University of Louisville

Bicycle Master Plan

2011
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Executive Summary

UofL is seeking to reduce the number of cars being driven to campus and to promote the use of the bicycle for transportation, while maintaining campuses which are safe and convenient for all users. These goals are essential components of the university’s commitment to sustainability, climate neutrality, the health and wellness of our campus community, and the vitality of our neighborhood and city. This Bicycle Master Plan for UofL is a roadmap for achieving these goals in tandem with UofL’s broader campus master planning efforts and with Louisville Metro’s efforts to create a more bike- and pedestrian-friendly city.

Goal 1: Create campus infrastructure where bicycling and walking are convenient, safe & preferred

Objective 1.1 Belknap Campus Core: Provide system of separated and shared-use paths to minimize bike-pedestrian conflicts
Action 1.1.1: Prioritize needs of bicyclists and pedestrians in design and development of the campus core.
Action 1.1.2: Provide separate bike and pedestrian paths wherever practical within campus core.
Action 1.1.3: Clearly delineate user areas with unique surface treatments, signs, racks, and lighting.
Action 1.1.4: Design to LEED-ND bike design guidelines
Action 1.1.5: Create educational core loop connected mixed-use trails
Action 1.1.6: Plan for mixed-use trails on future development parcels and connect to existing Loops
Action 1.1.7: Voluntary bicycle registration program and enforcement of abandoned bike

Objective 1.2 Streets and Intersections: Improve walk-ability and bike-ability for campus commuters
Action 1.2.1: Design for most vulnerable pedestrians and all skill levels of bicyclists
Action 1.2.2: Designate "University Bike and Pedestrian District" improvement areas
Action 1.2.3: No truck routes through campus or immediate perimeter
Action 1.2.4: Partner with residential and business neighbors for Complete Streets development

Objective 1.3 On-campus bicycle amenities
Action 1.3.1: Provide sufficient bike facilities and parking to meet demand and make bike commuting safe and convenient
Action 1.3.2: Support the creation of a campus bike shop where basic repairs and parts/accessories are accessible and affordable
Action 1.3.3: Provide bike maps and signage on campus to direct people to safer routes to and within campus
Goal 2: Reduce percentage of single occupant vehicle (SOV) trips to, within, and between campuses

Objective 2.1 Support inter-modal commuting to Belknap, HSC, and Shelby
Action 2.1.1: Promote use of TARC to get to UofL, including Belknap to HSC shuttle service and bikes-on-board
Action 2.1.2: Explore possibilities for a Shelby pilot program for suburban park-and-ride depots with express bus routes to campuses
Action 2.1.3: Create on-street bike facilities connecting Belknap to HSC in both directions (e.g., bike boulevard pilot program)
Action 2.1.4: Provide secure intermodal and bike share depots on campuses with out-of-the elements bike parking
Action 2.1.5: Provide free or low-cost bike-share options at Belknap and HSC
Action 2.1.6: Collaborate to create a city-wide bike-share program with stakeholders from government, schools, businesses, etc.

Objective 2.2 Transportation demand management
Action 2.2.1: Create free bicycle program for those willing to forgo a UofL Parking Permit
Action 2.2.2: Price auto parking permits to support progressive reductions in SOV commutes
Action 2.2.3: Provide incentives and online matching system for carpools and vanpools
Action 2.2.4: Provide support and incentives to encourage employees and students to live within biking and walking distance of UofL
Action 2.2.5: Regularly monitor UofL commuter mode-share, attitudes and needs; and revise SOV reduction strategies accordingly

Goal 3: Nurture the growth of a culture of bicycling for transportation within the UofL community

Objective 3.1 Biking programs for students
Action 3.1.1: Provide education and training programs for students in safe, confident cycling and bike maintenance
Action 3.1.2: Promote safe bicycling for transportation and wellness through UofL’s Campus Health Services & Promotion
Action 3.1.3: Host extracurricular and special events with focus on bicycling for transportation (see LEED-ND programming items)

Objective 3.2 Bicycling programs for employees
Action 3.2.1: Provide education and training programs for employees in safe, confident cycling and bike maintenance
Action 3.2.2: Promote safe bicycling for transportation and wellness within UofL’s Get Healthy Now employee wellness program
Action 3.2.3: Provide on-campus employee bicycle fleets

Objective 3.3 Analyze and market UofL transportation sustainability goals
Action 3.3.1: Annually collect and distribute data on UofL commuter behavior and transportation alternatives attitudes/needs
Action 3.3.2: Market transportation aspects of campus sustainability indicators and the Presidents’ Climate Commitment
Introduction

“As people all over the country gravitate toward taking action on climate change, more and more eyes are looking to college campuses in search of bold new solutions. Campuses are filled with young passionate minds, mentors with diverse experience, advanced research facilities—in short, many of the resources we need to address this challenge. Thus Colleges and Universities have a unique opportunity to take real action on climate change and serve as a model for the rest of the nation to follow.” (Source: cleanair-coolplanet.org)

Each of University of Louisville’s three strategic goals for the next 20 years are directly related to the quality of its three campuses’ built environments:

- The first goal is to attract top-tier undergraduates, improve campus life/success.
- Second is for the university to be a “Good Neighbor” in the community.
- The third goal is to attract top researchers and research dollars to the campus.

Transforming the Belknap, Health Sciences Campus and Shelby campuses into model built environments where pedestrians and cyclists feel safe in world-class public spaces is critical to achieving all three of these goals. It is also vital to achieving UofL’s Climate Action Plan goals for reducing the number of people driving to campus.

1 UofL’s September 2010 Climate Action Plan is available at http://acupcc.aashe.org/cap/700/
Kenneth Dietz, Director of Planning, Design and Construction at UofL estimates:

- Today there are ten times more bikes on campus than five years ago
- The new Province and Bellamy apartments west of campus have created at least an additional 4,000 daily east-to-west pedestrian trips on Brandeis and crossings of 2nd, 3rd and 4th Streets.
- The university is planning to increase its current 24% of undergraduates living on-campus to 30% in the next few years.

Clearly, these projected increases in pedestrians and cyclists will require the redesign of streets and intersections which were originally designed and built based on much lower pedestrian and bicycle traffic. The addition of bike pathways, mixed use pathways, green spaces and clearly defined interaction points between walkers, cyclists and cars are needed to ensure the safety of the university community.

Dr. Justin Mog, Assistant to the Provost for Sustainability Initiatives at UofL, points out the importance of encouraging bike, pedestrian, bus and carpool commuting in order for the university to meet its goal of progressively reducing greenhouse gas emissions over time. Though commuting currently only accounts for an estimated 9% of UofL’s total carbon footprint, achieving climate neutrality will require the largest possible reductions in carbon producing activities in all areas; changing the behaviors of commuters will be imperative to reaching the goals for the university’s transportation sector. Mog reminds us that the more ways the university can promote alternative transportation and make it more convenient, visible, and safe, the more it will improve sustainability.

Possibilities to increase cycling and walking include providing secure, out of the elements bike parking, training for the UofL community in safe and confident cycling, clearly defined bike and pedestrian pathways, and an increase in both the quantity and quality of signage and maps, both on campus and perimeter roadways. He reiterates the importance of looking at other cities’ cycling and pedestrian infrastructure, such as the multi-use paths prevalent in Madison, Wisconsin, automated commuter bike rentals in Denver and Minneapolis, and new ways of reserving bikes by cell phone or by checking out bikes from bike-share-stations by swiping debit or student identification cards.
By incorporating bike, pedestrian and intermodal design principles learned from cutting-edge-city prototypes worldwide, the University has the opportunity to create safer, faster and cheaper transportation for students, faculty and staff, in addition to leading the city and region in educating the public about the benefits of alternative modes of transportation.

As Stacey Burton of the Kentuckiana Regional Planning & Development Agency (KIPDA) explains, “The University of Louisville could be the shining example of bike and pedestrian transportation design for the entire area.”

Using designs that clearly define exactly where bicyclists, walkers and drivers are expected to travel, and truly understanding commuters’ needs, will be vital to encouraging people of all skill levels to incorporate more walking, cycling and bus usage into their daily commute patterns. These design modifications are needed not only directly on UofL campuses, but improving roads around campus will be imperative to creating an environment where more students, faculty and staff want to live, work, play and relax.

UofL is actively working with Louisville Metro government to advance such improvements. Since 2004, UofL, Jefferson County Public Schools and Metro government have cooperated through the Partnership for a Green City. One of the Partnership’s goals is to reduce greenhouse gas (GHG) emissions in the community to 7% below 1990 levels by 2012, as called for in 2005 Kyoto Protocol. In 2008, UofL President James Ramsey took a leadership roll in the city by signing the American College & University Presidents Climate Commitment, pledging UofL to achieving climate neutrality.

The Clean Air-Cool Planet Guide used by many signatories suggests a four-step model for campus climate action:

- Bring People Together
- Find Data
- Get Creative
- Present Your Ideas
This Bicycle Plan echoes that model, with the purpose of bringing people together, both within the university community and beyond to gather information, meet, discuss, brainstorm, be creative and share ideas for a more sustainable, reduced carbon transportation system. This plan includes input from administrators of various campus departments and programs including health, education, parking, safety, enforcement, business affairs, sustainability council, and campus planning as well as data from students, faculty and staff which was gathered in a campus-wide March 2010 transportation survey. As Larry Owsley, UofL Vice-President for Business Affairs points out “The University cannot do this alone....” Working closely with the Transit Authority of River City (TARC), Metro’s Bike Louisville program, neighborhoods and advocacy groups will be vital to UofL’s success.

The American Association of Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities directs planners of bicycling networks to first carefully assess existing conditions. Special attention must be paid to the diverse set of challenges and opportunities which each physical setting presents. Bicycle Plans will vary greatly depending on factors such as traffic congestion, driver education, bus and truck traffic, street system designs, speed limits, crash sites, and opportunities or barriers such as railroads, streams and interstates, crime and community attitudes. The University of Louisville has a unique opportunity to address bicycling, walking, busing, carpooling and private auto use to and from our three distinct campus environments.

The Health Science Center is in a dense grid of downtown streets with minimal green space

Belknap Campus has busy sidewalks in the Library Quad during a class change

Shelby Campus is located in a suburban setting of multilane roads, no sidewalks
Existing Opportunities and Challenges

Travel modes to all UofL campuses according to the March 2010 Transportation Survey. Full results are available in Appendix A.

Belknap Campus

The educational core of the Belknap campus provides great opportunities for creating a system of quick, safe and pleasant bicycle pathways in order to encourage cycling as an alternative to auto use. The core campus has a park-like setting of quads shaded by mature trees. The grassy areas between buildings in the educational core have crisscrossing sidewalks going in every direction. In short, it is a beautiful area with ample space for creating separated bike and pedestrian circulation routes.
Wide grassy areas line much of the roadway surrounding Belknap’s educational core, providing the opportunity to create a system of Class I bike (separated bike-only) and/or mixed-use bike/pedestrian pathways around the campus. Creating a linear park, or green ribbon pathway, around the perimeter of the core campus would encourage less experienced riders to try biking as a safe, quick means of getting around. This would provide a 1 ¼ mile route with few interaction points with autos.

Additional linear parks, or green bikeway loops, could be incorporated into future development parcels to create an eleven mile system of bike trails throughout the Belknap campus as the master plan is developed over the next 20 plus years. These additions in green space would be valuable assets to surrounding residents and business owners by increasing property values, physical activity, community interaction and safety by putting more eyes on the street.
Another important challenge for UofL was brought into sharp focus during the massive rainfall event on August 4th, 2009 which resulted in nearly $21 million of significant damage to the university.

Improvements in storm water management on the campus, such as bio-swales and slow release containment areas, could be incorporated with bike path construction projects. Both within the core campus and at intersections, rain gardens and water retention areas could be incorporated into curb bump areas and bio-swales. Pervious surfaces could also be used to help manage storm water runoff during heavy rains.

The configuration of bicycle pathways on the core campus could also be used as an opportunity to improve access for emergency response vehicles to core campus buildings surrounding the inner quads.

