



**Georgia Tech** 

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#### Introduction

The Georgia Institute of Technology (Georgia Tech or GT) is a top-tier research institution that takes an innovative approach in dealing with challenges. An upcoming challenge that Georgia Tech will face is competing demand for access to its centrally located campus. While the campus was once disconnected from the surrounding neighborhoods, it is increasingly becoming interwoven into the fabric of the culture and economic hub of Atlanta's central business district. As a part of the Midtown neighborhood, Georgia Tech attracts students, employees, visitors, and event-goers on a daily basis. Factoring in the planned growth on Georgia Tech's campus, the Institute is surpassing the role of an academic institution and is becoming a major attraction for the metro-Atlanta community.

Georgia Tech is undergoing significant changes and development across its campus. Two major areas of growth are Campus Center and Tech Square. The changes in these areas help to advance Georgia Tech's vision of being a leading technological research university; however, these changes will likely strain the existing parking and transportation system. Because metro-Atlanta is a predominately car-centric region, accommodating commuters and visitors that want to access Georgia Tech's campus by automobile increases the demand for parking on campus. Therefore, there are multiple challenges ahead to ensure commuters are able to predictably arrive to campus every day and that on-campus events appropriately support guests and visitors. Providing additional parking to meet increases in parking demand would come at significant cost to the Institute. With the high cost of land in the Midtown Atlanta market, the construction costs to build a structured parking facility can be over \$30,000 per parking space. Factoring in Georgia Tech's sustainability goals, building more parking is an unattractive approach to address parking demand. Alternatively, Transportation Demand Management (TDM) provides a solution that helps the Institute lower the demand for parking and provides alternatives to drive-alone trips.

To help manage transportation demand and encourage commutes by alternative modes, Georgia Tech will need to address the cost, convenience, culture, and built environment associated with the Georgia Tech transportation system. All four factors affect desired transportation behavior and are manifested in physical assets, such as infrastructure and land use, and support programs and policies. For example, cheap and plentiful parking incentivizes automobile trips, while parking priced higher than alternative travel modes helps to incentivize commutes by walking, bicycling, and using transit. Similarly, convenient access to transit and walkable built environments encourages travel by alternative modes, which decrease the utilization of parking while maintaining the existing infrastructure. The perpetuation of car-centric culture, through the provision of ample destination-proximate parking, reinforces the mindset that drive-alone behavior is preferred and expected, mitigating the effectiveness of TDM initiatives. This highlights the complicated and sometimes adversarial relationship between parking and TDM.



The Georgia Tech Parking and TDM Immediacy Plan evaluates the impact that upcoming development will have on the Georgia Tech parking and transportation system and provides strategic actions that should be taken by the Georgia Tech Parking and Transportation Services (GT PTS) department within the next five to seven years. The steps detailed in this plan will help Georgia Tech mitigate the impact that development could have on its system.

# Subarea Plans

Development within the Campus Center and Tech Square subareas is expected to generate additional travel trips to Georgia Tech's campus and increase parking demand. Georgia Tech is taking a phased approach to campus development that will occur from the present to beyond 2024.

#### Campus Center

SITE RENDERING

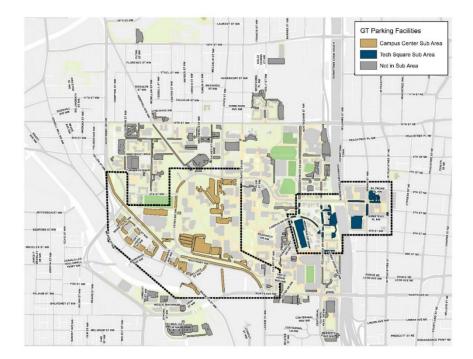


The Campus Center project, aimed to proactively accommodate Georgia Tech's growth, consists of phased renovation and expansion plans for the existing Student Center and the construction of four new buildings across the 15-acre site. This is planned to occur in three phases and be completed by August 2022. These new facilities will increase parking demand, adding to the current demand generated by the Ferst Center and Campus Recreation Center.

# Tech Square

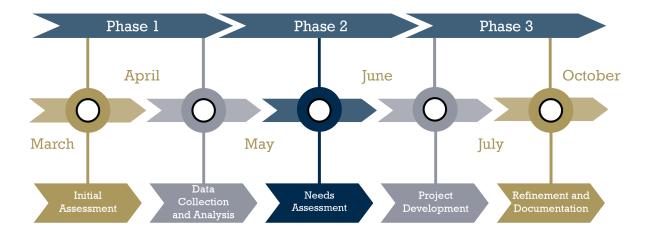


Georgia Tech is planning the next phase of the Technology Square ("Tech Square") district's evolution. This next phase will include the construction of Tech Square 3 (TS3), a 20-story mixed-use development in the district. The development is planned to include additional academic and research space as well as a public element that will create an increase in parking demand by all users. When combined with the recent opening of the CODA building two blocks south, there will be increased pressure on the parking and transportation system in this district.



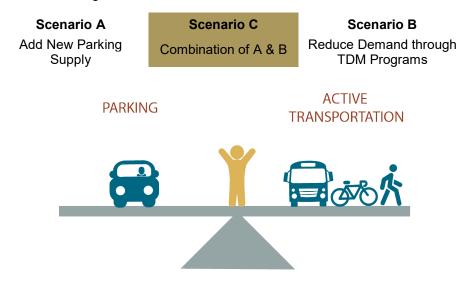
# Process

Development of the Georgia Tech Parking and TDM Immediacy Plan was conducted in three phases over a five-month timeline, which is illustrated in the figure below. Throughout the project, the Consultant Team met with the GT PTS Project Management Team on a biweekly basis.



# **Alternative Futures**

There are three scenarios that Georgia Tech could pursue to address concerns related to increased parking demand, and the Consultant Team worked with stakeholders to determine which scenario is optimal for Georgia Tech given their goals. Based on stakeholder engagement, Scenario C was determined to be the best option; however, due to recent investment in the 800-space Dalney Deck, the working group is interested in leaning more towards TDM over the next five to seven years. This will help equalize the mobility ecosystem, as shown in the figure below.





# **Existing Conditions**

#### **Parking Assessment**

With a supply of 12,515 parking spaces between 14 parking decks, 21 surface lots, and on-street parking, Georgia Tech does not currently have a parking problem. During the mid-week, peak hour, when demand is highest, 73% of facilities are occupied campus-wide, revealing a surplus of spaces during non-event days. Additionally, there is a 73% occupancy in the Campus Center, and 81% occupancy at Tech Square during the mid-week, peak hour.

March 2019 Parking Counts					
	Campus Wide	Campus Center	Tech Square		
Supply	12,515	3,307	2,512		
Occupancy / Demand	73%	73%	81%		
Surplus or Deficit	+ 3,379	+ 892	+ 477		

Additionally, GT PTS offers annual parking permits, carpool permits, daily parking through a SmartPark permit at \$6 per day, and visitor parking at \$2 per hour and \$15 per day maximum.

#### **TDM Assessment**

Georgia Tech is an increasingly more walkable and bikeable campus with a robust transit system and infrastructure improvements including Tech Green, Path Parkway, and the Atlantic Drive conversion. GT PTS also provides programs and policies, such as discounted regional transit passes, with almost 11,000 sold in 2018. According to the most recent commuter survey, approximately 75% of commuters drive alone to campus. According to a spatial analysis of parking permit holder home locations, nearly half of parking permit holders, approximately 2,600 people, have reasonable access to an alternative mode option.

# Future Travel and Parking Conditions

While there is not a parking problem present during the existing condition, there may soon be one due to an abundance of events around campus. Stakeholder input related to these event venues and subsequent analysis revealed that once a month Georgia Tech should expect overlapping events at venues within each subarea. This peak Most Common Scenario revealed that the parking in each subarea is currently at capacity, with a 15-space deficit at Campus Center and a 3-space surplus at Tech Square. Applying the 2024 future projection of parking demand based on the programming at the new facilities, the deficit grew to 587 spaces at Campus Center and 521 spaces at Tech Square. A summary of this analysis is shown in the table below.

E	vent Parking Demand Analysis					
	Existing Condition					
	Campus Center Tech Square					
Supply	3,307	2,512				
Target Utilization	2,976	2,260				
Demand	2,991	2,257				
Surplus or Deficit	- 15	+ 3				
	Future Scenario - 2024					
	Campus Center	Tech Square				
Supply	3,033	2,819				
Target Utilization	2,729	2,537				
Demand	3,316	2,982				
Deficit	- 587	- 521				



## **Needs Assessment**

Based on the Parking, TDM, Mode Share assessments, and stakeholder engagement, the Consultant Team identified areas of success and areas of improvement in Georgia Tech's approach to parking and transportation. The Georgia Tech Parking and TDM Immediacy Plan notes the following needs for Georgia Tech's transportation system:



# Peer Review Key Best Practices

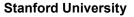
Overall, the identified needs reflect the necessity to create, manage, and operate a more flexible and adaptable parking and transportation system that can accommodate the growing parking demand and travel activity on campus. A peer review of similar universities was conducted to identify innovative strategies to manage increased parking demand and provide enhanced TDM programming. This was conducted at the following Universities and revealed the following results:

- Place alternative modes on the same or higher footing than drive-alone trips
- · Fully/heavily subsidize transit to improve mode splits and decrease drive-alone trips
- Communicate mode options effectively to commuters
- Consistently fund alternative mode improvements and TDM programs
- Increasing the cost of parking is necessary to provide transportation services and support TDM











# Vision and Big Bold Ideas

The Georgia Tech Parking and TDM Immediacy plan envisions improving the way people travel to campus by implementing targeted changes over the next five to seven years. The project working group and leadership team set the below vision to guide the rest of the project and subsequent development around campus.

Evaluate parking demand in light of immediate development changes around Tech Square and the new Campus Center. Solutions will strengthen the connection between alternative transportation and parking and will promote a resilient campus transportation profile.

The vision also led to developing some goals and recommendations detailed further in the executive summary and action plan summary. The extensive detail of the goals and recommendations is due to the tactical nature of the immediacy plan. To help distill these recommendations, the below graphic breaks down the big bold ideas of the plan that will help GT PTS meet the needs of the Institute.





Big bold ideas will require strategic efforts to develop a parking and transportation system that is capable of accommodating the growing demand for parking without major parking infrastructure increases over the next five to seven years. Getting to this ultimate goal means that GT PTS will need to focus on refining baseline parking operations while making some significant leaps forward in transportation demand management. Based on the existing conditions, needs assessment, stakeholder engagement, and expected future conditions, three programmatic goals and corresponding recommendations were established for the Georgia Tech Parking and TDM Immediacy plan:



The following three pages summarize the action plan for this effort, one for each of the goals. The recommendations are summarized, and the tactical actions are presented on a timeline and classified as Immediate (to be completed within the next three years) and Long-Term (necessary but can be completed in a longer time horizon, four years and beyond). The Parking and TDM Immediacy Plan details calls-to-action for Georgia Tech Parking and Transportation Services.

**Georgia Tech Parking and TDM Immediacy Plan** 

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Executive Summary			Goal #1: Cree	ate a culture of	sustainability	
RECOMMENDATION	STRATEGY	2020	2021	2022	2023	2024
			Incorporate susta	ainability into Parking and Transport	ation Committee Activities	
	Elevate Sustainability and Alternative		Prov	vide tailored commute assistance a	t new student orientation and new hire o	prientations
Align Parking and Transportation	Commuting in the Campus Culture			Develop/refin	e a new hire orientation packet for PTS	services
Goals with					Host neighborhood focused mol partners by neighb	
University Goals for Sustainability		Improve the Annual Commute Survey				
	Increase Awareness of Commute Behavior		Develop performance r	metrics dashboard		
					Use performance metrics as a	tool for continuous improvements to the
	Highlight Alternative Modes	Use tactical urbanism to implement quick fixes		Dedicate space in parkir	ng decks for bike commuter parking	
			Finalize mobility	y hub concepts	Develop a financial model t e-bikes and micromobility while leverag	
					Construct bike parking facility cer Campus Bicycle	
Decrease Mid-Day Drive Alone Trips		Upgrade existing pedestrian/l	picycle focused wayfinding			
	Improve on-campus wayfinding and connectivity		Identify gaps in pedestriar	n/bicycle connectivity		
				Make infrastructure imp	provements to address identified gaps in connectivity	ADA, pedestrian, and bike
					Re-Open 3rd	Street Tunnel

#### SUMMARY

**Issue/Existing Condition:** Driving alone is the current default mode option, and people typically don't view alternative commutes as a viable option.

**Proposed Solution:** Elevating sustainability and alternative commuting in the campus culture can help to remove the stigma of getting to campus without a car and highlights the important work of GT PTS.

**Issue/Existing Condition:** The Annual Commute Survey has a wealth of knowledge, but the results on this study aren't widely promoted across the Institute.

**Proposed Solution:** Update the Annual Commute Survey and create a metrics dashboard that can be used as a one stop-shop, showcasing the number of parking pass types, transit pass sales, bike registrations, and other key modal numbers gathered through partnerships, such as scooter and bikeshare usage.

**Issue/Existing Condition:** Driving to campus is prioritized and comes as a default for most people on campus.

**Proposed Solution:** Shining a light on the feasibility to use alternative modes on Georgia Tech's campus can help to encourage shifts in mode choice.

**Issue/Existing Condition:** Campus maps and wayfinding do not prioritize the most sustainable modes of travel internal to campus and need to be updated.

**Proposed Solution:** Provide wayfinding signage that includes information like walking distances between key campus locations, mobility hubs, shuttle services, and ride share pick-up/drop-off locations.



Executive Summary		Goal #2	2: Empower custo	omers to make e	ducated daily d	ecisions
RECOMMENDATION	STRATEGY	2020	2021	2022	2023	2024
	Increase Transit	Determine financial impact of increases in transit discount and annual permit parking prices		Increase annual permit parki	ing price by 10% over 5 years	
Balance Commute Cost	Discounts and Increase Annual	Communicate future changes to parking costs	Provide one free monthly transit pass to new employees	Subsidize all transit passes	s to 50% of the current discounted r at this discounted rate	ate in year 3 and continue to offer
	Parking Permit Price					Investigate alternative commute daily rewards/parking cash-outs
				Enable SmartPark in all pay-	-as-you-go parking facilities	
	Promote and Bundle SmartPark Permits			Advertise SmartPa	rk as the pay-as-you-go option at th	e time of annual purchase
					Bundle SmartPark permit	with monthly transit passes
Improve Flexibility of	Enhance Cornect		Dedicate nest	ted carpool spaces that convert to vis	itor parking at 10 am	
Program Choices	Enhance Garpoor		Market carpool permits with loca- tions of nested spaces online		Enable carpool permit l	nolders to split daily costs
			Coordinate with MARTA and transit cards at dis			
	Enable Occasional Transit Usage			Advertise discounted rate for 10 permit pu		
						with annual parking permit and a standard offering
		Develop a Communications Plar leverage all PTS communica				
	Develop a Communications Plan		Educate custon	ners on new parking regulations and	price increases	
						n calendar with a coordinated cations plan
Highlight the		Use graphic design and content specialist when developing materials				formation to lobby screens across ampus
Relationship of	Modernize Digital Platforms	Use PTS website to highlight alternative commute options				Integrate existing and future transportation options into one GT specific platform
Parking and TDM			Promote Georgia Commute Options	programming to GT community		Integrate commute platform into GT specific app and tie into ARC commute program
			Highlight Georgia Tech's	easy access to transit, walkability, an	d bikability to event-goers	
	Improve the Visitor Experience		Explore feasil	bility of pre-sale parking and transit p	asses bundled with event ticket pure	chase/reservation
				Ensure messaging on a	all visitor-centric communications inc	cludes all modes of travel

#### SUMMARY

**Issue/Existing Condition:** The lower cost of parking incentivizes drive-alone trips and doesn't encourage travel by transit.

**Proposed Solution:** Based on Georgia Board of Regents approval of permit rate changes and guidelines for rewards/incentives, GT PTS should restructure travel costs to encourage travel by alternative modes and meet mode share goals.

**Issue/Existing Condition:** Parking is an annual commitment, sometimes made far in advance of the school year. A few key short-term changes could improve the flexibility of existing programs, with minimal disruption to the overall system.

**Proposed Solution:** The SmartPark permit program offers motorists the opportunity to park on Georgia Tech's campus at the rate of \$6.00 per usage. With the annual purchase of a \$25.00 permit, motorists can access the campus by vehicle through this pay-as-you-go option.

**Proposed Solution:** GT PTS should partner with the Atlanta Regional Commission and Georgia Commute Options to provide enhanced ride matching and cost sharing for carpools.

**Proposed Solution:** As an alternative to being locked into one travel mode, GT PTS should continue to offer discounted transit passes for commuters. This gives an alternative option to cyclists and motorists on days when their typical commute is not the best option.

