1.26%	52.17%	-1.36%	50.81%	52.00%
120	22	Inverted U	No	20.81%	-4.06%	16.76%	2.13%	18.89%	-3.46%	15.43%	17.97%
121	22	Inverted U	No	26.27%	-4.24%	22.03%	4.01%	26.03%	-4.24%	21.79%	24.03%
122	20	Inverted U	No	15.52%	10.20%	25.72%	-8.73%	16.99%	-16.99%	0.00%	14.56%
123	22	Inverted U	Yes	26.59%	13.92%	40.51%	-8.61%	31.90%	-24.77%	7.14%	26.53%

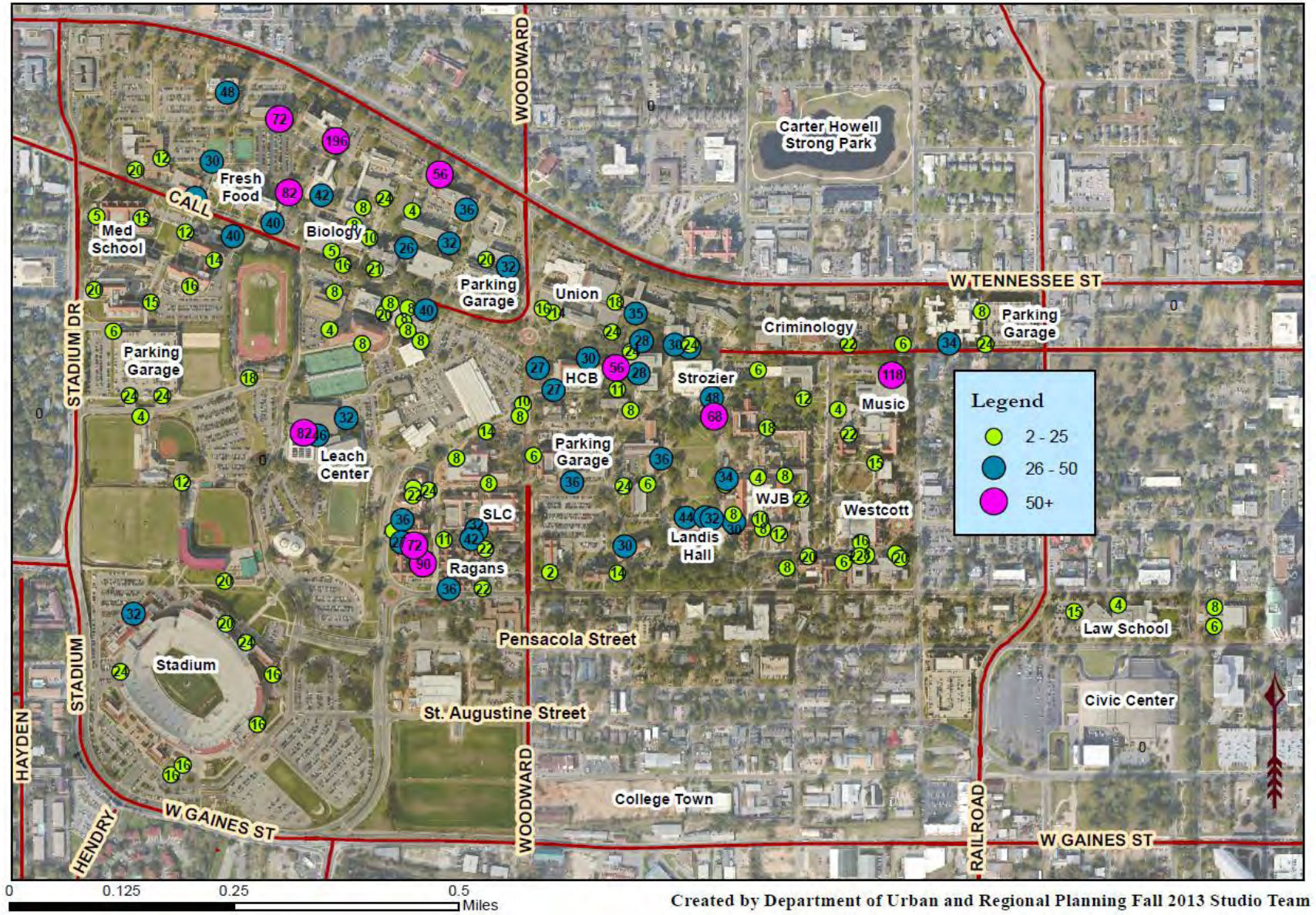
Rack Number	Capacity	Style	Removable or Not	Morning	Morning to Midday Change in Occupancy	Midday	Midday to Afternoon Change In Occupancy	Afternoon	Afternoon to Night Change In Occupancy	Night	Total Average
124	8	Inverted U	Yes	9.45%	-0.58%	8.87%	-4.03%	4.84%	-4.84%	0.00%	5.79%
125	24	Inverted U	No	12.35%	10.68%	23.03%	-0.60%	22.43%	-1.08%	21.35%	19.79%
126	36	Ribbon	No	11.94%	-0.26%	11.68%	-4.23%	7.44%	-5.60%	1.85%	8.23%
127	6	Inverted U	Yes	20.52%	6.29%	26.82%	-1.02%	25.80%	-25.63%	0.16%	18.32%
128	34	Inverted U	Yes	41.74%	11.73%	53.48%	-8.83%	44.65%	-22.55%	22.10%	40.49%
129	15	Ribbon	No	3.33%	6.09%	9.43%	-4.50%	4.92%	-4.92%	0.00%	4.42%
130	4	Ribbon	No	10.56%	10.57%	21.13%	-8.03%	13.10%	-13.10%	0.00%	11.20%
131	6	Inverted U	No	3.03%	7.07%	10.10%	-5.72%	4.38%	-4.38%	0.00%	4.38%
132	8	Inverted U	Yes	3.33%	8.03%	11.36%	-6.44%	4.92%	-4.92%	0.00%	4.91%
133	8	Inverted U	No	45.40%	-5.72%	39.68%	7.57%	47.25%	-8.22%	39.03%	42.84%
134	36	Inverted U	No	10.16%	9.97%	20.13%	-6.75%	13.38%	-10.60%	2.78%	11.61%
135	6	Inverted U	No	7.22%	13.36%	20.58%	-0.97%	19.61%	-0.19%	19.42%	16.71%
136	24	Ribbon	No	6.44%	7.62%	14.06%	-6.01%	8.05%	-8.05%	0.00%	7.14%
137	8	Inverted U	No	9.45%	-0.58%	8.87%	-3.34%	5.54%	-5.54%	0.00%	5.97%
138	24	Inverted U	No	8.38%	7.10%	15.47%	-4.04%	11.43%	-9.58%	1.85%	9.28%
139	32	Bollard	No	42.39%	15.98%	58.37%	-9.98%	48.39%	-19.44%	28.95%	44.52%
140	6	Inverted U	Yes	51.61%	0.19%	51.80%	-13.95%	37.86%	-9.68%	28.18%	42.36%
141	57	Inverted U	No	61.87%	-4.01%	57.87%	-1.82%	56.05%	3.77%	59.82%	58.90%
142	4	Inverted U	No	42.66%	13.18%	55.84%	-9.63%	46.21%	-16.83%	29.38%	43.52%
143	10	Inverted U	Yes	44.29%	-5.89%	38.40%	6.13%	44.53%	-9.11%	35.42%	40.66%

Appendix A.1.3: Maps

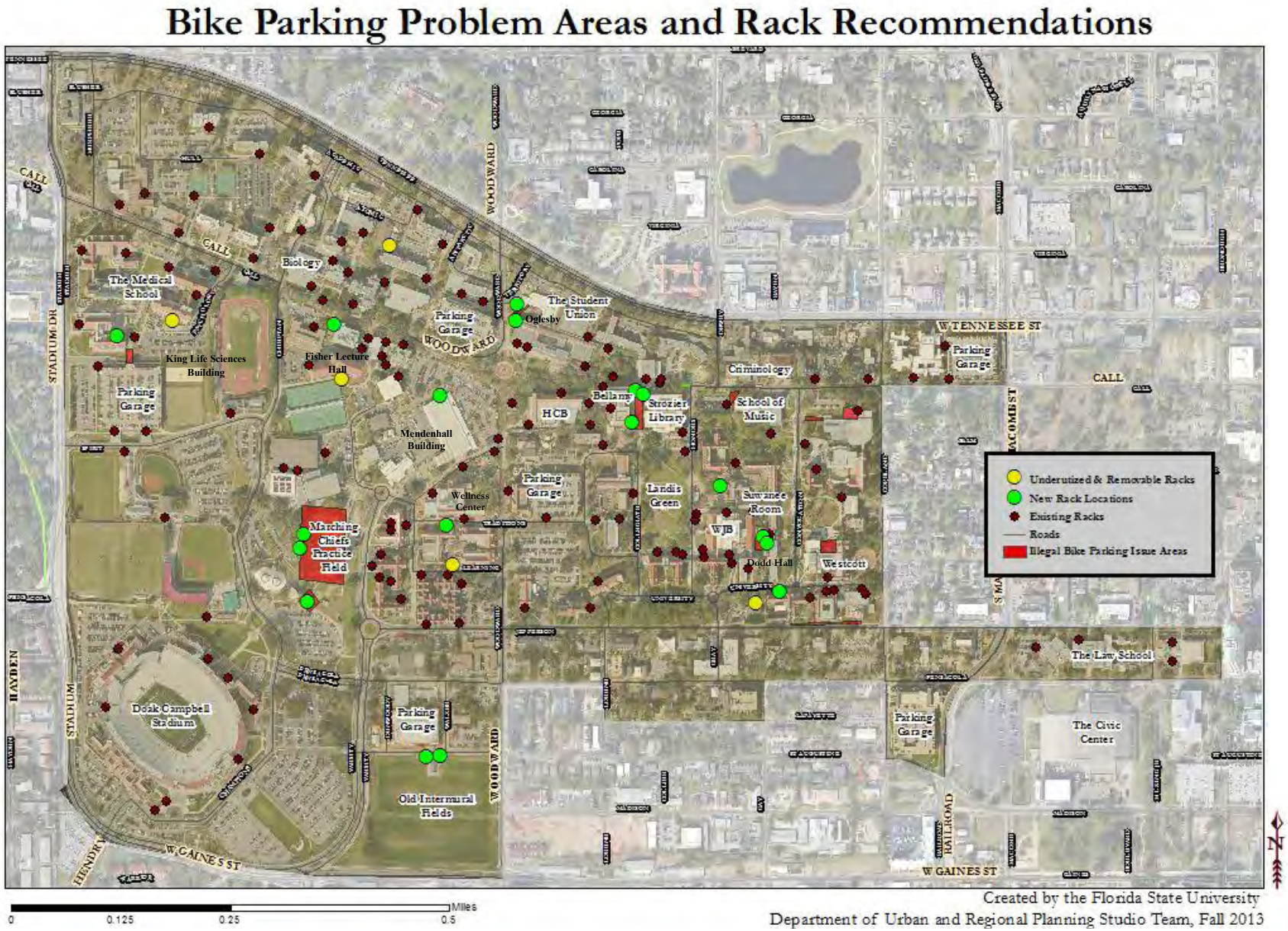
Appendix A-1.3 showcases additional Bike Rack Analysis data to give the reader additional context in bike parking at FSU.

- Bicycle Rack Capacity (Appendix Illustration 2)
- Bike Parking Problem Areas and Rack Recommendations (Appendix Illustration 3)
- Existing Bike Rack and Identification Numbers (Appendix Illustration 4)

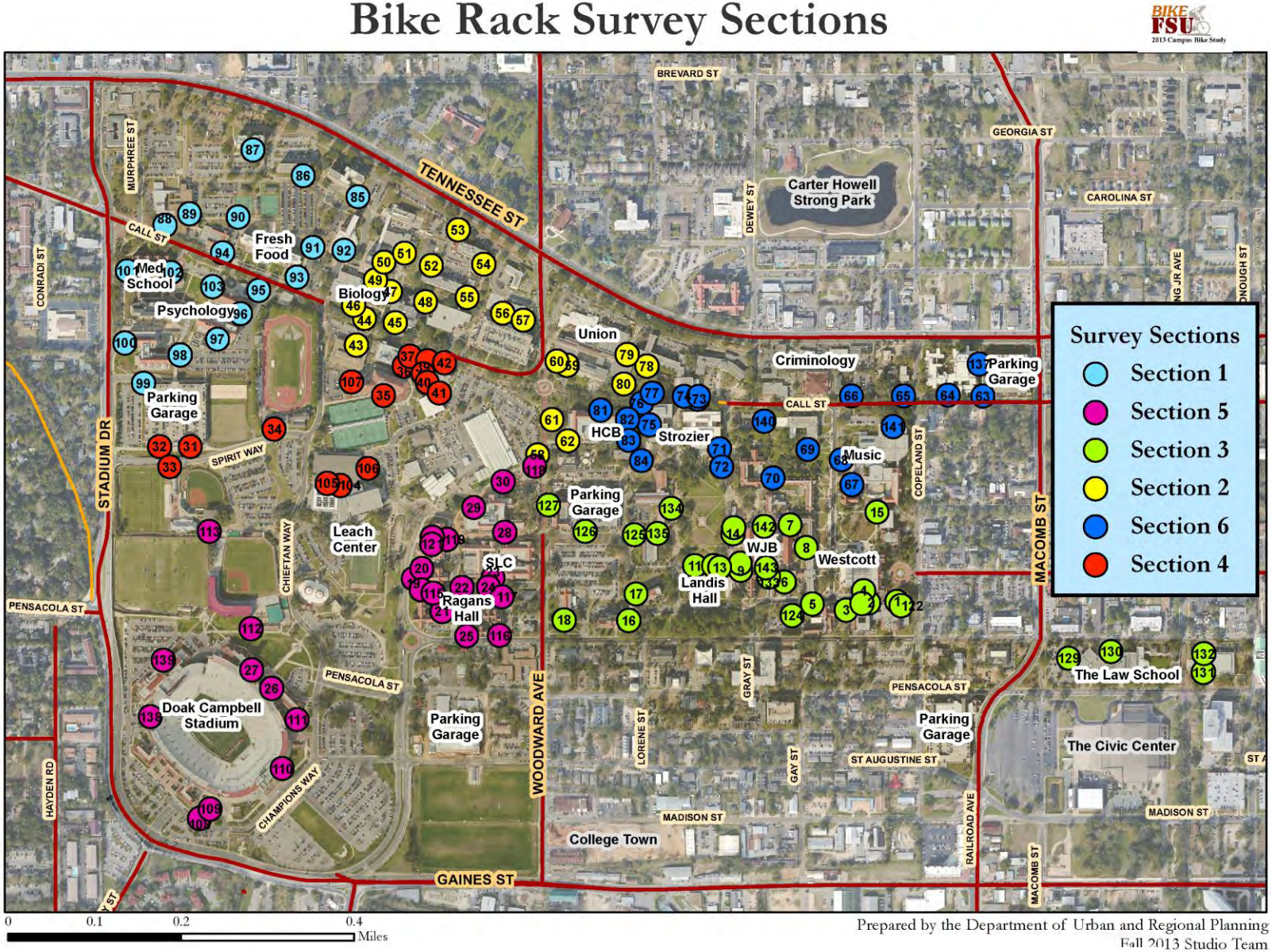
FSU Main Campus Study Area: Bike Racks by Capacity



Appendix Illustration 2: Map of Bicycle Rack Capacity
This map illustrates the amount of spaces each rack can hold. The map is broken down into groups of racks, meaning that the spaces vary from rack to rack.



Appendix Illustration 3: Map of Bicycle Rack Problem Areas and Suggested New Rack Locations
This map illustrates the problematic bicycle parking areas where bikes are often attached to inappropriate objects. It also illustrates underutilized racks and locations for new racks.



Appendix Illustration 4: Map of Existing Bike Rack and Inventory Identification Numbers
This map illustrates how the Campus bike racks were divided into six sections for the Inventory process.

Appendix 2: Surrounding Areas Analysis

The surrounding areas analysis contains the Handlebar Survey and Connectivity Analysis.

A2.1: Handlebar Survey Results Descriptions

The areas surveyed were identified as common cycling paths through the Team's stakeholder interviews and Focus Group activities. The surveyed areas include both streets that carry automobile traffic and routes that exclude automobile traffic. Surveyed bicycling paths were segregated into North, West, South, and East sections. Integration Statue was designated as the center of campus and each path was ridden approaching and departing from the statue. The surveyed route segments can be seen in Illustration below. Each numbered segment on the map corresponds to a path that was surveyed. A description of each of the 21 surveyed paths can be found as part of the Handlebar Survey evaluation sheets for each segment in the following pages.

The area surrounding campus is unsurprisingly dominated by residential uses. There are significant commercial uses, concentrated around Collegetown and W. Call Street. The College Park area east of campus stands out from the other neighborhoods since it does not currently have mixed-use apartment complexes. The residential property types are dominated by Fraternity and Sorority housing. Most of the streets can be characterized as local secondary roads, evidenced by the many roads that allow on-street parking and do not contain more than two lanes for traffic. Where there is bus transit available, all buses provide up to two bike rack spots to transport both bicyclists and their bikes. Overall, there are few bicycle trip generators, such as parks and paths, suggesting that most bicyclists bike as a commute trip rather than for pleasure.

Areas for Bicycle Infrastructure Improvements

There are significant opportunities for bicycle infrastructure improvements as there are very few established bike lanes, sharrows, or bike racks. One of the most significant trends identified during the Handlebar Survey was the lack of bicycle parking available in the off-campus areas.

A significant area for improvement is intersection treatments, such as crosswalks. Many areas, such as the intersection at Madison and Gay Street, have worn cross-walks or need intersection

improvements. The data gathered from the Handlebar Survey informed several of the intersection improvement recommendations.

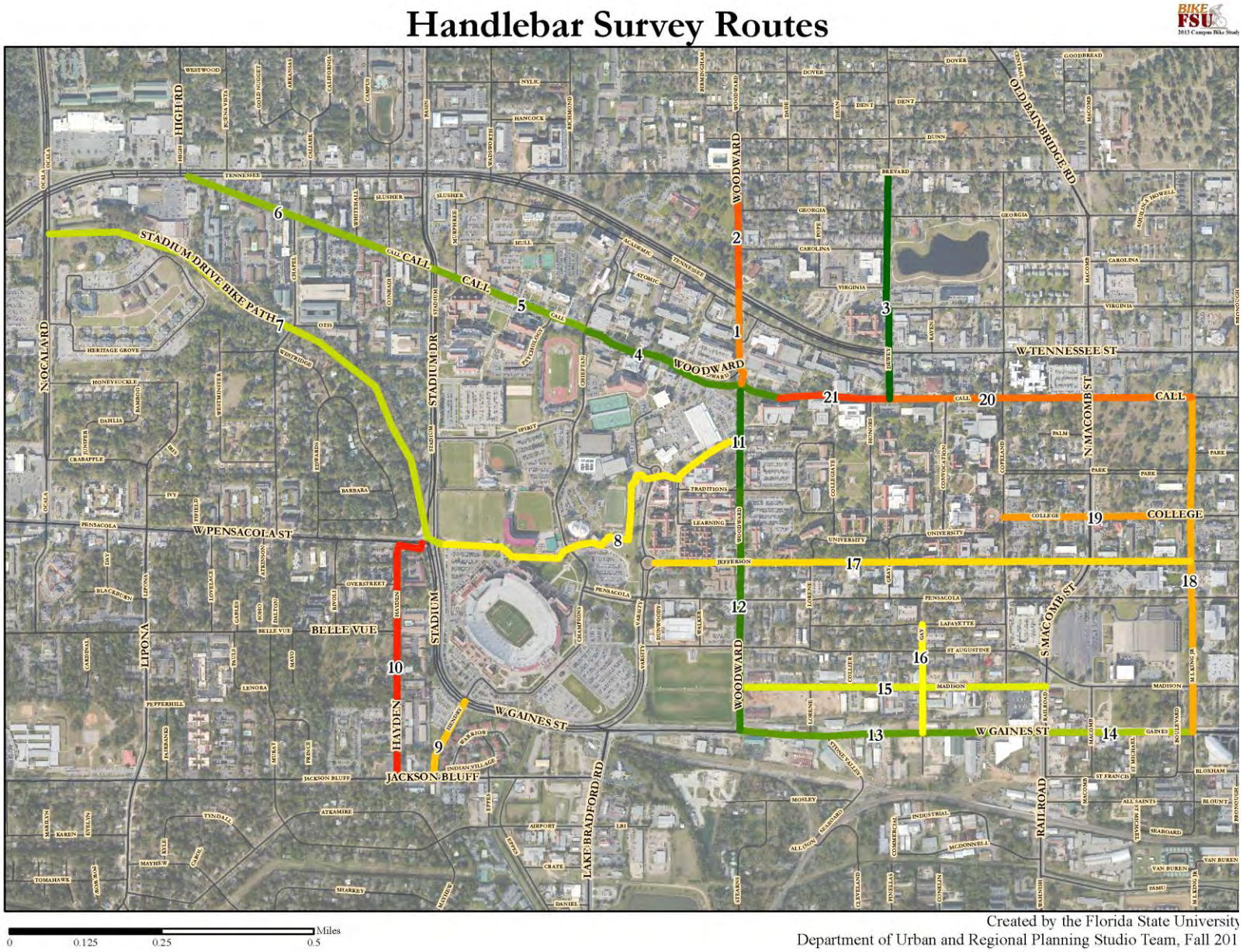
Many of the segments identified that there were many driveway curb cuts, which are opportunities for automobile-bicyclists/pedestrian conflicts. Areas identified as having consistent conflict points between modes, such as Legacy Walk, helped inform the recommendations section. It was also noted that there are opportunities for providing more open space and/or plazas or street furnishings.

There are many opportunities for pedestrian and bike facility improvements. Appendix Illustration 7 shows the CollegeTown Development on Madison St. Note that there are no bike lanes for this new development. It also seems that pedestrian facilities are a second thought, evidenced by the obstacles in the sidewalk. The light pole in the middle of the sidewalk and lack of clearance from the tree to the sidewalk make it difficult to pass and next to impossible for the disabled.

The Handlebar Survey also noted positive bicyclist/pedestrian features, such as the Pensacola Street/Stadium Drive underpass tunnel (Appendix Illustration 5, where Segment 7 & 8 meet). The tunnel allows bicyclists and pedestrians to avoid the busy street above without. The tunnel is wide and provides plenty of space for both pedestrians and cyclists. However, the aesthetics of the tunnel can be improved as there is often liter and broken glass in the area.

A2.2: Handlebar Survey Sheets

Appendix Illustration 5 shows the handlebar segments that the Studio Team undertook for this study and is immediately followed by the data sheets. Each segment number corresponds to a worksheet detailing the biking conditions of that segment. Before the individual sheets is a summary of the conditions by area (North, West, South, and East).



Appendix Illustration 5: Map of Handlebar Survey Segments

Street Segment: 1.) N. Woodward A
N. Woodward, Dover to Tennessee

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		Road is okay, may need repaving soon, wide road, narrow sidewalks, on street parking is an
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?	X			
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?	X			
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?	X			
Are there consistent signalized intersections	X			
Are there consistent turning lanes?		X		
Is the speed limit posted consistently?		X		
Is there vehicular congestion during peak travel hours?			X	Surveyed during non-peak hours
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		
Is the pavement in a good state of repair		X		Foliage and Cracking
Are there consistent conflict points between modes?		X		Cycled during non busy time
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?				
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 1.) N. Woodward A

N. Woodward, Dover to Tennessee

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						x	
Notes:							
2. Existing roadway conditions are amenable to cycling:					x		
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:					x		
Notes:							
4. The speed differential between myself and passing motorists was acceptable:						x	
Notes:							
5. I was able to locate high-quality bicycle parking easily:				x			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							x
Notes:							
7. The area could become much more friendly to cyclists of all abilities:							x
Notes:							

Street Segment: 2.) N. Woodward B

N. Woodward, Tennessee to Integration Statue

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses		X		
Industrial Uses		X		
Vertical Mixed-Use	X			
Horizontal Mixed-Use	X			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		Wide Road, limited turning ability
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?	X			
Quality, accessible bicycle racks?	X			not visible until parking garage
Intersection treatments (bike boxes, priority signals, etc.)?		X		Pedestrian crosswalks only
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?	X			
If yes, are the rightmost travel lanes wider?		X		
Are there consistent signalized intersections	X			
Are there consistent turning lanes?	X			
Is the speed limit posted consistently?	X			One posting, upon entering campus
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?	X			
Is the pavement in a good state of repair	X			Minor Issues w/ Foliage and Cracking
Are there consistent conflict points between modes?	X			Cars speed and pedestirans jaywalk
Is bus transit available?		X		Available in surrounding areas
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			Closer to Garage
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			Garage, service roads, parking lots
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?	X			Legacy Walk

Street Segment: 2.) N. Woodward B

N. Woodward, Tennessee to Integration Statue

Following your ride, please indicate how you feel about the following:								
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:					x		
Notes:							
2. Existing roadway conditions are amenable to cycling:					x		
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:						x	
I took lane, did not give motorist the option							
4. The speed differential between myself and passing motorists was acceptable:					x		
Notes: SPEEDING							
5. I was able to locate high-quality bicycle parking easily:					x		
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle:					x		
Notes:							
7. The area could become much more friendly to cyclists of all abilities							x
Notes:							

Street Segment: 3.) Dewey
Dewey, From Brevard to W. Call

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			Carter Howell Strong Park
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?	X			
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		Very little delineation of traffic modes
The Street				
Is on-street parking available?	X			Only between Carolina and Georgia
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?				
Are there consistent signalized intersections	X			
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?		X		Only once along this stretch of road
Is there vehicular congestion during peak travel hours?		X		
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?	X			
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?		X		
Is bus transit available?	X			Limited, on call street
If yes, does it adequately accommodate bicyclists?				
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			Some attractive landscaping, not much
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?	X			
Are there plazas, pocket parks, playgrounds, etc.?	X			

Street Segment: 3.) Dewey

Dewey, From Brevard to W. Call

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:					x		
Notes:							
2. Existing roadway conditions are amenable to cycling:						x	
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							
Notes: No cars around							
4. The speed differential between myself and passing motorists was acceptable:					x		
Notes:							
5. I was able to locate high-quality bicycle parking easily:				x			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle				x			
Notes:							
7. The area could become much more friendly to cyclists of all abilities						x	
Notes:							

Street Segment: 4.) W. Legacy Walk

W. Legacy Walk, Integration Statue to Chieftan Way

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			Bookstore
Residential Uses	X			Dormitories
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use	X			Residences next to classes, libraries, and dining halls.
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	X			Lots of pedestrian conflicts, have to dodge and weave to avoid people.
Paved Shoulders?		X		
Quality, accessible bicycle racks?	X			
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?			X	
Are there more than 2 lanes for traffic?			X	
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections			X	
Are there consistent turning lanes?			X	
Is the sped limit posted consistently?			X	
Is there vehicular congestion during peak travel hours?			X	
Are there curbs and gutters?			X	
Are there well-marked crosswalks at every intersections?	X			Cross walk at Mendenhall parkinglot driveway
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?	X			Peds/Cyclists-Cars at crosswalk. Peds and cylsits throughout path
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X		Y	
If yes, on both sides of roadway?			X	
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?		X		
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?	X			

Street Segment: 4.) W. Legacy Walk

W. Legacy Walk, Integration Statue to Chieftan Way

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							X
Notes:							
2. Existing roadway conditions are amenable to cycling:							X
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							X
Notes:							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes:							
5. I was able to locate high-quality bicycle parking easily:							X
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							X
Notes:							
7. The area could become much more friendly to cyclists of all abilities							X
Notes:							

Street Segment: 5.) W. Call A
W. Call St., Chieftan Way to Stadium Drive

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			Bookstore
Residential Uses	X			Dormitories
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use	X			Residences next to classes, libraries, and dining halls.
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?	X			Paint is faded.
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	X			Legacy Walk: Integration Statue - Chieftan Way. Lots of pedestrian conflicts, have to dodge and weave to avoid people.
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?	X			Bike box at W. Call/Stadium intersection.
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections			X	
Are there consistent turning lanes?			X	
Is the sped limit posted consistently?		X		25MPH, only posted if turning onto from Stadium
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?	X			Cars creap into crosswalks.
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?	X			No clear indication who has right of way where Legacy Walk meets Chieftan/Call St. Pedestrians regularly jay-walk. Many cyclists riding on sidewalks.
Is bus transit available?	X			
If yes, does it adequately accommodate bicyclists?	X			Each bus has a 2 bike capacity bike rack on front of the bus.
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?	X			
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?		X		
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?		X		

Street Segment: 5.) W. Call A

W. Call St., Chieftan Way to Stadium Drive

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							X
Notes:							
2. Existing roadway conditions are amenable to cycling:							X
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							X
Notes:							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes:							
5. I was able to locate high-quality bicycle parking easily:							X
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle						X	
Notes:							
7. The area could become much more friendly to cyclists of all abilities						X	
Notes:							

Street Segment: 6.) W. Call B
W. Call St., Stadium Drive to Tennessee St.