The university district surrounding the educational core of the Belknap campus faces a wide array of challenges for promoting alternative modes of travel. A mix of surrounding neighborhoods and roadway conditions includes early 1900s era mansions on wide multilane boulevards, shotgun houses on narrow streets, aging roadways that crisscross industrial rail corridors, and green grass
ribbons along roadways. The later were originally designed in the early 1900s as elements of the multi-modal transportation design of the Olmstead Parkway system.

Many of the large residences on the wide boulevards have been converted into multi-family and student housing creating the need for multiple, on-street parking spots per dwelling. Reducing the number of people who feel they need a car when living close to campus as well as reducing the number who drive single occupant vehicles (SOV) to campus will require not only changing mindsets regarding the economic, environmental, health and social implications of personal travel choices, but sensible design and mixed-use neighborhood development including increasing the availability of mixed commercial and service business to this area.

Recent improvements to roadways around the perimeter of campus have been designed to help people begin to make this shift in how they get around. Projects have included a road diet with bike lanes on Eastern Parkway, traffic calming medians on 4th Street, a high-visibility pedestrian crossing on Floyd Street at the Swain Student Activities Center, and the beginning of improvements to Warnock Street under I-65.

Additional improvements are on the drawing board for Freedom Park between 2nd and 3rd, the pedestrian crossing area at Eastern Parkway and 3rd Street, Stansbury Park between 3rd and 4th Streets, and road diets for Floyd Street and Cardinal Boulevard.

Many bicyclists are intimidated by the high volumes and speeds of automobile traffic around campus and are likely to continue using sidewalks and pedestrian crossings to get around until sufficient traffic calming is implemented and training is provided in safe, confident cycling in traffic. Insuring that a complete bicycle system (referencing up to date, successful models from other cities) is incorporated into all future and current plans is imperative to give the university community the security to get on bikes and ride.
Appendix B provides additional discussion of current traffic counts and truck routes around Belknap campus, and Appendix C provides some initial physical design elements which could be incorporated into a safer, more inviting UofL campus for both bicyclists and pedestrians.

**Health Sciences Center (HSC)**

The HSC campus is located in the heart of the original city street grid system and is in the midst of world class hospitals, research facilities and doctors offices. Visitors and commuters to the HSC campus include the students, staff and faculty of the university as well as visitors and patients from all over the region. The high volume of pedestrian traffic in the area creates potential conflict scenarios, but also has resulted in reduced auto speed and increased driver awareness that they must share the road and be careful. Tapping into the public health expertise on this campus will be an important element in helping to educate the entire university and community on the health benefits and disease reduction possibilities associated with changing transportation habits.

**Health Science Center Mixed-use Pathway**

Pedestrian walkways and service vehicle drives occupy restricted portions of Madison Street/Abraham Flexner Way, which functions as the primary east to west pedestrian link between HSC buildings. Curb cuts, signage and surface markings incorporating separated
or marked bicycle lanes are needed to transform this corridor into a mixed use pathway and connector route for HSC bike travel. This mixed use pathway would also intersect an on-street bike facility to Belknap Campus (e.g., Floyd or Brook Street), explored further in Appendix D.

**Shelby Campus**

The Shelby Hurst Campus is a large green space located in suburban eastern Jefferson County which the university has recently began redeveloping as an academic research and business office campus. The campus is bordered by multilane thoroughfares, shopping centers and suburban neighborhoods with winding streets and dead end cul-de-sacs, often with no sidewalks, which are not conducive to mixed modes of travel.

However, the recent construction of new roads with bike lanes on the Shelby Hurst campus has created an opportunity for the university to use the campus as a trial intermodal transit depot for commuters to the two downtown UofL campuses. Bicyclist can now get to Shelby on the new bike lanes on Whipps Mill Road and on the wide concrete pathway along Hurstbourne Parkway (with few auto interaction points) to the north.

A ribbon of green space extends more than a mile, with few roadway interruptions, along the north side of Shelbyville Road to the west of the campus, offering the potential for construction of a shared use path leading to the campus from the east and west ends of Shelbyville Road. This would also provide important car-free access to surrounding shopping, restaurants, and other business/retail establishments.

A study of intermodal depot locations and direct bus routes may provide transportation alternatives which are financially beneficial to employees and the university alike. The question of how to get commuters from even
further out in the county and beyond to choose a combination of walking, bicycling and transit to get to the university's campuses is complex, but worthy of further consideration as UofL's population grows.

Potential for shared use pathways along Shelbyville road to provide bike and pedestrian access.

Founders Union offers a protected location for bus commuters to gather and load shuttle to downtown.

Existing Shelby Campus parking lots where a UofL Suburban Intermodal Depot could provide direct bus routes to both downtown campuses.

New bike lanes along Whipps Mill Road lead to Shelby Campus and proposed intermodal depot location.
Implementation Plan

"The goal is to promote transition, through behavior change, toward an environmentally sustainable community."

- Partnership for a Green City

In line with the goals of the Partnership for a Green City and UofL’s Climate Action Plan, implementation of UofL’s Bike Master Plan is intended to encourage changes in the transportation choices of the university community and surrounding residents. Changed travel behaviors hold the key to reducing vehicle miles traveled to campus (VMT), and thus the amount of pollution and greenhouse gas emissions, as well as mitigating the pressures on university resources to provide parking.

Creating the conditions which will encourage and protect people as they try out new ways to get around requires a mix of incentives from social, to financial, to health and physical improvements to support alternative modes. Priority infrastructure changes include the following areas:

Belknap Campus
- The Educational Core
- Perimeter streets at edge of the educational core
- Future development areas in the Belknap Master Plan

HSC Campus
- Create mixed-use pathway on existing pedestrian and service drive
- Connect to on-street bike facility to Belknap Campus

Shelby Campus
- Suburban Intermodal Depot; UofL pilot program
- Direct UofL buses to Belknap and HSC
- Mixed-use pathways to Shelby Campus
Belknap: Educational Core Design

The plan designates three main bike pathways:
- Library Plaza Loop, ¼ mile
- Educational Core Loop, 1 ¼ mile
- Cardinal Park Loop, ¼ mile

The plan recommends the following design elements:
- Signs with destinations, distance, ride/walk times
- Separate surface treatments for bike, pedestrian and auto
- East to west bike and pedestrian connections
- Provide bike share, bike parking and bike support depots
- Storm water management
- Emergency vehicle access
- Further specific design elements are sketched in Appendix C.

Bike paths and shared-use paths are safer and encourage less experienced riders to start using bikes.

Surface treatments should define separate bike, walk and vehicle zones on campuses.

Cyclists should be encouraged to dismount where bike paths and shared-use paths meet high pedestrian traffic areas such as the Library Quad on Belknap Campus.

Bike and pedestrian crossings of vehicular traffic zones should be clearly marked to prevent car access and warn cyclists and pedestrians.

Bicycle support signage could identify service areas on campus.
1. Bike Gateway: Lighted, named bike-only entry points into educational core of campus.

2. Biking lane surfaces on interior campus roadways to match bike pathways, and mixed use bike lane surface.

Intersection improvements shall clearly define bike and pedestrian travel zones and visibility by incorporating:

3. Bike Lanes to surround Belknap Core Campus for commuter cyclists. Shared use pathways provided for on campus travel.

4. Mixed-use bike and pedestrian pathway on 2nd Street behind new bus pull off area.

5. 10' bio-swale median; located table pedestrian refuge and bicycle crossings every 400' to eliminate random east to west crossings of Third St.

6. Library Quad Bike Loop expanded from pedestrian walkways.

7. Delineate bike pathways from service access zones.

8. Eastern Parkway Bike Gateway to educational core loop.

9. Improve bike access to and from campus bike loop at Eastern Parkway near Speed School traffic signal.

10. Mixed-use bike and pedestrian pathway.

11. Educational Core Bike and Pedestrian Loop.

Install intermodal wayfinding signs on and off campus with distance and travel times for walking and cycling.

Mixed-use path above curbs, west of 3rd Street adjacent to Slidell Park.

Demount zone in interior library quad.
Belknap Campus Future Development Areas

The plan creates a system of bicycle trails along the perimeters of large campus parcels to link current and future campus areas by incorporating 11 miles of linear park, bike and pedestrian trails for the university community and its neighbors. These trails will enhance surrounding residential property values and increase safety by getting more eyes on the streets. This trail system will support the university’s Good Neighbor goal by encouraging less skilled riders, older riders and families with children to get out and exercise, interact and enjoy their community. An additional function of these trails will be to enhance the community’s storm water management by incorporating pervious surfaces and rain gardens into the design of the trails in the following areas:

- Northeast Campus, 1 ¼ mile
- East Campus,
- Southeast Campus,
- South Campus, 1 mile
- West Campus, 1 mile
- Park Hill Trail to 7th Street
<table>
<thead>
<tr>
<th>Project Location</th>
<th>Description</th>
<th>Lead Responsibility</th>
<th>Priority Level</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ON CAMPUS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Plaza Loop</td>
<td>Separate bike and pedestrian surface treatments; storm water management areas; emergency vehicle access improvements</td>
<td>UofL</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>1st Street to Miller IT building,</td>
<td>Shared use pathway connections to Library Loop to north and to south; storm water management areas; emergency vehicle access improvements</td>
<td>UofL</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Educational Core Loop</td>
<td>Shared use pathway, along Cardinal to new Brook Street Bike Gateway</td>
<td>UofL</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>“The Oval” Bike Gateway</td>
<td>“Signature” UofL Bike Gateway, signage</td>
<td>UofL</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Brook Street on-campus</td>
<td>Bike Boulevard designation, signage</td>
<td>UofL</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Way-finding Signage System</td>
<td>On campus bike signage with distance, ride time, walk time to destinations on and from “gateways” to off campus destinations</td>
<td>UofL</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Bike Depots</td>
<td>Inner-campus, bike parking and bike share locations with maps/data, covered parking, water, supplies</td>
<td>UofL</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td><strong>CAMPUS PERIMETER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Street northwest of library, shared use pathway crossing</td>
<td>Traffic calming w/ new raised table crossing, planted median</td>
<td>UL/Metro</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Improve existing pedestrian Crossing on 3rd street southwest of library</td>
<td>Traffic calming w/ raised table, widen to shared use pathway width, connect library loop and Stansbury Park shared use path</td>
<td>UL/Metro</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Project Location</td>
<td>Description</td>
<td>Lead Responsibility</td>
<td>Priority Level</td>
<td>Comments</td>
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</tr>
<tr>
<td>Brook Street Bike Gateway to Belknap Campus</td>
<td>“Signature” UofL Bike Gateway, Bike traffic signal, signage</td>
<td>UL/Metro</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Eastern Parkway Bike Gateway to Belknap Campus</td>
<td>“Signature” UofL Bike Gateway, curb cut and bike surface designation, signage, bike traffic signal, bike boxes both directions at intersection at Speed School.</td>
<td>UL/Metro</td>
<td>High</td>
<td></td>
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<tr>
<td>Intermodal Stations</td>
<td>Edge of campus, covered walk, bike, bus depot, with bike parking, bike-share, maps/data, water, supplies</td>
<td>UofL/ TARC</td>
<td>Low</td>
<td></td>
</tr>
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<td>Cardinal Blvd.</td>
<td>Traffic calming 4th Street to Arthur w/ curb bumps, bike lanes, bike boxes, bike signals and raised pedestrian crossing surface</td>
<td>UL/Metro</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Floyd Street Road Diet</td>
<td>Traffic Calming w/ curb bumps, bike lanes, bike boxes, medians, bike signals</td>
<td>UL/Metro</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Warnock from Brook (inner campus) to Crittenden</td>
<td>Traffic calming w/curb bumps, bike lanes, bike boxes, bike signals,</td>
<td>UL/Metro</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Crittenden at Eastern Parkway</td>
<td>Traffic calming w/ curb bumps, Bike lanes</td>
<td>Metro</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>3rd Street at Greek row</td>
<td>Splinter island for bike lane approach into Greek row; curb extensions to calm traffic and pedestrian safety</td>
<td>UL/Metro</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>UNIVERSITY DISTRICT</td>
<td>Saint Joseph’s, Old Louisville, Park Hill, California, Russell, Southern Parkway, Winkler, Algonquin, HSC, Shelby Campus</td>
<td>UL/Metro/ Corporate/ Nonprofit/</td>
<td>Low</td>
<td></td>
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<tr>
<td>Bike Boulevard Audit</td>
<td>Brook and First from Belknap to HSC</td>
<td>UL/Metro</td>
<td>High</td>
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Action Plans