**Issue/Existing Condition:** Although Georgia Tech is located in a prime location with high quality transportation networks such as regional rail and an improving walkable and bikable city, not enough commuters and resident students take advantage of these systems.

**Proposed Solution:** A robust communications plan can serve as an impactful supporting component of the parking and TDM strategy for GT PTS. The plan should leverage both cogent messaging and brand appeal to emphasize the value that a comprehensive Parking and Transportation Service program brings to each audience. Once a value is communicated, simple messaging should be developed for each audience, including clear and achievable calls-to-action.

**Proposed Solution:** Modernizing the GT PTS website and other communications platforms will be critical to the department's success. Improvements to this digital platform should be paired with improvements to all communications material used by GT PTS. Coordinating branding elements such as logos, font, and visual consistency will be a key part of maintaining the GT PTS "voice" across communication platforms.

**Proposed Solution:** To improve the visitor experience, the GT PTS should work with event operators and venues to promote alternative modes as the first choice for visiting the campus. Special emphasis can be provided to highlight Georgia Tech's easy access to the MARTA rail system.

Executive Summary		Goal #3	: Enhance parkir	ng and transport	ation program e	fficiency	
RECOMMENDATION	STRATEGY	2020	2021	2022	2023	2024	
		Install visitor PARCS equipment at CRC deck to facilitate conversion	(	Convert CRC Deck to mixed-use to a	ccommodate permit parking and visito	ors	
	Convert Student Center, Tech Square,		Convert S	tudent Center Deck to a goal of 66%	pay-as-you-go parking and monitor v	isitor usage	
	and CRC Decks to Daily/Visitor Parking		Convert	Tech Square Deck to a goal of 70% p	pay-as-you-go parking and monitor vis	sitor usage	
			Previous CRC, Student Ce	enter, Tech Square permit parkers ma	ay relocate to their choice of available	campus parking location	
Distribute Parking		Explore new opportunities for improving transit experience for GT commuters					
Demand	Support Travel from Parking Facility to Office		Coordinate pedestrian connectiv	vity and first/last mile improvements v	with changing parking conditions		
						tations and mobility hubs to connect ties with offices	
				Get approval for Ferst Drive transformation	Execute Ferst Drive transformation	Construct Ferst Drive transformation	
	Opportunities for Additional Parking Supply			Restrict Freshman parki	ing and evaluate undergraduate resid	ential parking locations	
					Monitor visitor demand from newly opened Student Center and Exhibition Hall	Monitor parking demand durin Tech Square Phase 3 construct	
	Add/Modify Existing Routes	Develop a Scope of Services for the GT Transit Plan Update	Finalize Transit Plan		Implement trans	sit improvements	
Increase Transit Connections	Enhance Transit Infrastructure			Coordinate with key partners to integrate high quality transit stops			
				Plan transit stop improvements to enhance user experience		Partner with regional agencies to improve transit stops near GT's campus	
	Optimize Facility	Audit parking signage and wayfinding				ancy for digital signage at egrate into a mobile app	
	Utilization					Review low occupancy parking locations to determine highest and best use	
		Increase visitor parking rate					
Streamline Parking Operations		Establish event level categories and create a color-coded warning system	Tighten up parking event protocols utilizing existing staff				
	Manage Event Day Demand		Implement virtual permit at Tech Square and Student Center parking decks				
				Combine travel decision a online event ticket p			
						Coordinate with event venues t offer parking discounts at remote	

#### SUMMARY

**Issue/Existing Condition:** Parking decks in prime locations, such as the Student Center Deck, Tech Square Deck, and Campus Recreation Center Deck are optimal facilities to effectively handle visitor demand and maximize revenue while also supporting employees whom choose to drive occasionally and pay daily.

**Proposed Solution:** Convert these proximate parking facilities to allow pay-as-you-go use and incrementally decrease the number of commuters and increase the pay-as-you-go spaces allocated for each user.

**Issue/Existing Condition:** The shift of faculty and staff to less proximate parking facilities creates a mobility challenge as they have a lower desire to walk further distances than other user groups, such as students.

**Proposed Solution:** Improve the on-campus experience of walking, biking, or taking transit from parking facilities to office locations, with consideration of Georgia Board of Regents approval of rewards/ incentives for e-bike subsidies.

**Issue/Existing Condition:** As a contingency to meet increased demand and still adhere to the existing master plan, additional parking supply must be considered.

**Proposed Solution:** Transform Ferst Drive to increase supply in proximate location, restrict Freshman parking and evaluate undergraduate parking locations to free up supply in desirable locations.

**Issue/Existing Condition:** The existing transit system supports connections to regional transit and internal circulation, but does not take into account the shift of parking at less-proximate locations

**Proposed Solution:** Conduct a transit plan that considers updated routes and improved transit infrastructure.

**Issue/Existing Condition:** Parking facilities often operate under their effective capacity. This is due to lower demands for parking in an area and inefficient utilization of facility space.

**Proposed Solution:** GT PTS can combat inefficient parking by ensuring that customers are aware of parking availability through digital wayfinding signage and mobile guidance systems.

**Issue/Existing Condition:** Parking demand is expected to peak on event days as a result of an increase in campus visitors. This additional demand creates a strain on the parking and transportation system.

**Proposed Solution:** Communicating the expected increase in demand to permit holders and advising them to avoid the additional congestion is a proactive approach GT PTS can take to managing event day demand. In addition, GT PTS can work with event operators to educate attendees about their transportation options prior to the event day.

# : Introduction

The Georgia Institute of Technology (Georgia Tech or GT) is a top-tier research institution that takes an innovative approach in dealing with challenges. The challenge posed to the Georgia Tech Parking and Transportation Services (GT PTS) department, an auxiliary of Campus Services, comes from the strains of being situated in the middle of the City. While the campus is situated just north of North Avenue, the former City boundary, GT is no longer on the outskirts of Atlanta but is interwoven into the fabric of the cultural and economic hub of the southeastern United States. GT PTS must find a balance between the pros and cons of the Midtown Atlanta location and the quality of services and life it provides to students, staff, and faculty.

Georgia Tech is undergoing major changes and development across its campus. Two major areas of growth are Campus Center and Tech Square. The changes in these areas are advancing Georgia Tech's vision of being a leading technological research university; however, these changes will likely strain the existing parking and transportation system managed by GT PTS. To evaluate the transportation impacts associated with growth in these two areas and proactively plan for changing demand, GT PTS commissioned the Parking and Transportation Demand Management (TDM) Immediacy Plan. Consulting services were procured from Kimley-Horn and UrbanTrans North America (hereafter referred to as the Consultant Team). This Immediacy Plan will provide Georgia Tech with an evaluation of current conditions, develop a five-year (Present to 2024) vision for the development of its parking system and TDM programs, and provide an action plan for the affected areas. This Immediacy Plan will also set the stage for Georgia Tech's next master plan to emphasize alternative transportation and TDM methods to achieve Georgia Tech's sustainability goals.

Throughout the Plan, the Campus Center and Tech Square subareas are defined by the boundaries shown in the map in **Figure 1**. This map also shows the parking facilities considered for each subarea by this study. The Campus Center parking facilities are shown in gold, and the Tech Square parking facilities are shown in navy.

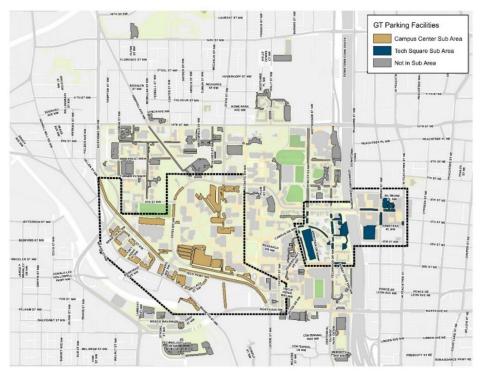


Figure 1: Campus Center and Tech Square Subarea Boundaries

# Subarea Plans

Development within these two subareas is expected to generate additional travel trips to Georgia Tech's campus and increase parking demand. Georgia Tech is taking a phased approach to campus development that will occur from the present to beyond 2024.

#### **Campus Center**

The Campus Center project, aimed to proactively accommodate Georgia Tech's growth, consists of phased renovation and expansion plans for the existing Student Center and the construction of four new buildings across the 15-acre site. This collection of buildings will be a central point of resources, gathering, entertainment, and rejuvenation for the Georgia Tech community. The design activates the outdoors by connecting buildings with accessible and engaging pathways from Tech Green to the Campus Recreation Center (CRC) and increases student, faculty, and staff engagement with campus greenspace. Phase I, which started in May 2019 and will open in Summer 2020, includes the construction of an Exhibition Hall, Wellness Pavilion, and Cafe. This required the removal of 284 parking spaces in the Area 3 and W03 parking lots. Phase II will begin in Summer 2020 and include the renovation of the Wenn Building and Student Center to create a Student Life Pavilion. During Phase II, operations will shift from the Student Center to the Exhibition Hall. The full build out of the project is expected to be complete by August 2022 with Student Center operations moving back into the newly renovated building. These new facilities will increase parking demand, adding to the current demand generated by the Ferst Center and Campus Recreation Center. **Figure 2** shows a site rendering of the development.<sup>1</sup>

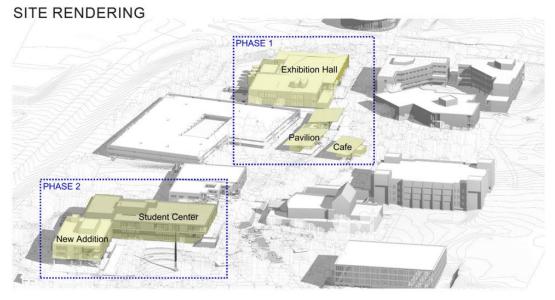


Figure 2: Campus Center Development Rendering

<sup>&</sup>lt;sup>1</sup> Georgia Tech Site Rendering developed by Gilbane Cooper Carry Workshop OLIN.

#### **Tech Square**

Georgia Tech is planning the next phase of the Technology Square ("Tech Square") district's evolution. This next phase will include the construction of Tech Square 3 (TS3), a 20-story mixed-use development in the district. The TS3 development site is bordered by 5<sup>th</sup> Street to the south, West Peachtree Street to the east, Biltmore Place to the north, and Spring Street to the west. This site is one of the last underdeveloped blocks in the district and is located in the heart of Tech Square. The intersection of Spring Street and 5th Street is recognized as the center of innovation in Atlanta. It is a highly visible site and is expected to be a highly trafficked location. Located across the street from the Georgia Tech Hotel and Conference Center and the Georgia Tech Bookstore, the TS3 site is proximate to visitors. The development is planned to include additional academic and research space as well as a public element, all of which are projected to generate additional parking demand. When combined with the recent opening of the CODA building two blocks south, there will be increased pressure on the parking and transportation system in this district. While the TS3 development will require the removal of the existing Area 6 visitor lot, which has 93 spaces, the new building will include an approximate 400-space underground parking deck. Therefore, the subarea will have a net gain of 307 spaces by the end of this project timeline. Construction is projected to begin around Fall 2024 and these additional spaces will not be available until the completion of this development. A rendering of the development plans for this block is provided in Figure 3.<sup>2</sup>

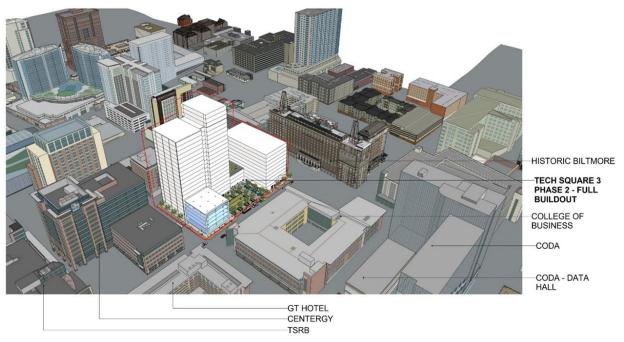


Figure 3: Tech Square Phase 3 Development Rendering

In total, these two subareas will add an Exhibition Hall, Wellness Pavilion, Café, a renovated Wenn Building, a renovated Student Center, and a 20-story mixed-use building to Georgia Tech's campus. These changes have sparked concern about the capability of the Georgia Tech transportation system to accommodate additional drive-alone trips to campus. Particular concern has been given to system capacity during campus events when visitor demand spikes, adding to an already stretched transportation system. The Georgia Tech Parking and TDM Immediacy Plan seeks to ensure that Georgia Tech's transportation system can meet the growing demands for parking and transportation mobility.

<sup>&</sup>lt;sup>2</sup> Tech Square Phase III rendering provided by Georgia Tech Campus Planning and Space Management.



This Immediacy Plan builds upon the foundation of previous Georgia Tech master plans and transportation plans. Previous plans were reviewed for high level direction and themes regarding parking and transportation at Georgia Tech. It is important that the Immediacy Plan considers the progress that Georgia Tech has been making in this area and aligns with the vision and goals of past planning efforts. In accordance with the themes and recommendations of these plans, the land dedicated to parking has decreased along with the drive-alone share of the mode split. The timeline of these plans is shown in **Figure 4**.

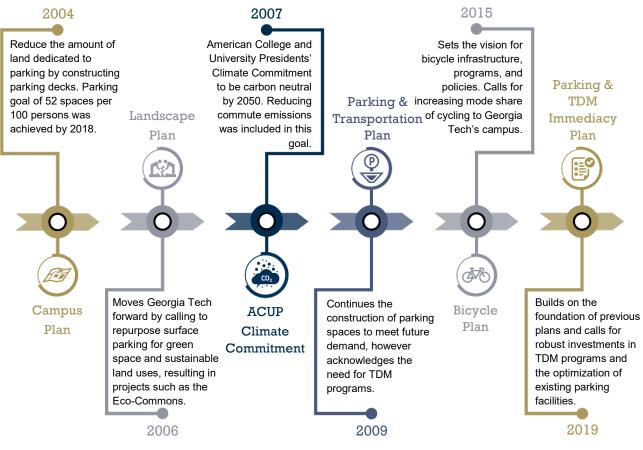


Figure 4: Timeline of Recent Georgia Tech Plans

#### 2004 Campus Master Plan Update/2006 Landscape Master Plan

The 2004 Campus Master Plan Update (CMPU) guides development at Georgia Tech with a strong emphasis on sustainability. Regarding parking, the CMPU indicates a continued "desire by the Institute to reduce the amount of land dedicated to parking and to reduce vehicular traffic on-campus."<sup>3,4</sup> The plan proposes a shift from surface parking to structured parking decks to "reduce the amount of impervious surface devoted to parking." The target parking ratio of the 1997 Campus Master Plan was 52 spaces per 100 persons on campus, which was a reduction from the existing ratio in 1997 of 61 parking spaces per 100 persons. However, by 2002, the redevelopment of existing parking, accompanied by campus population growth, created a lower campus parking ratio than desired, 46 spaces per 100 persons. The deficit stimulated a need for additional parking capacity, an objective that was subsequently outlined within the 2004 CMPU. As of 2018, the target parking ratio was achieved with 54 spaces per 100 persons. The 2004 CMPU also indicated that 7,090 surface parking spaces should be relocated to parking decks, which demonstrates a dedication to prioritizing land for uses other than parking rather than prioritizing reducing the number of vehicles parked on campus. Instead, the sustainability emphasis of the CMPU focuses largely on sustainable building and environmental projects rather than transportation methods to achieve sustainability goals. This Immediacy Plan sets the stage for the next Campus Master Plan to further reduce the target parking ratio and focus on sustainable transportation initiatives.

#### 2007 American College and University Presidents' Climate Commitment

In 2007, former Georgia Tech president Wayne G. Clough signed the American College and University Presidents' Climate Commitment (ACUPCC), which required a university to develop an action plan to achieve climate neutrality and to publicly report progress toward that goal. In compliance with the ACUPCC, commitments were made by Georgia Tech to reduce energy use, expand their use of renewable energy, decrease emissions from commuting to and from the Institute, and become carbon neutral by 2050. Georgia Tech has made strides towards this goal, with significant greenhouse gas reductions. Since 2011, Georgia Tech has reduced emission per 1,000 square feet by approximately 8%. The ACUPCC has led to additional focus on sustainability and sparked an ongoing effort to encourage alternative transportation and efficient energy use.

