

Parking & Transportation Study Preliminary Findings

February 2021



Consulting Project Overview

Consultant - Kimley-Horn

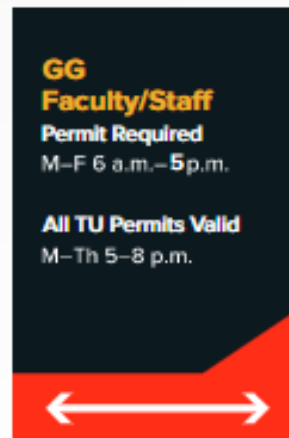
- Nationally renowned planning, engineering and design consulting firm
- Recognized leader in parking and mobility consulting services
- Project manager – Michael Conner has 30+ years of higher-education consulting experience
- Engaged to review programs, gather feedback from the campus community and provide recommendations regarding policies and operational approaches

Parking Review

- **Space** utilization and **allocations**
- **Rate** structures
- **Operational** approaches

Transportation Review

- **Approaches** to routes
- Service **areas** and **levels**
- **Operational** approaches



Operational Review – Why?

Enrollment Growth



Sensitivity to

- Equitable rate structure
- Lack of low cost parking



New Construction



Is the shuttle meeting community needs?



Initial Findings - Parking

- **Ample** parking is available to meet campus demand
- Student **commuter** parking approach **creates too much** demand in prime areas during peak times.
- Faculty/Staff rates **lack consistent variance** between tiers
- **Shortage** of commercial drivers impacts consistency of services
- **Lack of knowledge** of shuttle apps hinders use of and confidence in the shuttle program
- Despite alternative transportation options, **few** take advantage of programs.



Next Steps

- Develop **final** recommendations for President's Cabinet based on campus feedback
- Determine **plan** for program changes based on desired priorities and goals
- Establish **roadmap** and **schedule** for implementation of program changes



Parking - Options

Allocation

- Group Affiliation* – Faculty/Staff, Student (Commuter or Resident), Visitor and Other
- Rate Structure – permit cost determines parking assignment
- Combination of above

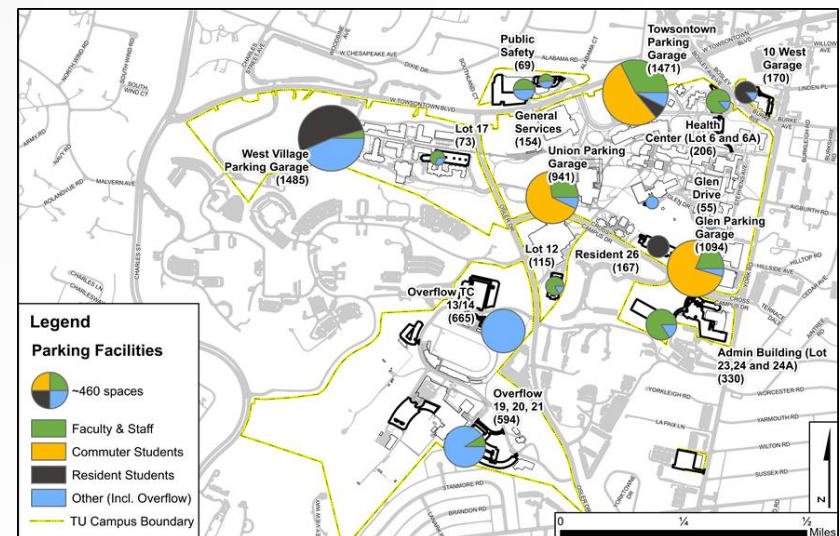
Rates

- Group Affiliation
- Compensation level F/S*
- Proximity
- Needs based
- Combination of above*

*Current TU approach

Flexibility

- Park Once– assigned to a particular area
- Multi-area access* – allows movement around campus



PEAK DEMAND SUMMARY

	Faculty/ Staff	Commuter Core	Resident	Visitors	Other	Total Campus Wide
% Occupied Space by Permit Type ¹	81%	124% ²	86%	25%	14% ³	74%

- Occurs Monday through Thursday around **1pm**
- “Core” commuter parking
 - **Excess demand** results in parkers having to **use remote** locations or **improperly** parking in other permit areas
- Over **1,000** spaces are **empty** across the campus at peak times
- Public **perception** is lots are **full**, once demand reaches **85%** capacity.