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			Resturants
Residential Uses	X			Apartments
Industrial Uses		X		
Vertical Mixed-Use	X			The Luxe
Horizontal Mixed-Use	X			Residences and commercial
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?	X			Paint is faded.
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		Some flimsy ones at Luxe
Intersection treatments (bike boxes, priority signals, etc.)?	X			Bike box at W. Call/Stadium intersection.
The Street				
Is on-street parking available?	X			
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?	X			25MPH, turning on from Stadium or W. Tenn. St.
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Several intersections don't have crosswalks or the paint has faded. Cars creap into crosswalks.
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?		X		
Is bus transit available?	X			
If yes, does it adequately accommodate bicyclists?	X			Each bus has a 2 bike capacity bike rack on front of the bus.
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?	X			
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 6.) W. Call B

W. Call St., Stadium Drive to Tennessee St.

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:							X
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							X
Notes:							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes:							
5. I was able to locate high-quality bicycle parking easily:					X		
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							X
Notes:							
7. The area could become much more friendly to cyclists of all abilities						X	
Notes:							

Street Segment: 7.) St. Marks Trail

St. Marks Trail, Ocala to Pensacola Tunnel

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	X			
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?			X	
Are there more than 2 lanes for traffic?			X	
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections			X	
Are there consistent turning lanes?			X	
Is the sped limit posted consistently?			X	
Is there vehicular congestion during peak travel hours?			X	
Are there curbs and gutters?		X		
Are there well-marked crosswalks at every intersections?			X	
Is the pavement in a good state of repair		X		
Are there consistent conflict points between modes?		X		
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?			X	
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?			X	
Are there many parking lots and/or driveway curb cuts?			X	
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?	X			
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 7.) St. Marks Trail

St. Marks Trail, Ocala to Pensacola Tunnel

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:						X	
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							X
Notes:							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes:							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle				X			
Notes:							
7. The area could become much more friendly to cyclists of all abilities							X
Notes:							

Street Segment: 8.) Pensacola Tunnel Path

Volunteer Path, Pensacola Tunnel to Woodward Starbucks

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	X			
Paved Shoulders?		X		
Quality, accessible bicycle racks?	X			
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?			X	
Are there more than 2 lanes for traffic?			X	
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		
Are there consistent turning lanes?			X	
Is the sped limit posted consistently?			X	
Is there vehicular congestion during peak travel hours?			X	
Are there curbs and gutters?		X		
Are there well-marked crosswalks at every intersections?			X	
Is the pavement in a good state of repair		X		
Are there consistent conflict points between modes?		X		
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?		X		
If yes, on both sides of roadway?			X	
Are there street trees and/or attractive landscaping?		X		
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?			X	
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?	X			
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 8.) Pensacola Tunnel Path

Volunteer Path, Pensacola Tunnel to Woodward Starbucks

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							X
Notes:							
2. Existing roadway conditions are amenable to cycling:				X			
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							X
Notes:							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes:							
5. I was able to locate high-quality bicycle parking easily:						X	
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle					X		
Notes:							
7. The area could become much more friendly to cyclists of all abilities					X		
Notes:							

Street Segment: 9.) Hendry
Hendry - Stadium to Jackson Bluff

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			gas station
Residential Uses	X			Indian Village - medium density residential
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?	X			Incomplete - ends abuptly about 2/3 of the way down on both sides with no signage
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		**bikes can't trigger light!**
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		Signal on Stadium, no signal/crosswalk on Jackson Bluff
Are there consistent turning lanes?	X			only at 1 end
Is the sped limit posted consistently?		X		
Is there vehicular congestion during peak travel hours?	X			Cars get backed up at the stop sign on Jackson Bluff
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Only at 1 end
Is the pavement in a good state of repair		X		It's not awful, some cracks and lots of debris, but no major potholes
Are there consistent conflict points between modes?	X			
Is bus transit available?	X			
If yes, does it adequately accommodate bicyclists?	X			
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			some landscaping about 1/3 of the way down
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			

Street Segment: 9.) Hendry

Hendry - Stadium to Jackson Bluff

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes: Felt fine until the bike lanes ended abruptly.							
2. Existing roadway conditions are amenable to cycling:					X		
Notes: Good location for a bike box, bike signal, and improved bike lanes							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:				X			
Notes: narrow road							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes: Short road to prevent cars from getting too fast							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes: No parking							
6. There are numerous destinations along the corridor or in this area to which people could bicycle					X		
Notes: Gas Station, Indian Village							
7. The area could become much more friendly to cyclists of all abilities							X
Notes:							

Street Segment: 10.) Hayden Road
Hayden Road - Tunnel to Jackson Bluff

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			Medium-density student housing, no SF homes
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			Bike Tunnel to campus and Stadium
Bicycle Infrastructure				
Bike Lanes?	X			Full of construction and plant debris, mostly unusable for 2/3 of the way. Pedestrians walking in bike lane.
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	X			Tunnel
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		low threat/congestion intersections
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		Difficult to cross Jackson Bluff
Are there consistent turning lanes?			X	
Is the sped limit posted consistently?		X		Not at all - cars go very fast sometimes.
Is there vehicular congestion during peak travel hours?	X			Cars get backed up at Jackson Bluff stop sign
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		
Is the pavement in a good state of repair		X		Poor condition, cracked, potholes
Are there consistent conflict points between modes?	X			Get cut off at Belle Vue by cars at the stop sign
Is bus transit available?	X			
If yes, does it adequately accommodate bicyclists?	X			2 bikes/bus
Public Realm				
Continuous Sidewalks?	X			poor condition and too narrow - pushes peds into bike lane
If yes, on both sides of roadway?	X			
Are there street trees and/or attractive landscaping?		X		overgrown residential landscaping
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 10.) Hayden Road
Hayden Road - Tunnel to Jackson Bluff

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:					X		
Notes: rough road, fast cars, pedestrians in bike lane							
2. Existing roadway conditions are amenable to cycling:					X		
Notes: poor roadway							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:				X			
Notes: Get cut-off at stop signs by drivers along Bellevue							
4. The speed differential between myself and passing motorists was acceptable:					X		
Notes: Some cars were going very fast.							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes: No parking							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							X
Notes: lots of housing and the tunnel to campus							
7. The area could become much more friendly to cyclists of all abilities							X
Notes: wider sidewalks to keep peds out of bike lanes, maintained bike lanes, better road quality, BETTER RAMP TO TUNNEL							

Street Segment: 11.) S. Woodward Path

S. Woodward Path, Integration Statue to Traditions

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	Y			
Paved Shoulders?			X	
Quality, accessible bicycle racks?	X			
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?			X	
Are there more than 2 lanes for traffic?			X	
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections			X	
Are there consistent turning lanes?			X	
Is the sped limit posted consistently?			X	
Is there vehicular congestion during peak travel hours?			X	
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?			X	
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?	X			
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?			X	
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?		X		
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?	X			

Street Segment: 11.) S. Woodward Path

S. Woodward Path, Integration Statue to Traditions

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							X
Notes:							
2. Existing roadway conditions are amenable to cycling:						X	
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							X
Notes:							
4. The speed differential between myself and passing motorists was acceptable:							X
Notes:							
5. I was able to locate high-quality bicycle parking easily:						X	
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle					X		
Notes:							
7. The area could become much more friendly to cyclists of all abilities						X	
Notes:							

Street Segment: 12.) S. Woodward

S. Woodward, Traditions to Gaines St.

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use	X			
Horizontal Mixed-Use	X			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			
Bicycle Infrastructure				
Bike Lanes?	X			
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections	X			
Are there consistent turning lanes?	X			
Is the sped limit posted consistently?	X			25MPH. 2X North (after Gaines and Pensacola), 1X South (after Jefferson)
Is there vehicular congestion during peak travel hours?		X		
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Several intersections don't have crosswalks or the paint has faded. Cars creap into crosswalks.
Is the pavement in a good state of repair		X		
Are there consistent conflict points between modes?		X		
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?	X			
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 12.) S. Woodward

S. Woodward, Traditions to Gaines St.

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:					X		
Notes:							
2. Existing roadway conditions are amenable to cycling:					X		
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:						X	
Notes:							
4. The speed differential between myself and passing motorists was acceptable:						X	
Notes:							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle				X			
Notes:							
7. The area could become much more friendly to cyclists of all abilities					X		
Notes:							

Street Segment: 13.) Gaines A

Gaines street - Railroad Ave to Woodward Drive)

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	Yes			
Residential Uses	Yes			
Industrial Uses	Yes			
Vertical Mixed-Use	Yes			
Horizontal Mixed-Use	Yes			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	Yes			
Bicycle Infrastructure				
Bike Lanes?		No		
Shared-Use lane marking (sharrows)?	Yes			
Cycle track/physically separated lanes?		No		
Shared Use paths?	Yes			In Park near MLK JR. BLVD.
Paved Shoulders?	Yes			
Quality, accessible bicycle racks?		No		
Intersection treatments (bike boxes, priority signals, etc.)?	Yes			
The Street				
Is on-street parking available?	Yes			
Are there more than 2 lanes for traffic?		No		
If yes, are the rightmost travel lanes wider?				
Are there consistent signalized intersections	Yes			
Are there consistent turning lanes?		No		
Is the sped limit posted consistently?	Yes			
Is there vehicular congestion during peak travel hours?	Yes			
Are there curbs and gutters?	Yes			
Are there well-marked crosswalks at every intersections?	Yes			
Is the pavement in a good state of repair	Yes			
Are there consistent conflict points between modes?		No		
Is bus transit available?	Yes			
If yes, does it adequately accommodate bicyclists?		Yes		
Public Realm				
Continuous Sidewalks?	Yes			
If yes, on both sides of roadway?	Yes			
Are there street trees and/or attractive landscaping?	Yes			
Do adjacent buildings form a consistent street wall?		No		
Are there many parking lots and/or driveway curb cuts?	Yes			
Are there quality street furnishings and amenities?	Yes			
Is there direct access to local open space?	Yes			

Street Segment: 13.) Gaines A

Gaines street - Railroad Ave to Woodward Drive)

Following your ride, please indicate how you feel about the following:								
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							x
Notes:							
2. Existing roadway conditions are amenable to cycling:							x
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							x
Notes: I took the lane							
4. The speed differential between myself and passing motorists was acceptable:							x
Notes: They couldn't pass me							
5. I was able to locate high-quality bicycle parking easily:				x			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							x
Notes:							
7. The area could become much more friendly to cyclists of all abilities							x
Notes: Great area for biking, until you want to park your bike.							

Street Segment: 14.) Gaines B

Gaines street - MLK Jr. BLVD to Railroad Ave,

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	Yes			
Residential Uses	Yes			
Industrial Uses	Yes			
Vertical Mixed-Use	Yes			
Horizontal Mixed-Use	Yes			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	Yes			
Bicycle Infrastructure				
Bike Lanes?		No		
Shared-Use lane marking (sharrows)?	Yes			
Cycle track/physically separated lanes?		No		
Shared Use paths?	Yes			In Park near MLK JR. BLVD.
Paved Shoulders?	Yes			
Quality, accessible bicycle racks?		No		
Intersection treatments (bike boxes, priority signals, etc.)?	Yes			
The Street				
Is on-street parking available?	Yes			
Are there more than 2 lanes for traffic?		No		
If yes, are the rightmost travel lanes wider?				
Are there consistent signalized intersections	Yes			
Are there consistent turning lanes?		No		
Is the sped limit posted consistently?	Yes			
Is there vehicular congestion during peak travel hours?	Yes			
Are there curbs and gutters?	Yes			
Are there well-marked crosswalks at every intersections?	Yes			
Is the pavement in a good state of repair	Yes			
Are there consistent conflict points between modes?		No		
Is bus transit available?	Yes			
If yes, does it adequately accommodate bicyclists?		Yes		
Public Realm				
Continuous Sidewalks?	Yes			
If yes, on both sides of roadway?	Yes			
Are there street trees and/or attractive landscaping?	Yes			
Do adjacent buildings form a consistent street wall?		No		
Are there many parking lots and/or driveway curb cuts?	Yes			
Are there quality street furnishings and amenities?	Yes			
Is there direct access to local open space?	Yes			
Are there plazas, pocket parks, playgrounds, etc.?	Yes			

Street Segment: 14.) Gaines B

Gaines street - MLK Jr. BLVD to Railroad Ave,

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							x
Notes:							
2. Existing roadway conditions are amenable to cycling:							x
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:							x
Notes: I took the lane							
4. The speed differential between myself and passing motorists was acceptable:							x
Notes: They couldn't pass me							
5. I was able to locate high-quality bicycle parking easily:				x			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							x
Notes:							
7. The area could become much more friendly to cyclists of all abilities							x
Notes: Great area for biking, until you want to park your bike.							

Street Segment: 15.) Madison
Madison, Woodward to Macomb

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			
Residential Uses	X			
Industrial Uses	X			
Vertical Mixed-Use	X			
Horizontal Mixed-Use	X			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?	X			
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections	X			
Are there consistent turning lanes?	X			
Is the sped limit posted consistently?		X		30MPG. Not posted heading East-bound
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Several intersections don't have crosswalks or the paint has faded. Cars creap into crosswalks.
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?		X		
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?	X			

Street Segment: 15.) Madison

Madison, Woodward to Macomb

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:				X			
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:					X		
Notes:							
4. The speed differential between myself and passing motorists was acceptable:					X		
Notes:							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							X
Notes:							
7. The area could become much more friendly to cyclists of all abilities				X			
Notes:							

Street Segment: 16.) Gay
Gay St, Gaines to Lafayette

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use	X			
Horizontal Mixed-Use	X			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?	X			
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?		X		No speed limit posted
Is there vehicular congestion during peak travel hours?		X		
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Several intersections don't have crosswalks or the paint has faded. Cars creap into crosswalks.
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?		X		
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?		X		
If yes, on both sides of roadway?			X	
Are there street trees and/or attractive landscaping?		X		
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?		X		
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 16.) Gay

Gay St, Gaines to Lafayette

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:				X			
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:						X	
Notes:							
4. The speed differential between myself and passing motorists was acceptable:						X	
Notes:							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle				X			
Notes:							
7. The area could become much more friendly to cyclists of all abilities				X			
Notes:							

Street Segment: 17.) Jefferson
Jefferson, MLK to Traffic Circle

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses	X			
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use	X			
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)		X		
Bicycle Infrastructure				
Bike Lanes?	X			
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?	X			
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?	X			
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		
Are there consistent turning lanes?	X			
Is the sped limit posted consistently?		X		30MPH sign posted once, not obeyed
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Several intersections don't have crosswalks or the paint has faded. Cars creap into crosswalks.
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?		X		
Is bus transit available?	X			
If yes, does it adequately accommodate bicyclists?	X			Each bus has a 2 bike capacity bike rack on front of the bus.
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?	X			
Are there street trees and/or attractive landscaping?		X		
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?	X			
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 17.) Jefferson

Jefferson, MLK to Traffic Circle

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:							X
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:						X	
Notes:							
4. The speed differential between myself and passing motorists was acceptable:						X	
Notes:							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle							X
Notes:							
7. The area could become much more friendly to cyclists of all abilities							X
Notes:							

Street Segment: 18.) MLK

MLK BLVD, St. Francis to E. Call St.

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			Appatment by College of Law
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use	X			Institional and Office mix
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			Burnette Park
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?	X			
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections		X		
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?		X		
Is there vehicular congestion during peak travel hours?		X		
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?		X		
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		Both sides Pensacola to Call
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?		X		
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?	X			
Are there plazas, pocket parks, playgrounds, etc.?	X			

Street Segment: 18.) MLK

MLK BLVD, St. Francis to E. Call St.

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:							X
Notes:							
2. Existing roadway conditions are amenable to cycling:						X	
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:						X	
Notes:							
4. The speed differential between myself and passing motorists was acceptable:						X	
Notes:							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle					X		
Notes:							
7. The area could become much more friendly to cyclists of all abilities					X		
Notes:							

Street Segment: 19.) College
College Ave, MLK to Copeland

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses?		X		
Residential Uses?	X			Greek housing
Industrial Uses?		X		
Vertical Mixed-Use?		X		
Horizontal Mixed-Use?	X			Residential, Offices, Institutional
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)?		X		
Bicycle Infrastructure				
Bike Lanes?	X			
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?		X		
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?		X		Cars parked in bike lane
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			N/A	
Are there consistent signalized intersections?		X		
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?	X			25MPH, posted after every major intersection
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Several intersections don't have crosswalks or the paint has faded. Cars creep into crosswalk. Ladder striped crosswalk at Copeland is better design than typical parallel crosswalk striping.
Is the pavement in a good state of repair?	X			
Are there consistent conflict points between modes?				
Is bus transit available?		X		
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?	X			
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?		X		
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 19.) College

College Ave, MLK to Copeland

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:						X	
Notes:							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:					X		
Notes: Drivers turning right would drift into bike lane.							
4. The speed differential between myself and passing motorists was acceptable:					X		
Notes: Drivers speed through corridor.							
5. I was able to locate high-quality bicycle parking easily:				X			
Notes:							
6. There are numerous destinations along the corridor or in this area to which people could bicycle					X		
Notes:							
7. The area could become much more friendly to cyclists of all abilities:				X			
Notes:							

Street Segment: 20). E. Call
W. Call St., MLK to Dewey

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		
Residential Uses	X			
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			
Bicycle Infrastructure				
Bike Lanes?	X			Until you reach the university
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?		X		
Paved Shoulders?	X			
Quality, accessible bicycle racks?		X		
Intersection treatments (bike boxes, priority signals, etc.)?		X		Construction at Call and Macomb has blocked off a pedestrian call signal
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?			X	
Are there consistent signalized intersections	X			
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?		X		Only one sign, leaving campus
Is there vehicular congestion during peak travel hours?	X			
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?	X			construction at Call and Macomb has signal blocked off from peds/cyclist
Is the pavement in a good state of repair	X			
Are there consistent conflict points between modes?	X			Pedestrians crossing illegally
Is bus transit available?	X			Limited, on-campus bus routes
If yes, does it adequately accommodate bicyclists?			X	Each bus has a 2 bike capacity bike rack on front of the bus.
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?		X		
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?		X		
Are there many parking lots and/or driveway curb cuts?	X			
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?	X			Tallahassee Cemetery
Are there plazas, pocket parks, playgrounds, etc.?		X		

Street Segment: 20). E. Call
W. Call St., MLK to Dewey

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						x	
Notes:							
2. Existing roadway conditions are amenable to cycling:						x	
Notes: Bike lane should continue onto campus							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:					x		
Notes: Not at call and copeland... cyclist are often cutoff							
4. The speed differential between myself and passing motorists was acceptable:					x		
Notes: Motorist speeding is an issue							
5. I was able to locate high-quality bicycle parking easily:						x	
Notes: On-campus parking was fine, off-campus had no parking							
6. There are numerous destinations along the corridor or in this area to which people could bicycle					x		
Notes: Campus, Cemetary, and Up to downtown							
7. The area could become much more friendly to cyclists of all abilities					x		
Notes:							

Street Segment: 21). E. Legacy Walk

E. Legacy Walk, Dewey to Integration Statue

Existing Conditions	Yes	No	N/A	Comments
Land Use				
Commercial Uses		X		University buildings
Residential Uses		X		
Industrial Uses		X		
Vertical Mixed-Use		X		
Horizontal Mixed-Use		X		
Bicycle Trip Generators (i.e.: parks, paths, bike shop, etc.)	X			Legacy walk
Bicycle Infrastructure				
Bike Lanes?		X		
Shared-Use lane marking (sharrows)?		X		
Cycle track/physically separated lanes?		X		
Shared Use paths?	X			Legacy walk
Paved Shoulders?	X			
Quality, accessible bicycle racks?	X			
Intersection treatments (bike boxes, priority signals, etc.)?		X		
The Street				
Is on-street parking available?		X		
Are there more than 2 lanes for traffic?		X		
If yes, are the rightmost travel lanes wider?		X		
Are there consistent signalized intersections		X		
Are there consistent turning lanes?		X		
Is the sped limit posted consistently?		X		
Is there vehicular congestion during peak travel hours?	X			Heavy pedestrian, cyclist, skateboard traffic
Are there curbs and gutters?	X			
Are there well-marked crosswalks at every intersections?		X		Need better crosswalks at W. Call and Dewey, landscaping is nice but inhibits crossings where people want to walk
Is the pavement in a good state of repair		X		Most of section is okay, lot construction of affects ADA population and cyclist ability to using road
Are there consistent conflict points between modes?	X			BIKE/PED/AUTOMOTIVE CONFLICT
Is bus transit available?		X		On Call/Dewey
If yes, does it adequately accommodate bicyclists?			X	
Public Realm				
Continuous Sidewalks?	X			
If yes, on both sides of roadway?			X	
Are there street trees and/or attractive landscaping?	X			
Do adjacent buildings form a consistent street wall?	X			
Are there many parking lots and/or driveway curb cuts?		X		
Are there quality street furnishings and amenities?	X			
Is there direct access to local open space?		X		
Are there plazas, pocket parks, playgrounds, etc.?		X		

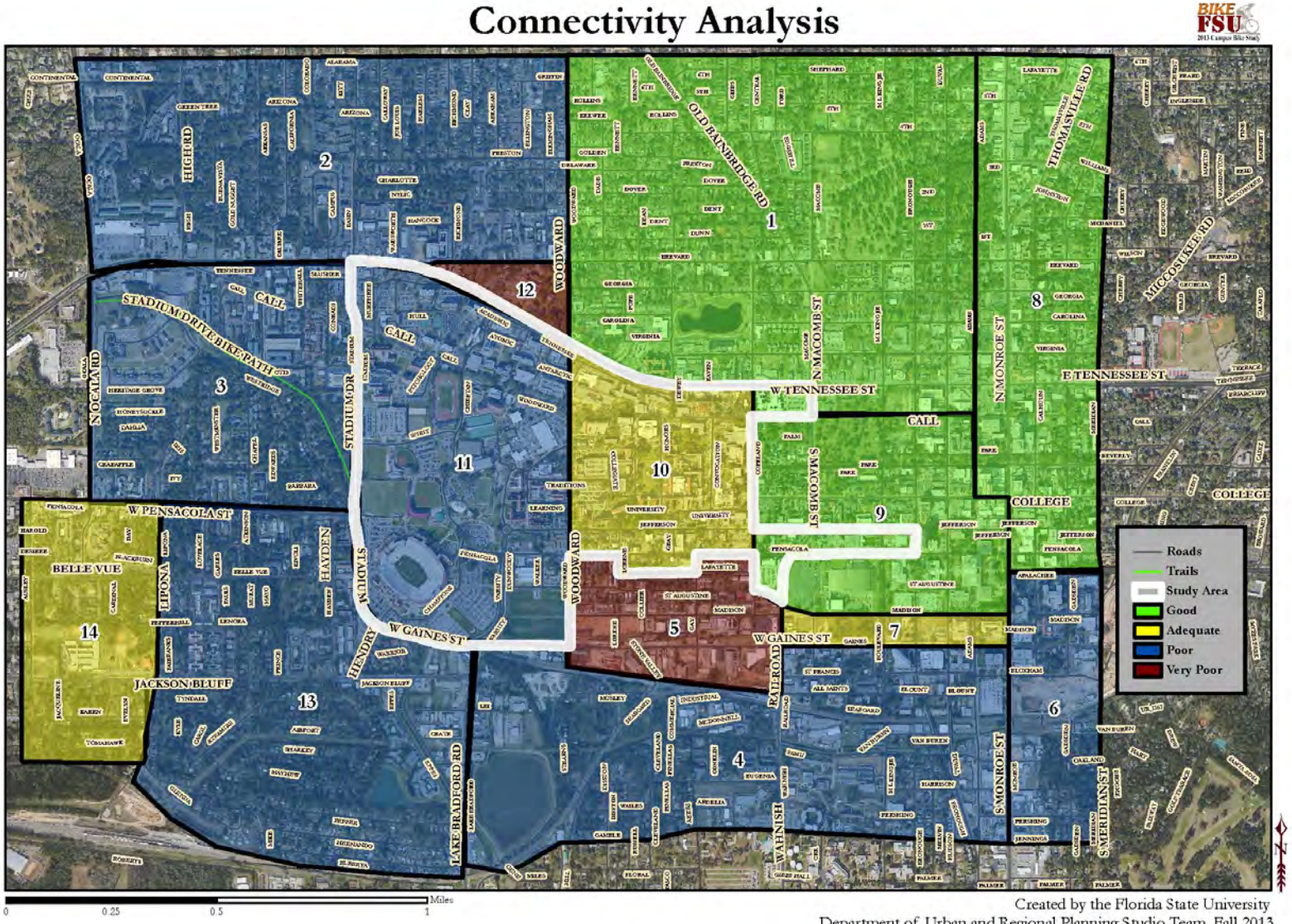
Street Segment: 21). E. Legacy Walk

E. Legacy Walk, Dewey to Integration Statue

Following your ride, please indicate how you feel about the following:							
1 = Disagree	2 = Somewhat Disagree	3 = Somewhat Agree	4= Agree	1	2	3	4
1. I felt visible, safe, and comfortable while cycling in this area:						X	
Notes:							
2. Existing roadway conditions are amenable to cycling:					X		
Notes: W. Call street is the main issue, legacy walk is alright... Brick is difficult to ride on							
3. Motorists, including bus drivers, consistently gave me at least 3 ft. when passing:				X			
Notes: W. Call Street Bike Lane ending leaves NO room for cyclist at intersections of Macomb and Convocation							
4. The speed differential between myself and passing motorists was acceptable:						X	
Notes:							
5. I was able to locate high-quality bicycle parking easily:					X		
Notes: Sign for parking on campus signs?							
6. There are numerous destinations along the corridor or in this area to which people could bicycle						X	
Notes: Most are university related, but links to downtown, coffee shops and other entertainment							
7. The area could become much more friendly to cyclists of all abilities						X	
Notes: Call Street and Legacy walk need more dedicated bike signage and path development							

A2.3 Connectivity Analysis

The following further details the connectivity analysis described in Section 2.2. Criteria and a summary of the analysis results are provided in Section 2.2. Appendix Illustration 6 (below) shows the different connectivity sections describe below.



Appendix Illustration 6: Map of Connectivity Analysis Results by Section

Campus

- Section 10 is the "Older Section" of campus, encompassing many buildings that have been in existence since FSU was created. This section is considered to be well connected. The area is well connected because of the sidewalks, plazas, and an appropriate mixture of residential and other uses for each building. Nevertheless, the roads in Section 10 and the surrounding areas often become congested with the campus population's automotive traffic around the 8 A.M. Arrival and 5 P.M. Departure from campus.

- Section 11 is less connected when compared to the older east area of campus. This "newer" area of campus consists of a number of classroom buildings, dormitories, and large sports facilities that serve as barriers to having a straight line of connectivity from place to place for cyclists and pedestrians. The transportation network on this side of campus causes pedestrians and cyclists to meander through campus streets, sidewalks, paths, and other non-established infrastructure creating "goat paths;" heavily traveled, unimproved pathways through the dirt or grass, without any formal designation of a footpath. An example of a goat path lies between the FSU Flying High Circus tent and Varsity Dr. When bicyclists and pedestrians have to meander through unmarked paths, around buildings, and dirt walkways, they often become frustrated, confused, and generally give up on biking (Focus Groups and Stakeholder Interviews).