<sup>&</sup>lt;sup>3</sup> Georgia Tech 2004 Campus Master Plan Update

<sup>&</sup>lt;sup>4</sup> Georgia Tech Landscape Master Plan - 2006

#### 2009 Parking and Transportation Master Plan

The defined goal for the 2009 Parking and Transportation Master Plan's (PTMP) was to develop "a transportation strategy and implementation recommendations that will enhance mobility for Georgia Tech employees, students and visitors."<sup>5</sup> The PTMP projects that Georgia Tech's growing parking demand will require approximately 13,000 on-campus spaces by 2019, which would require the construction of over 2,500 additional parking spaces. However, the plan acknowledges the conflicting desire for a more sustainable campus with the growing demand for parking and the high construction costs of building more parking. Therefore, the plan recommends several parking, TDM, and transportation policy guidelines to assist Georgia Tech with reducing the need to build parking by optimizing the existing facilities and shifting behavior from driving alone to using alternative modes to get to campus. This is summarized by the following guiding principles of the 2009 PTMP:

- Manage parking demand through TDM and alternative commute modes to enhance campus sustainability
- Use cost to inform decisions on new facilities
- Locate new parking facilities to balance regional traffic impacts, on-campus traffic and parking, and maximize opportunities to share parking resources
- Support campus sustainability initiatives by considering and incorporating pedestrian, bicycle, carpool, and transit amenities
- Design facilities consistent with Institute goals and aesthetics
- Incorporate technology to improve parking operations and access

This approach adheres to Georgia Tech's financial and sustainability goals. While progress using this approach has been made by Georgia Tech, this Immediacy Plan provides further detailed recommendations on how to continue with this approach.

#### 2015 Bicycle Master Plan

Intended as a vision for bicycle infrastructure, programs, and policies, the 2015 Bicycle Campus Master Plan embodies "a focus on creating a safe, healthy and positive campus biking environment... establishing Georgia Tech as a national leader in higher education bicycle planning, design and culture."<sup>6</sup> It explicitly identifies Bicycle Friendly University recognition as a measure for progress, with recommendations intended to pursue a Gold or Platinum designation from the League of American Bicyclists, building off a 2012 Silver level designation. Georgia Tech achieved a Gold level designation in 2016. The Master Plan also establishes a mode share goal of 20% of all trips to campus by bike by 2035 (building from a baseline of 8.2% in 2012 survey data). Based on the 2018 commute survey, the overall bike commuter mode share is 7.7%; however, Georgia Tech continues to make strides in improving bike infrastructure across campus. The plan identifies five key action themes with their own recommendations:

- Make Biking More Visible
- Improve Access to Campus

- Establish Dedicated Funding
- Identify and Clarify Partner Roles
- Develop and Support Bike Culture

Core recommendations include identifying priority intersection and bikeway improvements, bike parking demand needs, dedicating staff capacity, and implementing comprehensive education and encouragement programs. This Immediacy Plan builds upon these recommendations and includes additional methods to support bicycling and all alternative modes as a means to reduce parking demand.

<sup>&</sup>lt;sup>5</sup> Georgia Tech Parking and Transportation Master Plan - 2009

<sup>&</sup>lt;sup>6</sup> Georgia Tech Campus Bicycle Master Plan - 2015



Development of the Georgia Tech Parking and TDM Immediacy Plan was conducted in three phases over a five-month timeline. Throughout the project, the Consultant Team met with the GT PTS Project Management Team on a biweekly basis. **Figure 5** outlines each phase.



8

# Stakeholder Engagement

The Consultant Team met with stakeholders to gain further insight on the strengths and weaknesses of the current parking and transportation system, which resulted in the finalized project goal for the Immediacy Plan: "to evaluate parking demand in light of immediate development changes around Tech Square and the new Campus Center. Solutions will strengthen the connection between alternative transportation and parking and will promote a resilient campus transportation profile." Table 1 outlines the various stakeholders engaged during the planning process. Major takeaways from the stakeholder engagement include:

- Walking tolerance is much higher for students than faculty/staff and event-goers
- There is a desire for greater flexibility of parking and transportation options
- Awareness of TDM programs could be improved
- MARTA is not attractive due to increased commute times
- GT Transit needs to be **reliable** as Tech students value their time
- Permit pricing is a sensitive subject, especially for lower income staff
- Parking is reliable now, but there is an overall concern regarding future parking **reliability** for the Campus Center and Tech Square due to development
- Permit holders dislike being displaced from their parking location during event days
- Communication with GT Parking and Transportation Services is perceived as "oneway"
- Parking is an issue for the recruitment and retention of faculty and staff

	Table 1: Stakeholder Groups
	Athletics
	Bicycle Infrastructure and Improvement Committee (BIIC)
	Campus Greek Organizations
	Disability Services
	Graduate Student Government Association
	GT Facilities Management Design and Construction
Campus-Wide	GT Housing
	GT Police Department
	GT Research Institute
	GT Smart Cities
	Office of Campus Sustainability
	Student Government Association (SGA)
	Student Life
	Campus Recreation Center
Campus Center	Ferst Center
Campus Center	Health and Well Being
	Student Center
	CODA
	Global Learning Center
Tech Square	GT Hotel and Conference Center
	Scheller College of Business
	Tech Square Retail
Neighborhood	Midtown Alliance



Based on the Parking, TDM, Mode Share, and Stakeholder assessments, the Consultant Team identified areas of success and areas of improvement in Georgia Tech's approach to parking and transportation. The Georgia Tech Parking and Transportation Immediacy Plan notes the following needs for Georgia Tech's transportation system:

- 1. Manage growing parking demand while also addressing cost, availability, and proximityrelated concerns
- 2. Align parking and transportation goals with Institute goals
- 3. Improve communications of transportation and its relationship to parking
- 4. Increase competitiveness of alternative modes
- 5. Improve flexibility of program choices
- 6. Continue internal circulation and first/last mile improvements

Overall, these reflect the need to create, manage, and operate a more flexible and adaptable parking and transportation system that can accommodate the growing parking demand and travel activity on campus. Future Demand was projected based on the increase in events, venues, and campus growth within the Campus Center and Tech Square subareas. Identification of critical needs closed the gap between the current transportation system and an equalized transportation system that incentivizes active decision making for daily mode choices. Finally, a peer review of similar universities was conducted to identify innovative strategies to manage increased parking demand and provide enhanced transportation demand management programming.

#### **Alternative Futures Evaluation**

There are three scenarios that Georgia Tech could pursue to address concerns related to an increased parking demand, and stakeholders determined the optimal scenario for Georgia Tech given their goals. Each scenario represents a high-level Alternative Future, which exemplifies Georgia Tech's vision for its future parking and transportation system. **Figure 6** outlines the three scenarios where Scenario A represents a scale tipped towards parking, Scenario B represents a scale tipped towards alternative transportation (TDM), and Scenario C represents a scale balanced between parking and transportation.

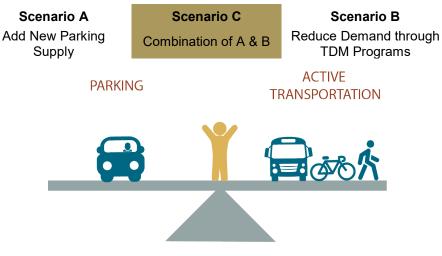


Figure 6: Alternative Futures Illustration

Scenario C currently represents the most realistic, yet ambitious, alternative future for Georgia Tech's parking and transportation system, using a combination of parking and TDM policies and programs. While Scenario C represents a balanced scale, the stakeholder feedback revealed that Georgia Tech is interested in leaning more towards TDM in the future. Therefore, the recommendations of this plan focus on reducing parking demand through TDM measures and distributing the resultant parking demand amongst existing parking facilities. This will ideally set the stage for future master planning to further Georgia Tech's vision of accommodating travel to campus without major parking infrastructure increases.

# **Parking Assessment**

Advancements in Georgia Tech's transportation system are helping increase the use of alternative modes of transportation despite Atlanta's car-centric culture. To effectively address future changes to travel demand, having a comprehensive understanding of Georgia Tech's transportation system is critical. While housed in one department, Georgia Tech operates parking separately from all other travel modes. This approach is a part of the legacy built by previous campus and transportation plans. As such, the Georgia Tech Parking and Transportation Immediacy Plan evaluated parking and transportation demand management separately but highlights the interdependence of parking and TDM.

Phase 1 of the Immediacy Plan evaluated the existing conditions of the Georgia Tech transportation system, which includes the parking operations and corresponding parking occupancy, the TDM programs offered by GT PTS, the mode share of students, faculty, and staff commuting to and from Georgia Tech's campus, and stakeholder engagement activities. These evaluations resulted in the understanding that Georgia Tech operates a highly functional system with several permit options and plenty of parking; however, there are challenges associated with the growing demand in the two aforementioned subareas. The current challenges, including the low walking tolerances of faculty and staff, desire for more frequent transit, and disdain for moving parking locations to accommodate special event parkers, will be heightened as traffic increases in the subareas.

#### **Parking Facilities**

GT PTS oversees parking on the Georgia Tech campus, and the department manages 35 parking facilities, which encompasses 14 parking decks, 21 surface lots, and on-street parking. The 2019 parking assessment identified a total of 12,515 on-campus parking spaces. Additionally, parking accounts for roughly 13% of the total land area on campus. Campus visitors and non-permit customers are required to park in visitors lots or metered spaces and pay the posted rates. Visitors are permitted to park in 10 different facilities across campus, some of which are designated as visitor-only while others are shared with permit holders. The distribution of facility types is shown on the map in **Figure 7**.

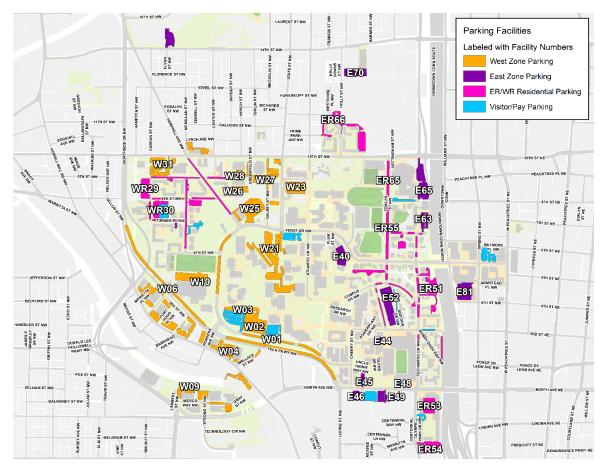


Figure 7: Georgia Tech Parking Facilities

#### **Parking Permits and Revenue**

GT PTS offers multiple options to access parking on campus. **Table 2** details select parking permit options, associated purchase rates, and pay-as-you-go options. Based on information obtained from GT PTS, nearly 15,000 permits were sold in fiscal year 2018. There were 12,984 annual parking permits, 938 carpool permits, 786 SmartPark permits, and 221,665 visitor transactions. When factoring in permit sales, events, citations, and other parking revenue streams, GT PTS services generated approximately \$16,873,000 in fiscal year 2018. Funding to support Transportation operations is generated and reported separately and is primarily funded through student fees and Institute allocations. In fiscal year 2018, Transportation Services generated approximately \$5,261,000 in revenue. Revenue generated by GT PTS is solely devoted to providing services that directly benefit customers. As an auxiliary unit within Campus Services, the department is financially self-sustaining, with Parking generating its own revenue.

Permits are purchased by Georgia Tech faculty, staff, students, vendors/contractors, and visitors. Parking in the facilities is first come, first served, however, there are some spaces designated for a specific use, referred to as nested spaces, in each facility. The types of nested spaces include ADA, Reserved, Service, Hybrid vehicle, Electric vehicle, and Zip Car. All campus parking rules and regulations are enforced 24-hours a day/7-days a week.

	Table 2: Parking Permit Options						
Permit Type	Permit Cost	Permit Description	Permits Sold (2018)				
Annual Parking	\$795.00	<ul> <li>The Annual Individual Permit is valid for use from August 15<sup>th</sup> through August 14<sup>th</sup> of the following year. This permit allows its owner to: <ul> <li>Park in one assigned area at any time (except as needed for special events)</li> <li>Park after-hours (5:00 pm to 8:00 am) and on weekends (5:00 pm Friday to 8:00 am Monday in non-residential, non-visitor parking areas (6:00 am daily for E45 and E81).</li> </ul> </li> <li>Permits may be purchased year-round at prorated prices.</li> </ul>	12,984				
Carpool Parking	\$695.00	Carpooling is an environmentally-friendly way for Georgia Tech students, faculty, and staff to commute to campus and share the cost of a campus parking permit. The carpool permit costs \$100 less than an annual individual permit and can be split among carpool members. The carpool permit is valid from August 15 <sup>th</sup> to August 14 <sup>th</sup> of the following year. Carpools are allowed 12 complementary days of parking per permit year for when the need to drive alone arises.	938				
SmartPa rk Permit	\$25 with \$6 per usage payments	SmartPark is a pay-as-you-go program that costs \$25 to join each year. The program allows parking in one of three campus locations – Technology Square Parking Deck (E81), North Deck (W23), and Visitor Area 1 – at \$6 per usage. Customers are required to purchase SmartPark units at \$6 per usage on The Driver's Seat website using credit cards or in the PTS office using BuzzFunds or credit cards. Payroll deduction for full-time benefits eligible employees is also available online and in the office. Effective August 15 <sup>th</sup> , units may be purchased in bundles of 3, 5, or 10 units. Customers are encouraged to purchase units after their SmartPark permit purchase to prevent delays in future parking attempts.	786				
Visitor Parking/ Pay-as- you-go	\$2.00 per hour and \$15 per day Maximum 0-1 HR = \$2.00 1-2 HRS = \$4.00 2-3 HRS = \$6.00 3-4 HRS = \$8.00 4-5 HRS = \$10.00 5-6 HRS = \$12.00 6-24 HRS = \$15.00	Several visitor parking lots are located on campus that provide hourly parking accommodations for campus visitors. Cash and credit cards are accepted at all visitor parking areas (excluding the Student Center Deck, W02, and the Dalney Deck, W22, which accept credit card payment only). Also, staff members are on hand for assistance during business hours at The Technology Square Deck. E81.	221,665 Transactions				

#### Parking Technology

GT PTS uses modern parking technology to facilitate parking management across the campus. As a part of their standard operations, GT PTS has equipped many parking facilities with License Plate Recognition (LPR) cameras, offers mobile payment options, and uses parking meters and multi-space meters for access control at off-street parking facilities and multi-space meters for paid on-street parking locations across campus. Parking operations are managed through a web-based Parking and Revenue Control System software.

Also, south of 10<sup>th</sup> Street, Georgia Tech has recently opened a parking facility referred to as the Dalney Deck. This parking structure provides an additional 800 off-street parking spaces to help meet parking demand. GT PTS recently converted the Student Center Deck to gated control with pay-station to better manage customer access and pay-as-you-go transactions. During this facility conversion, LPR cameras were installed at facility entrances and exits.

#### **Parking Occupancy**

To better understand the parking demand across campus, an occupancy assessment of parking facilities was conducted on March 26<sup>th</sup> and 27<sup>th</sup>; a typical Wednesday and Thursday in the Spring semester of 2019. The team counted the 12,907 parking spaces in the study area every two hours on Wednesday, March 26<sup>th</sup> and Thursday, March 27<sup>th</sup> from 8:00 am to 6:00 pm to determine the occupancy of the system. The observed campus-wide peak occupancy was 73% full at 12:00 pm on Wednesday. The occupancy of each parking facility at this time is provided in **Figure 8**.

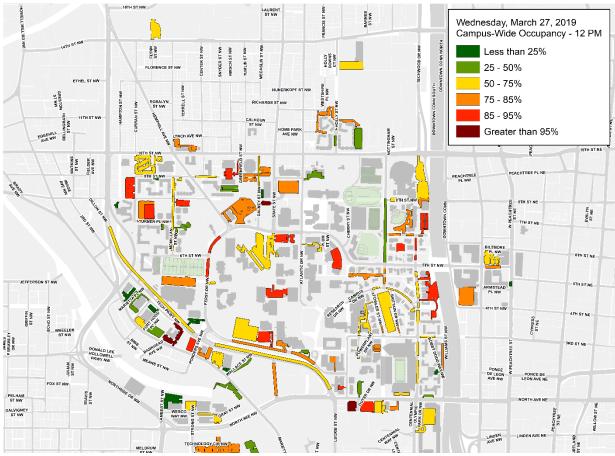


Figure 8: Campus-Wide Peak Occupancy

On Thursday at 12:00 pm, the same campus-wide peak occupancy was observed. For both days, occupancy was lowest in the parking facilities at 8:00 am and 4:00 pm and highest around 12:00 pm and 2:00 pm, as shown on **Figure 9.** There were no significant differences in occupancy throughout the day between Wednesday and Thursday.