¹ - Demand is based on available spaces by permit type

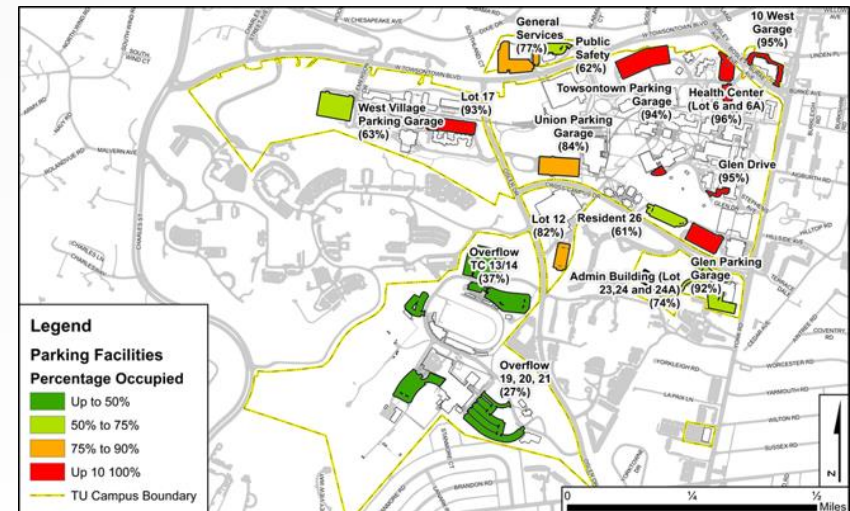
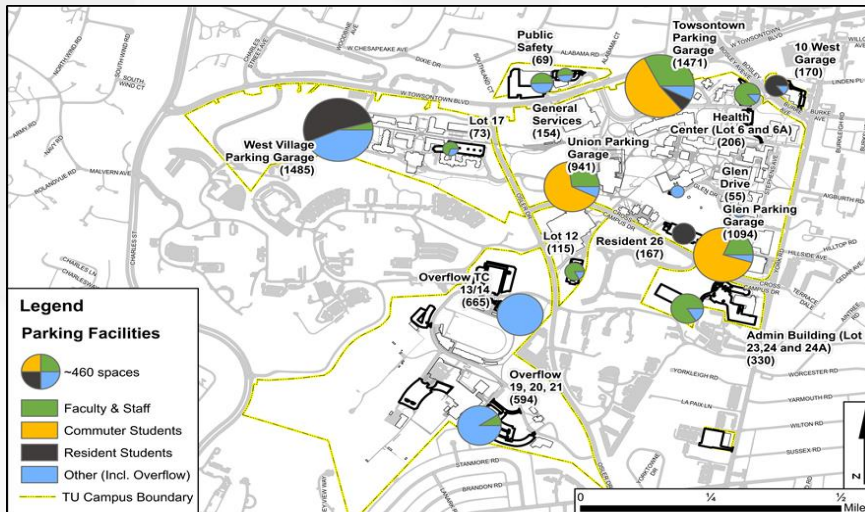
² - Includes those parked in overflow areas or in violation elsewhere

³ - Includes Overflow spaces at West Village & Athletic Precinct

Executive Summary - Allocations

Current approach allows significant flexibility while creating excess demand in prime areas.

- Most permits allow **flexibility** and are valid in multiple areas
- Approximately **450** permit holders are already **assigned** to **remote** areas.
- **No limits** on sales – eligibility requirements for permit types
- **Convenient** commuter areas are **full** at peak times
- **F/S** spaces can be **limited** at peak times
- Flexibility **creates** congestion, frustration and lost productivity



Executive Summary - Rates

Overall, rates appear to be:

- **Competitive** among peer institutions
- **Lower** compared to public uptown rates

No incentives/disincentives for:

- Parking remotely
- Utilizing alternative transportation options

Institution	Student Permits*		Faculty/Staff Permits*	
	Commuter Average	Resident Average	Min	Max
Towson University	\$370	\$370	\$148	\$1,257
University of Maryland College Park	\$336	\$650	\$494	\$986
University of Baltimore County	\$300	\$300	\$180	\$990
Univ. of North Carolina at Charlotte	\$353	\$320	\$360	\$480
James Madison University	\$300	\$300	\$55	\$590
George Mason University	\$255	\$260	\$110	\$400
University of Northern Florida	\$83	\$83	\$250	\$250
Univ. of Massachusetts Dartmouth	\$165	\$215	\$0	\$0
Eastern Michigan University	\$171	\$102	\$0	\$0

* Permit rates are annual



Institution	Employee Permits*	
	Min	Max
Towson University	\$142	\$1,216
Downtown Towson Parking Garages	\$1,116	\$1,176

Executive Summary – Rates Cont.