- The Mendenhall Facilities complex also reduces connectivity due to its large size and the issue that it is surrounded by a parking lot that is unsafe for bicyclist and pedestrians, challenges due to the size of the complex.

- Connectivity improves near the Medical School and along W. Call Street., as the area allows for the facilitation of pedestrian and bicyclist rather well (Handlebar Survey and Stakeholder interviews). In the area surrounding campus, there is a considerable amount of poor connectivity due to the lack of north and south connections that are offered in the area.

North of Campus

- The area to the Northwest of Campus is considered to be poorly or very poorly connected. This is due in large part to the lack of North and South safe passage connections that students are able to make as drivers, bicyclist, or pedestrians.

- A particular issue in this section is Tennessee Street. This six-lane highway inhibits pedestrians from safely crossing intersections and the road, especially because the distance between the midpoints of intersections presents a significant difficulty for people to cross the road.

- The streets in these sections present a challenge for cyclists who commute through the area because a majority of the streets are less utilized residential streets. Speeding is another issue in the area that cyclists must cope with, as drivers are more prone to drive at higher speeds on uninterrupted straight paths, with a lack of intersections on several of these streets bordering the northern edge of campus.

- In Section 2, High Road., bounded by Ocala Road, Alabama Street, Woodward Avenue, and W. Tennessee Street, has poor connectivity. A significant portion of this area's population are non-students, requiring general connectivity to the rest of the city, while student dominated areas will consider connectivity towards campus. West of Basin Street., very few roads run North-South with limited East-West connections in between. East of Basin Street., the opposite is true. This area's poor connectivity was specifically identified by staff at Bike Shops. Improving the connectivity of the area East of Basin Street should be given higher priority due to the area's higher density, which makes the area more conducive to biking and walking.

- Section 12 includes the Alumni Association and the President's House, a gated portion of FSU jurisdiction that inhibits efficient walking and biking to and from the north section of campus and its proximate area.

East of Campus

- Sections 1, 8 and 9 utilize a gridded street system that allows for straight line connections between roads.

- The Florida Capitol Facilities located in Downtown (Section 9) creates an automotive barrier from travelling East and West in Tallahassee, but serves pedestrians and cyclists well because they can commute through those facilities without major issues.

South of Campus

- This area is bisected by the Seaboard Railroad. The Studio Team assumes that few residents travel from this area south of the rail-line to FSU given its proximity to FAMU. The All-Saints neighborhood in the area north of the rail-line contains a mixture of students and young professionals, as well as a significant portion of non-residential land-uses.

- Collegetown in Section 5 has very poor connectivity. This area is dominated by students traveling North-South between Campus and home. Most students travel to Campus via S. Woodward Avenue, as it is the only road in this section that completely connects Gaines Street to the main campus area. This area has few North-South corridors, forcing students far out of their way. This area is characterized as having worse connectivity issues than any others due to the higher density of this area. Comparatively, the areas around Jackson Bluff (Sections 13 & 14) are dominated by single family housing, while Collegetown has many dense apartment complexes. Additionally, this area has high-traffic commercial land uses, attracting many non-residents and making the connectivity issues more significant.

West of and West Campus

- Belle Vue in Section 14 has adequate connectivity. This area is dominated by students traveling East-West between Campus and home. Most students travel to Campus via the Pensacola tunnel under Stadium or Hendry. There are opportunities for improving

connectivity, but the Studio Team rated this area as having adequate connectivity because residents can enter/leave the area quickly via the North-South corridors at Ausley and Lipona, and East-West corridors at W. Pensacola, Belle Vue, and Jackson Bluff. The connectivity rating is also mitigated because the area is less densely populated than the sections to the North and East of it.

- Section 13 has poor connectivity. This area is dominated by students traveling Northeast-Southwest between Campus and home. Most students travel to Campus via the Pensacola tunnel under Stadium or Hendry. This area has few North-South or East-West Corridors. For many residents, they must first go South or West away from Campus before they can access a road going toward Campus.

- The poor connectivity in these areas limits access points to Campus, forcing students to enter the University via Hendry Street. and the Pensacola Tunnel, both of which have a perception of being unsafe, especially at night (Stakeholder Interviews).

- The Stadium Drive Bike Path, also known as the Saint. Marks Historic Railroad State Trail, in Section 3 helps to improve the connectivity of this area. This area is dominated by students traveling East-West between Campus and home. Not illustrated in Illustration 10 are the many informal access points between Westridge and the Stadium Drive Bike Path. Most residences in this area have easy access to W. Call Street. or the Stadium Drive Path, which both provide safe and convenient bike connectivity. This area is not well travelled at night due to the perception of danger (Stakeholder Interviews).

Appendix 3: Focus Groups

The following appendix expands on the Focus Groups data collection.

A3.1 Focus Group Reservations

The Studio Team reserved a room for three dates on campus in which to facilitate the Focus Groups. The dates were during FSU's Sustainability's *Strive Not to Drive* week. The rooms were reserved in the "Banquet for 60" set-up which provided round tables that seat about eight people per table. The dates and locations for the Focus can be found in the following table:

Table A.3.1. Focus Group Information

Day	Date	Time Start	Time End	Location	Room(s)
Friday	10/18/2013	10:00 AM	12:00 PM	Mendenhall	-
Tuesday	10/22/2013	11:30 AM	1:00 PM	ASLC	101 A & C
Tuesday	10/22/2013	4:30 PM	6:30 PM	Oglesby Union	312 - 314
Wednesday	10/23/2013	11:30 AM	1:00 PM	Oglesby Union	312 - 314

A3.2 Implementation Summary

This section describes the implementation of the original Focus Group Marketing Plan and Focus Group Activities Plan.

Focus Group Marketing Implementation

The Focus Group Marketing Plan included hosting a table a week before Sustainable FSU's *Strive Not to Drive* Week, hosting a table during the *Strive Not to Drive* event, social media outreach, residence hall outreach an ad in the FSView and flyers.

Tabling

The Studio Team was not able to reserve a table in front of Integration Statue the week before *Strive Not to Drive* due to scheduling conflicts, but was able to reserve a time the Monday before. During this tabling session, the Studio Team members passed out flyers and spread awareness of the Studio project while encouraging participation in the Focus Groups. The Studio Team also tabled during the *Strive Not to Drive* event to direct people to the Focus Groups.

FSView Ad

The Studio Team also partnered with Commuter Services of North Florida with the funding and design of an ad in the FSView that was run the Monday before *Strive Not to Drive.* This ad is pictured below.

Flyers, Social Media, Residence Hall Outreach

The Studio Team also posted some flyers around campus advertising the Focus Groups. These flyers were posted at free speech boards around campus as well as the front desk of the Leach Recreation Center. Through social media, the Studio Team partnered with the official Florida State University account, FSU Sustainable Campus, and FSU recycle to raise awareness of our events and encourage participation. Finally, the Studio Team reached out to the Residence Halls by contacting the University Housing office. University Housing distributed and posted over 100 flyers on every floor of the Residence Halls on campus.

Focus Group Activities Implementation

The following is a summary of the Studio Team's implementation of the Focus Group Activities Plan. Upon arrival, the participants were divided up into three prospective categories and assigned to separate tables: 1) Students Living On-Campus, 2) Students Living Off-Campus, and Faculty/Staff. Cyclists and non-cyclists were not separated to encourage table conversation about the different modes of travel.

Once the participant arrived at their assigned table, they were greeted by a Facilitator and usually a Recorder for the notes. The Facilitator then passed out demographics sheets for the participant to complete which asked them to select their participant category (on-campus, off-campus,

faculty/staff), if they were a student their level in school (graduate, senior, junior, sophomore, freshman), and if they were faculty/staff whether they were faculty or staff.

When the Focus Group started, the participants took part in two group activities that identified their walking and cycling routes, identified problem areas and positive areas along campus, and suggested amenities for campus.

At the conclusion of the Focus Groups, the participants were thanked for their participation and were asked to fill out a comment sheet if they had any additional comments or suggestions. They were then encouraged to take the Student Commuter Preferences Survey and visit the Studio Team's social media pages.

Focus Group Activities

The participants were then directed to participate in the two Focus Group activities: 1) Routes Activity and 2) Amenities discussion.

Routes Activity

The Routes Activity had two aspects: 1) drawing their routes and 2) general feedback of problem areas and positive features along their route. During the Routes Activity, the participants were asked to draw their routes to- and on-campus. If they were a cyclist, they would draw their cycling route and if they were a walker they were to draw their walking route. If the participant drove to campus, they were to draw their walking path starting from the parking garage that they parked in.

After each participant at the table drew their route, the Facilitator prompted them to make comments about their route. They were asked to place a red dot for problem areas and a green dot for positive areas. For each dot placed, the Facilitator wrote a number on it and the Recorder wrote down the corresponding notes.

Amenities Activity

For the second activity, the participants were prompted to talk about what kind of amenities they would like to see on campus to improve the walking and cycling conditions. If they were having trouble thinking of amenities, they were shown pictures of suggested amenities and prompted by the Facilitator. Once a list of amenities was accumulated, the table participants were asked to rank their top five amenities.

A3.3 Demographics Chart

The following chart displays the full demographic data collected from the Focus Group participants.

Table A.3.1: Demographics of Focus Group Participants					
Table #	On-Campus Student	Off-Campus Student	Class	Faculty/Staff	Other
4		1	Graduate		
4		1	Graduate		
4		1	Graduate		
4		1	Graduate		
4		1	Graduate		
4		1	Graduate		
4		1		Faculty	
4		1	Senior		
4		1	Senior		
4		1	Graduate		
4		1	Graduate		
4		1	Graduate		
2		1		Faculty	
2		1		Faculty	
3		1	Graduate		
3		1	Graduate		
3		1	Junior		
3		1	Sophomore		
3		1	Senior		
3	1		Senior		
3	1		Sophomore		
3		1	Junior		
3		1	Junior		
3		1	Graduate		
2		1	Junior		
2		1	Graduate		
2		1	Graduate		
2		1	Graduate		
2		1	Graduate		
2		1	Graduate		
2		1	Graduate		
2		1	Graduate		
2		1	Graduate		
2	1		Freshman		
1		1	Junior		
1		1			Bicycle House
1		1		Faculty	

Table #	On-Campus	Off-Campus	Class	Faculty/Staff	Other
1		1		Faculty	
1		1		Staff	
1		1		Faculty	
1		1		Faculty	
1		1		Faculty	
1		1		Faculty	

A3.4 Original Activities Plan

The following is the original Focus Groups Activities Plan.

This plan accommodates as few as five and up to sixty participants per focus group session. Participants will be broken up into groups of five to ten for the breakout group activities, as described below.

Welcome

- Participants as one large group are given a brief overview of what the Focus Group is, what the purpose of the activities is, and thanking them for participating.
- During this time, Participants are given a short survey to collect some demographic data and answer a few simple questions.
- At the end of the short presentation, participants are broken into groups of five to ten and directed to a table with a Facilitator.
    - If there are thirty or less participants, then the breakout groups will rotate among the tables for the three activities. Otherwise, the groups will stay at the same table and the same facilitator will provide the different activities.

Breakout Activity 1 - Bike Racks

- Participants will be asked what they think are important factors for bicycle parking.
- Participants will be shown pictures of the different bike racks on campus and the proper way to utilize them. Afterwards, the facilitators will get the participants to answer the following questions:
    - Which bike rack do they think is best?
    - What design improvements can be made?
- The participants will be shown a large map of bike rack locations. Facilitators will note a couple high use racks and low use racks and ask participants to note other high/low used racks. Facilitators will get the participants to answer the following:

- Why do you think low use ones aren't getting used? What can be done to improve upon it?
- Where additional bike racks should be placed?

- Participants will be given up to three yellow dots to place on the map to indicate where they think additional bike racks should be placed. Participants will write a number on the dot to indicate how many bikes they think the new rack location should hold.

Breakout Activity 2 - Bike Routes

- Participants will be given an 11"x17" campus map and asked to highlight paths that they bike, noting destinations. The maps will include a mile buffer around campus to note where participants enter/leave campus. Facilitators will get the participants to answer the following:
  - Why do they take this route? ID safety issues, positive/negative things on route
- On a large map, the Facilitator will note positive biking features w/ green sticker and negative with red sticker; stickers will have numbers on them. Recorders will note the sticker number and give a description of the map feature.
  - For example, a participant might note good lighting as a positive feature and potholes as a negative feature.

Breakout Activity 3 - Bike Amenities

- The Facilitator will note current amenities on campus (i.e.: bike repair stations) on a large campus map and give examples of amenities on other campuses (i.e.: bike lockers) (with pictures).
- Facilitators will get the participants to provide feedback on what amenities would make biking more convenient.
- The Recorder will capture all the ideas and the Facilitator will get the participants to rank the top 3 amenities they would like to see on campus.
- The Facilitator will give each participant a couple of the white dots numbered 1-3 (to match their top 3 amenities) to show on the large amenities map where they think their top three amenities would get the most use.

Wrap-up

- The Team will thank participants again and give them the follow-up sheet.
- Participants are invited to look at other group's feedback.
- Facilitators will be on hand to answer questions and solicit further feedback from participants that do not immediately leave.

Staffing Needs

- 3 Facilitators (1 per breakout group)
  - Duties: Lead breakout group activities. Manage participant feedback to ensure all participants get equal opportunities to speak. Identify interesting feedback and get participants to further expound on the idea presented.
  - Facilitators will need to adopt the Recorder duties in the event that there are more than thirty participants and Recorders must become Facilitators for additional breakout groups.
- 3 Recorders (1 per breakout group)
  - Duties: Capture all participant feedback and assist Facilitators as needed. If there are more than thirty participants, Recorders will become Facilitators to accommodate additional breakout groups.

Focus Group Materials

- Intro handout/survey (1 per participant)
- Large campus maps (48"x36")
  - 1 With bike rack dots and capacity #
  - 1 with bike amenities
  - 11X17 handout of campus map w/ 1 mile buffer (1 per participant)
- Colored dots
  - Yellow for bike rack placement (3 per participant)
  - Red and green w/ numbers for bike routes (3 per color per participant)
  - White, numbered 1-3, for amenities (1 per participant)
- Pictures of campus bike rack types, with proper and improper parking
- 60 highlighters
- 60 pens
- Follow-up sheets (1 per Participant)

A3.5 Marketing Plan

The following is the original Focus Group Marketing Plan.

Have an Opinion About Biking on FSU Campus?

The Focus Group Team intends on hosting three Focus Groups to receive student and faculty feedback on the current and future FSU bicycle facilities. Since the term 'charrette' is jargon and is unfamiliar to many people, especially college undergraduate students, they will be referred to as Focus Groups. The theme for the Focus Groups will be "*Have an Opinion about Biking on FSU Campus?"* Through all three Focus Groups, the Studio Team would like to derive feedback on the following issues: identifying problem areas in and around campus, amenities they would like or would not like, and overall how to improve on-campus bicycle facilities. The Focus Group Marketing Plan intends to successfully target and recruit both on- and off-campus students and bicycle commuters to address how the Team can extract the opinions of the participants on how to improve the quality of bicycling in and around FSU.

The Three Focus Groups

The Studio Team intends on conducting three separate Focus Groups in order to connect with specific target audiences as defined in the Scope of Work. One Focus Group will be targeted towards students living on-campus in the residence halls. The second Focus Group will have a broader target audience to students who live off-campus and commute to the University. The third Focus Group will hopefully be held during a meeting of the Bicycle Committee. The dates for these Focus Groups will be during around the 'Strive Not to Drive' bike week that FSU Sustainability is hosting October 21st-25th, 2013.

On-Campus Focus Group

The goal of the On-Campus Focus Group is to receive feedback from the students living in the Residence Halls on campus. The main question the Team is seeking to answer is: "How often do students living on-campus use their bikes, and how are they using them (on-campus activities or off-campus)?" The specific concern is if incoming students are arriving for a new semester and

parking their bikes at a bike rack in front of their ResidenceHall and never using them again, or are they actually commuting on bike to class, around campus, and around Tallahassee?

Off-Campus Focus Group

The goal of the Off-Campus Focus Group is to receive feedback from the students who are commuting to campus. The Team is looking for specific feedback from this Group pertaining to routes to campus, why they bike to campus and problem areas that they avoid.

Faculty and Staff Focus Group

Faculty and staff feedback is important because they are more permanent residents to campus, and may be more willing to pay for new programs and amenities. The Team intends on focusing on what kind of amenities the faculty and staff would like on campus, which amenities they would be willing to pay for, and possibly how much they would consider paying for them

Marketing Components:

The following is a list of components that describes how the Studio Team intends to market the Focus Groups:

- *Hosting a table during Sustainable FSU's Strive Not to Drive Week* to market the study and promote participation at the Focus Groups on October 23rd. We are looking into getting some materials made up with the bikeFSU logo to hand out at the table along with flyer half-sheets advertising the Focus Groups. We are also looking into having people write down their suggestions about biking on campus on a comment card during this event as another opportunity to get student feedback.

- *Hosting a table the week before FSU Strive Not to Drive Week (October 16)* during Market Wednesday. Here we will just be passing out flyer half-sheets advertising the Focus Groups. We are also hoping to provide the opportunity for comment cards at this date.

- *Social Media Blasts*: Facebook, Twitter, and Instagram accounts have been created for bikeFSU. The Team will be using these social media tools to periodically advertise the Focus Groups. A Social Media Blast will resemble the following image:

A3.6 FSView Ad

The following ad was created in junction with Jeff Horton and Commuter Services of North Florida. It was run in the FSView Monday, October 21, 2013.

Appendix 4: Social Media Tables

A4.1 Social Media Question Table

Date	Category	Question
9/5/2013	**Facilities and infrastructure (FI)**	**Do we need more bike racks at the student union?** • Have you seen or used the wall mounted racks behind the bowling alley? • Yes • Yes
9/9/2013	**Safety (S)**	**What issues (if any) do you see with biking on campus?** • I don't really understand what you mean, but I was thinking the outer part of the walkway, which is grey pavement rather than red brick, could function like a bike lane. • Maybe it will be possible to start looking into the eventual development of a dedicated bike trail through campus. • On the walkway that connects the two sides of Call Street, it's f*cking ridiculous the way bikers have two weave in and out between pedestrians. Especially between class times, it's just impossible to move at a decent speed, and dangerous for all involved. I have to ring my bell every 5 seconds. I suggest highly visible signs to designate the outer, grey part of the walkway as a bike-priority part of the walkway. Could there be any easier solution? • Thanks for the picture and explanation • this is excellent feedback and we will use this (and other notes) on corridor problems to map out the problem areas. As far as signage and physically separating traffic, do you have any cases you want us to use to use as guidance? • More covered bike racks would be great (like the ones at the business building and the Leach that are under the roof overhang) but I don't know how feasible that is. As far as separating bikes from pedestrians in a sidewalk situation, the only example I can think of is a tunnel at UF. You can kind of see (if you look past all the graffiti...that's a thing) the way there are yellow lines on the ground; bikes ride on the outside of the lines. It also helps that there's a slope into the tunnel so pedestrians are legitimately leery of stepping into the bike lane.:
9/15/2013	**FI**	**What do you think of a full service bike shop on campus? Would you find it useful? Would you use it?** • yes, absolutely

Date	Category	Question
9/17/2013	**N/A**	Its hot outside, but the first day of fall is around the corner! Will the cooler weather impact your cycling habits? *No comments*
9/19/2013	**FI**	**Tell us your experience with bikes along Legacy Walk (Call Street). We are interested in opinions from cyclists, and pedestrians** • Designated bike space there would be great • I agree something should be done • The brick Legacy Walk is a hazardous place to bike, especially at busy times between classes. I have always wished there were bike lanes on the walkway just so that pedestrians have a place to walk and cyclists have a clear place to bike. Every time I have hit a pedestrian has been on that brick stretch.
9/22/2013		**If you could change only 3 things about biking on FSU campus, what would they be and why?** • I wish we had bike lanes on the campus. So when classes get out we don't have to worry about hitting people. 2) better working pumps at the fixing stations. 3) Bike awareness for students. So they won't get hit. • Which pumps are broken at what stations exactly • Thanks for the response!
9/24/2013		**Do you think bike repair stations should be at all residence halls?** • I think more would be good but to invest in repair stations for every dorm would be wasteful when its just as easy to walk the bike to the closest one.. one on the west side of campus would be good to make the coverage even out
9/26/2013	**FI**	**Bike lockers offer a covered secured location to store your bike for a fee. Would you be willing to pay to use them? If so how much?** • Who is the person/people behind you folks?! Please come by the Bicycle House! We have services over a thousand students this summer alone! Get involved please! Many FSU students and faculty volunteer here as well! Come on by! • we are the members of the 2013 FSU Department of Urban and Regional Planning Studio team that is focused on Biking on the FSU Campus. We would like to get involved, and we may swing by and pay you a visit. Would you be interested in an interview? • Please contact , he is our RSO Faculty Adviser. He is in the Economics department at FSU, he volunteers here at BH as well. I am a total washout when it comes to interviews. But I have been commuting on a bike for over 35 years. I founded the mountain bike association here in town. I coached cycling at Wellesley College for five years. And my family and I founded Bicycle House to help people help themselves - by using a bicycle for transportation in

Date	Category	Question
		order to make ends meet financially. I try to instill that value in everyone who walks in our door. I want to help in any way BH can. • Thanks, for helping our community! • Please tell everyone you know to like our page! • i am not going to tell anyone to do anything. I have no idea who you are! • I would be happy to talk to bikefsu. I am in X B Ballamy in the DeVoe Moore Center and can be reached by email at _____. • the group that runs this page is made up of graduate students from FSU who are working on a semester long report to make campus a better place for bicycles. If any of your volunteers or customers have any suggestions for how to do this or comments on the biking conditions on campus, this is a great place for them to voice their opinions. • It would definitely be beneficial for students who keep their bikes tied up overnight. • would you be willing to pay for use of these? • Link to bike locker examples posted in response • Here are some examples of what they look like to give you a better idea • Per use or per year? • Per semester would make the most sense. However maybe some hourly lockers would be available. • I could see per use making since in a situation like I encountered yesterday, when it rained and I needed to get home. But I can also see how that is more complicated. I would probably be willing to pay to use one but can't really give an idea of how much. • Idea: Student could give up their car parking pass to get a bike locker for the year. • Several styles are available. Some that we have seen are a cage type with a secured entry way. Others include a rectangle box large enough for 1 bike. • Me, personally no. I rarely ever leave my bike out at night. • Mon-sat • Come on in to BH! Someone is always here to talk bikes. 12-8 mon/fri • What makes them secure?
9/30/2013	**FI**	**Here is an example of covered bike parking. Do you think that this is something that is needed on…Link to covered parking** • This would be awesome to reduce rust from rain on the bikes! • I agree! • I second the less rust and what not. But... It would be nice to try and incorporate racks into existing overhangs like ones near the entrance of the health and wellness center (starbucks entrance)

Date	Category	Question
		• Good Idea • It would also cost less • your right • This would be awesome to reduce rust from rain on the bikes! • I agree! • Any other opinions on covered bike parking? It sure would make it more comfortable on a hot summer day. • I do! I park my bike at the business building where there are inverted U racks under the roof in case of rain, but I feel kind of uncomfortable parking there because it is also hidden from the sidewalk so it might be easier for someone to steal my bike there.
10/2/2013	**FI**	**How do you feel about lighting on campus at night? Is it adequate to navigate campus on bike? Do you feel safe?** • Adequate yes... comfortable? not really at times but bikes are supposed to have lights anyway • True, however more light is always better • A lot of bike lights don't do a good job of illuminating the path and are designed more so cars can see the bike, from what I've noticed. It seems like the ones that actually help the rider see are pretty pricey. If you have a recommendation of a reasonably priced set I'd love to know! one of the front lights i've seen recommended (I have not used this personally) multiple times is http://www.amazon.com/Metro-300-USB.../dp/B008RM08X2 This is pricey but would be less expensive than a hospital visit from the pothole you didn't see one night... I use this one for a rear light it is a bit of a narrow beam but is BRIGHT http://www.amazon.com/Cygolite-Hotshot-2.../dp/B005DVA57Y My front light is a "be seen" light not a "see by" light (Both these lights are USB rechargable so you save on batteries? :D) • Cool • It's okay but I think It would be beneficial with a few more lights on main streets.
10/7/2013	**Programming (P)**	**What do you think of bicycle education and programming on campus designed to engage, promote cycling, and teach students? Would you attend?** • I'd love to see less people biking in the bike lane on W Call street with headphones on >.> • That does sound dangerous.

Date	Category	Question
		• Also, illegal. I would like to see FSUPD actually pay attention to bikes breaking laws, particularly things like red light running and riding without lights at night. Bicyclists that don't follow the rules make motorists more frustrated at all of us. As far as education goes, I'm in dire need of some maintenance lessons and would definitely go to something like that.
10/21/2013	FI	**Do you feel like Bike Boxes are effective in making cyclists safer on the road?** • have you any experience with the bike boxes pictured above?I have! • The one going west on Call Street is positioned well. It's great for one time there were 5+ bikes stopped at the red light, we all could be seen more easily. I would like to see one going in the opposite direction as well at the same intersection. I've had two run ins where a car was in the bike box and another time where a car turned right on red as I was approaching in the bike lane. • Thanks for the feedback!
10/22/2013	FI	**Do you feel like Tallahassee has done a good job at providing facilities for cyclists? Do you find yourself struggling to find parking around town?** *No Comments*
10/23/2013	FI	**If FSU were to develop bike trails, where would you want them to take you?** • I was JUST thinking about this today. I wish there were a safe and easy way to cross the middle of campus around the bookstore. It's either weaving around people all the way from the Union to the Chem building/HTL or going way out of the way. Could we get some sort of...bike-only path? I usually have to stop and walk and that takes a lot of time.
10/24/2013	P	**Do you believe we should include bicycle education with new student orientation?** • Yes, so more students would feel comfortable with biking and make it the way they commute daily. I mean, we are in Florida, and the weather is good for biking almost the entire school year! • Most definitely! • If we want cycling to be a major part of the FSU community it better be!
10/29/2013	S	**Would you be interested in a bicycle ambassador program to teach students about safety and maintenance?** No comments.
10/29/2013	P	**Would you attend a bike safety class?**

Date	Category	Question
		• Of course I would. I could even help teach! Some of our volunteers are certified. • If it fit in my schedule!
10/30/2013	P	**If you had to pay to park on campus, would incentivize you to bike instead?** • I think a major problem is the transportation fee at the beginning of each semester charges everyone equally. For two years and one semester, I didn't have any vehicle except a bike- and I still had to pay the same fee as everyone getting a parking pass for each semester. Now I have the opposite problem- I have two vehicles (scooter + car) plus my bikes- and I only get a parking pass for one of those vehicles and I would have to pay for the other one (which I didn't, so I don't drive my car to campus unless it's past five.) So I guess paying to park has kept me from using my car for campus travel mostly • That is such a touchy subject. Maybe if students could keep bikes in the parking garages. Then they could drive to the garages - get on their bikes - and ride to class

Appendix 5: Stakeholder Identification

FSU Entities

A. FSU Students, Faculty, and Staff

The results of this Study will have the potential to impact the University population by recommending potential infrastructure and program improvements. Even if students, faculty, and staff are not cyclists themselves, they will likely interact with cyclists as they walk around campus. There is also the potential for a decrease in vehicular traffic on- and around campus, and by extension, demand for on-campus parking, which is a common headache for all types of commuters. Student, Faculty, and Staff input was gathered through the focus group activities, social media, and the Student Commuter Preferences Survey. The Studio Team also regularly received unsolicited input, suggesting both an excitement and demand for improving bicycling on and around campus.

B. FSU Facilities

This Study was initiated at the request of FSU Facilities, and as such, the Studio Team has conducted several informal interviews with members of FSU Facilities as part of their regular dealings. Laurie Thomas, Facilities Specialist, and Mark Bertolami, Director of Facilities Planning, have been the Team's regular points of contact with Facilities.

