

LOUISIANA STATE UNIVERSITY

COMPREHENSIVE & STRATEGIC CAMPUS MASTER PLAN

APPENDIX K - Short-Term Transit Recommendations



SHORT-TERM TRANSIT RECOMMENDATIONS

TRANSIT AT LSU – SUMMARY AND KEY FINDINGS

Introduction

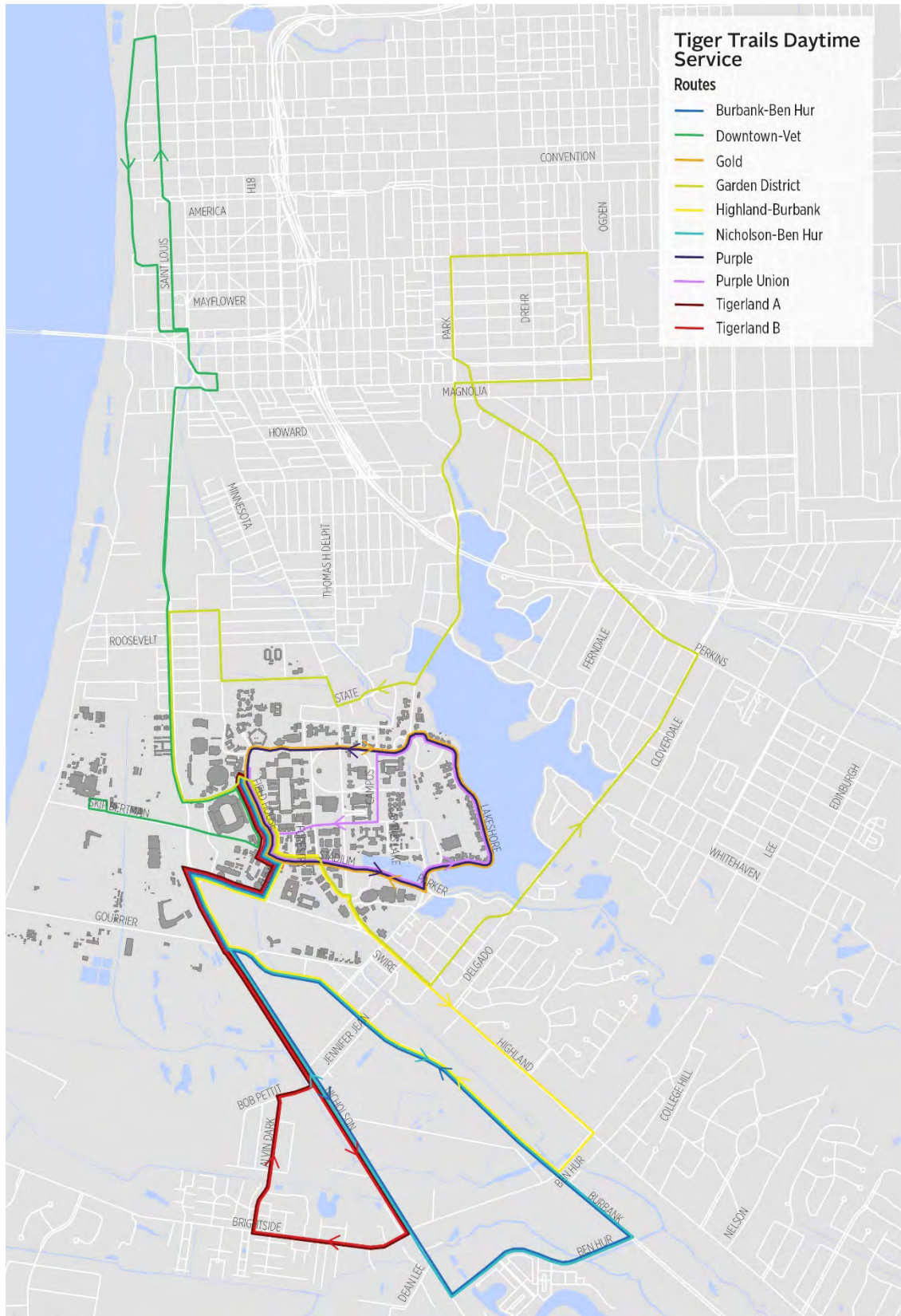
On major campuses across the nation, the shuttle system is the most visible part of a University's transportation system and can have a significant impact on reducing demand for driving and supporting campus circulation. At LSU, this is no different. More than 800 passenger trips are taken on LSU shuttles each weekday during the fall and spring semesters.

The current shuttle system's primary focus is on-campus circulation and connecting students between campus and their off-campus residence (see Figure 1). In many cases, University operated systems do not provide targeted service to private off-campus residences; however, the high number and geographic location of private student housing around LSU necessitates service. Getting to and from campus for a student in one of these complexes would be nearly impossible without transit if he or she were trying to live car-free. Still, the areas are difficult to serve with transit. While the number of units and beds in a single student apartment complex may be relatively high, the concentration of the complexes is of low density and often far from campus. This pattern means that the transit operating characteristics tend to be inconvenient, which in turn induces demand for driving and parking, reduces walking, and can ultimately degrade the density of activity and vibrancy of campus.

Land use and transportation go hand-in-hand but are often planned separately. So, while LSU and the city did not purposefully shape the areas surrounding campus, underlying market forces, restrictions and regulations, and changing preferences created the landscape as it exists today. With the LSU Campus Master Plan, the University wants to create a more walkable, attractive campus where students live and study nearby. This by itself will create a more transit-friendly environment, and as parking restrictions and redevelopment happens, transit can become among the best options for getting to, from, and around campus. Route design and service characteristics must adapt to serve the community well, however. This section provides a guide for improving transit in the short-term (immediately, or in the next one to two years) based on existing land use patterns. Later sections provide details on how transit should transform as LSU implements the Campus Master Plan vision to become reality.

LSU Campus Master Plan – Short-Term Transit Recommendations
Louisiana State University

Figure 1 | Existing Tiger Trails Daytime Service (Fall and Spring Semesters)



Guiding Principles of Transit Delivery at Universities

University transit services are most successful when they are easy to use and intuitive to understand. Many elements that increase transit usability are directly related to network design and scheduling. The recommendations presented in this document are grounded in the following set of guiding principles designed to create a simple, yet highly functional transit system:

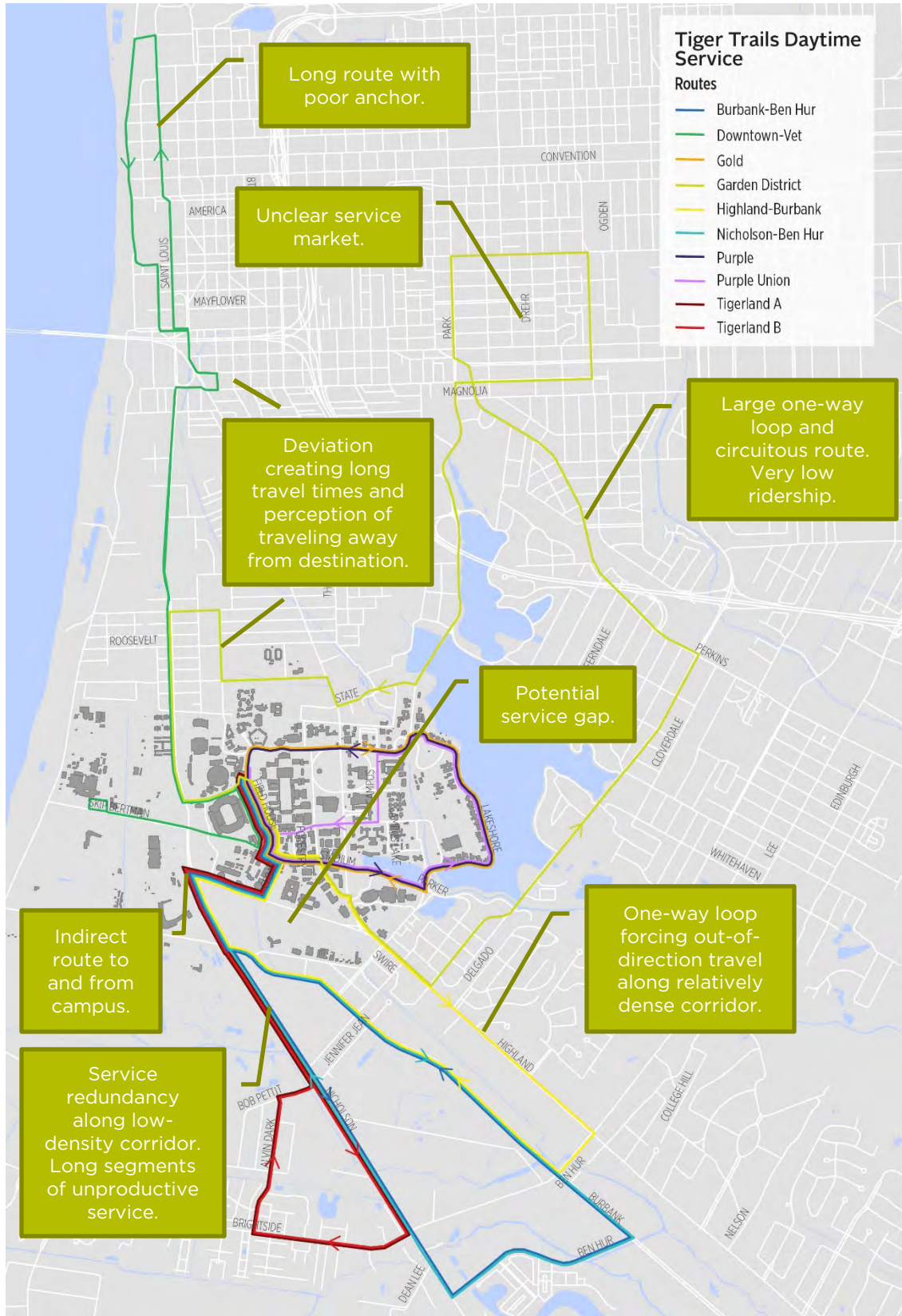
- **Service Should Operate at Regular Intervals**
 - In general, people can easily remember repeating patterns, but have difficulty remembering irregular sequences
- **Routes Should Operate Along a Direct Path**
 - The fewer directional changes a route makes, the easier it is to understand. Circuitous alignments are disorienting and difficult to remember.
- **Routes Should Be Symmetrical**
 - Routes should operate along the same alignment in both directions to the greatest extent possible to make it easy for riders to know how to get back where they came from.
- **Routes Should Serve Well-Defined Markets**
 - The purpose of every transit route should be clear to riders. Routes should include strong anchors, and a mix of origins and destinations.
- **Service Should Be Well Coordinated**
 - At major transfer locations, such as the School of Journalism, schedules should be coordinated to the greatest extent possible to minimize connection times between services.

Key Findings

Based on a detailed analysis of each route's design and service performance (see Appendix A) and feedback from LSU staff, the overall "footprint" of the LSU shuttle network is about right – that is, service is provided where it is needed most. However, nearly every route has opportunities for improvement ranging from schedule adjustments to the streamlining of circuitous alignments.

A list of potential service improvement options were developed for each daytime route. The service improvement options are based on the technical findings of the analysis (i.e. low ridership at a specific stop), as well as the set of guiding principles discussed previously. Figure 2 highlights some of the key issues and opportunities from the detailed route analysis.

Figure 2 | Service Improvement Issues and Opportunities



DETAILED RECOMMENDATIONS

The recommendations presented in this chapter are meant to improve ridership, productivity, and the overall user experience, while also taking into account the recommendations presented in other chapters of the LSU Campus Master Plan.

Riding Tiger Trails

LSU's Tiger Trails system operates 16 fixed routes that together provide circulation around the LSU campus as well as off-campus connections to numerous apartment complexes, shopping destinations, and downtown Baton Rouge. LSU contracts with First Transit to provide this free bus service for LSU students, faculty, staff, and visitors.

Ten Tiger Trails routes operate on weekdays from about 7:00 a.m. to 6:00 p.m., with exact service hours varying by route. Three routes provide circulation around LSU's campus, while the remaining seven routes connect campus to off-campus apartment complexes and retail destinations. Off-campus connections are concentrated south of the university, where there are several large apartment complexes and retail destinations. See Appendix A for an assessment of each of these routes.

Tiger Trails also operates four night service routes and two weekend service routes. The night service routes are loops that circulate on and around campus. Two of these routes operate Monday through Saturday, one operates Thursday and Friday, and one operates Thursday through Saturday. On the weekend, a Football Day route operates on Saturdays during the fall, providing a connection between off campus housing, on-campus housing, and other locations on campus. A Sunday Shuttle provides a connection between LSU's campus, housing located south of campus, and shopping destinations located east of campus.

In the past few years, LSU has increased seating capacity and improved its routes in order to help decrease vehicle congestion on and around campus. Additionally, all buses are equipped with air conditioning and bike racks in order to provide convenient and comfortable services to passengers. Finally, all buses are equipped with global positioning devices, allowing passengers to monitor actual arrival times through a real-time transit visualization website and mobile application (TransLoc).

Short-Term Recommendations

Based on the existing service evaluation and feedback from stakeholders, the project team developed a redesigned Tiger Trails daytime bus network (see Figure 5). The proposed network streamlines existing service and provides a framework for future growth. Service is maintained to nearly all currently served neighborhoods and destinations, apart from a few locations on the periphery of the campus area where service has been historically unproductive. The proposed services should reduce travel times for many existing riders and make transit easier to understand for new customers.

Figure 3 and Figure 4 below show the proposed service characteristics of each route, including peak vehicles and daily revenue hours. Clock-face schedules are proposed for all of the recommended routes. Each route also includes at least 10% recovery time. When recovery time is less than 10% of total cycle time, there is a high risk of poor-on-time performance because there is insufficient buffering between trips. With insufficient recovery time, one late trip can lead to another, causing a bus to get further and further behind schedule.

LSU Campus Master Plan – Short-Term Transit Recommendations
Louisiana State University

The recommended short-range service redesign scenario would require 19 peak vehicles, and would result in 209 weekday revenue hours. The existing Tiger Trails service requires 19 peak vehicles, so no new vehicles would be required.

Figure 3 | Proposed Weekday Service Characteristics by Route

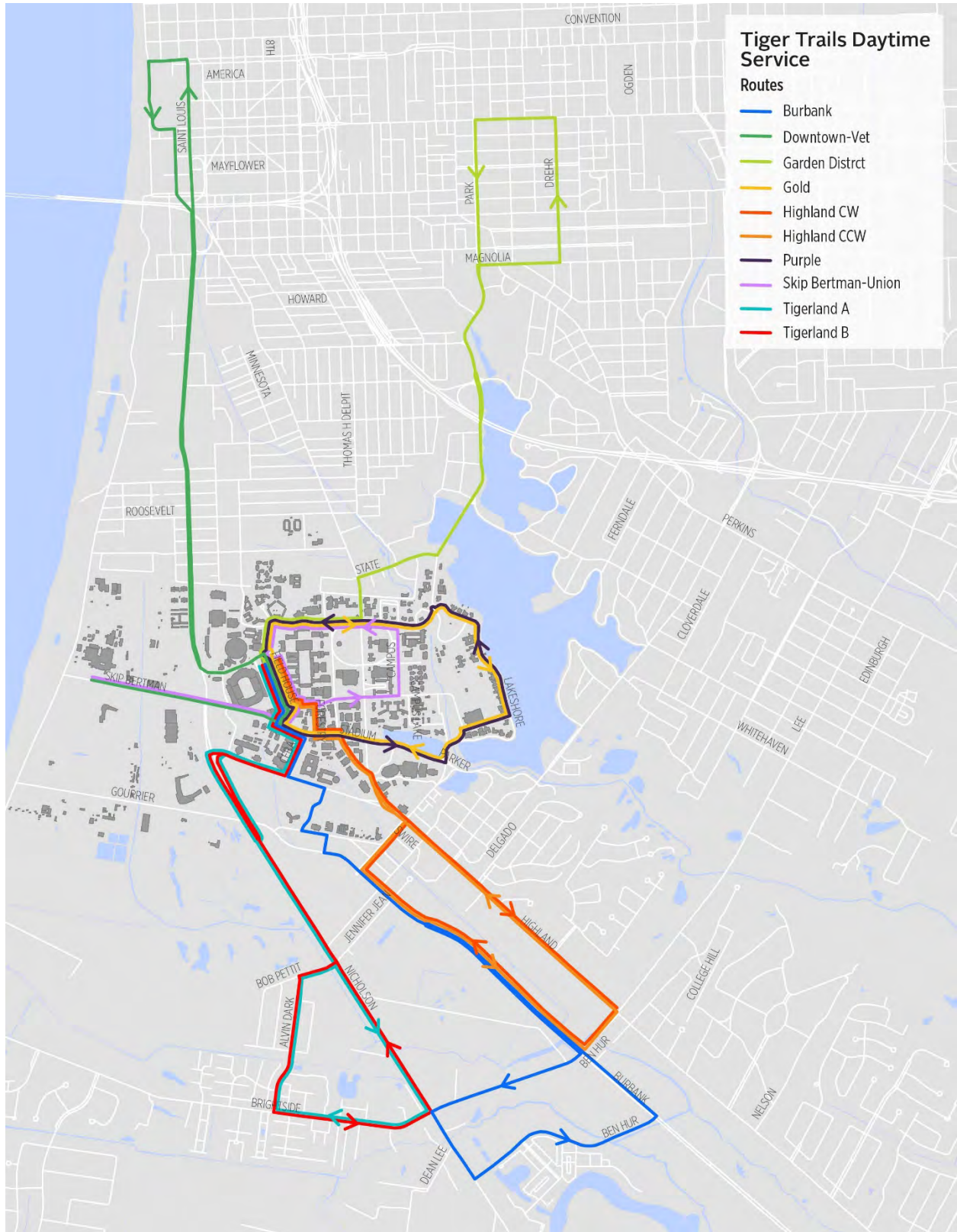
Proposed Route	Avg Round Trip Miles	Estimated Average Speed	Run Time	Min. Recovery	Min. Cycle	Even Cycle	Actual Recovery	Actual % Recovery	Peak Frequency	Peak Hours	Peak Trips	Peak Vehicles	Daily Hours of Service	Revenue Hours
Burbank	6.82	13	0:31	0:03	0:34	0:40	0:08	21%	0:20	11:00	33	2.0	11:00	22:00
Gold Route	2.71	11	0:14	0:01	0:16	0:20	0:05	26%	0:10	11:00	66	2.0	11:00	22:00
Purple Route	2.71	11	0:14	0:01	0:16	0:20	0:05	26%	0:10	11:00	66	3.0	11:00	33:00
Skip Bertman-Union	3.19	11	0:17	0:01	0:19	0:20	0:02	13%	0:10	11:00	66	2.0	11:00	22:00
Tigerland A	5.57	13	0:25	0:02	0:28	0:30	0:04	14%	0:15	11:00	44	2.0	11:00	22:00
Tigerland B	5.57	13	0:25	0:02	0:28	0:30	0:04	14%	0:15	11:00	44	2.0	11:00	22:00
Highland CW	4.53	12	0:22	0:02	0:24	0:30	0:07	25%	0:15	11:00	44	2.0	11:00	22:00
Highland CCW	4.53	12	0:22	0:02	0:24	0:30	0:07	25%	0:15	11:00	44	2.0	11:00	22:00
Downtown Vet	4.53	12	0:22	0:02	0:24	0:30	0:07	25%	0:30	11:00	22	1.0	11:00	11:00
Garden District	6.19	14	0:26	0:02	0:29	0:30	0:03	12%	0:30	11:00	22	1.0	11:00	11:00
TOTAL											451	19	110:00	209:00

Figure 4 | Proposed Holiday/Summer Weekday Service Characteristics by Route

Proposed Route	Avg Round Trip Miles	Estimated Average Speed	Run Time	Min Recovery	Min Cycle	Even Cycle	Actual Recovery	Actual % Recovery	Peak Frequency	Peak Hours	Peak Trips	Peak Vehicles	Daily Hours of Service	Revenue Hours
Burbank	6.82	13	0:31	0:03	0:34	0:40	0:08	21%	0:40	11:00	17	1.0	11:00	11:00
Purple Route	2.71	11	0:14	0:01	0:16	0:20	0:05	26%	0:20	10:35	31	1.0	10:20	10:20
Gold Route	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skip Bertman-Union	3.19	11	0:17	0:01	0:19	0:20	0:02	13%	0:20	11:00	33	1.0	11:00	11:00
Tigerland A	5.57	13	0:25	0:02	0:28	0:30	0:04	14%	0:20	6:00	18	2.0	11:00	17:00
Tigerland B	5.57	13	0:25	0:02	0:28	0:30	0:04	14%	0:20	6:00	18	2.0	11:00	17:00
Highland CW	4.53	12	0:22	0:02	0:24	0:30	0:07	25%	0:30	11:00	22	1.0	11:00	11:00
Highland CCW	4.53	12	0:22	0:02	0:24	0:30	0:07	25%	0:30	11:00	22	1.0	11:00	11:00
Downtown Vet	4.53	12	0:22	0:02	0:24	0:30	0:07	25%	1:00	11:00	11	1.0	11:00	11:00
Garden District	6.19	14	0:26	0:02	0:29	0:30	0:03	12%	0:30	11:00	22	1.0	19:00	15:00
TOTAL											194	11	106:20	114:20

LSU Campus Master Plan – Short-Term Transit Recommendations
Louisiana State University

Figure 5 | Proposed Tiger Trails Daytime Service (Fall and Spring Semesters)



Burbank Route

The proposed Burbank Route would operate between the School of Journalism and Ben Hur Road. The proposed route incorporates portions of the current Highland-Ben Hur route but eliminates service on Highland Road, which is duplicated by service provided by the proposed Highland CW and Highland CCW routes (see figure at right). By focusing service on Burbank Drive and streamlining the service near LSU’s campus, the route continues to serve stops with the highest ridership, while also providing simpler and more convenient service between campus and Ben Hur Road. The Burbank Route also provides a direct link between campus and the large remote parking lot just south of campus. In the future, this link will be further streamlined as part of a walking and transit spine.

The proposed route would operate every 20 minutes throughout the service day.

Key destinations along the proposed alignment include:

- School of Journalism
- Woodlands of Baton Rouge
- Cottages of Baton Route

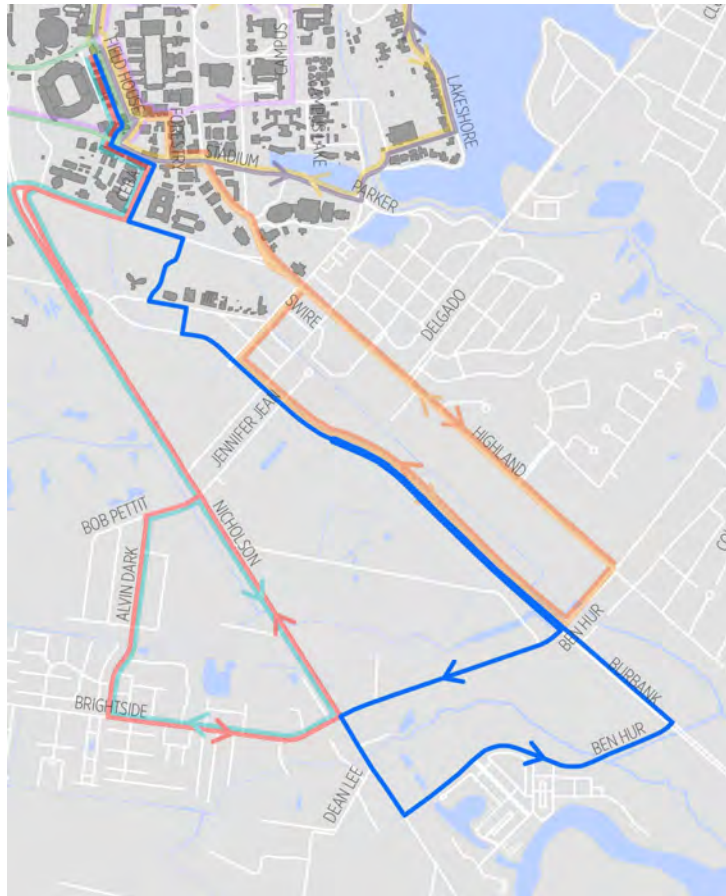


Figure 6 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	20
Saturdays	-	-
Sundays	-	-

Downtown-Vet Route

The proposed Downtown-Vet route would operate between the School of Veterinary Medicine and downtown Baton Rouge via parking on Skip Bertman Drive and LSU’s School of Journalism (see figure at right). By removing service south of campus along Nicholson Drive and Ceba Lane, the route continues to serve its highest ridership stops (Lockett Hall and School of Journalism), while creating a more efficient connection between campus and downtown.

The proposed route would operate every half hour throughout the service day.

Key destinations along the proposed alignment include:

- School of Veterinary Medicine
- Parking along Skip Bertman
- Lockett Hall
- School of Journalism
- University Edge Baton Route
- Baton Rouge City Court
- LSU Museum of Art and Shaw Center for the Arts
- Raising Cane’s River Center Arena

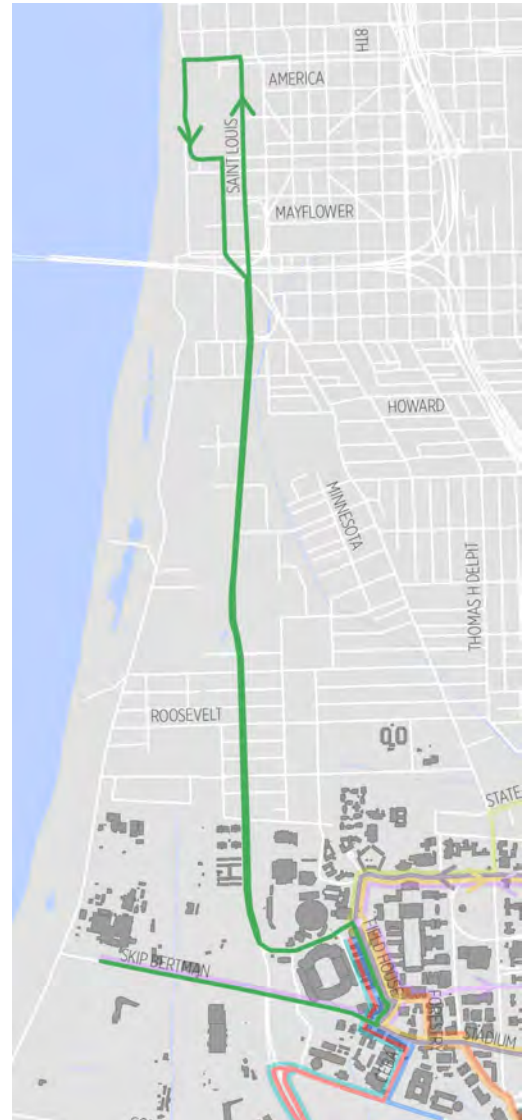


Figure 7 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	30
Saturdays	-	-
Sundays	-	-

Garden District Route

The proposed Garden District route would operate between the School of Journalism and the Garden District neighborhood north of campus (see figure at right). The proposed route covers the southern half of the current Garden District-Perkins route, providing a more direct and convenient connection between campus and student housing located north of campus.

The proposed route also streamlines service on the northern portion of campus. While this deviation existed in order to serve University Edge at Baton Rouge, this deviation required passengers to travel out of direction in order to get to campus and had minimal ridership.

The proposed route would operate every half hour throughout the service day.