F/S permit rate structure has **inconsistent** transition between tiers

Tier	Rate	% Increase From Prior Tier
Regular & Contingent F/S Annual \$15K to \$19,999	\$148	NA
Regular & Contingent F/S Annual \$20K to \$39,999	\$314	112%
Regular & Contingent F/S Annual \$40K to \$59,999	\$494	57%
Regular & Contingent F/S Annual \$60K to \$79,999	\$648	31%
Regular & Contingent Annual \$80K and above	\$1,002	55%
Regular & Contingent Annual \$100,000 +	\$1,057	6%
Reserved	\$1,257	19%

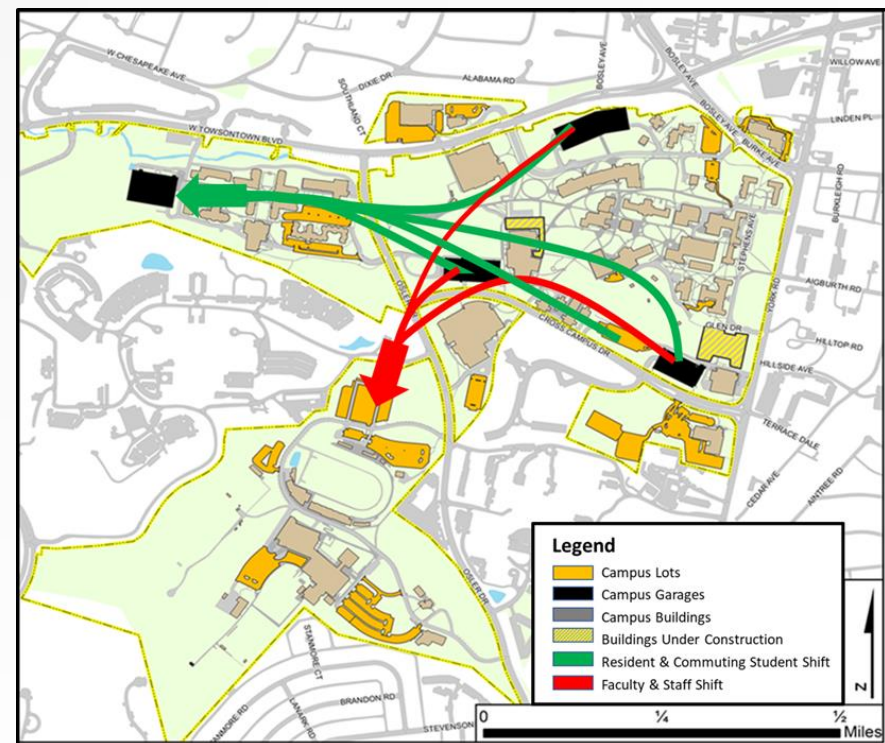
Parking Recommendation Goals

- Equitable **balancing** of permit assignments
 - **Minimize** excess **demand** for core parking areas, in particular commuter spaces
 - Place priority on **reducing commuter** student demand for core spaces
 - Reduce parker frustration & traffic congestion
- Strive for “**Park Once**” culture
- Establish rate structures that:
 - Are **equitable** and meet the desired goals of the university
 - Provide a **consistent** approach between Faculty/Staff tiers
 - Provide **options** for **low-cost** permits

Equitable Balancing - Principles

- All groups are assigned to and must park in a single parking facility.
- **Overflow** lots in the Athletic Precinct will continue to be **available** to all permit holders.
- Targeted maximum (peak) **parking utilization of 85%** to ensuring space availability
- To achieve balance, core demand during peak periods needs to be reduced by moving 500 **additional** vehicles **from Core Campus** to remote locations
- Achieve **balance** through **required** relocation and/or **incentives** associated with permit rates
- Consider **modifications** to **class schedules** to reduce parking demand at certain times.

