



TRANSPORTATION PLAN UPDATE 2015

PROJECT GOAL

Reshape the University of Arkansas transportation system into one that is effective and efficient, transit-oriented, environmentally sustainable, and financially viable for the next twenty years and beyond.

PROCESS

Nelson\Nygaard began work in **mid-2014** and produced initial recommendations for consideration to Transit & Parking in **late 2015**. The process involved:

- ① **inventory** of existing plans and newly-collected data
- ② **analysis** of trends revealed in data
- ③ **stakeholder consultation** and outreach
- ④ **planning** to develop policies and strategies
- ⑤ **validation** of proposed policies with operational staff

SAMPLE OF INVENTORY AND ANALYSIS

- student/faculty/staff proximity and existing trip mode
- attitudes toward bus/bicycle/walk vs. car use
- parking utilization counts {across days and times}
- bus ridership and individual bus stop counts
- potential bus ridership density {based on population}
- pedestrian and bicycle counts at all key intersections
- financial analysis of current and proposed pricing structures

UA STAKEHOLDERS

- Associated Student Government
- Faculty Senate
- Staff Senate
- Office for Sustainability
- Student Affairs
- University Housing
- University Relations
- Transit and Parking
- FM Planning and Design

OTHER STAKEHOLDERS

- City of Fayetteville
- Bicycle Coalition of the Ozarks
- Northwest Arkansas Council
- NWARPC
- Ozark Regional Transit
- private developers
- community at large

OUTREACH

- online survey: 5000+ respondents
- stakeholder meetings
- project website with interactive
- social media
- Newswire
- press releases
- on-site workshops

OUTREACH



{APRIL 2015}

MARCH APRIL
30-1
SCHEDULE

TRANSPORTATION WORKSHOPS

Workshop @ the Arkansas Union Living Room:
Raffle, Coffee, Cookies, Visual Preference Survey, Wiki-mapping, Share Your Issues and Ideas for the **Campus Transportation Plan!**

MONDAY 30

11 AM - 5 PM

Workshop @ the Arkansas Union Living Room

1 - 2 PM

POP-UP WORKSHOP I

Meet the Transportation Experts

Share Ideas for Better Access/Circulation

LOCATION: Founders Hall Terrace

4 - 7 PM

POP-UP WORKSHOP II

Meet the Parking Experts

Share Ideas for Better Parking and What it Would Take For You Not To Drive

LOCATION: Harmon Avenue Garage Main Entrance

TUESDAY 31

9 AM - 5 PM

Workshop @ the Arkansas Union Living Room

10 - 11 AM

POP-UP WORKSHOP III

Let's Talk Streets!

How Can We Make the Roads Safer and More Attractive for all Modes?

LOCATION: Maple Street/Arkansas Avenue

4 - 7 PM

POP-UP WORKSHOP IV

Meet National Transit Experts

Tell us: How Can UA Buses Be Better?

LOCATION: Union Station

WEDNESDAY 1

9 AM - 12 PM

Workshop @ the Arkansas Union Living Room

9 - 11 AM

WALKABOUT

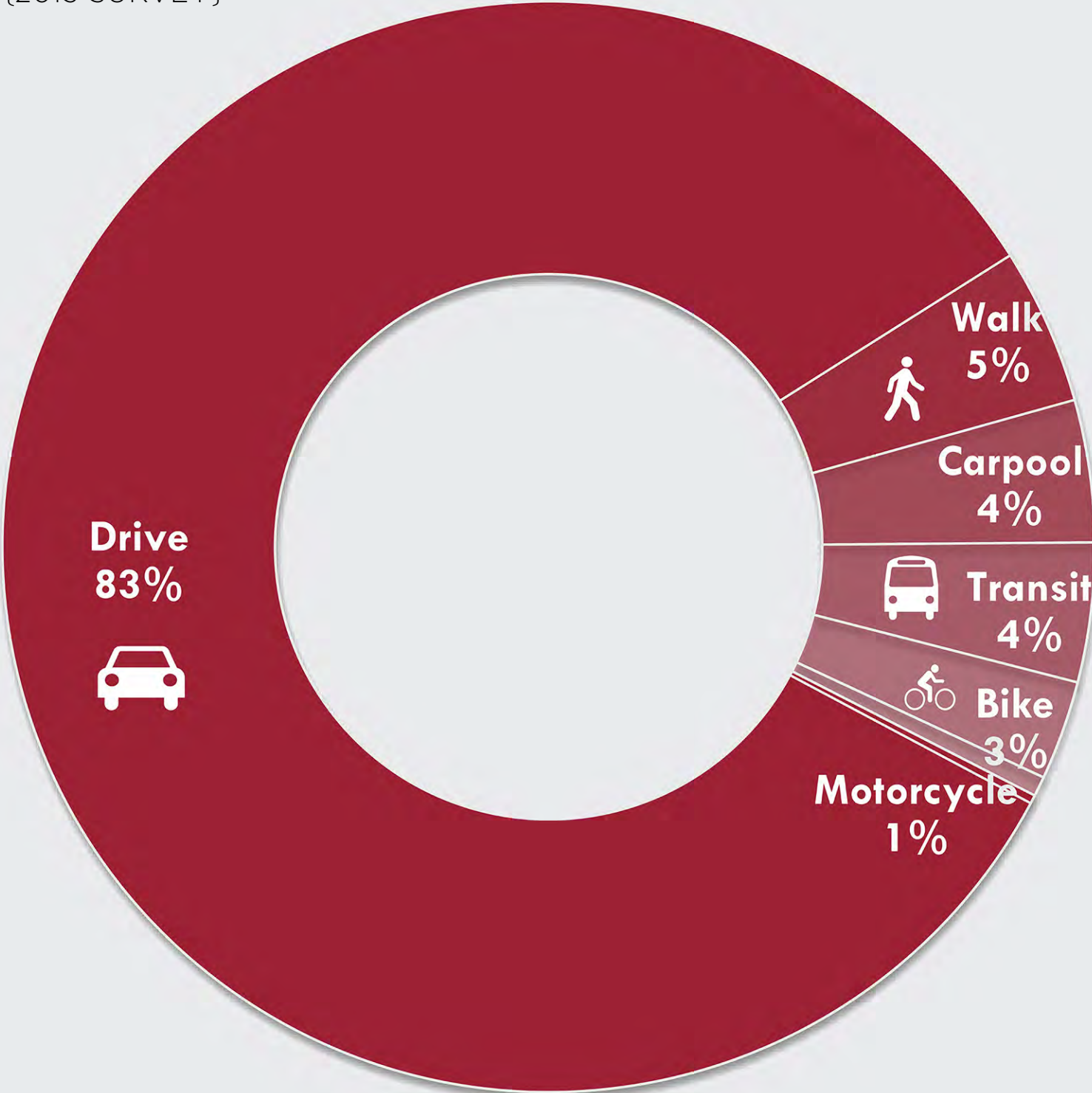
Let's Talk Bikes, Mopeds and Hills!

What are some creative solutions to travelling campus hills?