Objective 1.1 Belknap Campus Core: Provide system of separated and shared-use paths to minimize bike-pedestrian conflicts
Immediate Action: Mark Short Term Separated Bikeways and Pedestrian Walkways

Short Term
- Collaborate with EMS, MSD, Bike Louisville
- Compile Baseline Performance Measurements
- Design Schematics for Campus Core separate bike and pedestrian lanes and facilities
- Inventory existing Core Campus relevant to LEED-ND guidelines
- Identify Funding Options
- Locate new bike racks to support future bikeway loops

Mid Term
- Design System of Bikeways, Walkways and Intermodal Depots
- Adapt site plans currently in design phase
- Design signs, racks, lighting, maps
- Grant Writing

Long Term
- Construction and Installation of bike and pedestrian infrastructure
- Continue seeking funding for future

Objective 1.2 Streets and Intersections: Improve walk-ability and bike-ability for campus commuters
Immediate Action: Work with E-Team Leaders on University District Street Designs

Short Term
- Baseline Performance Measurements
- Collaboration with Community advocates and stakeholders
- Inventory existing Streets per LEED-ND guidelines
- Document Walk-ability and Ride-ability Assessments to campus
- Ride-ability assessment from HSC to Belknap and from Shuttle lots
Mid Term
- Adapt current designs to Complete Streets/Road Diets
- Complete Streets Schematic Designs
- Compile Bike Boulevard data
- Focus Groups and Community Workshops
- Collaborate to reroute trucks

Long Term
- Construction of Complete Streets
- Conversion of University District streets to Complete Streets
- Continued Neighborhood Collaboration

Objective 1.3 On-campus bicycle amenities

Short Term
- Install 35 highest-priority bike racks on Belknap
- Install covered bike parking kiosks on Belknap
- Open basic campus bike shop on Belknap with volunteers and work-study
- Continue providing city bike maps and install bike map kiosks (with Paula Nye grant funds)

Mid Term
- Install 25 moderate priority bike racks on Belknap
- Install secure, indoor bike parking facilities on Belknap and HSC
- Open basic campus bike shop on HSC with volunteers and work-study.
- Install signage directing cyclists to safe routes and services.

Long Term
- Install 10 lowest priority bike racks on Belknap
- Install bike depot with shower facilities on Belknap (and Shelby if park-and-ride successful)

Objective 2.1 Support inter-modal commuting to Belknap, HSC, and Shelby
Immediate Action: Form Bike Boulevard Study Team; Study Shuttles from Belknap to HSC and Shelby; Create Bike-Share Task Force of Universities, Metro, non-profits, neighborhood groups, corporations
Short Term
- Promote use of new Belknap-HSC shuttle service
- Explore Bike Boulevard options and funding
- Establish bike-share system at Ekstrom Library
- Investigate Ticket to Ride Option between Belknap and HSC
- Investigate multi-bike transit vehicle
- Review projects in design/construction phase to insure bike connections to core campus
- Research Bike-Share Funding and Meet Contractors

Mid Term
- Baseline measurements of Belknap-HSC Shuttle needs
- Follow up assessment with Belknap-HSC Shuttle riders needs
- Research satellite transit nodes and depots, GIS
- Look into other local universities’ transportation arrangements for suburban students
- Bike-share Grant Writing
- Solicit community support for bike-share

Long Term
- Identify and acquire satellite transit depot properties
- Compile follow up transit-mode data at regular intervals
- Follow-up analysis of bike-share program
- Write grants for future bike-share funding

Objective 2.2 Transportation Demand Management
Immediate Action: Design fee structure to support mixed mode incentives
Short Term
- Begin bicycle registrations, and enforcing abandoned bikes policy
- Order Bicycles for Single Occupant Vehicles (S.O.V). reduction/incentive, give-away program
- Designate impoundment procedures, responsibility and locations
- Increase number of priority parking spaces for hybrids and carpoolers
- Incentivize Ticket to Ride groups between Belknap and HSC
- Reduce parking pass fees for carpool groups
- Incentivize carpool and vanpool signups
- Explore eliminating UofL Parking subsidy and restructuring parking permit system to charge the full-cost of parking or market rates, using portion of new revenues to fund alternative incentive programs.

Midterm
- Launch bicycle give-a-way/incentive program
- Register free-bike recipients for study/follow-up purposes

Long Term
- Study VMT and SOV reduction strategies
- Study demand for suburban transit hubs for UofL Direct Shuttles
- Collect and analyze data on bike give-away

Objective 3.1 Bicycle Programs for Students

Short Term
- Offer bike P.E. class
- Look for funding sources for Bicycling for Louisville instructors
- Welcome Week signups and bicycle info distributions
- Explore adding bike ride to Discovery Walk during Welcome Week
- Encourage adding resident hall bike groups through Resident Student Association
- Add bike classes in Group Fitness options within existing weekly fee structure at SAC
- Explore intramural biking team options

Mid Term
- Create plan to meet all LEED-ND campus/student programming items
- Identify incentives to support the LEED items

Long Term
- Implement LEED student challenges and competitions
Objective 3.2 Bicycle Programs for Employees

Short Term
- Get Healthy Now team to add group bike training and social groups
- Get Healthy Now address HR issues for attire, safety, education

Mid Term
- Explore funding for bicycle fleet for campus police, maintenance, faculty/staff
- Get Healthy Now collect and analyze data on bicycle groups
- Evaluate bicycle social networking effectiveness

Long Term
- Supplement auto fleet with bicycle fleet and work-bikes

Objective 3.3 Analyze and market UofL transportation sustainability goals

Immediate Action: Create marketing clearinghouse for bicycling program info, (CSRC), (STARS), transportation data

Short Term
- Advertise biking opportunities through Campus Health News in bathrooms
- Add new bike group info on UofL communication channel
- Bring students, employee, neighbors, business groups together
- Get ideas from stakeholders
- Share UofL’s Sustainability goals and current indicators with broader community
- Bring together Student Cycling Coalition, SGA, Partnership for a Green City,

Mid Term
- Explore creative local, green-recovery partnerships

Long Term
- Market efforts at state and national levels
### Performance Measurements: 2010 - 2020 Planning Prototype

<table>
<thead>
<tr>
<th>Objective 1.1</th>
<th>Core Campus: Provide separated and shared-use walkways and bike paths.</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Segments of Core Campus Delineated Bikeways # bike-ped collisions/yr</td>
<td>0 segments</td>
<td>10% of total segments completed/year</td>
<td>Annually</td>
<td>PDC</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>?</td>
<td>&lt; 10 collisions</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 1.2</th>
<th>Streets and Intersections: Improve walk-ability and bike-ability for campus commuters</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core Campus Perimeter “Complete” Streets: # Segments # Intersections</td>
<td>Eastern Pkwy. Segment =1 Eastern Pkwy. @ 3rd Street Intersection =1</td>
<td>Improve (2) Street Segments annually Improve (2) Metro Intersections /yr.</td>
<td>Two Years</td>
<td>Two Years</td>
<td>PDC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 1.3</th>
<th>On-campus bicycle amenities</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
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</thead>
<tbody>
<tr>
<td></td>
<td># New bike rack parking spots installed # New covered/protected bike parking spots # Maps distributed # Campus bike shop customers</td>
<td>100 spots/yr</td>
<td>Annually</td>
<td>PDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 spots/yr</td>
<td>Annually</td>
<td>PDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 maps/yr</td>
<td>Annually</td>
<td>Sustainability Council</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 customers/yr</td>
<td>Annually</td>
<td>Sustainability Council</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Objective 2.1</th>
<th>Support inter-modal commuting to Belknap, HSC, and Shelby</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Direct Bus Routes to Belknap # Multi-bike buses for a.m. and p.m. routes # riders on Belknap to HSC Shuttle # intermodal depots $ from grants for Metro Bike Share</td>
<td>- 5 total (93, 96, 4, 2, 29) - 0 Multi-bike buses - 0 Shuttle riders - 1, Floyd St. Gar. - 0 Dollars</td>
<td>- Add direct routes based on survey demand data - Add 1 Multi-bike vehicle/suburb Intermodal depot - Add # riders in first year - Depots at Shuttle stops - $ to fund Metro Bike Share system</td>
<td>Annually</td>
<td>Transportation and Safety</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Objective 2.2</th>
<th>Transportation Demand Management</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Percentage commuter mode-shares (Faculty %, Student %)</td>
<td>Walk (3,17), Bike (2,4), Bus (6,6), Carpool (7,5), Drop Off (3,3), S.O.V. (79, 65)</td>
<td>-Decrease S.O.V. mode share by 3% annually</td>
<td>Survey Every Two Years</td>
<td>Transportation and Safety, Sustainability Council</td>
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</table>

<table>
<thead>
<tr>
<th>Objective 3.1</th>
<th>Biking Programs for Students</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% participation in student bike programs</td>
<td>2010: interactions per student</td>
<td>2% increase/year</td>
<td>Annually</td>
<td>Campus Health, P.E., SGA, RSA, Group Fitness</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Objective 3.2</th>
<th>Bicycling Programs for Employees</th>
<th>Performance Measure</th>
<th>Baseline data units/2010</th>
<th>Performance Target</th>
<th>Collection Frequency</th>
<th>Data Collection Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% participation in employee bike programs</td>
<td>2010: interactions per employee</td>
<td>2% increase/year</td>
<td>Annually</td>
<td>Get Healthy Now Team</td>
<td></td>
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<td>-----------------</td>
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<td>-------------------</td>
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<tr>
<td>Objective 3.3</td>
<td>Analyze and Market</td>
<td>Sustainable</td>
<td>2011 STARS:</td>
<td>STARS = 20% point</td>
<td>Two Years</td>
<td>Sustainability</td>
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<tr>
<td>UofL Transportation Sustainability Goals</td>
<td>Transportation indicators:</td>
<td>STARS, GHG/commuter</td>
<td>Op15=1.4, Op16=0.64</td>
<td>improvement GHG = 7% reduction over</td>
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<td>Council</td>
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<td></td>
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<td>2009 GHG per</td>
<td>1990 by 2012</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>commuter =</td>
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Scorecard of Policy Outcomes (to monitor future outcomes)

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<thead>
<tr>
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<tbody>
<tr>
<td>Vehicle Miles</td>
<td>Belknap,</td>
<td>Belknap</td>
<td>Belknap-HSC</td>
<td>Bike Share Plan</td>
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<td>Traveled to</td>
<td>Educational</td>
<td>Shared-use</td>
<td>TARC route</td>
<td>Collaboration</td>
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<td>Campus, VMT</td>
<td>Core, bike and</td>
<td>Pathway, Linear</td>
<td>revisions</td>
<td>Shelby Campus,</td>
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<td></td>
<td>pedestrian plan</td>
<td>Park</td>
<td></td>
<td>Suburban Depots</td>
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<tr>
<td># Single</td>
<td>Belknap</td>
<td>Belknap</td>
<td>Belknap-HSC</td>
<td>Status Quo; no</td>
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<td>Occupant</td>
<td>Shared-use</td>
<td>perimeter roads</td>
<td>TARC route</td>
<td>alternative</td>
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<td>Vehicles to</td>
<td>Pathway, Linear</td>
<td>and intersection</td>
<td>revisions</td>
<td>transportation</td>
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<td>Campus, SOV</td>
<td>Park</td>
<td>standards</td>
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<td>plan.</td>
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<td>Traffic Counts</td>
<td>Belknap-HSC</td>
<td>Belknap-HSC</td>
<td>Belknap-HSC</td>
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<td>within 1.5 mile</td>
<td>TARC route</td>
<td>TARC route</td>
<td>TARC route</td>
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<td>radius, Total</td>
<td>revisions</td>
<td>revisions</td>
<td>revisions</td>
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<tr>
<td>Bike-car</td>
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<td>collisions</td>
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<td>radius of</td>
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<td>campuses</td>
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<td>Pedestrian-car</td>
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<td>collisions</td>
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<td>within 1 mile</td>
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<td>of campuses</td>
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<td>Air Pollution</td>
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<td>Levels</td>
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<tr>
<td>Truck travel</td>
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<tr>
<td>distances</td>
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<tr>
<td>Traffic Calming</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>devices, count</td>
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</table>
Appendix A: UofL Transportation Survey Results

Three fourths of the responses to the UofL’s March 2010 Alternative Transportation Survey were from faculty and one quarter were from students. Over two thirds of respondents said that they usually go to Belknap Campus, about a third usually go to Health Sciences Campus, and just one percent commute most often to Shelby Campus. When the survey was conducted UofL had 6,174 full or part time faculty and staff and had 21,761 full or part time students.