Parking Shift to Achieve Target Balance



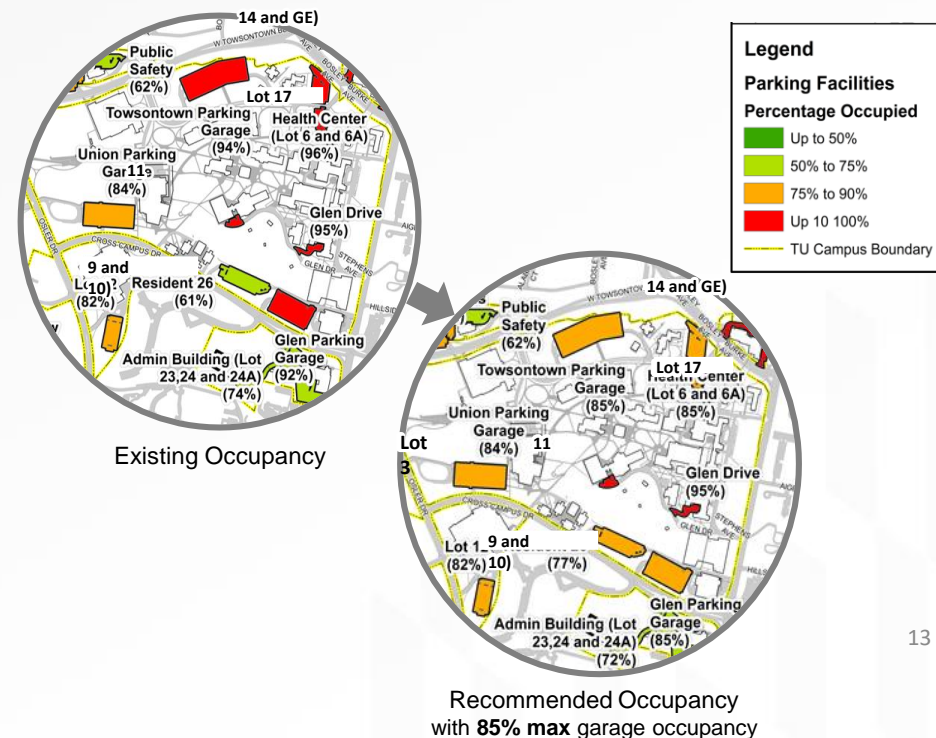
Parking Allocation Recommendations

Equitable Balancing Recommendations

*500 **additional** peak hour vehicles need to be **relocated** from Core Campus to Athletic Precinct/West Village.*

- Relocate **all** (250) core campus **resident student vehicles**.
 - 10 West (Lot 15) resident parking unchanged.
- Require/entice relocation of commuter and/or F/S **vehicles**.
 - This would **equates** to 300-500 permit holders, due to turnover **ratios**.

Academic Core Occupancy Changes:



Rates - Guiding Principles

Establish an **overall methodology** for rates that meet the desired campus goals

- Incentivize **remote parking** and/or alternative transportation options through rate structure
- Ensure approach will generate **adequate** revenue to meet financial obligations of a self-support program.
- Make available a **small number of low cost and/or free permits/spaces** in remote locations for all campus groups
- Restructure F/S rates to be more **consistent** and **equitable** across tiers

Balancing Demand Rate Options




Balancing student demand **requires relocating** vehicles from Academic Core to Athletic Precinct/West Village.

A1: Required Relocation

- Keep **existing** rate structure
- Create eligibility criteria for core parking
- **Move residents** from core campus to Athletic Precinct/West Village

A2: Incentivize remote commuter student parking

- **Decrease remote** commuting student permit **price**
- **Move residents** from core campus to Athletic Precinct/West Village
- All other student parking permit rates will increase

Management & Pricing Strategy	Resident Student	Commuting Students	
		Core	Remote
Strategy A1 (Required Relocation)	No Change	No Change	No Change
Strategy A2 (Incentive Relocation)	Rates Increases 	Proximity Price Increase 	Proximity Price Decrease 

Notes:

Under any rate strategy some low cost and/or free parking would be available.

The supply of F/S spaces meets peak demand, therefor relocation of F/S is not included in this option. If balancing includes F/S, the same options and impact outlined for commuter students would apply

Balancing Demand Rate Options – Cont.

Duration Based Pricing is based on parked duration vs location. **Long-term** parkers pay **more** than short-term parkers. The goal being to use increased rates to reduce parking demand.

Resident student parking permits have the **highest** cost since those vehicles are on campus most of the day.

Commuter student parking permits rates **likely to decrease** from current rates due to additional revenue generated by long-term parkers.

Faculty and staff parking permits are priced at a **fixed rate** based on full time or part time status. Rates may or may not include a tiered approach

Management & Pricing Strategy	Resident Student		Commuting Students		Faculty & Staff			
			Core	Remote	Part-Time	Full-Time		
Duration Based	Rates Increase	+90%	Rates Decrease	-20%	Rates Decrease	-50%	Rates Increase	+5%

Note: Some low cost and/or free parking would be available

Faculty/Staff Rate Restructuring

For faculty and staff, lowered or restructured permit costs was the highest priority among those who responded to the survey.

Alternative Rate Structure Strategies

- Option 1: **Keep current seven tiered** rate structure but improve by developing a consistent variance between tiers
- Option 2: **Simplify** current rate structure by condensing from seven tiers **to four tiers**
- Option 3: **Eliminate tiered** rate structure and **introduce flat fee** and “first come first serve” parking location assignment
- Option 4: **Eliminate tiered** structure and **introduce** rate structured based on **proximity** to work locations.
- Option 5: Combination of above options

Note: Under any rate restructuring some low cost and/or free parking would be available.

Executive Summary of Findings - Shuttle



Service Levels

Routes are based on **maximizing areas served vs.** frequency of service or rider demand.

Duplicate Services

Resources are being utilized for some routes are **served by** other TU or **MTA** routes.

Staffing

Industry **shortage** of commercial drivers impacts reliability of services. Shuttle program routinely operates with **vacancy rates of 30%** or more.

Technology

Vehicle tracking and **transit app** software is **available**. Opportunities exist to improve user interface and expand marketing.