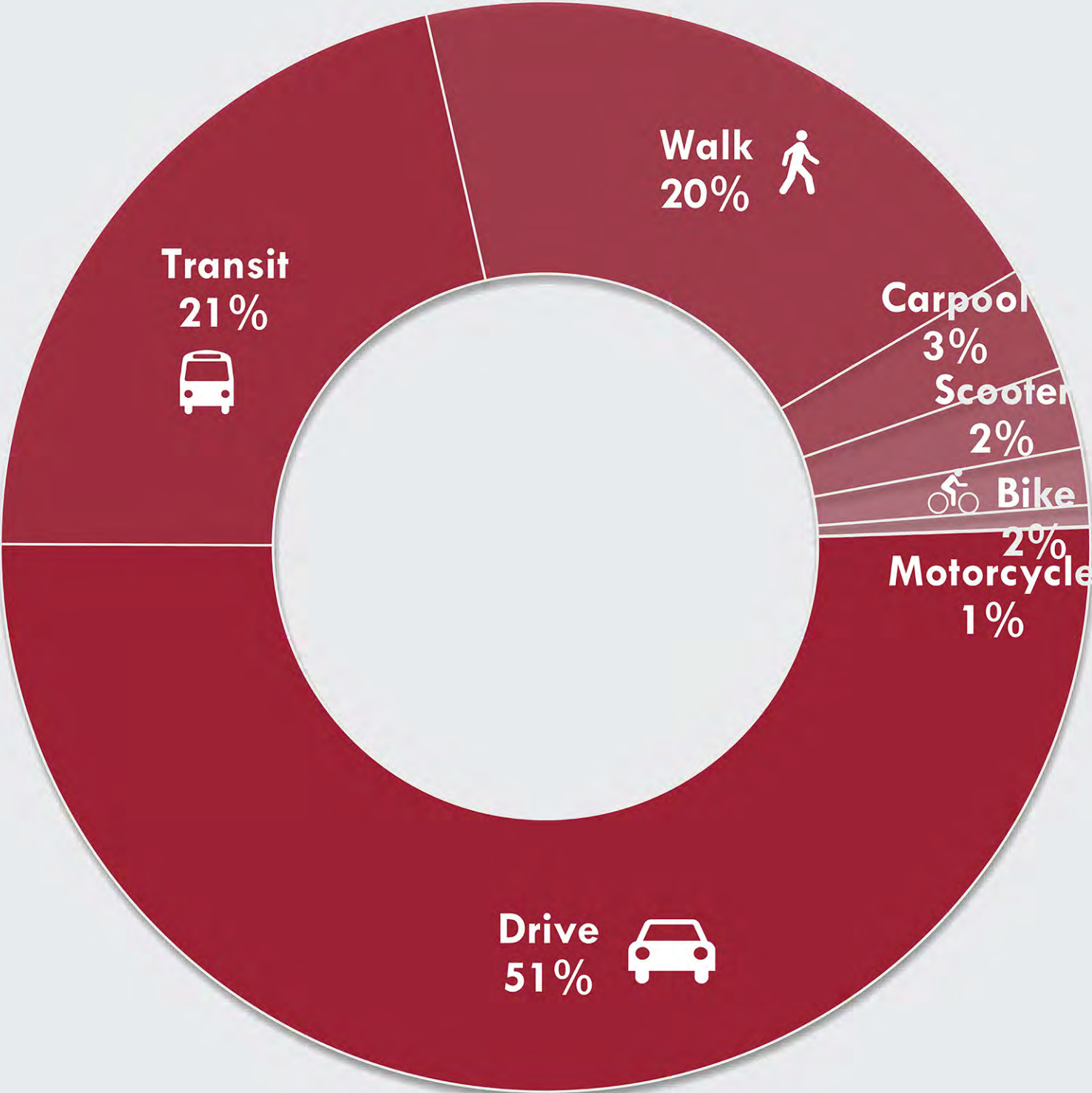
LOCATION: Harmon Avenue Garage Main Entrance

KEY ISSUES AND
RECOMMENDATIONS FOR
ALL TRAVEL MODES

HOW DO STUDENTS, FACULTY, AND STAFF CURRENTLY GET TO CAMPUS?
{2015 SURVEY}



FACULTY AND STAFF



STUDENTS

- ① **PARKING**
- ② TRANSIT
- ③ BICYCLE
- ④ WALK

{FALL 2014}

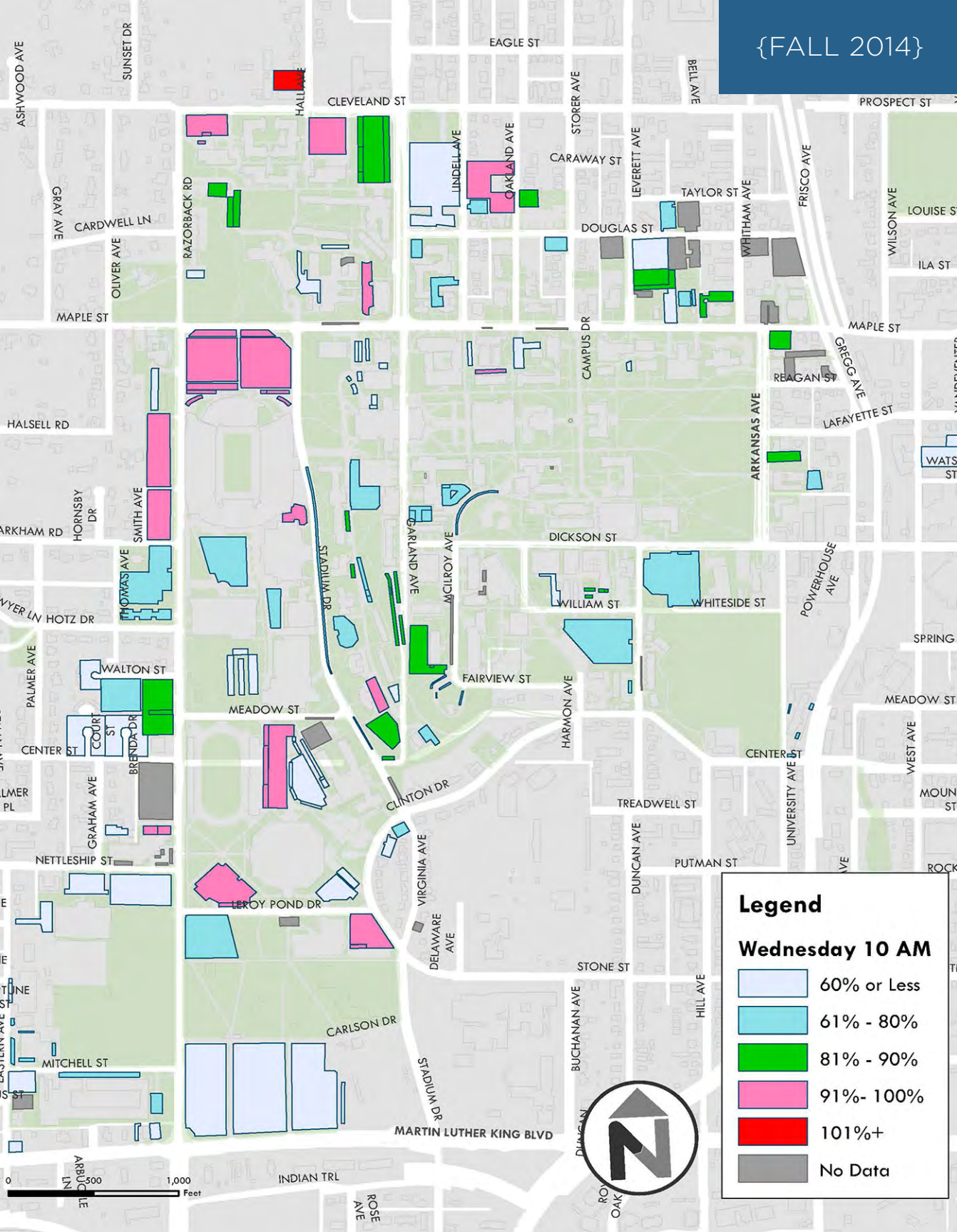
1 PARKING ISSUES

Despite perception of a lack of parking on campus, thousands of spaces are empty throughout the week, even at peak times.