Key destinations along the proposed alignment include:

- School of Journalism
- City-Brooks Community Park
- Housing in the Garden District neighborhood

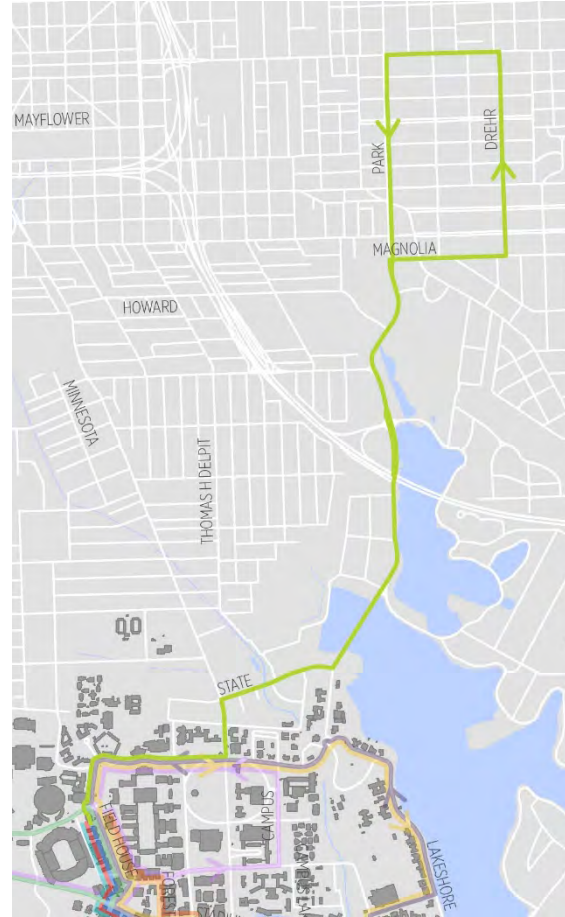


Figure 8 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	30
Saturdays	-	-
Sundays	-	-

Highland Route - Clockwise

The proposed Highland Route - Clockwise would operate between the School of Journalism and Ben Hur Road (see figure at right). The proposed route incorporates the majority of the current Highland-Burbank route, but provides simpler and more direct service between LSU and several large housing complexes south and southeast of campus.

The proposed Highland Route - Clockwise would be complemented by a Highland Route - Counterclockwise, which would operate along the same alignment, but in the opposite direction on the terminal loop south of campus. Providing bi-directional service with these two routes will make service more direct and convenient for students.

The proposed route would operate every 15 minutes throughout the service day.

Key destinations along the proposed alignment include:

- School of Journalism
- University Crescent apartments
- Winn-Dixie
- Walmart
- Plantation Trace apartments

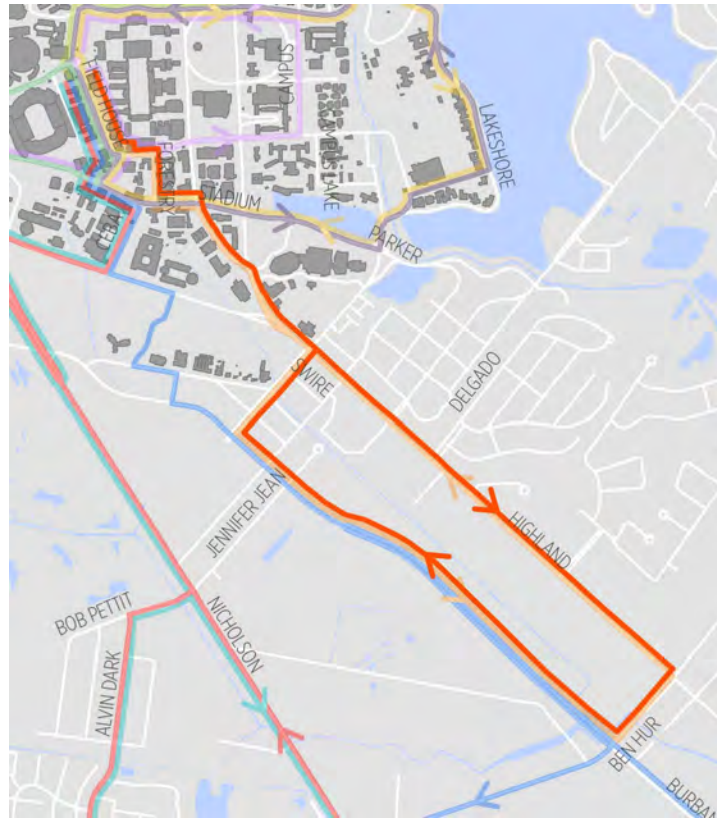
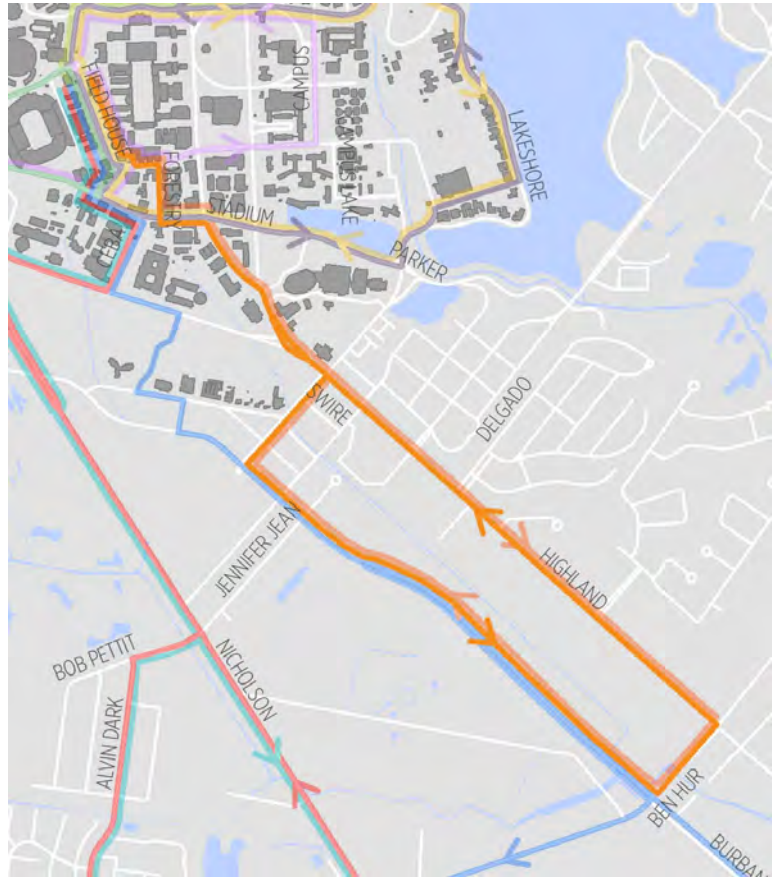


Figure 9 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. - 6:00 p.m.	15
Saturdays	-	-
Sundays	-	-

Highland Route – Counterclockwise

The proposed Highland Route – Counterclockwise would operate between the School of Journalism and Lee Drive (see figure at right). The proposed route incorporates the majority of the current Highland-Burbank route, but travels in the counterclockwise direction when providing service to housing complexes and retail destinations along Highland Road, Lee Drive, Burbank Drive, and Parker Boulevard. By removing service along Nicholson Drive and Ceba Lane, the route would also provide simpler and more direct service between LSU and several large housing complexes south and southeast of campus.



The proposed Highland Route – Counterclockwise would be complemented by a Highland Route – Clockwise, which would operate along the same alignment, but in the opposite direction on the terminal loop south of campus. Providing bi-directional service with these two routes will make service more direct and convenient for students.

The proposed route would operate every 15 minutes throughout the service day.

Key destinations along the proposed alignment include:

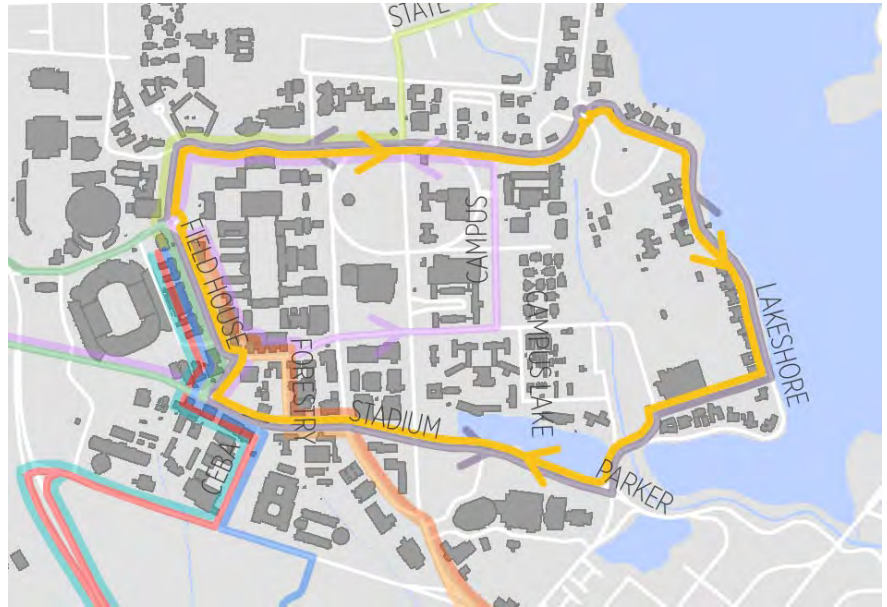
- School of Journalism
- University Crescent apartments
- Winn-Dixie
- Walmart
- Plantation Trace apartments

Figure 10 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	15
Saturdays	-	-
Sundays	-	-

Gold Route

The proposed Gold route will serve as a circulator, connecting academic and residential areas of LSU’s campus (see figure at right). The proposed route will operate largely along the same alignment as the existing Gold Route service. However, instead of traveling along Lakeshore Drive and serving the waterfront side of the Greek student housing, the route turns right onto the connector road to serve the back entrances of the Greek houses as well as the newly constructed Recreation Center.



The proposed route would operate every 10 minutes throughout the service day.

Key destinations along the proposed alignment include:

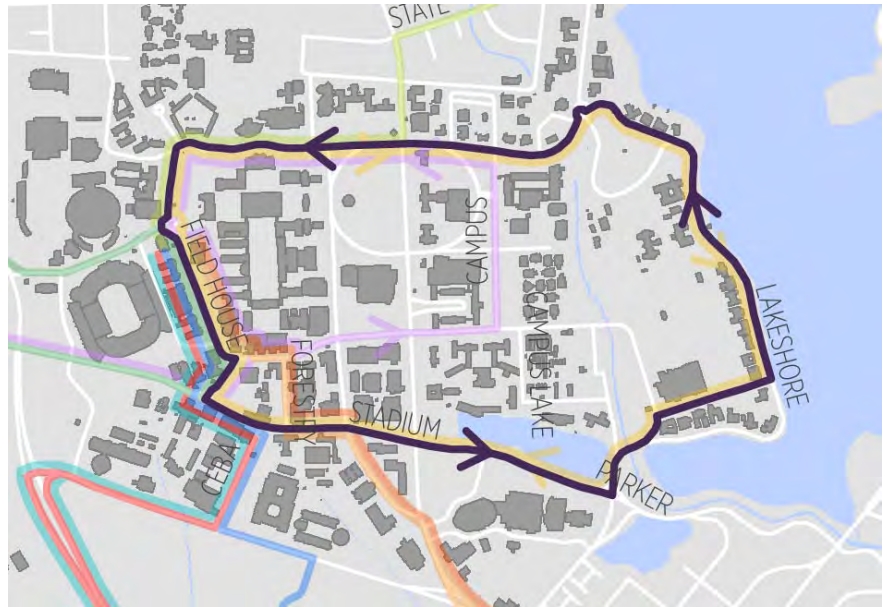
- Lockett Hall
- Greek Housing along Lakeshore Drive
- LSU Press
- Dairy Science Building

Figure 11 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	10
Saturdays	-	-
Sundays	-	-

Purple Route

The proposed Purple route will serve as a circulator, connecting academic and residential areas of LSU’s campus (see figure at right). The proposed route will operate largely along the same alignment as the existing Purple Route service. However, instead of traveling along Lakeshore Drive and serving the waterfront side of the Greek student housing, the route will continue along South Campus Drive before turning right onto the connector road to serve the newly constructed Recreation Center and the back entrances of the Greek houses then turning left onto West Lakeshore Drive.



The proposed route would operate every 10 minutes throughout the service day.

Key destinations along the proposed alignment include:

- School of Journalism
- Lockett Hall
- Greek Housing along Lakeshore Drive
- LSU Press
- Dairy Science Building

Figure 12 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	10
Saturdays	-	-
Sundays	-	-

Skip Bertman-Union

The Skip Bertman-Union route would provide both circulation and cross-campus connection service. The route would circulate in a small counterclockwise loop around campus, then connect west to university parking along Skip Bertman Drive. The proposed route incorporates portions of the current Skip Bertman/South Stadium Route and Purple Union Route.



The proposed route would operate every 10 minutes throughout the service day.

Key destinations along the alignment include:

- School of Journalism
- Parking lots along Skip Bertman Drive
- Pleasant Hall
- Law School

Figure 13 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	10
Saturdays	-	-
Sundays	-	-

Tigerland A

Tigerland A is a productive route, outperforming the system average for weekday passengers per trip. The route also serves strong anchors as well as housing and retail located south of campus. Thus, the recommendation for Tigerland A is to leave service unchanged.

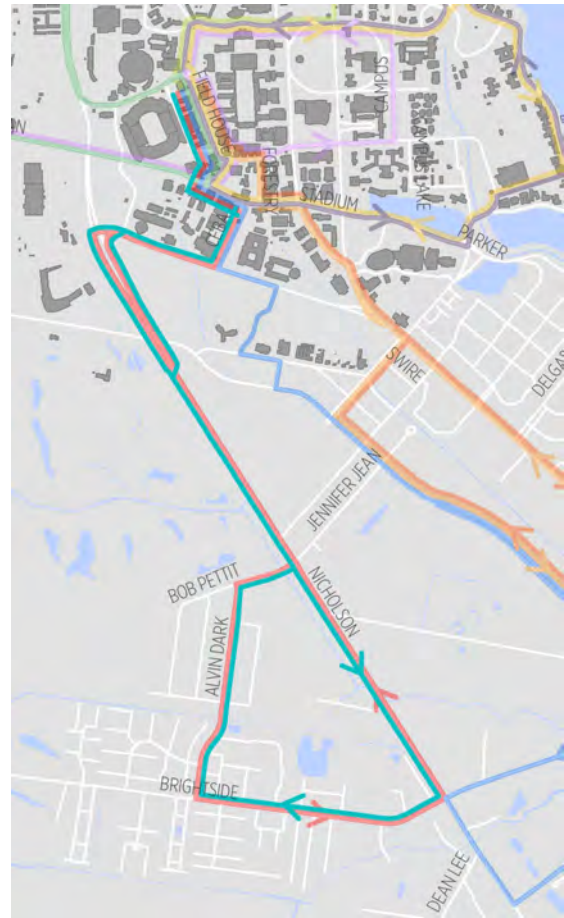
Tigerland A will continue to operate every 15 minutes from 7:00 a.m. to 6:00 p.m. during full service frequency and will complement service provided by the Tigerland B route.

Key destinations along the alignment include:

- School of Journalism
- LSU Energy, Coast and Environment Building
- Southgate Towers Apartments
- Tigerland Market
- Oakbrook Village Shopping Center
- Tiger Plaza Apartments

Figure 14 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	15
Saturdays	-	-
Sundays	-	-



Tigerland B

Tigerland B is a productive route, outperforming the system average for weekday passengers per trip. The route also serves strong anchors as well as housing and retail located south of campus. Thus, the recommendation for Tigerland B is to leave service unchanged.

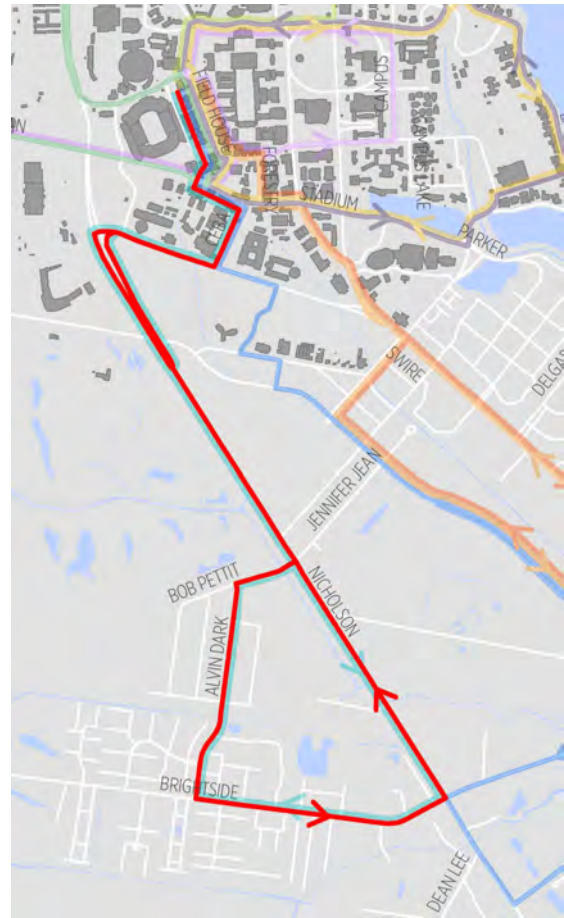
Tigerland B will continue to operate every 15 minutes from 7:00 a.m. to 6:00 p.m. during full service frequency and will complement service provided by the Tigerland A route.

Key destinations along the alignment include:

- School of Journalism
- LSU Energy, Coast and Environment Building
- Southgate Towers Apartments
- Tigerland Market
- Oakbrook Village Shopping Center
- Tiger Plaza Apartments

Figure 15 | Schedule Overview

	Approximate Span of Service	Typical Headway (mins)
Weekdays	7:00 a.m. – 6:00 p.m.	15
Saturdays	-	-
Sundays	-	-

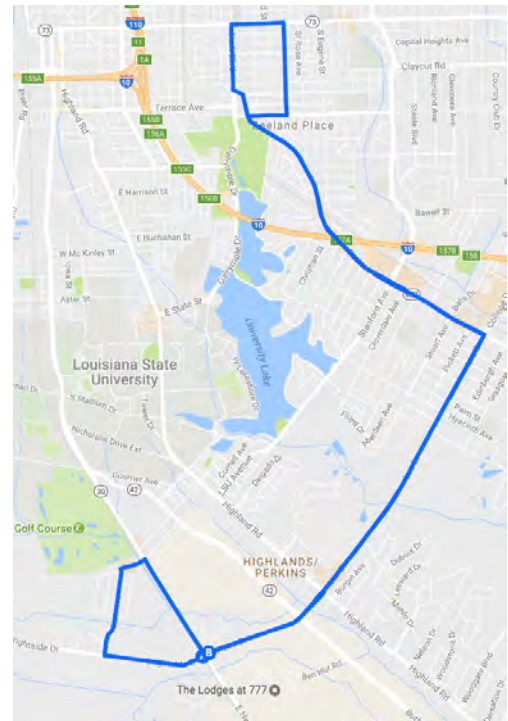


Optional Service

The Garden District route currently serves Stanford Avenue and Perkins Road. Both of these segments on the Garden District route are highly unproductive. However, the unproductivity may be a result of the large one-way loop alignment that the route follows currently. For example, very few riders who would board along Stanford Avenue and Perkins Road would be willing to travel the remainder of the route to reach campus headed inbound. Conversely, very few riders who reside in the Garden District would be willing to travel along Stanford Avenue and Perkins Road headed outbound to reach their home. Route changes to the Garden District route eliminated service to Stanford Avenue and Perkins Road to attempt to fix these issues and potentially spur additional ridership.

Perkins Road, and to a lesser extent Lee Drive, have some points of interest and activity centers along them that may still be worthwhile to serve. Providing connections between many of the apartment complexes south of campus and Perkins Road, and between the Garden District and Perkins Road, offers students additional shopping and employment opportunities that are difficult to reach today without a personal vehicle. A Garden District-Tigerland Crosstown route (see Figure 16) may meet these needs, though further study is necessary. The route would likely be less productive than most other routes simply because the alignment does not directly serve campus. In addition, riders would not likely travel all the way along the route; rather, Perkins Road would serve as the midway boarding and alighting activity center between the starting and ending residential areas. Since the crosstown route does not directly serve campus, the university may also choose not to fund this type of route.

Figure 16 | Garden District-Tigerland Crosstown Route (additional study needed)



BRANDING AND PUBLIC INFORMATION

Public Information

Passenger information systems – including marketing efforts, passenger maps and schedules, bus stop signs and agency websites – are essential to successful transit services. For people to be able to use transit, they must first know that it is there and be able to understand how to use it. With thousands of new students arriving each fall at LSU, as well as new faculty and staff, capturing users early on is critical at universities. If freshman and first-time users find the system too difficult to use or complicated to figure out, attracting them to transit later on is much more difficult. Improving the quality of the available information can strengthen the system overall and attract new riders.

LSU currently contracts with TransLoc to provide real-time information on the bus system and alerts to users. TransLoc is available through a desktop or mobile web browser or through a mobile app. Users can click each stop to find when the next bus on their route will

arrive and can track the location of the bus on the ground. While this type of system is highly valuable and extremely attractive to young people, experience shows that often the first place people go to learn about the transit system is the website. Many users also still appreciate the availability of more traditional forms of information, such as paper maps and schedules, a representative familiar with the system at the transit center, and information at each bus stop on which routes serve the stop.

The public information available on Tiger Trails aside from TransLoc is limited or lacks clarity and user-friendliness. A few of the issues that came up in this study include:

- The Tiger Trails website can be contradictory between webpages or out-of-date.
- The current route maps and schedules show only basic information and are not available in paper form.
- Finding information on how to make your trip, including the location of the nearest stop, schedule of the route at a particular stop, and where to get off the bus, are also very difficult with current online resources. The frequency of routes and low need to transfer on Tiger Trails make trip planning easier for users but additional trip planning information would still be helpful to those who are unfamiliar with taking transit.
- Information at the primary stop on campus near the School of Journalism is mostly limited to a major bus stop sign.
- Most minor bus stops also do not have any information available on routes.

We recommend that LSU explore measures to improve the availability of information, beginning with improvements to the website and online maps and schedules. Additional measures could include making a system map available, as well as providing a trip planner on the website. Paper maps and schedules (system-wide and individual routes), distributed at major stops and buildings, could also provide a layer of security to those who are unfamiliar with transit and those who do not have access to online tools. Additional signage at most stops to let people know which routes are available at the stop, and a way to use text to learn schedule information at a particular stop are other strategies to improve information. As the system grows and the Campus Master Plan implemented, real-time arrival and departure information at major stops has also been proven to attract ridership, even to routes that have a low frequency.

Figure 17 | Current Route Map for Highland-Burbank Route

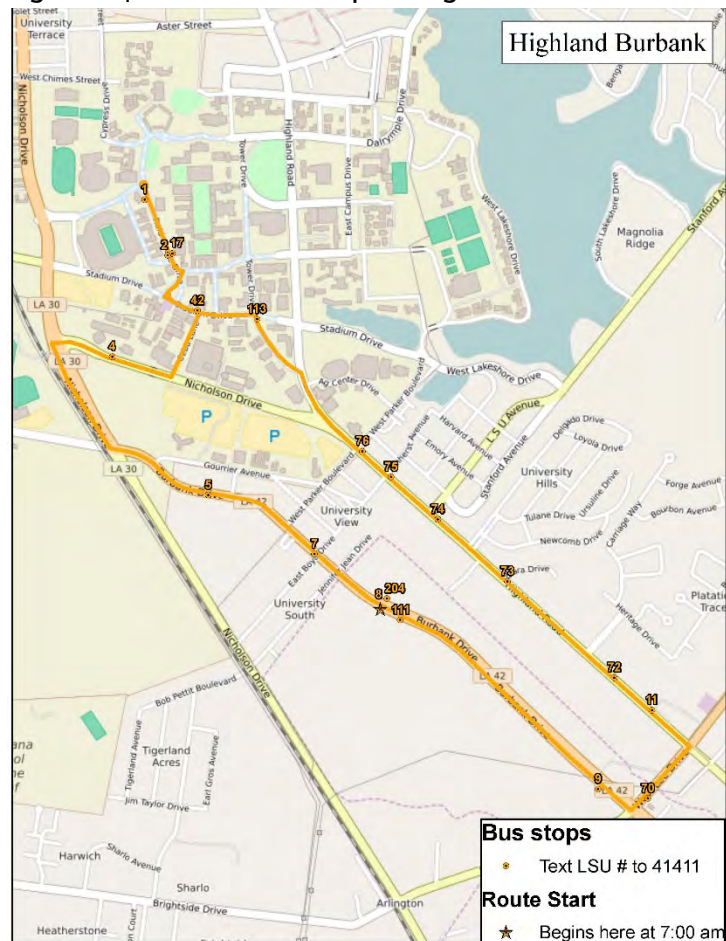


Figure 18 | Online Schedule Information for Highland-Burbank Route

LSU LOUISIANA STATE UNIVERSITY

Bus Stops Bus Routes Find Your Bus

LSU TIGER TRAILS
The LSU Transit System

Home
News
Calendar
Times of Operation
Designated Stops
Passengers with Disabilities
Holiday Shuttle
Parking & Transportation

Highland-Burbank Trail

May 5, 2011

Yellow
Click here for PDF

Stop	Full Service Frequency	Holiday/Summer Frequency
	7:00 a.m. – 6:00 p.m.	7:00 a.m. – 6:00 p.m.
Journalism Bldg	Every 12 minutes at :00, :12, :24, :36, :48	Every 25 minutes
Co-op Bookstore	Every 12 minutes at :06, :18, :30, :42, :54	Every 25 minutes
Lee-Highland	Every 12 minutes at :00, :12, :24, :36, :48	Every 25 minutes
Highland Rd. – Plantation Trace	Every 12 minutes at :06, :18, :30, :42, :54	Every 25 minutes

Times estimate only use www.transloc.com. For exact bus location (Mobile App available)

Filed Under: Bus Routes, Co-op Bookstore, Highland Rd. - Plantation Trace, Journalism Bldg., Lee-Highland

Routes

- Burbank-Ben Hur Trail
- Downtown-Vet Trail
- Football Route
- Garden District-Perkins Trail
- Gold Trail
- Highland-Burbank Trail
- Nicholson Ben-Hur Trail
- Night A Route
- Night B Route
- Night C Route
- Night D Route
- Purple Trail
- Purple Trail Route
- Purple Union Route
- Skip Bertman/South Stadium Express Shuttle

Branding

A brand is an system’s identity and aesthetic, a reflection of its values. The look and feel of that brand permeates—and is reinforced at—every public interface: not only logos, stops, system maps, and vehicle exteriors and interiors, but also websites and social media presence. A good brand can also help create a positive image of a system and its services. An important part of branding is choosing a unified design standard, colors, or logo that can be part of all services. This helps to create a visual identity for the system and its services.

LSU Campus Master Plan – Short-Term Transit Recommendations
Louisiana State University

Similar to consumer products or services, a strong sense of identity for the transit system reinforces confidence for the user that the transit service is a well-known, accepted part of the university and greater community. Branding raises awareness about the system, thereby creating greater support for the system even among those who don't use transit themselves. A strong brand will also encourage ridership by making the Tiger Trails system more user-friendly, especially for the occasional rider.

Consistency is important – the transit customer should experience the same logo, colors, and names whether they are accessing information on a website, riding in a Tiger Trails bus, using a smartphone app, or trying to find the correct bus stop. The system should feel unified even though it is spread over a large geographic area. Wayfinding signs for Tiger Trails riders should include the standard logo and colors even if they are installed by others or are on property that is owned by others.