Current Modes of Commuting to Campus:
- 3/4 of respondents say they travel to campus in car alone (Single Occupant Vehicle, SOV)
- 2% employees, 4% students bike
- 3% employees, 17% students walk
- 6% take the bus
- 7% employees, 5% students carpool
- 3% get dropped off
- 22 minutes = average student travel time
- 26 minutes = average faculty/staff travel time
- 3/4 of respondents have a UofL parking pass

<table>
<thead>
<tr>
<th>Mode</th>
<th>Faculty/Staff</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk</td>
<td>3.0%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Bike</td>
<td>2.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Bus</td>
<td>6.4%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Carpool</td>
<td>6.9%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Dropped off in a car headed elsewhere</td>
<td>2.7%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Drive a car alone</td>
<td>78.7%</td>
<td>65.1%</td>
</tr>
</tbody>
</table>

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Bicycle Commuting:

University of Louisville’s 2010 alternative transportation survey revealed that 68% of those living 10 minutes or less from campus drive alone (or 3,700 drivers). Providing parking facilities for commuters is a very significant expense to the university, and it would be a worthwhile investment to provide attractive incentives to encourage alternative modes. Bicycling could be a viable option for many of those living within five miles of campus.

The top two improvements that students and faculty say will make them bike to campus more often:
- Designated Bike Lanes, Routes and Signage (right)
- Secure Bike Parking (far right)

What would make you more likely to bike to campus?

<table>
<thead>
<tr>
<th>Option</th>
<th>RED: Student</th>
<th>BLUE: Faculty/Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to ride to campus with</td>
<td>7.4%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Secure showering facilities for bike commuters</td>
<td>8.2%</td>
<td>16.4%</td>
</tr>
<tr>
<td>More bike lanes, designated routes and signage for...</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>Maps and info about safer bike routes to campus</td>
<td>11.9%</td>
<td></td>
</tr>
<tr>
<td>Training in safe and confident cycling in traffic</td>
<td>9.6%</td>
<td>12.1%</td>
</tr>
<tr>
<td>An on-campus bike repair shop</td>
<td>9.7%</td>
<td></td>
</tr>
<tr>
<td>Training in bike maintenance</td>
<td>9.8%</td>
<td></td>
</tr>
<tr>
<td>Secure, out-of-the-elements bike parking</td>
<td>7.9%</td>
<td>14.5%</td>
</tr>
<tr>
<td>More bike racks on campus</td>
<td>8.5%</td>
<td>14.4%</td>
</tr>
<tr>
<td></td>
<td>11.6%</td>
<td></td>
</tr>
</tbody>
</table>

0.0% 2.0% 4.0% 6.0% 8.0% 10.0% 12.0% 14.0% 16.0% 18.0%
In addition to designated bike routes and bike parking for commuting, students want more bike racks on campus, maps for safer bike routes, on campus bike repair shop and maintenance training (ranked in 3rd-6th choices, consecutively). For faculty, maps for safer routes, more bike racks on campus, maintenance training, and campus bike repair were 3rd-6th in importance. The majority in both groups say they don’t care whether they ride on one way or two way streets.

Free Bike Program:
Interest in a Free Bike Program in which a free bike and helmet would be given to anyone willing to forgo a parking permit for at least two years:
- 50% of students interested
- 25% of faculty/staff interested

Both faculty and students stated they will be more likely to participate if they receive a voucher to pick out their own bike.
- About 20% of students and 8% of employees felt that the free bike program was the most important transportation alternative incentive program UofL could provide.
Bus Commutes:

Over half of students and faculty who currently drive to campuses agreed that they would be potentially interested in getting to and from campus by bus if the university provided unlimited, “fare-free” bus trips on TARC. The university currently provides this fare-free service on the entire TARC system to UofL students, faculty and staff.

Would unlimited free bus trips on the entire TARC system with your U of L ID make you use the bus service? (DRIVERS ONLY)

Dotted lines around the Belknap and HSC campuses designate a one-mile radius to each campus.

Green dots indicate areas with UofL car-commuters who are definitely or probably interested in fare-free bus trips with their UofL ID card.
### Interest Levels

#### Interest in Free, Unlimited TARC – HSC Respondent Percentages

<table>
<thead>
<tr>
<th>HSC Respondents, %</th>
<th>Definitely make me more likely to ride bus</th>
<th>Probably make me more likely to ride bus</th>
<th>Don't Know</th>
<th>Probably NOT make me more likely to ride bus</th>
<th>Definitely NOT make me more likely to ride bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty: 598 HSC Respondents</td>
<td>36%</td>
<td>23%</td>
<td>10%</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Students: 69 HSC Respondents</td>
<td>29%</td>
<td>32%</td>
<td>3%</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

#### Interest in Free, Unlimited TARC - Belknap Campus

<table>
<thead>
<tr>
<th>Belknap Respondents, %</th>
<th>Definitely make me more likely to ride bus</th>
<th>Probably make me more likely to ride bus</th>
<th>Don't Know</th>
<th>Probably NOT make me more likely to ride bus</th>
<th>Definitely NOT make me more likely to ride bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty: 872 Belknap Respondents</td>
<td>31%</td>
<td>20%</td>
<td>9%</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>Students: 449 Belknap Respondents</td>
<td>38%</td>
<td>23%</td>
<td>10%</td>
<td>18%</td>
<td>11%</td>
</tr>
</tbody>
</table>
Bus Commutes:

**Top 3 Bus-service requests**, to make students and faculty bus to campus more often:
- 28% Direct routes to campus/no transfers
- 27% More frequent buses/less waiting
- 20% More bus routes

Faculty and students placed less importance on additional earlier or later bus service.

Responses from within one-mile walk zones from Belknap and HSC campuses suggest that additional university shuttle or TARC service may increase bus ridership. Strong responses from the Southern Parkway area, Bardstown Road Corridor, U.S. 60 also call for more frequent bus service. Responses from outside of Watterson Expressway are not included on map for all areas.
Belknap to HSC Bus Service:

**Total Projected Demand for Belknap - Health Science Campus (HSC) Shuttle**

- **Belknap Campus**: 544 daily, 1,271 few times/week, 1,997 few times/month, 4,024 few times/semester
- **Health Sciences Campus**: 553 daily, 1,198 few times/week, 2,027 few times/month, 2,950 few times/semester
- **Total Both Campuses**: 1,097 daily, 2,469 few times/week, 4,024 few times/month, 7,490 few times/semester

**TARC Top Ten U of L Routes - Compared to U of L Survey Respondents needing daily Belknap to HSC Shuttle**

<table>
<thead>
<tr>
<th>Route</th>
<th>Average Weekday Trips per Route</th>
</tr>
</thead>
<tbody>
<tr>
<td># 4 Fourth St</td>
<td>465</td>
</tr>
<tr>
<td># 29 Eastern Pkwy</td>
<td>255</td>
</tr>
<tr>
<td># 23 Broadway</td>
<td>219</td>
</tr>
<tr>
<td># 18 Preston/18</td>
<td>156</td>
</tr>
<tr>
<td># 19 Muhammad Ali</td>
<td>123</td>
</tr>
<tr>
<td># 17 Bardstown Rd</td>
<td>89</td>
</tr>
<tr>
<td># 2 Second St</td>
<td>73</td>
</tr>
<tr>
<td># 15 Market St</td>
<td>64</td>
</tr>
<tr>
<td># 21 Chestnut St</td>
<td>57</td>
</tr>
<tr>
<td># 27 Hill Street</td>
<td>42</td>
</tr>
<tr>
<td>Proposed Belknap-HSC Shuttle</td>
<td>1,097</td>
</tr>
</tbody>
</table>

Sources: TARC Corporate Accounts Performance Report, April 2010; U. of L. Sustainability Survey of Alternative Transportation, 2010

Of the following options which would be best for the university to provide?
- Free bus rides
- Free bicycles
- Car pools
- Van pools
- Rental cars
- Additional student housing within

Over 3500 students and faculty are projected to use the new shuttle service between Belknap and Health Sciences campus either once a day or up to a few times a week.
Carpool/Vanpool/Rental Car Interest:

Survey responses indicate that many in the UofL community are interested in options which could reduce their personal auto use as the sole means of transportation to campuses. Approximately 40% to 50% of students and faculty/staff are interested in university provided online carpool matching and discounted or priority parking permits to those who register their carpool. Over 1/3 of students and faculty are interested in university established vanpools with daily set schedules and limited pickup and drop off points. Close to 1/5 of students and faculty are interested in university provided rental cars.

<table>
<thead>
<tr>
<th>2010 UofL Alternative Transportation Survey Data</th>
<th>University carpool matching and discounted priority carpool parking permits for registered carpools</th>
<th>University vanpools with set daily schedules, limited pick up and drop off points with monthly fee</th>
<th>University rental cars on campus at low hourly rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interested, %</td>
<td>Projected #</td>
<td>Interested, %</td>
<td>Projected #</td>
</tr>
<tr>
<td>Faculty/Staff</td>
<td>41%</td>
<td>2,531</td>
<td>37%</td>
</tr>
<tr>
<td>Students</td>
<td>52%</td>
<td>11,315</td>
<td>40%</td>
</tr>
</tbody>
</table>

**FACULTY:**
The following percentage chose either carpool, vanpool or rental cars as the **most important thing** that the university could do to reduce car commutes to campuses:
- 15% (employees) Carpools
- 9% (employees) Vanpools
- 1% (employees) Rental Cars
### Housing Interests Closer to Campuses:

<table>
<thead>
<tr>
<th>Student Commute time</th>
<th>Students Definitely or Probably Interested in Housing, %</th>
<th>Total Student Commuters, #</th>
<th>Students Commute by car alone, %</th>
<th>Students (SOV) Definitely or Probably Interested, #</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 min./less</td>
<td>67</td>
<td>4352</td>
<td>18</td>
<td>783</td>
</tr>
<tr>
<td>11-20 min.</td>
<td>50</td>
<td>6963</td>
<td>31</td>
<td>2158</td>
</tr>
<tr>
<td>21-30 min.</td>
<td>45</td>
<td>6310</td>
<td>32</td>
<td>2019</td>
</tr>
<tr>
<td>31-40 min.</td>
<td>61</td>
<td>2611</td>
<td>13</td>
<td>339</td>
</tr>
<tr>
<td>41-60 min.</td>
<td>44</td>
<td>1088</td>
<td>6</td>
<td>65</td>
</tr>
<tr>
<td>60 plus</td>
<td>80</td>
<td>217</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

#### FACULTY:
- 33% (2,037 employees) “definitely or probably interested” in university provided financial incentives to purchase homes near campus in order to be able to walk to work.
- 17% (1,049 employees) said that financial incentives to purchase housing near campus is most important thing university could do to reduce commutes.

#### STUDENTS:
- 58% (12,621 students) “definitely or probably interested” in affordable housing in walking distance of campus.
- 19% (4,134 students) say housing in walking distance of campus most important thing the university could provide to reduce driving.
Economic Interests:
- Students said they would consider alternative transportation to and from campus when gas reaches four dollars a gallon. For faculty and staff the price would be about 5 dollars per gallon.
- Students would consider moving closer to campus when gas reaches five dollars per gallon. Faculty and staff would consider moving closer to campus when gas reaches 10 dollars per gallon.
- Students are willing to pay an additional 80 dollars annually for their UofL parking pass before they consider alternative transportation. Faculty and staff are willing to pay 160 dollars more for their UofL parking pass before the will consider alternative transport to campus.

S.O.V. Student commuters interested in walking-distance university housing:
- 5,366 students probably/definitely interested in more housing (survey)
- Annual cost to own/maintain car = $8,000 (AAA Kentucky estimates)
- 5,366 cars (x) $8,000 = $42,928,000 Total Annual Potential Savings

Health Incentives:
- Over three fourths of UofL students and over half of UofL faculty and staff agree that they would bike for transportation in order to improve their health.