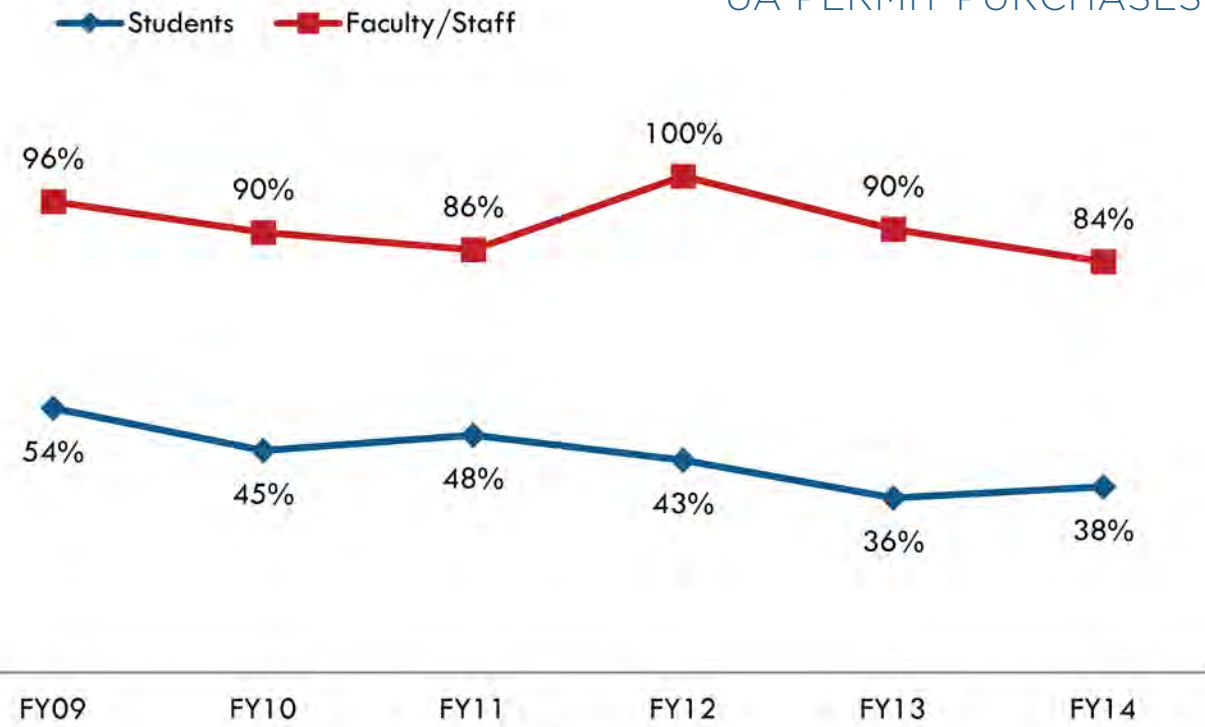
Existing permit system is overly-complex and manages the parking supply inefficiently.

Permit price structure does not encourage use of full parking inventory.

Yearly permit encourages permit-holders to drive even on days they may otherwise use other travel modes.



UA PERMIT PURCHASES

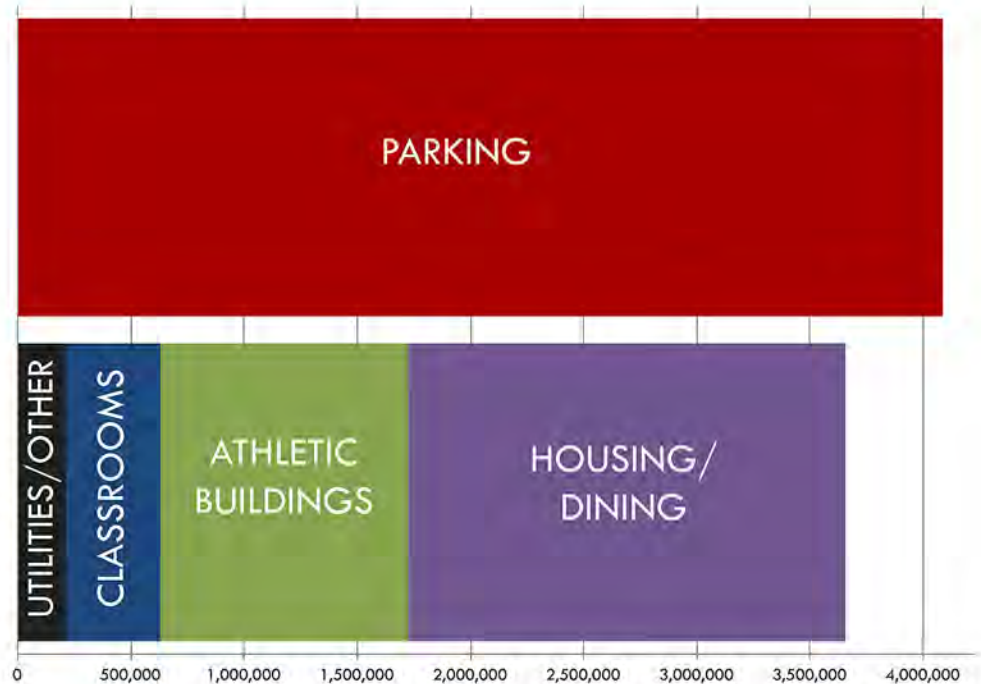


1 PARKING ISSUES

Although enrollment has increased substantially, the percentage of students purchasing parking permits has **decreased since 2009**.

While growth of parking demand may not parallel enrollment growth, construction of new academic, housing, and Greek space in the center of campus will **eliminate parking** that must be replaced.