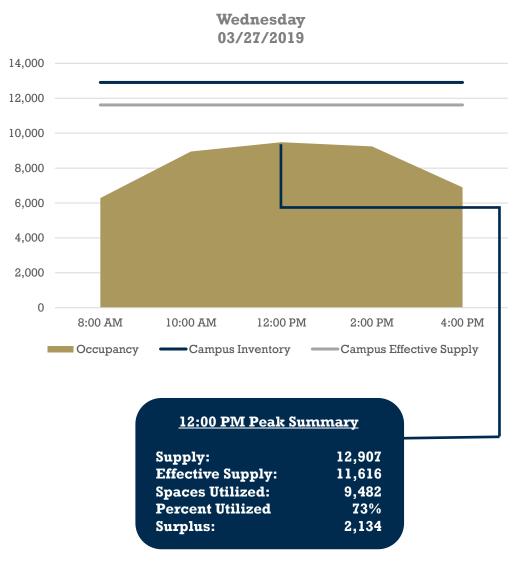


Figure 9: Campus-Wide Occupancy by Hour

#### Campus Center Parking Occupancy

The peak occupancy of the Campus Center subarea was 73% on Thursday at 2:00 pm, with the occupancy of each individual facilities shown in **Figure 10**. Of the 3,307 spaces observed in the Campus Center subarea, 2,428 spaces were occupied, leaving 879 spaces available for use during the observed peak period. Overall, the results indicate that there is flexibility in the parking system near Campus Center at the time the counts were taken; however, there were no major events occurring in the Campus Center area during the two days when parking occupancy was observed. **Figure 11** shows the occupancy rates throughout the day, which reveals that there is even greater flexibility during the off-peak times.

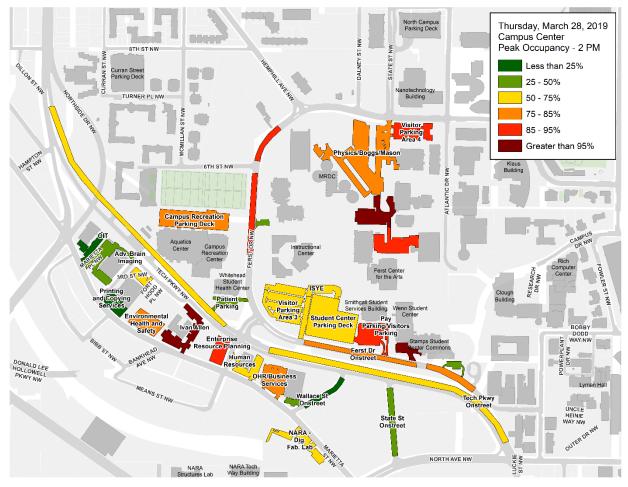


Figure 10: Campus Center Subarea Peak Occupancy

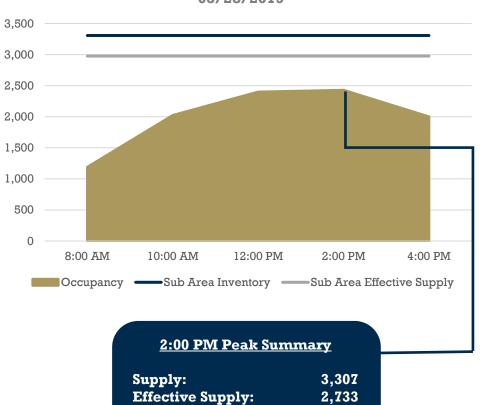


Figure 11: Campus Center Occupancy by Hour

2,414

73%

319

**Spaces Utilized:** 

**Percent Utilized** 

Surplus:

Campus Center Thursday 03/28/2019

18

#### Tech Square Parking Occupancy

The peak occupancy of the Tech Square subarea was 81% at 12:00 pm on Thursday. Of the 2,512 spaces observed in the Tech Square subarea, 2,023 spaces were occupied during the peak observation period, leaving 489 available for use. The occupancy of the individual facilities is shown in **Figure 12**, which shows that most facilities had an occupancy of greater than 75%. There were events happening in Tech Square during the counts, which increased the visitor demand in the various visitor parking locations within the area. A peak occupancy of 81% still leaves some room for flexibility in the parking system in Tech Square. **Figure 13** displays the occupancy by hour, which shows a trend similar to that of the Campus-wide and Campus Center data.

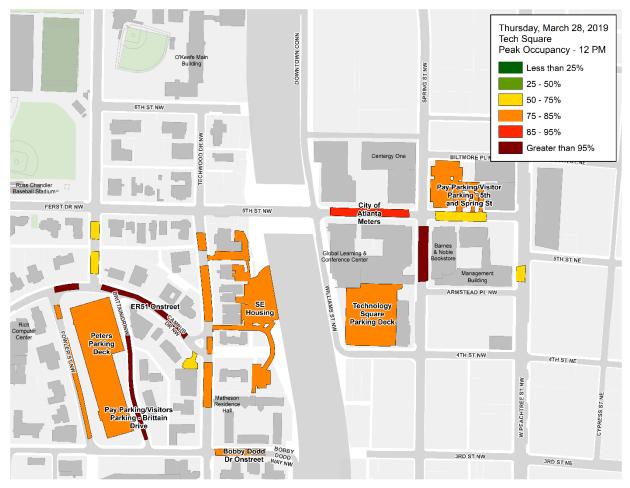
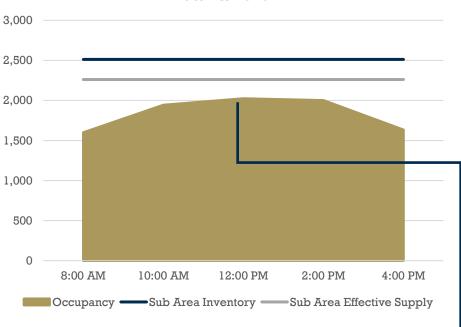


Figure 12: Tech Square Subarea Peak Occupancy



Tech Square Thursday 03/28/2019

12:00 PM Peak Summary				
Supply:	2,512			
Effective Supply:	2,260			
Spaces Utilized:	2,034			
Percent Utilized	81%			
Surplus:	226			

Figure 13: Tech Square Occupancy by Hour

Georgia Tech Parking and TDM Immediacy Plan

# Transportation Demand Management Assessment

In addition to overseeing Georgia Tech's parking system, GT PTS manages the campus transit system and transportation demand management program. TDM strategies interact with parking pricing and policy to influence parking demand and ultimately the Institute's cost of providing parking.

TDM describes programs and incentives that shift some employees and students from driving alone and parking on campus to alternative modes. TDM strategies fall into five different categories:

- **Services** include public and private transit service, shuttles, car-share, bicycle/scooter-share, and others. Campuses can tap into regional/city-wide services or provide their own, and often do both.
- **Infrastructure** includes small road, transit, bicycle and pedestrian infrastructure, and end-of-trip facilities on campus that support the use of alternative modes of transportation. Examples include bicycle parking, curb management, and wayfinding.
- **Parking management** includes parking pricing, preferential and/or discounted parking for carpools and vanpools, and carshare parking.
- **Incentives** can be provided to commuters to equalize the costs of alternative modes with driving. These include transit pass subsidies, discounts on car-share and bicycle-share memberships, or credits toward using ride hailing apps or scooters as part of the commute. Incentives are also heavily intertwined with parking management practices.
- Education is an integral part of TDM that ensures students, faculty, and staff are aware of the transportation options available to them and the programs and services offered by the Institute. It includes general and targeted marketing, information kiosks, trip planning assistance, and educational events.

TDM programs do not mandate how people travel but rather they offer incentives and promote commute options to those who have the ability and interest in changing how they get to campus.

# How do TDM and parking influence each other?

There are several ways in which parking and TDM are interrelated. Cheap and plentiful parking incentivizes automobile trips, while parking priced higher than alternative travel modes helps to incentivize commutes by walking, bicycling, and using transit. Similarly, convenient access to transit and walkable built environments encourage travel by alternative modes, which decrease the utilization of parking while maintaining the existing infrastructure. Even so, the continuation of a car-centric culture, through the provision of ample destination-proximate parking, reinforces the mindset that drive-alone behavior is preferred and expected, mitigating the effectiveness of TDM initiatives. This highlights the complicated and sometimes adversarial relationship between parking and TDM. To help manage transportation demand and encourage commutes by alternative modes, GT PTS will need to address the cost, convenience, culture, and built environment associated with the Georgia Tech transportation system. Illustrated in **Figure 14**, these factors influence sustained behavior change that can help GT PTS address increased parking demand.

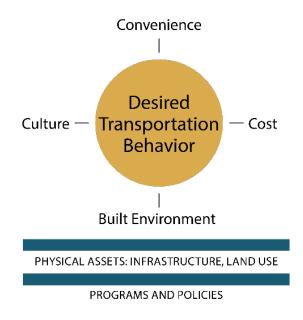


Figure 14: Factors for Influencing Sustained Behavior Change

Offering a robust TDM program decreases the number of students, staff, and faculty who drive to campus alone and thereby frees up parking supply for others who do not have a convenient alternative to driving alone. The immediate result of this can include increased commuter satisfaction for commuters who continue to drive due to shorter wait lists and the potential opportunity to park closer to their destination. Commuters who switch to alternative modes also often experience an increase in commute satisfaction due to a reduction in congestion and parking-related stress or increased wellness from using active commuting modes.

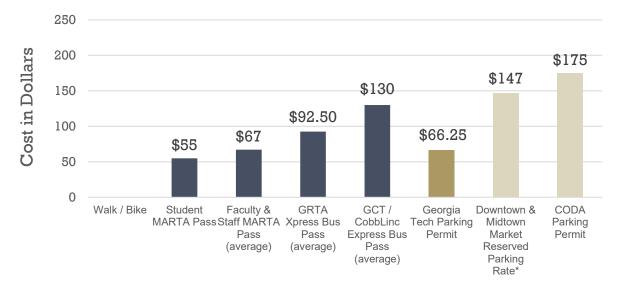
A meta-analysis of 36 Georgia Commute Options commuter surveys (7,022 total responses) demonstrates this relationship for the Atlanta region:

- 37% of commuters who predominately drive alone to work (three or more days per week) are very satisfied or satisfied with their commute
- **46%** of commuters who predominately **do not drive alone** to work (drive alone two or less days per week) are very satisfied or satisfied with their commute

In the long run, offering programs, services, and incentives to reduce driving alone will be far less expensive than building new parking, while also freeing space for higher value uses.

Parking policy and pricing is a TDM strategy where pricing parking appropriately reduces artificial demand for parking created by subsidized parking and allows other modes to be more competitive.

• A recent study found that on average a 10% increase in parking fees leads to a 3-4% decrease in parking demand in the United States.<sup>7</sup> When an increase in parking fees is coupled with incentives and subsidies to use alternative modes instead, not only does parking demand decrease at a higher rate, but offering alternatives also mitigates the impact of a price increase.



\*Does not include the cost of automobile ownership

#### Figure 15: Comparison of Monthly Permit Cost by Travel Mode

As seen in **Figure 15**, the monthly cost of parking is slightly lower than the cost of a monthly MARTA transit pass for Georgia Tech students, faculty, and staff. On the other hand, the monthly parking cost is substantially lower than the cost of a GRTA Xpress bus pass, Gwinnett County Transit (not shown), and CobbLinc Express bus pass. Lastly, the monthly cost of a Georgia Tech parking pass is less than half the market reserved parking rate for Downtown and Midtown Atlanta, and almost one-third the monthly cost to park at the neighboring CODA building. Currently, the pricing for the Georgia Tech annual parking pass incentivizes automobile trips and disincentivizes taking alternative modes such as transit. Adjustments to the cost of a parking permit at Georgia Tech can help to change the behavior of faculty, staff, and students impacting the cost factor of sustained behavior change.

Finally, parking can support TDM. Parking fees often provide funding for TDM programs and incentives which further reduce the drive-alone rate and corresponding parking demand.

<sup>&</sup>lt;sup>7</sup> Lehner, S. & Peer, S. (2019). The price elasticity of parking: A meta-analysis. *Transportation Research Part A: Policy and Practice, Volume* 121, pp. 177-191

## **Campus Transportation Infrastructure**

Georgia Tech provides infrastructure for multiple transportation modes as well as key TDM programming. The campus is accessible by walking, bike, or scooter through a combination of bike lanes, multi-use paths, and low-stress road infrastructure as shown in **Figure 16**. To serve cyclists, 1,334 bike racks provide 3,691 bike parking spaces throughout the campus. Access to shared micromobility devices is available through twelve Relay Bike Share stations on or adjacent to the campus and a variety of dockless scooter and e-bike providers. Relay Bike Share offers a \$7.50 monthly membership for students with an .edu email address, cutting the cost in half from \$15.00. Complementing this system are bike fix-it stations, education classes, and helmet sales. There is a Bicycle Infrastructure Improvement Committee leading advocacy as well as a webpage dedicated to biking at Georgia Tech. Additionally, Zipcar rentals by the hour are also available on campus and subsidized.

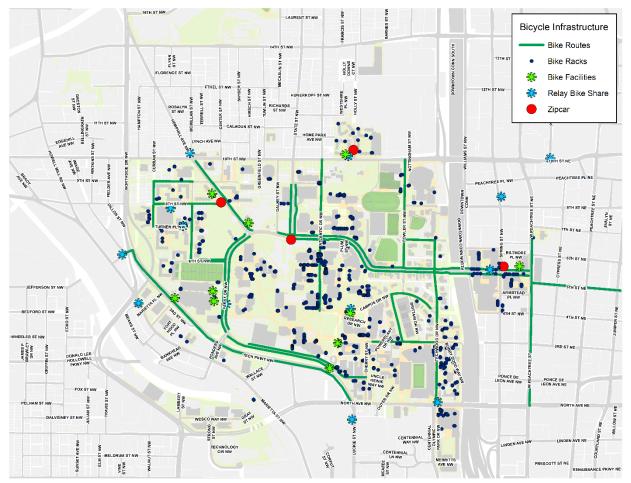


Figure 16: Georgia Tech Bicycle Infrastructure

# Transit

Georgia Tech offers discounted student and employee monthly transit passes from MARTA and other regional transit providers. The Institute also offers pre-tax deductions for faculty and staff. **Table 3** lists the transit passes offered by GT PTS and the discounted rates available to Georgia Tech faculty, staff, and students. In fiscal year 2018, GT PTS sold 10,894 monthly transit passes.

Table 3: Transit Passes Offered by GT PTS (2018)				
Pass Type	Pass Amount	<b>Discounted Price</b>	Discount %	Passes Sold
MARTA Student	\$68.50	\$55.00	19.7%	6,072
MARTA Faculty/Staff – Monthly	\$83.80	\$72.00	14.1%	891
MARTA Faulty/Staff – Payroll	\$76.00	\$62.00	18.4%	3,422
Deduction				
CobbLinc – Express	\$125.00	\$110.00	12.0%	23
GRTA Xpress – Blue Zone	\$125.00	\$110.00	12.0%	242
GRTA Xpress – Green Zone	\$90.00	\$75.00	16.67%	175
Gwinnett County Transit – Zone 1	\$130.00	\$115.00	11.5%	11
Gwinnett County Transit – Zone 2	\$180.00	\$165.00	8.33%	0

Georgia Tech also operates a free shuttle service that connects different parts of the campus and select locations off the main campus. The Tech Trolley, pictured in **Figure 17**, is a high-frequency service that connects the main campus with the Tech Square area and the Midtown MARTA station and serves as a last-mile connector for regional transit commuters. Multiple high-frequency Stinger Bus routes connect student housing and parking lots with on- and off-campus academic and auxiliary facilities. The service hours and peak frequency of these transit offerings during the Fall and Spring semesters are summarized in **Table 4**. To connect Georgia Tech with external sites, lower frequency shuttle routes provide connections to destinations such as Atlantic Station and Emory University. Lastly, the PassioGO app offers real time arrival information for shuttles. **Figure 18** highlights transit routes and infrastructure provided on Georgia Tech's campus.



Figure 17: Tech Trolley at Ferst Drive Stop

# Needs Assessment and Future Conditions

Table 4: Fall and Spring Weekday Transit Service				
Route	Service Hours (Monday – Friday)	Peak Frequency		
Tech Trolley	5:45 am – 10:30 pm	Every 7 min		
		(7:20 am – 6:35 pm)		
Red Stinger Shuttle	7:00 am – 9:50 pm	Every 8 min		
		(7:35 am – 5:45 pm)		
Blue Stinger Shuttle	7:00 am – 10:00 pm	Every 9 min		
		(7:35 am – 6:00 pm)		
Green Stinger Shuttle	6:45 am – 9:00 pm	Every 16 min		
_		(8:00 am – 7:00 pm		
GT/Emory Shuttle	7:15 am – 7:12 pm	Every 80 min		
		(7:15 am – 7:12 pm)		
Midnight Rambler	8:00 pm – 2:20 am	Every 15 min		
_		(8:00 pm – 2:20 am)		
NARA/TEP	7:20 am – 6:15 pm	Every 18 min		
		(7:20 am – 6:15 pm)		
Tech Square	7:30 am – 6:25 pm	Every 10 min		
-		(9:15 am – 6:25 pm)		

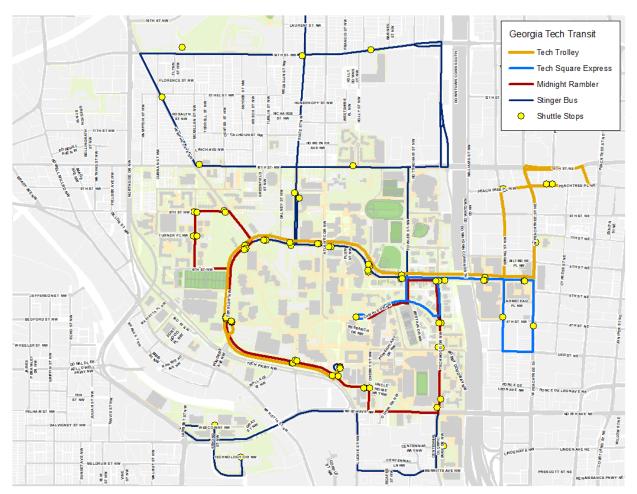


Figure 18: Georgia Tech Transit System

# **Home Location Analysis**

Using alternative modes to driving is highly dependent on a user's point of origin. Faculty, staff, and students that live closer to Georgia Tech will be more likely to use an alternative mode than commuters that live further from campus. To better understand the potential population of faculty, staff, and students that could use an alternative mode, a capture analysis was conducted based on home location. GT PTS provided anonymized home locations of all employees (faculty and staff) who currently hold a Georgia Tech parking permit. The total number of primary permits (minus SmartPark passes, evening-only passes, and incomplete address information) that could be mapped is 5,662.