<table>
<thead>
<tr>
<th>Calories burned per hour of cycling</th>
<th>140 lbs</th>
<th>195 lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycling, 10-11.9 mph, light effort</td>
<td>381</td>
<td>531</td>
</tr>
<tr>
<td>Bicycling, 12-13.9 mph, moderate effort</td>
<td>508</td>
<td>708</td>
</tr>
<tr>
<td>Bicycling, 14-15.9 mph, vigorous effort</td>
<td>636</td>
<td>885</td>
</tr>
<tr>
<td>Bicycling, 16-19 mph, very fast, racing</td>
<td>763</td>
<td>1062</td>
</tr>
<tr>
<td>Bicycling, &gt;20 mph, racing</td>
<td>1017</td>
<td>1416</td>
</tr>
</tbody>
</table>
Appendix B: Traffic Counts and Truck Routes around Belknap

Truck route traffic and cut-through traffic to I-65 on streets around Belknap campus add to the high traffic counts and will need to be addressed in order for the campus and surrounding residential neighborhoods to thrive in the future. The Kentucky Transportation Cabinet documents the following daily traffic counts around the campus, mapped on the following page:

- 3rd Street at the Law School – 17,348;
- 3rd Street at Engineering Graphics building – 21,627;
- Brandeis Street between Brook and Floyd – 19,735;
- Brandeis Street between Bradley and Preston – 7,069;
- Crittenden Drive at Atwood – 12,966.

What is significant to notice is that the 7th Street to 9th Street corridor, which provides four-lane truck access to the interstates through mostly industrial areas, has lower traffic counts than the Belknap campus in several spots (e.g. 7th at St. Catherine – 3,671; 9th Street at Breckenridge – 14,239; 9th Street one block from the I-64 ramp – 17,632). This occurs due to lack of proper access to I-65 Corridor. The trucks are still being directed through the campus despite having alternate routes.

Also significant is that 7th Street just south of Shipp (just before trucks turn east to cut over to Cardinal for I-65) has a count of 16,855, much higher than 7th just north of this point, indicating that truck traffic from the south is indeed cutting across the
campus to I-65 to go north rather than staying on 7th, which now becomes 9th, to connect via the 9th Street ramps. This truck traffic (which is following multiple existing signs that lead east on Shipp to south on 4th Street and then left on Cardinal) passes right past the new Scholar house for women with young children, intersects the campus exactly where pedestrian counts are skyrocketing and creates an increasingly dangerous scenario where pedestrians and bicyclist are already vulnerable.

Concerning connections to I-65 from the west, the Hill Street connection to the interstate from 7th Street also has lower traffic counts than campus connections to I-65, as follows: Hill Street just east of 7th – 11,599; Hill at I-65 - 10,264. Oak Street connections to I-65 have the following traffic counts: Oak at 7th – 7,429; Oak between 4th and Brook - 9,773.

These counts indicate that surrounding roads designed to handle traffic leading to the interstates are not taking the load off of the Belknap campus to the extent that they could be.

Creating the safest possible streets within the expanding campus footprint brings the opportunity for the university to work with city leaders to relocate the truck route off of campus and make construction of traffic calming devices at campus intersections and roads a top priority.

Slowing traffic on campus roadways may encourage cut-through traffic to seek different routes, away from University pedestrians and bicyclists who have no other choice.
Appendix C: Physical Design Elements

Belknap Campus: Bike "Gateways"

Louisville billboard sign is at a scale readable by passing interstate traffic on I-65. Sign in foreground is at a scale readable by drivers on local streets.

Bridge overpasses serve as gateways in several areas at scales defined by interstate highways and railroads.

Key for diagrams (see following pages):

- Bike Gateway to Belknap
- Way-finding Signage
- Yield to Pedestrians Signage
- Dismount Zone Signage
- Bike-Only lane surface or markings
- Pedestrian Only/Dismount Zone surface or markings

Existing entry points to campus are marked by signage and structures at scales designed to be read while passing in high speed motorized vehicles.

Bike Gateways:
Human-scale bike and pedestrian gateways would clearly define where, how and when cyclists and pedestrians are to enter the campus.

The entry gateway to the band field is large enough to be seen from a distance but at a more pedestrian scale than some of the larger campus gateways.
Left: Music School beyond 2nd street Bike Gateway; Buffered Bike Lanes on Cardinal. Right: Priority Bike Lane with Sharrows on 2nd Street. Traffic calming pedestrian curb bump

Installing curb bumps into parking lanes reduces crossing distances (and times) for pedestrians; increases safety.
Gateway design to be determined; graphic representation only.

Left: Brook Street looking south to Cardinal Boulevard and Brook Bike Gateway to campus. Priority Bike Lanes in right lane both directions. Widen median to reduce lane widths and calm traffic on Brook.

Right: Bikes and pedestrians currently share walkway from Cardinal at Brook. This is a major entry point to campus for bikes and walkers.

Below, left and right:
- RED: Bike-only pathway.
- Gray/Red stripe: Pedestrian-only surface and Bike Dismount zone.

Note: Separate surface treatments to be determined; graphic representation only.
**Left:** Existing campus streets and parking areas marked for Educational Core Bike Loop.

**Bottom Left:** Bike Lane markings to guide bikes and indicate that bikes belong.

**Top Right:** Existing sidewalk from Alumni parking lot to SAC to become bike only pathway. New, pedestrian only pervious concrete surface and signage.

**Bottom right:** New pervious surface Bike-only Pathway to SAC and beyond to continue Brook Bike Boulevard on campus.

**Gray/Red Stripe:** Yield to Pedestrians.

**Yellow Triangle:** Yield to Pedestrian Signage.
Brook Bike-Connector Gateway; Educational Core Loop: Brook-Campus Bike Boulevard

Left: Pervious surface Bike Only Pathway at Brook Connector Bike Gateway.

Right: Existing walkway to right of Bikeway. Signage for bikes to yield to pedestrians and autos. Bike Sharrows on Brook continue Bike Boulevard on campus to South Campus Bike Tunnel.

Bottom Left: Bike Boxes at intersections indicate that cyclists have priority; arrow markings guide bikes past pedestrian walkways to Warnock Bike Gateway on roundabout.

Bottom Right: Bike boulevard signage and sharrows at Brook and Warnock intersection.
Warnock Street Bike Gateway

Left: Warnock Bike Gateway from roundabout in background; sharrows and bike boulevard signage at intersection.

Right: Surface treatment and signage to designate Pedestrian Only/Dismount Zone on walk from roundabout past Crawford Gym towards Library Quad.

Bottom Left: Warnock Bike Gateway from roundabout connects to sidewalk from Chemistry parking lot to Miller IT; continuing the Educ. Core Bike Loop (beyond right).
The Educational Core Bike Loop will provide a quicker, safer route for bikes to navigate around the perimeter of campus, and reach cross campus roadways, without having to interact with pedestrians on crowded sidewalks. Consistent signage, surfaces and gateway designations will provide clear understanding of the campus bike system and encourage its use.

**Left:** Educational Core Loop options, both north and south of Eastern Parkway; to reduce crossings at Speed School light; provide access to East bound Eastern Parkway lanes at light.

**Bike lanes marked to connect with parking lot around to light. Dismount zone top right w/sign.**

**Mixed-use pathway north of bridge (foreground) leads to Natural Science Building; continuation of Educ. Core Loop.**

**Old Eastern Parkway with bike lane markings and way-finding signs; connects to Brook.**
Eastern Parkway Gateway

**Left:** Bikes currently use pedestrian curb cuts to exit Eastern Pkwy.

**Right:** Install bike curb cut with bollards to safely separate auto, bike and pedestrian travel zones to north campus. Creating this bike "short-cut" will reduce bike traffic at 3rd and Eastern Parkway.

**Below:** To access eastbound lanes, bikes must go on sidewalk next to retaining wall, or against traffic on roadway to light.

**Right:** Create bike exit prior to intersection (background) and connect with bike path above retaining wall to reduce bike-ped conflict on sidewalk.

**Add curb cut and dismount zone north of Eastern Pkwy to reduce bike and pedestrian conflicts on sidewalks.**

**Dismount zone on sidewalk north of Eastern Parkway, for bikes to access eastbound lanes or Speed School.**
Educational Core Loop: 3rd Street Mixed Use Pathway; 3rd Street Pathway at Library Bike Loop

Top Right:
Replace existing sidewalk with pervious surface for mixed-use pathway along 3rd Street; looking north to business school.

Bottom Right:
Separating bike and pedestrians in high traffic areas is critical to creating safe conditions on campus. Library Loop will cut right to go behind Ford, Gardiner and Gottschalk Halls (on bike only pathway).

Add bike lane to mixed use pathway, behind bus pull-off

3rd St. Mixed-use path (gray foreground) at Library Bike Loop (red) and pedestrian-only Century Walk.
Unity Park Mixed-use Pathway; Library Loop Bike Gateway; West Campus Bike Gateway

Expanded mixed-use path in Unity Park; Yield to Pedestrians on path signs; and way-finding signs.

East to West campus crossings:

Existing crossings far exceed accepted distances between crossings, inviting jaywalking.

“LEED” neighborhood design calls for street crossings every 400’ maximum.

Add crosswalk on 3rd Street between Library and Museum in order to meet huge crossing demand at this location from dorms and Greek housing.

Right:

New bike connections also needed to keep sidewalks safe for pedestrians.

Pedestrian raised-table crossing; Library north.

Raised table mixed-use path crossing; Library south. Library Loop and West Campus Gateway locations.

Bike connector from Unity Place to Mixed-used path.
Belknap Campus: Bike-only Pathways

Bike-only pathways (marked in red) require “yield” signage and surfaces (red/gray) when crossing sidewalks. Helping to create clear understanding of who travels where, and who yields to whom, on campus will help posture cyclists as safe and respectful on-campus travelers.

Creating infrastructure that allows a pleasing coexistence between cyclists and pedestrians is very important so that cyclist can take advantage of the ease-of-access to campus buildings. This incentive is important when trying to encourage more people to try biking commuting.

Library Quad Bike Loop, northeast of Life Sciences building.

1st Street Connector Bike Pathway (red on left) from Info Building looking south toward Library Quad Loop.

Library Quad Bike Loop East of Humanities building.

Library Quad Loop turns right to run between Schneider and Gottschalk. Yield to pedestrians at sidewalk.
Bike/Service Vehicle Campus Roads

Pedestrian/Dismount Zone leading to Library Quad via Century Walk to left. Bike Lane markings; signage.

Bike Lane markings on service road behind Shumaker Research Building; way-finding sign in background.

Dismount Zone in Library Quad

Right:
Dismount zone in Library Quad will require ample secure, covered bike parking around perimeter of zone.

Adding racks under existing overhangs of Life Science and Humanities buildings will support riders' efforts to comply with no ride zone.

Left:
Way-finding signs need to direct riders to:
- Designated bike routes
- Buildings
- Streets
- Bus stops
- Bike service and support areas
- Security

Dismount Zone surfaces and signage at Library Quad entries (above: Century Walk from Gottschalk to Ford).
Bike Tunnel Connection to South Campus and Athletic Fields

The existing tunnel on Kentucky Trailer campus offers a fantastic opportunity for a bike connection to south campus property. Connections from South Campus to 3rd Street at Winkler may be possible by creating a new bike and pedestrian crossing of the railroad tracks. A vacated gas station on 3rd Street could be the future location of this bike gateway; this could eliminate the need to navigate the dangerous underpasses on 3rd and 4th, allowing students and employees to reach campus from south and southwest neighborhoods.
Belknap Campus: Perimeter Streets and Intersections

Five Design Elements: To physically reconnect people from surrounding neighborhoods to Belknap campus using non-motorized transit


Element 1: Curb Bumps and Medians

Used to reduce pedestrian crossing distances and improve safety for all modes in dangerous traffic situations.
Element 2: Bike Lanes

Used to clearly define bicycle travel space with colored lane markings, striping, symbols or buffers.