Tiger Trails deploys a brand using the same colors as the school, which is typical among university systems. The system has its own logo, however, which serves as an important differentiator from other university services. This logo is deployed across most vehicles and the Tiger Trails website. Some of the major bus stops also feature this logo, and most of the more minor stops are a much simpler black-and-white sign with the LSU tiger logo. Overall, the brand of Tiger Trails could be strengthened, especially to ensure that the brand is consistently deployed, but improvements to other areas of the system are of higher priority.

Figure 19 | LSU Tiger Trails Bus Featuring the System Logo



Figure 20 | LSU Tiger Trails Bus Stop Sign at Major Stops



Figure 21 | LSU Tiger Trails Bus Stop Signs at Minor Stops



APPENDIX A: INDIVIDUAL ROUTE PROFILES

» REMOVE DEVIATIONS ALONG NICHOLSON DRIVE
EXTENSION AND TERRACE AVENUE; RECONFIGURE
CAMPUS ALIGNMENT TO IMPROVE DOWNTOWN-CAMPUS
CONNECTIONS

SERVICE DESIGN

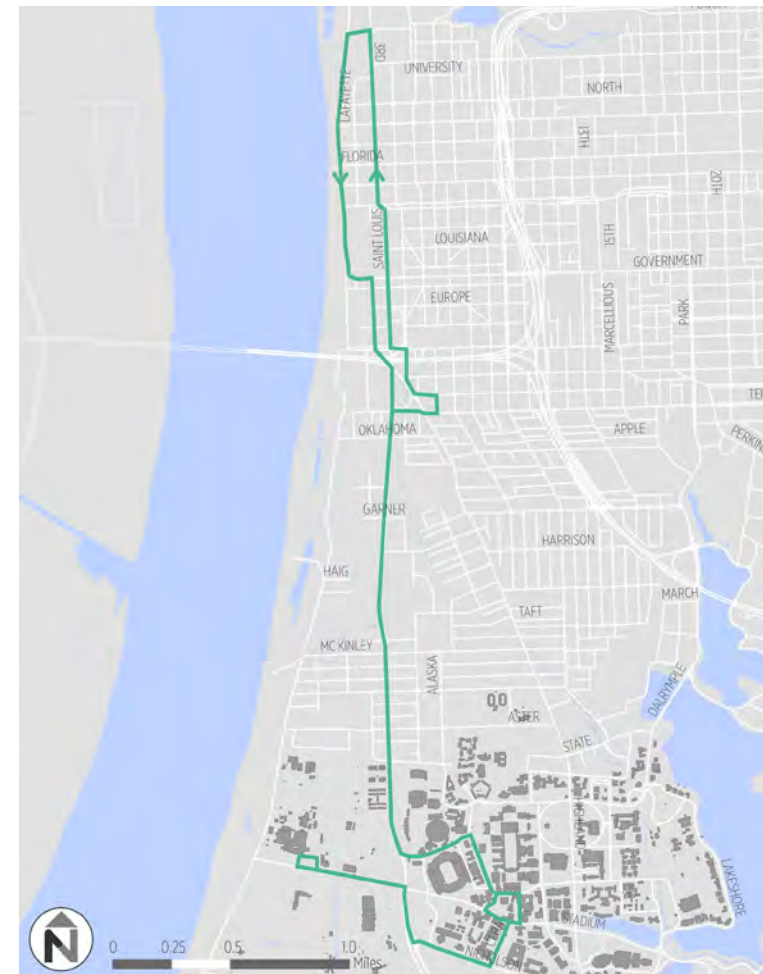
The Downtown-Vet route is a radial route that connects LSU’s main campus to downtown Baton Rouge, the School of Veterinary Medicine, and parking lots along Skip Bertman Drive (see figure at right). Key destinations served by the route include the State Capitol, 3rd Street in downtown, the Veterinary School, the School of Journalism, and various destinations along Nicholson Drive. The route is the only university route that connects the campus to downtown.

Downtown-Vet service is available on weekdays from 7:00 am to 5:30 pm during the fall and spring semesters. Buses depart the School of Journalism every 15 minutes (see Figure 1). Downtown-Vet service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. – 5:30 p.m.	30	22
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. – 9:00 a.m.	30	5
Midday	9:00 a.m. – 3:00 p.m.	30	12
PM Peak	3:00 p.m. – 6:00 p.m.	30	5
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map – Fall 2015



RIDERSHIP

The most heavily used stops on Downtown-Vet are the Veterinary School, Lockett Hall, School of Journalism, and 3rd Street at North Boulevard in downtown Baton Rouge. Ridership on Downtown-Vet is relatively low throughout the service day, with few round trips carrying more than 15 passengers per trip. Maximum loads also never exceed 10 passengers.

Figure 3 Weekday Ridership by Stop Map

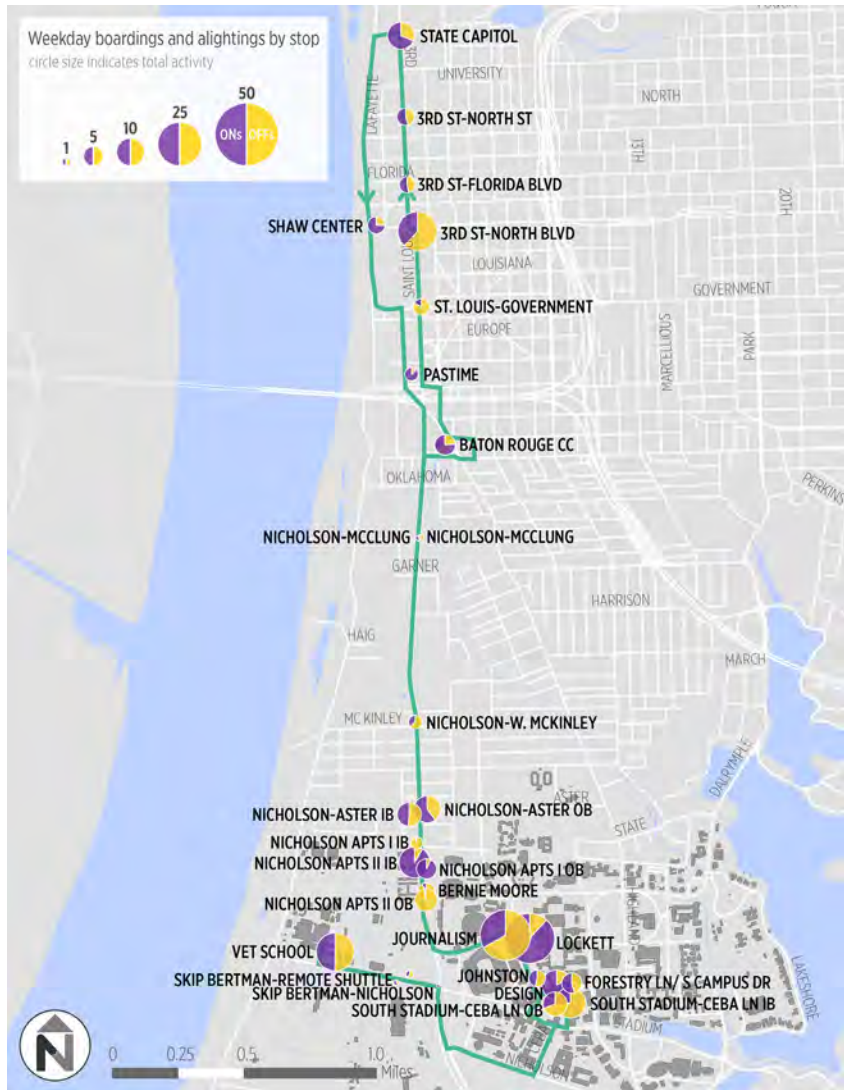


Figure 4 Weekday Ridership by Stop

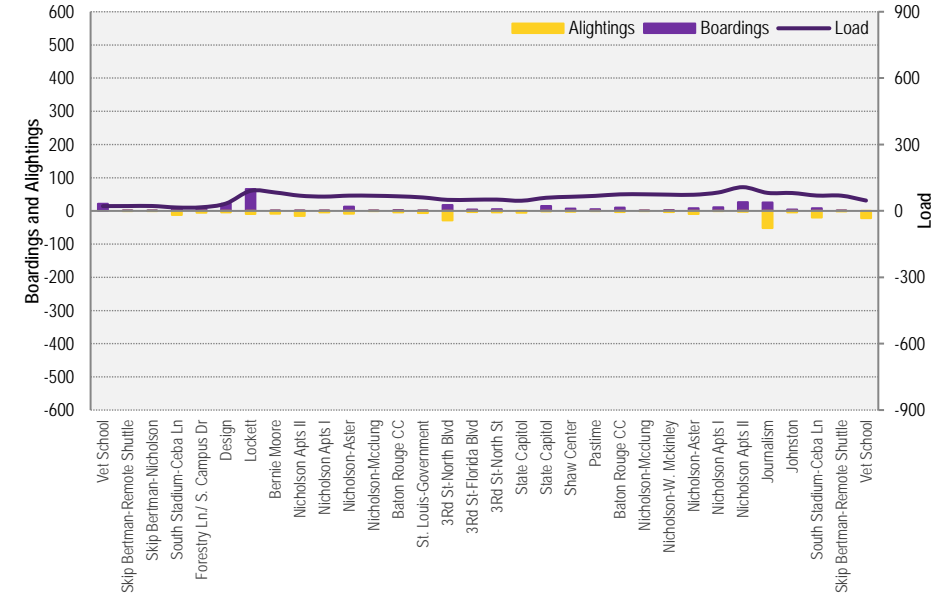
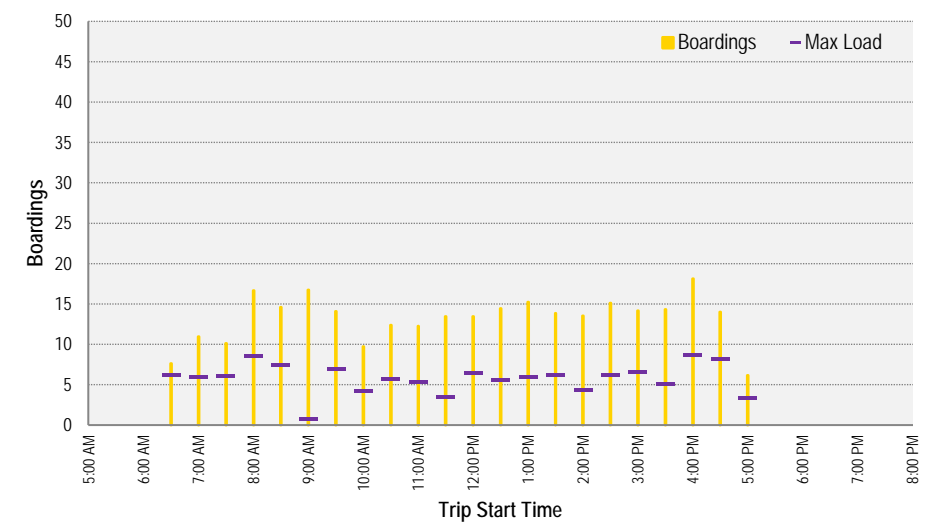


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Downtown-Vet route carries approximately 291 passengers on a typical weekday, or about 13.9 passengers per round trip (see Figure 6). Compared to other Tiger Trails routes, the Downtown-Vet has the 4th lowest ridership per service hour and the 4th lowest ridership per round trip (see Figures 7 and 8).

Figure 6 Performance Measures*

Weekday		
	Route	System Average
Ridership	291	727
Riders per Vehicle Service Hour	13.9	34.4
Riders per Round Trip	13.9	17.2

Figure 7 Weekday Passengers per Service Hour*

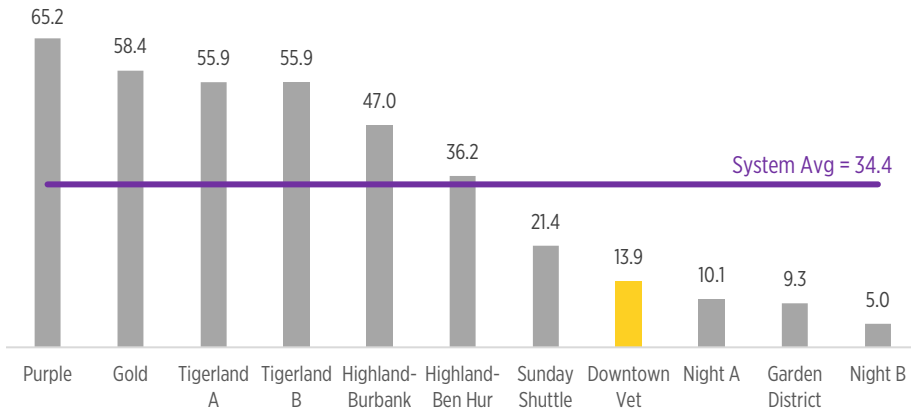
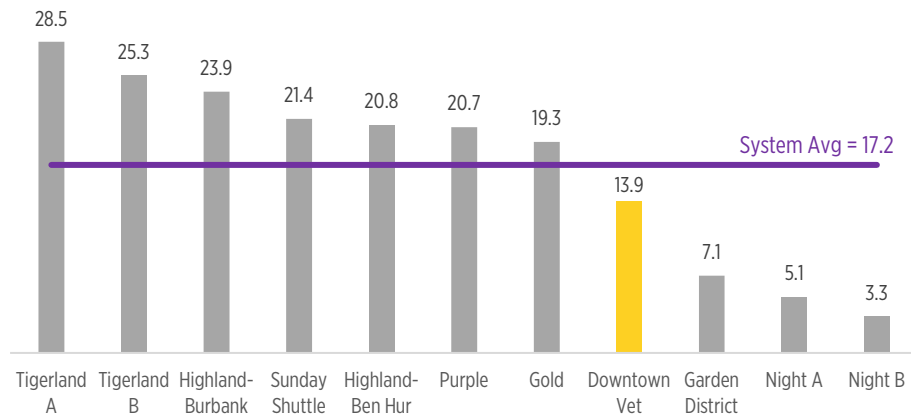


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides connections between downtown, campus, and various other major destinations
- Relatively strong anchors
- Easy-to-remember clockface frequency

WEAKNESSES:

- Low ridership throughout the day
- Route deviates at various points, which lengthens the route, and riders may feel as though they are traveling out of direction
- Downtown loop shows little to no ridership on return leg (headed southbound) to campus, indicating that riders board and alight along 3rd Street exclusively

OPPORTUNITIES:

- Remove deviation along Nicholson Drive Extension and Ceba Lane; remain on S. Stadium Drive instead for more direct access to the School of Journalism
- Remove deviation on Terrace Avenue to Baton Rouge CC stop; remain on Nicholson Drive and St. Louis Street into downtown for more direct and faster service
- Reconfigure downtown loop to generate ridership in both directions and potentially serve a larger area of downtown
- Remove service to the Veterinary School on the Downtown-Vet route and reconfigure the alignment on campus to enable better connections to downtown

GARDEN DISTRICT

SERVICE DESIGN

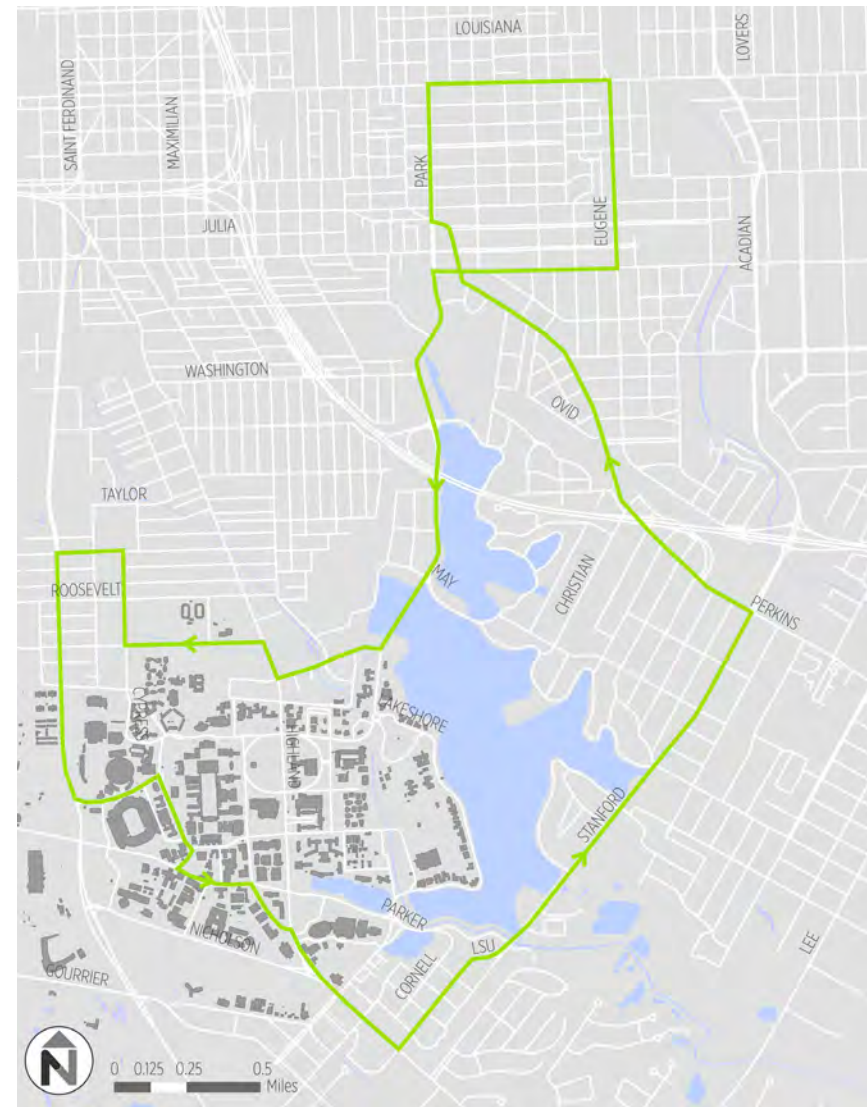
The Garden District route is a loop route that connects LSU's main campus to various off-campus housing areas that are largely single family detached homes converted into student apartments (see figure at right). A few managed apartment buildings are also served along the route, but retail is very minimal. Key destinations served by the route include the Garden District neighborhood and parts of the Zee Zee Gardens, Southdowns, and Highland/Perkins neighborhoods. The route also serves the area just north of the core campus along E. State Street and Aster Street, which are both a mix of university and city uses.

Garden-District service is available on weekdays from 7:00 am to 5:30 pm during the fall and spring semesters. Buses depart the School of Journalism every 15 minutes (see Figure 1). Garden District service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. – 5:30 p.m.	15	45
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. – 9:00 a.m.	15	10
Midday	9:00 a.m. – 3:00 p.m.	15	24
PM Peak	3:00 p.m. – 6:00 p.m.	15	11
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map – Fall 2015



RIDERSHIP

Ridership on the Garden District route is very low throughout the service day, with only four round trips carrying 10 or more passengers per trip. The most heavily used stops on Garden District are the School of Journalism, the Dairy Science Building, stops in the Garden District neighborhood, and stretches along Perkins Road.

Figure 3 Weekday Ridership by Stop Map

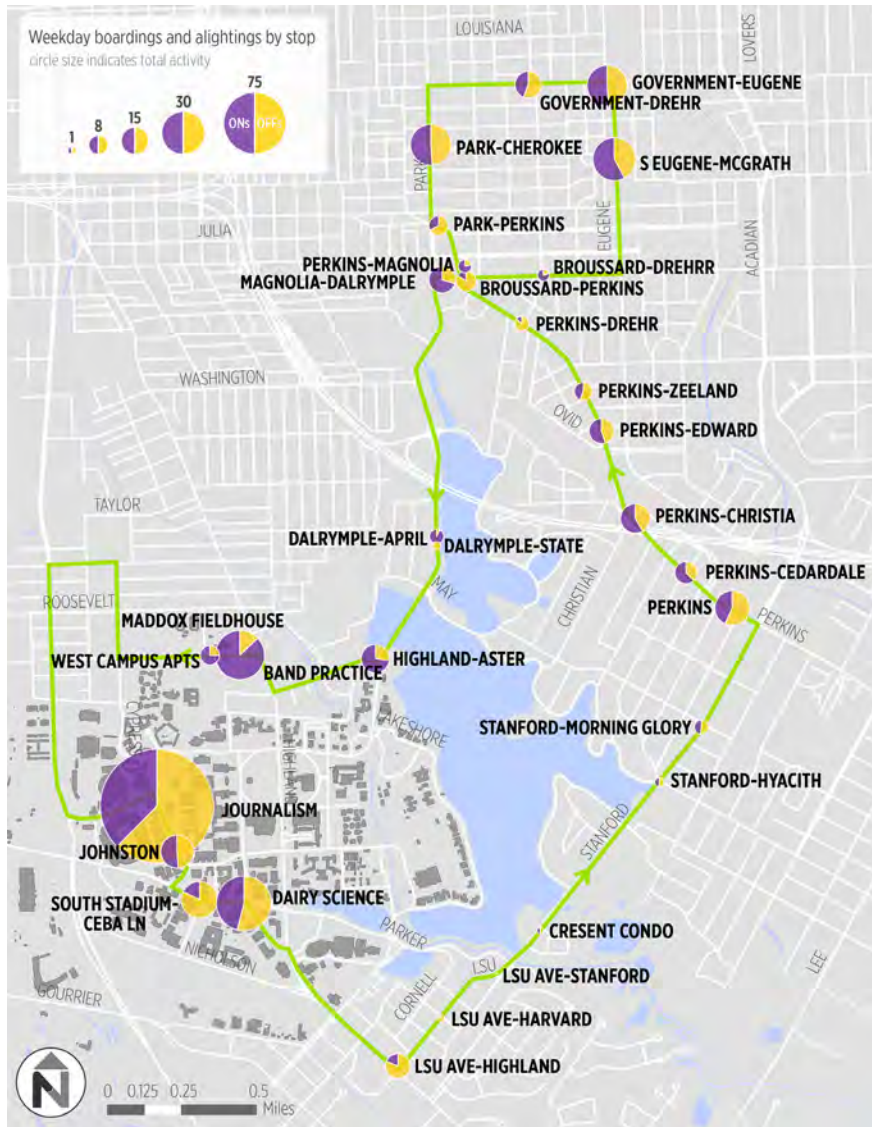


Figure 4 Weekday Ridership by Stop

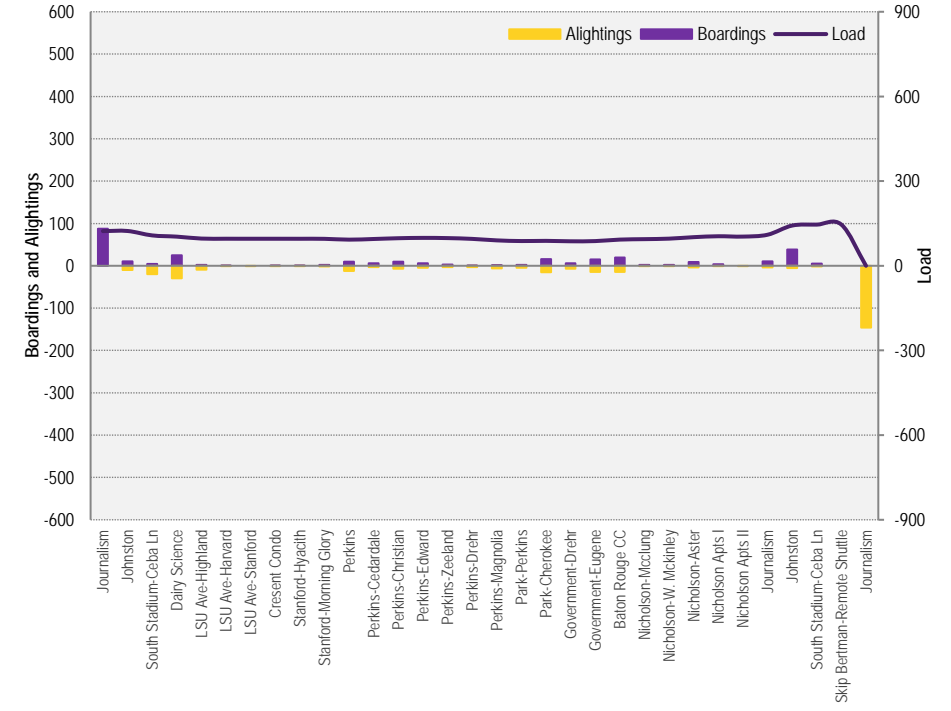
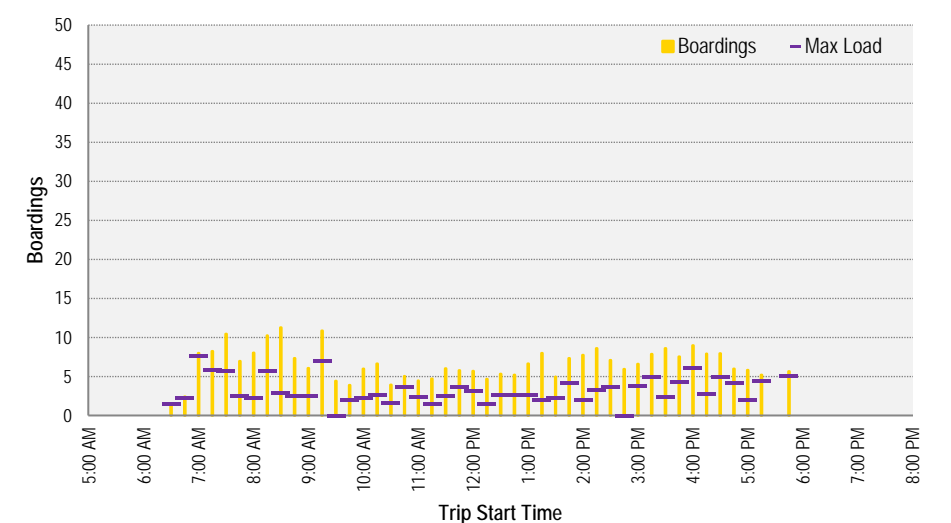


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Garden District route carries approximately 297 passengers on a typical weekday, or about 7.1 passengers per round trip (see Figure 6). With the exception of the nighttime buses, the Garden District route performs the worst of all other Tiger Trails routes in both ridership per service hour and per round trip. The route performs significantly worse than average, and in fact, the Night A bus performs slightly better than the Garden District route in terms of passengers per service hour (see Figures 7 and 8).