Facilities staff have largely taken on the responsibility of planning for cyclists due to their role in developing and managing the Campus Master Plan. As part of their role with the Campus Master Plan, Facilities is also actively involved in planning the entire campus' transportation infrastructure in collaboration with the City of Tallahassee, Leon County, and other related agencies. Mr. Bertolami and Ms. Thomas have also been the Studio Team's main point of contact for assistance in obtaining on-campus bicycle statistics, as well as providing an established inventory of rack locations which will serve as a base for the Studio's data development and analysis.

C. FSU Transportation Services

Although FSU Facilities are the primary entity planning for cyclists on campus, the Transportation Services office on campus handles all of the coordinator for other transportation services, including: the Seminole Express Routes, FSU Employee and Student parking, and the financing of logistical handling of these programs. Furthermore, the Studio Team has been asked to review policies related to increasing bicycle and pedestrian activities. The Studio Team's review of these policies and the recommendations given therein may be of interest to FSU Transportation Services. Finally, as vehicular activity increases as the amount of students has a net increase per-academic year, the parking issue will ultimately digress even more and result in frustrated stakeholders around the table.

D. FSU Sustainable Campus Program

Elizabeth Swiman, Director of Campus Sustainability, is on the Studio Team's advisory committee. While providing Ms. Swiman updates on the progress of the bicycle study, the Studio Team informally interviewed her regarding the Sustainable Campus program's role with cycling at FSU.

The Sustainable Campus Program at FSU has worked since the early 2000's to make the University a "living model of sustainability, providing learning experiences that students, faculty and staff may develop, apply and practice at FSU and in their extended communities (FSU: Sustainable Campus , 2013)." This program has also worked to implement new bicycle and pedestrian activities that ensure awareness, activity, and learning throughout campus. One of these programs is the "Strive not to Drive Week" where the program hopes to encourage faculty, staff and students to use non-single occupancy vehicles to get to campus (FSU: Sustainable Campus, 2013). The program is also interested in the recommendations of the study, as the outcomes can guide various new activities for the program. Sustainable Campus has also noted that their office has received solicitations from companies attempting to promote "Bike Share" programs on campus, which is another aspect of this study that multiple stakeholders are involved in. In the past, Sustainable Campus has partnered with other groups on bicycle initiatives, such as a partnership with Campus Recreation to install bike repair stations on

campus. In the future, Sustainable Campus might be involved with expanded bicycle education programs.

E. FSU Bicycle & Pedestrian Committee

The FSU Bicycle & Pedestrian Committee's goal is to facilitate safe and convenient bicycle and pedestrian transportation on and around campus. The Committee is a representative of a number of individuals on campus which reside in offices that the Studio Team has recognized as stakeholders. The Bicycle and Pedestrian Committee have been tasked with attempting to identify problems for this type of transit on campus and are coming up with new innovative strategies to address them. The Studio Team will use this committee as a resource in developing recommendations and further understanding the context which FSU operates.

F. FSU Finance and Administration

FSU's Division of Finance and Administration oversees fifteen different programs throughout the University, including a number of stakeholders listed in this document, including FSU Facilities. The division is likely to be substantially involved in any activities related to the Studio Team's recommendations, especially due to the involvement in potentially financing, planning, or handling other matters related to possible recommendations that could be made.

G. Student Government Association

The Student Government Association (SGA) represents students in all FSU matters, including a seat on the Board of Trustees. Additionally, SGA oversees a significant portion of student fees, which in the past have been used for bicycle improvements around Campus. SGA will be an important actor in improving bicycling on Campus because they may be able to help fund some of the programming and infrastructure recommendations, such as bicycle education programs or creating a campus bike shop. Additionally, SGA may be able to strongly influence and support the policy recommendations, such as implementing dismount zones.

H. FSU Police Department

The FSU Police Department's (FSUPD) is responsible for the safety of cyclists on Campus and deals with bikes that are stolen or vandalized on Campus. FSUPD's jurisdiction includes

Campus, the city streets that run through and are adjacent to Campus, and the area immediately surrounding Campus (500 feet from any University Property). FSUPD oversees the voluntary Bicycle Registration program, which helps FSUPD return stolen bikes to their owners. They also are responsible for removing bicycles that have been abandoned on the bike racks at the end of each school year, which are then recycled to the ReCycle program. FSUPD also overs bicycle education programs on safety, repair, and proper riding techniques. FSUPD is represented on the Bicycle & Pedestrian Committee.

Local Bicycle Nonprofits and Shops

There are four local bicycle repair shops within a two-mile radius of FSU: University Cycles, Bicycle House, Krank It Up!, and Joe's Bicycle Shop. The Studio Team interviewed these bicycle repair shops on the programs, infrastructure, safety, and their thoughts on what goals FSU should have in place for the surrounding area. These stakeholders were vital to the data collection process because they often talk to cyclists of all skill levels regarding the needs of the area, especially students who have their bikes serviced at these locations. Each bike shop had its preferences for the selected recommendation categories, and the Studio Team has decided not to publish notes due to the respect for anonymity in feedback. Nevertheless, the Studio Team wishes to thank the respective shops for their invaluable feedback and many hours dedicated to meeting with Studio Team Members. Below is a summary of each Bicycle Shop and their role in bicycling around Campus.

A. Bicycle House

Bicycle House Tallahassee is located at 1317 Jackson Bluff Road, which is less than half a mile from Doak Campbell Stadium. Bicycle House is a non-profit community organization that is "dedicated to providing practical transportation to any person who enters [their] door" (www.bicyclehouse.org). They provide practical transportation through their Build-a-Bike program, providing resident experts and consultants, helping and teaching people to repair their bikes, as well as selling new and used bikes. According to their CEO Scott Benton, Bicycle House has 800 documented build-a-bikes in the past year. Around 90% of those bikes were for FSU students. Bicycle House also repairs on average fifteen (15) bikes a day, and sometimes

repairing 15-30 bikes a day. Because of their constant interaction with the FSU student bicycle community, Bicycle House is a major stakeholder in the Study.

B. Krank It Up!

Krank It Up! is located at 663 Industrial Dr. in Railroad Square, with the majority of its clientele being made up of students. Krank It Up! is self-described as an open community bike shop that provides a space for people access to the tools necessary to work on bicycles. Krank It Up!'s goal is to promote cycling as a viable, sustainable form of transportation. The shop depends on volunteers who teach people how to work on bikes. In addition to bike repair, Krank It Up! offers bikes and frames that have been donated for beginner cyclists to learn bicycle repair on. and offers safety classes and shows beginning cyclists safe cycling routes.

C. University Cycles

University Cycles is located on 668 W Gaines Street in the heart of the Collegetown developments. They are a full service and repair shop that sells new and used bikes. University Cycles is a small, for-profit shop with certified mechanics and no volunteers. The staff at University Cycles provided the Studio Team vital information on routes and the perception of safety in the neighborhoods around Campus.

D. Joe's Bicycle Shop

Joes' Bicycle Shop is located at 1637 N Monroe St, by Lake Ella. They are a full service and repair shop that sells new bikes that caters to a more experienced clientele than the other bicycle shops. Joes' Bicycle Shop is a small, for-profit business with certified mechanics and no volunteers. The staff at Joes' Bicycle Shop provided the Studio Team vital information on routes and the perception of safety in the neighborhoods around Campus.

Community Partners

A. Commuter Services of North Florida

The Studio Team partnered with Commuter Services of North Florida (CSNF) on developing and conducting the Commuter Preferences Survey. Jeff Horton, CSNF Program Director, worked closely with the Team on the Survey, and informally interviewed Mr. Horton about the role CSNF plays in bicycle planning.

CSNF is a program located within the Marketing Institute of FSU. This program is responsible primarily responsibility is to "improving mobility for FSU commuters through transportation demand management strategies such as carpooling, vanpooling, public transit, biking, walking, telework, and flexible work scheduling (Commuter Services of North Florida, 2013)". In creating demand management strategies, CSNF works to understand commuting patterns by directing surveys, including the Student Commuter Survey previously mentioned. CSNF also provides FSU bike share service through the reCycle program, a low-cost bicycle rental program that provides FSU students a used bike for $35 a semester or $65 for the entire school year. This price includes maintenance, a helmet, a lock, and a BEST subscription (CSNF, 2013).

B. Local Governments

The City of Tallahassee and Leon County are both vital stakeholders in this project. FSU, the City, and Leon County have a symbiotic relationship, where the development of one will help to shape the development of another. This is exemplified by the most recent developments on Gaines and Madison Street, where all three actors have come together to facilitate the redevelopment of the Collegetown/Gaines Street area into high density, mixed-use developments that are more conducive to cycling and walking. The Studio Team has also been tasked to determine the Bicycle and Pedestrian related linkages and gaps that Tallahassee and the University face in future planning activities.

C. StarMetro

The Studio Team interviewed Samuel Scheib and Alex Reimondy in the StarMetro planning department. StarMetro provides bus transit service throughout Tallahassee, including the

Seminole Express bus services on Campus. A strong transit service is important in increasing bicycle and pedestrian mode share due to the limited distance pedestrians and cyclists are willing to travel. Cyclists and pedestrians can use transit to complete commute trips they'd otherwise have to make by car. StarMetro helps facilitate bicycle commuting by providing bike racks on all buses; each bus accommodates two bicycles via a rack attached to the front of the bus. However, if the rack is full, cyclists must lock up their bike at the bus stop or wait for the next bus, as bikes are not allowed on board the bus. StarMetro recognizes that bicyclists and buses can come into conflict since they typically occupy the same outside lane when cyclists travel on roads. StarMetro provides special training to its bus drivers on being aware of cyclists, which may travel in the bus's blind spot.

D. Tallahassee-Leon County Planning Department

The Studio Team interviewed Megan Doherty, transportation planner and the 'go-to' person for bike planning in Tallahassee. Ms. Doherty staffs the Joint City-County Bicycling Workgroup, which provide recommendations to the local governments regarding cycling-related projects, improvements, events, and ordinances. The Workgroup also provides input on new ordinances or amendments that relate to the Comprehensive Plan and implementing Land Development Regulations. The Workgroup, and the Planning Department overall, consider bicycle planning important, as evidenced by the creation of a Mobility District (that FSU and the surrounding neighborhoods lay in), in which non-motorized transportation is prioritized and provided for through concurrency. Ms. Doherty helped the Studio Team identify cycling challenges around Campus and discussed improvements that the City and County are considering. Several of the proposed recommendations in this document are informed by City/County cycling plans. Ms. Doherty represents the City on FSU's Bicycle & Pedestrian Committee.

E. Florida Department of Transportation

The Florida Department of Transportation (FDOT) has been identified as a stakeholder in this project because FDOT maintains U.S. Route 90, also known as Tennessee Street, which runs parallel to the University on the northern border. Tennessee Street is a six-lane highway running through Tallahassee that sees a substantial amount of student usage throughout the day. The recommendations poised by the studio group could drastically affect student activity on this

transportation route, depending on the recommendations of the study. Furthermore, FDOT is an indispensable resource in the areas of providing programming and knowledge on bicycle and pedestrian related topics.

Appendix 6: Peer Institution Evaluation

The following Appendix displays the Peer Institution selection and the full evaluation table used for the peer review.

A6.1 Peer Institution Selection

The Studio Team compiled an initial list of universities, classified the initial list into comparable universities, and developed criterion for university bicycle plan review.

Initial List: The list of universities the Studio Team developed for peer institution review began with several suggestions of plans that were given to us during meetings and interviews with stakeholders. Through the initial reviews of these plans, the Team was eventually able to compile a much larger list from references to other institution plans.

Comparable Universities: The Studio Team created a comparable university checklist that deemed how similar the University was to FSU. The Team developed this criterion in a set of steps so that each plan would be looked at in the same manner. It compared population, acreage of campus, density (how many students per acre), climate, and geography (urban, suburban, rural). The Team determined that if a University met three out of the five criteria, than it could be considered a comparable university.

Florida Universities: The Studio Team chose the majority of the institutions it reviewed from around the country, however, the Team did acknowledge the importance of including peer institutions from within Florida. During stakeholder meetings and interviews, the Studio Team was reminded on more than one occasion the frequency in which FSU looks to its closest peers for comparison. The Team settled on three universities within Florida to include for review.

Final List: The final compiled list of universities that were reviewed can be found below:

- University of Arizona
- North Carolina State
- New York University
- University of Louisville
- University of North Carolina at Chapel Hill
- Portland State University
- University of Minnesota
- University of Illinois Champagne Urbana
- University of Washington
- University of New Hampshire
- Clemson University
- University of Texas Austin
- University of North Carolina at Greensboro
- University of Kentucky
- University of Maryland
- University of San Francisco
- University of Houston
- University of California Berkeley
- University of Utah
- Virginia Tech
- Oregon State University
- University of Florida
- University of Central Florida
- University of South Florida

Table A.6.1: Standards for Evaluating Peer Institutions

	Existance of Plan		End of Trip Facilities			
University	**Stand Alone**	**Part of Larger Plan**	**On-Campus Facilities**	**Multi-Modal Connections**	**Programs**	**Bike Share**
University of Arizona	Bicycle and Pedestrian Plan (2012)	-	bike lockers, bike encolosures, showers, bike valet, repair stands	bike boulevards, colored bike lanes, bike boxes, shared-use paths, push-button bicycle detection	Campus Bike Map, Bike to School Day, Bicycle Ambassadors Program	No
NC State	NCSU Bicycle and Pedestrian Plan	-	Showers, clothes lockers	bike lanes, share the road arrows "sharrows", greenway paths,	Bicycle Repair Classes, Single-Use Parking Permits for Inclement Weather	Wolfwheels: Rent for a day, week, or semester
NYU	No - A study was done, and the City of New York has a plan	-	8 Indoor bike parking facilities, Outdoor Parking Spots, Bike Rooms	Bike lanes, City wide bike share	-	City Bike Share
Louisville	Bicycle Master Plan, 2011	-	Bike racks	bike lanes, bike/ped crossing, bike tunnel	-	No
UNC Chapel Hill	Being Developed	-	Bike Racks, Signed Pathways (not dedicated trails)	Bus, Light Rail, Park and Ride	Commuter Alternative Program	No
Portland State U	Yes	-	Bike Racks, Signed Pathways (not dedicated trails)	Bus, Light Rail, Park and Ride, Bike Lanes	Commuter Alternative Program	No
U Minnesota	-	Master Plan Element: University Bike Plan	Bike Racks, Bike Lockers, Electronic Bike Route Planning Kiosk, University Repair Service	Bus, Rail, Walking, Car Rental, Bike Lanes	ZAPP Program	Nice Ride

Table A.6.1: Standards for Evaluating Peer Institutions						
	Existance of Plan		End of Trip Facilities			
University	Stand Alone	Part of Larger Plan	On-Campus Facilities	Multi-Modal Connections	Programs	Bike Share
U Illinois Champagne Urbana	Campus Bicycle Network Master Plan, 2013	-	Bike Racks, Bike Storage Facilities, Commuter Showers, Departmental Bike Offering, Signed Pathways	Bus, Light Rail, Park and Ride, Bike Lanes	Seasonal and Occasional Parking Permit Program	No
U Washington	-	-	Bike Racks, Bike Storage Facilities, Emergency Ride Home, Covered Parking, Signed Pathways, Sharrows, Repair Stations	Bus, Light Rails, Park and Ride, Telecommute, Bike Lanes	Seasonal and Occasional Parking Permit Program	No
UNH	-	UNH Master Plan, 2004	Bike Racks,	Bus, Zipcar, Bike Lanes	E-newsletters, Cat Cycles, Guaranteed Ride Home, Cat Courier	Cat Cycles -- short term, up to one week
Clemson	Clemson University Bikeways Master Plan,		Bike Racks, Bike Lockers, Bike Lanes	Buses,		No
UC Davis	UC Davis Bicycle Plan, 2011		Bike Racks, Bike lockers, Air Pump Stations	Bike Paths, Bike lanes	Bike Rental Program, "Bike Barn"	No

Table A.6.1: Standards for Evaluating Peer Institutions

	Existance of Plan		End of Trip Facilities			
University	**Stand Alone**	**Part of Larger Plan**	**On-Campus Facilities**	**Multi-Modal Connections**	**Programs**	**Bike Share**
U Texas - Austin	-	Extensive Website - Under Parking and Transportation Services	Bike hub: provides repairs, locks, lights, etc.; bike lockers, racks, air pump stations	-	Bike Rental	Bike Rental - Can be on waitlist or go to shop and work on their own bike to rent
UNC Greensboro	-	Website Dedicated to Biking	Indoor Parking, Showers	-	Bike Rental	Bike Rental
U Kentucky	University of Kentucky Bicycle Plan, 2005		Bike Racks, Repair Shop, Mobile Bike Shop, Air Stations, Bike Repair Station	Buses	Bicycle E-News Email Newsletter, Orientation Events and Pedalpalooza.	Wildcat Wheels (Bike Library and Rental Program)
U Maryland	-	Univeristy of Maryland Master Plan, 2011	Covered and Uncovered Parking, Campus Bike Shops	-	-	City Program -- Rentals on campus by day, week, or semester
U San Fran	University of San Francisico Bicycle Transportation Plan	-	Covered and Uncovered Parking, Bike Barn	Bike Lanes, Buses	-	City Program
UHouston	Study Conducted	-	Bike Racks	N/A	N/A	No
UC Berekely	Campus Bicycle Plan, UC Berkeley	-	Bike Racks, Secure Cages, Bike Valet	Service Bikes	UCBPD bike safety course at orientation, Education Pamphelets	Service Bikes

Table A.6.1: Standards for Evaluating Peer Institutions

	Existance of Plan		End of Trip Facilities			
University	**Stand Alone**	**Part of Larger Plan**	**On-Campus Facilities**	**Multi-Modal Connections**	**Programs**	**Bike Share**
Utah	University of Utah Bicycle Master Plan, 2011	-	Bike Racks, Bike Lockers, Secured Indoor Storage	Light Rail, Campus Shuttle,	"Lock it or Lose it", Bike Commuter Class, Bike Repair, Mountain Biking for Women	No
Virginia	Univeristy of Virginia Bicycle Master Plan, 2007	-	Bike Racks, Signage	Buses	Suggestion of Safety Courses	No
Oregon State	-	Campus Master Plan 2004-2015	Bike Racks, Covered Racks (20% of all racks),	Buses, OSU Shuttle, Bike Lanes	N/A	No
UF	-	No Designated Plan - All Information Under Transportation of Sustainability	-	-	-	-
UCF	-	Master Plan Element	Bike Repair Shop, Bike Repair Stations	Bike Lanes, Buses	Anti-Theft Program	
USF	-	Master Plan Element	-	-	-	-

Appendix 7. Student Commuter Preferences Survey Responses.

Off-Campus Student Demographic & Travel Opinion Summaries

The following report summarizes the demographics of off-campus students who participated in a student commuting survey that was conducted in the fall semester of 2013.

The data has been segmented based on two primary groups. The first is comprised of individuals who, during a 5-day period, had traveled to campus using a bicycle at least one day. The second group is comprised of students who did not bike to campus. For comparative purposes, a summary of all off-campus students is also included in each chart.

NOTE: Unless otherwise noted, red equates to off-campus bike users, blue to non-bike users, and grey to all off-campus students in all the charts within Appendix 7. The exceptions are the charts regarding influential factors on mode choice and amenity ratings.

Origin of Bike & All Other Commutes (OFF-CAMPUS STUDENTS)

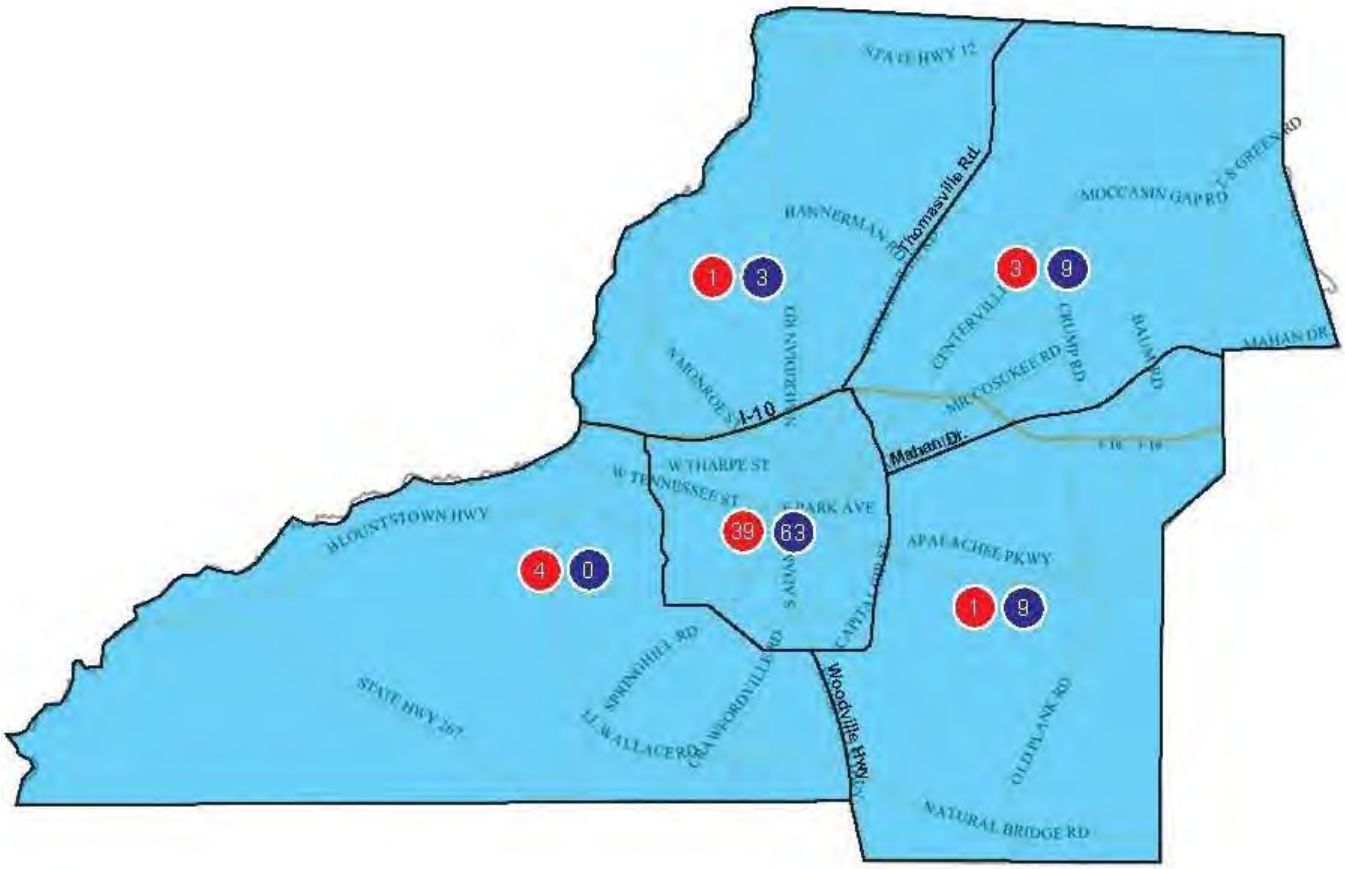
LEON COUNTY

Corresponding Question(s)

"Because you live in Leon County, we need you to narrow your home location a bit. On the map below, please select the general vicinity of where you live within Leon County. Once again, select ONLY one location and click the >> button to proceed."

= *Bicycle Commute Origin within Leon County (n= 48)*

= *Non-Bike Commute Origins within Leon County (n=84)*



Origin of Bike & All Other Commutes (OFF-CAMPUS STUDENTS)

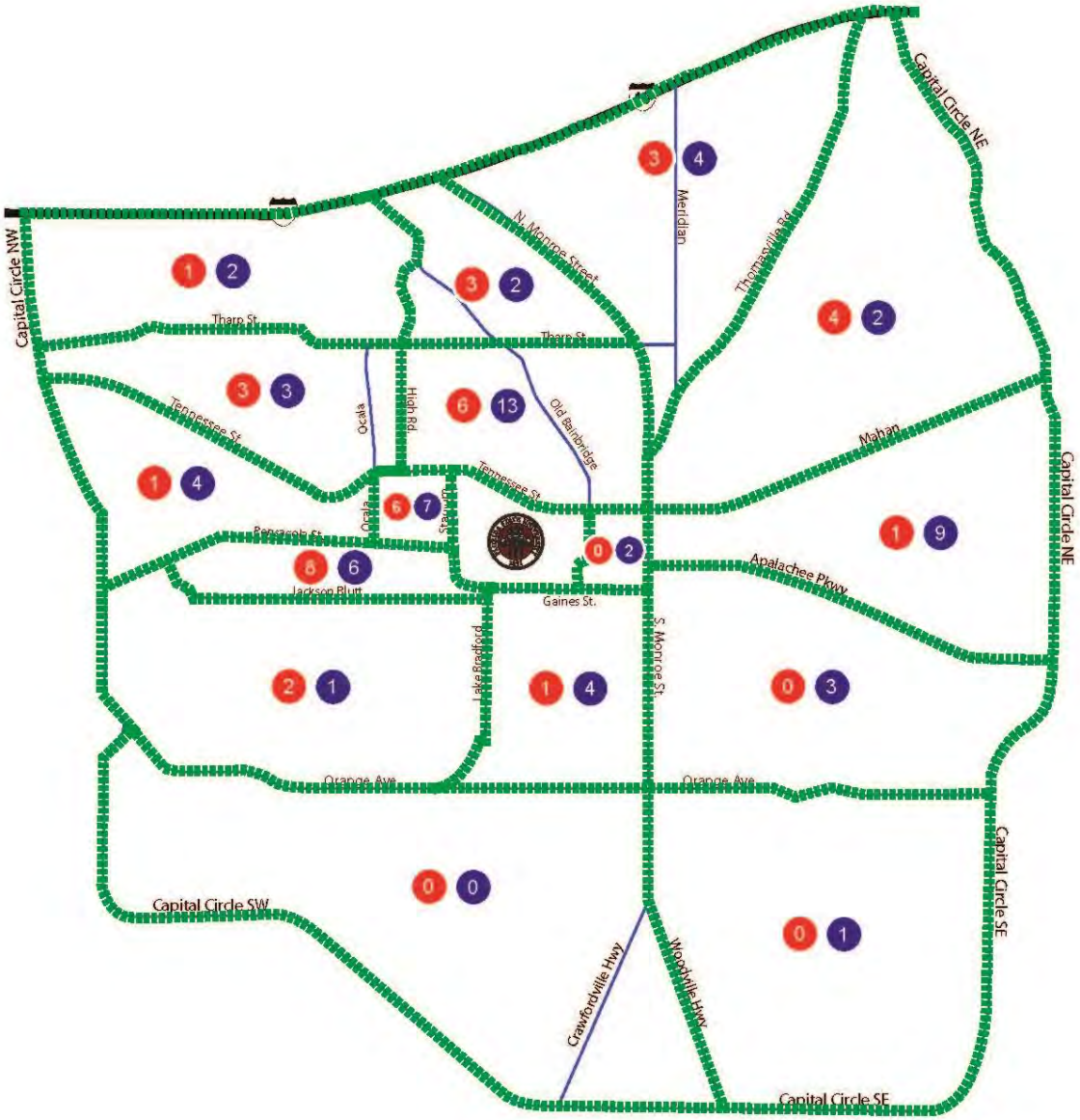
CITY of Tallahassee

Corresponding Question(s)

"Because you live inside Capital Circle and I-10, we need to ask you one more question about your home location. On the map below, please click on the area where you currently reside. Select only one."