To determine access to alternative commute modes, the following industry standard travel sheds specify the viability of alternative modes:

1: A ten-minute walk to the Georgia Tech campus

2: A ten-minute walk to a Georgia Tech shuttle stop (includes Tech Trolley and Stinger Bus)

3: A ten-minute walk to a MARTA rail station

4: A three-mile bike ride to the Georgia Tech campus

5: A ten-minute walk to a MARTA bus stop with direct service to the Georgia Tech campus or to the Midtown MARTA rail station

6: A ten-minute drive to a MARTA rail station that has a dedicated park-and-ride lot

7: A fifteen-minute drive to a GRTA Xpress park and ride lot with direct service to Midtown Atlanta at Tech Square

**Table 5** shows the travel shed analysis results. Each employee permit holder's home location was assigned one travel shed, with the hierarchy listed in the order above.

Table 5: Travel Shed Analysis Results				
Travel Shed	All Primary Permits	Percentage of Total Permits		
Walking	145	2.6%		
GA Tech shuttle	61	1.1%		
MARTA Rail (Walking)	123	2.2%		
Biking	589	10.4%		
MARTA Bus	180	3.2%		
MARTA Rail (Park and Ride)	485	8.6%		
Xpress	1,101	19.4%		
No Alternative Mode Access	2,978	52.6%		
Total permits (employees)	5,662	5,662		

**Figure 19** shows the home locations of Georgia Tech employees who have an annual parking permit to park on campus. Home locations that fall within a gray area of the map have access to a GRTA Xpress park-and-ride location within a 15-minute drive. Similarly, home locations within orange areas have access to a MARTA park-and-ride location within a 10-minute drive. Every person whose home location is in one of the colored areas of the map is considered within the travel shed and has access to the associated mode.

**Figure 20** shows the home locations of employees that have an annual parking permit but have reasonable access to alternative mode options. Home locations in yellow have access to MARTA bus routes within a 10-minute walk, locations in dark blue are within a three-mile bike ride to Georgia Tech's campus, locations in green are within a 10-minute walk to a MARTA rail station, locations in pink are within a 10-minute walk to a Georgia Tech shuttle, and lastly, locations in light blue are within a 10-minute walk to the Georgia Tech shuttle, and lastly, locations in light blue are within a 10-minute walk to the Georgia Tech campus.

# Needs Assessment and Future Conditions

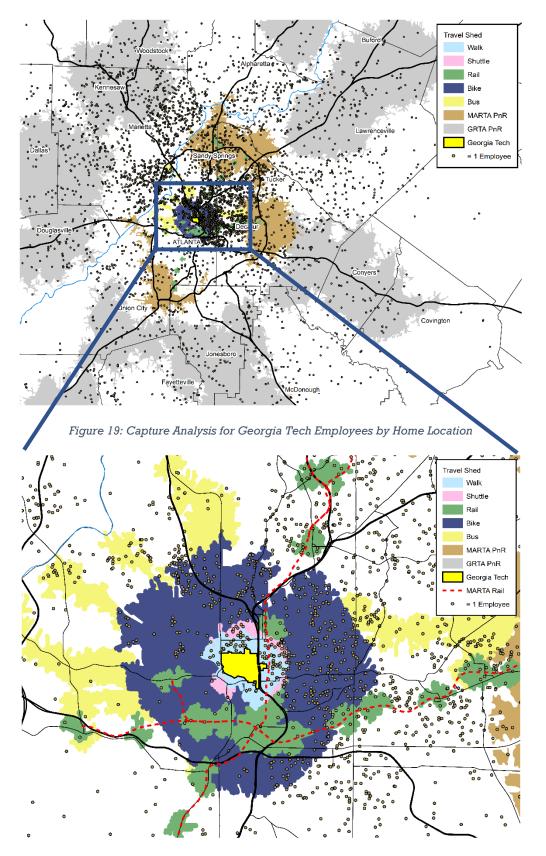


Figure 20: Capture Analysis for Georgia Tech Employees by Home Location - Zoomed in

# Georgia Tech Parking and TDM Immediacy Plan

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In addition to the campus-wide analysis, the Consultant Team analyzed the Campus Center and Tech Square. To determine the number of parking permits in the two focus areas, the Team assigned nearby parking facilities to the two focus areas (see **Table 6**).

Table 6: Subarea Travel Shed Analysis Results for Parking Permit Holders				
Travel Shed	Campus Center	Tech Square		
Walking	45 (3.4%)	26 (2.0%)		
GA Tech shuttle	10 (0.8%)	14 (1.1%)		
MARTA Rail (Walking)	38 (2.9%)	30 (2.3%)		
Biking	154 (11.6%)	129 (9.7%)		
MARTA Bus	51 (3.8%)	37 (2.8%)		
MARTA Rail (Park and Ride)	105 (7.9%)	118 (8.9%)		
Xpress	252 (19.0%)	244 (18.4%)		
No Alternative Mode Access	673	728		
Total permits (employees)	1,328	1,326		

Of the 5,662 home locations evaluated, nearly half (47%) of parking permit holders have reasonable access to an alternative mode option. While many of these employees could use an alternative mode to travel to Georgia Tech, these commuters elect to travel by automobile and park on campus. Encouraging this population to select an alternative mode option will help increase the parking availability on Georgia Tech's campus and better equip GT PTS to handle event day demand. Also, converting these parking permit holders to non-automobile or carpool trips will help bring Georgia Tech closer to meeting its sustainability goals and lower carbon emissions associated with the Institute.

## **Mode Share Assessment**

Georgia Tech conducts an annual commute survey. This survey was analyzed to understand the travel modes and patterns of the different types of campus populations: students who live off-campus and employees (staff and faculty) who work on the main campus. Mode split, commute distance, and travel time were evaluated for the user groups mentioned above.

#### Mode Split

Off-campus students have significantly lower rates of driving alone to campus (37%) than both staff and faculty. Correspondingly, they have much higher rates of walking, biking, and using Georgia Tech shuttles as their primary commute modes. As shown in **Figure 21**, non-faculty staff have the highest drive-alone rate, at 76%, while 68% of faculty drive alone to work.

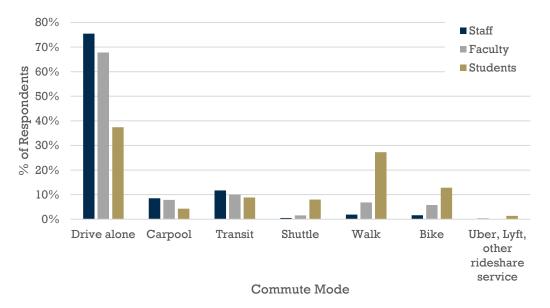


Figure 21: 2018 Georgia Tech Commute Mode Share

Georgia Tech has conducted similar commute surveys since 2015. Between 2015 and 2018, all groups have reduced their drive-alone share: students by 6 percentage points, faculty by 9 percentage points, and staff members by 3 percentage points. **Figure 22** shows the changes in drive-alone commute share. The largest increase in commute share has gone to public transit for staff and faculty members, while for students the largest shift has been towards walking. The increased percentage of students walking to campus may be due to the growing number of students living off-campus at newly developed residential towers/buildings in the West Midtown and Tech Square areas.

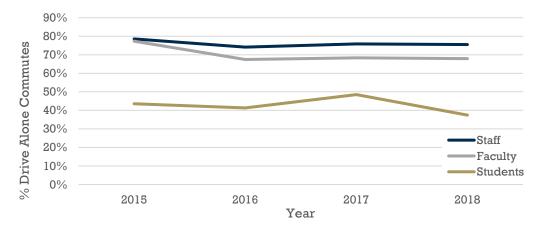


Figure 22: Changes to Drive-Alone Commute Share – 2015 to 2018

#### **Commute Distance**

Off-campus students live closer to Georgia Tech than other campus commuter groups. As shown in **Figure 23**, 64% of students live within four miles of the campus and 10% live more than 20 miles from the campus.

Commute distance is one predictor of mode choice, with commuters being less likely to drive if they live close to Georgia Tech. Of those living within four miles of the campus, 20% of students drive alone, while 42% of faculty and 59% of staff members typically drive alone.

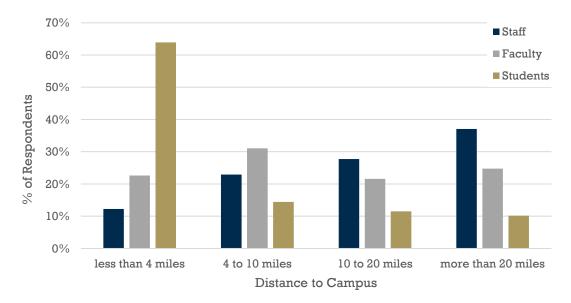


Figure 23: Commute Distance (One-Way)

#### **Travel Time**

Corresponding to the distance from campus, students have the shortest commute times to Georgia Tech. As shown in **Figure 24**, 53% of off-campus students travel less than 20-minutes to school. Only 8% of students travel one hour or more to school.

Staff are most likely to have long commutes, with 24% traveling one hour or more one-way. Faculty have shorter commutes than staff with 25% traveling less than 20 minutes to work and 10% traveling one hour or more one-way.

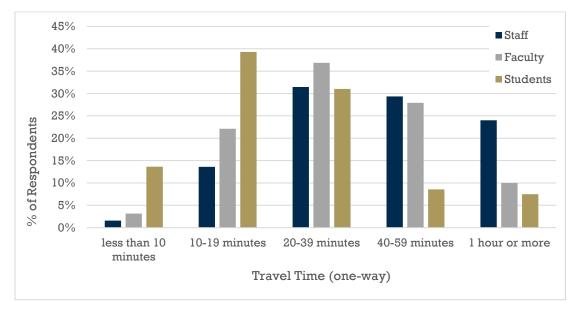


Figure 24: Commuter Travel Time to Campus (One-Way)



To understand the changes in parking demand over the next 5-7 years, the future demand was projected in each subarea. The changes in parking supply and demand, increase in travel to and from campus by visitors and event-goers, and shifts of faculty and staff around campus were considered in this analysis.

The Office of Institutional Research and Enterprise Data Management projects a population increase of 3.34% from 2019 to 2024. **Figure 25** shows that the current parking supply, along with the changes in supply and demand planned over the next five years, can support the associated increase in parking demand for this population increase. Assuming the current peak occupancy rate is applied to the increasing population, the system would be 83% occupied with 2,190 available spaces in 2024. However, this does not take event demand into account.

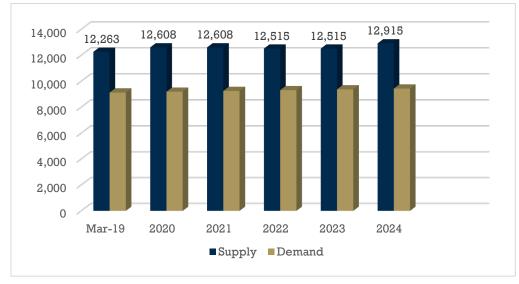


Figure 25: Projected Supply and Demand

Changes on campus due to the growth and development in Campus Center and Tech Square create unique parking challenges in each area. The construction and demolition of buildings in Tech Square requires the movement of many faculty and staff office locations around campus, resulting in a net increase in faculty and staff in Tech Square, which increases parking demand. The construction and renovation of buildings in Campus Center will increase visitor and event traffic in the area, resulting in an increase in parking demand. Although there is an already expected increase in parking demand for the Campus Center and Tech Square subareas, due to a high concentration of faculty and staff parking there, excess parking outside of these subareas is not being utilized. The expected increased demand in the Campus Center and Tech Square subareas, and the underutilization of parking outside of these subareas, creates an opportunity to redistribute parking demand and optimize the use of the entire system. A model was created to quantify the changes in parking demand due to events in both subareas and the results of this analysis inform GT PTS of the potential parking demand shortages.

# **Events Analysis**

The anticipated increase in events in both Campus Center and Tech Square will create a significant strain on parking in these areas of campus during certain event periods. Therefore, an estimation of the impact of these events on parking demand is necessary to prepare for potential parking shortages. Stakeholders across campus provided information to understand the nature of their existing events as well as that of future events such as those in the Exhibition Hall, renovated Student Center, and the TS3 Public Element. The Team also worked with the stakeholders to understand the average number of people per vehicle, typical parking locations, and preferences and walking tolerances of event-goers. For both subareas, the Most Common Scenario was determined for each phase to quantify the estimated impact that future events will have on parking demand. Based on past event data, the Most Common Scenario is estimated to occur on a Thursday once a month, or five times per semester, during the fall and spring semesters. Thursday was determined to be the projected peak parking demand day for events because varying types of events overlap on Thursdays while permit holders are still on campus, occupying the facilities at a high rate. This scenario is not a Worst-Case Scenario because it does not represent the maximum number of vehicles that would need to park at Georgia Tech if all event venues hosted their maximum capacity. The Most Common Scenario for Campus Center events accounts for 44% of the total demand that could occur during the worst-case scenario. The Most Common Scenario for Tech Square events accounts for up to 67% of the total demand that could occur during the worst-case scenario.

Stakeholder engagement revealed that each event is unique, and combinations of events on campus are not consistent. However, events are integral to the mission of the Institute, and the development in the subareas will make events more abundant. This prompted consideration to refer to them as "events" rather than "special events." This insight has implications for the recommendations process, as a Most Common Scenario ensures that the recommendations will be applicable to a range of scenarios, whereas the Worst-Case Scenario would most likely require a specific special event management plan. The results of this analysis are critical and guide the recommendations so that Georgia Tech can accommodate the increase in events as Campus Center and Tech Square grow and develop.

#### **Campus Center**

The development and construction phasing in Campus Center will result in several combinations of available event locations in the subarea over the next three years, which is outlined in **Table 7**. Event locations that are opened and operational during a phase are marked with an "X." This table also compares the Worst-Case Scenario and Most Common Scenario in terms of event capacity or number of potential guests per phase. Phase 1 occurs from the present until Summer 2020, Phase 2 is from Summer 2020 to August 2022, and Phase 3 is the full build out of the Campus Center starting in August 2022. Based on feedback from event operators, the Most Common Scenario would occur on Thursdays and accounts for five overlapping events. Cells highlighted in **Table 7** indicate event venues with overlapping events during the Most Common Scenario.

Table 7: Campus Center Event Profile							
Event Location	Capacity	Most Comm Scenario		Phas	se 1	Phase 2	Phase 3
Ferst Center Theatre	1,000	1,000		х		х	х
Student Center Ballroom	500	500		x			
Student Center Theater	198	198		x			x
Campus Recreation Center	3,000	1,000		x		x	x
New Student Center Theater*	300	300					х
Exhibition Hall*	1,200	1,200				x (0.5)	х
New Admissions Theater*	150	150				x	х
Miscellaneous	50	50		x		х	х
Worst-Case Scenario # of Potential Guests			4	,748		4,800	5,898
Most Common Scenario # of Guests			1	,748		1,800	2,598

\* Proposed facilities

# Needs Assessment and Future Conditions

**Figure 27** and **Figure 28** summarize the results of the Campus Center events analysis and applies them to the observed parking demand. As expected, the parking deficit increases with each Phase as more event venues open and visitor/event-goer parking demand increases. It is also expected that the peak visitor/event-goer demand will be in the middle of the day, when permit parkers are using the facilities. This would require permit holders to be relocated from their normal parking location to make room for visitors. The campus-wide occupancy analysis determined that there is enough parking throughout campus for permit parkers; however, event-goers are causing a parking deficit in the campus center subarea. This deficit is important to quantify since shared facilities are first come, first served, and may become full during peak times, potentially displacing permit parkers or leaving visitor/event-goer parkers without a space. Phase 3 results, which correspond to the full build out, ultimately guide the recommendations. By August 2022, during the Most Common Scenario peak hour, Georgia Tech needs to accommodate the 586-parking space deficit and have the procedures in place to accommodate 1,193 visitor/event-goer parking demand. This is an increase in 355 visitor demand during the peak hour. Although this is critical for Phase 3, it is also useful to understand the changes in parking supply and demand over the next three years to prepare for parking shortages in a gradual manner, which is addressed in detail in the recommendations.