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	297	727
Riders per Vehicle Service Hour	9.3	34.4
Riders per Round Trip	7.1	17.2

Figure 7 Weekday Passengers per Service Hour*

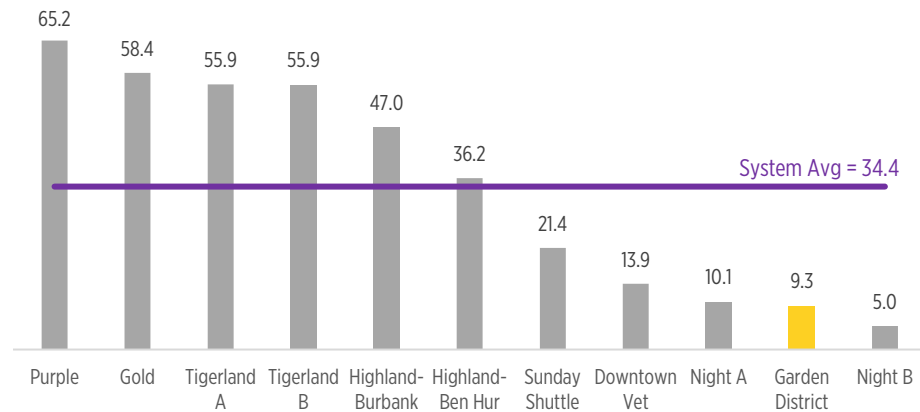
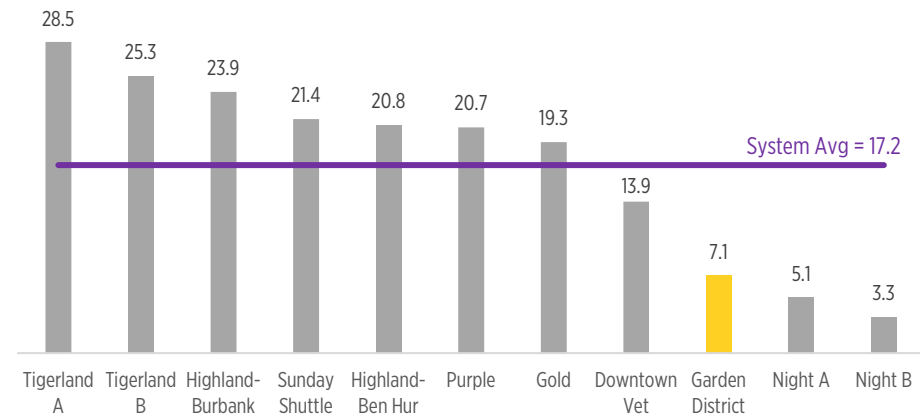


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Frequent service between campus and inexpensive off-campus housing
- Easy-to-remember clockface frequency

WEAKNESSES:

- Rarely has more than 10 passengers on a trip
- One-way service alignment with large loops forces out-of-direction travel for many riders
- Long route with few connections other than residential neighborhoods
- Poor performance per service hour

OPPORTUNITIES:

- Break the loop into a smaller bi-directional route, focusing on stops that serve more ridership.
- Terminate service along Stanford, which generates minimal ridership for a long stretch of the route
- Remove deviation serving Maddox Fieldhouse, which forces passengers to travel out of direction and serves little to no ridership.

» IMPROVE BRANDING TO CLARIFY HOW THE PURPLE, GOLD, AND PURPLE UNION ROUTES OPERATE

SERVICE DESIGN

The Gold route is a campus circulator route that connects academic and residential areas of LSU’s campus (see figure at right). Most core academic buildings and many residence halls are within a short walking distance to the Gold route. The Gold route is one of three circulators that serve LSU’s core campus area. The Purple and Gold routes navigate around the edges, while the Purple Union route cuts through campus to serve the area south of the Parade Grounds. The Gold route operates in a clockwise loop; the Purple route operates the same alignment in a counter-clockwise loop.

Gold route service is available on weekdays from 7:00 am to 6:00 pm during the fall and spring semesters. Buses depart the School of Journalism every 15 minutes (see Figure 1). Gold service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. - 6:00 p.m.	15	60
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. - 9:00 a.m.	15	10
Midday	9:00 a.m. - 3:00 p.m.	15	36
PM Peak	3:00 p.m. - 6:00 p.m.	15	14
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map - Fall 2015



RIDERSHIP

The most heavily used stops on the Gold route are Lockett Hall, Foster Hall, Chi Omega, LSU Press, and Dairy Science (see Figures 3 and 4). Ridership on Gold fluctuates throughout the day but is strongest between the mid-morning and mid-afternoon hours, from about 9:30 AM to 2:30 PM. During this time, most trips carry at least 20 passengers and often over 25. This pattern is typical for a university circulator that primarily serves to take students between their residences and class. Only one trip on the Gold route had a maximum load of 25 passengers or more, suggesting that overcrowding is not an issue for the route. Maximum loads are a measure of the greatest number of people on the bus at one time.

Figure 3 Weekday Ridership by Stop Map

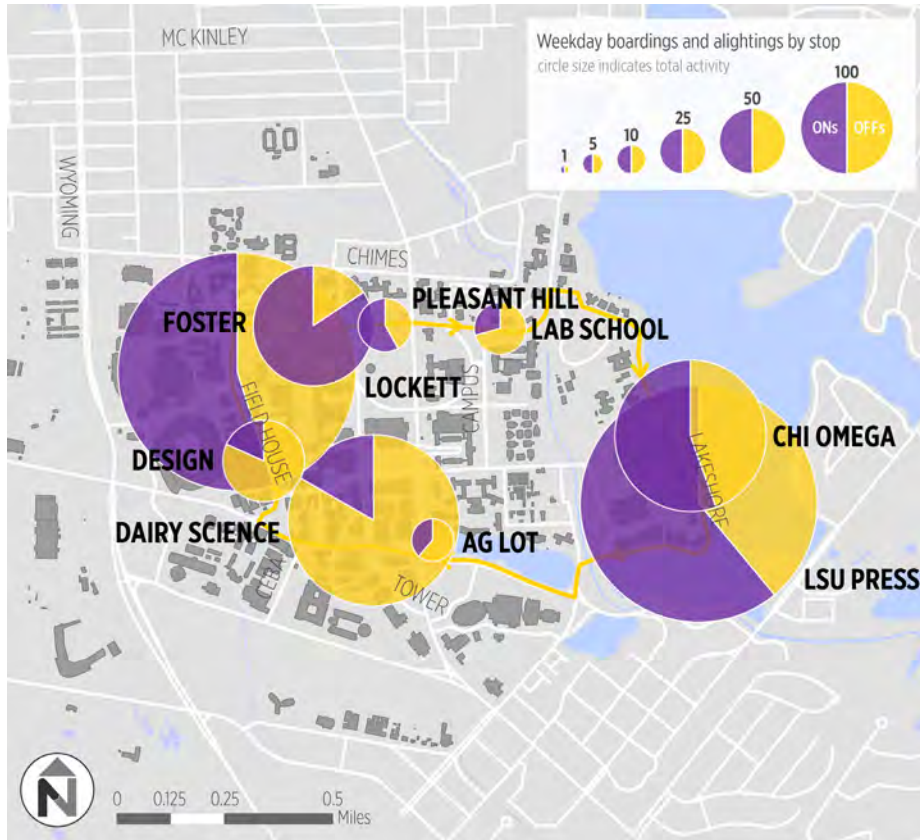


Figure 4 Weekday Ridership by Stop

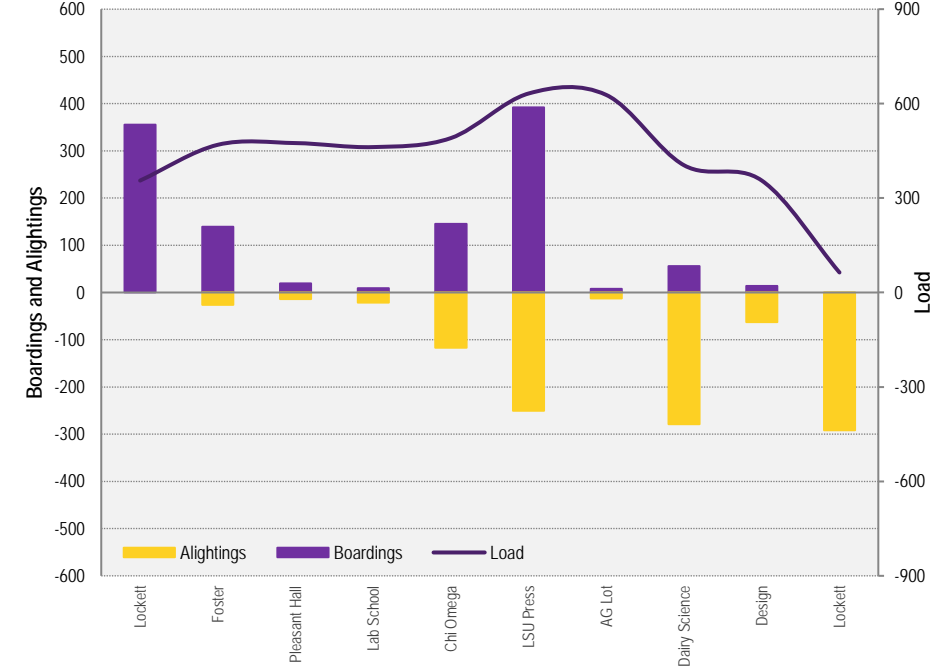
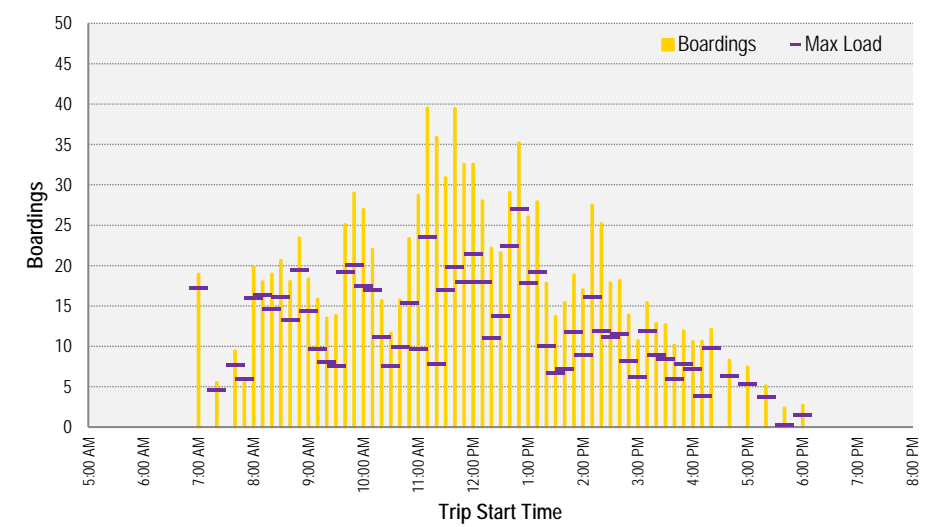


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Gold route carries approximately 1,138 passengers on a typical weekday, or about 19.3 passengers per round trip (see Figure 6). Compared to other Tiger Trails routes, the Gold route has the 2nd highest ridership per service hour and the 7th highest ridership per round trip (see Figures 7 and 8). The high ridership per service hour and relatively lower ridership per trip suggests that the frequency or number of service hours may be too high.

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	1,138	743
Riders per Vehicle Service Hour	58.4	34.4
Riders per Round Trip	19.3	17.2

Figure 7 Weekday Passengers per Service Hour*

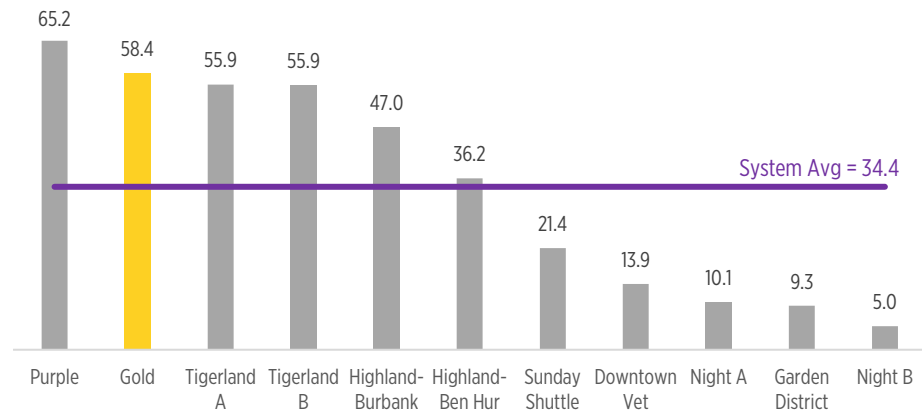
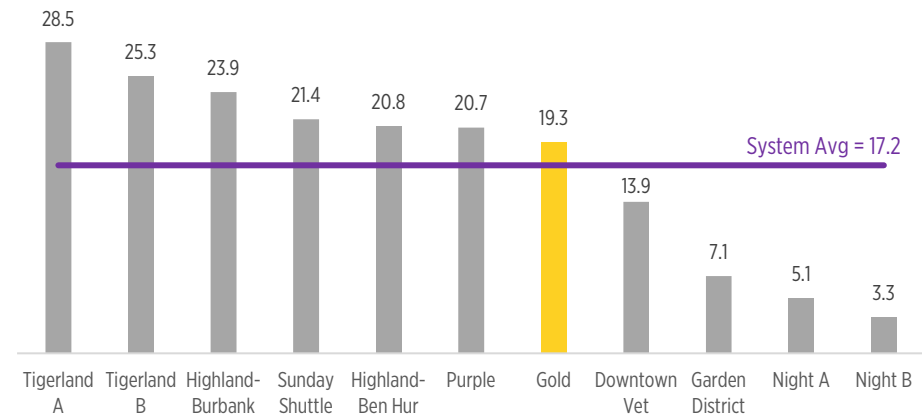


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides frequent service to residence halls, Greek housing, and most academic areas of campus
- Very strong ridership in the mid-morning and afternoon
- Above average performance per service hour

WEAKNESSES:

- Long stretches of weaker ridership outside of the dense academic areas between Tower Drive and Field House Drive and the residential area of Greek Row
- Faces competition for riders from other routes

OPPORTUNITIES:

- Improving the branding of the Purple, Gold, and Purple Union routes to clarify how these three routes operate together but differently may help new users understand the system quicker and make the system more legible overall

HIGHLAND-BEN HUR

» **ELIMINATE SERVICE ON HIGHLAND -BEN HUR, AS THE ALIGNMENT MOSTLY DUPLICATES SERVICE PROVIDED BY THE HIGHLAND-BURBANK ROUTE**

SERVICE DESIGN

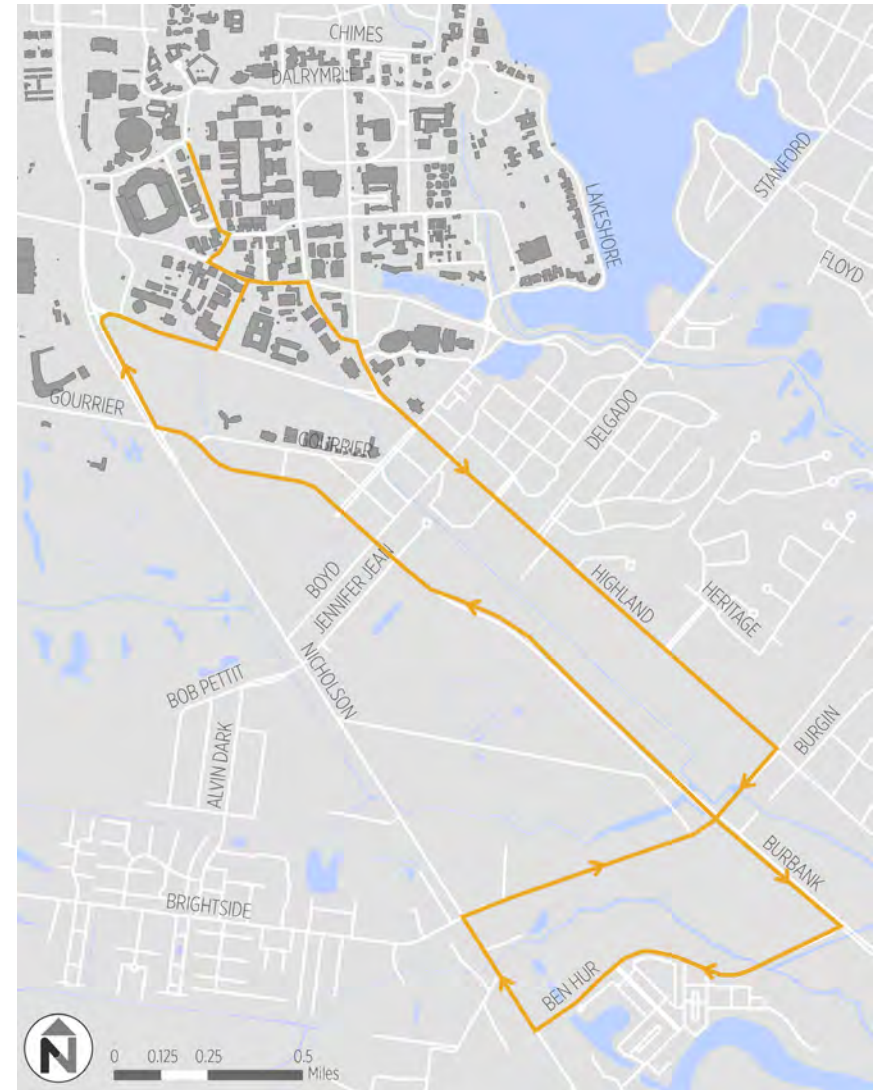
The Highland-Ben Hur route is a radial loop route that connects LSU’s main campus to off-campus housing and retail areas southeast of campus (see figure at right). Key destinations served by the route include the Hub at Baton Rouge Apartment Homes, Burbank Terrace Shopping Center, the Woodlands of Baton Rouge, the Cottages of Baton Rouge, and University Crescent.

Highland-Ben Hur service is available on weekdays from 7:00 am to 5:30 pm during the fall and spring semesters. Buses depart the School of Journalism every 18 minutes (see Figure 1). Highland-Ben Hur service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. – 5:30 p.m.	18	33
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. – 9:00 a.m.	18	6
Midday	9:00 a.m. – 3:00 p.m.	18	21
PM Peak	3:00 p.m. – 6:00 p.m.	18	6
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map – Fall 2015



RIDERSHIP

The most heavily used stops on Highland-Ben Hur are the School of Journalism, Cottage West, Cottage East, and South Stadium-Ceba Lane IB (see Figure 3). Highland-Ben Hur's ridership is highest mid-day between 11:20 am and 1:30 pm, with nearly all trips during that period carrying more than 25 passengers. Ridership is strong throughout the day, with only four trips carrying fewer than 15 passengers (see Figure 5). Maximum loads rarely exceed 25 passengers on any trip, so overcrowding is not an issue on the Highland-Ben Hur route.

Figure 3 Weekday Ridership by Stop Map

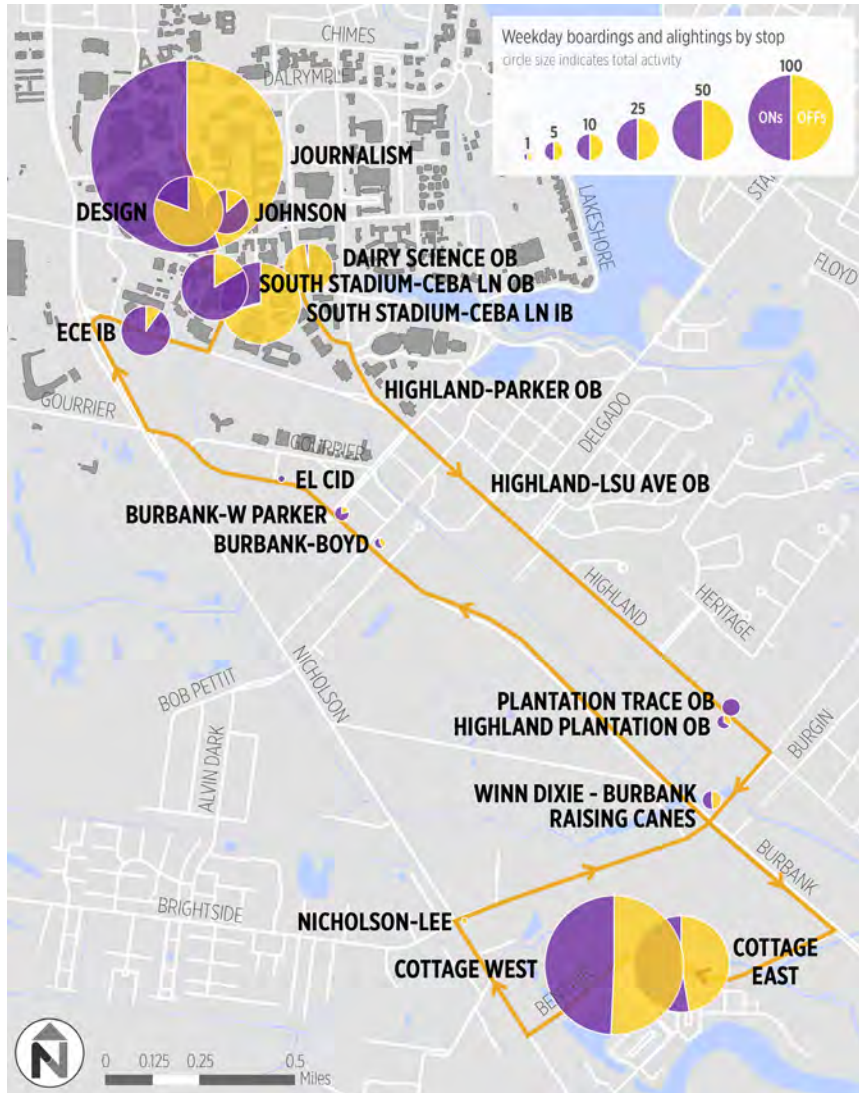


Figure 4 Weekday Ridership by Stop

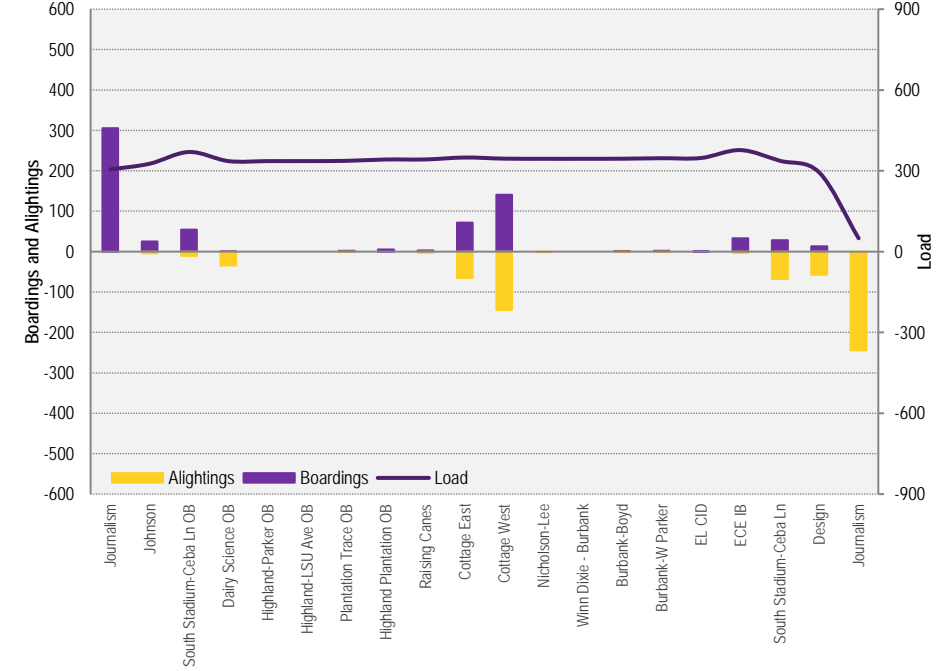
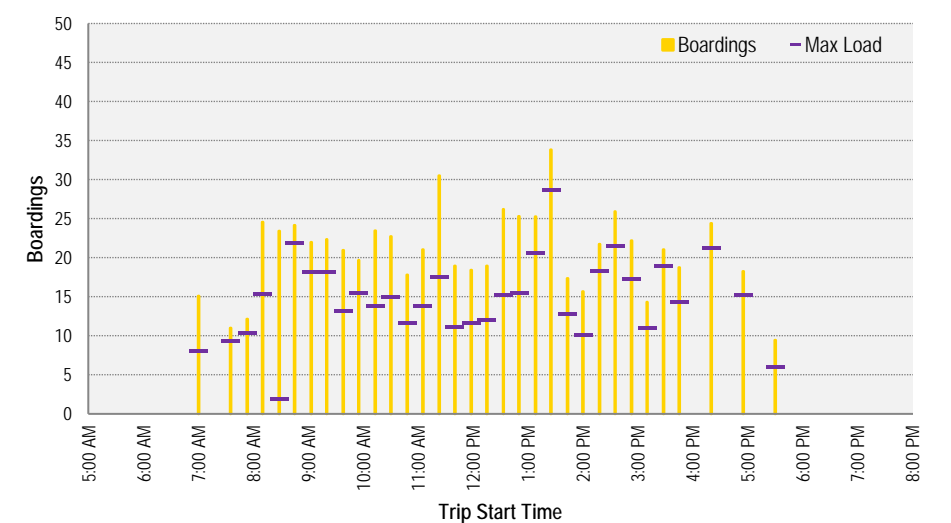


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Highland-Ben Hur route carries approximately 687 passengers on a typical weekday, or about 20.8 passengers per round trip (see Figure 6). Compared to other Tiger Trails routes, Highland-Ben Hur has a near average number of passengers per service hour, and performs slightly better than average (5th highest) for ridership per round trip (see Figures 7 and 8).