A. Bike Lane Buffered by parked cars

B. Buffered contra-flow Bike Lane

C. Striped Bike Lane crossing

D. Surfaces to clearly define separate bike and pedestrian zones on off-road mixed use pathways.

E. Sharrow Bike Lane and back-in, diagonal auto parking spaces improve visibility.

F. Colored bike lanes are used in many cities to improve visibility and so car drivers can better understand bike travel zones.

Several different types of bike lanes will be called for on roadways surrounding the Belknap campus. Cardinal Boulevard will have space for buffered bike lanes (see B.); 4th Street, 3rd Street, and 2nd Street and Floyd will require sharrows or striped priority bike lane where bikes have the right of way and cars can pass in the left lane (see C. and E.); Intersections will use colored bike lanes to increase visibility of bike zones (see F.); Bike surfaces will be unique to differentiate from auto and walkways (see D. and G.). Bike routes leading to campus within the University District use bike lanes buffered by parked cars to encourage use by less skilled riders, women with children, and older riders (see A.)

G. A bike-only, two way pathway with designated lanes.
Element 3: Bike Boxes

Used to make cyclists more visible at intersections by getting them in front of the cars; also, bike boxes are used to create more visible lane crossings and to let motorists know where and when to expect bicycles to change lanes.

Bike Boxes: separated from pedestrian crossing space and in front of auto stop bar

Bike boxes should be incorporated at all intersections surrounding the core campus either with paint or colored surface material, including:

- 4th and Cardinal
- 3rd and Cardinal
- 2nd and Cardinal
- 1st and Cardinal
- Brook and Card
- Floyd and Card
- Floyd at Garage
- Floyd and Warnock
- Eastern and 3rd
- 3rd and Brandeis
- 4th and Brandeis

Bike Box Lane Changes:

- To access Bike Gateways onto the Belknap campus.
Element 4: Bike Signals and Signs

Bike signals give cyclists advanced green light; signage to identify separate auto/bike/pedestrian spaces and way-finding.

Separate bike signals improve timing of bike, pedestrian and car movements.

Signals and striped poles alert bikes and cars to bicycle and pedestrian crossings zones.

Signals for bicyclists needed where shared use pathways cross auto traffic.

Improved signage can increase understanding and awareness of cycling movements on roads.

Signage with distance and cycling time to destinations.

No right on red signs supplemented with detection cameras; fines used to reduce danger and number of “right hook” crashes.
Element 5: Re-establish Human Scale along Belknap Perimeter Roadways

The university and neighborhoods have the opportunity to work together to return streetscapes to a more human scale which will also help as traffic calming devices re-establish the streets as safe places for people to travel as well as interact with one another.

Pedestrian scale is established in this green space at the corner of 2nd and Cardinal by using benches, planters, trash receptacles, landscaping, and human scale lighting fixtures and signage.

Bottom right: Small picnic area at on opposite corner of 2nd and Cardinal adjacent to student apartment complex helps establish pedestrian scale.
Bikes share lane on 4th with sharrows painted on road and signage.

Begin buffered bike lane on Cardinal in addition to two driving lanes each direction.

Bus pull-off and parking lanes

Priority Bike Lanes in right hand lanes both directions on 4th south of Cardinal, with striping and signage and bike box.

Continue buffered bike lane in future on Cardinal Boulevard extension to west campus housing.

4th and Cardinal Blvd
Not to scale
Provide curb bumps in parking lanes to reduce crossing distances and times at 3rd and Brandeis and 2nd and Brandeis.

Provide complete pedestrian crossing situation from East Campus to the fraternity and sorority houses to the West.

Use colored solid bike lane paint to clearly define bike merge and turn travel zones.

Design east-west bike crossings through Freedom Park with separate travel zones for bike and pedestrians.

Create pinch point with planted median at Unity Place to slow entering traffic.

Protect bike lane entry to Unity Place with buffer median and to right of parked cars along Unity.

3rd and 2nd at Brandeis not to scale
Bike lanes painted in right hand lane both directions on 4th Street, with bike boxes, signals and signage at Brandeis.

Bikes share lanes with cars on Brandeis, marked with painted arrows and signage.

Pedestrian refuge areas in medians with bollards, both sides of intersection on 4th.

Curb bumps into parking lanes to reduce pedestrian crossing distances.

4th and Brandeis
Not to scale
Brook Street Bike Gateway, bike signals and signs.

Bike Only Gateway, with Wayfinding Signage and unique surface.

East to west bikeways connect at 3rd Street Library Bike Gateway
Right lane in both directions on Floyd Street to be striped and signed priority bike lanes with bike signals and bike boxes at intersections and mid-block crosswalks.

Paint bike boxes in front of vehicle stop bar all sides of intersection.

Planted median with pedestrian refuge islands provide for bike crossings and unique crossing surfaces to separate bikes and pedestrian zones.
Relocate pedestrian crosswalks and add curb bumpouts where parking lanes exist, to reduce crossing distances and crossing times.

Locate Bike Boxes behind pedestrian crossings.

Install bollards at pedestrian refuge areas in medians.

Create pinch points with by using 10' car lanes along with curb bumpouts to slow traffic at intersections.

Striped and signed priority bike lanes to share right hand lanes with autos.

Install planted median on Floyd to slow traffic and to create pedestrian refuge crossing areas at maximum of 400' intervals as per LEED guidelines.

Floyd and Cardinal Blvd
Not to scale
Appendix D: Belknap - HSC Connections

A stronger intermodal connection between the HSC and Belknap campuses is needed to reduce car traffic and parking problems on both campuses. UofL’s March 2010 Alternative Transportation Survey indicated that about 1100 people make this 2 mile commute between Belknap and HSC campuses every day of the week, and an additional 2,500 make this commute several times a week. These two campuses are connected by the original street grid through a mix of commercial and residential neighborhoods, but they are also separated by Interstate 65 and major railroad lines.

Bicycling between Belknap and HSC has the potential to be a very safe, healthy and sociable choice.

Bike Louisville’s proposed bike routes provide the following on-road bike connections: South on Third or Preston, and return rides on the adjacent streets going north on 2nd or Jackson. However, in order for commuters to give up driving and make this trip by bike, the route will need to feel very safe and offer alternative travel modes along the way.

Creating a bike boulevard (a roadway which is designated primarily for bike and pedestrian use with local-access-only for autos) or other significant on-street bicycle facility with traffic-calming measures between the two campuses could be married to a city-wide pilot bike-share program (universities, municipal, corporate and non-profit entities) to create a world-class bicycling opportunity.

This mix of secure, multi-modal transit and bike-share stations at each campus, frequent, direct bus service connecting both campuses, and the creation of a safe bike route between the two campuses has the potential to show real improvement in environmental, financial, social and health indicators for the university and its community.

Cities like Portland have converted many residential streets to bike boulevards.
Bike Share Stakeholders, Proposed Bike and TARC Routes to Belknap and HSC Campuses

- Proposed Revision: TARC Route 18 to Connect Belknap and HSC Campuses (also on bike route)
- Proposed LL: Proposed Study of Bike Boulevard as Connection for Belknap and HSC
- Proposed Haven: TARC Route 18 to Connect Belknap and HSC Campuses
- Proposed Cardinal Vehicular Bike and Pedestrian Connection to 7th Street

Source: LOU 3 Bike Louisville Master Plan and TARC proposal.
Bike Boulevard Audit

Less skilled riders, older riders, parents riding with children and women riding alone are more likely to express concerns over riding on roads with heavy, fast moving auto traffic. In some cities bike boulevards are being created to meet the needs of these rider groups as supplements to bike lanes.

Cities installing bike boulevards report rapidly increasing numbers of new bicyclists on the roads due to the conversion of low traffic residential roads into designated zones for bikes and pedestrians, while maintaining local auto access. Converting streets to a Bike Boulevard does not require construction of new surfaces or painting of lanes, but rather changes in signals and signage to alter traffic flow.

UofL proposes that a bike boulevard audit be conducted on streets that run through the neighborhoods between Belknap and HSC, especially Brook and Floyd Streets. The proposed bike boulevard could be achieved by adapting the following:

- Switch Brook and 1st Streets from one-way to two-way, as supported by the Old Louisville Neighborhood Council, the Toonerville Neighborhood Association and a February 2010 study for Louisville Metro.²
- Remove stop signs and some signals to create non-stop biking between traffic signals.
- Add and maintain stop signs at all cross streets and supplement all with Bike Boulevard Crossing signs.
- Time remaining traffic signals at appropriate biking speeds, to allow continuous riding for cyclists.


Brook looking south toward Belknap campus (1st Street merges with Brook to create south bound lanes). Creating marked, priority bike lanes from Cardinal to Hill would encourage cyclists to connect with the bike boulevard.

Much of Brook Street is residential with lots of parking, it’s narrower than 3rd (which has a southbound bike lane), and traffic volume is lower and slower.
• Install traffic calming devices for cars at signed intersecting cross streets (small roundabout/signage islands)

Brook at Hill. Old Louisville commissioned a study about turning Brook back into a two-way street, which would slow traffic and encourage walking and cycling. Replacing traffic lights with stop signs for cross streets would create a fast, priority route for cyclists between Belknap and HSC/downtown.

Neighborhood businesses would benefit from a two-way bike boulevard and additional foot and bike traffic, reducing car parking needs.

Brook under I-65 at Kentucky. Timing signals so that cyclists can ride through intersections below I-65 without stopping would calm traffic and make cycling a more attractive option.
Appendix E: Bike-Share Program

UofL has the opportunity to work with other stakeholders to establish a “Third Generation” bike-share program. Louisville Metro government, urban universities and colleges, bicycle non-profits, corporations, correctional institutions and others can emulate programs which are quickly taking off in Minneapolis, Denver, D.C. Paris and Montreal.

- Paris, 2007: 10,000 bikes; 18 million trips after 18 days
- Montreal: 30,000 subscribers
- Minneapolis, June 2010: 700 bikes; on August 25, 2010 hit 50,000th ride

The main purpose of first and second generation bike-share programs run by colleges and universities over the past decades was to provide on-campus transportation. Louisville’s purpose in creating a bike-share program must be to meet the much broader needs of commuting to, from and between destinations in order to reach campus and city carbon neutrality while improving the health and economical travel options of commuters. By combining resources, stakeholders could create a city wide bike-share system, rather than multiple piecemeal attempts with limited scope, maintenance, support and connectivity.

Third generation bike-share programs in Minneapolis, Denver, Montreal, Paris:
- Main purpose is to provide transportation to, from and between multiple destinations
- First half hour free for short trips
- Bikes are sturdy, vandal resistant; maintained by full time, roaming maintenance crews
- 24/7 self service checkout from moveable, wireless, solar kiosks
- Reduce parking demand and costs for city, individuals, institutions and corporations
- Online subscriptions or pay at kiosks
- Corporately run, often by advertising agencies or healthcare providers utilizing on-bike advertising
The Minneapolis program offers many similarities to Louisville’s potential bike-share opportunities:

- Universities tackling commuting expenses, sustainability, congestion issues
- Local corporate leaders promoting bike-sharing, better health and savings
- Active local non-profit bike advocates and educators
- Governments launching budding bike-share program

Minneapolis bike-share statistics:

- 700 bikes at 65 kiosks can be “scaled-up” (and out-geographically) as the system grows
- 2 years from concept to operational
- Required $3.3 million to become operational
- 1.7% of Minnesota’s Federal Transportation funding needed to support startup
- Human and financial resources: Livable Communities Act (S.1619) Grant, up to $5,000,000 dollars per project; State, non-profits, corporations, educational institutions, corrections, city stakeholders pooled resources.

Humana and National Park Service Employees at new B-cycle station, D.C. President and CEO of Humana, Michael B. McCallister, said “Biking instead of driving is good for your body and good for the planet. It’s also fun. As we get serious about reforming health care in our country, we absolutely must get serious about being healthier. We have to change the way we work and live.”

(National Park Service Digest)
Appendix F: Cargo Bikes On-Campus

Another consideration for the Belknap core campus is how improved bicycle infrastructure in the area will provide a great opportunity for the use of cargo bikes, patrol bikes and bike-share-station rentals/borrows by university employees. As Bill Stites, custom cargo bike builder in Portland, Oregon, points out, "...there is a lot of room between the forty pound bike and the two-thousand-pound car" (Mapes, p. 274). Replacing trucks and cars that are currently being used on campus by security and maintenance personnel, faculty and staff would not only make biking more visible on campus, but also use less gas, reduce pollution and highlight the university’s commitment to successfully meeting its zero carbon goals while improving the health, safety, and financial well-being of the campus community.