UA PARKING AREA VS. BUILT AREA {GSF}



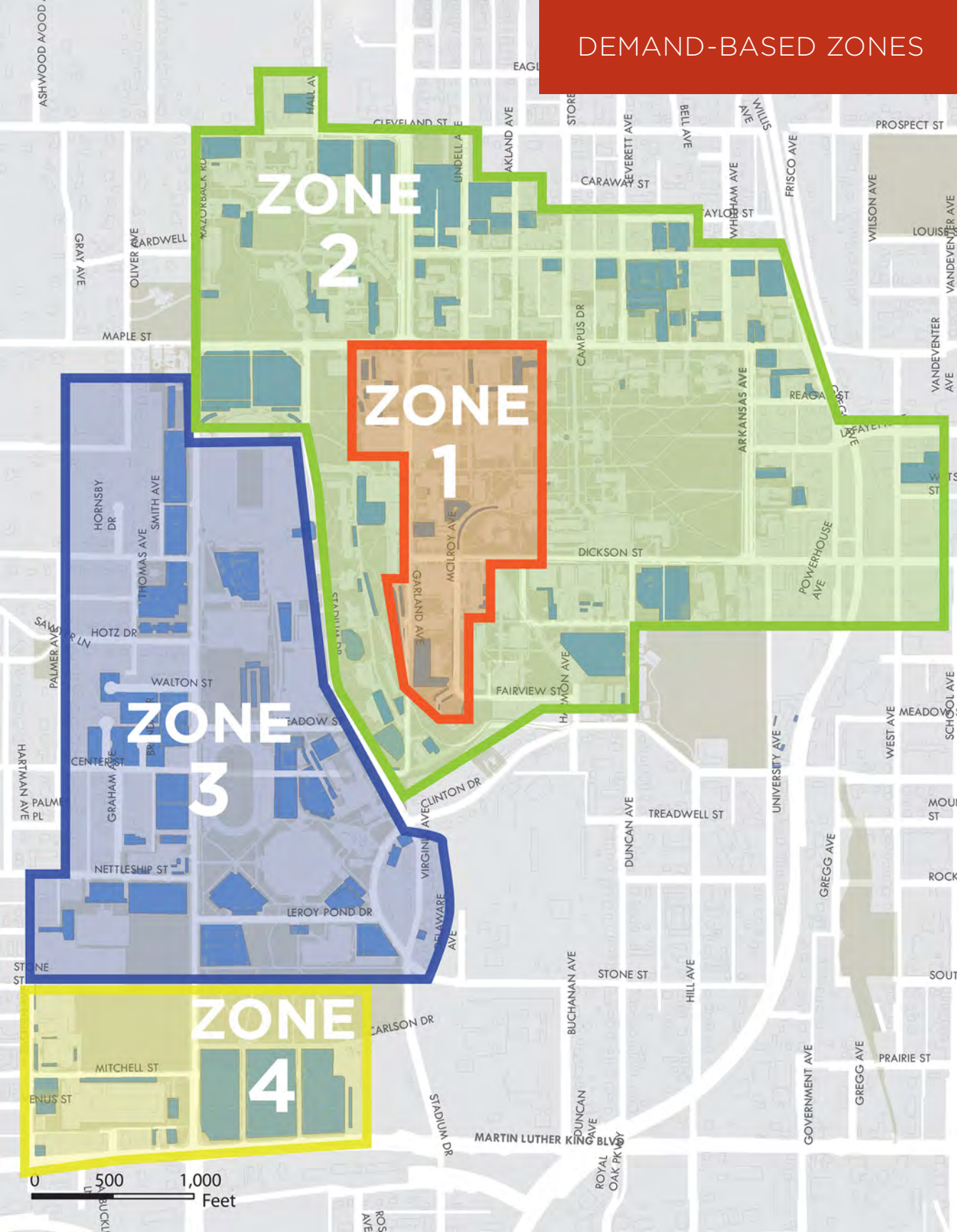
1 PARKING RECOMMENDATIONS

Create a **demand-based zone permit system** that encourages use of full parking inventory and is easier to understand.

Improve and simplify payment systems for visitor and metered spaces.

Increase enforcement with license plate recognition {LPR}.

Transition to a **daily parking system** making permit-holders more aware of true cost of parking {encourages use of other travel modes}.



① Individual Strategies

SIMPLIFY PARKING

- SP1. Modify permit structure
- SP2. Restore credit card functions on multi-space meters
- SP3. Extend ParkMobile application to all areas
- SP4. Introduce license plate recognition {LPR} enforcement
- SP5. Eliminate time limits on metered spaces and manage by price
- SP6. Transition to a daily parking system

MONITOR PROGRAMS

- MP1. Parking inventory and occupancy counts

BUILD PARTNERSHIPS TO EXPAND TRAVEL OPTIONS

- BP1. Work with City to create University Parking District

MAXIMIZE EFFICIENCY

- ME1. Price parking in the campus core {areas of highest demand} until 8pm
- ME2. Formalize existing cheap and free remote parking into the parking system
- ME3. Prioritize carpoolers
- ME4. Prominently feature carshare vehicles
- ME5. Create intercept vehicular parking on game days
- ME6. Deploy real-time electronic parking wayfinding information

STANDARDIZE PHYSICAL AMENITIES

- SA1. Expand campus wayfinding plan and standards

① Individual Strategies

SIMPLIFY PARKING

- SP1. Modify permit structure {Summer 2018}
- SP2. Restore credit card functions on multi-space meters {2015}
- SP3. Extend ParkMobile application to all areas {2016}
- SP4. Introduce license plate recognition {LPR} enforcement {Summer 2017}
- SP5. Eliminate time limits on metered spaces and manage by price {Summer 2017}
- SP6. Transition to a daily parking system

MONITOR PROGRAMS

- MP1. Parking inventory and occupancy counts {Fall 2018}

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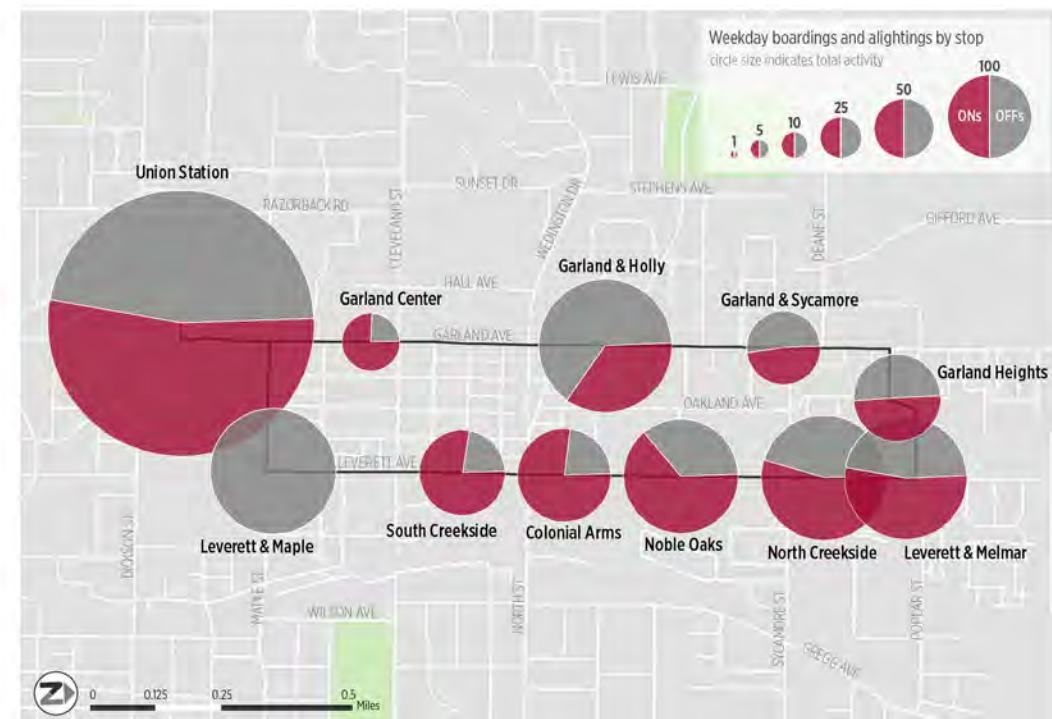
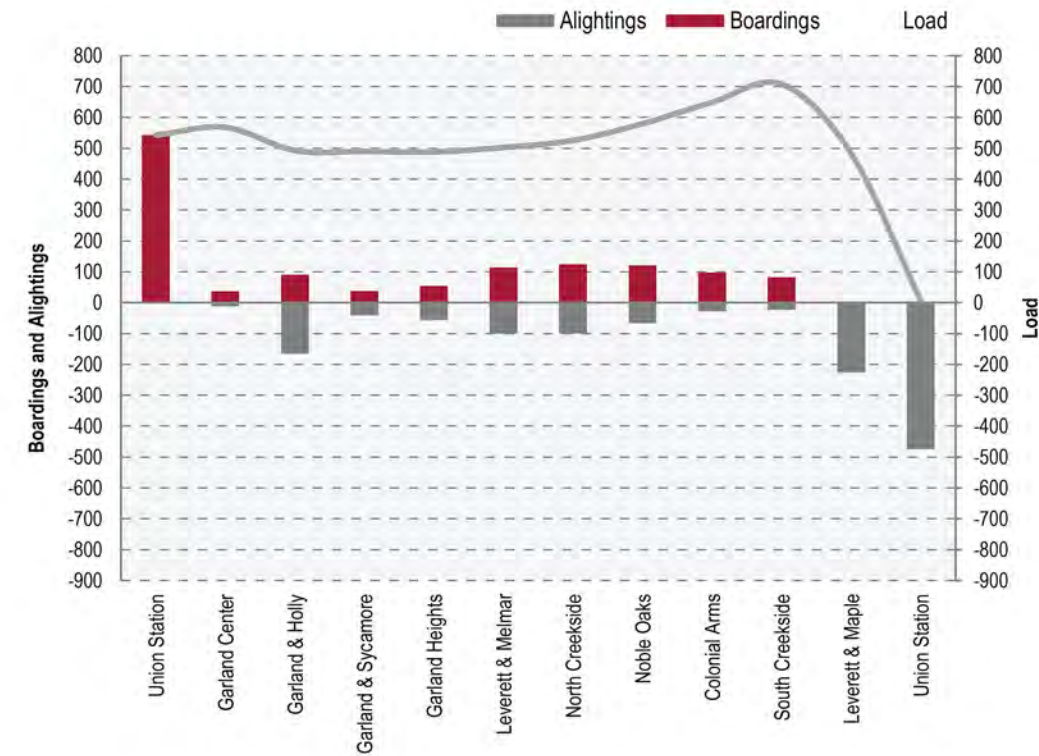
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STANDARDIZE PHYSICAL AMENITIES