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	687	727
Riders per Vehicle Service Hour	36.2	34.4
Riders per Round Trip	20.8	17.2

Figure 7 Weekday Passengers per Service Hour*

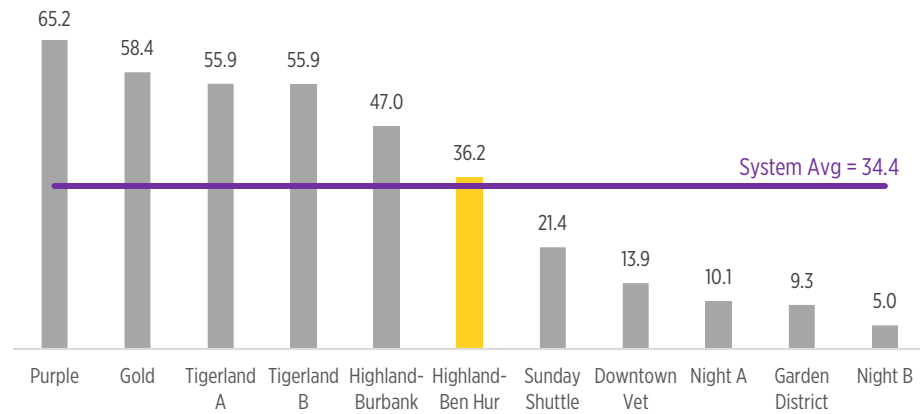
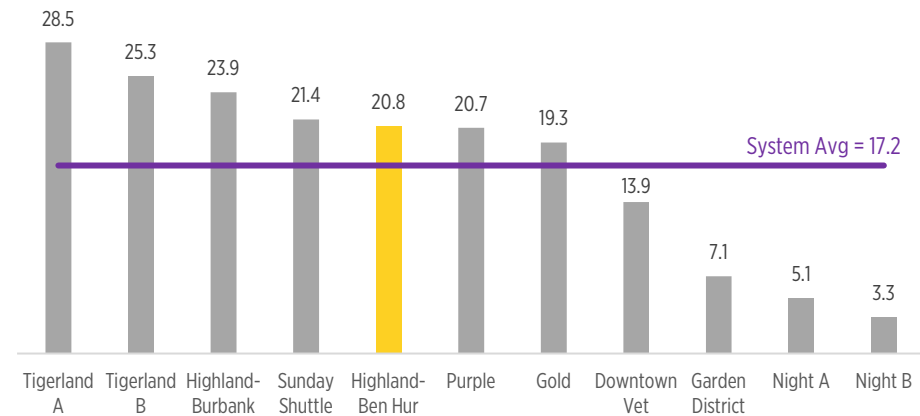


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides connections between campus, off-campus housing, and retail
- Strong anchors

WEAKNESSES:

- Route duplicates service provided by Highland-Burbank route
- Non-clockface service frequency
- Long stretches of unproductive service due to one-way loops and undeveloped land
- One-way service alignment forces out-of-direction travel for many riders
- Figure eight or double loops create confusion, lengthen the route, and make the barrier to ride high for those unfamiliar with transit

OPPORTUNITIES:

- Service on Highland-Ben Hur was discontinued, as the alignment mostly duplicates service provided by the Highland-Burbank route; service to Cottage East and Cottage West is now provided by the Burbank-Ben Hur and Nicholson-Ben Hur routes

HIGHLAND-BURBANK

» **RECONFIGURE TO PROVIDE BI-DIRECTIONAL SERVICE, WHICH IMPROVES THE USER EXPERIENCE AND COULD SPUR ADDITIONAL RIDERSHIP**

SERVICE DESIGN

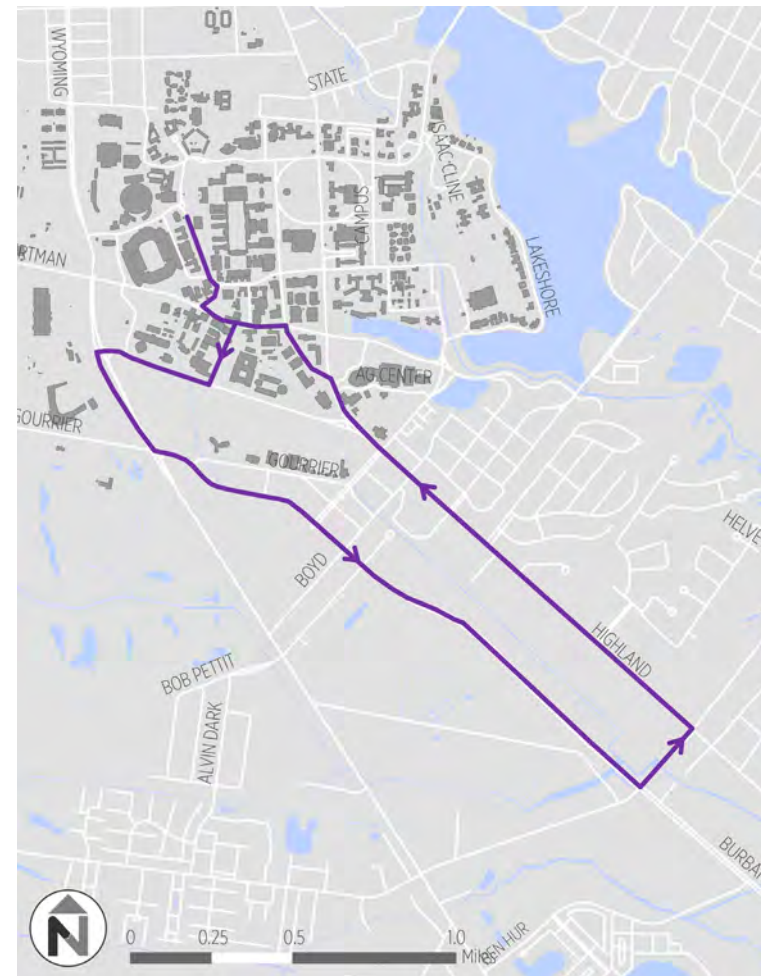
The Highland-Burbank route is a radial loop route that serves several large apartment complexes south and southeast of campus, along with retail and dining locations (see figure at right). Key destinations include LSU Energy, Coast, and Environment Building, University Crescent apartments, Winn-Dixie, Walmart, and Plantation Trace apartments. The Highland-Burbank route operates as a counter-clockwise loop, with service in the opposite direction on Highland Road partially provided by the Downtown-Vet route, and on Burbank Drive by the Nicholson-Ben Hur route.

Highland-Burbank service is available on weekdays from 7:00 am to 6:00 pm during the fall and spring semesters. Buses depart the School of Journalism every 12 minutes (see Figure 1). Highland-Burbank service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. - 6:00 p.m.	12	58
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. - 9:00 a.m.	12	12
Midday	9:00 a.m. - 3:00 p.m.	12	36
PM Peak	3:00 p.m. - 6:00 p.m.	12	10
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map - Fall 2015



RIDERSHIP

The most heavily used stops on the Highland-Burbank route are the School of Journalism, Burbank-Boyd, University Crescent apartments, Plantation Trace apartments, and the Frey Computing Services Center (see Figures 3 and 4). Highland-Burbank's ridership is highest between 7:30 and 10:00 AM, with nearly all trips during that period carrying more than 25 passengers. Ridership remains strong throughout the day, with few trips carrying fewer than 20 passengers (see Figure 5). Maximum loads decrease after 10:00 AM, indicating that users ride for nearly the entire route in the morning (likely to get to campus) but tend to get on and off the bus at various stops for the remainder of the day. Maximum loads rarely exceed 25 passengers on any trip, so overcrowding is not an issue on the Highland-Burbank route.

Figure 3 Weekday Ridership by Stop Map

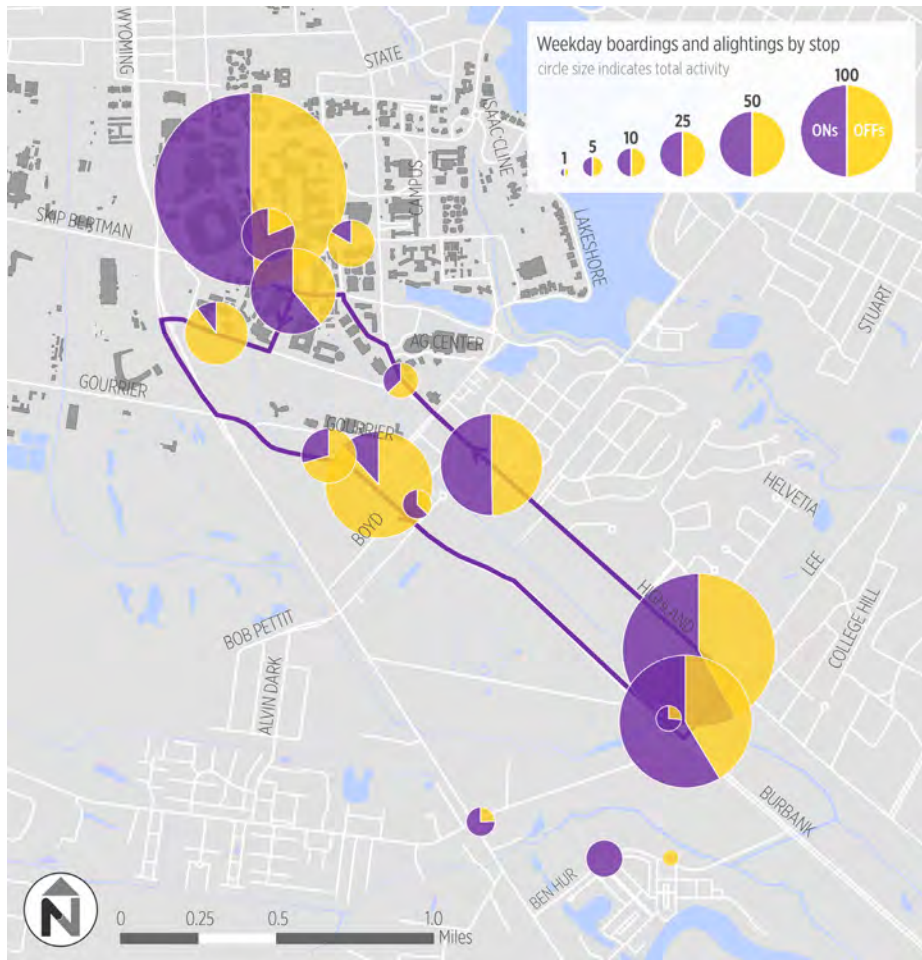


Figure 4 Weekday Ridership by Stop

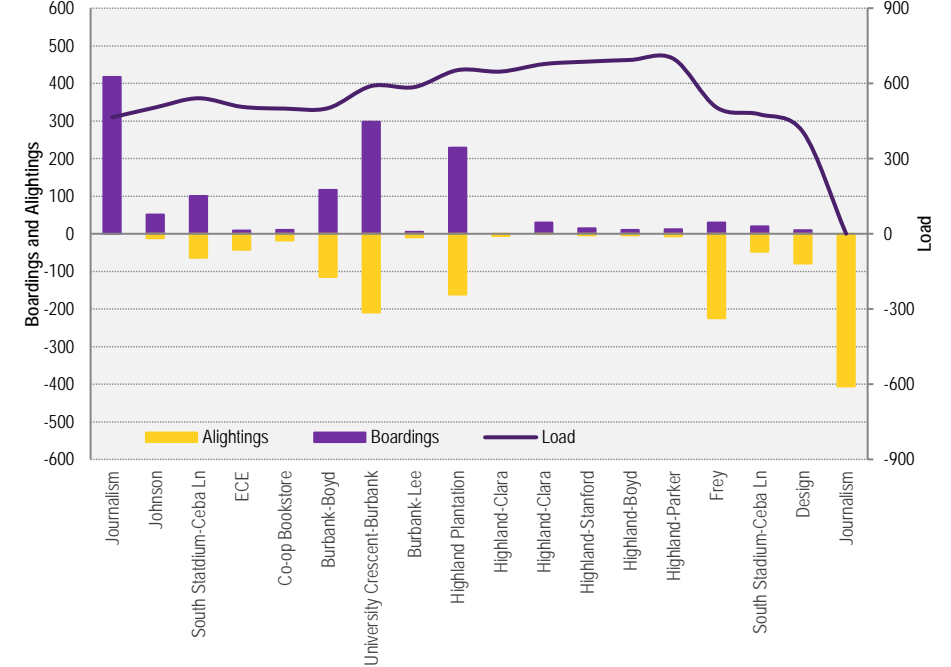
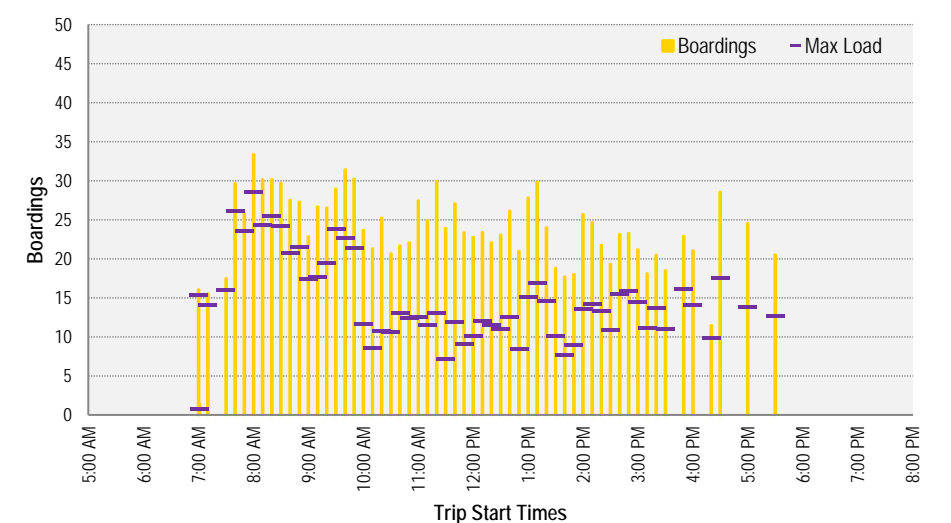


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Highland-Burbank route carries approximately 1,362 passengers on a typical weekday, or about 23.9 passengers per round trip (see Figure 6). Compared to other reduced Tiger Trails routes, the Highland-Burbank route has the 5th highest ridership per service hour and the 3rd highest ridership per trip (see Figures 7 and 8).

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	1,362	727
Riders per Vehicle Service Hour	47.0	34.4
Riders per Trip	23.9	17.2

Figure 7 Weekday Passengers per Service Hour*

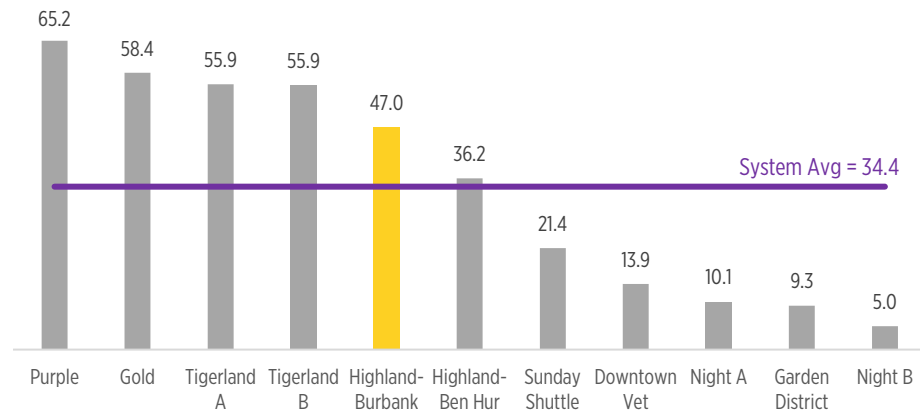
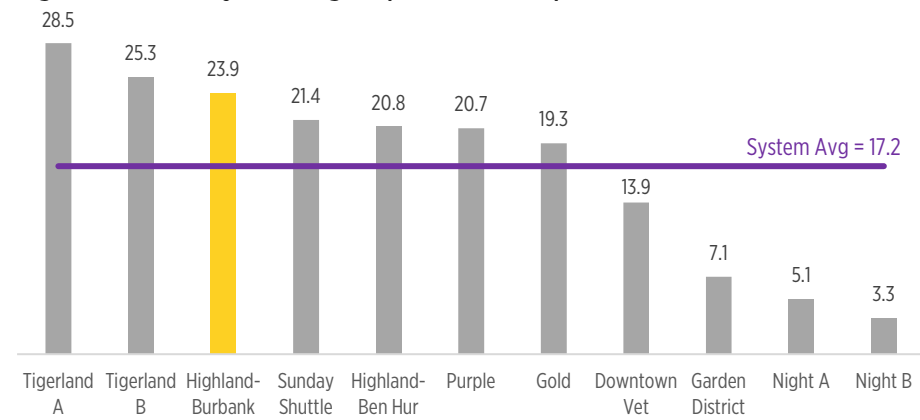


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides frequent service to popular residential areas for students
- Links campus to a mixed of uses, including residential, retail, and restaurant uses
- Strong ridership maintained throughout the day
- Above average performance on an hourly and per trip basis

WEAKNESSES:

- Long stretches of weak ridership due to large areas of undeveloped land
- One-way service alignment forces out-of-direction travel for some riders; other riders may have the option to ride a different route in the opposite direction but this adds unnecessary complication to the service
- Faces competition for riders from other routes

OPPORTUNITIES:

- Highland-Burbank could be reconfigured to provide bi-directional service along both primary roads, which would make the service easier to use and understand for students. Simpler, more direct service may also attract new users to Tiger Trails and the Highland-Burbank route.

NIGHT A

» **SPLIT INTO TWO ROUTES AND RECONFIGURE TO PROVIDE BI-DIRECTIONAL SERVICE, WHICH IMPROVES THE USER EXPERIENCE AND COULD SPUR ADDITIONAL RIDERSHIP**

SERVICE DESIGN

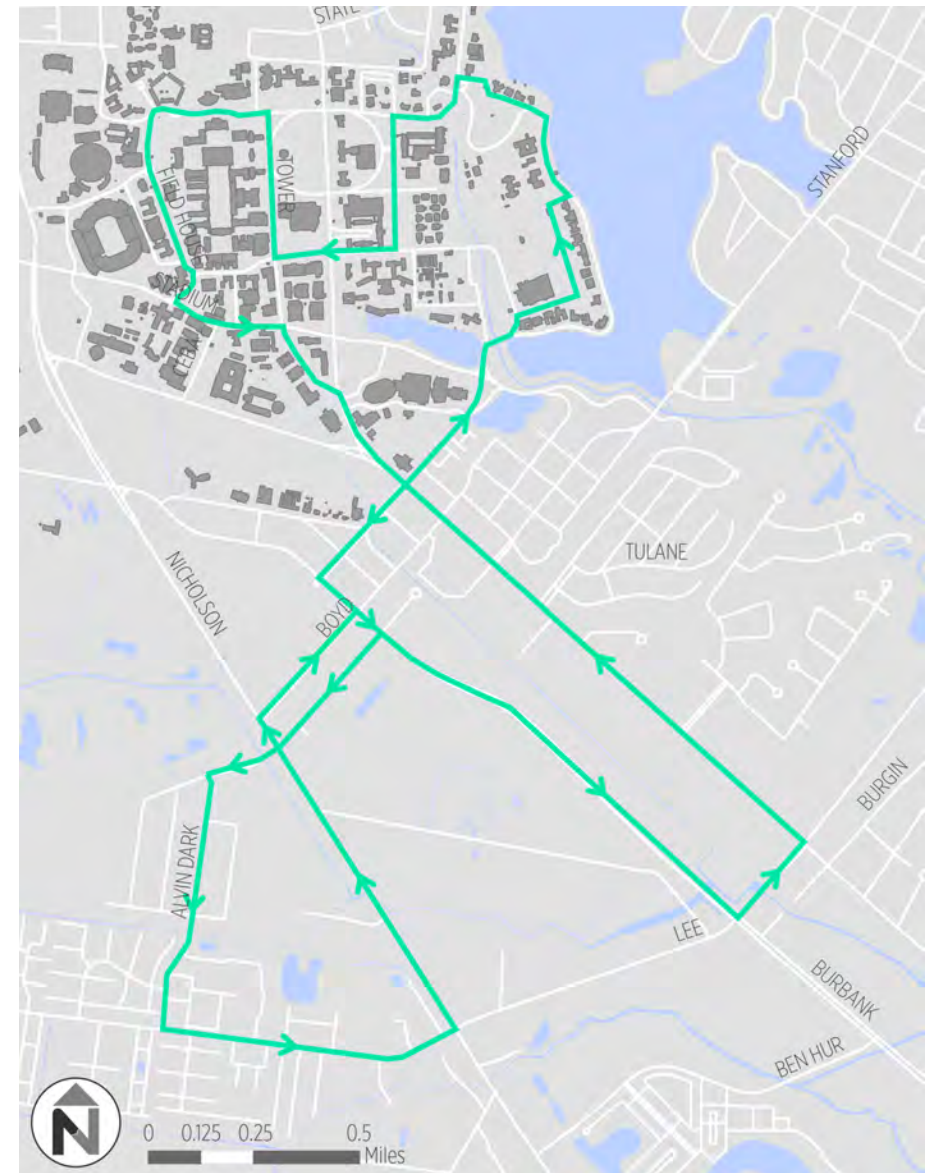
The Night A route is a combination route that operates in place of the Tigerland routes, Highland-Ben Hur, and Purple Union on weekday evenings and Saturdays. The route connects LSU's main campus to off-campus apartment complexes and retail areas south of campus (see figure at right). Key destinations served by the route include University Crescent, the Burbank Terrace Shopping Center, Southgate Towers Apartments, Tigerland Market, the Oakbrook Village Shopping Center, and Tiger Plaza Apartments.

Night A service is available on weekdays from 5:50 pm to midnight and on Saturdays from 5:50 pm to 3 am during the fall and spring semesters. Buses depart Chi Omega every 20 minutes (see Figure 1). Night A service does not operate on Sundays.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	5:50 p.m. – 12:00 a.m.	20	17
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. – 9:00 a.m.	-	-
Midday	9:00 a.m. – 3:00 p.m.	-	-
PM Peak	3:00 p.m. – 6:00 p.m.	20	1
Evening/Night	6:00 p.m. and later	20	16
Saturdays	5:50 p.m. – 3:00 a.m.	20	25
Sundays	-	-	-

Figure 2 Route Map – Fall 2015



RIDERSHIP

The most heavily used stops on Night A on weekdays are Bob Pettit-Alvin Dark, Highland Plantation IB, Burbank-Boyd, and Campus Crossings (see Figures 3 and 4). Night A ridership is generally very low on weekdays, with only one trip carrying more than 10 passengers and no trips with a load of 10 or more passengers (see Figure 5). Maximum loads are a measure of the greatest number of people on the bus at one time.

Figure 3 Weekday Ridership by Stop Map

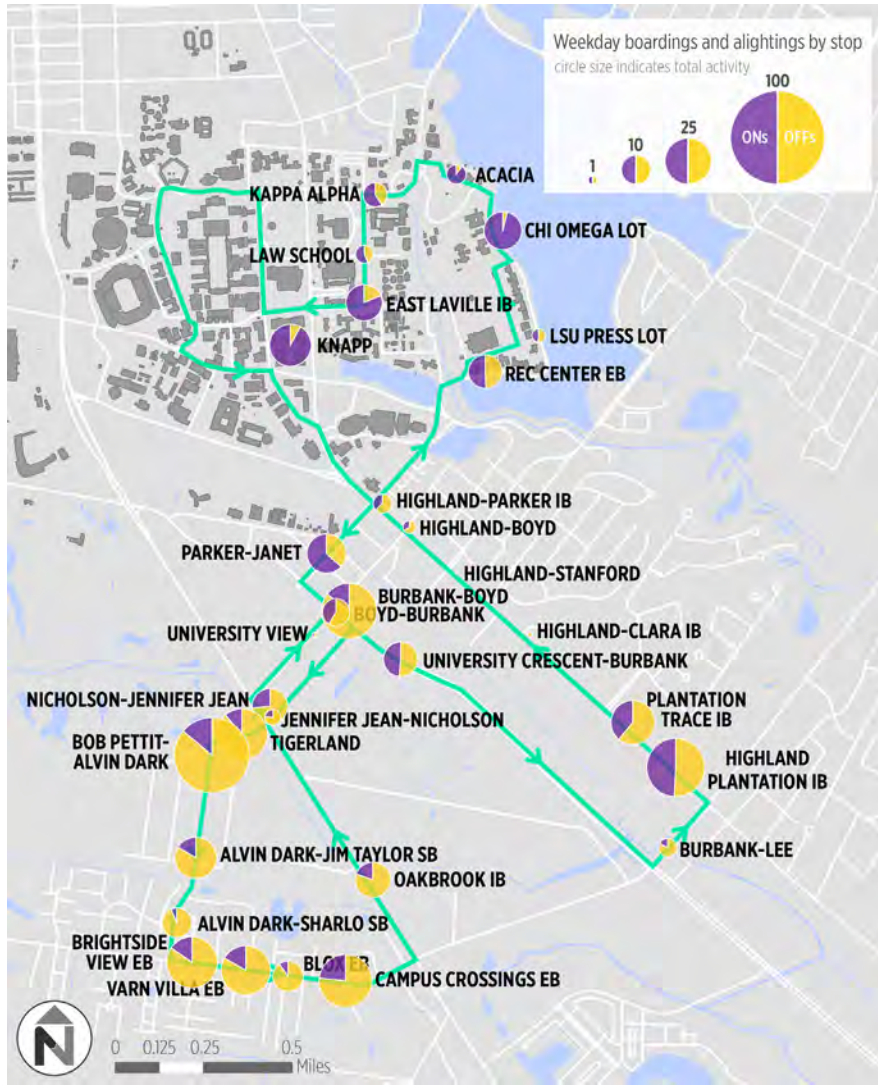


Figure 4 Weekday Ridership by Stop

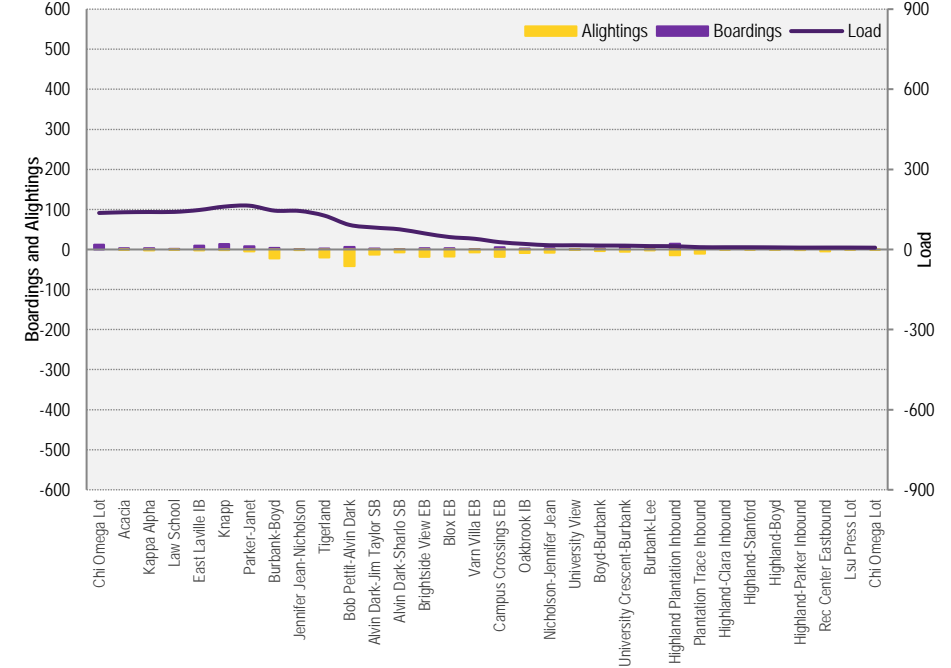
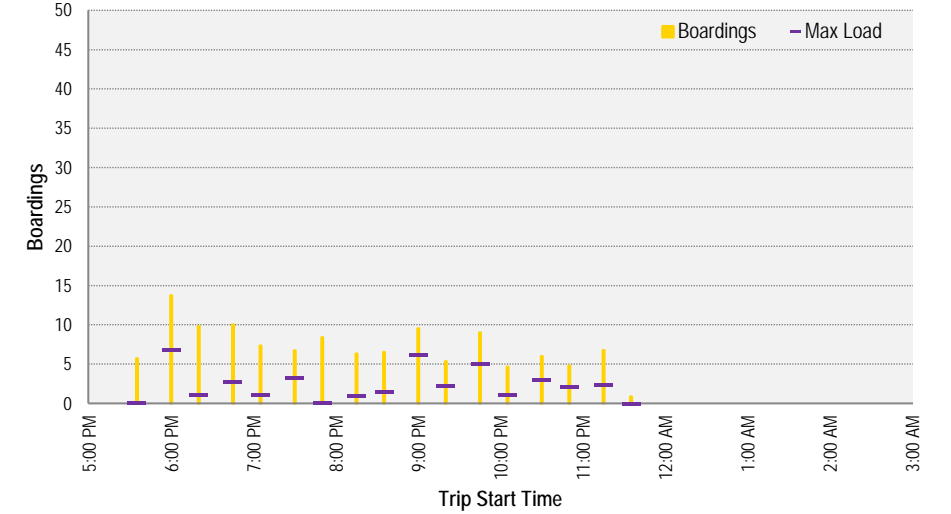


Figure 5 Weekday Ridership by Trip



The heaviest used stops on Saturday include Tigerland, East Laville IB, and Nicholson-Jennifer Jean (see Figures 6 and 7). Saturday ridership is very low through 10 pm, with no trips carrying more than 6 passengers (see Figure 8). Ridership increases after 10 pm, with several trips carrying 15 or more passengers, but no trips have a maximum load that exceeds 20 passengers.