Future on campus deliveries could incorporate use of non-motorized vehicles from central delivery areas. Employees/students with children in on-campus child care facilities could use family bikes for healthy and fun midday exercise breaks.
Appendix G: Funding Options (Source: Louisville Bicycle Master Plan)

- Surface Transportation Program (STP)
- Transportation Enhancements (TE)
- Highway Enhancement and Railway-Highway Crossing Programs
- Highway Bridge Replacement and Rehabilitation (HBRRP)
- Recreational Trails Program
- Congestion Mitigation and Air Quality (CMAQ) Improvement Program
- Federal Lands Highway Program (FLHP)
- Job Access and Reverse Commute Grants

Federal Transit Program
- Urbanized Area Formula Grants
- Capital Investment Grants and Loans
- Formula Program for other than Urbanized Area
- Suburban Mobility Initiatives Program
- Regional Mobility Program

State and Community Highway Safety Grants

Safe Routes to School [http://www.saferoutes.ky.gov/]
HUD Community Development Block Grants (CDBG) [http://www.hud.gov/offices/cpd/communitydevelopment/programs/]

Private Funding Sources:
- Bikes Belong Coalition [http://www.bikesbelong.org/grants]
- AmeriCorps' National Civilian Community Corps (NCCC) [http://www.americorps.gov/for_organizations/apply/nccc.asp]
- Kodak American Greenways Awards Program [http://www.conservationfund.org/kodak_awards]
- Fish America Foundation [http://www.fishamerica.org/grants/]
- The Global ReLeaf Program [http://www.americanforests.org/global_releaf/grants/]
- Center for Disease Control and Prevention [http://www.cdc.gov/about/business/funding]
### Potential Partners and Funding Options

<table>
<thead>
<tr>
<th>Partner</th>
<th>Potential Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UofL</strong>: Safety and education for pedestrians and bicyclists.</td>
<td><strong>Surface Transportation Program Transportation Enhancements Set-aside (TE 23 USC 133(d)(2))</strong> Facilities, education and rails to trails.</td>
</tr>
<tr>
<td><strong>UofL</strong>: Reduction in traffic fatalities and serious injuries on public roads.</td>
<td><strong>Highway Safety Improvement Program (HSIP 23 USC 148)</strong> Identify and correct hazardous locations, sections and elements (railway-highway crossings that are dangerous for bikes and pedestrians, safety improvement projects on publicly owned bike or pedestrian pathways or trails.</td>
</tr>
<tr>
<td><strong>UofL</strong>: Reduce transportation related emissions.</td>
<td><strong>Congestion Mitigation and Air Quality Improvement Program (CMAQ 23 USC 149)</strong> Pedestrian walkways and bicycle transportation facilities, non-construction safety projects, demonstrate air quality benefits.</td>
</tr>
<tr>
<td><strong>UofL</strong>: Planning, implementation and research grants</td>
<td><strong>Transportation, Community, and System Preservation Program (TCSP S-LU Sec. 1117, formerly TEA-21 Sec. 1221)</strong> To investigate and address relationships among transportation and community and system preservation plans and practices and examine private sector based initiatives.</td>
</tr>
<tr>
<td><strong>UofL</strong>: Mixed Use Trails/Linear Parks</td>
<td><strong>Recreational Trails Program (23 USC 206)</strong> Non-motorized or mixed use trail maintenance, rehabilitation, facilities, construction and maintenance of equipment, trail construction and assessments, trail safety and environmental protection education.</td>
</tr>
<tr>
<td><strong>TARC Capital and planning assistance (not operating expenses for areas over 200,000 pop.)</strong></td>
<td><strong>Urbanized Area Formula Grants (49 USC 5307)</strong> Improve bike and pedestrian access to transit facilities and vehicles, including bike stations. <strong>Urbanized Area Formula Grants Transportation Enhancements Set-aside (49 USC 5307(k))</strong> Pedestrian and bike access, bicycle storage facilities, installing equipment to transport bicycles on mass transportation vehicles.</td>
</tr>
<tr>
<td><strong>Metro Public Works</strong></td>
<td><strong>Storm water management grants</strong></td>
</tr>
<tr>
<td><strong>MSD, Metropolitan Sewer District</strong></td>
<td><strong>National Highway System</strong></td>
</tr>
<tr>
<td><strong>KIPDA, KY-IN Planning Development Agency</strong></td>
<td><strong>Metropolitan Planning Program (MPP 49 USC 5305(d))</strong> Metropolitan bicycle and pedestrian planning <strong>Statewide Planning and Research (SPR 49 USC 5305 (e))</strong> Statewide planning <strong>Urbanized Area Formula Grants Transportation Enhancements Set-aside (49 USC 5307(k))</strong> Pedestrian and bike access, bicycle storage facilities, installing equipment to transport bicycles on mass transportation vehicles.</td>
</tr>
<tr>
<td><strong>Bike Louisville</strong></td>
<td><strong>Metro Parks</strong></td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>(NHS 23 USC 103) Pedestrian and Bicycle transportation facilities on land adjacent to any Interstate Maintenance (IM 23 USC 119) Restore, resurface, rehabilitate and reconstruct pedestrian and bicycle facilities over, under, along interstates. Metropolitan Planning Program (MPP 49 USC 5305(d)) Metropolitan bicycle and pedestrian planning highway on the NHS.</td>
<td>Alternative Transportation in Parks and Public Lands (49 USC 5320) Provision of facilities for pedestrians, bicycles, and non-motorized watercraft. Recreational Trails Program (23 USC 206) Non-motorized or mixed use trail maintenance, rehabilitation, facilities, construction and maintenance of equipment, trail construction and assessments, trail safety and environmental protection education.</td>
</tr>
</tbody>
</table>

| **Humana** | **Highway Safety Improvement Program (HSIP 23 USC 148).** Signs and construction of bike and pedestrian crossings in school zones. Safe Routes to School (SRTS S-LU Sec. 1404) traffic calming, speed reduction, sidewalks, on-street bike facilities, off street bike facilities, secure bike parking, traffic diversion improvements in vicinity of schools. |
| **JCPS: Planning, Design, and Construction of improvements for bike and pedestrian. Public awareness, education, enforcement, funding for training, volunteers and managers of SRTS programs.** | 

| **Nonprofit Bicycling for Louisville** | **Surface Transportation Program (STP 23 USC 133) Modify public sidewalks to comply with the Americans with Disabilities Act. Does not have to be in right of way of a Federal-aid Highway.** |

<table>
<thead>
<tr>
<th><strong>Corporate Donors/Matching</strong></th>
<th><strong>EPA Site Owners</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Americans with Disabilities</strong></th>
<th><strong>Historic Properties/Roads</strong></th>
</tr>
</thead>
</table>

| **Surface Transportation Program Transportation Enhancements Set-aside (TE 23 USC 133(d)(2))** | 

| **Olmstead Parks** | **Recreational Trails Program (23 USC 206) Non-motorized or mixed use trail maintenance, rehabilitation, facilities, construction and maintenance of equipment, trail construction and assessments, trail safety and environmental protection education.** |
Appendix H: LEED-ND; Adopt as UofL Guidelines for Bicycle and Pedestrian Planning

(Source: LEED Neighborhood Design Handbook)

LEED-ND SLL Credit 4: Bicycle Network and Storage
To promote bicycling, transportation efficiency, reduced vehicle miles traveled (VMT), and improve public health through utilitarian and recreational physical activity.
- 1 secure, enclosed bike space for 30% of occupants, min. 1 per dwelling unit
- 1 visitor bike rack space per ten dwelling units, min. 4 per site
- 1 secure, enclosed bike storage space for 10% of retail and commercial workers
- 1 visitor bike rack space per 5,000 s.f. retail, min. 1 per business & min. 4/site
- 1 onsite shower facility per 100 employees, additional shower onsite per 150 employees
- Shower and changing facility requirements may be met by providing the equivalent of free access to on-site health club shower facilities, if the health club can be accessed without going outside.
- 1 visitor bike space per 10,000 s.f. commercial/non-retail, min. 4 per building
- Secure, enclosed bicycle storage areas must be locked and easily accessible to residents and/or workers. Provide informational signage on using the storage facilities.
- Racks – must be visible and available within 100 feet of each main entry, with lighting.

LEED-ND NPD Credits 6 Street Network, 7 Transit Facilities:
To increase the pedestrian orientation of projects, minimize the adverse environmental effects of parking facilities, reduce public health risks by encouraging daily physical activity associated with walking and bicycling.
- Through streets or non-motorized right-of-way intersect boundary every 400 feet max.
- Transit stops shall have covered, partially enclosed shelters with seating and lighting
- Shelters shall have anchored bike racks with two point locking system
- Space shall be reserved for future shelters, racks and improvements
- Each stop shall display route information and schedules

LEED-ND NPD Credits 8, Transportation Demand Mgt:
To reduce energy consumption, pollution from motor vehicles, and adverse public health effects by encouraging multimodal travel to reduce peak-period motor vehicle trips by at least 20% compared to baseline using combination of following options:
- Vehicle Sharing: 50% of dwelling units and non-residential building entrances to be within ¼ mile walk of one vehicle with dedicated parking space. Through signage and other means, publicize to project occupants the availability and benefits of the vehicle-sharing program.
- If the project has more than 100 dwelling units and/or employees and has a minimum transit service of 60 daily weekday trips and 40 daily weekend trips, at least one additional vehicle and parking space for every 100 dwelling units and/or employees must be available.
- Subsidized transit passes, developer sponsored transit,
- 90% parking spaces sold or rented separately from dwelling units and non-residential s.f.

LEED-ND GIB Credit 4, Water efficiency:
- Pervious surfaces

Meet University Biking Programming items outlined in LEED, STARS, and CRSC
- UofL Student Cycling Coalition
- Biking Information Areas in Student Housing
- Resident Assistant Training on alternative travel options
- Student bicycle and sustainability challenges/competitions
- Offer sustainability internship opportunities for students
- Student Eco-Rep (LEED) positions or similar initiatives
Appendix I: Environmental Factors

SCENARIO: BASED ON BIKING RATHER THAN SINGLE OCCUPANT AUTO DRIVERS WHO AGREED OR STRONGLY AGREED THAT BIKE LANES WOULD MAKE THEM MORE LIKELY TO BIKE TO CAMPUS.
Model based on Tiger Grant calculations from Ames, Iowa: www.cyride.com

CALCULATION of Resulting CO2 Reductions from reduced VMT in Scenario:
Total VMT reduction per day = 32,524 VMT

Potential Resulting CO2 Reduction:
Other GHG CO2 equivalent = 100/95 http://www.epa.gov/OMS/climate/420f05004.htm
CO2 burned per one gallon of gasoline = 8.8 kg TIGGER federal register guidance or http://edocket.access.gpo.gov/2009/pdf/E9-9469.pdf

Tons CO2 = mpg * VMT * CO2 per gal. gas * other GHG CO2 equivalent /1,000 (to convert kg to metric tons)
Tons CO2 = (22.5 * 32,524 * 8.8 * (100/95)) / 1,000
= 6,778.5 metric tons CO2e per day reduction

Full Time Equivalent Days = 8 months * 4 weeks * five days * .80 (to account for part time faculty/staff/students)
= 128 DAYS (FTE) Commutes

6,778.5 CO2e reduction * 128 days of commutes = 867,648 metric tons CO2e reduction per year

Note: in 2010 UL Faculty/Staff generate 11,047 metric tons CO2e and in 2010 UL Students generate 6,585 metric tons CO2e.