- SA1. Expand campus wayfinding plan and standards {Summer 2017}

- ① PARKING
- ② **TRANSIT**
- ③ BICYCLE
- ④ WALK



2 TRANSIT ISSUES

Each transit route was evaluated for productivity based on ridership patterns for each trip and each stop.

Many students served by transit choose to drive to campus because stops are not conveniently located and routes are slower than they prefer.

One-way loops force people to travel out of their way and increase trip time.

Circuitous routes increase trip time, but are less expensive to maintain.

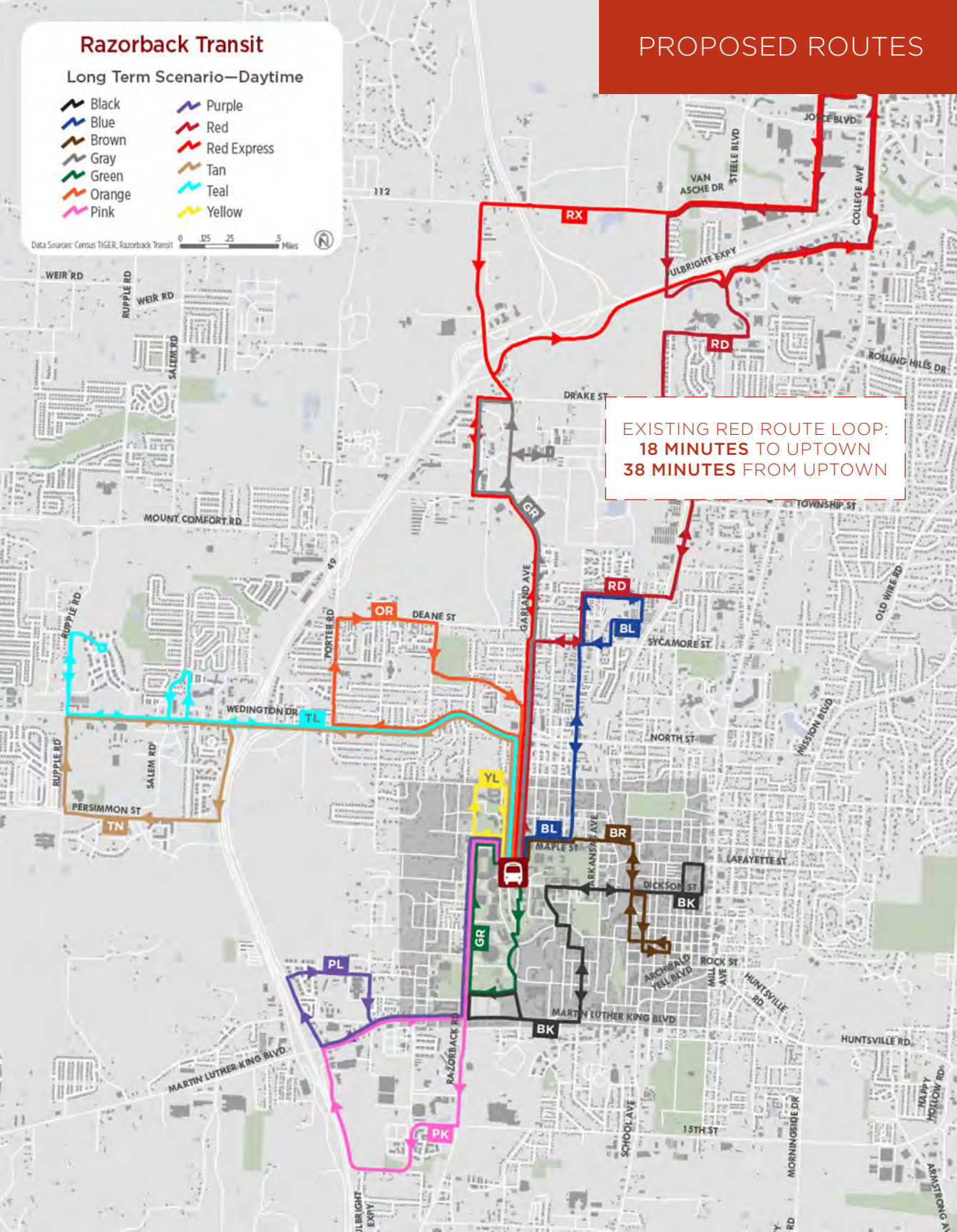
Razorback Transit

Long Term Scenario—Daytime



Data Sources: Census TIGER, Razorback Transit

PROPOSED ROUTES



2 TRANSIT RECOMMENDATIONS

Reorganize routes to better serve destinations and create simple, direct paths to and from campus.

Create bi-directional service along routes {eliminate one-way loops where possible} to reduce trip time and make service more predictable.

Increase number of buses to improve service and allow for more bi-directional routes.