Figure 6 Saturday Ridership by Stop Map

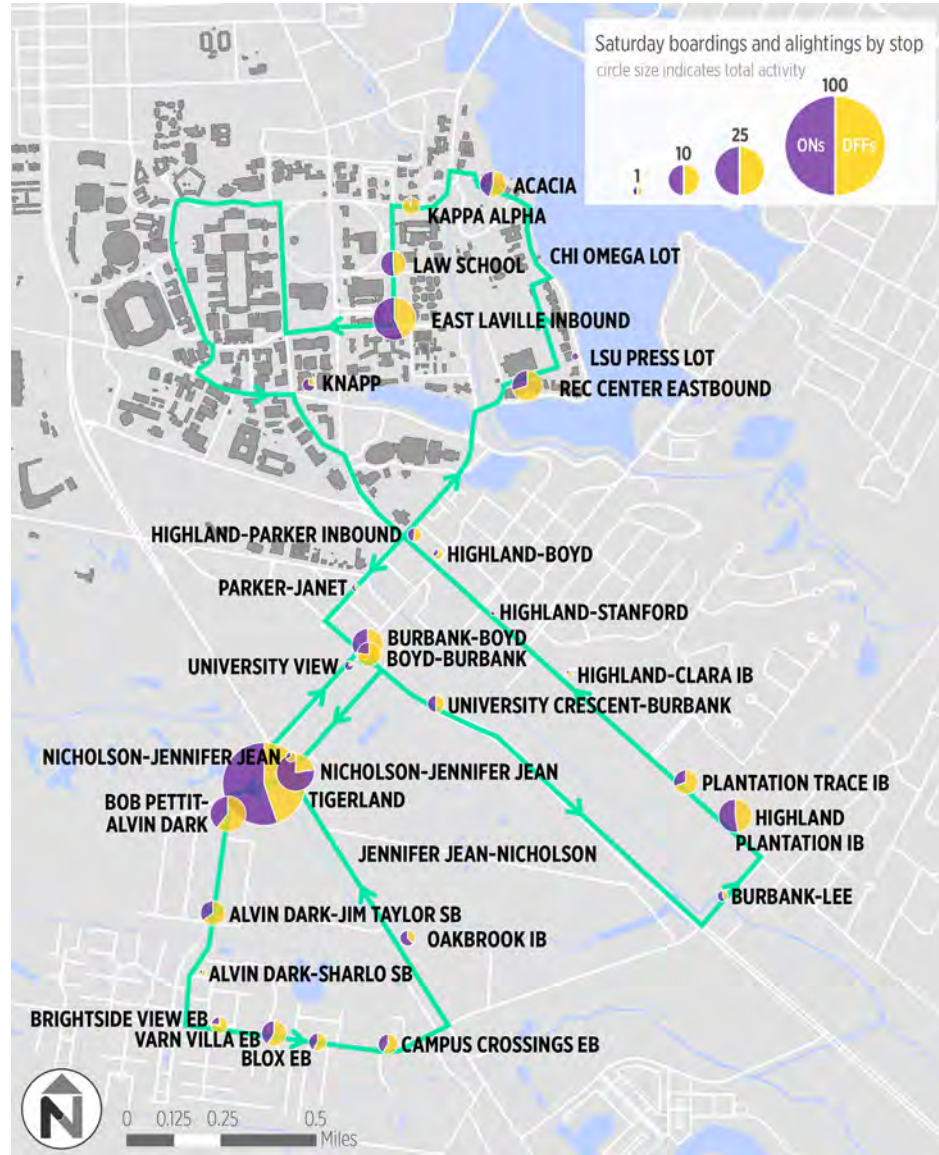


Figure 7 Saturday Ridership by Stop

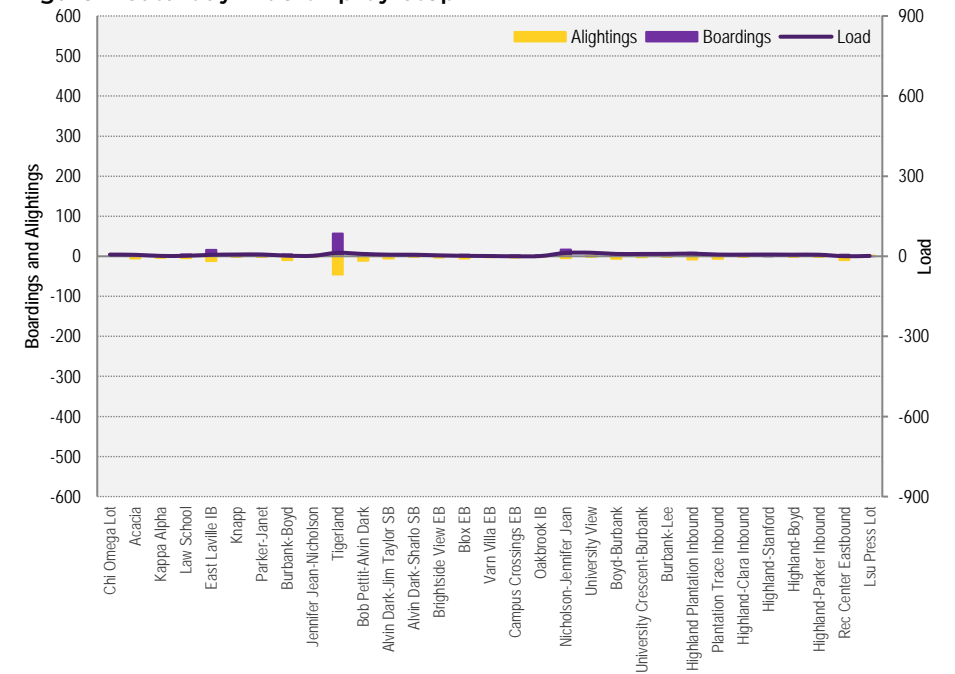
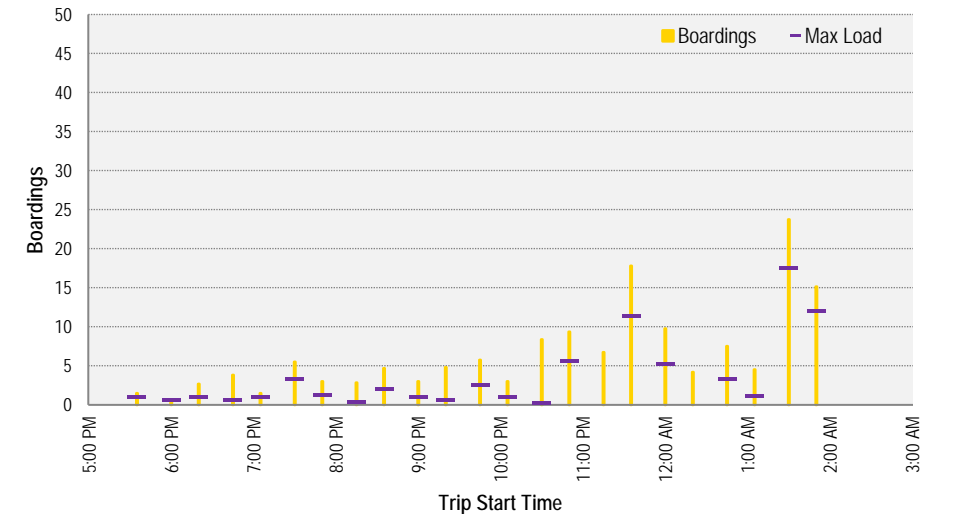


Figure 8 Saturday Ridership by Trip



PRODUCTIVITY

The Night A route carries approximately 122 passengers on a typical weekday, or about 5.1 passengers per round trip (see Figure 9). Compared to other Tiger Trails routes, the Night A weekday route has the 3rd lowest ridership per service hour and the 2nd lowest ridership per round trip (see Figures 10 and 11). On Saturday, Night A carries approximately 155 passengers, or about 12.9 passengers per hour and 6.2 passengers per trip.

Figure 9 Performance Measures*

	Weekday	
	Route	System Average
Ridership	122	727
Riders per Vehicle Service Hour	10.1	34.4
Riders per Round Trip	5.1	17.2

Figure 10 Weekday Passengers per Service Hour*

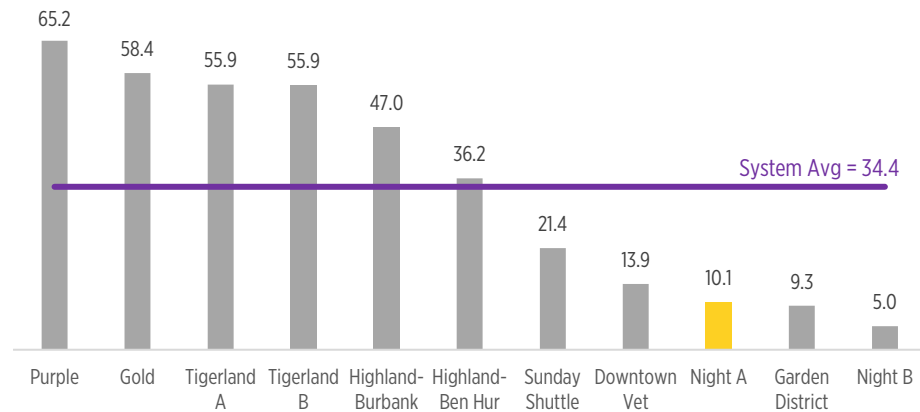
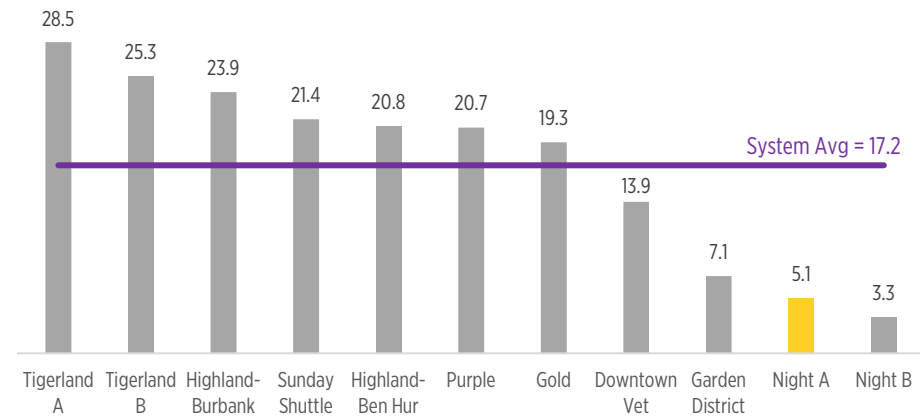


Figure 11 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides 20-minute service frequency to housing located south and east of campus and to downtown Baton Rouge
- Easy-to-remember clockface frequency

WEAKNESSES:

- Very low ridership before 8:00 pm on Saturdays
- Ridership surge on last two Saturday trips
- Multiple large one-way loops force out-of-direction travel for nearly all passengers
- Relatively low ridership and poor productivity

OPPORTUNITIES:

- The most immediate opportunity to improve the Night A service is to shift service hours by about an hour (i.e. begin and end service once hour later) on Saturdays. There is very little early evening ridership on the route, but relatively high ridership on the last trip of the day suggests demand for later service.
- The Night A route services several apartment communities south and east of campus that are popular with students. However, by stitching together these geographically disparate neighborhoods, the route forces most riders to travel out of direction on either their inbound or outbound trip. To reduce this out-of-direction travel, the Night A route could be split into two separate routes, each providing bi-directional service through LSU's campus and student housing south and east of campus.

» **SERVE DEMAND EAST AND NORTH OF CAMPUS WITH DEMAND-RESPONSE SERVICE RATHER THAN FIXED-ROUTE SERVICE, WHICH CAN SERVE THIS AREA MORE EFFICIENTLY**

SERVICE DESIGN

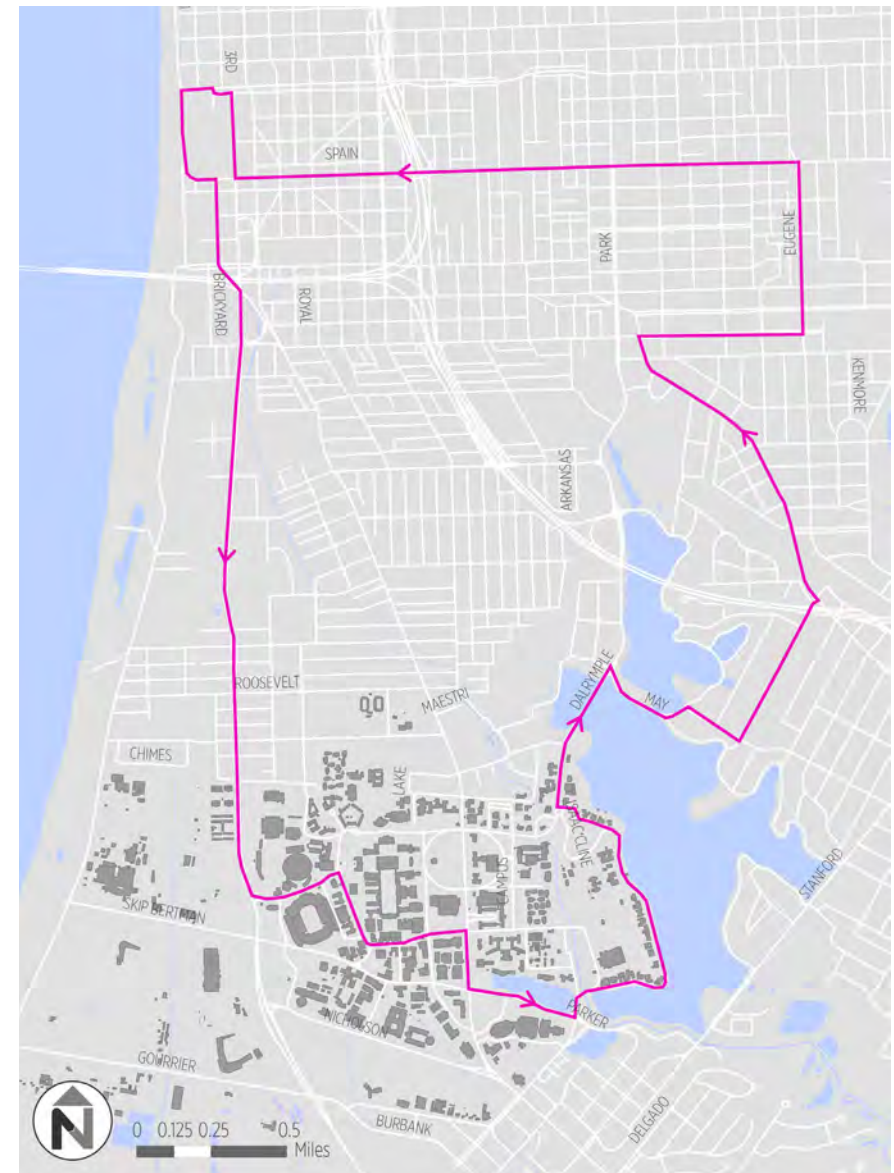
The Night B Route is a combination route that operates in place of Downtown-Vet, Garden District-Perkins, and Gold routes on weekday evenings and Saturdays. The route connects LSU's main campus to downtown Baton Rouge, off-campus apartment complexes, and retail areas north of campus (see figure at right). Key destinations served by the route include the Vet School, Nicholson-Aster, and the State Capitol.

Night B service is available on Monday through Wednesday from 6 pm to midnight and Thursday through Saturday from 6 pm to 3 am during the fall and spring semesters. Buses depart the School of Journalism every 60 minutes (see Figure 1). Night B service does not operate on Sundays.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	6:00 p.m. – 12:00 a.m.	60	9
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. – 9:00 a.m.	-	-
Midday	9:00 a.m. – 3:00 p.m.	-	-
PM Peak	3:00 p.m. – 6:00 p.m.	-	-
Evening/Night	6:00 p.m. and later	60	9
Saturdays	6:00 p.m. – 3:00 a.m.	60	9
Sundays	-	-	-

Figure 2 Route Map – Fall 2015



RIDERSHIP

The most heavily used stops on Night B on weekdays are the School of Journalism and Eugene at Government (see Figures 3 and 4). Night B ridership is generally very low on weekdays, with no trips carrying more than 10 passengers and only one trip with a load of more than 5 passengers (see Figure 5), suggesting that overcrowding is not an issue for the Night B route. Maximum loads are a measure of the greatest number of people on the bus at one time.

Figure 3 Weekday Ridership by Stop Map

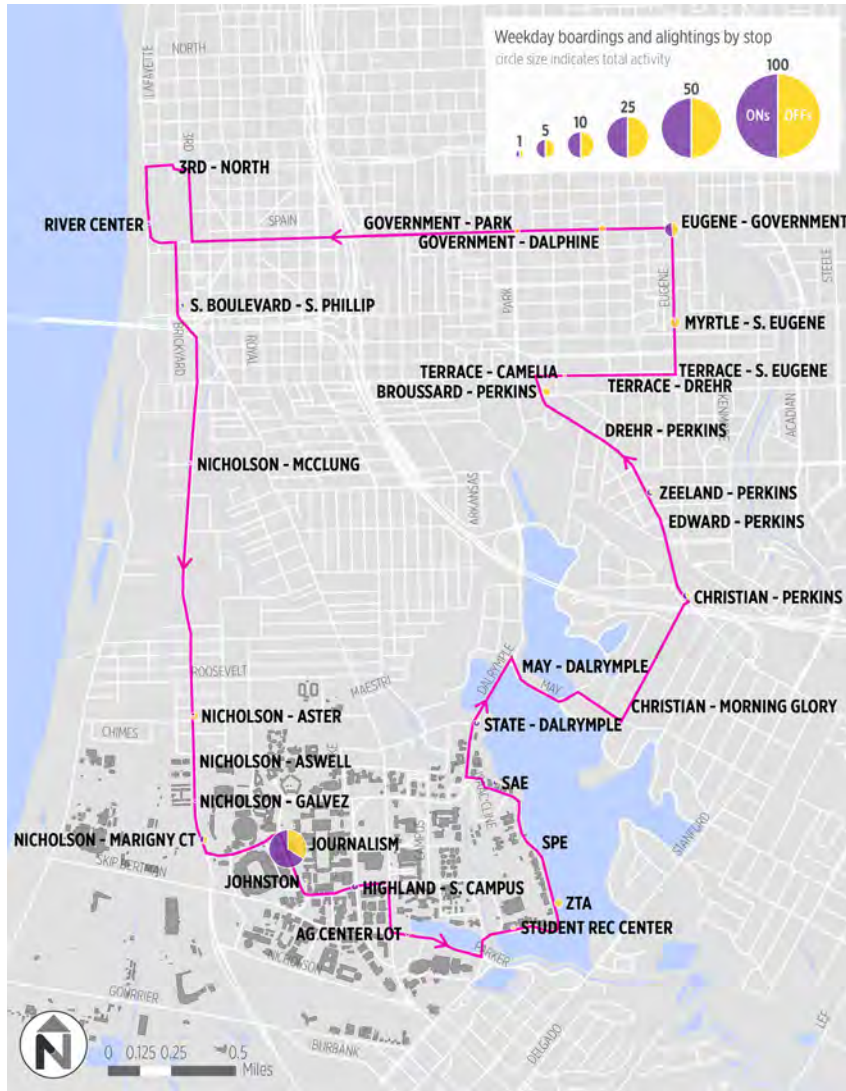


Figure 4 Weekday Ridership by Stop

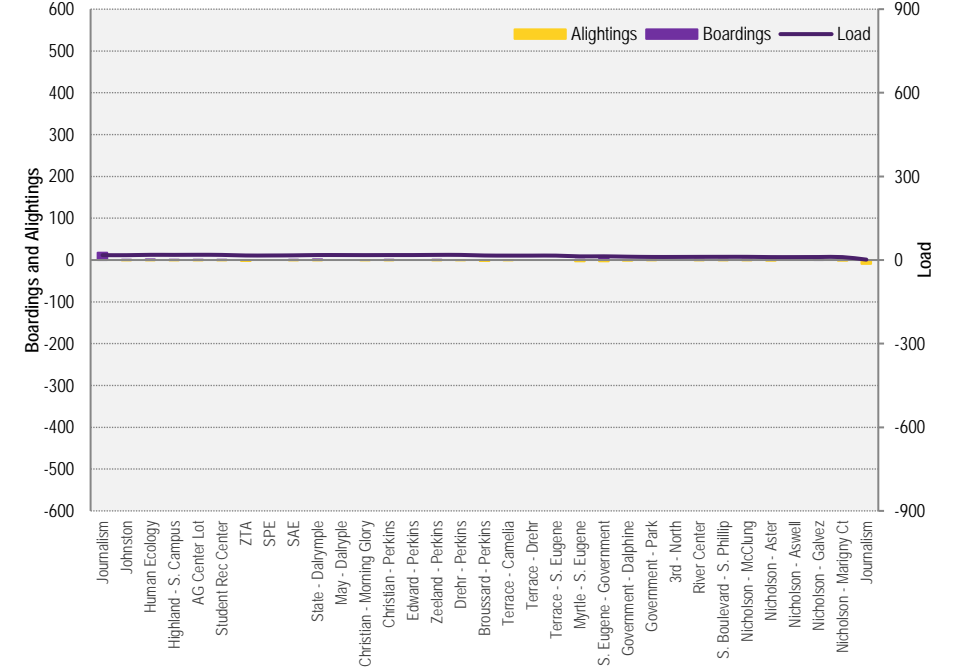
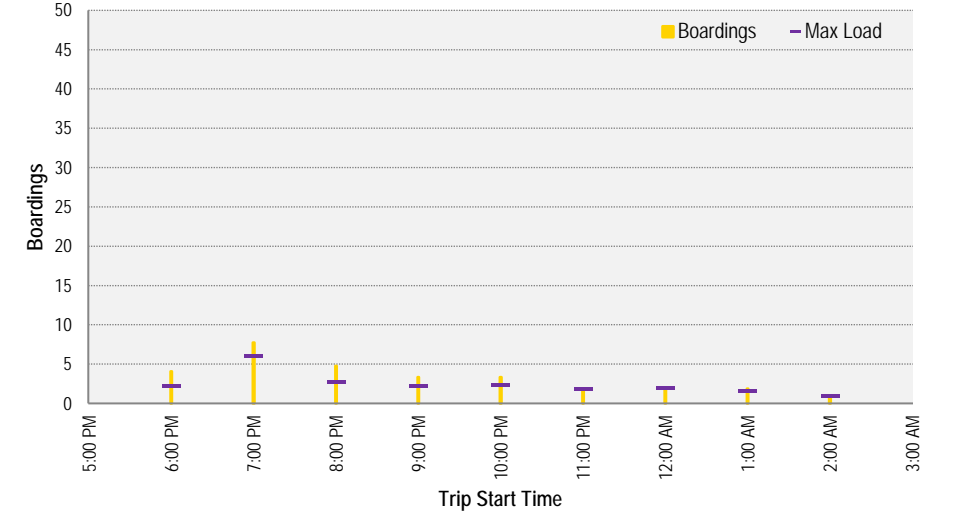


Figure 5 Weekday Ridership by Trip



Saturday ridership is very low throughout the evening, with only one trip carrying more than 10 passengers and the majority of trips carrying less than 5 passengers. The heaviest used stops on Saturday include the School of Journalism and 3rd at North.

Figure 6 Saturday Ridership by Stop Map

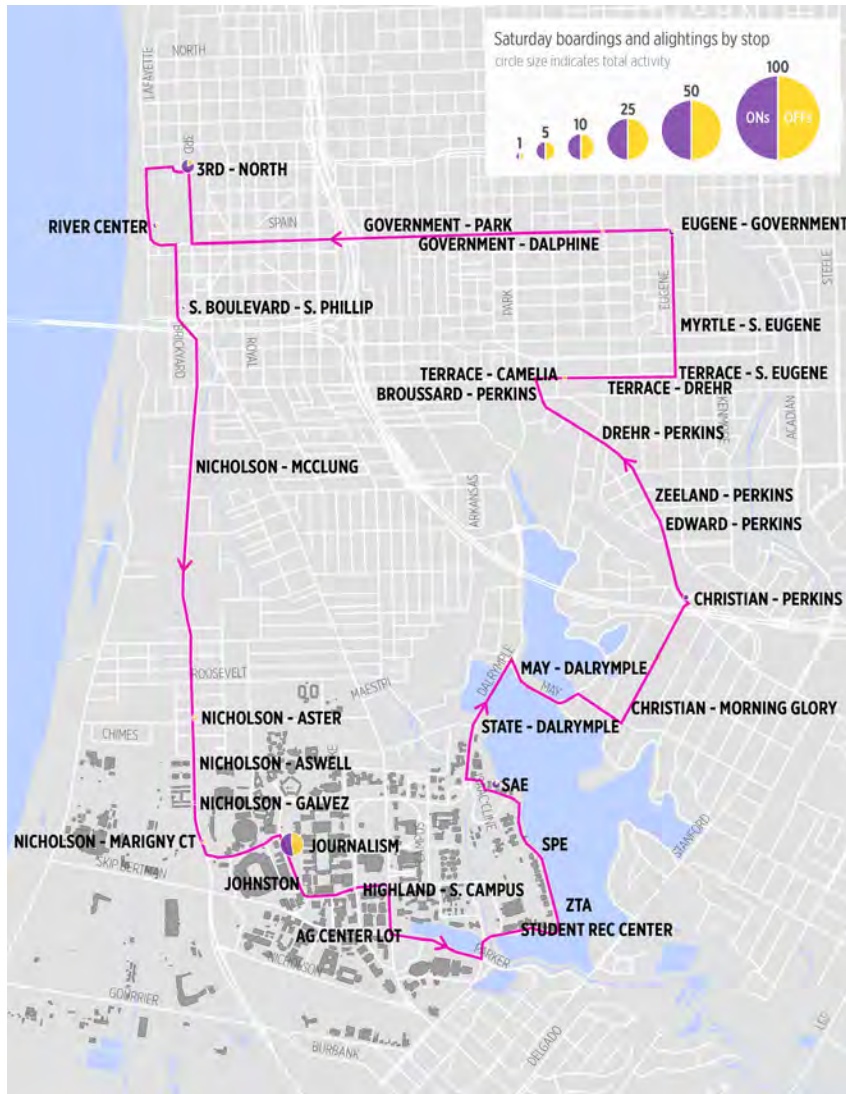


Figure 7 Saturday Ridership by Stop

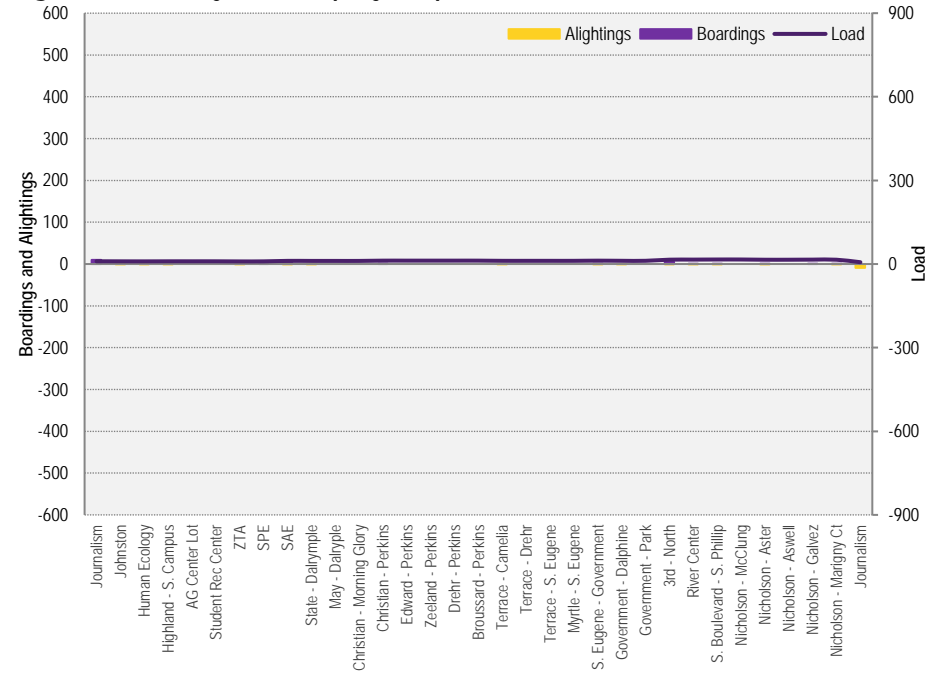
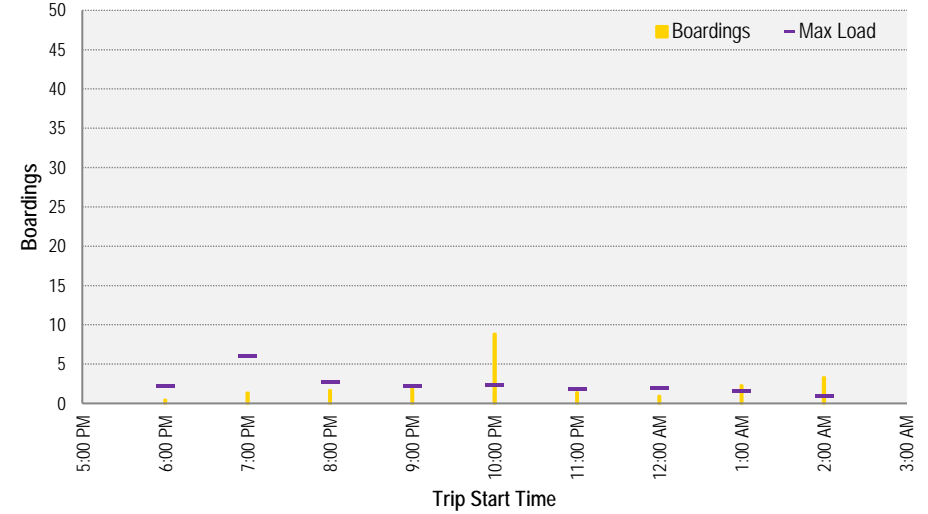


Figure 8 Saturday Ridership by Trip



PRODUCTIVITY

The Night B route carries approximately 30 passengers on a typical weekday, or about 3.3 passengers per round trip (see Figure 9). Compared to other Tiger Trails routes, the Night B Route has the lowest weekday ridership per service hour and the lowest weekday ridership per round trip (see Figures 10 and 11). On Saturday, Night B carries approximately 22 passengers, or 3.7 passengers per hour and 2.5 passengers per round trip.