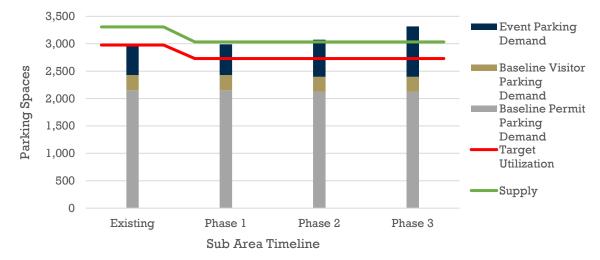


Figure 27: Campus Center Parking Demand - Peak Hour

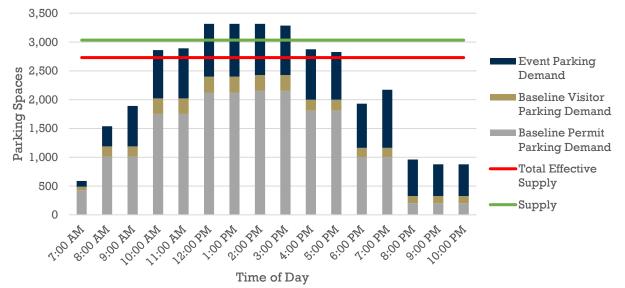


Figure 28: Campus Center Event Parking Demand – Phase 3 (Aug. 2020 – Full Build Out)

**Georgia Tech Parking and TDM Immediacy Plan** 

#### Tech Square

The development in Tech Square will also include an increase in event space, resulting in several combinations of available event locations in the subarea over the next five years, which are outlined in **Table 8**. This table also compares the Worst-Case Scenario and Most Common Scenario in terms of event capacity or number of potential guests per Phase. Cells highlighted in **Table 8** indicate event venues with overlapping events during the Most Common Scenario.

Table 8: Tech Square Events Profile				
Event Location	Capacity Most Common Scenario		Phase 1	Phase 2
GT Hotel & Conference Center	600	300	х	х
Gt Global Learning Center	400	105	х	х
Scheller College of Business	500	50	х	х
CODA	1,000	1,000	х	х
TS3 Public Element	?	225		х
Worst-Case Scenario # of Potential Guests			2,500	2,500+
Most Common Scenario # of Guests			1,455	1,680

**Figure 29** and **Figure 30** summarize the results of the Tech Square events analysis. The parking deficit increases with each phase as more faculty and staff shift to the area with the added academic space, which also adds event space with the public element, and a general increase in activity to the already busy area. The peak demand is in the middle of the day, due to the overlap of permit parkers using the facilities in addition to visitors and event-goers. The occupancy analysis determined that there is enough parking on campus for permit parkers; however, this was conducted before faculty and staff shifted to the new CODA building. Phase 1 incorporates a full move-in of faculty and staff at CODA, the demolition of the 828 West Peachtree building and the removal of the existing Area 6 visitor lot, which has 93 spaces.

Phase 2 results, which correspond to the full build out of the Tech Square Phase 3A development, ultimately guide the recommendations. By Phase 2 completion, as early as Fall 2024, during the Most Common Scenario peak hour, Georgia Tech needs to accommodate the 521-parking space deficit and have the procedures in place to accommodate the 1,221 visitor/event-goer parking demand. This is an increase of 500 visitors during the peak hour. Tech Square differs from Campus Center in that visitor parking is essentially unlimited in the dense Midtown area; however, Georgia Tech would like to provide their visitors and event-goers with reliable parking options and capture the revenue that it generates. The Tech Square area is also somewhat disconnected by I-75/85 from the rest of campus, so there is limited Georgia Tech parking in the area for faculty and staff. This creates a challenge as Georgia Tech works to accommodate parking for its visitors and event-goers as well as its faculty and staff, which have a lower desire to walk further distances than other user groups, such as students.

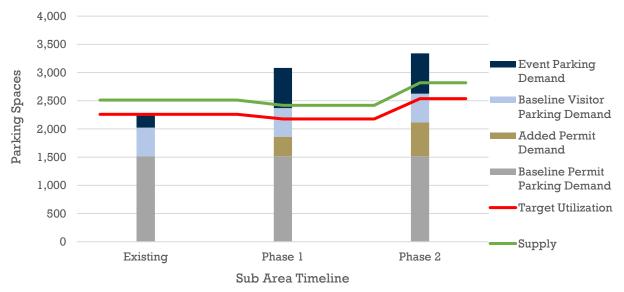


Figure 29: Tech Square Event Parking Demand – Peak Hour

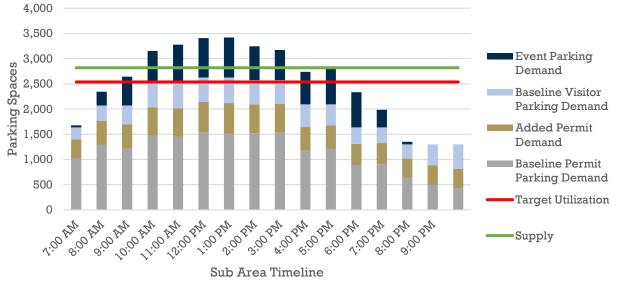


Figure 30: Tech Square Events Analysis Results - Phase 2 (Full Build Out)

In summary, the information gathered from the baseline parking and TDM assessments and forecasting reveals that major additional parking infrastructure is not required for GT PTS to accommodate future demand. There is currently enough parking capacity in the system at other facilities on campus such as the Dalney Deck, North Campus Parking Deck, and Peters Deck to accommodate increased demand; however, behavior change is needed to relocate some existing permit holders from the Campus Center and Tech Square subareas. GT PTS will need to apply measures that encourages permit holders to change their travel behavior. Implementing a robust TDM program will help reduce parking demand through shifting the culture towards taking alternative modes. Combining encouragement of alternative transportation use with a percentage shift of parking permit holders outside of the high demand subareas will help to address increased parking demand due to events.

# Needs Assessment

Based on the existing parking operations and TDM programs offered by GT PTS and the forecasted heightened parking demand generated from growth and increased events in the Campus Center and Tech Square locations, six areas of improvement were identified. These areas highlight changes needed within GT PTS' approach to parking and TDM, which, over the next five years, the department will need to address in order to effectively manage parking and transportation. The grouping of these needs highlights the important connection between parking and TDM and the necessity for GT PTS to consider both in tandem to adequately reduce drive-alone trips and accommodate travel to campus.

# Manage Growing Parking Demand while also Addressing Cost, Availability, and Proximity-related Concerns

Parking management strategies depend on the three major parking priorities: cost, availability, and proximity, illustrated in **Figure 31**. Parking systems can strive to achieve two of these priorities, but not all three. For example, it is extremely difficult to manage a system which provides readily available, low-cost parking in close proximity to each faculty member's office location. Through stakeholder engagement, graduate students and lower income staff voiced their concern about the current annual permit price. It was also identified that faculty and staff are less likely to walk as far as students. Additionally, there are concerns among all users relating to the future availability of parking following the growth and development of Tech Square and Campus Center.

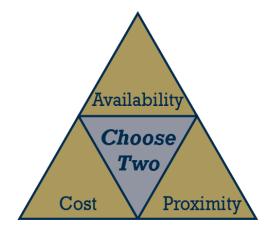


Figure 31: Parking Priorities Triangle

Increasing the cost of parking can be a highly contentious decision. Even small changes in the cost of parking can result in large debates. A decision to increase the price of annual permits should be compared to the cost of providing needed transit, TDM, and maintenance of parking facilities. Additionally, increases should compare the costs of different options for Georgia Tech's future. With each future scenario, GT PTS will be required to increase the cost of parking on campus. Whether GT PTS pays the cost to build more parking, discontinues events to allow permit holders to park without competition, or provides support for TDM programming, the cost of parking for permit holders and visitors will increase. Deciding on the correct amount of this increased cost will be critical to managing future parking demand on Georgia Tech's campus.

It is important that GT PTS consider these concerns and priorities as they implement strategies to distribute and reduce parking demand to accommodate growth in the Campus Center and Tech Square areas.

# Align Parking and Transportation Goals with Institute Goals

The success of parking and transportation plans depend on the unified efforts of GT PTS, campus-wide stakeholders, and upper level leadership. This Immediacy Plan has the opportunity to bring these groups together to define the relationship of parking and TDM, consolidate transportation goals, and set a campus mobility vision for action in the future master plan. This Immediacy Plan differs from other plans because it prioritizes transportation as its center. The current Quality Enhancement Plan (QEP), for example, which was developed to maintain accreditation, has as its three core tenants "Serve.Learn.Sustain.". Service, learning, and community engagement in sustainability are most emphasized, yet transportation priorities are not set in accordance with the three areas. Similarly, the Strategic Plan Vision Statement posits Georgia Tech as a leader "...in influencing social and policy decisions that address critical global challenges." Transportation should be understood as one of the key impacts that Georgia Tech has on its community, including sustainability and livability. Transportation investments should align with strategic plans and have clear transportation goals with that foster accountability and institutional support.

# Improve Communications of Transportation and its Relationship to Parking

There is no centralized "information center" for transportation beyond parking. The website is the closest thing to a centralized location for transportation, yet the Auxiliary Services 2018 Customer Service Survey showcases that most students never visited "pts.gatech.edu" or "driverseat.gatech.edu," and most employees only visit one to two times a year. Additionally, Parking and Transportation and related pages on the Georgia Tech Website are not consistent or up to date.

# **Increase Competitiveness of Alternative Modes**

The transit pass discount and the price of parking permits have not been increased in three years. There are more people commuting by transit, per the commute survey, than buying the transit passes. This indicates that the barriers are too high, or the price advantage is too low for people to take advantage of the discount. As previously shown in **Figure 15**, the monthly cost of parking is lower than the cost to use regional bus service, and only slightly higher than the monthly cost of a MARTA pass.

# **Improve Flexibility of Program Choices**

The Georgia Tech annual parking permit window (including carpool) opens in April at the end of the previous school year for the upcoming school year, starting in August. If users do not choose a parking permit at this time, commuters are at risk of being wait-listed and not getting their preferred parking location. In addition, there are few options for affordable daily parking, SmartPark as detailed in **Table 2** or courtesy permits (free parking days) for alternative mode users, except carpoolers. This system prevents commuters from making daily decisions on how they travel to campus and presents a barrier for exploring alternative commute options. GT PTS should explore options for daily parking that allow commuters to have flexible choices in their travel modes and make decisions about their commute on a more frequent basis.

# Continue Internal Circulation and First/Last Mile Improvements

Having travel options within the campus is just as important as having options to get to campus. For faculty and staff commuting to campus, parking as close to their final destination may seem like the only option. Additionally, some faculty and staff elect to drive across campus during the day rather than walk to decrease their travel time and avoid the heat. Because this user group has a lower walking tolerance, GT PTS should evaluate ways to facilitate non-automobile trips across campus. In addition, GT PTS needs to ensure that first/last mile connectivity is not a barrier to encouraging non-automobile trips. The Georgia Tech transportation system provides high quality bike infrastructure and good pedestrian connectivity. Unfortunately, some faculty and staff may be unaware of all of the travel options offered at Georgia Tech, while others choose not to utilize alternative travel options due to the convenience of driving, walking tolerance, perceived time, the reliability of the transit system, or other factors.

# Peer University Review

A parking and transportation peer university review allows leadership to learn about best practices throughout the country in the ever-evolving mobility space. A Georgia Tech approved list of peer universities was reviewed and due to the similar urban form and location within their respective cities, the following three universities were chosen: University of Texas in Austin, University of Washington in Seattle, and Stanford University in Palo Alto, California. An analysis of their parking and transportation systems and a one-hour phone call interview with leadership were conducted. Question topics included: parking pricing, communications, real-time technology, funding, walking tolerances, carpool programs, and goals and performance metrics.

# Summary of Peer Review Key Best Practices

- Place alternative modes on the same or higher footing than drive-alone trips
- · Fully/heavily subsidize transit to improve mode splits and decrease drive-alone trips
- Communicate mode options effectively to commuters
- Consistently fund alternative mode improvements and TDM programs
- Increasing the cost of parking is necessary to provide transportation services and support TDM

# **University of Texas – Austin**

**Campus Statistics** 

- 75,000 daily population
- 51,000 students
- 431 acres
- 16,000 parking spaces



The University of Texas (UT Austin) is the most similar to Georgia Tech in terms of urban form. UT Austin is a pedestrian friendly campus in between an urban

neighborhood and bustling southern city core, with an interstate highway as a barrier between areas of campus. Also similar to Georgia Tech, parking on campus is priced below the market rate for the area, likely due to the high parking prices in downtown Austin. However, contrary to Georgia Tech, transit passes at UT Austin are offered free to faculty, staff, and students by tapping their campus ID cards. As a result, between four and seven million rides from UT Austin affiliates are estimated per year.

Additionally, UT Austin takes a proactive approach to managing e-scooters on campus with a \$75,000 operating fee and geo-fenced pedestrian heavy areas, limiting speeds to 8 mph. Additionally, the University partnered with Lyft for an additional \$30,000 to be the official transportation network company (TNC) of the university.

Events are managed through one centralized person at the Parking and Transportation Services office, and event hosts must go through a process to request parking. During on-campus events, permit holders are allowed to move to a different garage. Faculty and staff are encouraged to park in alternative locations, while students are restricted from parking in event only areas during heavy event days.

# Key Findings:

- Campus parking is below market rate
- Transit is fully subsidized
- E-scooter companies will comply with regulations
- Centralized event management

# University of Washington - Seattle

#### **Campus Statistics**

- 70,000 daily population
- 48,000 students
- 703 acres
- 12,000 parking spaces

The University of Washington in Seattle is located north of the Montlake cut that connects Lake Washington and Lake Union, a few miles north of downtown. The



University of Washington had not raised their parking rates for eight years, and pricing was based on what they charged historically over the past 10-15 years. Because the University of Washington in Seattle campus is located slightly outside of downtown Seattle, parking pricing rates in downtown were excluded from the University's market rate comparison when considering changes to the cost of parking. The University is the largest holder of parking spaces, and the market comparison found that the University influences the parking market to the point where commercial operators set their price based on the University's pricing. Recently, a 12% increase to the University's parking rates was approved by the Board of Regents.

The University of Washington manages events with two separate units: one to manage events where they employ students to manage lots and collect revenue for large events such as football games and the other for smaller events where event hosts call in and request spaces, which can be administratively burdensome. TDM is encouraged to manage demand for heavy events, and they rely on bike corrals and the LINK light rail station outside the football stadium on the southern edge of campus. The University overhauled their website to provide equal billing for all transportation modes. As seen in **Figure 32**, the University's webpage highlights all travel options and does not skew commuters towards driving. Additionally, the University has updated their focus on communication and use of Salesforce to track all customer emails. They send mode specific newsletters to keep people informed about what is going on, with the transit newsletter distributed quarterly and the active transportation newsletter distributed monthly.



Figure 32: University of Washington Website Landing Page

As a part of the University's effort to support active transportation, all parking citation revenue is dedicated to support the active transportation program. The revenue covers the administrative costs to include promotional materials as well as building out the bike parking infrastructure such as "bike houses." One challenge that the University faces is that the current funding model, where the parking cost subsidizes the TDM programs, is not sustainable because as transit usage goes up, the revenue decreases.

# **Key Findings:**

- Campus sets the market rate due to location slightly removed from downtown
- Fully subsidized transit passes (U-Pass) are offered to faculty and staff
- Events supported by rail transit
- Engaging, educational website

# **Stanford University**

#### **Campus Statistics**

- 32,000 daily population
- 16,250 students
- 8,180 acres

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Stanford University has a daily population similar to Georgia Tech, close to 32,000 people and the majority of students live on campus. The Parking and

Transportation Services department employs 28 full-time staff members and administers parking, shuttle operations, and one of the most comprehensive university TDM programs in the country. Stanford evaluates and increases parking pricing each year, with increases between 3% and 8% percent each year over the past five years. The University only offers monthly parking passes, and cheaper options are available at lots farther from campus.

The center of campus is 1.5 miles from the Palo Alto commuter rail station, and Stanford offers a free shuttle and a Go Pass, which includes unlimited free Caltrain trips to all students and employees, which has resulted in a 20% transit mode share. Stanford's standard TDM programs are provided to all eligible Stanford affiliates, with enhanced programs offered to the Stanford Commute Club, available to faculty and staff who work on the main campus for at least 20 hours per week and use sustainable transportation. Standard programs include free transit (Caltrain, VTA, East Bay express buses, and AC Transit's Line U East Bay express bus), a free shuttle, free commute planning, free bike safety classes, ride matching services, and \$10 weeknight car rentals. Club members can receive free carpool permits, free vanpools, parking cash-out payments, reserved carpool/vanpool spaces until 10 am, and have daily parking permits for purchase, a refer-a-friend program, and much more to support those committing to a sustainable commute.