Potential Savings to University: Resulting from potential reduction in # S.O.V. cars driven to campus each day = 4,225.
Number of parking spaces needed on university campuses (to determined by review of planning director, as per Land Development Code) requires (i.e. business schools) to provide one spot per three employees, and one spot per every four seats in classrooms. Therefore, a very conservative cost savings estimate for a 4,225 car reduction (approximately one sixth commuters are employees) would be 704 employees. One parking spot per 3 employees = 234 parking spots, without even calculating any spots for students. University costs per parking spot are between 17,000 to 26,000 dollars *(234) totaling between $3,978,000 and $6,084,000.00.
Commuter Tax Options (based on VMT to campus):

From survey, projected numbers for commute time and estimated round trip to campus:

<table>
<thead>
<tr>
<th># commuters</th>
<th>% S.O.V. drivers</th>
<th>Total # S.O.V.s to campus</th>
<th>Est. min. VMT, roundtrip/SOV</th>
<th>Est. Total Daily VMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 min/less = 5438</td>
<td>68</td>
<td>3698</td>
<td>2</td>
<td>7,396</td>
</tr>
<tr>
<td>11 to 20 min = 8700</td>
<td>74</td>
<td>6438</td>
<td>6</td>
<td>38,628</td>
</tr>
<tr>
<td>21 to 30 min = 7885</td>
<td>82</td>
<td>6466</td>
<td>10</td>
<td>64,660</td>
</tr>
<tr>
<td>31 to 40 min = 3263</td>
<td>76</td>
<td>2480</td>
<td>20</td>
<td>49,600</td>
</tr>
<tr>
<td>41 to 60 min = 1631</td>
<td>76</td>
<td>1240</td>
<td>30</td>
<td>37,200</td>
</tr>
<tr>
<td>60 min/plus = 271</td>
<td>55</td>
<td>149</td>
<td>40</td>
<td>5,960</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>20,471</td>
<td></td>
<td>203,444</td>
</tr>
</tbody>
</table>

Thoughts on “Carbon Tax” Options (to reduce carbon and financially support bike facilities on campus):

- Price per S.O.V.
  - $5 x 20,471 = $102,355
- Fee for those with parking pass ( # parking passes sold for 2010-2011)
- Price per address/distance TO campus
  - One dollar per year/miles to campus daily: approx roundtrip VMT’s = 203,444/2 = $101,722
- Fee shared by all campus community regardless of mode of travel
  - 27,190 x $5 = $135,950
- Consider larger fee from those who actually produce larger footprint and don’t tax walkers and riders.
Appendix J: Bike Parking and Regulations

Parking Permit and Registration Policies of other Universities

**U of Kentucky:**
Bike registrations: Had intended to have $15 dollar fee for registration but protests lead to dropping this fee; 4,500 registrations since 2009 when it started; allows contact of owners rather than cutting off locks and impounding bikes, return of stolen bikes, contacts for disseminating info and getting input.
Carpool registration and incentives: university offers three free rides home per year if carpooler has an emergency illness, etc. and needs to get home; priority close in parking lot spaces reserved for carpoolers. Min three members per carpool, min carpooling three days a week to campus, must commute at least one mile to campus; for students, faculty or staff of university only.

**University of Oregon:** bike reg. is free. Carpoolers get close in parking.

**Indiana Univ.:** bike reg. is $10 per life of bike.

**EKU:** don't seem to have any registrations.

**WKU:** Has full service bike shop on campus through intramural and recreational sports department located in their Health and Activities Center. Sell bikes, gear, accessories. Do repairs, tune-ups, and builds bikes. Have triathlon on campus. Don't seem to have registration fees.

**Univ. of Wisconsin:** (bike registration law for city of Madison)

Madison City Ordinance 12.78(1) requires all bicycles used within the city’s boundaries to be registered with the Madison Police Department unless they are currently registered with another municipality.

Registration fees are $10.00 for four years. All unregistered bicycles are subject to fines up to $45.00.

You can register your bicycle in person at the Transportation Services offices, either at the WARF Building (West Side of campus) or at the Welcome Center at 21 North Park Street. You can also register online at www.madisonpay.com.

Fill out a mail-in form today. To view this form, you will need Adobe Acrobat Reader. You can find the Adobe Acrobat Reader at Adobe's website

**UofL:** Associated with the National Bike Registry through the National Crime Prevention Council. NBR gives free 24/7 internet access to data base with secure password. Get NBR ID label with serial number. Also get free educational material and media support. NBR website registration:
Costs 10 dollars for ten years or 25 dollars for 30 years; Family registration is 25 dollars for ten years per bike up to 5 bikes.
Rules of the Road

The operation of a bicycle in the City of Louisville is governed by several state and local regulations: the Kentucky Revised Statutes (KRS), the Kentucky Administrative Regulations (KAR) of the Transportation Cabinet, and the Ordinances of Louisville-Jefferson County Metro Government. This page will summarize the rights and responsibilities of bicyclists as defined in these regulations, and is not intended as a comprehensive reference guide. Links to the full-text of the regulations are included on this page; please follow them for complete reference information.

Note: For information about laws pertaining to mopeds, go here and review Chapter 71: Traffic Laws. (Mopeds are covered in section 71.25.)

State Regulations:

The Kentucky Revised Statues (KRS 189.287) give the Transportation Cabinet the right to "promulgate bicycle safety regulations and standards." These regulations are defined in the Kentucky Administrative Regulations (601 KAR 14:020). The less obvious regulations are summarized below:

- You MUST use a front light when riding at night or whenever it is darker than usual (i.e. when it is heavily overcast). [See KRS 189.030(1) for description of when a light is required.]
- You MUST use a red rear reflector or light on yourself or your bicycle whenever riding on a highway or shoulder (definitions).
- At night or when overcast (as described above), you MUST use a steady or flashing red rear light.
- You MUST shout or sound a bell or horn when approaching a pedestrian or other bicycle.
- It is illegal to carry more passengers than the bicycle was designed to accommodate.
- You may not carry a package which prevents you from keeping at least one hand on the handlebars.
- It is illegal to attach yourself or your bicycle to another vehicle.
- Bicycles shall be operated the same as a motor vehicle EXCEPT for the following:
  - A bicycle MAY be operated on the shoulder of a highway.
  - If a bicycle lane is provided, it MUST be used whenever feasible.
  - Not more than TWO bicycles may ride side-by-side in a single highway lane.

Local Regulations:

KRS 189.287 states that riders and bicycles complying with the 601 KAR 14:020 regulations are exempt from the provisions of KRS 189.040(9), KRS 189.050(1), KRS 189.050(5), and KRS 189.080 (regarding lights and horns). Such bicycles and riders are also
exempt from municipal and other local government regulations concerning safety equipment but not method of operation." A number of local regulations apply to the operation of bicycles, defined in the local Traffic Code chapter on Bicycles and Motorcycles, TITLE VII, CHAPTER 74. This ordinance specifies more detailed usage restrictions than do state regulations. They are summarized here:

- No person over 11 years old shall operate a bicycle on any sidewalk in Louisville Metro, and nobody of any age shall ride on the sidewalk downtown.
  - This does NOT apply to officers of Louisville Metro Police Department, employees of Louisville Metro Emergency Medical Services, Louisville Fire and Rescue, the suburban fire protection districts, Louisville and Jefferson County Emergency Management Agency, nor to Downtown Management District Clean and Safety Team personnel, nor to private security personnel employed by hospitals located within the Downtown Form District, as long as they are acting within the scope of their official duties.
- Children are allowed to ride as passengers as long as certain conditions are met.
- No person shall operate a motorized vehicle on a designated bike path or bike lane.
  - Metro Government maintenance vehicles are exempted from this regulation.
- You MUST wear a helmet if you are under 18 years old and you are riding in any Metro Park.

In all other ways, bicycles are considered "vehicles" by the Kentucky and Local regulations and are subject to all rights and regulations of other vehicles. These include:

- You must stop at all stop signs and red lights as must other vehicles.
- You must pass on the left and make turns from the appropriate lane.
  - However you are encouraged to remain in an on-road bicycle lane even if it means you will pass some stopped traffic on the right.
- You must signal, using your hands (see the Bicycle Safety page for hand signals), lamps, or mechanical devices. The signal must be given intermittently for the last fifty feet before the turn.
- All slow moving vehicles must bear as far right in their lane as is safe and practical, including bicycles.
  - If there is on-road parking, a particularly narrow street, debris, or other hazards, you are allowed to claim as much of the lane as necessary to ride safely.

As stated in Section 70.03 (C) of the Traffic Code: "Every person riding a bicycle or an animal on any roadway, and every person driving any animal on any roadway, and every person driving any animal-drawn vehicle shall be subject to the provisions of this traffic code applicable to the driver of any vehicle, except those provisions of this traffic code which by their very nature can have no application."
Please click here to view the entire Louisville Metro Traffic Code as it relates to bicycles.

Rules for Motorists Concerning Bicycles

Since motor vehicles and bicycles are both considered "vehicles" under the eyes of the law, there are rules which apply to motorists as well as to bicyclists regarding their behavior on the road.

Motorists MUST:

- Share the road with bicyclists.
- Before passing a cyclist:
  - Look to see if there is something in the right lane (debris, parked cars, drainage grates, etc.) that might cause the cyclist to divert their course to the left.
  - Pass only when you can allow at least three feet between yourself (as measured from the extent of your rear-view mirrors) and the cyclist.
  - Return to your lane only when completely clear of the cyclist.
- If you turn right after passing a cyclist, only do so if you leave enough room that his forward path is not obstructed.
- When opening your car door, look for cyclists in your rear-view mirror.

The information in the "Rules for Motorists Concerning Bicycles" section comes from the Kentucky Drivers Manual.

Impounded Bicycles

(source: University of Kentucky Policy used as prototype and comments by Justin Mog)

Impoundment means a motor vehicle or bicycle has been involuntarily towed or transported pursuant to KRS 376.275 to a compound or storage facility due to a violation(s) of these regulations, the KRS or subsequent to an arrest, and its removal has been ordered by the University of Kentucky Police Department or Parking & Transportation Services (PTS) and retained in custody pending payment of all citation, towing and storage fees.

Impoundment

The charge for impounding a bicycle is $40.

A storage fee of $2 per day will be charged in addition to all fines/impoundment costs, effective 24 hours after initial impoundment for a maximum of 15 days.

The University will remove locks or security devices and impound at the expense of the owner/operator, any bicycle that is:

- Abandoned or inoperative for a minimum of five days
- Reported as lost or stolen
Parked, stored, or operated in violation of these regulations
The University of Kentucky and PTS is not responsible for loss or damage of locks or security devices removed for bicycle impoundment.

11. Release Procedures for Impounded Bicycles
Required prior to the owner/operator attaining the release of an impounded bicycle:
Prepayment of all outstanding bicycle citations and impoundment fees by check, cash, Visa or MasterCard
Proof of ownership when deemed necessary
Bicycles unclaimed after 90 days will be disposed of according to University Regulations.
Even though a bicycle owner may choose not to claim an impounded bicycle, all citation, storage and impoundment fees owed the University must be paid in full or the owner risks a hold to be placed on his/her records and account(s)."

PROCEDURE:
I’ve been told by UK’s Sustainability Coordinator that the typical procedure for identifying abandoned bikes (beyond those reported to them) is that soon after the end of the academic year, their PTS officers tie easily-breakable flagging tape between all bike wheels and the thing to which they are locked. If the tape remains for a five days, they know the bike is abandoned and impound them.

Reasonably functional bikes which are never reclaimed from impoundment are repurposed for the Wildcat Wheels program (http://www.uky.edu/HR/wellness/wildcatwheels.html) to provide free loaner bikes to students and employees on campus. I’d love to see us move toward that model as well, but it certainly is not necessary to have that set up prior to implementing an abandoned bicycle policy and procedure. Unclaimed bikes could simply be auctioned or donated to other organizations.
Appendix K: Local Bicycling Organizations

- **Bicycling for Louisville** is Louisville’s non-profit bike advocacy and education organization
- **CART - The Coalition for the Advancement of Regional Transportation**
- Metro Louisville’s **Bike Louisville**
- **Louisville Bicycle Club** (formerly Louisville Wheelmen)
- The **Kentucky Mountain Biking Association**
- **Southern Indiana Wheelmen**

Additional Bike Organization Contacts

- Humana Inc. Corporate Communications; Doug Bennett 502 580 3625 dbennett@humana.com
- Bikes Belong; Tim Blumenthal 303 875 9222, Tim@bikesbelong.org.

UofL Bicycle Network Partners:

- Get Healthy Now
- Campus Health Promotion
- Student Government Affairs
- Sustainability Council
- Vice-President for Business Affairs
- University Planning, Design & Construction