Figure 9 Performance Measures*

	Weekday	
	Route	System Average
Ridership	30	743
Riders per Vehicle Service Hour	5.0	34.4
Riders per Round Trip	3.3	17.2

Figure 10 Weekday Passengers per Service Hour*

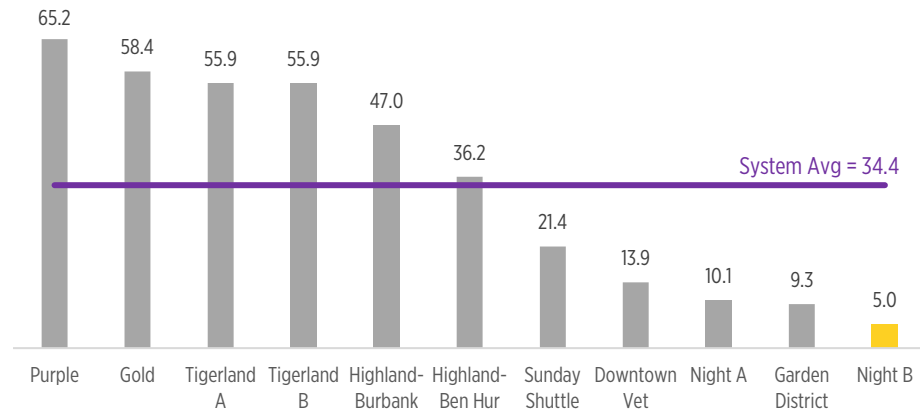
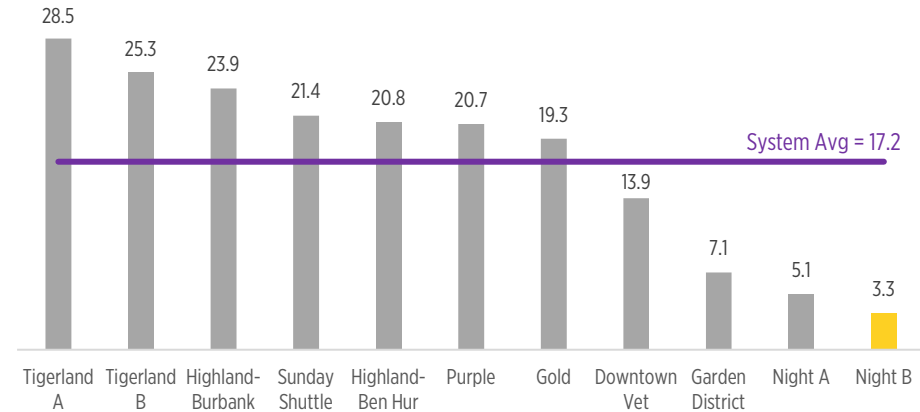


Figure 11 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides 20-minute service frequency to housing located north of campus and to downtown Baton Rouge
- Easy-to-remember clockface frequency

WEAKNESSES:

- Very low ridership on weekdays and Saturdays
- Long stretches of weak ridership along the majority of the route
- Multiple large one-way loops force out-of-direction travel for nearly all passengers
- Relatively low ridership and poor productivity

OPPORTUNITIES:

- Most stops on the Night B route serve little or no passenger activity on weekdays and Saturdays. The ridership on the route may be more efficiently served by demand response service.

» **RECONFIGURE TO PROVIDE BI-DIRECTIONAL SERVICE, WHICH IMPROVES THE USER EXPERIENCE AND COULD SPUR ADDITIONAL RIDERSHIP**

SERVICE DESIGN

The Purple Union route is a campus circulator route that connects academic and residential areas of LSU’s campus (see figure at right). Most core academic buildings and many residence halls are within a short walking distance to the Purple Union route. Greek housing along Lakeshore Drive is also directly served, as is the LSU Student Union. The Purple Union route is one of three circulators that serve LSU’s core campus area. While the Purple Union route cuts through campus to serve the area south of the Parade Grounds, the Purple and Gold routes navigate a wider circle around campus, remaining on Dalrymple Drive north of the Parade Grounds before returning to their starting point at the School of Journalism.

Purple Union service is available on weekdays from 7:00 am to 6:00 pm during the fall and spring semesters. Buses depart the School of Journalism every 15 minutes (see Figure 1). Purple Union service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. - 6:00 p.m.	15	62
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. - 9:00 a.m.	15	13
Midday	9:00 a.m. - 3:00 p.m.	15	36
PM Peak	3:00 p.m. - 6:00 p.m.	15	13
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map - Fall 2015



RIDERSHIP

The most heavily used stops on Purple Union are the School of Journalism, Dairy Science, Life Sciences, and the stops for Greek housing along Lakeshore Drive (see Figures 3 and 4). Ridership on Purple Union fluctuates somewhat throughout the day but is strongest between the mid-morning and early afternoon hours, from about 9:30 AM to 1:30 PM, with spikes in ridership continuing until about 2:30 PM. During this time, most trips carry at least 20 passengers and often over 25. This pattern is typical for a university circulator that primarily serves to take students between their residences and class. Just one trip on the Purple Union route had a maximum load of 25 passengers or more, suggesting that overcrowding is not an issue for the route. Maximum loads are a measure of the greatest number of people on the bus at one time.

Figure 3 Weekday Ridership by Stop Map

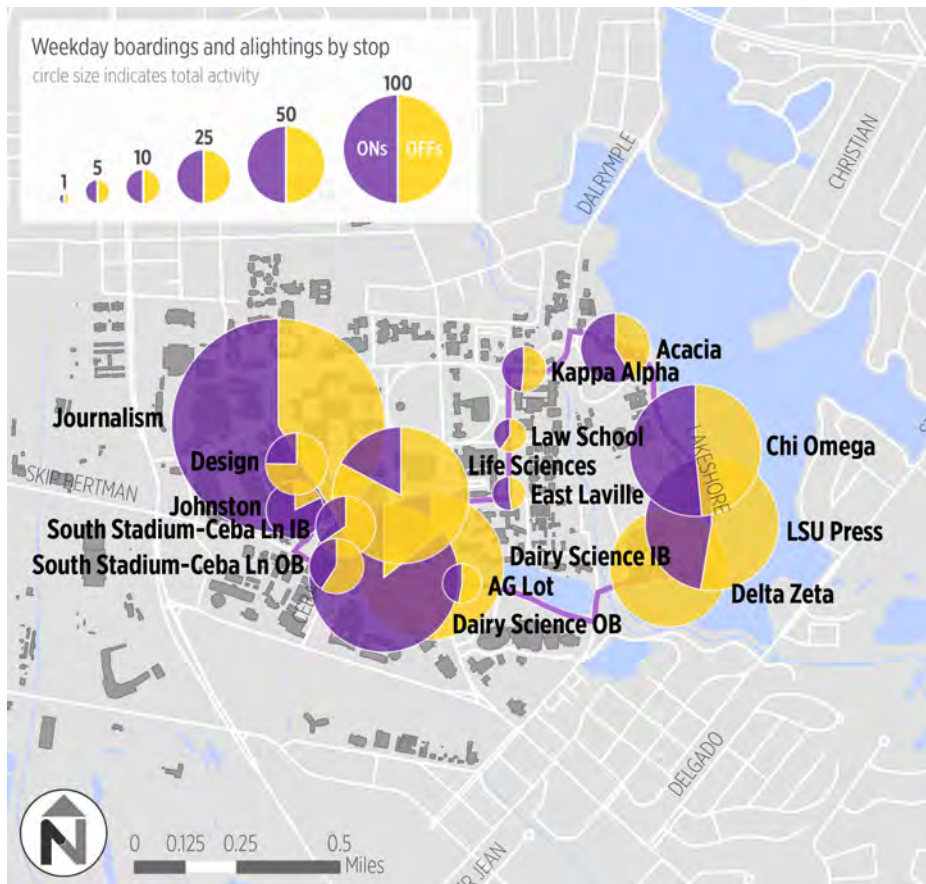


Figure 4 Weekday Ridership by Stop

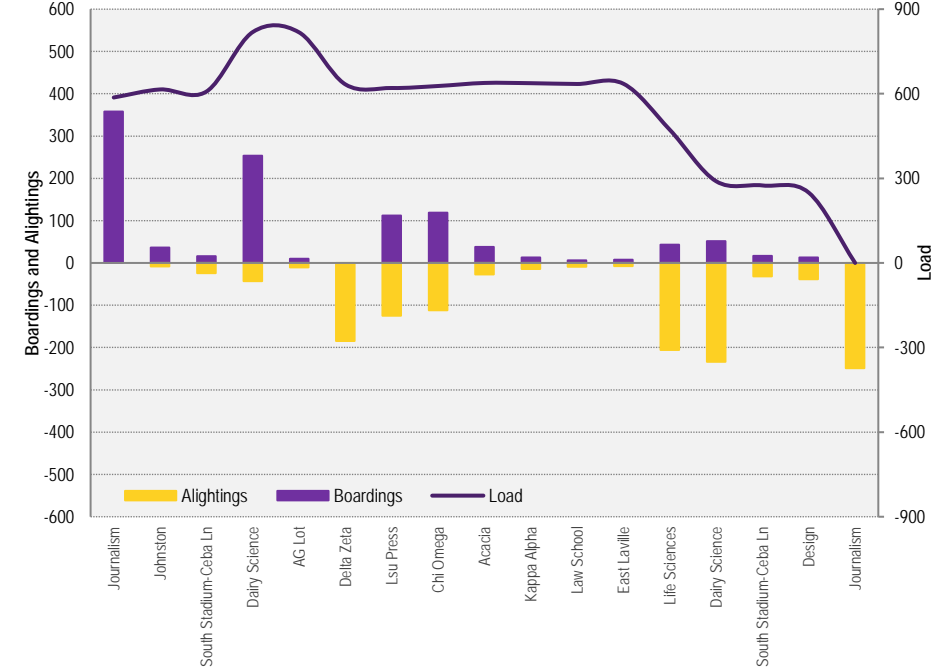
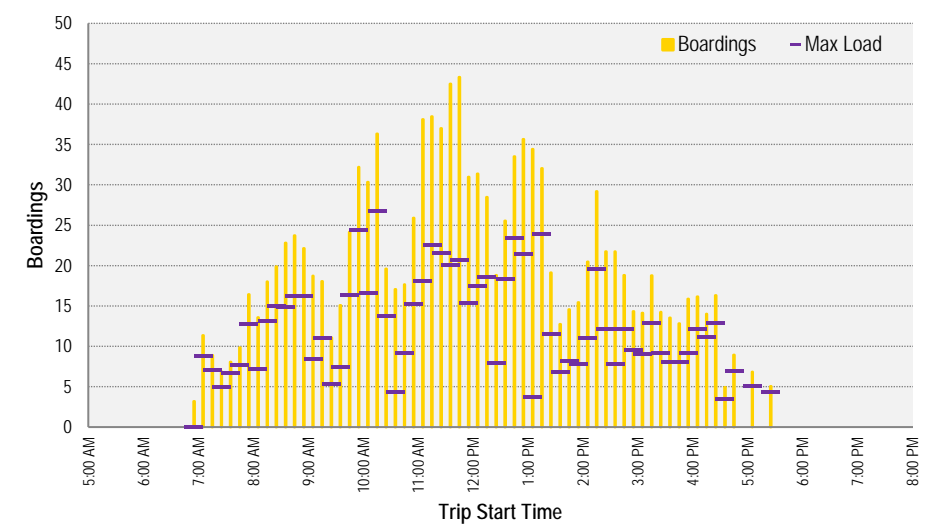


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Purple Union route carries approximately 1,270 passengers on a typical weekday, or about 20.7 passengers per round trip (see Figure 6). Compared to other Tiger Trails routes, Purple Union has the highest ridership per service hour and the 6th highest ridership per round trip (see Figures 7 and 8). The high ridership per service hour and relatively lower ridership per trip suggests that the frequency or number of service hours may be too high.

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	1,270	743
Riders per Vehicle Service Hour	65.2	34.4
Riders per Round Trip	20.7	17.2

Figure 7 Weekday Passengers per Service Hour*

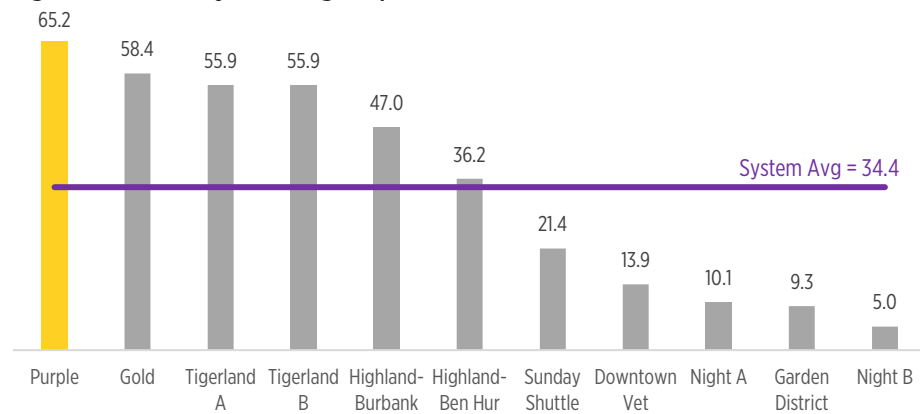
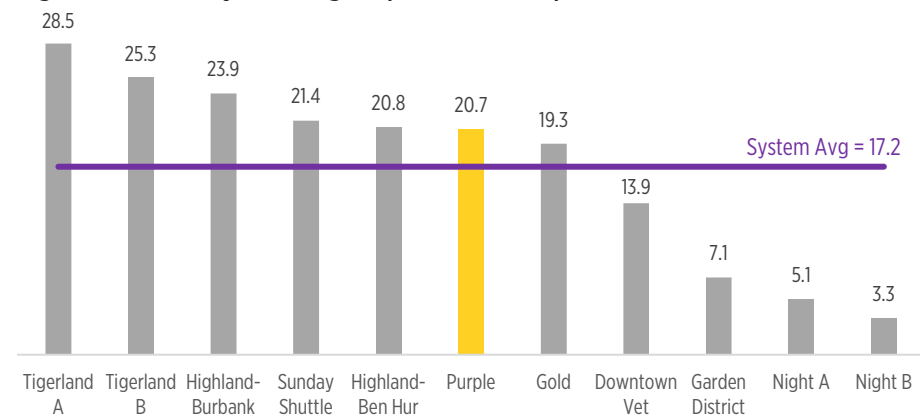


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Provides frequent service to residence halls, Greek housing, and most academic areas of campus
- Very strong ridership in the mid-morning and early afternoon
- Above average performance per service hour

WEAKNESSES:

- Weaker ridership along E. Campus Drive
- One-way service alignment forces out-of-direction travel for some riders; riders on the edges of campus can travel in the opposite direction via the Gold route
- Faces competition for riders from other routes

OPPORTUNITIES:

- Purple Union could be reconfigured to provide bi-directional service along its entire alignment, which would make the service easier to use and understand for students. Simpler, more direct service may also attract new users to Tiger Trails.
- Improving the branding of the Purple, Gold, and Purple Union routes to clarify how these three routes operate together but differently may help new users understand the system quicker and make the system more legible overall

SUNDAY SHUTTLE

» **SPLIT ROUTE INTO TWO BI-DIRECTIONAL ROUTES, WHICH IMPROVES THE USER EXPERIENCE AND COULD SPUR ADDITIONAL RIDERSHIP**

SERVICE DESIGN

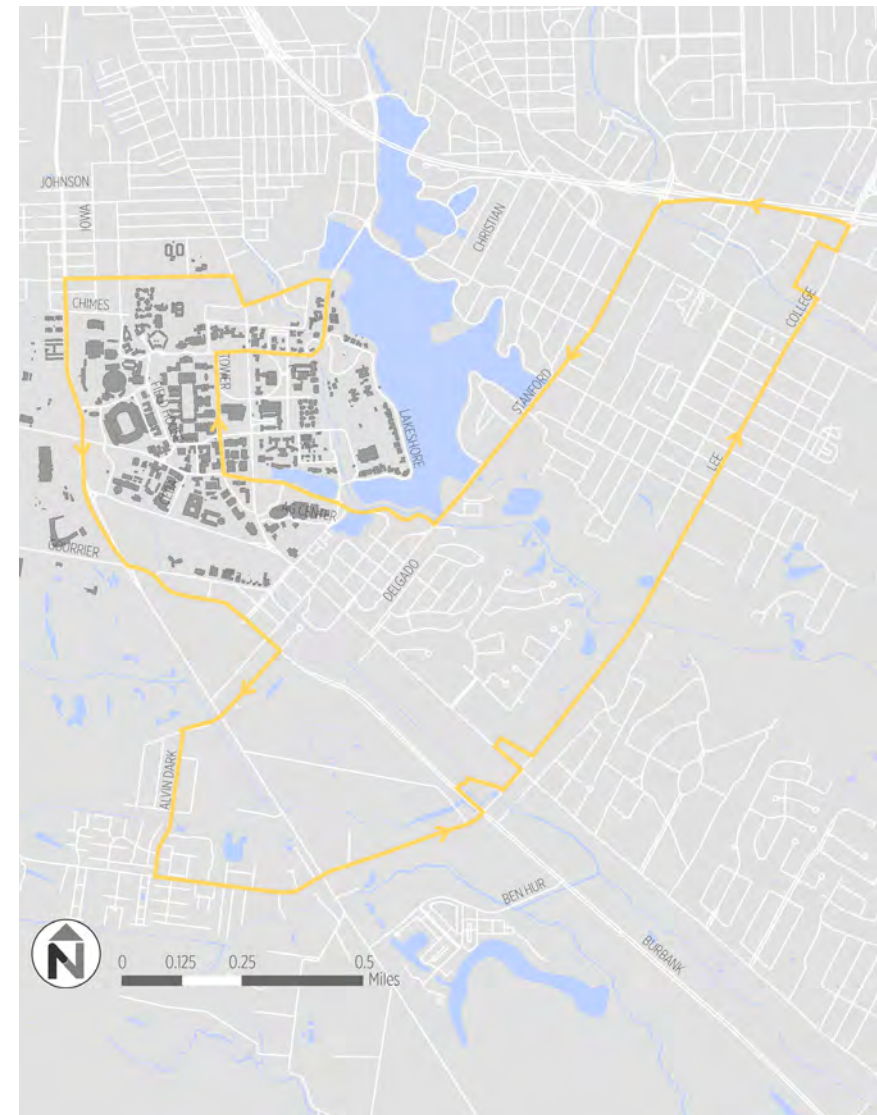
The Sunday Shuttle route is a circulator route that connects LSU's main campus to off-campus apartment complexes and retail areas south of campus (see figure at right). Key destinations served by the route include the LSU Student Union, Tiger Stadium, University Crescent Apartments, the Burbank Terrace Shopping Center, the Village Square Shopping Center/Walmart Supercenter, and Crescent at University Lake.

Sunday Shuttle service is available on weekdays from 1:00 pm to 5:00 pm throughout the year. Buses depart Bernie Moore every hour (see Figure 1). Sunday Shuttle service does not operate on weekdays or Saturdays.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. - 6:00 p.m.	-	-
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. - 9:00 a.m.	-	-
Midday	9:00 a.m. - 3:00 p.m.	-	-
PM Peak	3:00 p.m. - 6:00 p.m.	-	-
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	1:00 p.m - 5:00 p.m.	60	4

Figure 2 Route Map - Fall 2015



RIDERSHIP

The most heavily used stops on Sunday Shuttle are Bernie Moore, Walmart, and Band Practice (see Figures 3 and 4). Ridership on the Sunday Shuttle is highest at 1 pm and decreases slightly every hour. No trips have a load greater than 25 passengers, suggesting that overcrowding is not an issue for the Sunday Shuttle route. Maximum loads are a measure of the greatest number of people on the bus at one time.

Figure 3 Sunday Ridership by Stop Map

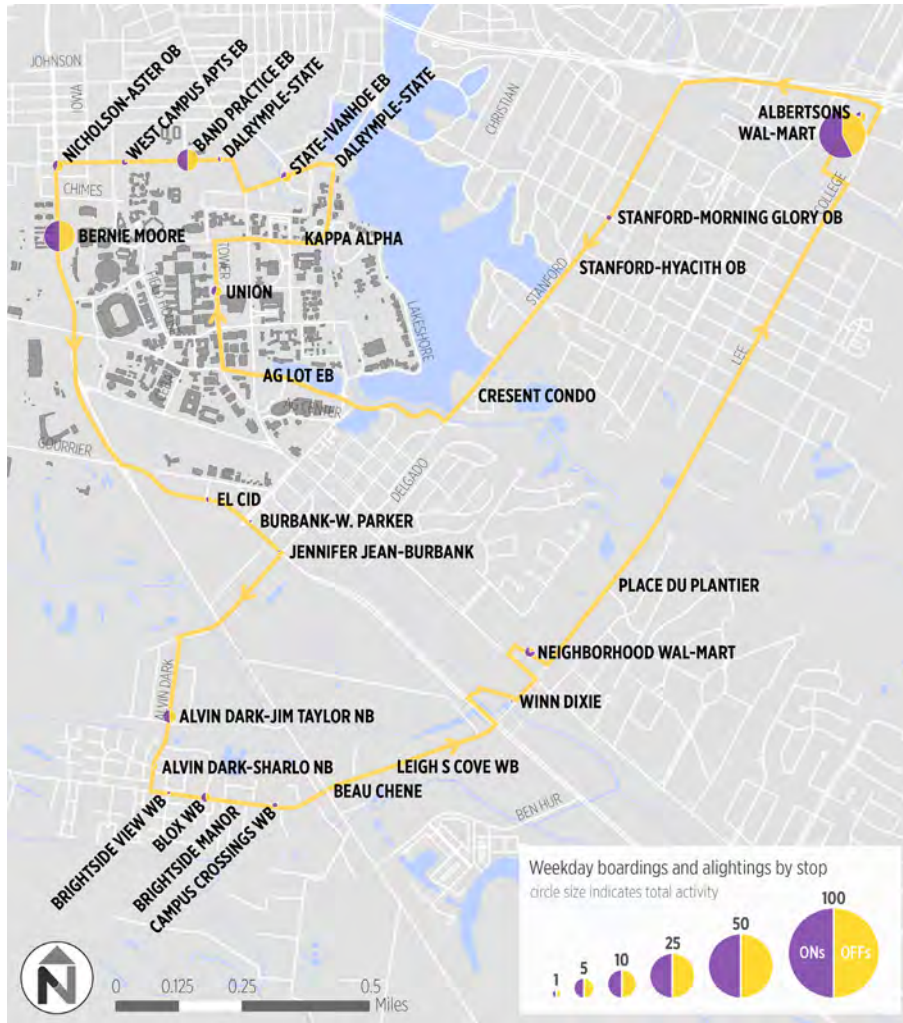


Figure 4 Sunday Ridership by Stop

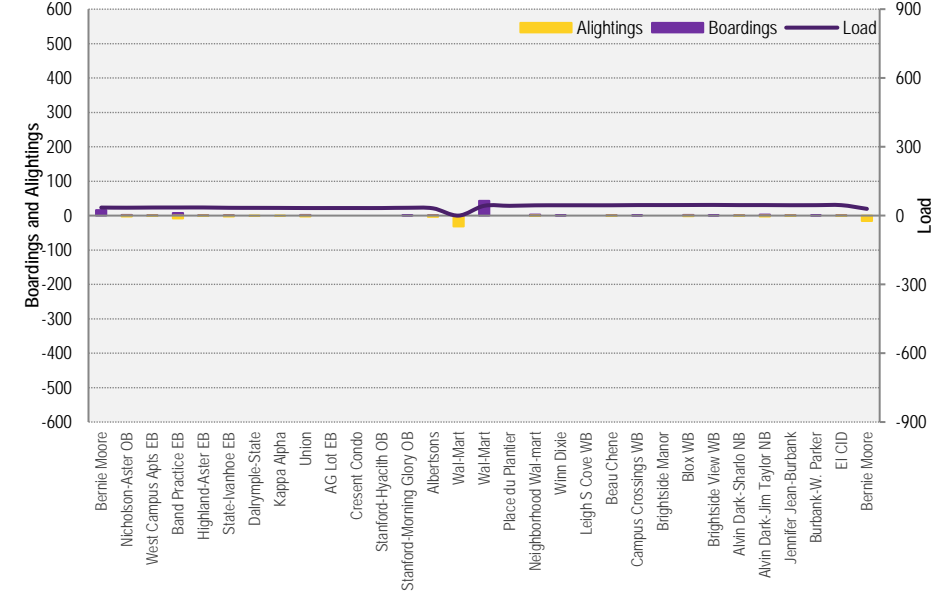
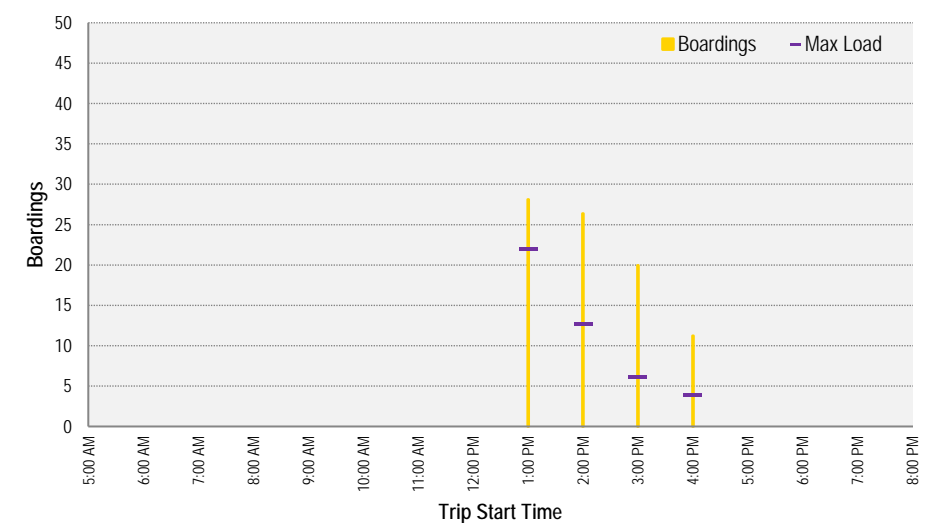


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Sunday Shuttle route carries approximately 86 passengers on a typical Sunday, or about 21.4 passengers per round trip (see Figure 6). The Sunday Shuttle is the only Tiger Trails that runs on Sundays. Compared to other Tiger Trails routes, the Sunday Shuttle has the 7th highest ridership per service hour as compared to weekday routes and the 4th highest ridership per round trip as compared to weekday routes (see Figures 7 and 8).