## Key Findings:

- Recent parking price increases
- Less proximate lots cost less money
- Rail transit shuttle creates connection
- Must be enrolled in Stanford Commute Club to receive premium TDM benefits

# **B:** Recommendations and

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# Implementation Plan

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# **Big Bold Ideas**

The Georgia Tech Parking and TDM Immediacy plan envisions improving the way people travel to campus by implementing targeted changes over the next five to seven years. The vision also led to developing some programmatic goals and tactical recommendations in the Immediacy Plan. To help distill these recommendations, **Figure 33** describes the big bold ideas of the plan that will help GT PTS meet the needs of the Institute.



Figure 33: Big Bold Ideas

# **Programmatic Goals and Recommendations**

The Georgia Tech Parking and TDM Immediacy plan provides recommendations for how the GT PTS department can create long-term changes for the way people travel to campus by implementing targeted changes over the next few years. This Immediacy Plan focuses on changes to Georgia Tech's parking and transportation system over the next five years, however, shifting the Institute's approach towards TDM strategies and away from building more parking to meet demand is a long-term goal. Obtaining this goal means that GT PTS will have to focus on refining baseline parking operations, while making some significant leaps forward in transportation demand management. Based on the existing conditions, needs assessment, stakeholder engagement, and expected future conditions, three programmatic goals were established for the Georgia Tech Parking and TDM Immediacy plan:

- 1. Create a culture of sustainability
- 2. Empower customers to make educated daily decisions, and
- 3. Enhance parking and transportation program efficiency

The programmatic goals and associated recommendations can be seen in **Table 9**. Each program goal reflects an area that should be addressed to help Georgia Tech decrease parking demand, increase its TDM capability, and manage the expected increase in the number of events. Recommendations and the corresponding actions are classified as Immediate (to be completed within the next 3-years) and Long-Term (necessary but can be completed in a longer time horizon of 5-7 years). A detailed Action Plan is provided in the Appendix and should be referred to for step-by-step guidance to accomplishing the recommended actions. This Action Plan connects the recommended actions with the needs they are intended to address and provides calls-to-action for Champions and Key Partners of each recommendation.

Table 9: Parking and TDM Immediacy Plan – Goals and Recommendations			
Goal Recommendations			
Create a culture of sustainability	Align goals of sustainability across Institute departments		
	Decrease mid-day drive-alone trips		
Empower customers to make educated daily decisions	Balance commute costs		
	Improve flexibility of program choices		
	Highlight the relationship of parking and TDM		
Enhance parking and transportation program efficiency	Distribute parking demand		
	Increase transit connections		
	Streamline parking operations		

# Create a Culture of Sustainability

Creating a culture of sustainability will take coordination between the GT Parking and Transportation Services department and other departments throughout the Institute. Continued commitment by GT PTS will play a pivotal role in moving the Institute toward its long-term sustainability goals.

# Objectives:

- Reduce drive-alone trips and set the baseline for the future master plan,
- Align infrastructure improvements with previous planning efforts, and
- Identify funding sources and staffing prior to implementing new programs and policies

Reaching these sustainability objectives requires GT PTS to interweave sustainability into their existing practices. By aligning goals for sustainability, Georgia Tech can have a unified vision for what sustainability looks like on its campus and take steps towards realizing that vision. Coordinating with the Office of Campus Sustainability is a key step towards creating a culture of sustainability for Georgia Tech's transportation system.

# Recommendation: Align goals for sustainability across Institute

## departments

The Georgia Tech 2020 - 2030 Strategic Plan for Sustainable Practice, currently in draft form at the Institute and awaiting full adoption, is a 10-year roadmap to create a sustainable campus. This strategic plan establishes five focus areas to guide the campus towards achieving its sustainability goals. The Energy & Emissions focus area is of relevance to GT PTS because this area highlights reductions in emissions, conversion to alternative fuel options, and increases in commuting options such as carpooling, public transit, biking, and walking. To align with campus wide goals, GT PTS should embrace sustainability as a part of its departmental culture.

## Strategy: Elevate sustainability and alternative commuting in the campus culture

Creating a culture of sustainability addresses one of the four pillars of sustained behavior change, culture. Elevating sustainability and alternative commuting in the campus culture requires leadership across multiple levels of campus, from upper level leadership to front line PTS staff and to the community itself. The goal is to remove the stigma of getting to campus without a car and celebrate refocusing the roles and responsibilities of the GT mobility professionals. Socializing the alternative commute culture can help support the community of commuters that choose not to make drive-alone trips. This can also help to develop accountability among commuters and increase the consistency of making the choice to take an alternative mode. One unique difference between drive-alone trips and alternative commutes is the opportunity to socialize with others while traveling to your destination.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Incorporate sustainability into the Parking and Transportation Advisory Committee Activities
- 2021 Provide tailored commute assistance at new student orientation and new hire orientations
- 2022 Develop/refine a new hire orientation packet to include information on mode choice, gaining access to alternative mode options, and the benefits of participating in an alternative mode

#### LONG-TERM ACTIONS: 2023 & BEYOND

• 2023 – Host neighborhood focused mobility mixers that encourage parking permit holders to discuss alternative commute options with faculty and staff that are using an alternative mode

#### Strategy: Increase awareness of commute behavior

Many areas critical to transportation are managed, planned, or executed by other departments, but without unified goal-setting and consistent priorities. Grounding priorities on clearly defined metrics is an objective way to evaluate the performance of Georgia Tech's transportation system. By improving GT PTS' awareness of commute behavior and using performance metrics to support data-driven decision making, the department can measure their policies and practices against target goals.

The Georgia Tech Commute Survey is an excellent source of transportation data and can be used to measure performance over time. A metrics dashboard can be used as a one-stop-shop, showcasing number of parking pass types, transit pass sales, bike registrations, and other key modal numbers gathered through partnerships, such as scooter and bikeshare usage. Additional performance metrics can be added over time. Metrics in the dashboard can be used to measure GT PTS' progress in achieving sustainability goals such as reductions to carbon emissions and increasing non-drive-alone trips.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Improve the annual Commute Survey to enhance awareness of commuter behavior and permit allocation
- 2021 Develop performance metrics dashboard
- 2022 Use the performance metrics dashboard as a tool for expanding and refining the annual Commute Survey as needed

# Recommendation: Decrease mid-day drive-alone trips

To decrease the number of mid-day trips made by automobile, GT PTS should encourage walking, biking, and micromobility use. Highlighting these alternative modes throughout campus and making improvements to pedestrian wayfinding and connectivity will increase people's willingness to forgo automobile use for a different mode. Decreasing mid-day drive-alone trips will be a major part of creating a culture of sustainability because it requires faculty and staff to experience moving throughout Georgia Tech's campus without the use of an automobile.

#### Strategy: Highlight alternative modes

Shining a light on the feasibility of using alternative modes on Georgia Tech's campus can help encourage shifts in mode choice. By showcasing alternative modes and helping faculty and staff overcome the hurdle of using a different mode for the first time, GT PTS can begin to decrease mid-day drive-alone trips. GT PTS should celebrate alternative modes by increasing its visibility on campus and equalizing all mode options. **Figure 34** provides an example of a bike facility that provides covered parking for bikes and open space for students.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Use tactical urbanism strategies to implement quick fixes across Georgia Tech's campus
- 2021 Dedicate space within parking decks for bike commuter parking
- 2021 Finalize mobility hub concepts

#### LONG-TERM ACTIONS: 2023 & BEYOND

- 2023 Develop a financial model that encourages the use of e-bikes and micromobility while leveraging the City's Relay Bikeshare program
- 2023 Construct bike parking facility central to campus according to Georgia Tech Campus Bicycle Master Plan



Figure 34: Bike Hub Example - Curtin University, Perth, Australia

#### Strategy: Improve existing on-campus pedestrian wayfinding and connectivity

Navigating Georgia Tech's campus can be confusing and intimidating. This is particularly true for new faculty, staff, students, and visitors. Being uncertain of how to navigate the campus may discourage exploration and full utilization of what Georgia Tech has to offer. By providing improved pedestrian wayfinding, and incorporating enhanced wayfinding on digital platforms, the GT PTS can open the campus to users like never before. Wayfinding signage should include information like walking distances between key campus locations, mobility hubs, shuttle services, and ride share pick-up/drop-off locations. Additional wayfinding should be provided during events to guide visitors from campus access points to event venues and better educate visitors about alternative modes of transportation available when visiting Georgia Tech.

In addition to informing people about where they can travel on campus, GT PTS should ensure that the pedestrian experience is a pleasant one. This requires improvements to the pedestrian environment. GT PTS should collaborate with Facilities and Capital Planning and Space Management to ensure that there are no gaps in sidewalks/pedestrian infrastructure. This collaboration should also pay special attention to updating Georgia Tech's campus in a way that meets ADA standards. Lastly, Georgia Tech should explore ways to make the pedestrian experience engaging. With the re-opening of the 3<sup>rd</sup> Street Tunnel, GT PTS should incorporate art murals in the tunnel, as seen in **Figure 35**. In addition, Georgia Tech should address safety concerns around re-opening the 3<sup>rd</sup> Street tunnel with modern technology solutions such as high-powered cameras, motion detection lights that brighten during tunnel use, BuzzCard access that restricts tunnel usage to members of the Georgia Tech community after hours, etc.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Upgrade existing pedestrian focused wayfinding
- 2021 Identify gaps in pedestrian connectivity on campus through Georgia Tech community feedback
- 2022 Make infrastructure improvements to address identified gaps in ADA, pedestrian, and bike connectivity

## LONG-TERM ACTIONS: 2023 & BEYOND

• Reopen the 3rd Street Tunnel



Figure 35: University of Manitoba Tunnel Art, Artwork by Vladimir Kraynyk

Georgia Tech Parking and TDM Immediacy Plan

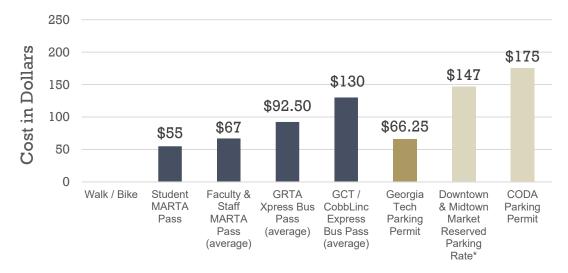
# Empower Commuters to Make Educated Daily Decisions

Informed commuters can strategically evaluate their mode choice and make decisions that work best for their daily travel needs. Rather than making an annual decision about the way they travel to Georgia Tech, students, faculty, and staff should be given the opportunity to make commuting decisions on a day-to-day basis.

## **Objectives:**

- Inform faculty, staff, and student commuters of all options applicable for making an educated decision on how and when they travel
- Balance the user cost of all modes to reduce parking demand, and
- Provide a flexible menu of transportation options so that a user's mode choice meets the mobility need of each day

Currently, traveling by automobile and parking on the Georgia Tech campus is promoted as the default mode choice. When faculty and staff begin working at the Institute, they are provided with a week's free parking until they determine their preferred parking location. This initial experience shapes the way commuters are oriented to accessing the Georgia Tech campus. In addition to placing driving and parking as the default option, the cost for a parking permit skews mode choice towards automobiles. The current cost of an annual parking permit is \$795. When compared to the subsidized monthly transit passes that Georgia Tech offers, as seen in **Figure 36**, the monthly cost of a parking permit is essentially the same price as traveling by MARTA, and significantly less expensive than regional commuter bus options. This leaves little to no incentive for one to do something other than drive alone to the Georgia Tech campus.



\*Does not include the cost of automobile ownership



## **Recommendation: Balance commute costs**

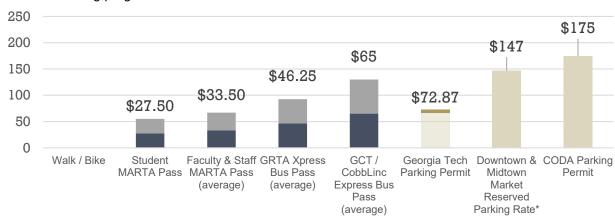
People make travel mode decisions based on cost and convenience. Lower costs incentivize people to use a particular mode, and the cost of parking plays a vital role in the commuter's decision to drive alone. For many motorists, the cost of automobile ownership is a sunken cost, and decisions to drive are not influenced by monthly vehicle expenses. However, when reliable and inexpensive options are presented to commuters, the choice to leave the car at home becomes more attractive.

## Strategy: Increase transit discounts and increase annual permit parking price

Incentivizing more people to take transit by offering an increased transit pass subsidy relieves parking demand pressure by leveraging the strength of the regional transit network and providing a low-cost option to those who may value a more reliable commute. Coupled with an increase of annual permit parking prices, commuters will have the opportunity to choose a commute mode that better reflects their impact on the parking and transportation service at Georgia Tech. Shifting the balance between driving alone and taking transit can be seen in **Figure 37**. A subsidy of 50% of the current discounted rate for all transit passes and a 10% increase in the price of an annual parking permit will help to shift transit ridership and relieve parking pressure for the Campus Center and Tech Square subareas. The overall financial impacts of this decision should be heavily considered so that the decision can be resolute and reflect GT's sustainability goals.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Determine financial impact of increase in transit discount and annual permit parking prices
- 2020 Communicate future changes to parking and transportation costs
- 2021 Increase annual permit parking prices starting in Year 1, and continue with incremental increases each year until a 10% increase in the cost of an annual parking permit is reached
- 2021 Provide one free monthly transit pass to new employees as an alternative option to a parking pass
- 2022 Subsidize all transit passes to 50% of the current discounted rate in year 3 and pair new transit benefits with marketing and rebranding efforts



#### LONG-TERM ACTIONS: 2023 & BEYOND

- 2024 Investigate implementing a daily reward/parking cash-out for faculty/staff that take an alternative commute
- 2024– Investigate implementing the daily commute into the existing University System of Georgia well-being program

#### Figure 37: Monthly Permit Cost with Updated Georgia Tech Transit Subsidy and Permit Price Increase

The 50% decrease in the cost of transit makes transit ridership more affordable for Georgia Tech commuters. With this new pricing structure, students, faculty, and staff that commute by transit will save between \$27.50 (MARTA Student Pass) and \$82.50 (GCT – Zone 2 Pass) a month. Conversely, a 10% increase in the cost of a parking permit only increases the monthly cost for drive-alone commuters by \$6.63. Pairing the decreased cost of transit with an increased cost of driving alone changes the competitiveness of each mode. Under this future dynamic, GT PTS will make it more financially attractive to take transit and promote a shift away from drive-alone trips.



Parking is an annual commitment, often made far in advance of the school year. A few key short-term changes could improve the flexibility of existing programs with minimal disruption to the overall system.

## Strategy: Promote and bundle SmartPark permits

The SmartPark permit program offers motorists the opportunity to park on Georgia Tech's campus at the rate of \$6.00 per usage. With the annual purchase of a \$25.00 permit, motorists can access the campus by vehicle through this pay-as-you-go option. The SmartPark program has the potential to serve as a major call-to-action when promoting alternative mode options. Commuters who walk, bike, carpool, or use transit can also purchase a SmartPark permit to address the occasional need to drive to campus.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2021 Enable SmartPark in all daily facilities
- 2022 Advertise SmartPark as the "pay-as-you-go" option at the time of annual purchase

#### LONG-TERM ACTIONS: 2023 & BEYOND

• 2023 – Investigate bundling SmartPark permit with monthly transit passes

#### Strategy: Enhance carpool program

Carpool permits are offered to commuters at a discounted rate compared to the standard annual parking permit. Commuters can purchase an annual carpool permit for \$695. Aside from the \$100 discount, GT PTS does not currently offer additional benefits to carpoolers commuting to the Georgia Tech campus. Carpoolers are encouraged to use the Georgia Commute Options website and Commuter app for carpool partner matching and commute tracking. Currently, GT PTS does not offer preferential parking for carpools. GT PTS should partner with the Atlanta Regional Commission and Georgia Commute Options to provide enhanced ride matching and cost sharing for carpools. In early 2020, the Atlanta Regional Commission will roll out improved ride matching technology. GT PTS should evaluate this updated technology and integrate this app into the Georgia Tech system to assist with meeting the needs of Georgia Tech carpoolers.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Dedicate nested carpool spaces that turn into visitor parking after 10:00 am
- 2021 Advertise carpool permits with a map of the nested locations and number of spaces in each location

#### LONG-TERM ACTIONS: 2023 & BEYOND

• 2023 – Enable carpool permit holders to split daily costs

#### Strategy: Enable occasional transit usage

Many commuters fall into the category of those with annual parking passes that likely aren't going to be willing to change this travel pattern. The existing system does not discourage driving alone, but rather encourages these users to have the opportunity and the benefit to take transit on an occasional basis. The below actions will help reduce some of the barriers that come with transit use by giving commuters of all types the ability to obtain transit passes intended for the occasional use.