② Individual Strategies

INCREASE TRANSIT IMPACT

- IT1. Reorganize routes to more directly serve rider origins and destinations
- IT2. Expand service on well-used routes
- IT3. Extend transit priority on Garland Avenue

MONITOR PROGRAMS

- MP2. Ridechecks
- MP3. Annual transportation survey

STANDARDIZE PHYSICAL AMENITIES

- SA2. Create a standard for bus stop signs
- SA3. Institute a hierarchy for bus stop improvements
- SA4. Relay on the Transportation Toolkit

② Individual Strategies

INCREASE TRANSIT IMPACT

- IT1. Reorganize routes to more directly serve rider origins and destinations {2016 partial}
- IT2. Expand service on well-used routes
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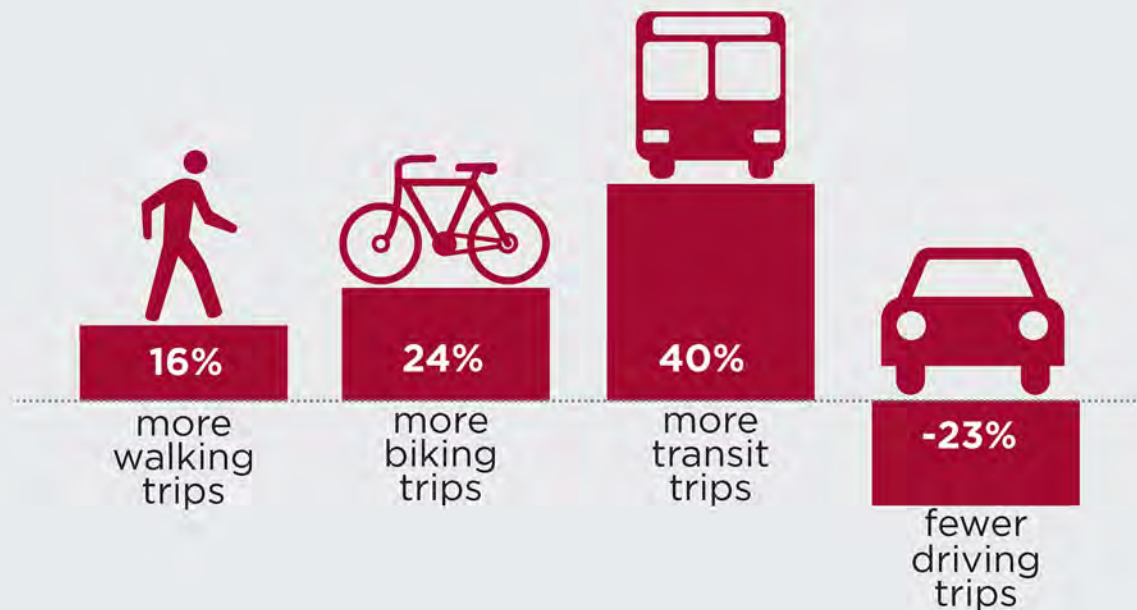
MONITOR PROGRAMS

- MP2. Ridechecks {Fall 2017}
- MP3. Annual transportation survey {Fall 2017}

STANDARDIZE PHYSICAL AMENITIES

- SA2. Create a standard for bus stop signs {2016}
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- ① PARKING
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- ③ **BICYCLE**
- ④ WALK



3 BICYCLE ISSUES

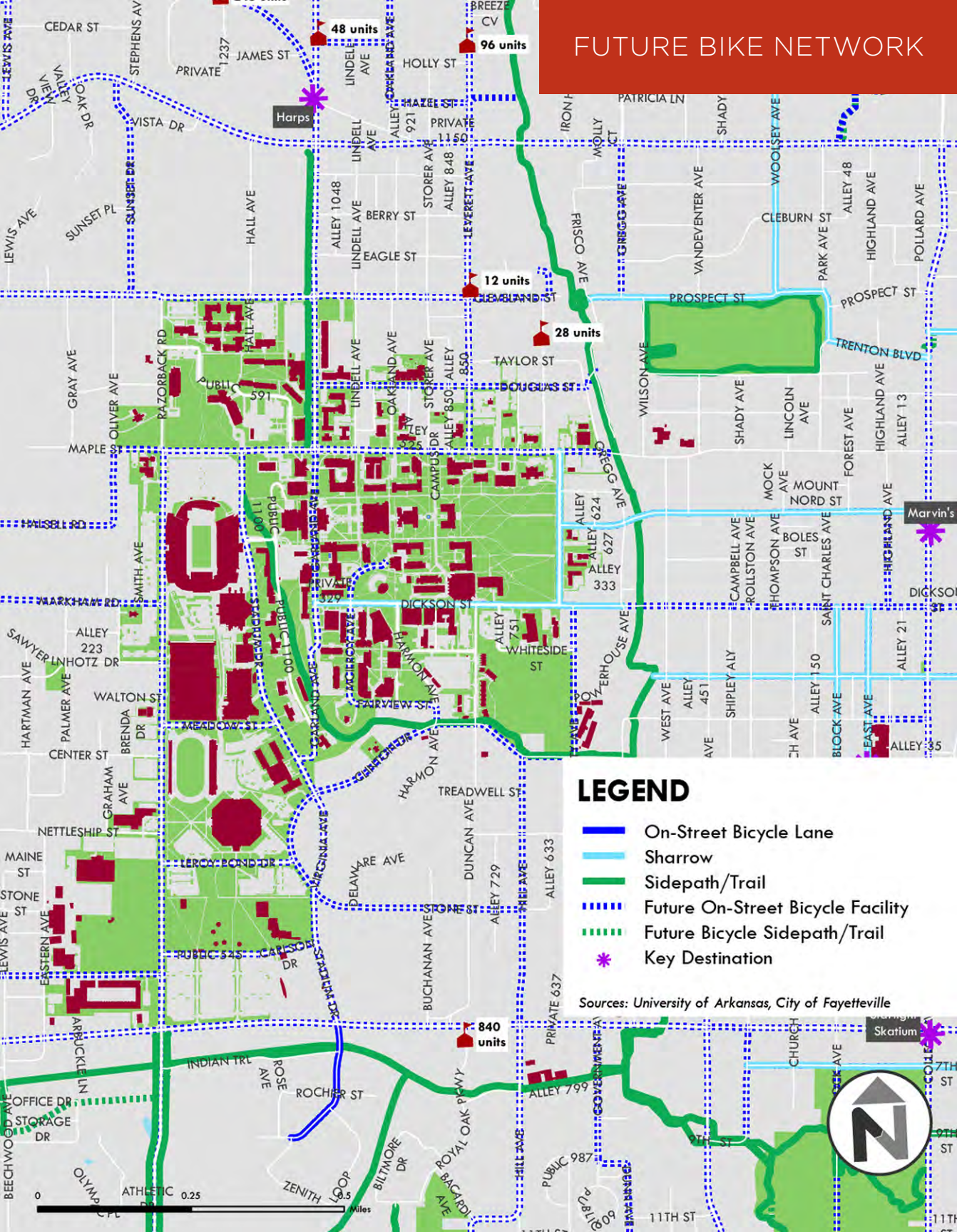
Bike ridership is growing in Northwest Arkansas as the city and region have developed an **extensive network of off-street trails**.

The campus **lacks connections** to the trail network.

The campus **lacks adequate bike parking**.

Cyclists have expressed a **strong desire for better campus facilities**.

The **bikeshare program is underused** and not tied to a citywide or regional system.



3 BICYCLE RECOMMENDATIONS

Create a direct connection from the regional trail to the center of campus with a **protected two-way bike lane on Maple Street**.

Extend Oak Ridge Trail north to Maple Street.

Create **defined bike routes** through campus along with **adequate parking** and amenities.

Establish a full bikeshare program with ties to the city and region.