Revenue Opportunities

Services are **provided** to apartment complexes at **no charge**.

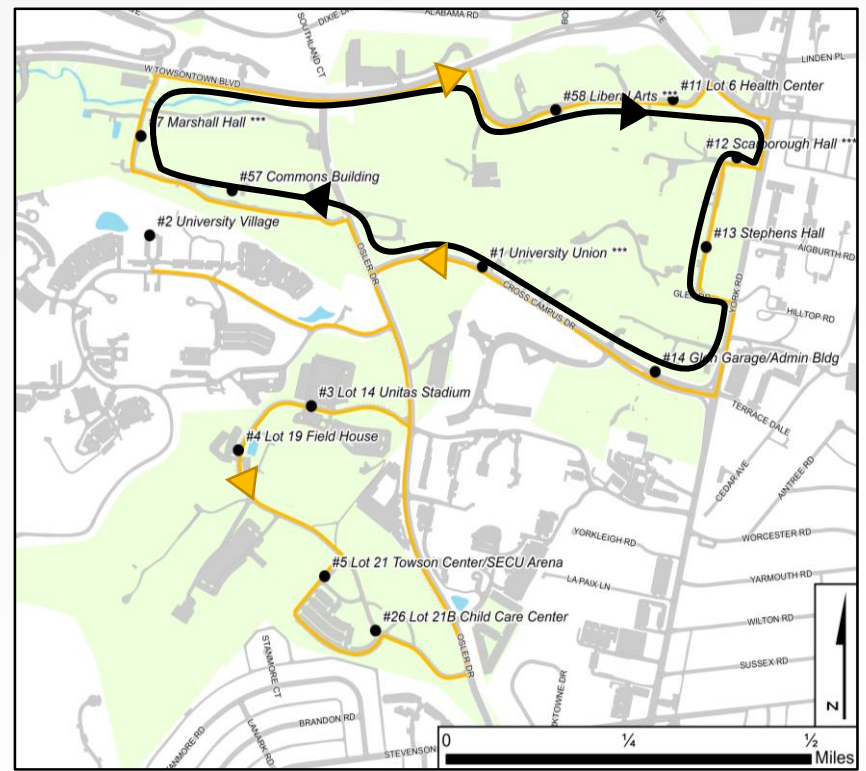
On-Campus Current Approach

Gold Route - Existing circuitous route has **infrequent** service and **serves all** of campus

Black Route - Existing route loading peaks at class time in a **single direction**. Second vehicle is less utilized.

Frequency

- 1 Gold bus every **30** minutes
- 2 Black buses every **10** minutes



Maximize **efficiency**

- Revise and **refocus transit to support** increased use of remote parking
- **Reallocate** resources for premium on-campus service by **eliminating low-ridership** route(s)
- **Encourage** increased use of all transit services including **MTA**.

Service **consistency**

- Increase vehicle frequency
- Develop **student** training and labor program
 - Staff non-CDL vehicles (e.g. 12-passenger cutaways)
 - Hire (or reallocate) a student trainer as a staff position

Fixed Route Service

- Maintain fixed route approach with schedules

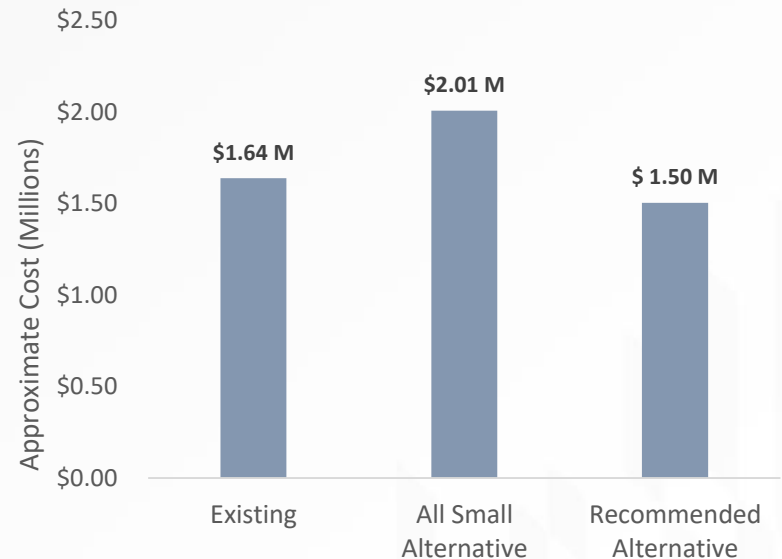
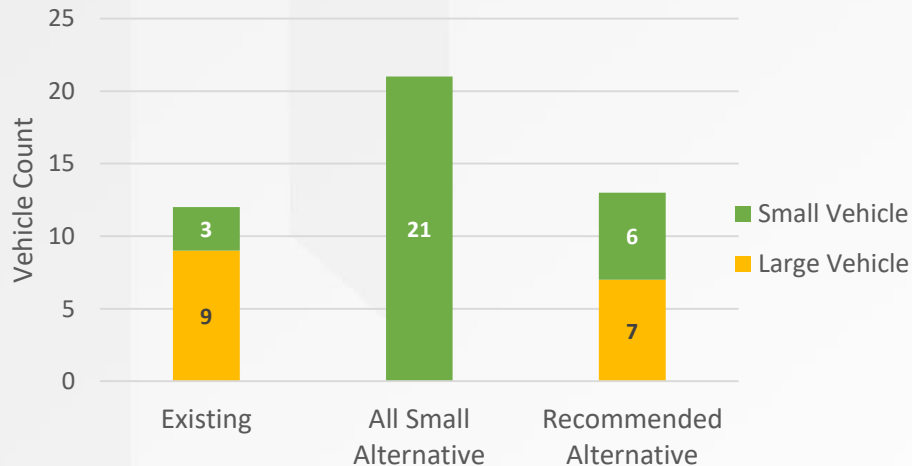
Persons within ¼ Mile*	Students	Faculty/Staff
TU Shuttle	2,257 (18%)	350 (11%)
MTA	1,703 (14%)	487 (16%)
Both	2,628 (21%)	589 (19%)