= *Bicycle Commute Origin by City Region (n= 39)*

= *Non-Bike Commute Origins by City Region (n=63)*



Origin of Bike & All Other Commutes (OFF-CAMPUS STUDENTS)

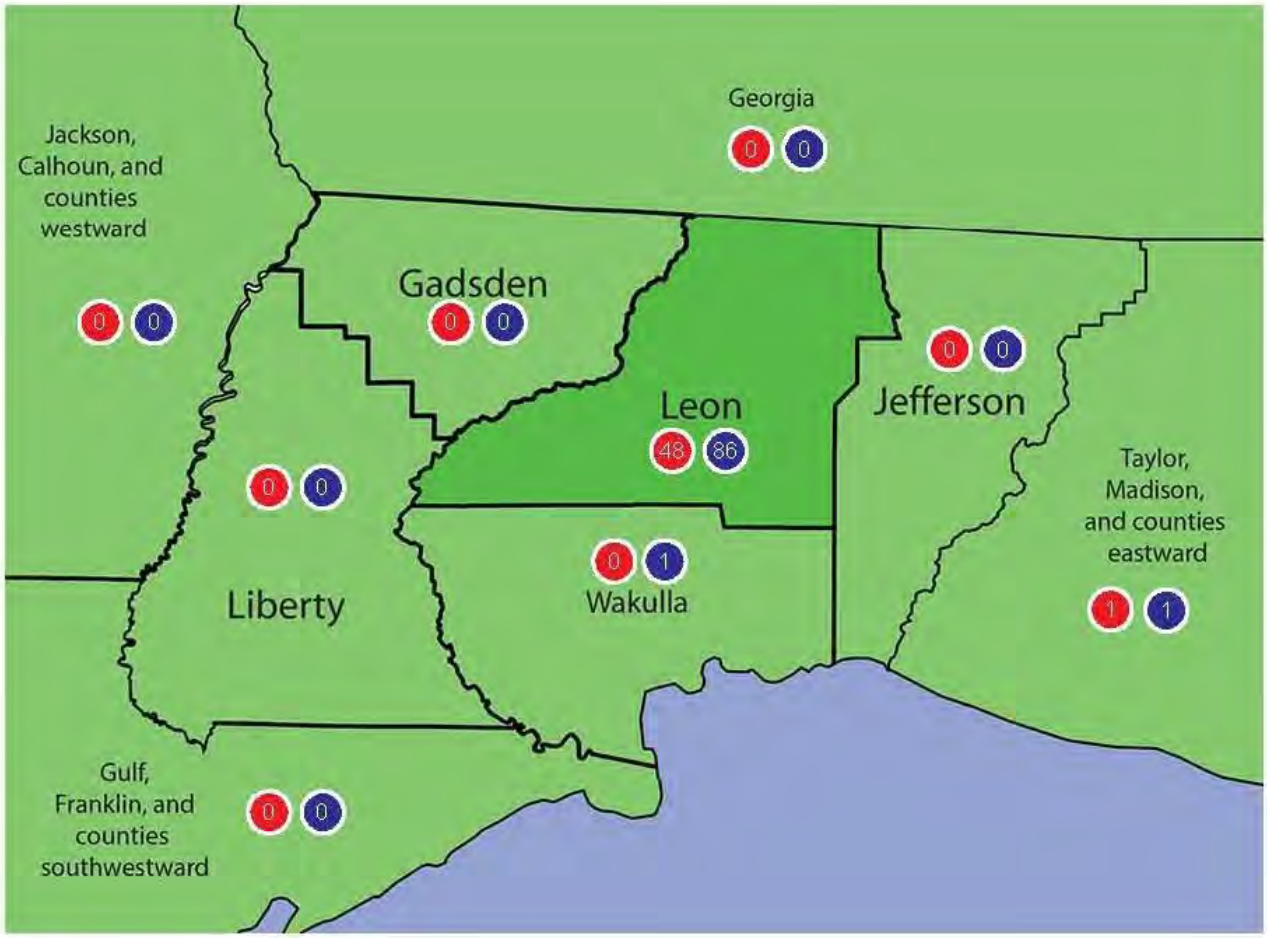
REGIONAL/COUNTY

Corresponding Question(s)

"You say that you live off campus. On the map below, please select the county in which you reside while a student. PLEASE SELECT ONLY ONE."

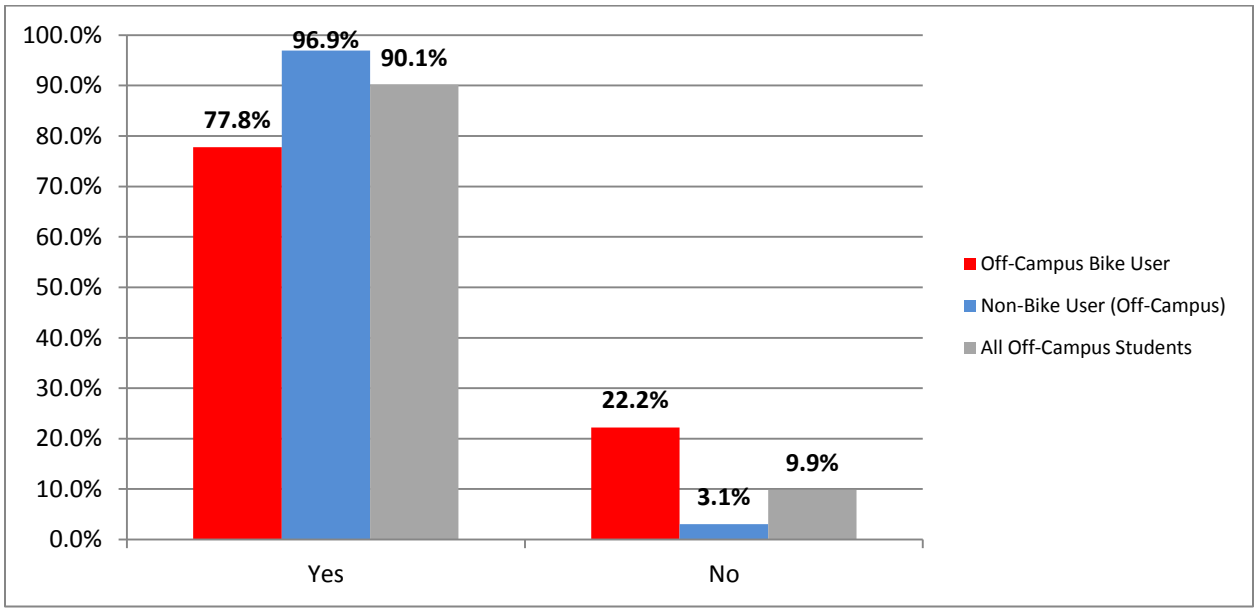
= *Bicycle Commute Origin by County (n= 54)*

= *Other Commute Origins by County (n=98)*



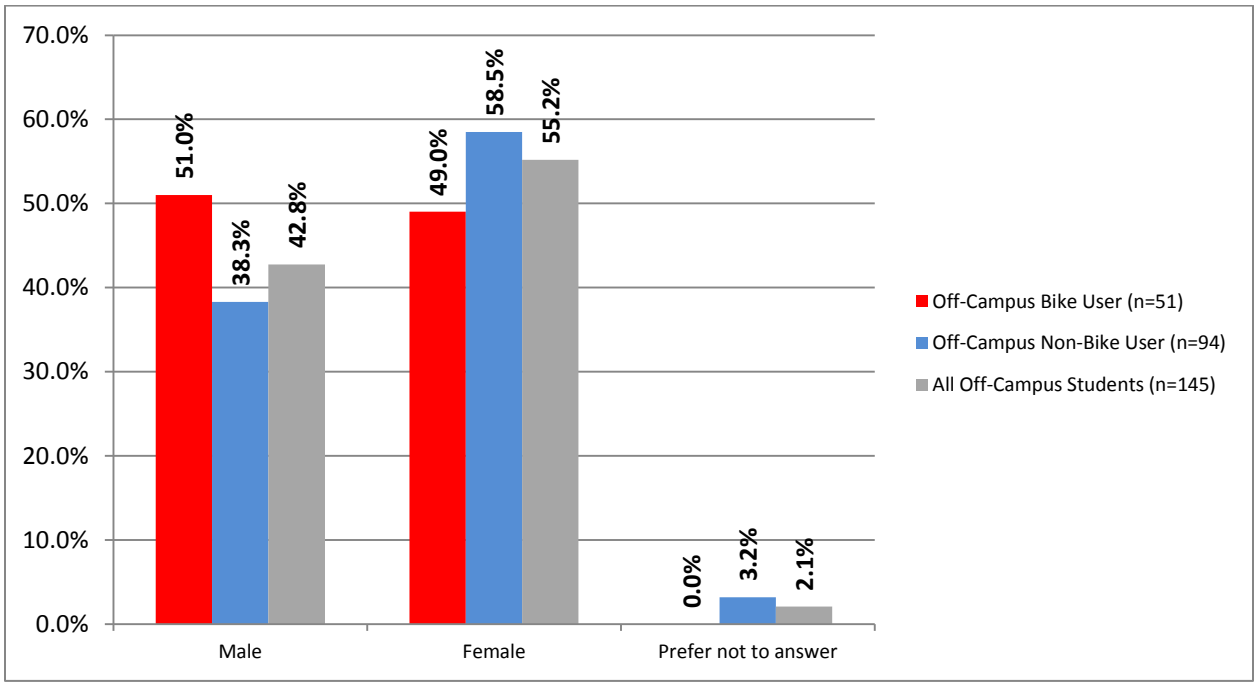
Car Ownership

QUESTION: *"Do you own or have access to a car you can use whenever you want?"*



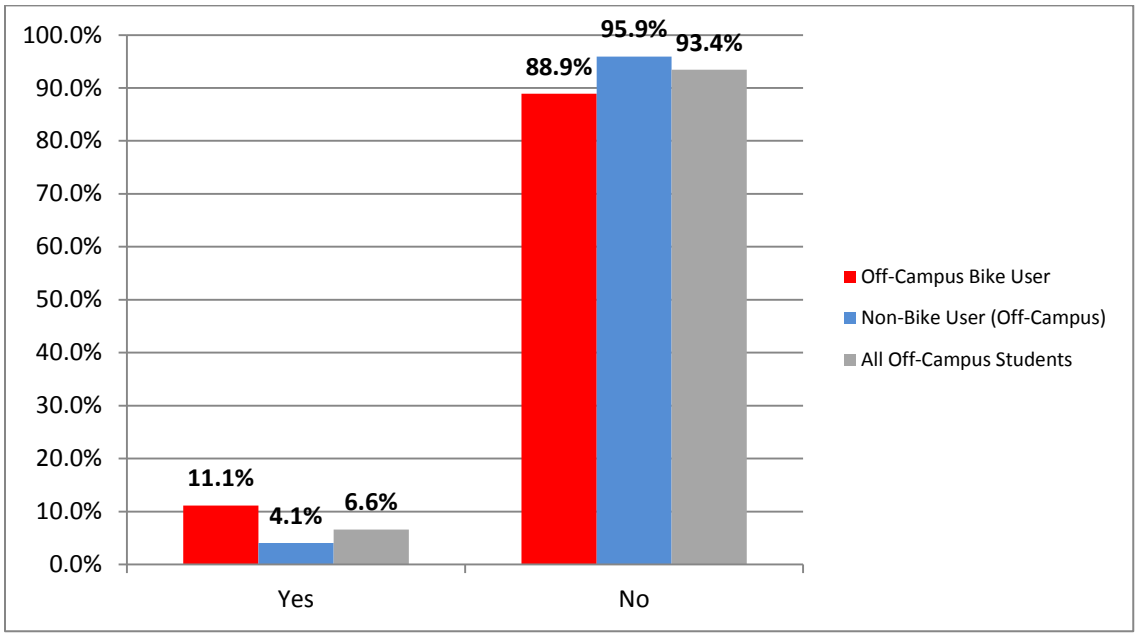
Gender

QUESTION: *"What is your gender?"*



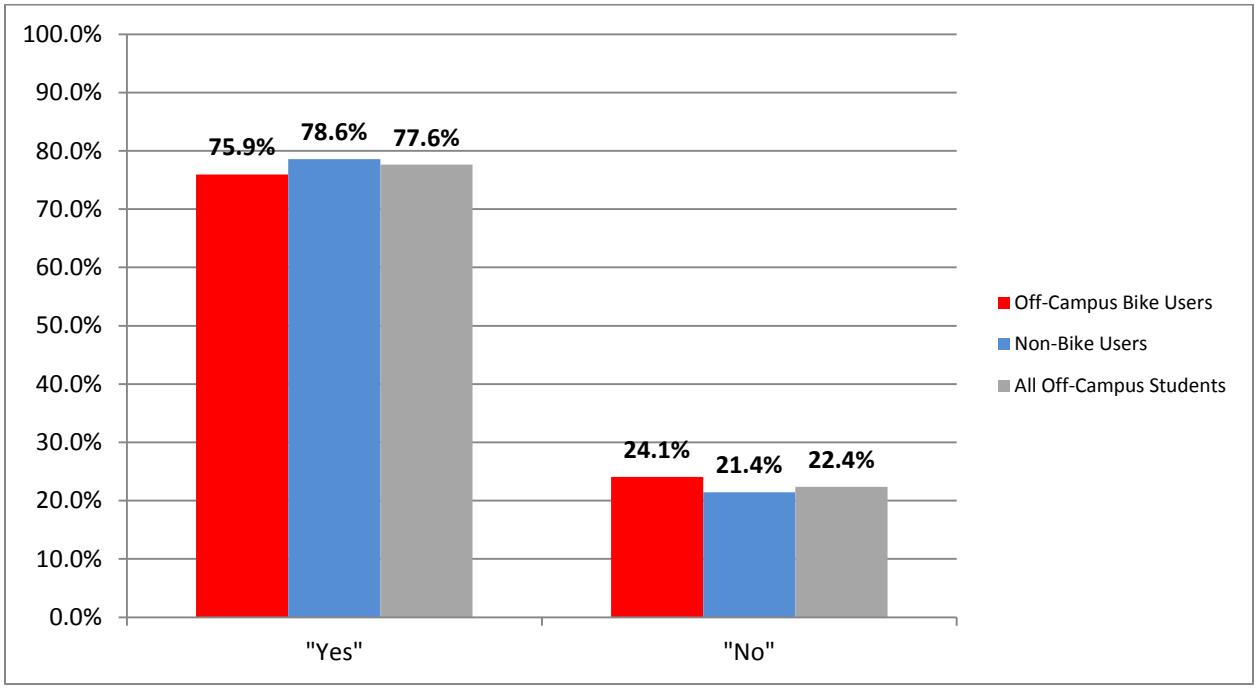
International Students

QUESTION: *"Are you an international student?"*



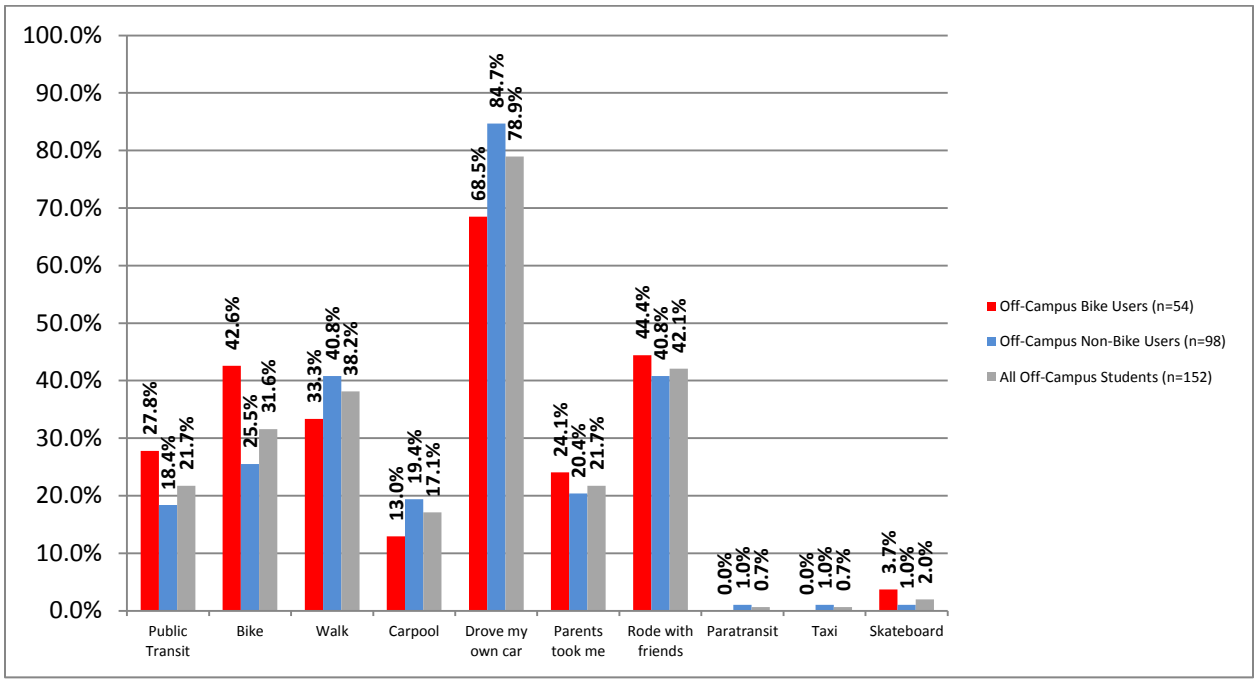
Employment

QUESTION: *"Are you currently employed?"*



Prior Mode Use

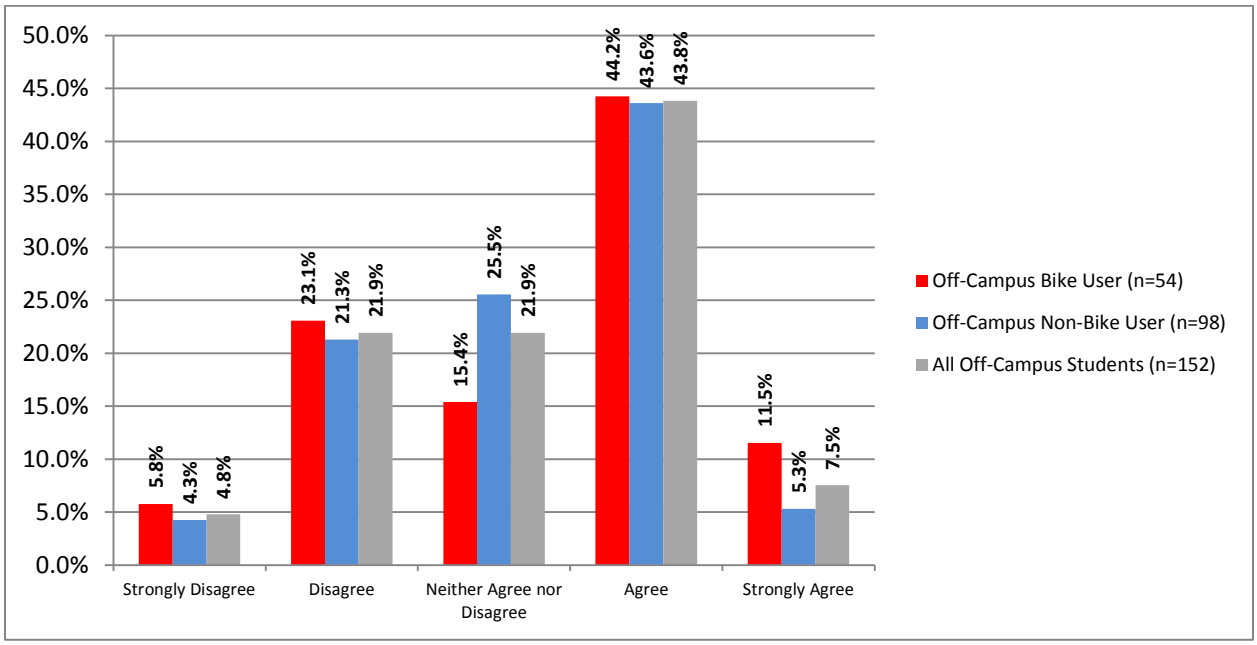
Question: *"Before attending Florida State University, what travel modes did you use for routine trips to school, shopping, and so forth? Please check all that apply."*



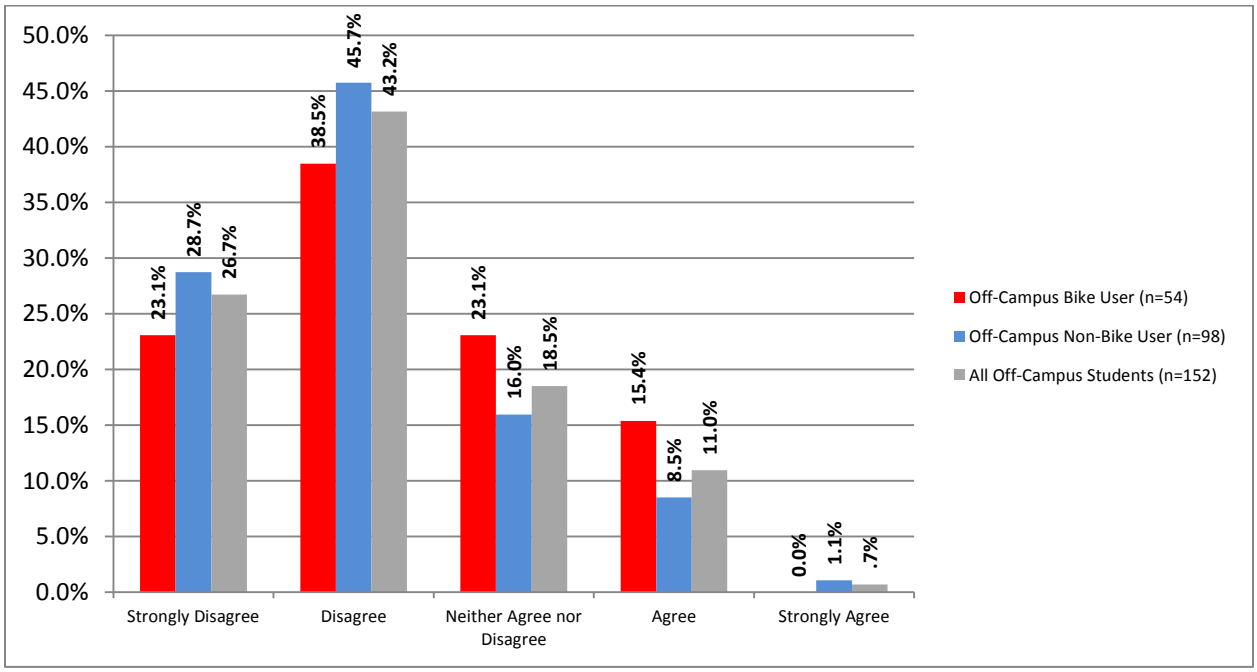
Bicycling Opinions and Assessments

Please indicate your level of agreement with the following statements.

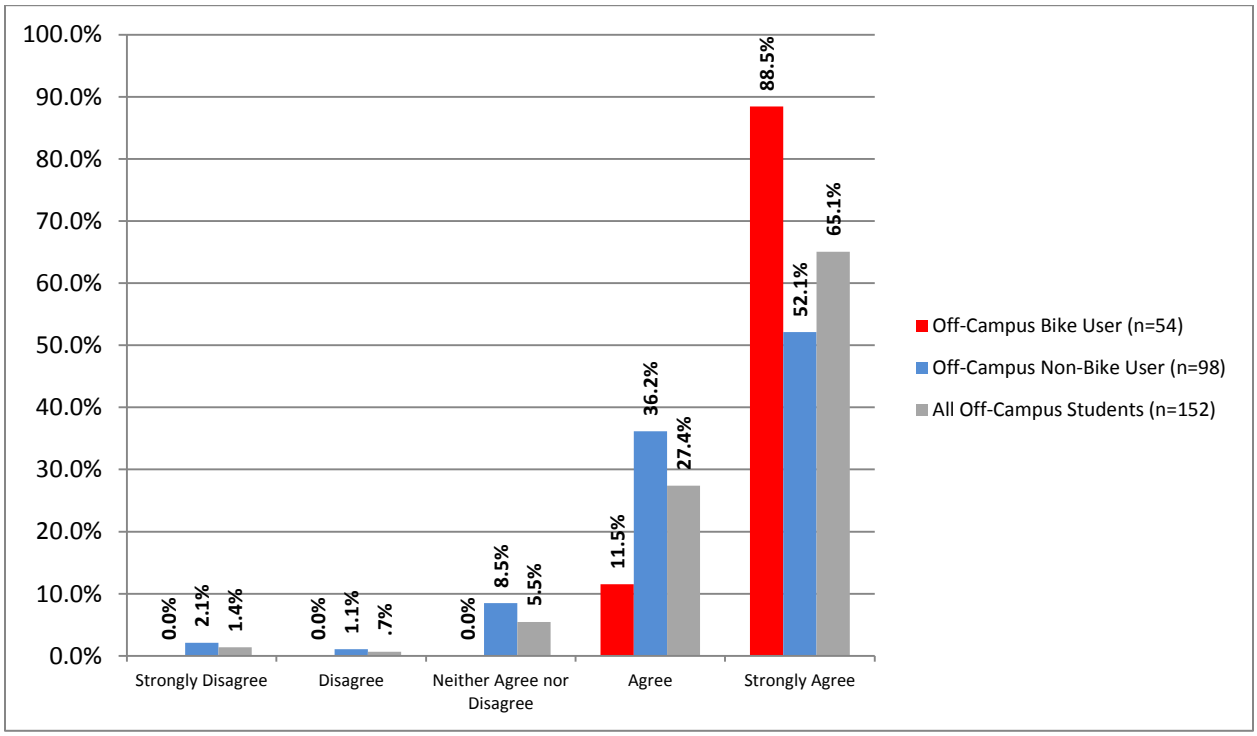
"Riding a bike on campus is safe."



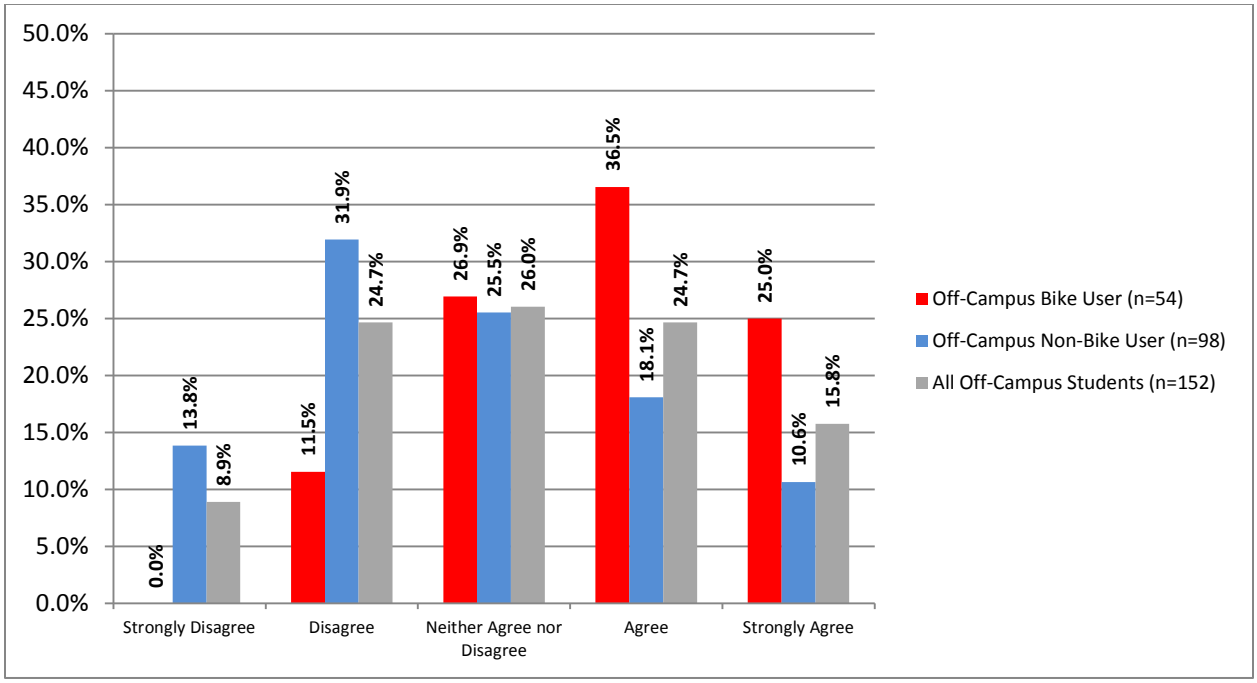
"Riding a bike on Tallahassee streets is safe."