③ Individual Strategies

CREATE BICYCLE NETWORK CONNECTIONS

- BC1. Connect to Frisco Trail at Douglas Street
- BC2. Connect to Frisco Trail with protected bikeway on Maple Street
- BC3. Establish route through the center of campus, possibly along or near Old Main Lawn
- BC4. Extend bike accommodations from Oak Ridge Trail to the north
- BC5. Install bike gutters at key staircases at the center of campus
- BC6. Install bike fix-it stations
- BC7. Add game day valet bike parking

BUILD PARTNERSHIPS TO EXPAND TRAVEL OPTIONS

- BP4. Transform Razorbikes program to full bikeshare with tie to regional system

EXPAND PROGRAMS TO REDUCE DRIVING DEMAND

- EP1. Substitute the parking replacement policy with a parking demand reduction policy
- EP2. Introduce walk/bike incentives
- EP3. Expand carshare fleet and promote service
- EP4. Introduce Guaranteed Ride Home
- EP5. Introduce a secure ridematching service
- EP6. Develop transportation ambassador program

③ Individual Strategies

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BUILD PARTNERSHIPS TO EXPAND TRAVEL OPTIONS

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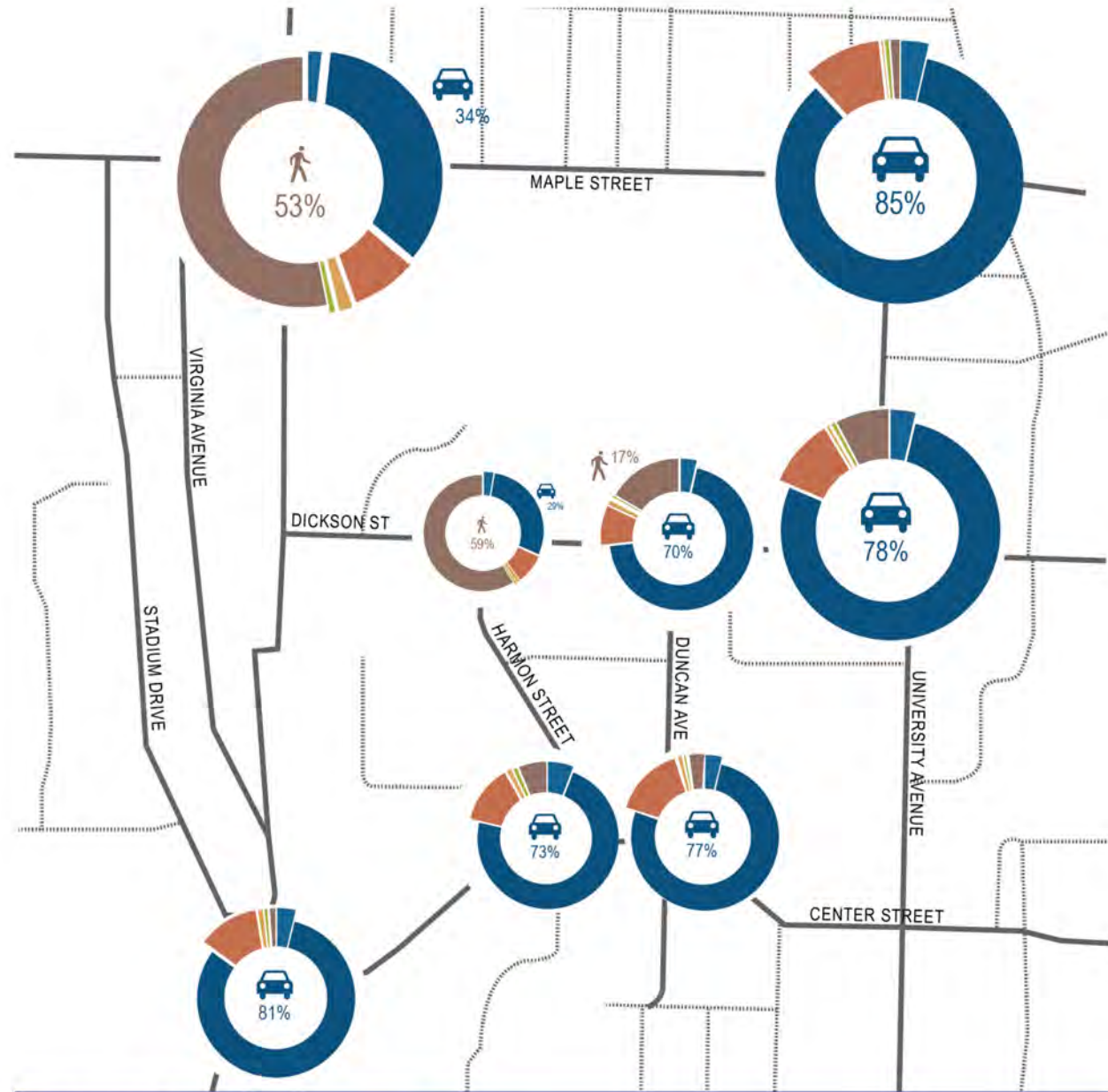
- ① PARKING
- ② TRANSIT
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- ④ **WALK**

4 WALK ISSUES

Existing pedestrian infrastructure {paths, sidewalks, crossings, etc.} often does not accommodate new pedestrian travel patterns or increased volumes.

The campus has a number of **discontinuous pedestrian routes**, forcing students to cut across streets and greenspaces.

Many areas were originally designed to **accommodate only vehicular traffic**, but are now heavily used by pedestrians, creating unsafe interactions.



LEGEND

Mode share during peak pedestrian travel hour for each street



Size of circle = Approximate daily traffic



④ WALK RECOMMENDATIONS

Complete missing connections and improve pathways as part of all new capital projects.

Improve pedestrian spaces along all major streets and better accommodate pedestrian crossings {signalization and crossing time} at all intersections.

Transform some existing vehicular areas like McIlroy Avenue at the Greek Theatre to shared pedestrian/bike spaces.

④ Individual Strategies

ENHANCE EXISTING PEDESTRIAN ENVIRONMENTS

- CS1. Rebuild sidewalks and paths to meet ADA requirements across campus
- CS2. Continue shared bike/pedestrian space on McIlroy Avenue to north around Greek Theatre
- CS3. Complete sidewalk network in the Rose Hill district north of Maple Street
- CS4. Improve walking conditions along Garland Avenue, particularly at Union Station
- CS5. Improve crossings along Arkansas Avenue
- CS6. Extend limited daytime closure of Dickson Street from Duncan Avenue to Harmon Avenue

SHIFT KEY CAR-FOCUSED AREAS TO PEDESTRIAN

- GR1. Close Harmon Avenue to vehicles
- GR2. Improve intersection at Garland and Maple for pedestrian crossing
- GR3. Improve intersection at Stadium and Clinton for pedestrian crossing
- GR4. Improve timing of all signals for pedestrian crossing
- GR5. Improve intersection at Dickson and Arkansas pedestrian crossing {Spring 2017}

④ Individual Strategies

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BETTER COMMUNICATION

The study called for Transit & Parking to better communicate the university's broad range of transportation options:

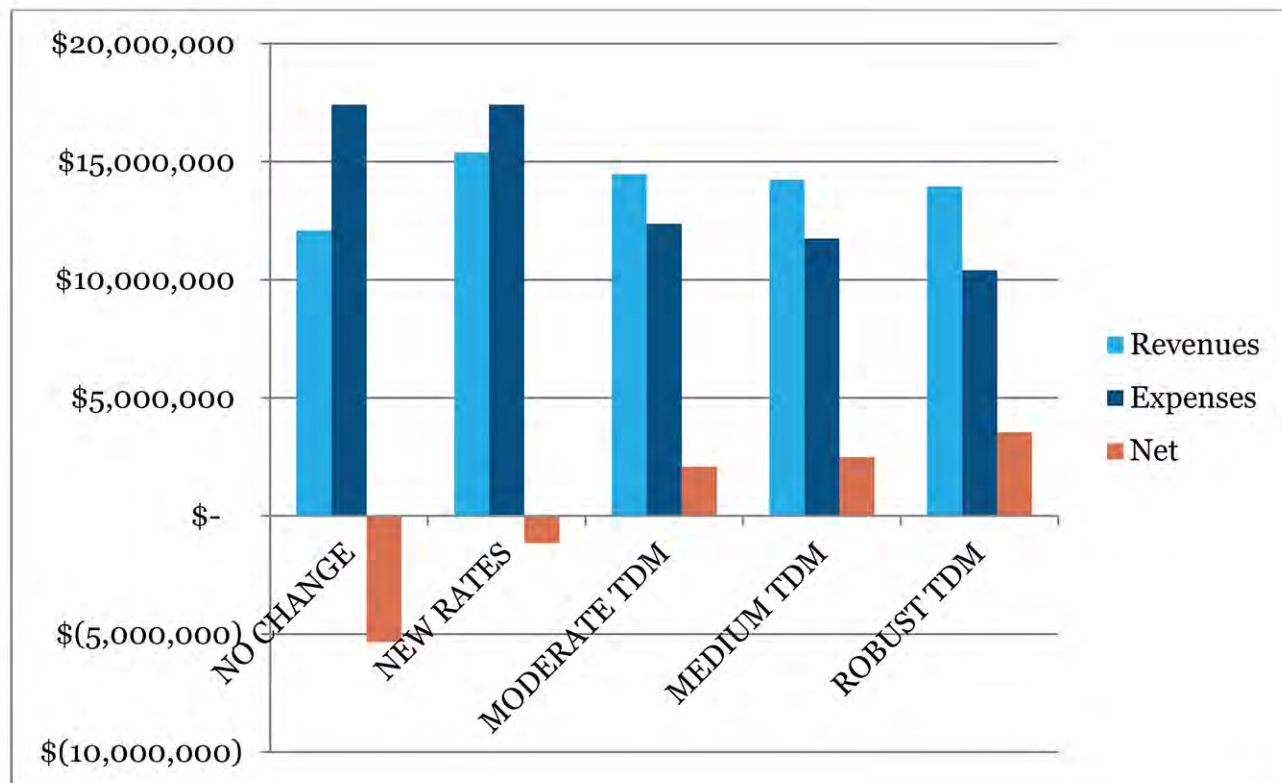
- ① **rebrand** the department to emphasize all travel modes
- ② **unify** and consolidate all transportation information
- ③ **update** the online experience {specifically mobile}
- ④ **clarify** visitor parking information



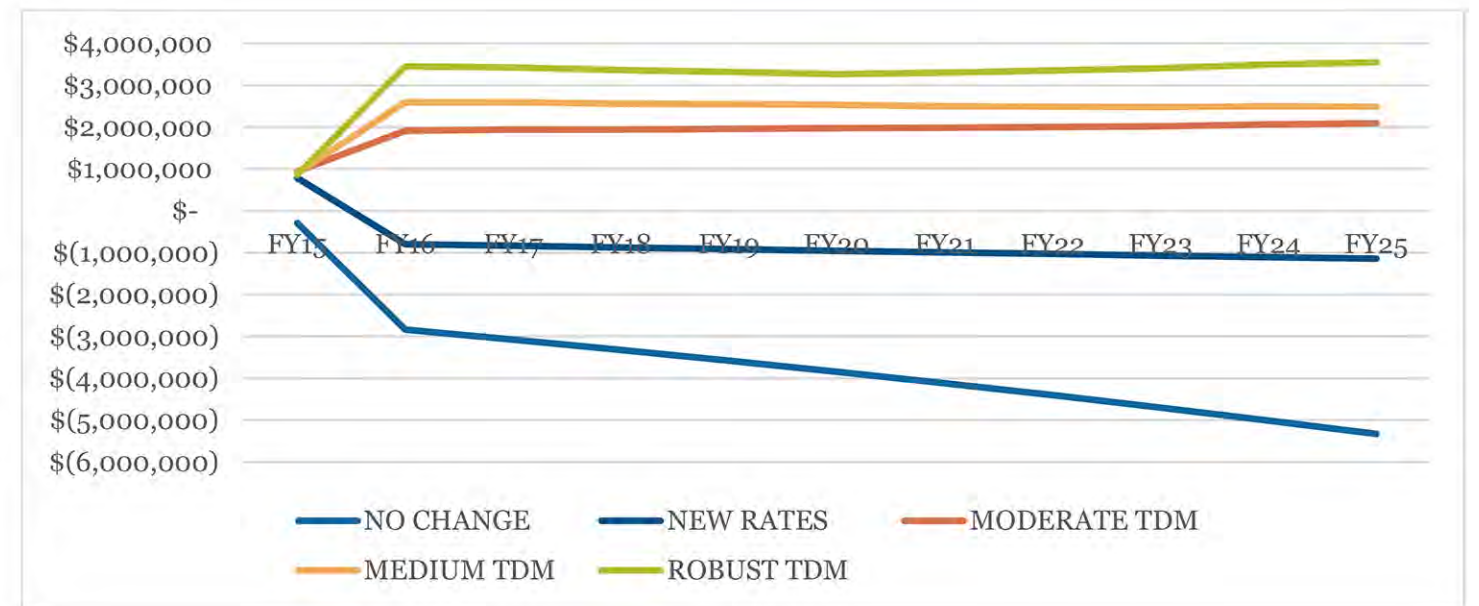
FINANCIAL MODELING

In order to estimate the impacts of future parking supply, demand, and the impact of new transportation programs, a multi-stage **Parking and Transportation Demand Model** {PTDM} was developed with four scenarios:

- ① **baseline** / no rate changes
- ① **restructured parking pricing** / demand-based pricing only
- ② **moderate TDM** / adds TDM such as bikeshare, etc.
- ③ **medium TDM** / increases TDM implementation by 25%
- ④ **robust TDM** / increases TDM implementation by 50%



2015 FINANCIAL SUMMARY: SCENARIOS COMPARED



EXPECTED NET REVENUE / FY2015 TO FY2025

NEXT STEPS

FALL 2017

Develop additional parking to **replace space given to new buildings**, and move marching band practice to **re-open Lot 56 for parking**.

Build **remote parking** on Beechwood Avenue property.

Approach Cross Church and other key locations along existing bus routes about shared use of their parking lots for Park and Ride

Implement automated passenger counting.

Implement **license plate recognition** {LPR}.

Implement performance-based parking meter rates.

Implement appropriate Travel Demand Management {TDM} initiatives including **bikeshare program** with ties to city and region.

Purchase three replacement buses.

FALL 2018

Implement demand-based zone permit system {requires changing permit fee structure}.

Implement additional TDM initiatives.

Purchase three replacement buses.

FALL 2019 . . .

Continue to evaluate transit routes and stops for improved service.

Purchase two replacement buses and begin increasing fleet to improve service.

Implement additional TDM initiatives to reduce parking demand.