Fleet Recommendations

Modify mix of in-service* fleet:

- 6 Small vehicles: 12-passenger cutaways
- 7 Large vehicles: 33-passenger vehicles

In-Service Transit Vehicle Fleet



*Note: In-service vehicles only include the active number of running shuttles and is less than the total number of fleet vehicles. Does not include charter or paratransit vehicles.

On-campus Recommendations

Gold Route – Re-align route to serve Athletic Precinct and core campus **only** for better shuttle service to remote parking

Black Route - Create a modified route to distribute demand in **two directions** and increase capacity near class time

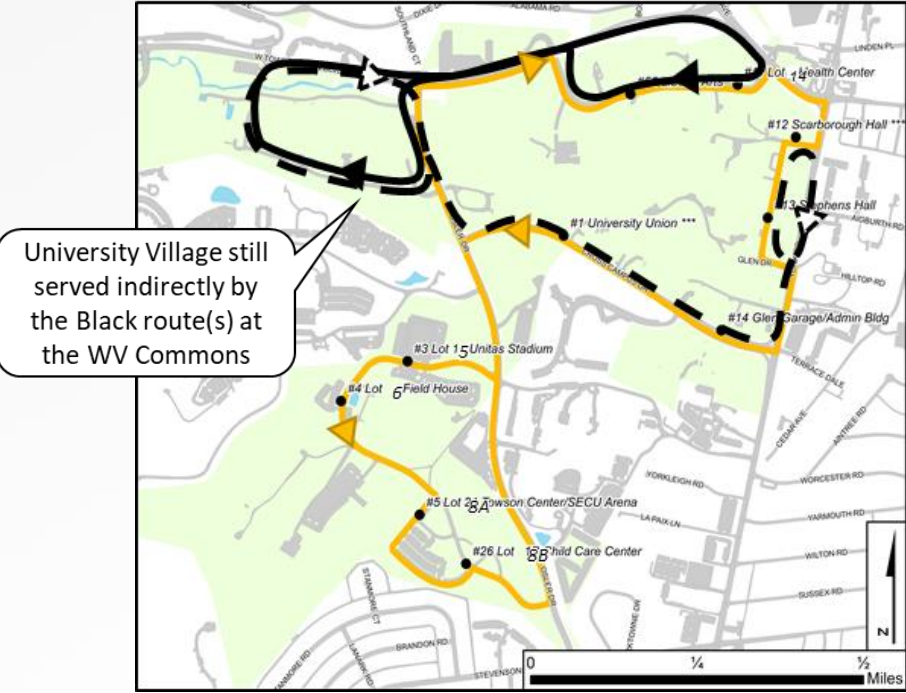
Frequency

2 Gold buses every **10** minutes

1 *Modified* Black bus – clockwise*

1 *Modified* Black bus – counterclockwise*

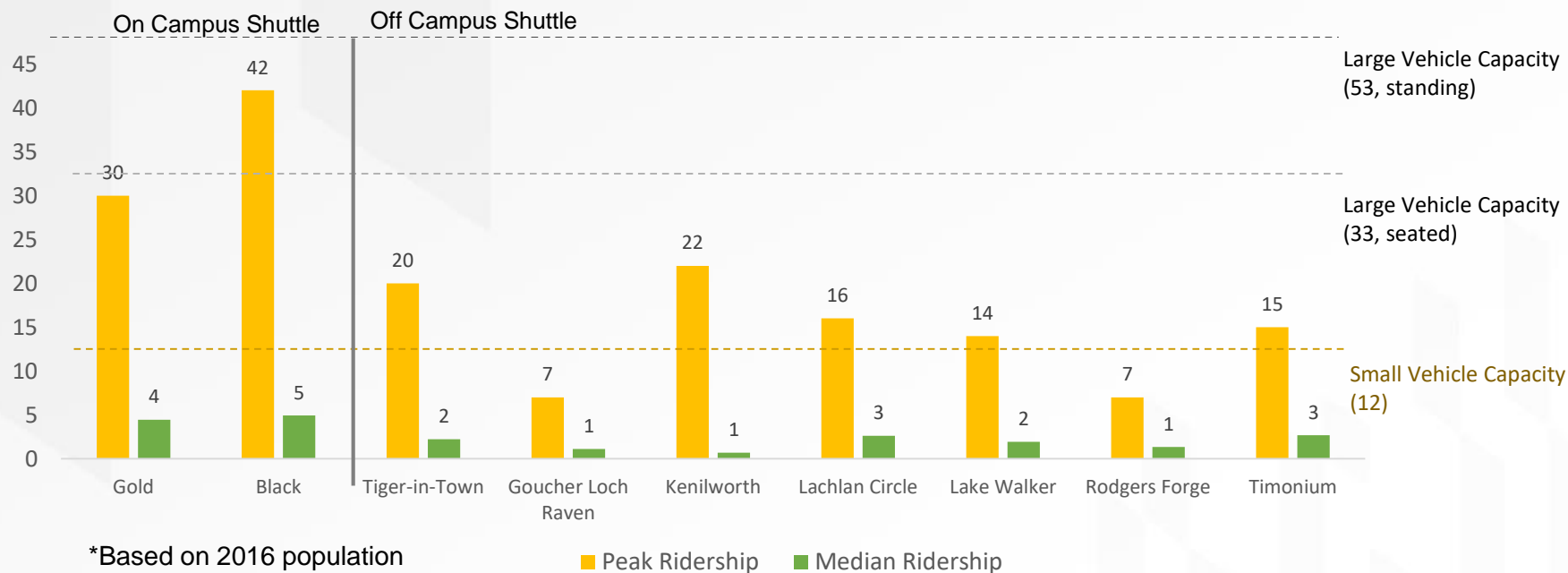
*Black route will maintain 10 minute headways



Off-Campus Recommendations

- **Re-allocate resources** (drivers and equipment) to improve frequency of service for on-campus routes, particularly in remote areas.
 - **Eliminate** Rodgers Forge - Low ridership and duplicated by MTA51/MTA Red

Number of Riders per Vehicle Per Day at Peak Times



Off-Campus Revenue Stream

Potential Revenue Source – long range option

- Consider developing **pricing** scheme for services to **apartment** buildings for all routes.
- **Investigate** potential **impacts** to students
 - Possible **pass through** of **costs** by apartments
 - **Loss** of services
- Utilize revenue to:
 - Fund **additional** vehicles & staff
 - **Increase frequency** of services on high demand routes

Apartments Served by Shuttles	Average fee per apartment	Total Potential Revenue
21	\$12,500	\$262,500

Executive Summary - Transportation Demand Management (TDM)