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	86	727
Riders per Vehicle Service Hour	21.4	34.4
Riders per Round Trip	21.4	17.2

Figure 7 Weekday Passengers per Service Hour*

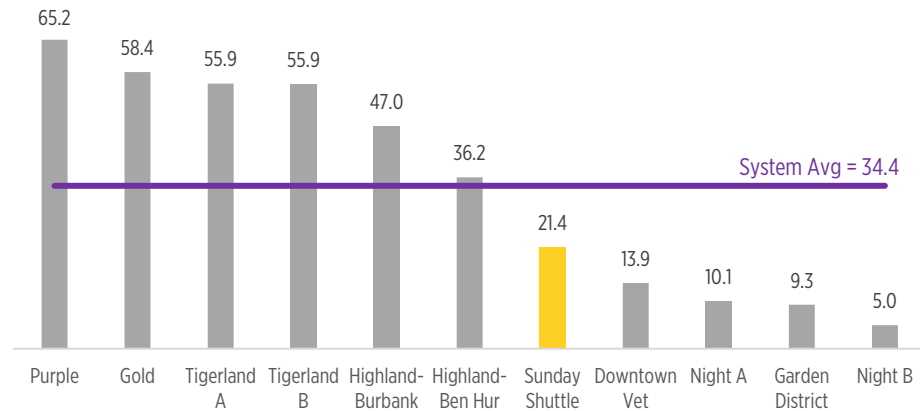
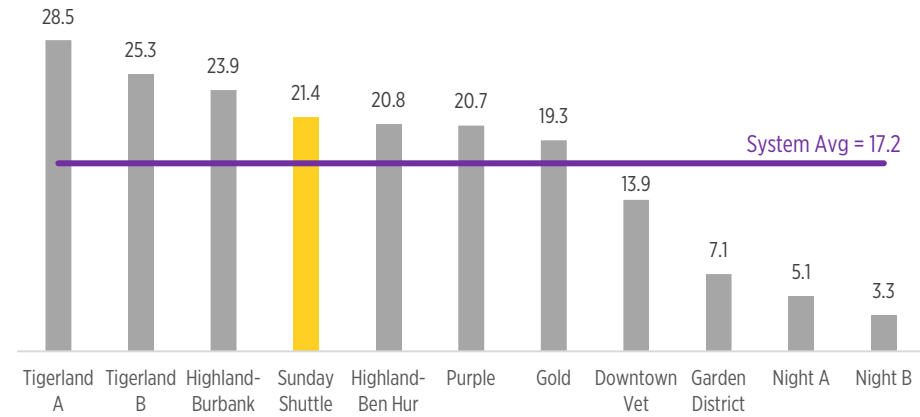


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Easy-to-remember clockface frequency

WEAKNESSES:

- Large one-way loop forces out-of-direction travel for nearly all passengers
- Long stretches of weak ridership along the majority of the route

OPPORTUNITIES:

- Split route into two bi-directional routes that provide service between Bernie Moore and Albertsons-Walmart. This would improve service for riders by reducing out-of-direction travel and providing more direct and convenient service for riders.

» **RECONFIGURE TO PROVIDE BI-DIRECTIONAL SERVICE, WHICH IMPROVES THE USER EXPERIENCE AND COULD POTENTIALLY SPUR ADDITIONAL RIDERSHIP**

SERVICE DESIGN

The Tigerland A Route is a radial route that connects LSU's main campus to off-campus apartment complexes and retail areas south of campus (see figure at right). Key destinations served by the route include the LSU Energy, Coast, and Environment Building, Southgate Towers Apartments, Tigerland Market, the Oakbrook Village Shopping Center, and Tiger Plaza Apartments. The service complements the Tigerland B route, which operates along the same alignment, but in the opposite direction on the terminal loop.

Tigerland A service is available on weekdays from 7:00 am to 6:00 pm during the fall and spring semesters. Buses depart the School of Journalism every 15 minutes (see Figure 1). Tigerland A service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. - 6:00 p.m.	15	58
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. - 9:00 a.m.	15	10
Midday	9:00 a.m. - 3:00 p.m.	15	24
PM Peak	3:00 p.m. - 6:00 p.m.	15	24
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

Figure 2 Route Map - Fall 2015



RIDERSHIP

The most heavily used stops on Tigerland A are the School of Journalism, Campus Crossings, Brightside View, South Stadium/Ceba Lane IB, and Bob Pettit-Alvin Dark (see Figures 3 and 4). Ridership on Tigerland A is high throughout the service day, with peaks in the morning between 8:00 and 9:00 AM, around lunchtime, and again between 4:30 and 5:00 PM. Most round trips carry more than 25 passengers per trip, and five trips had a load of 30 passengers or more. These trips all occur in the morning, suggesting that overcrowding may be an issue for the Tigerland A route during that time period.

Figure 3 Weekday Ridership by Stop Map

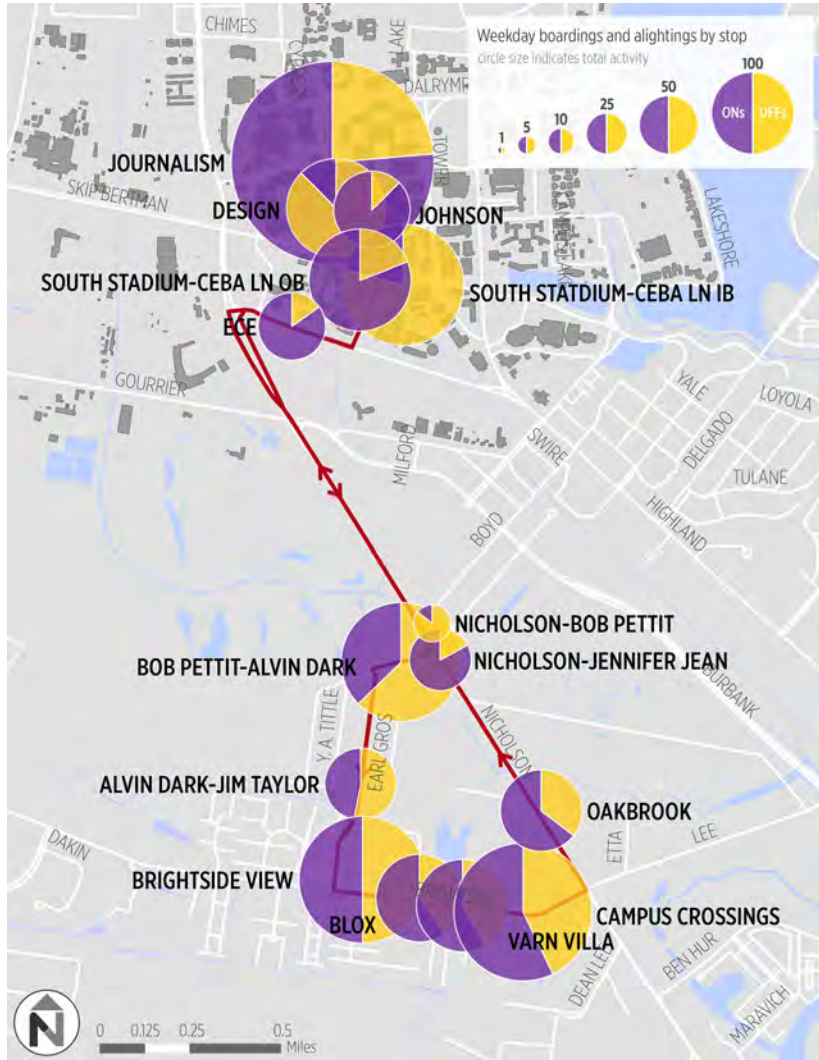


Figure 4 Weekday Ridership by Stop

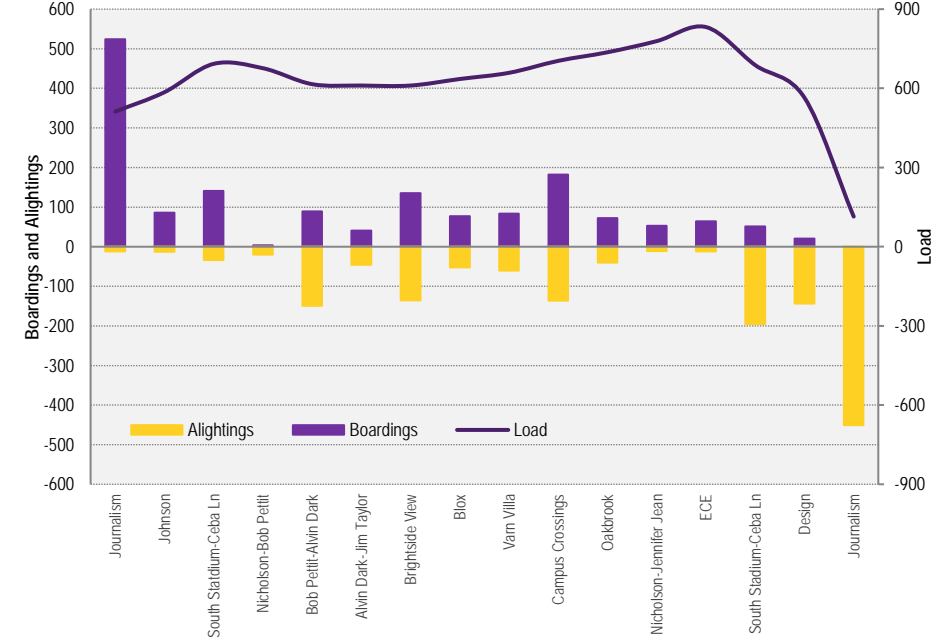
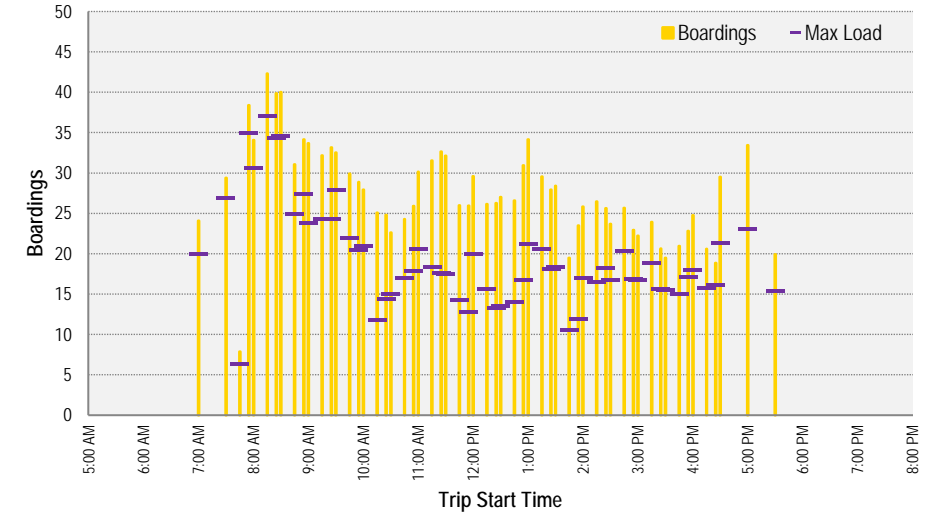


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Tigerland A Route carries approximately 1,622 passengers on a typical weekday, or about 28.5 passengers per round trip (see Figure 6). Compared to other Tiger Trails routes, the Tigerland A Route has the 3rd highest ridership per service hour on weekdays and the highest weekday ridership per round trip (see Figures 7 and 8).

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	1,622	743
Riders per Vehicle Service Hour	55.9	34.4
Riders per Round Trip	28.5	17.2

Figure 7 Weekday Passengers per Service Hour*

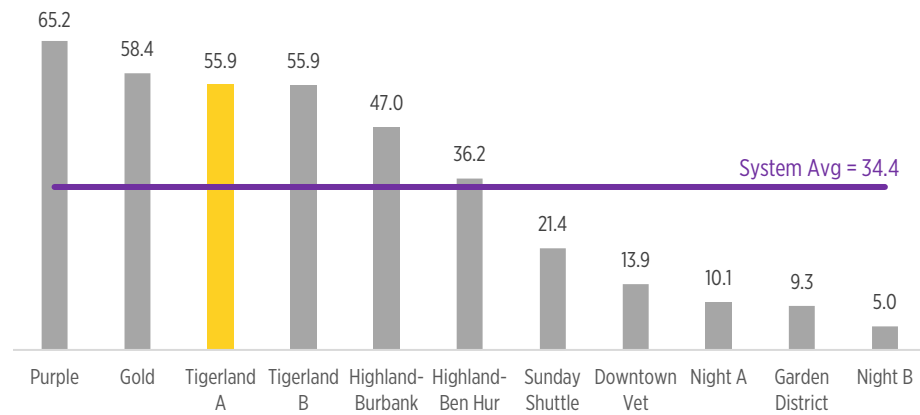
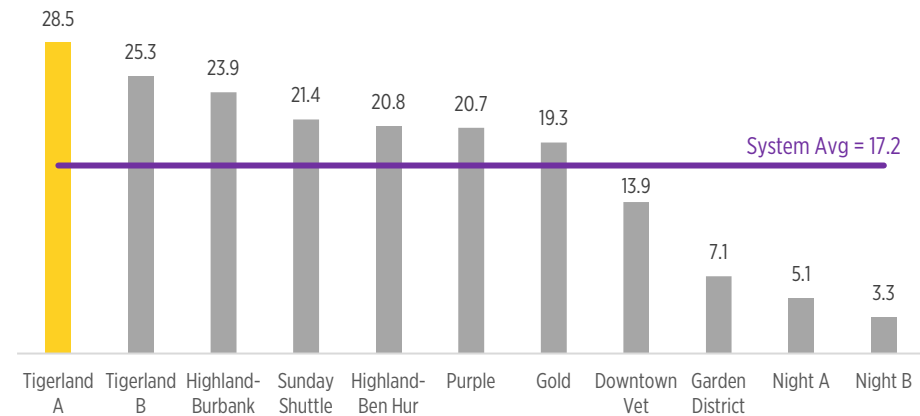


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Frequent service between University and housing and retail locations south of campus
- Strong anchors
- Consistently high ridership per trip
- Easy-to-remember clockface frequency

WEAKNESSES:

- Some redundancy with other routes due to roadway configurations
- Faces competition for riders from other routes

OPPORTUNITIES:

- Opportunities to improve Tigerland A are partly dependent on changes to other routes along Nicholson Drive. If Tigerland B, Burbank Ben-Hur or Nicholson Ben-Hur service is reconfigured in a way that eliminates service along Nicholson Drive, then ridership may shift to Tigerland A.

» **RECONFIGURE TO PROVIDE BI-DIRECTIONAL SERVICE, WHICH IMPROVES THE USER EXPERIENCE AND COULD POTENTIALLY SPUR ADDITIONAL RIDERSHIP**

SERVICE DESIGN

The Tigerland B Route is a radial route that connects LSU’s main campus to off-campus apartment complexes and retail areas south of campus (see figure at right). Key destinations served by the route include the LSU Energy, Coast, and Environment Building, Southgate Towers Apartments, Tigerland Market, the Oakbrook Village Shopping Center, and Tiger Plaza Apartments. The service complements the Tigerland A route, which operates along the same alignment, but in the opposite direction on the terminal loop.

Tigerland B service is available on weekdays from 7:00 am to 6:00 pm during the fall and spring semesters. Buses depart the School of Journalism every 15 minutes (see Figure 1). Tigerland B service does not operate on weekends.

Figure 1 Schedule Overview

	Span of Service	Typical Headway (mins)	Round Trips
Weekdays	7:00 a.m. - 6:00 p.m.	15	44
Early AM	before 7:00 a.m.	-	-
AM Peak	7:00 a.m. - 9:00 a.m.	15	9
Midday	9:00 a.m. - 3:00 p.m.	15	24
PM Peak	3:00 p.m. - 6:00 p.m.	15	11*
Evening/Night	6:00 p.m. and later	-	-
Saturdays	-	-	-
Sundays	-	-	-

*The final trip in the evening is a partial trip that ends at 6:15pm.

Figure 2 Route Map - Fall 2015



RIDERSHIP

The most heavily used stops on Tigerland B are the School of Journalism, South Stadium/Ceba Lane IB, and Campus Crossings (see Figures 3 and 4). Ridership on Tigerland B is relatively high throughout the service day, with most round trips carrying more than 20 passengers per trip (see Figure 5). Only two trips had a load of 30 passengers or more, suggesting that overcrowding is not an issue for the Tigerland B route. Maximum loads are a measure of the greatest number of people on the bus at one time.

Figure 3 Weekday Ridership by Stop Map

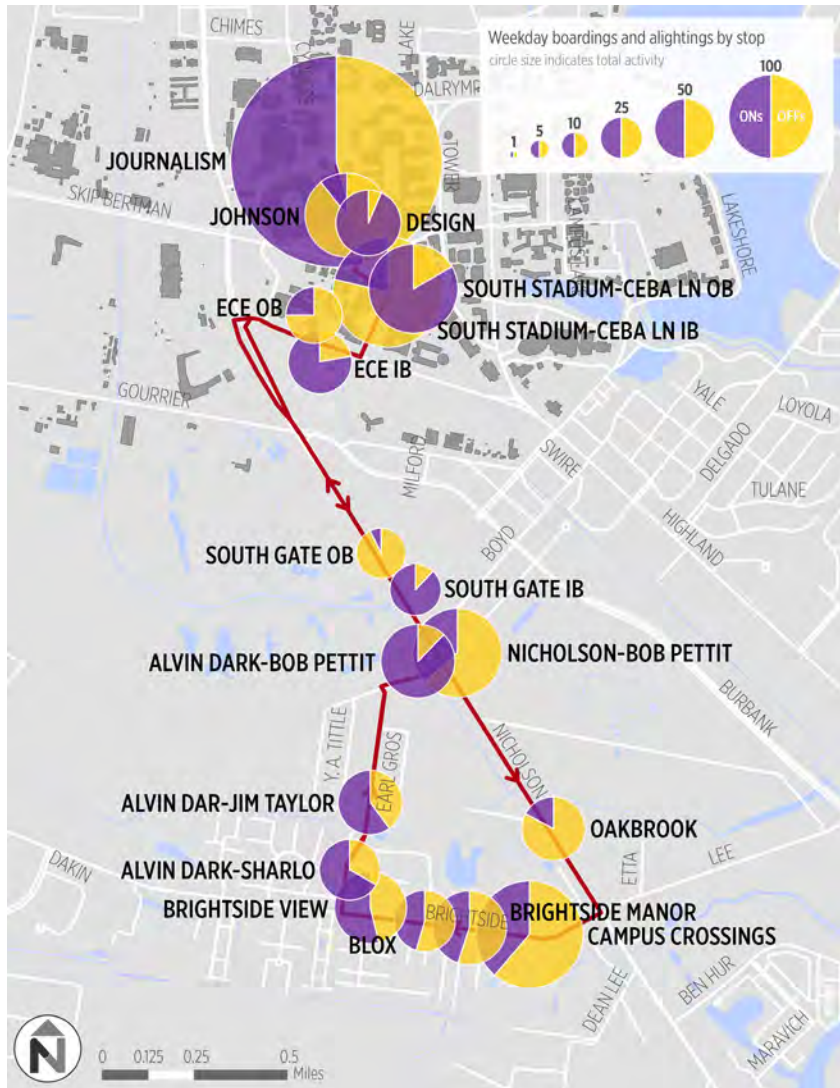


Figure 4 Weekday Ridership by Stop

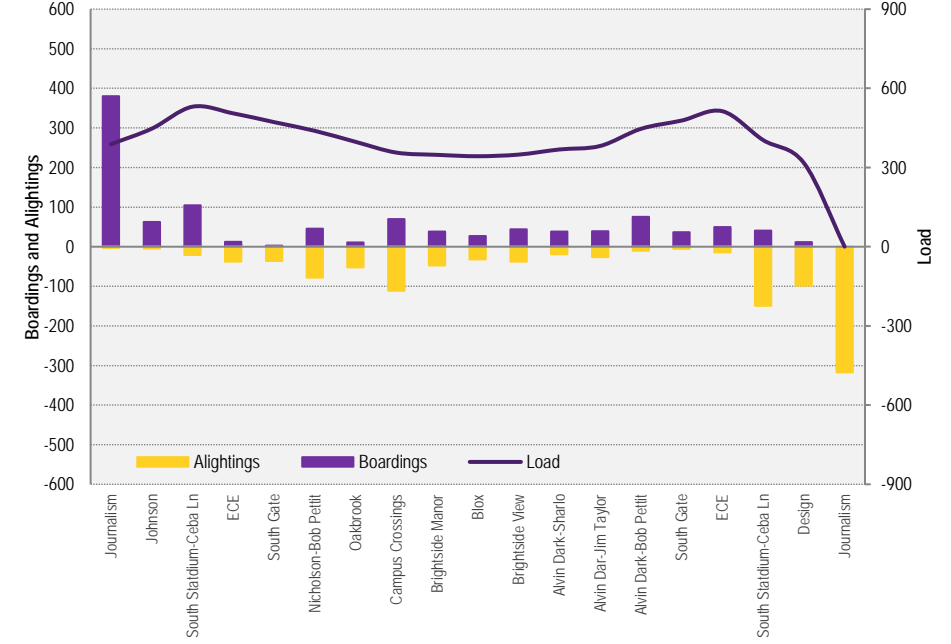
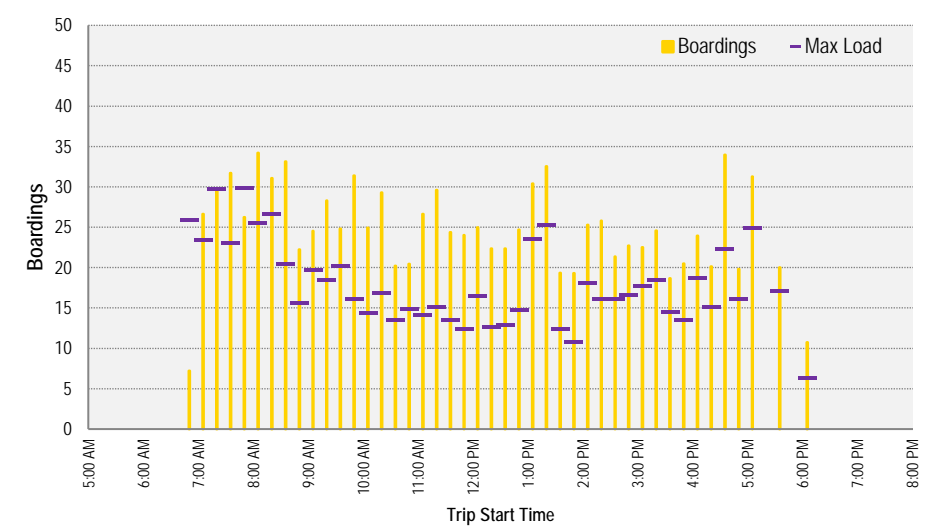


Figure 5 Weekday Ridership by Trip



PRODUCTIVITY

The Tigerland B Route carries approximately 1,090 passengers on a typical weekday, or about 25.3 passengers per round trip (see Figure 6). Compared to other Tiger Trails routes, the Tigerland B Route has the 4th highest ridership per service hour on weekdays and the 2nd highest weekday ridership per round trip (see Figures 7 and 8).

Figure 6 Performance Measures*

	Weekday	
	Route	System Average
Ridership	1,090	743
Riders per Vehicle Service Hour	55.9	34.4
Riders per Round Trip	25.3	17.2

Figure 7 Weekday Passengers per Service Hour*

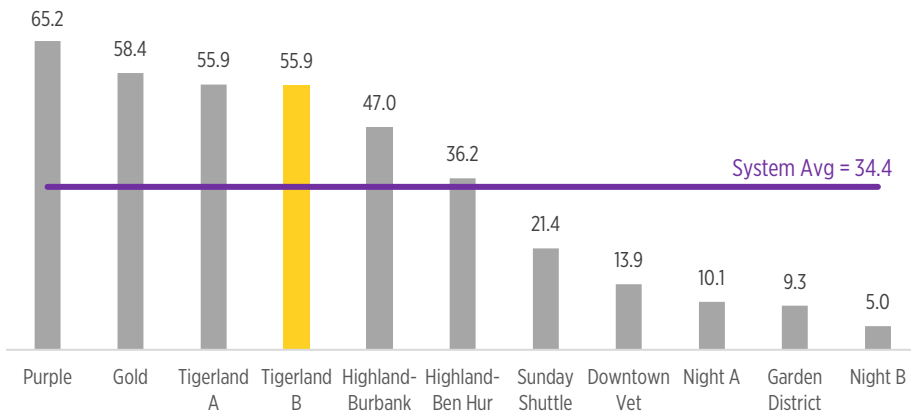
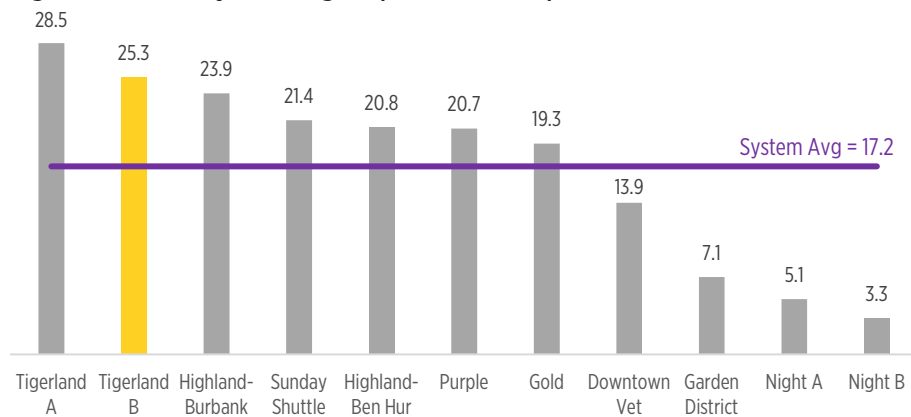


Figure 8 Weekday Passengers per Round Trip*



*Calculated based on average daily ridership and scheduled trip data

CONCLUSIONS

STRENGTHS:

- Frequent service between University and housing and retail locations south of campus
- Strong anchors
- Consistently high ridership per trip
- Easy-to-remember clockface frequency

WEAKNESSES:

- Some redundancy with other routes due to roadway configurations
- Faces competition for riders from other routes

OPPORTUNITIES:

- Opportunities to improve Tigerland B are partly dependent on changes to other routes along Nicholson Drive. If Tigerland A, Burbank Ben-Hur or Nicholson Ben-Hur service is reconfigured in a way that eliminates service along Nicholson Drive, then ridership may shift to Tigerland B.