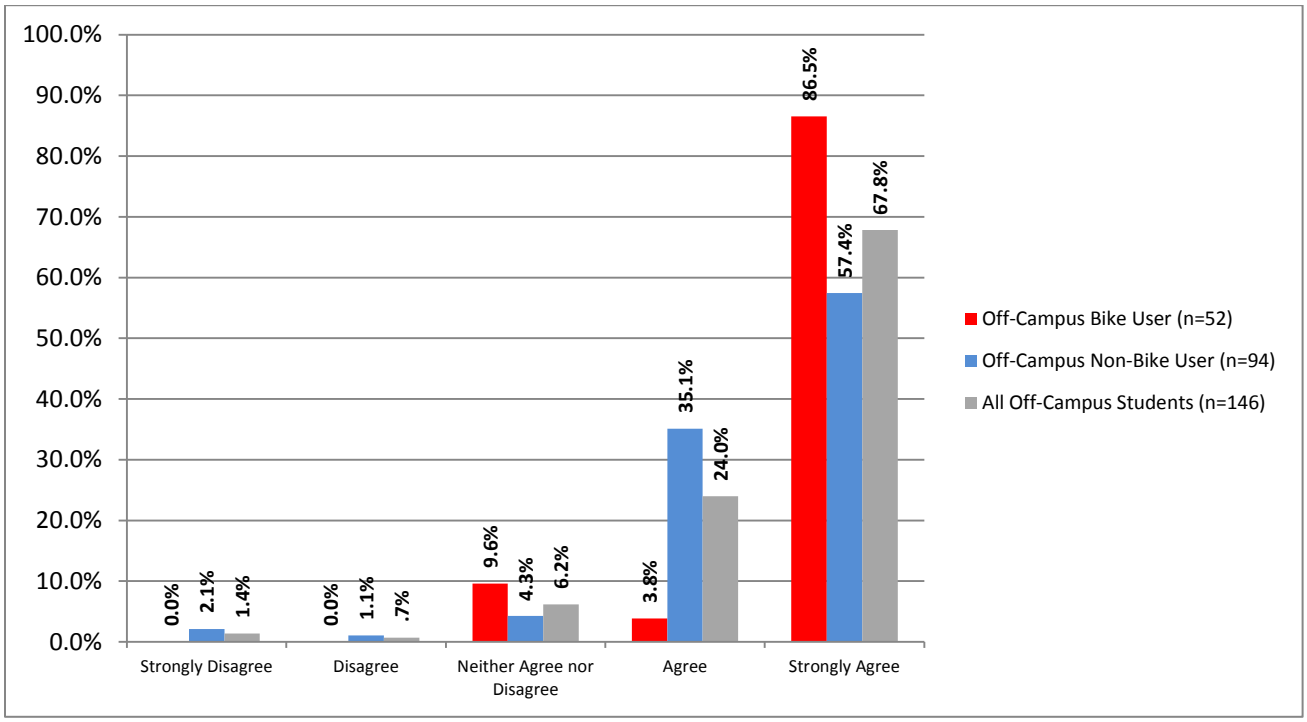
"Bicycling is more economical than driving a car."



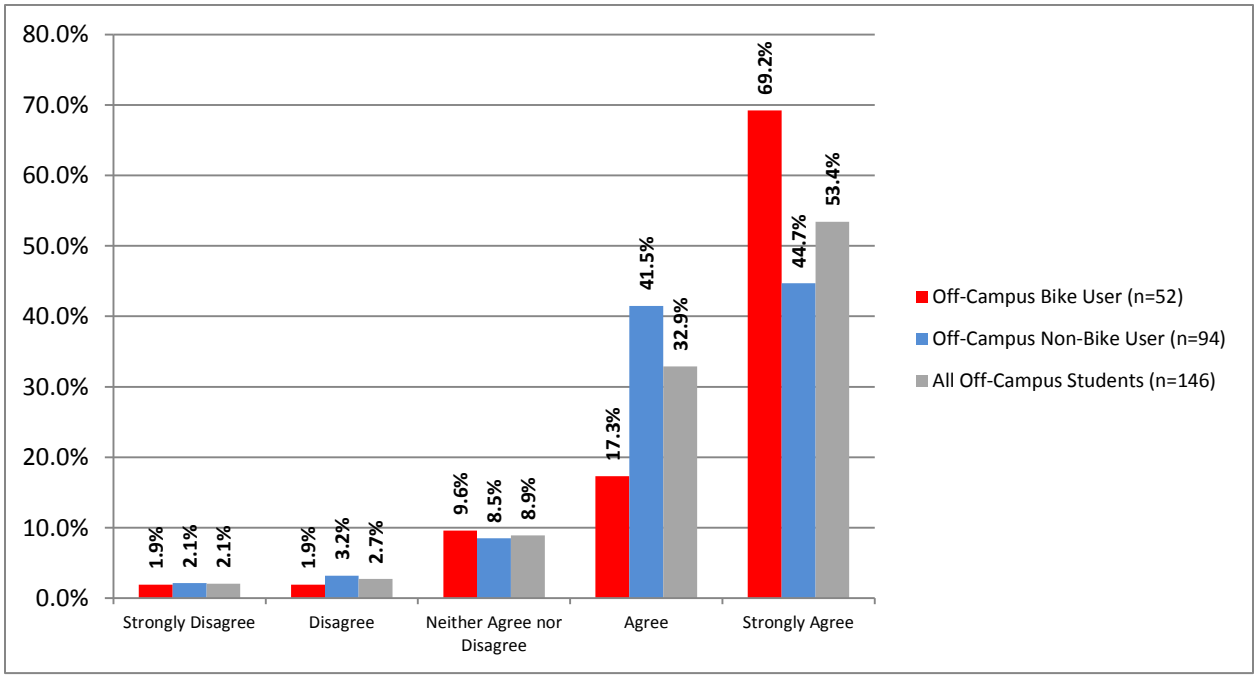
"Bicycling is more convenient than driving a car."



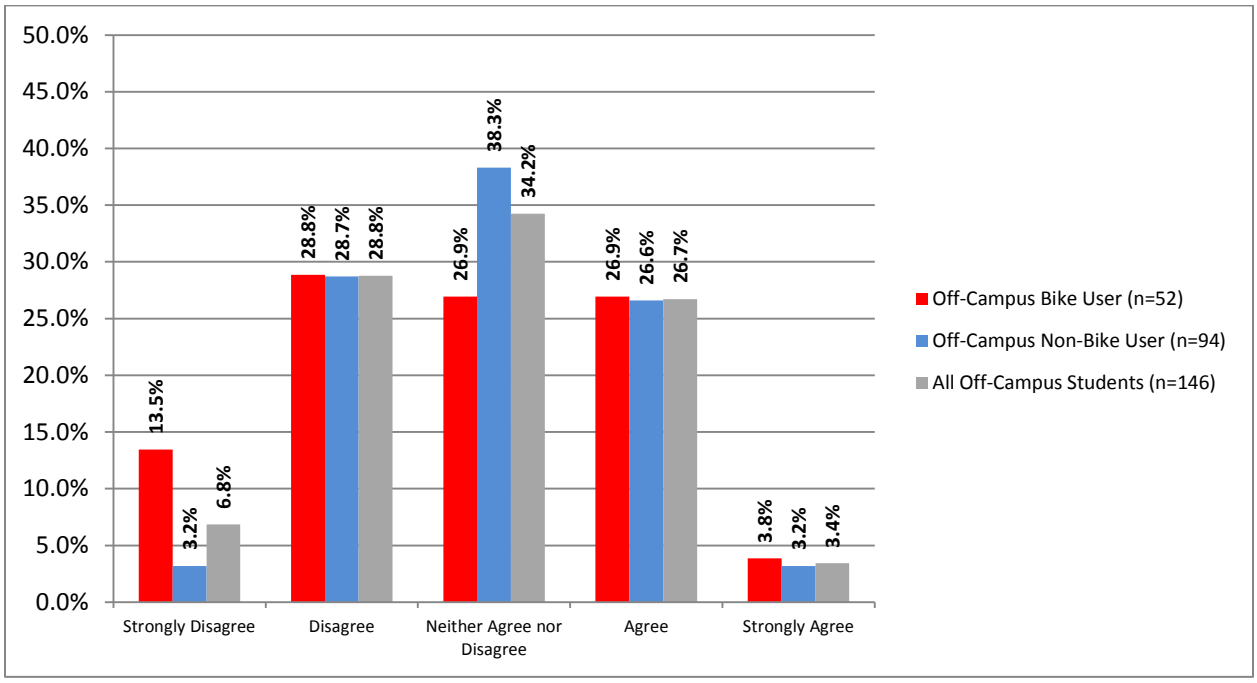
"If more people biked, we could reduce greenhouse gas emissions."



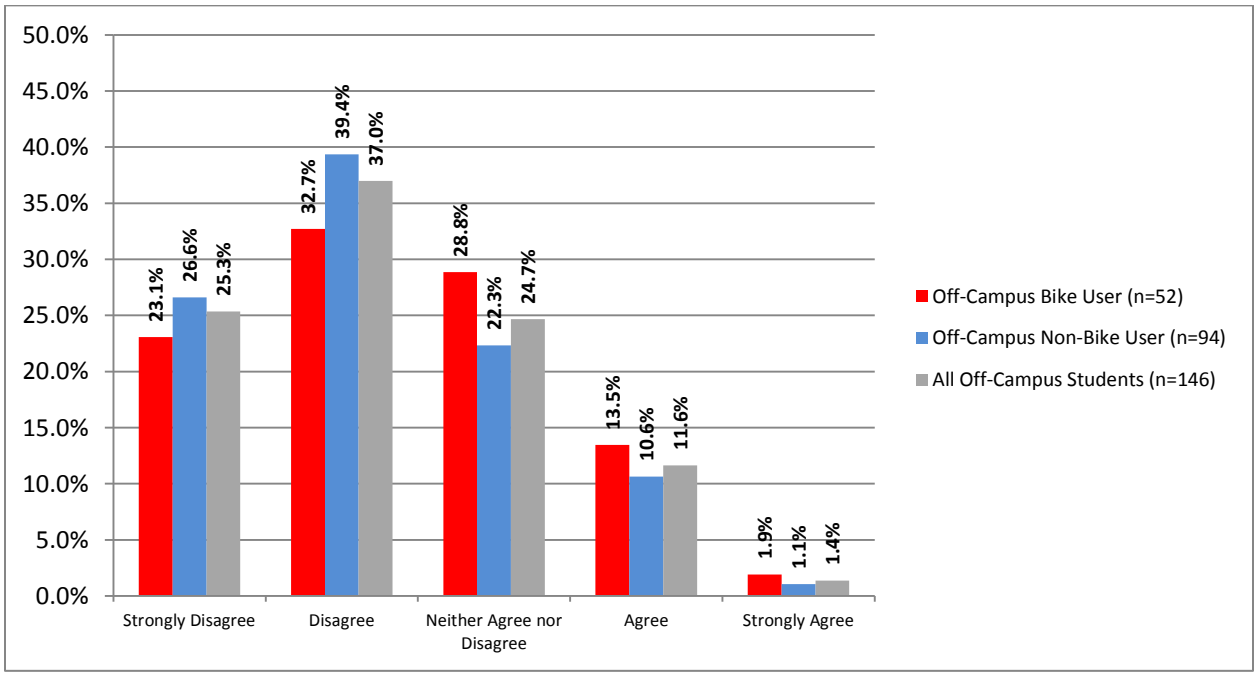
"If more people biked, parking on campus would improve."



"FSU is a bike-friendly campus."

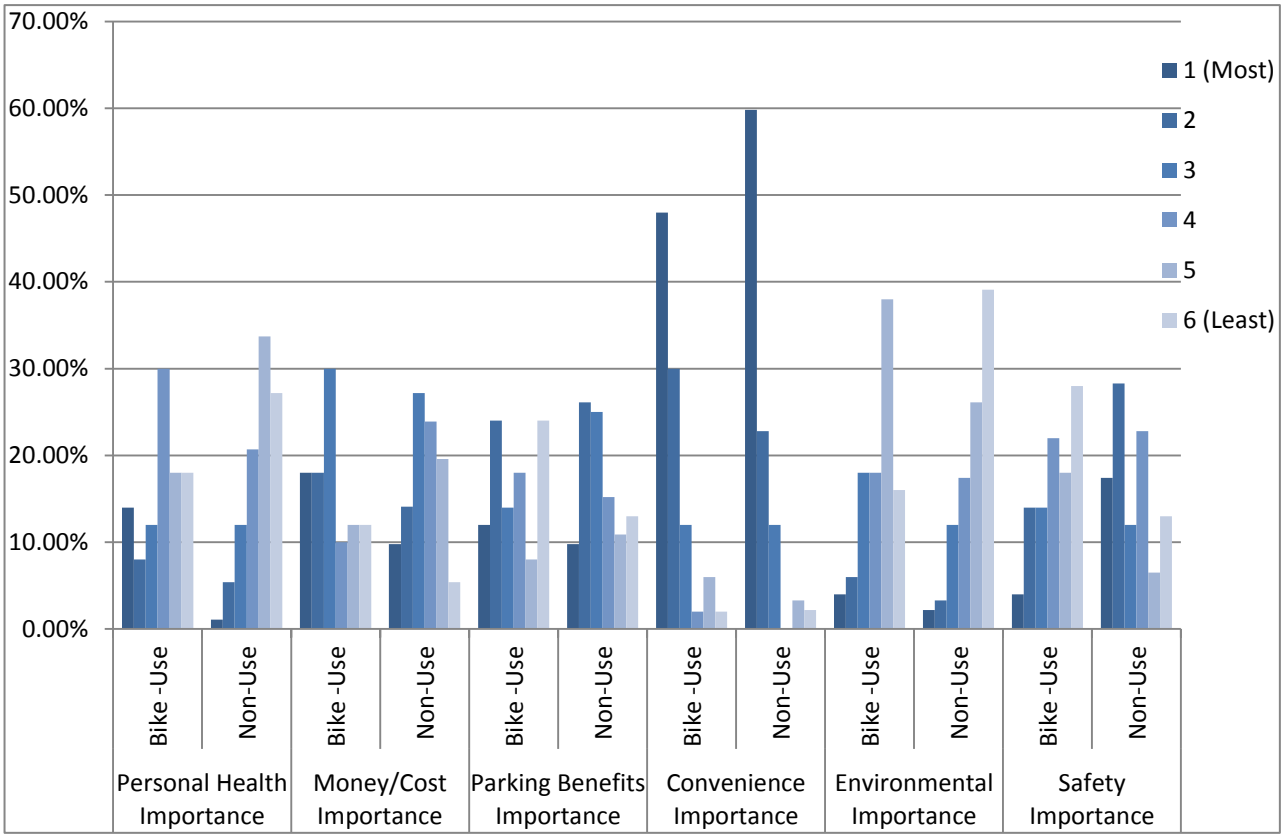


"Tallahassee is a bike-friendly city."



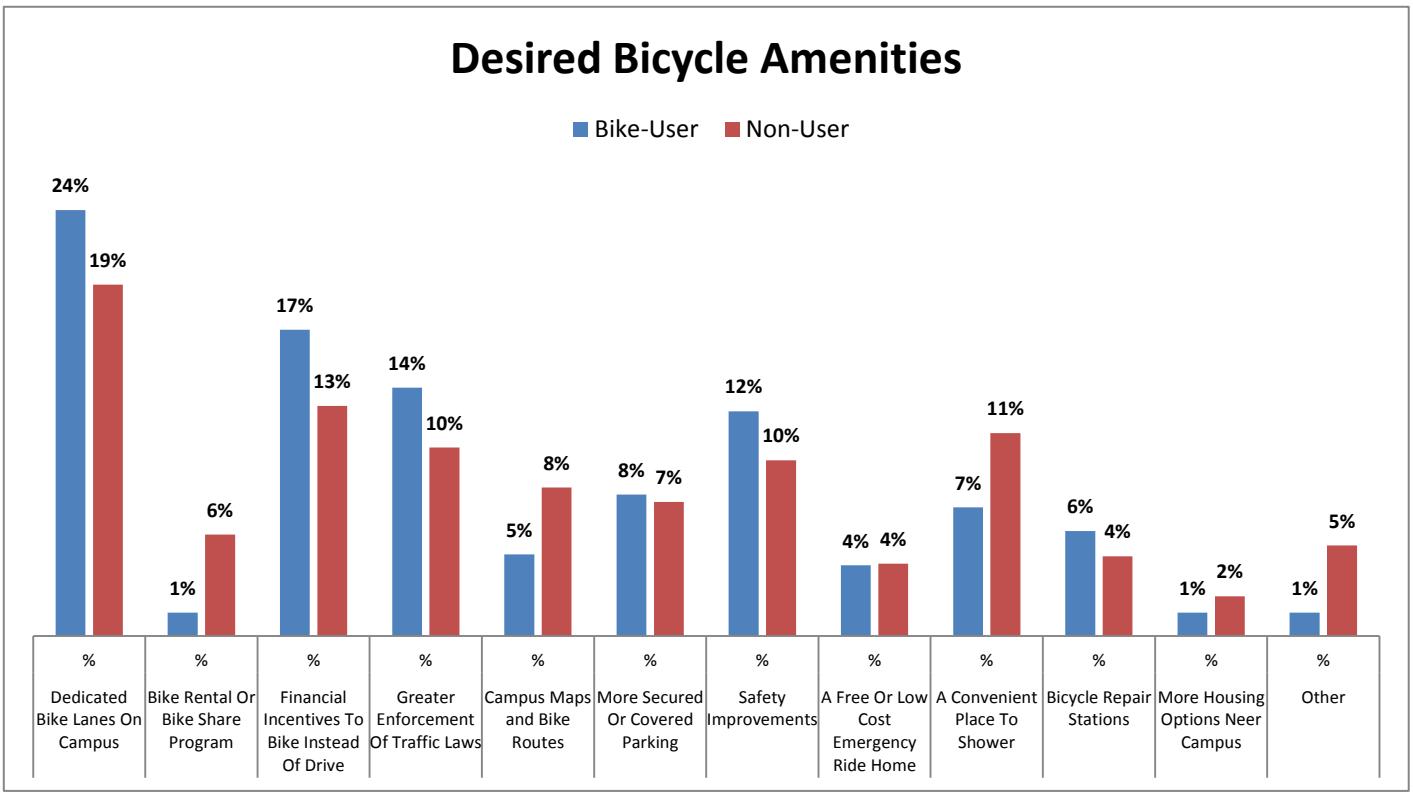
Factors Influencing Mode Choice

QUESTION: *"When deciding which mode of travel to use, what factors are most important to you? Please rank the following factors from most important (1) to least important (6) by dragging them to them to the appropriate place on the list."*



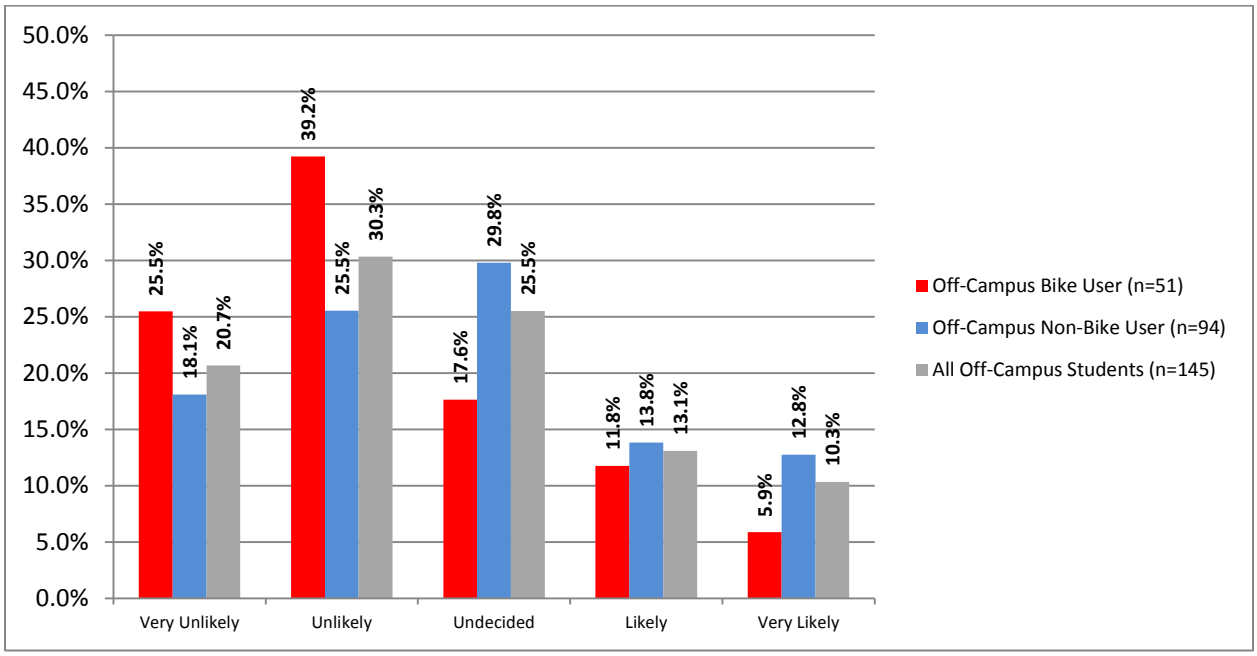
Desired Amenities

QUESTION: *"What amenities or programs would encourage you to ride a bike (or ride more often) to campus? Please select your top 3."*



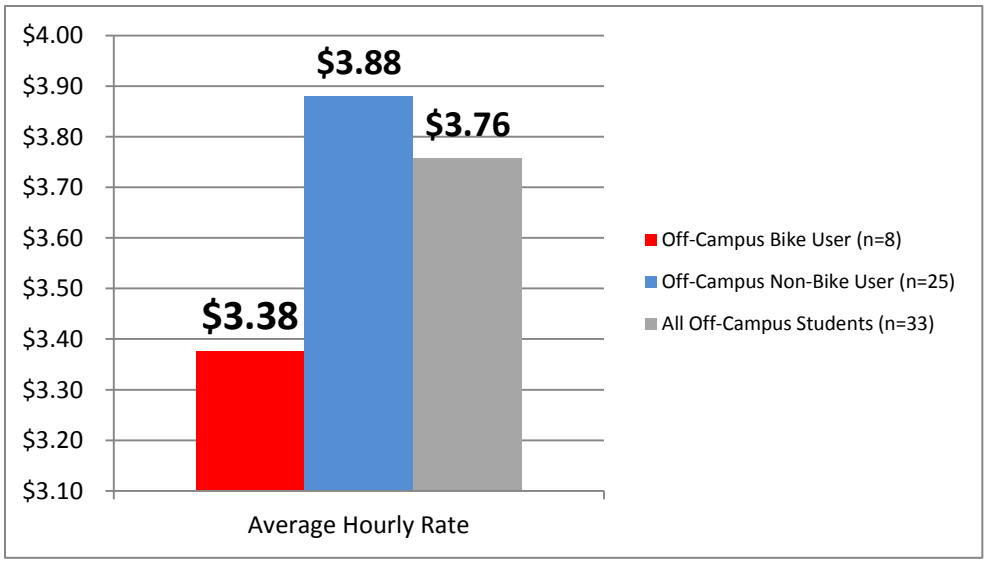
Bike Sharing

QUESTION: *"If FSU offered a bike-sharing program through which you could rent a bike for short periods of time, how like would you be to use it?"*



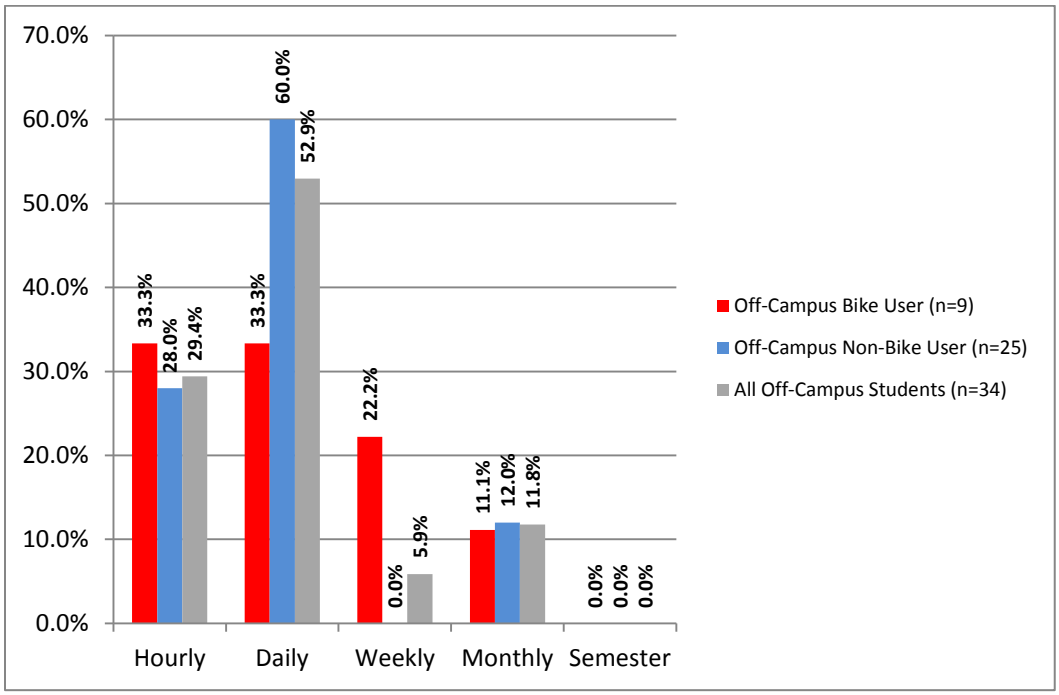
Willingness to Pay per Hour

QUESTION: *"If there were an hourly charge, what is the maximum you would be willing to pay per hour?"* **[NOTE: This question was only asked of those individuals who said they would be "likely" or "very likely" to use such a service.]**



Preferred Rental Period

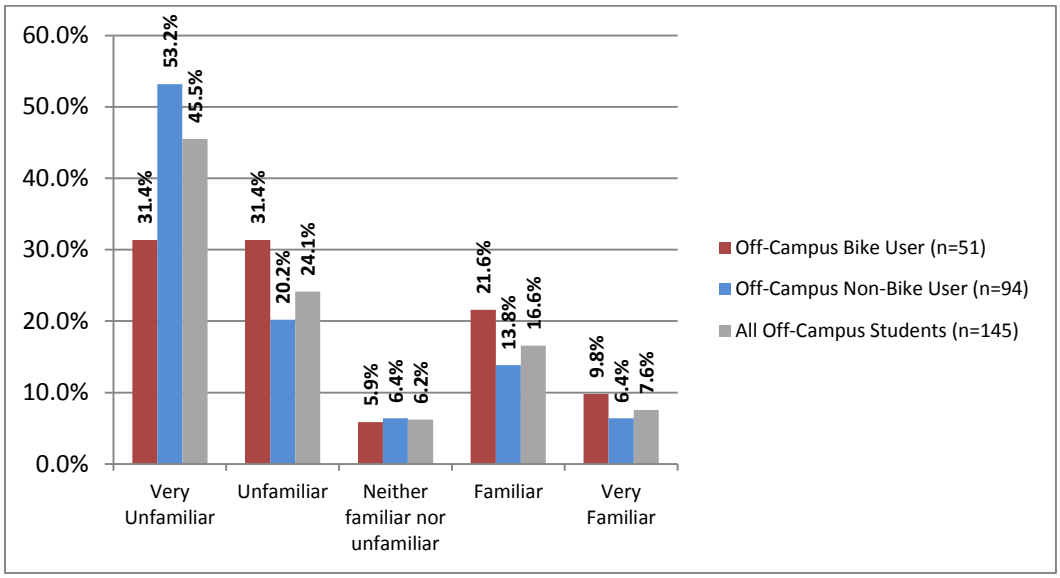
QUESTION: *"If there were a bike rental or bike sharing program, what rental period would you prefer?"* **[NOTE: This question was only asked of those individuals who said they would be "likely" or "very likely" to use such a service.]**