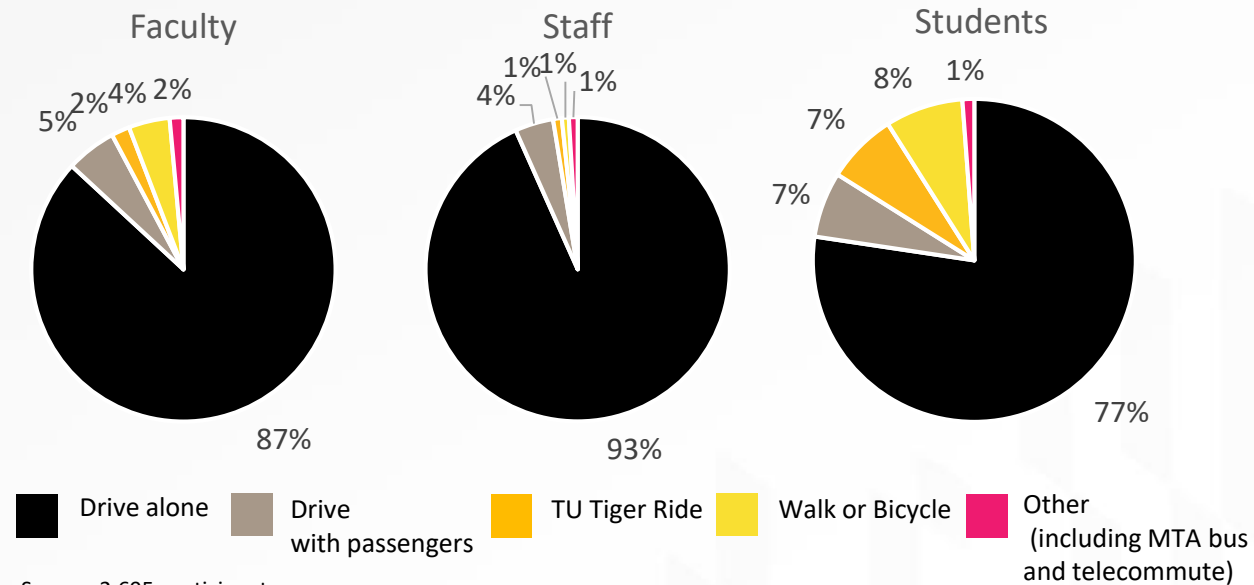


Many alternative transportation **options** are available, however only **2%** of the TU community **participated** in a sustainable vehicle initiative in FY 2018

Towson University is an *auto-centric* campus

- **3 out of every 4** students responded that they drive alone to campus
- **Only 1 in every 10** faculty and staff members stated that they typically use an alternative mode of travel to commute
- **Only 2 in every 10** students stated that they typically use an alternative mode of travel to commute

How do you typically commute to campus?



Source: 2,695-participant survey

Executive Summary TDM– Program Participation



Current TU Programs Include:

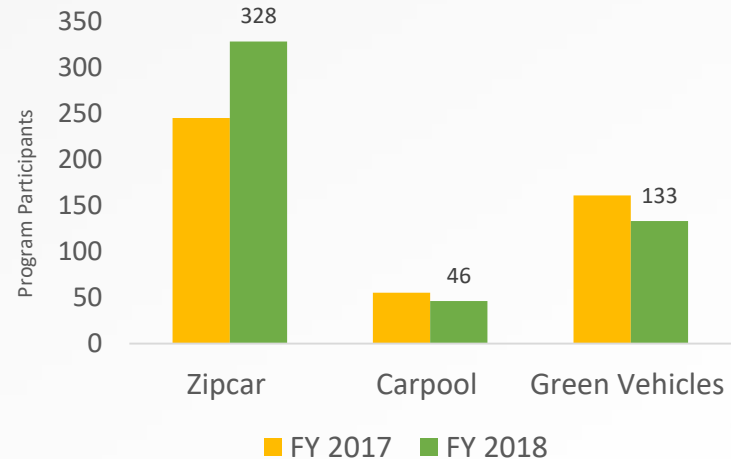
Sustainable Vehicle Initiatives

- Fuel Efficient Vehicle Discount
- EV Charging Stations
- Carpool Program
- Carshare
- 3 Hybrid Small Buses now Serve Campus

Transit Initiatives

- Guaranteed Ride Home
- Discounted MTA Passes for Students
- Free MTA Passes for Regular Faculty and Staff

TDM Annual Program Participants*



*Zipcar stats are cumulative memberships and do not reflect usage

Source: 2018 TU Transportation Annual Report

TDM Recommendations

- **Rebrand** “alternative” transportation program to “**sustainable**” transportation program.
- Promote a “**park once**” mentality
- **Promote** programs
 - Transit use
 - Complete campus bike path design and construction
- **Expand/improve** current offerings
 - Support carpool and carshare with technology enhancements
 - **Investigate** option to provide **free MTA passes** for contingent faculty and students
 - **Replace** EV chargers (To be completed spring 2021!)
 - **Telecommuting** – web conferencing, etc.



Misc Recommendations

- Develop **integrated** mobility app.
- Continue to **promote** and **market** programs and services.
- Improve **utilization** of LPR system to capture **data** and use for **trend** information and planning.
- Improve **reliability** and marketing of existing transit system software and app.

Next Steps

- Gather **community input** on findings and recommendations.
- **Finalize** recommendations based on feedback.
- Present final recommendations to the University **President's Cabinet**.
- Develop **implementation** strategy and timeline.



Provide your feedback –
Survey Open March 3-21
Links available at Towson.edu/parking

Send questions or comments to
ParkingStudy@Towson.edu

Implementation Roadmap

Tasks	Schedule - 2021
Campus presentations, feedback sessions and survey	Late Feb – Early March
Consultant to finalize recommendations based on campus input	Mid-March
Presentation to President’s Cabinet (PC)	Late March
PC Direction/Approval	Early April
Communicate program changes to campus community	Late April – Mid May
Update operational policies and procedures based on approved plan and develop implementation plan and schedule	Early April - June
Implement program changes	July – Sept*

*It may be necessary to implement some changes, in particular those associated with rates, during the fall 2022 semester

Q&A

Open Discussion