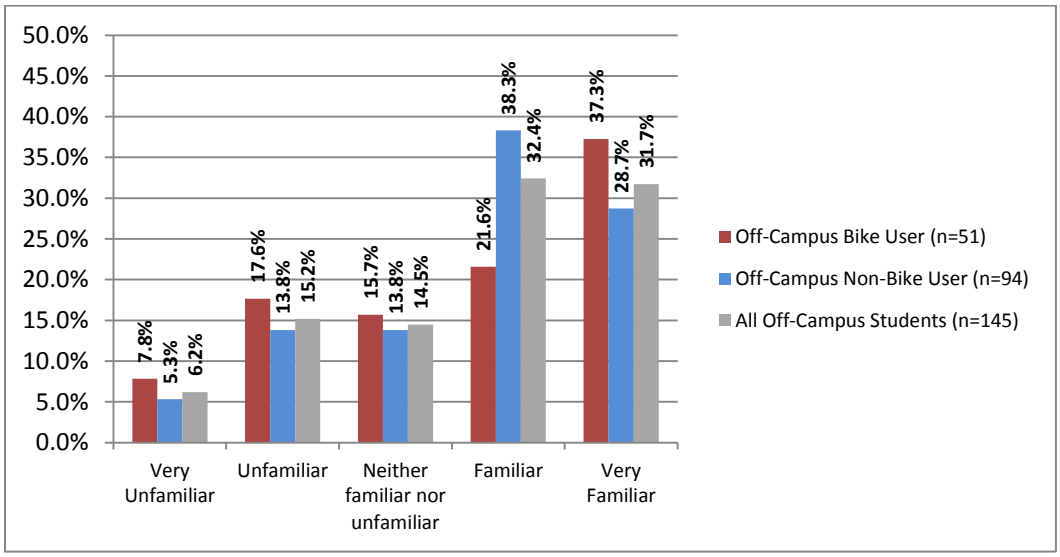
Familiarity with FSU Transportation Programs

QUESTION: *"How familiar are you with the following University transportation programs?"*

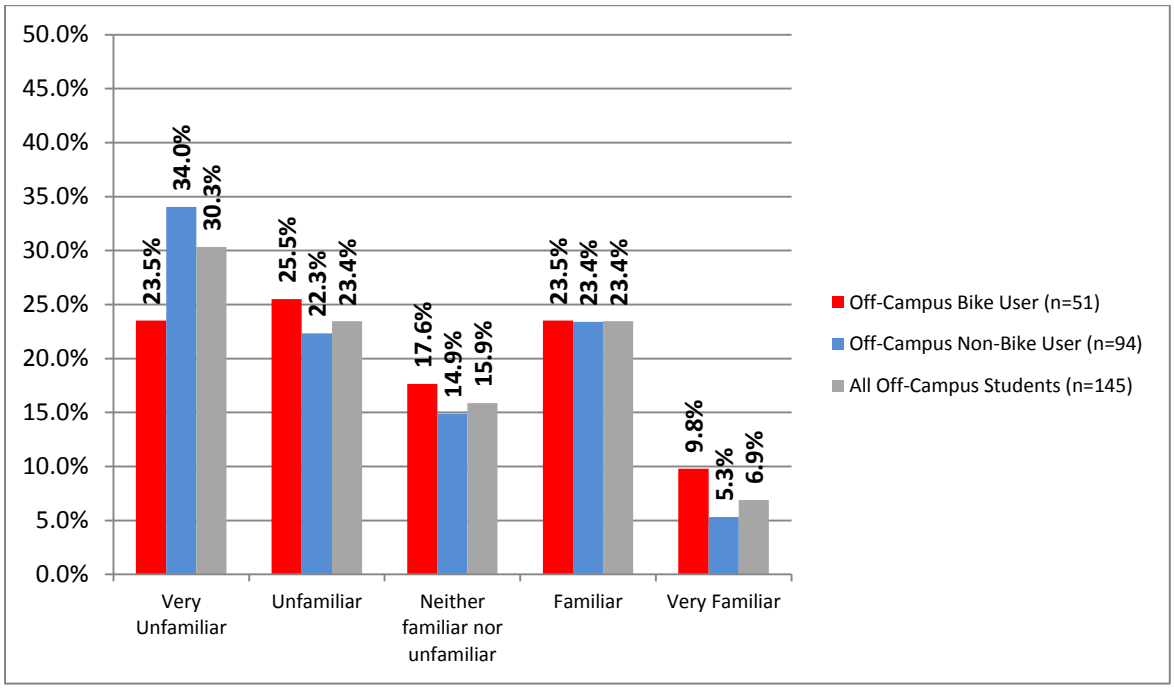
reCycle Bike Rental Program



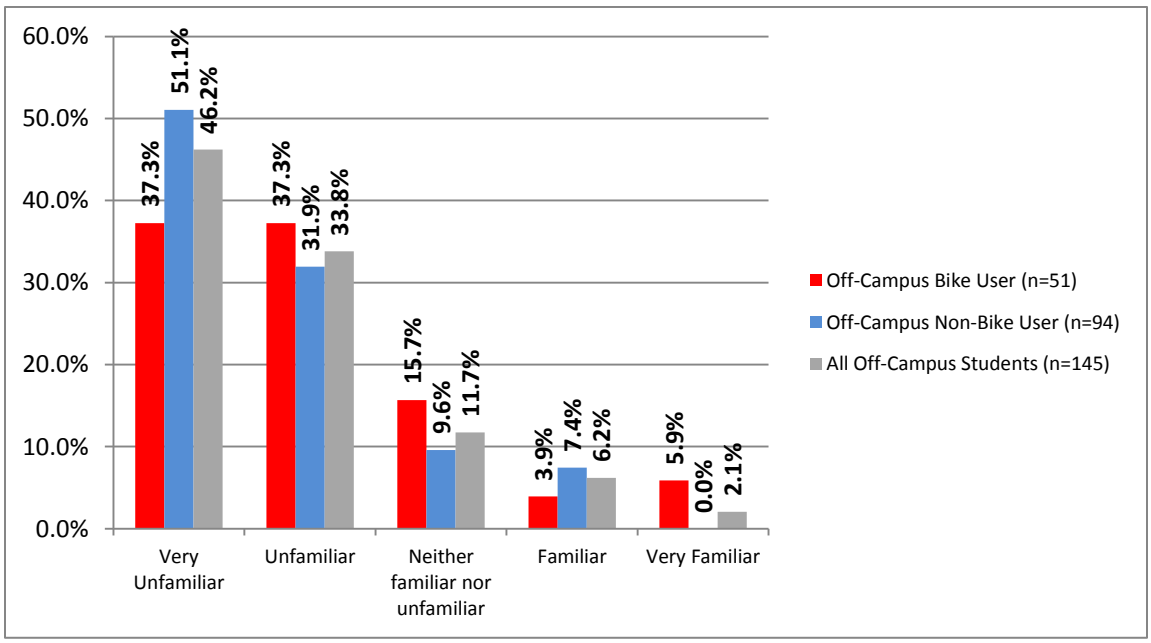
Seminole Express Bus Routes



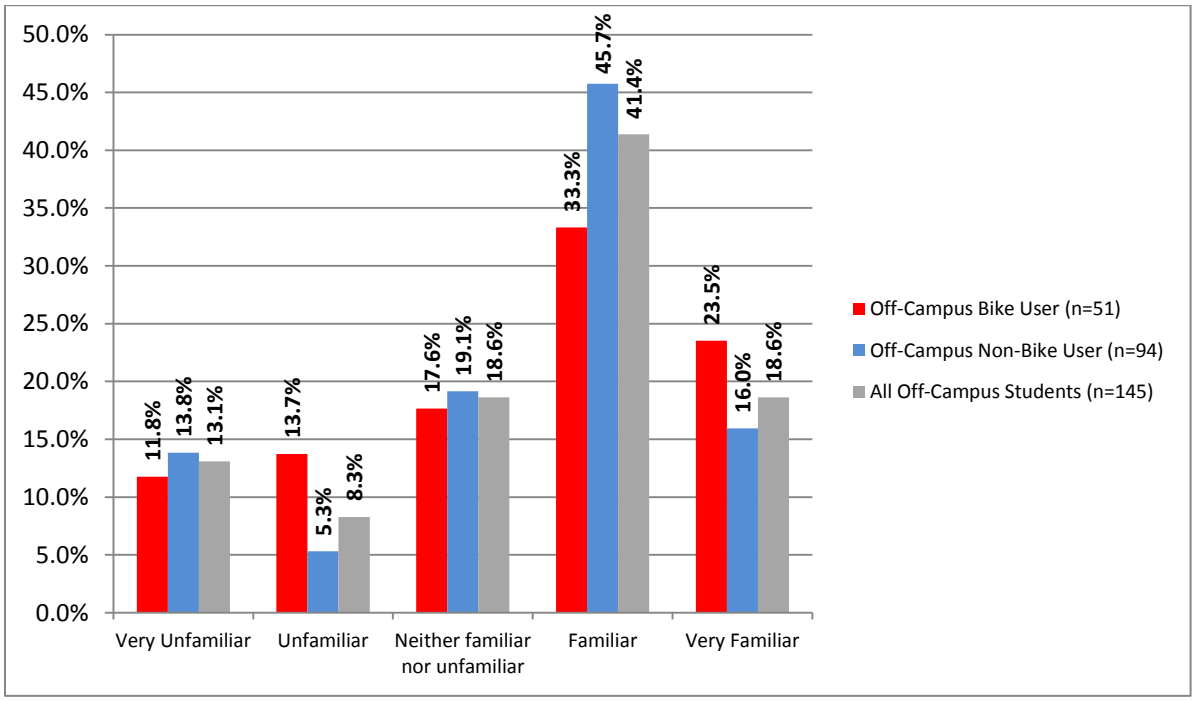
ZipCar



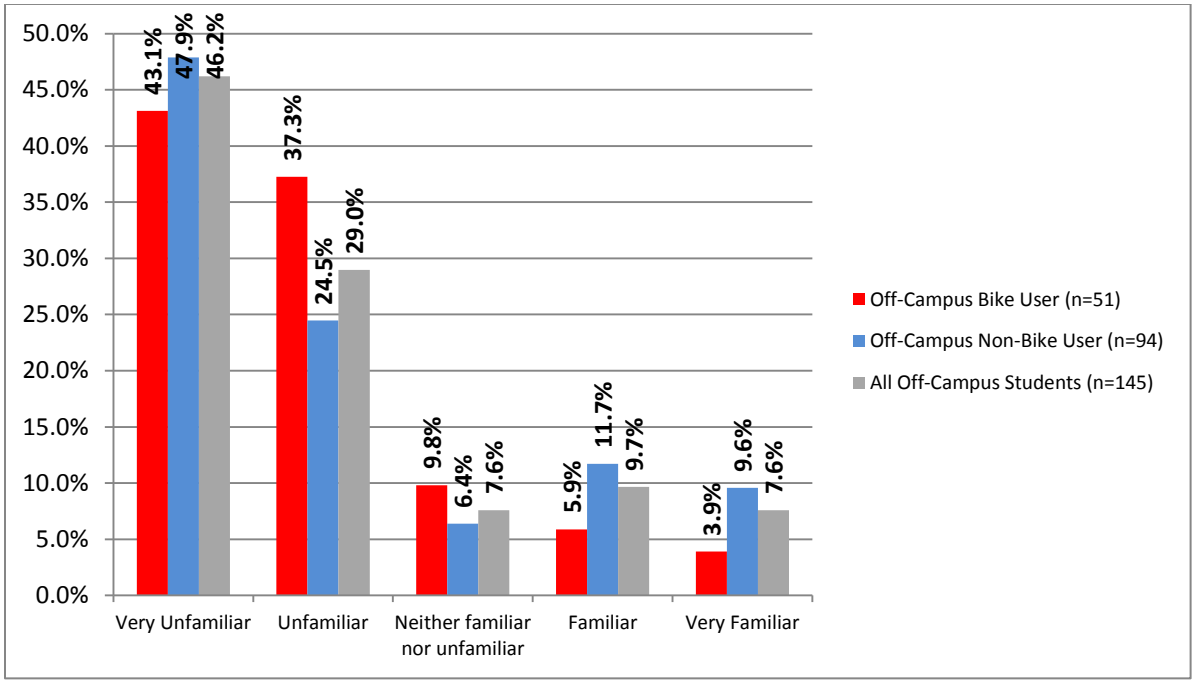
ZimRide



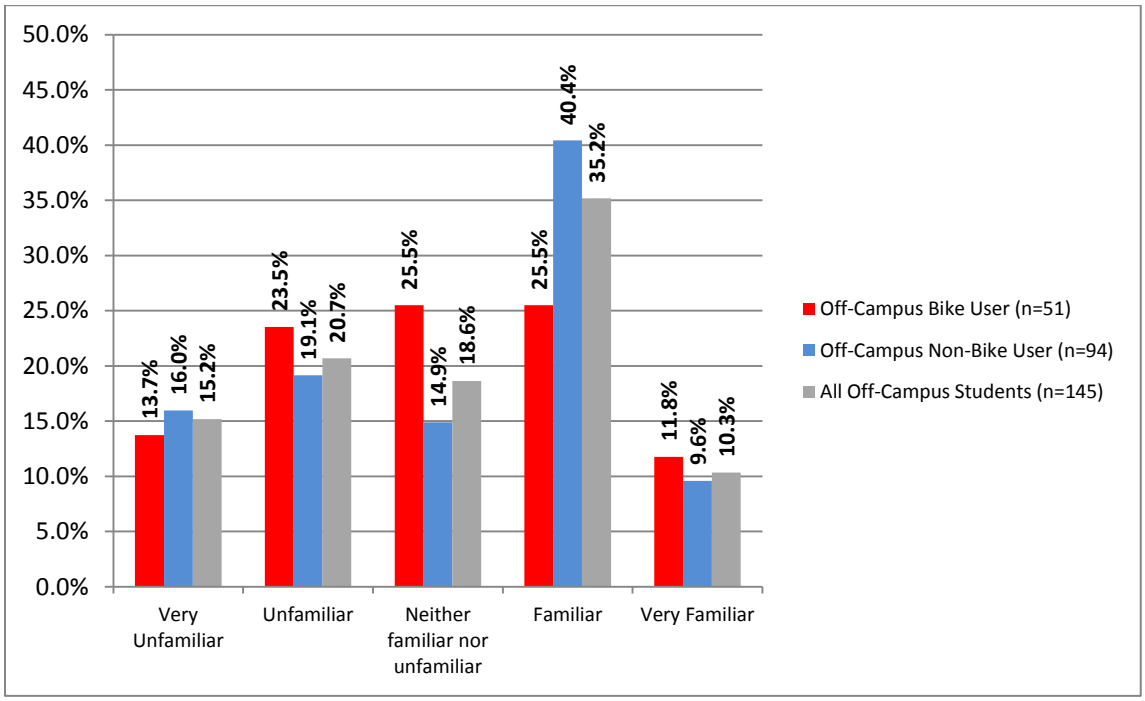
Night Nole



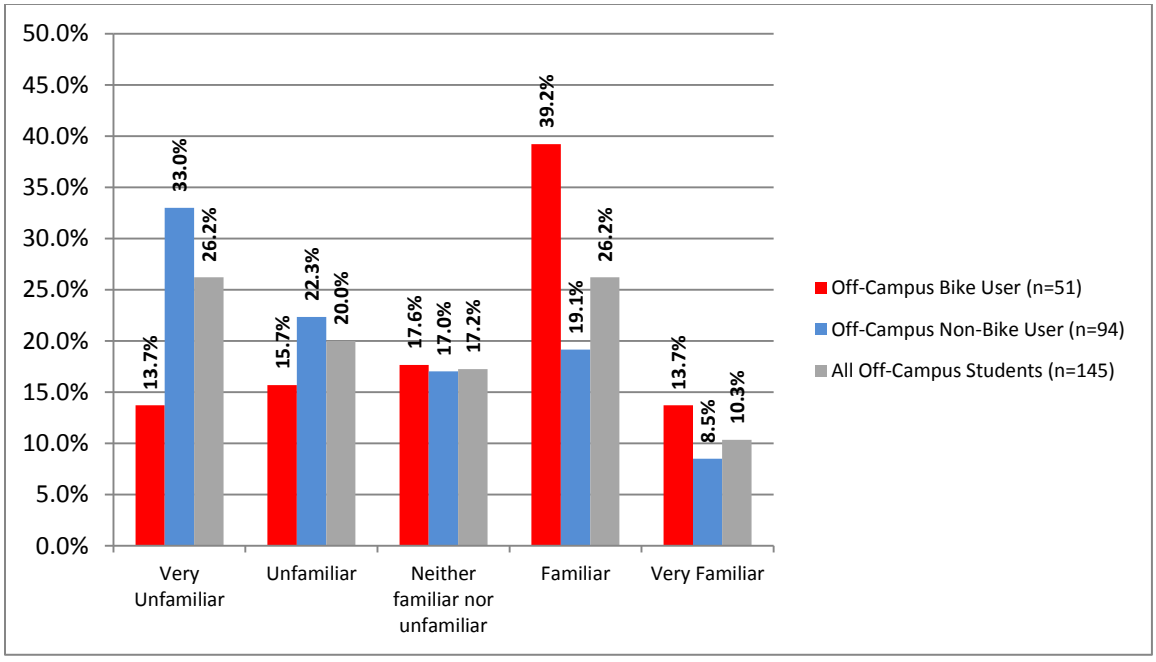
Gotcha Ride



FSU Valet



Bike Repair Station

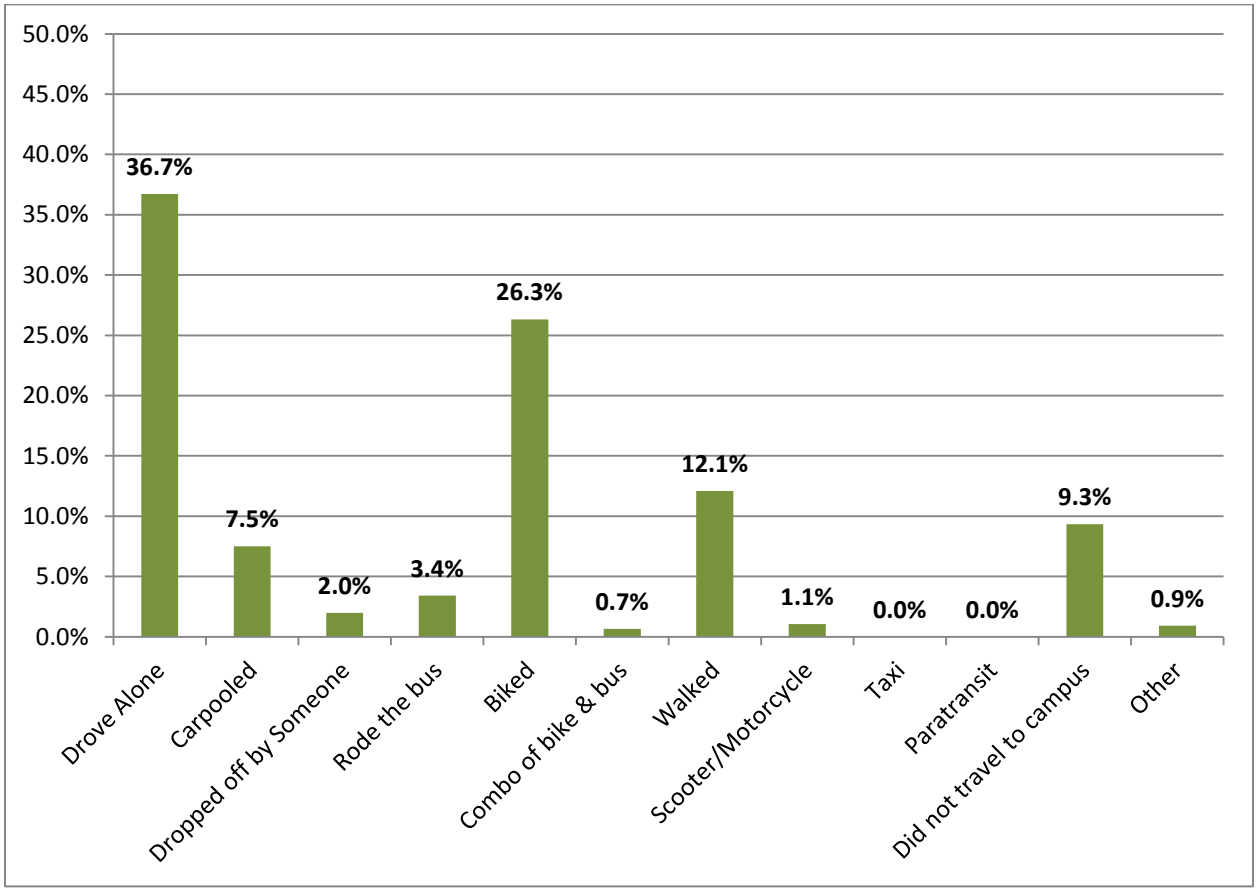


Off-Campus Student Travel Characteristics

Mode Split

A total of 760 travel days were reported by off-campus students. The mode split for these trips is provided in the chart below.

Figure 1: Travel Mode Distribution for Off-Campus Students

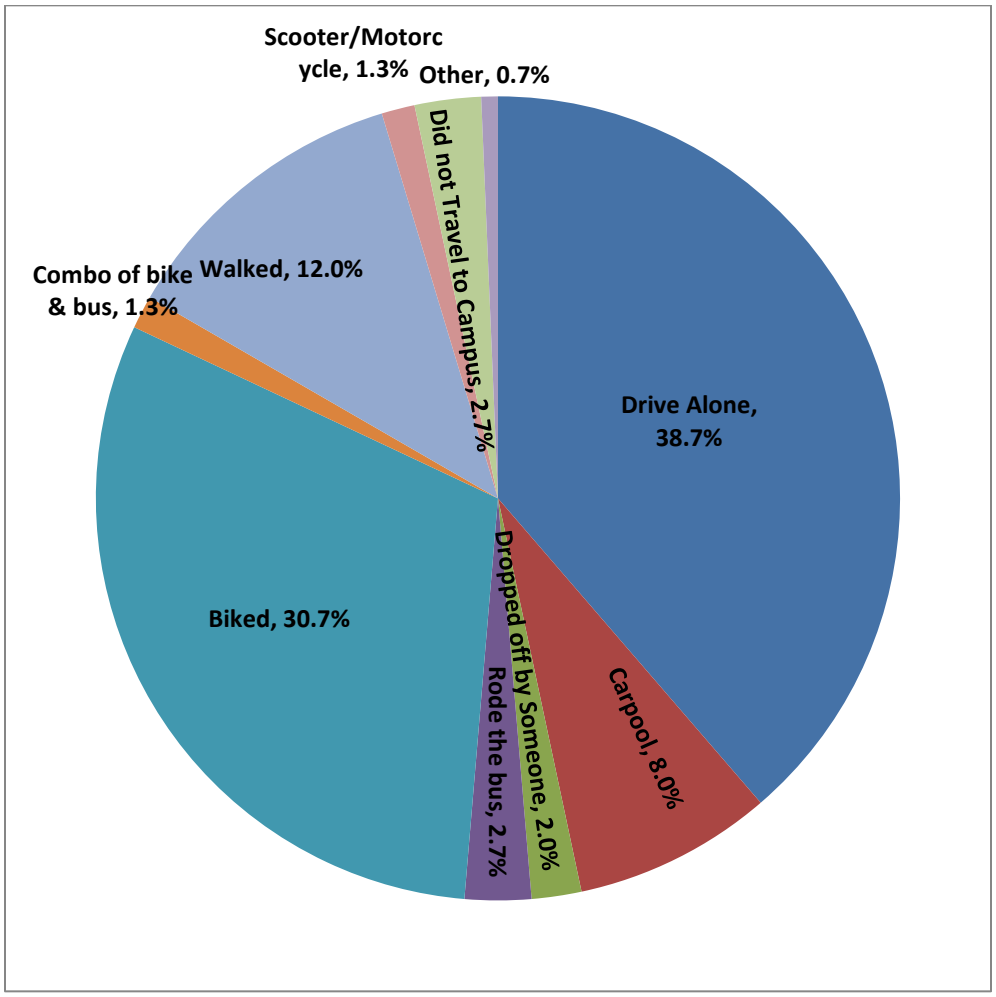


Primary Travel Mode

With few exceptions, most students reported using multiple modes over the course of the week. For example, some biked one day while walking the other four.

In order to calculate primary mode, the reported modes for each individual were examined. If an individual reported using a particular mode three or more times per week, they were assigned that travel choice as their primary mode. The following chart illustrates primary mode for each off-campus survey participant.

Figure 2: Primary Mode of Travel



Travel Time

In order to calculate average travel time by mode, each trip was isolated according to reported mode and corresponding trip duration. An average was then taken for each mode reported. The table below summarizes the average trip duration for each mode reported.[1]

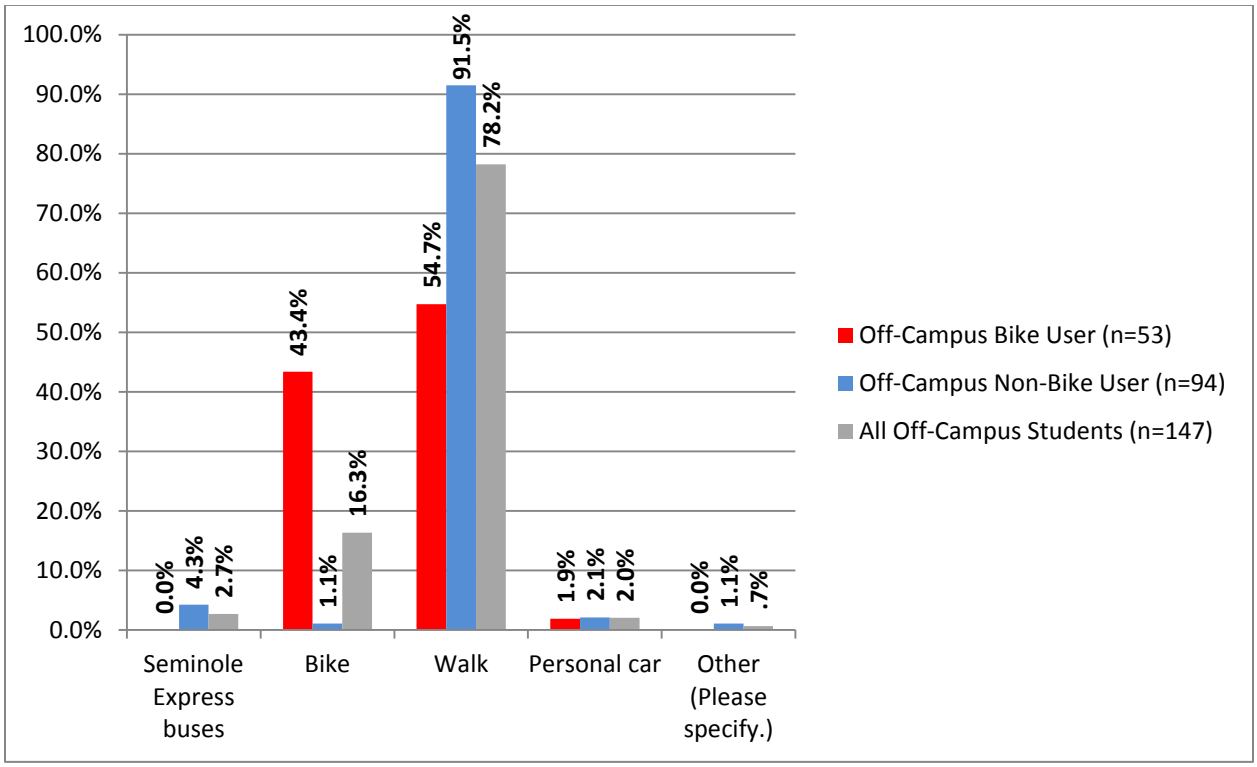
Mode	# of Trips	Total Travel Minutes	Average
Drove Alone	274	4212	15.4
Carpooled	57	1017	17.8
Dropped off by someone	15	118	7.9
Rode the bus	26	612	23.5
Biked	200	3333	16.7
Combination of Bike & Bus	5	150	30.0
Walked	90	1621	18.0
Scooter/Motorcycle	8	90	11.3

[1] Making generalized assumptions about the average trip duration and corresponding mode choice is not advised primarily because trip distance information was not solicited during the survey.

Travel Use Upon Arrival to Campus

Off-Campus students were asked how they primarily traveled between campus locations once they arrive on campus. The chart below summarizes responses to this question for participants who biked at least once during the previous 5-day period and those who did not.

For the purposes of this analysis, the data was segmented into individual who biked at **any time** during the previous week and those that did not. This segmentation is NOT based on primary mode.



ON-CAMPUS and OFF-CAMPUS BIKE AMENITIES – OPINIONS

The following tables summarize responses from bicyclists about both on-campus and off-campus bike amenities and infrastructure. The responses have been segmented by students who reside on-campus and those that reside off-campus.

For the purposes of this summary, only responses from individuals who said they biked at least once per week were analyzed since the question was not asked of other students.

Students who rated any category as a "1 (Poor)" or "2" were asked a corresponding question, seeking their input on ways to improve the particular problem area.

ON-CAMPUS STUDENTS

RELEVANT QUESTION: ***Based on your experience, how would you rate the following ON-CAMPUS bike amenities?[2] (n = 5)***

ON-CAMPUS AMENITY	1 (Poor)	2	3	4	5 (Excellent)	
Bike Lanes	40.0%	0%	40.0%	20.0%	0%	
Availability of bike parking	0%	0%	60.0%	40.0%	0%	
Convenience of bike parking	0%	0%	40.0%	60.0%	0%	
Security of bike parking	20.0%	20.0%	60.0%	0%	0%	
Safety of cyclists	40.0%	20.0%	0%	40.0%	0%	

[2] Only students who indicated that their primary mode of travel around campus are included in this summary.

CORRESPONDING QUESTION: ***Could you please briefly describe any problems and what could be done to improve them? (OPTIONAL)***

Well first off there are no bike lanes on campus which means cyclists have to take a very long round-about way to get to class or go at an almost walking pace threw the crowds. If there were to be bike lanes on either side of the main side walks wher it is concrete instead of brick, then it would allow much faster and safer travel through campus. The only change you would have to do to the current side walks would be to paint a line on either side that designates the bicycle path. Also putting the coon bicycle path symbol in the bike lane would incurage people to be aware and stay out of the bike lane. The other issue is security at the bicycle racks. there are many bicycles stolen from bike racks every year and the bicycle are never recovered. Instaation of cameras pointed at each bicycle rack would dramatically cut back on bicycle theft and would greatly increase the amount of bicycles that are recovered after being stolen.

People are constantly having close calls with getting hit by cars while on their bikes. I don't know exactly what can be done about this, but something needs to be taken care of.

So many people almost get hit by cars while riding their bikes on campus. I am not sure exactly what can be done to improve it, but something needs to happen to make drivers more aware of bikers.

RELEVANT QUESTION: ***Based on your experience, how would you rate the following OFF-CAMPUS bike amenities?[3] (n = 2)***

OFF-CAMPUS AMENITY	1 (Poor)	2	3	4	5 (Excellent)	
Bike Lanes	0%	100%		0%	0%	
Availability of bike parking	0%	50.0%	50.0%	0%	0%	
Convenience of bike parking	0%	50.0%	50.0%	0%	0%	
Security of bike parking	50%	50%		0%	0%	
Safety of cyclists	0%	100%		0%	0%	

CORRESPONDING QUESTION: Could you please briefly describe any problems and what could be done to improve them? (OPTIONAL)

Cyclists could always use more bike lanes to allow for easier mobility through the city but bicycling off campus is much easier than bicycling on campus so I feel like the focus should be on improving on campus bicycling.

[3] Only students who said they travel off-campus via bicycle are included in this summary.

OFF-CAMPUS STUDENTS

Only off-campus students who indicated they had ridden their bike to campus at least once during the past week are included in the following data summary.

RELEVANT QUESTION: ***Based on your experience, how would you rate the following ON-CAMPUS bike amenities?*** **(n=55)**

ON-CAMPUS AMENITY	1 (Poor)	2	3	4	5 (Excellent)	
Bike Lanes	49.1%	27.3%	20.0%	3.6%	0%	
Availability of bike parking	3.6%	14.5%	30.9%	38.2%	12.7%	
Convenience of bike parking	5.5%	18.2%	18.2%	38.2%	20.0%	
Security of bike parking	18.2%	21.8%	36.4%	21.8%	1.8%	
Safety of cyclists	14.5%	30.9%	34.5%	20.0%	0%	

CORRESPONDING QUESTION: Could you please briefly describe any problems and what could be done to improve them? (OPTIONAL)

"Bike lanes ON campus" There are barely any bike lanes on campus. Experienced cyclists choose the road, which inhibits traffic and puts cyclists at more danger than if there were a bike lane. Inexperienced cyclists choose the sidewalk, which endangers peestrians. There needs to be bike lanes campus wide, including on legacy walk to help with the safety of the large cycling community and pedestrians. "Security of parking a bike ON CAMPUS" The campus does not provide security for bikes, it's the sole rsponsibility of the bike owner to carry a lock. "Safety of cyclists ON CAMPUS" This has to do with the lack of bike lanes on campus and where the cyclists choose to ride their bike. They either ride in traffic which endangers them or on sidewalks whic endangers them and pedestrians. Another factor influencing cyclists lack of safety are the school buses. School buses come very close and never seem to pay attention to a cyclist coming."

"Bike lanes ON campus" 1. regarding streets shared with cars,there are hardly any ; even when using bikes lanes provided on road, cars neglect to respect space between my bike and their car, as well as honk at my using the street as tho i am in the wrong.2. bikes lanes dont exist on campus besides other than on roads (they could be iplemented on side-walks) "Safety of cyclists ON CAMPUS" saftey as a cyclist on campus ONLY comes from the cyclist's awarness and strategy. Cars stopping at on campus stop-igns is rare; as well as aknowledgement of my approach from pedestrians and cars. Speed of cars is also threatening to my safety; basically as a cyclist my safety is solely existant by MY OWN deffensive biking and never assuming cars or pedstrians will abde laws."

"3 of my friends got their bikes stolen in the past year"

Bike lanes are okay on campus, often faded. Buses typically run into bike lane. Also, bike lanes do not run all the way to most intersections. Cyclist often have pedestrian/automotive conflict, right of way issues, and lighting is poor in some areas (loking at you... Stadium Trail)

Bike Lanes on Call crossing Copeland West, bikelane on Madison Street now that its gentrified, bike lane on Woodward going north and south, bike lanes on Copeland Street and Park Avenue heading into campus. Bike parking spots are located in the back of buildings nd placed there as an afterthought, GG. Bikes get stolen all the time, even FSUPD break down bikes after midnight, hide your wheels, hide your bikes, they taking everybody up in here. I've known a handful of people who have been hit by drunk car drivers wile walking and biking on campus and lost a friend to a driver on campus.

Create more of them on surrounding roads, and specific places for bikes to go on on-campus streets (Call Street, etc.) More bike racks are needed in certain places, like the bottom entrance to Diffenbaugh off Jefferson, and the bottom entrance to Bellamyclosest to the old Thagard building.

Greater number of bike racks on campus near buikdings. More secure racks, some possibly with covers over them. Access to secure bike facilities for Faculty, Staff and Grad students inside

buildings. Greater enforcement of student driving on campus (e.g., any students do not stop for pedestrians crossing in cross walks, and pay little attention to cyclysts). Tallahassee itself is not bike freindly, in part owing to the driving habits of its citizenry and the lack of enforcement of laws and regulations by plice.

have bike racks in well-lit areas where a lot of people pass by often

High amount of conflicts between pedestrian and cyclists, as an avid cyclist I support bike free zones on parts of campus to minimize some of these conflicts. Bike lanes on campus are narrow, and many students prefer to use sidewalks which is a safety isse for both them and pedestrians. Intersections conflicts appear to be high as well, when cyclists are approaching the intersection they aren't sure how to navigate-right hook problem poor visibility etc. Cars are zipping through campus too, high speeds mae a dangerous environment for pedestrian and cyclists especially when topographic features increase risks

I can't really think of many bike lanes on campus, at least where I ride. It would be nice to have some bike lanes in areas that are highly congested with pedestrians. Many of the bike racks on campus do not allow for locking both the front and back o a bike to the rack; this prevents the most secure locking technique. Otherwise, there are no evident bike parking security measures like bike lockers.

I frequently use Chieftan Way because there are fewer hills there than in other parts of campus, and I find that it is one of the most dangerous roads for biking on campus. Bike lanes should be on all roads on campus, but especially Chieftan Way.

I have almost never seen bike lanes on campus, with the exception of Call Street. and on Stadium Drive. I know the streets are small so bike lanes are impossible to put in in some places, but this factors into the safety issue. Share the road is a nice idea, but whn the sidewalks are crowded (bikes shouldn't be there anyways), you bike in the road and drivers get angry and I've seen people get harassed and run off the road because they were "biking too slow." Also, when there are bike lanes, some of the most dangerus things to cyclists are other cyclists. ANYONE BIKING

ON THE WRONG SIDE OF THE STREET IN THE BIKE LANE IS A THREAT TO OTHERS LIVES AND SHOULD BE TICKETED ON THE SPOT. It is the same as driving a car on the wrongs side of the street. It is extremely dangrous and I've seen too many people do it, even skateboarders and I've personally had to duck into the road to avoid a crash even with car traffic behind me. Cops on campus should focus less on ticketing on cheiftan and call for the stop sign and more abou protecting cyclists and drivers from getting into an accident. Yes, running stop signs is an issue, but responsible cyclists don't do that, yet responsible cyclists can get run off the road if someone is carelessly biking on the wrong side of the street.

I have to swerve in and out of people a lot when going through campus, but the road lanes are nice.

I haven't seen any bike lanes...or maybe there is one from pensacolla to leach?

I think there should be designated bike lanes, and that cyclists should also have a way to ride on sidewalks/paths that does not interfere with pedestrians for their safety and cyclists safety.

I think we should have pathways for bikers on the sidewalk especially near on legancy walk. It is really hard for me to get to class during popular times on campus.

If there were designated bike spaces throughout the non-road areas of campus I would feel better about how I and other cyclists can move through campus. Especially during high-traffic times, biking across campus is unfeasible.

Integrated bike lanes on busy pedestrian/cyclist sidewalks would be complicated but well received.

It would be nice to have bike lanes in the pedestrian areas as well. This could easily be accomplished in many areas by having the brick center of the walk way be pedestrian and the cement side strips be directional 'bike lanes'.

Mandatory space for lanes on all roadways throughout campus or at least sharrows. Also, painted bicycle lanes on the actual campus would be helpful as well.

Many streets on campus do not have bike lanes altogether. Bicycle commuters could certainly benefit from more bike lanes. However, a more frustrating problem is the fact that there are many streets which accommodate travel in a bike lane, and then the bke lane abruptly ends after making a turn or even remaining on that same street. A system that accommodates more continuous travel via bike lanes would greatly contribute to the safety of cyclists on campus. Aside from maybe better lighting and securiy cameras at each rack, I am not sure of a good remedy to security of bike parking. Daylight hours seem to be the safest, but thefts still seem to be rampant. Recollecting four full years here as an undergrad, "My bike was stolen" seems to be a cliched onversation topic. My own bike was stolen from my residence hall (with a lock on it) my freshman year. I filed a report with FSUPD, but my property was never recovered. This seemed to be a pretty standard call for FSUPD, and the apathy associated with he situation is infuriating.

More bike parking areas would be nice. Bikes parked are often vandalized and then left behind by owners. Many if not most college students drive wrecklessly in the best of times.

Most roads that I use on campus and nearby campus do not have bike lanes. In particular, Call Street on the west end of campus could use a bike lane.

Not a very bike friendly campus. I would like to see more bicycle lanes around the campus, so I don't have to take the side walk. It would be better for cyclers and students in general and might encourage more students to want to ride a bike. A lot ofbikes seems to get stolen or damaged and that always worries me when I'm locking my bike up. Nothing has happened to my bicycle in particular, but I have heard of others.

Not too sure for this one. It's really left to our own responiibilty to get a good enough lock.

Physically separated bike lanes from the road.

Rid the campus of cars NOW!

Some buildings dont have bike racks anywhere near them. EG Turnbull conference center has no bike racks. The bike racks in high traffic areas (between King and the parking garage) are often over full

the bike racks are PATHETIC There is NO security. Most of the racks are loose and if you pick them up you can take that bike and lock with it. There has zero improvement in bike racks in 10 years. There has been a net loss of total bike spots in the lst two years. Most bike racks are storage facilities. No one ever wants to move their bike or use their bike because they will never get the bike storage spot back and they will have to lock is somewhere else where they know it will get stolen. There iszero concern about bike use by the administration on this campus.

The Call street corridor from Stadium to Copeland is the only place wide enough to permit both pedestrian and bicycle traffic. The pathways across Landis green are too narrow for both, so I get around mostly by the streets. This is usually fine, except all street construction is difficult for both cars and bikes, Also, there are not marked bike lanes on Jefferson or Woodward, A share-the-road sign at least would be helpful.

The Call Street walkway is very dangerous because you have to weave between walkers. It is often hard to find space on bike racks. Regarding safety, see first comment. There are virtually no dedicated avenues for bikes to travel on; they must compee either with cars or weave in between walkers.

There are almost no bike lanes going through campus, so bikers are muddled up with pedestrians. I notice that many cyclists do not wear helmets, which is not necessarily FSU's problem.

There are no bike lanes on campus. I never feel safe leaving my bike overnight, if I have to. People's bikes get stolen very often, and if not the whole bike then the seat or wheels which is a

pain the buttocks. Cyclists are not given the right away ever.Cars never look out for bicyclists when turning and pedestrians are mad when a bicyclist swerves around them.

There are no bike lanes on campus. There are no bike lanes on Champions Way or Chieftan Way which are both very heavy traffic areas. There should also be designated bike paths on the campus corridor between Paul Dirac Library and Strozier library. There ae a lot of close calls between walkers and cyclists.

There are no designated bike lanes along the campus boulevards.

There are pretty much no bike lanes in the routes I use on campus, pedestrians are constantly on their phones and taking up the entire sidewalk instead of just the left side or right side. I do not feel safe because pedestrians are unaware of their surroudings and I have to constantly dodge unaware walkers. We absolutely need bike lanes I am a huge advocate.

There do not seem to be "bike lanes" on campus, they are in together with the pedestrian walkways, which make it difficult to maneuver during times of heavy pedestrian traffic. A common route of mine is from Stadium center D to either Diffenbaugh or hoe via Call Street. I cross roadways that are busy (especially crossing by the circus tent) and often have to avoid Legacy Walk do to heavy foot traffic. Also, the exit from Legacy Walk to Call Street (where they are currently doing construction) is terrible for cyclists. My issues with safety revolve around no bike lanes. Also having to compete against cars and buses as I navigate on and off campus lines.

There is too much access for motor vehicles on campus, often without any separate facilities for cyclists. Thus, it is often necessary to share the roadway with cars, which can be a daunting task during rush hour, or even non-rush hour, but where driversare exceeding the speed limits. More can be done to allow for better permeability of bikes through campus. It is often not possible to get from one end to another without using the same busy network that cars use and most sidewalks are too narrow to comortably share with pedestrians. Academic Way is not a pleasant road to cycle on, and the Call Street Pedestrian walk way can be unpleasant when full of

pedestrians. There are no good alternatives to either of these. The level of bike parking on camus is highly variable, with some areas (dorms, Union, lecture halls) having ample spaces while some buildings completely lack any convenient location to park your bicycle. The types of racks used (the upside-down U, or Shefferd) are not the most easy to se oftentimes, and result in a chaotic mess of bikes leaning in all directions or falling to the ground while still locked up. When racks are not available, it is oftentimes necessary to lock the bike up against a post or tree, but it's not clear whetherthis is against the rules and whether or not the bike will be removed. As far as safety, there's too much access for cars throughout campus and the speeds are too high (20/25 MPH, etc.), assuming that drivers even follow the limit. There are very fe facilities for cyclists, so we often either have to fight for space with cars, or with pedestrians. It really makes me feel like being part of an "out-group" and an afterthought in planning, etc.

Though there are some bike lanes on main campus roads on the west side of campus, drivers do not obey them and there are few to none on the east side of campus.

We need bikelines on the main stretches through campus like the walk from the science buildings past the union up towards the music school. I believe it's called the "tradition walk," it's the paved section where there are always a lot of pedestrians. It' IMPOSSIBLE to get through that section during "rush hours" when pedestrians are prevalent. Bicyclists squeeze through gaps of people on both sides of the walkway, I have close calls with pedestrians and other bicyclists EVERY DAY. We need a lane specificlly for bikes. Also, biking traffic laws need to be more strictly enforeced, sometimes skateboarders ride in the bike lanes or cyclists ride their bikes the wrong way in bike lanes. Coming down call street cars often drive part way in the bike lane or dont watch for bikes when turning/pulling out. It is a very stressful commute because of lack of attention on the part of pedestrians, other cyclists and car drivers alike.

While biking on vehicle-based roads such as stadium is nice with the availability of bike lanes, riding through campus is a nightmare. There are students walking and longboarding everywhere, and despite their lack of ability to maneuver they also adamantl text, make phone calls, and monitor their mp3 players while commuting. It's a headache. And even the bike lanes on the roads can be stressful, since cars often ride in them and all the debris from the road (why

is there always so much glass and plastic o the streets?!) is usually pushed off onto the bike lane. Having specifically demarcated lanes on campus for cyclists and walkers would make traveling more efficient and increase the safety of many on campus during the week.

RELEVANT QUESTION: Based on your experience, how would you rate the following OFF-CAMPUS bike amenities? (n=52)

OFF-CAMPUS AMENITY	1 (Poor)	2	3	4	5 (Excellent)	
Bike Lanes	30.8%	34.6%	30.8%	3.8%	0%	
Availability of bike parking	32.7%	46.2%	17.3%	3.8%	0%	
Convenience of bike parking	32.7%	28.8%	30.8%	5.8%	1.9%	
Security of bike parking	32.7%	38.5%	25.0%	3.8%	0%	
Safety of cyclists	32.7%	42.3%	19.2%	5.8%	0%	

CORRESPONDING QUESTION: Could you please briefly describe any problems and what could be done to improve them? (OPTIONAL)

Again, cyclists biking on the wrong side of the street is a huge danger, especially in heavy traffic. There should be a huge penalty for this (ticket). Lets face it, many times, particularly on small streets, share the road policy doesn't work. It makes divers angry and much more likely harass cyclists and to run them off the road. I've been hit once and seen two others get hit following perfect bicycle safety. One cop even neglected to ticket the driver, even though she was on the phone and threw the cylist into the air. The driver didn't even come out of the car to help the girl, nor did the cop. The cop actually told the girl "that is why you should get a car." Cyclists need to be taken seriously as users of the road and that isn't being maintained bydrivers or law enforcement at the moment. They acknowledge it when they can give tickets for running stop signs when they need to fill a ticket quota, but they are not there to protect us. I personally would not trust a cop to give the biker the rights thy deserve.

Again, providing cyclists with designated lanes. The reason I ride primarily on the sidewalk is because I fear my safety riding on the road with vehicles that weight >20x my weight.

All of these are obvious... Bike lanes are either non-existent or are not kept to a good standard. Availability of bike parking off campus is limited to whatever handrail/sign you can find in the city. If there are other cyclist (typically on the wayto Whole Foods), then we have to fight for bike parking. I feel unsecure parking my bike almost anywhere in Tallahassee, the University may even be more safe because of the traffic through the area. Cyclist safety is rare off of campus. Lack of enforceent for automotive traffic giving bikes appropriate space is abysmal.

Bike lanes could be improved-monroe street and tennessee street for example. Bike parking is mainly available for grocery stores. Otherwise I just lock my bike to a post

Bike lanes not available everywhere

Bike Lanes off Campus: Gaines was redesigned poorly because it does not have bike lanes, but it does have a median and a wide sidewalk. There are no bike lanes on principal thoroughfares like Tennessee, Monroe, Old Bainbridge. This limits cyclists to Tarpe, Mahan, Blairstone, Pensacola, Stadium. This isn't terrible, but cycling the north side of town is very difficult and feels unsafe. Bike Parking is not readily available - you usually have to be pretty creative: fences, posts, parking meters. U-ocks are best for security, but are difficult if there are not bike racks. Convenience of Parking a bike rack is as above. Apartment complexes and whatnot are often no more accomodating - Biking to strips on Pensacola, Tennessee, Gaines is enough in iself, but locking your bike once you've arrived can be a challenge all its own. Security of Parking a Bike is directly related to Availability and Convenience. Also, it is often best to bring your bike inside at night: A bicycle safety information clas should mention that: it is better for your bike's safety, for even a secure bike can be looted for parts if a culprit finds it valuable. And even if your bike is not stolen, the morning dew, sudden storms, etc wreak havoc on a bicycle. Safety of Cycists is poor. There was a week in late september where 4 or 5 different people came into Bike House, two of whom were giving up on biking because they were hit.

There have even been incident on campus as well. Even when there are lanes and cyclists are beying the law, there are signficant dangers from vehicular carelessness. Security of Parking

Bike lanes within the city center are almost non-existent, with only a few blocks of a few less-busy (but still heavily used by cars) streets like E. Call or Railroad Square. The lanes are narrow, end at or before intersections and offer very little protction of feeling of subjective safety. Furthermore, I was very disappointed to see that the bike lanes from Jefferson were removed, at the stretch adjacent to the south end of campus. Parking is very limited off campus and only a few large stores orshopping centers tend to carry them. It is currently possible to lock the bicycle up to a tree or post, but this could be a major issue if a significant number of cyclists did this simultaneously. Tallahassee is a very car-oriented city, with accessfor cars on almost any road, even in the downtown areas. There is almost no designated facility for cyclists and you have to share with a high volume and speed of traffic oftentimes no matter where you travel. It is not possible to bike completely on queter streets to get around town as there's no connectivity of these quiet routes. What Tallahassee needs is to upgrade and install better cycling facilities like separated bike lanes on the arterial roads and limit access to cars on the heavy shopping steets, etc. Countries like the Netherlands and Denmark offer excellent examples of how to make any city more bike-friendly.

Bike lanes, when they exist off campus, are filled with debris and often stop abruptly. This is especially true on the routes I take around town. Furthermore, when you travel to many off campus locations there is no where to legally lock your bicycle. Keeing bike lanes clean (and ideally adding more around town) would be a good start to addressing these problems. In a perfect world many of the licensed drivers, specifically the many 18-24 year olds from South Florida, would have their licenses revoked andbe forced to only take mass transit. These drivers cause a majority of the safety concerns off campus and it hurts the city's image. As far as parking bike off campus, I'm not sure how to create an incentive for businesses and non-FSU entities to erect bie racks, but doing so would help establish Tallahassee as a more bike-friendly city.

Build more bike lanes around tallahassee, especially main roads like Tennessee Street.

Forget about bike lanes, they do nothing. You must cut the width of the roads and add on street parking. You must design the urban environment that will make drivers behave.

Generally, there is a disregard for the fact that bike lanes are not just shoulders for debris. Construction workers often will just push debris to the side of the road, which results in a safety issue as a biker might hit the debris and fall or pop a tie. Also, paying attention to paving smoothly over street improvements that cause rough patches would be nice (for example, the areas around manholes in the sidewalk are seamless, but the areas around manholes in the street are very rough). Motorists dn't understand the cyclist's right to take the lane. Studies have shown that taking the lane is the most safe position for a cyclist as it indicates driver behavior and offers the greatest visibility, particularly as drivers tend to be texting or otherwie distracted and swerve into bike lanes or don't notice a bike in the lane and make right hand turns into them. The "sharrow" is not a familiar symbol and "Share the Road" signs are ignored or not understood.

Hardly any bike lanes in Tallahassee...more needed. Drivers pay little attention to cyclysts and in some cases purposely endanger them. Community awareness of how to share the road with cyclysts could be improved as well as greater enforcement of driving ules and regulations by police. Buisnesses could be encouraged to provide racks and space for secure bike parking.

I utilize Gadsden, Call Street, Calhoun, Park St, Gaines, and MLK to get to campus. At most, there are sharrows, and a section of bike lane on Call. Most people are OK driving around me but there are some aggressive drivers, and I have been honked and yelld at most often while on Calhoun. Also, while riding at night on Call around the cemetery and library(also going from Park to MLK to Call, there is very little light), I have been afraid occasionally because there are very few people around, and the steet lights are dim and flickery.

Many government buildings do not have bike parking locations, or they are not located close to the door of the buildings. This could be improved, as well as more bike lanes and bike boxes in different parts of the central city. The intersection of CaliarkSt and Tennessee St is very dangerous and confusing for a cyclist and I use it on bike almost every day.

Many stores (Win Dixie for example) don't have bike parking. Most major streets don't have a bike lane and sidewalks are so uneven/rough that riding a road bike on them is painful. Not to mention you are contantly in danger of hitting a pedestrian with hi or her ipod turned up so loud that they don't here bike bells or even hollars. Cars are oblivious to bicyclists especially at the Tennesse/Ocala intersection. Cars turning right often cut cyclists off and get extremely close to or even drive in the bike and on Ocala. On Call street, service vehicles (including FSU service vehicles and FSU busses) use the bike lane as a shoulder to park or stop in causing cyclists to have to stop and maneuver around pedestrians on the sidewalk or venture out into the mainstreet. I have also been verbally harassed by passing cars on multiple occasions on Ocala and even once had something thrown at me.

More bike lanes around town especially All Saints area

More bike lanes! More bike racks! Less bike thieves! More bike awareness from drivers! <3

off campus bike lanes- i would never use, drivers are still, even more, disregarding to traffic laws and curtesy Off campus parking- not many designated bike racks; defaulting to poles or railings isnt penalized like on campus though Safety off campus-Same reasons as before, but more extreme; atleast the campus' some-what wider sidewalks provide a sort of safe-haven

Sharing the road with the cars is just too dangerous. The roads are not adapted at all for bikes. There is garbage or glass on the road. The drivers are not willing to share the road and most of them are not aware of laws concerning bikers rights.

Tallahassee has started being more bike friendly, but there are still not enough designated bike lanes. A lot of the time I will see people riding on the sidewalk since the streets are so busy and again drivers seem aggressive to cyclists on major roads. There are few places in 'downtown' Tallahassee to safely and securely park a bike. I've seen racks dotted around, but it is limited at places like the capital and the park on Park and Monroe. Personally I haven't had issues with

theft, but the majorityof my cycling friends have had at least one bike stolen while parked off campus (and on for that matter).

The only time I ride my bike off-campus is for exercise, and it don't feel very safe, even on roads like Pensacola that have bike lanes! I haven't seen many bike racks around town, which is something I look. I certainly wouldn't feel safe leaving my bike ocked up at a rack overnight off campus.

There is scarce parking off-campus (Atomic Coffee, All Saints District, etc), there a few bike lanes off campus, many of them incomplete.

There isn't a bike lane at all on Jackson Bluff, where many students live. Cars go fast along that road, and there isn't even a sidewalk on the right when you're biking West. There are almost no bike racks in the downtown Tallahassee area and no bike lane on Tennessee Street. Cars aren't used to many pedestrians and bikes, so I often feel unsafe.

This city is just terrible, start over. Bike lanes on Tennessee St., Gaines St., Pensacola St. (Both east and west), Copeland St. Park St., Duval St., Bronough St., Monroe St. Most businesses have no bike parking so convenience is not an issue, just tie i to the nearest stationary vertical structure and hope that Andre the giant doensn't pull it over the top of it. Near campus are even worse than campus with bike security, you will get knocked off you bike and get your shit stolen. I've had a friend die nar campus, the safety problem is partly due to the young, stupid population with cars, partly due to the terrible curb cut-outs and partly due to lack of traffic enforcement (more no turn on red signs, more pedestrian crossways).

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