As an alternative to being locked into one travel mode, GT PTS should offer different types of discounted transit passes for commuters based on usage levels. This would give an alternative option to cyclists and motorists on days when their typical commute is not the best option. GT PTS should coordinate with MARTA to offer 10 and 20 trip transit passes at a discounted rate. Discounted transit passes can be sold at the GT PTS office or at a Breeze Card kiosk located on the campus. This alternative should be promoted on the Georgia Tech website and at the time of annual permit purchase to ensure that commutes are informed. Lastly, discounted 10 and 20 trip passes should be formally bundled with annual parking and carpool permits to help manage parking demand on event days.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2021 Coordinate with MARTA and GRTA to offer 10 and 20-trip transit passes at discounted rates
- 2022 Advertise discounted rate for 10 and 20-trip passes with annual permit purchase

#### LONG-TERM ACTIONS: 2023 & BEYOND

 2023 – Bundle 10 and 20 trip passes with annual parking permit and carpool permit as a standard offering

# Recommendation: Highlight the relationship of parking and TDM

The University setting is the best place to enlighten both the young growing minds of students as well as those working on campus, and the parking and transportation office should embrace this role as chief educator on the relationship of parking and transportation demand management. Understanding the personal and societal costs of driving every day to campus may alone help people make the decision to shift their mode to a more sustainable one, but this is unable to happen without a strategic communication plan and updated platforms to communicate to all users of the Georgia Tech transportation system.

#### Strategy: Develop a communications plan

A robust communications plan can serve as an impactful supporting component of the parking and TDM strategy for GT PTS. The plan should leverage both cogent messaging and brand appeal to emphasize the value that a comprehensive Parking and Transportation Service program brings to each audience. Once a value is communicated, simple messaging should be developed for each audience, including clear and achievable calls-to-action.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Develop a Communications Plan to streamline messaging and leverage all PTS customer facing communication channels for all modes
- 2021 Educate customers on new parking regulations and price increases

#### LONG-TERM ACTIONS: 2023 & BEYOND

• 2023 – Create a mobility campaign calendar with a coordinated communications plan

Branding for GT PTS should remain the same until a comprehensive communications plan is developed and the GT PTS has an established "voice." Once a standard voice has been established, the communications plan should leverage GT PTS' customer-facing channels and campus-wide communications to provide targeted messaging to commuters. Through targeted communications, commuters can be educated on new parking regulations, changes to pricing, alternative commute options, and days when higher than normal volumes are expected. The communications plan can also develop campaigns that encourage motorists to participate in car-free days. Car-free days for Georgia Tech commuters can be planned in conjunction with event days when increased parking demand is expected. Rebranding efforts should be paired with major changes to the Georgia Tech parking and transportation system. As recommended, in Year 3 (2023) GT PTS will begin to offer decreased transit passes. A rebrand during this time would be ideal, as the GT PTS department can clearly voice their new approach to focusing on all modes of transportation equally.

## Strategy: Modernize digital platforms

As one of Georgia Tech's Parking & Transportation Services primary vehicles for communications, the pts.gatech.edu website is an information rich, one-stop-shop resource for students, faculty, and visitors. However, the website lacks a structure that would encourage the website viewer to view all transportation options. Modernizing the GT PTS website and other communications platforms will be critical to the department's success. Improvements to this digital platform should be paired with improvements to all communications material used by GT PTS. Coordinating branding elements such as logos, font, and visual consistency will be a key part of maintaining the GT PTS "voice" across communication platforms.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Use graphic design and content specialist when developing new materials
- 2020 Update PTS website to highlight alternative commute options
- 2020 Promote Georgia Commute Options programming to Georgia Tech Faculty and Staff
- 2022 Add rotating real-time transit information to lobby screens across campus
- 2022 Integrate existing and future transportation options into one Georgia Tech specific platform

#### LONG-TERM ACTIONS: 2023 & BEYOND

 2024 – Integrate a commute platform into the Georgia Tech specific app and tie into regional ARC commute program

#### Strategy: Improve the visitor experience

There is currently no mention of MARTA or other regional transit services that service the area near campus on visitor and special event websites. This creates a disconnect between the events that attract visitors to the Georgia Tech campus and the way those visitors get to the campus. To improve the visitor experience, the GT PTS should work with Institute Communications and event operators and venues to promote alternative modes as the first choice for visiting the campus. Special emphasis can be provided to highlight Georgia Tech's easy access to the MARTA rail system by implementing wayfinding that highlights the short walking distance to the North Avenue MARTA station and direct access to the Midtown MARTA station via the Tech Trolley.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2021 Ensure messaging on all visitor-centric communications includes all modes of travel
- 2022 Highlight Georgia Tech's easy access to transit, walkability, and bike ability to event-goers
- 2022 Explore feasibility of pre-sale parking and parking bundled with event ticket purchase/reservation
- 2022 Promote alternative modes on all visitor-centric websites and methods of communication

# Enhance Parking and Transportation Program Efficiency

An efficient parking and transportation program will be able to address the competing demands from annual parking permit holders and visitors, while enhancing options for non-drive-alone trips. Strategic changes to the current policies and procedures of GT PTS can reallocate parking facilities to offer additional pay-asyou-go parking facilities for visitors and SmartPark permit holders.

# **Objectives:**

- Optimize utilization of existing facilities to absorb demand
- Support event activities while accommodating permit holders and maintaining a culture of sustainability
- Generate revenue that supports the parking and transportation system, and
- Leverage technology to improve customer service and program delivery

# **Recommendation: Distribute parking demand**

During events many permit holders are required to relocate to alternative parking locations. Currently this is being done on a case-by-case basis, as dictated by the event location, size and scope. Shifting existing permit holders to less proximate parking facilities and facilitating first/last mile connectivity through active transportation will help to remove the frustration of being relocated on event days. GT PTS should shift permit holders to these remote locations in a phased approach and continuously monitor responses in the parking and transportation system to optimize the distribution of permit holders and event-goers. Additionally, restricting Freshman students from bringing cars to campus, limiting the number of residential permit holders, and shifting them to underutilized secure facilities will allow commuter permit holders to park in more proximate locations that are currently occupied by residents.

## Strategy: Convert select decks to daily/visitor parking

Parking decks in prime locations, such as the Student Center Deck, Tech Square Deck, and Campus Recreation Center (CRC) Deck are optimal facilities to effectively handle visitor demand and maximize revenue while also supporting employees whom choose to drive occasionally and pay daily. The following actions, and those in the more detailed action plan, will help the parking and transportation office find the best balance between daily/visitor and authorized annual permit holders to ensure the needs of the system are being supported. Continuous monitoring of parking facilities and adjustments to the pay-as-you-go percentage goal should be based on user behavior.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Install PARCS equipment at CRC Deck to facilitate conversion to pay-as-you-go parking
- 2021 Determine the phase 2 percentage of pay-as-you-go parking for the Student Center Deck
- 2021 Determine the phased approach for 2024 percentage of pay-as-you-go parking for the Tech Square Deck
- 2021 Conduct phase 2 Shift of permit holders at Student Center and Tech Square Deck
- 2021 Begin operating CRC Deck with pay-as-you-go option
- 2022 Monitor Visitor Usage

#### LONG-TERM ACTIONS: 2023 & BEYOND

• 2024 – Conduct phase 3 Shift of permit holders at Student Center and Tech Square Deck to reach desired pay-as-you-go rates

Converting the decks to daily/visitor parking will require the existing permit holders of these decks to relocate to a different parking location. As a result, some permit holders may need to park at a less convenient location compared to where they currently park depending on where they work. This is a challenge due to the relatively low walking tolerance of the faculty and staff; however, the next strategy,

Support travel from parking facility to office, will aid this transition. Alternatively, the change will not result in a significant change in travel time for some users.

The following maps (**Figures 38-40**) show the number of full-time employee (FTE) parkers in each deck that is being recommended for conversion, and the 5-minute, 10-minute, and 15-minute walking distances from an example permit holder relocation parking deck. The table above each map compares the current travel time to the proposed travel time based on the example new parking location.

#### Student Center Parking Deck

In order to accommodate both commuter and visitor needs, it is recommended that the Student Center Deck convert to a goal of 55% pay-as-you-go by phase 3. To achieve this, a portion of current Student Center Deck permit holders will need to shift to other parking facilities. As shown in **Table 10**, a relocation to the Dalney Deck, for example, does not increase travel time from parking space to the Manufacturing Related Disciplines Center (MRDC) by a significant amount. This would be a relatively easy transition for the 15-50 FTE that currently work in the MRDC and park in the Student Center Deck, as shown in **Figure 38**.

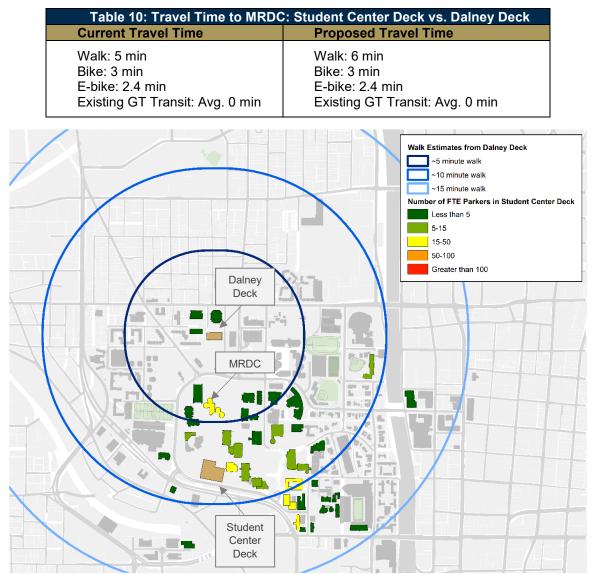


Figure 38: Shifting Student Center Parkers

#### **CRC** Parking Deck

In order to accommodate both commuter and visitor needs, it is recommended that the CRC Deck convert to a goal of 75% pay-as-you-go by phase 3. To achieve this, a portion of current CRC Deck permit holders will need to shift to other parking facilities. Many permit holders park in the CRC Deck and work in the CRC. A shift to Dalney Deck, for example, would increase their travel time as shown in **Table 11**, but it is still a reasonable commute, especially with the bike and pedestrian infrastructure in place along the route. According to **Figure 39**, the Dalney Deck is within an estimated 10-minute walking distance of a majority of the office locations of existing CRC Deck parkers.

Table 11: Travel Time to CRC: CRC Deck vs. Dalney Deck			
Current Travel Time	Proposed Travel Time		
Walk: 1 min Bike: 0 min E-bike: 0 min Existing GT Transit: Avg. 0 min	Walk: 9 min Bike: 5 min E-bike: 4 min Existing GT Transit: Avg. 11 min		

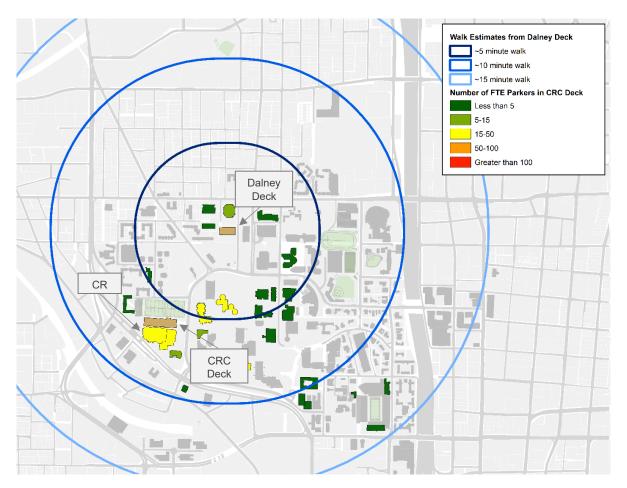


Figure 39: Shifting CRC Parking Deck Permit Holders

#### Tech Square Parking Deck

In order to accommodate both commuter and visitor needs, it is recommended that the Tech Square Deck convert to a goal of 45% pay-as-you-go by phase 3. To achieve this, a portion of current Tech Square Deck permit holders will need to shift to other parking facilities, such as the Peters Deck, which has some availability. If the user works in the CODA building, for example, this parking relocation does significantly increase their travel time, as shown in **Table 12**. However, an e-bike would make this a very comfortable commute. **Figure 40** also shows that there are many locations within the estimated 5-minute walk radius of Peters Parking Deck where FTE who currently park in Tech Square Deck work, including the O'Keefe Building and the Rich Computer Center.

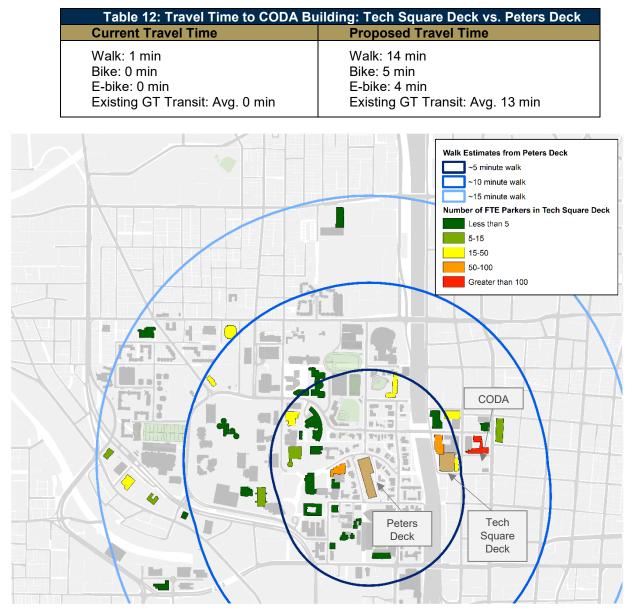


Figure 40: Shifting Tech Square Deck Permit Holders

#### Strategy: Support travel from parking facility to office

Enhancing the first/last mile connectivity from remote parking facilities will be critical when redistributing permit holders. Annual parking permit holders located in the Student Center, CRC, and Tech Square parking decks should be relocated to different parking facilities to increase the number of spaces available for pay-as-you-go and carpool parking.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Explore new opportunities for improving transit experience for staff, faculty, and students driving to Georgia Tech
- 2021 Coordinate pedestrian connectivity and first/last mile improvements with changing parking conditions

#### LONG-TERM ACTIONS: 2023 & BEYOND

 2023 – Develop a network of bikeshare stations and mobility hubs to connect parking facilities with offices

#### Strategy: Opportunities for additional parking supply

In accordance with the current Georgia Tech Master Plan, GT PTS should transform Ferst Drive by converting it to a bikeway with on-street parking. By aligning the Ferst Drive and Means Street intersection and coordinating signal timing for events, GT PTS can improve access to the Georgia Tech campus and advance the Campus Master Plan.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2021 Restrict Freshman parking and evaluate undergraduate residential parking locations
- 2022 Get approval for Ferst Drive Transformation to provide up to 110 new parking spaces

#### LONG-TERM ACTIONS: 2023 & BEYOND

- 2023 Execute Ferst Drive Transformation to provide up to 110 new parking spaces
- 2023 Construct Ferst Drive Transformation
- 2024 Evaluate the demand in Campus Center during the phased openings of the Student Center
- 2024 Evaluate the demand in Tech Square during the demolition of 828 West Peachtree Street and Visitor Area 6 to determine need for more parking in the subarea

#### **Recommendation: Increase transit connections**

Georgia Tech is well positioned to take advantage of the existing local and regional transit infrastructure in the City of Atlanta, located in the heart of Midtown. Years of hard work by Institute leadership to soften the edges of campus and intertwine them with the surrounding neighborhoods has resulted in a more efficient transportation system. These recommendations intend to build on this hard work by providing more connections and improving travel experiences that leverage the existing infrastructure.

#### Strategy: Add/Modify existing routes

As a part of the upcoming Georgia Tech Transit Plan, the GT PTS should ensure that transit routes that connect the Georgia Tech campus with MARTA stations are at the forefront of this study. Incorporating routes that connect to the North Avenue, Midtown, and Arts Center MARTA stations will provide easier access to the campus for people traveling by transit. Connections at the North Avenue and Arts Center MARTA stations are particularly critical because those stations also have direct access to regional bus service. Improved shuttle access to transit stations can be synergized with the re-opening of the 3<sup>rd</sup> Street tunnel, which would help decrease walking distances to transit stations. In addition to stops along the North-South MARTA line, Georgia Tech should evaluate providing a shuttle to the Vine City MARTA station. Connecting to this station would improve the campus's links to the existing Atlanta network.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Develop a Scope of Services for the Georgia Tech Transit Plan Update
- 2021 Finalize Transit Service Plan

#### LONG-TERM ACTIONS: 2023 & BEYOND

2023 – Implement transit improvements

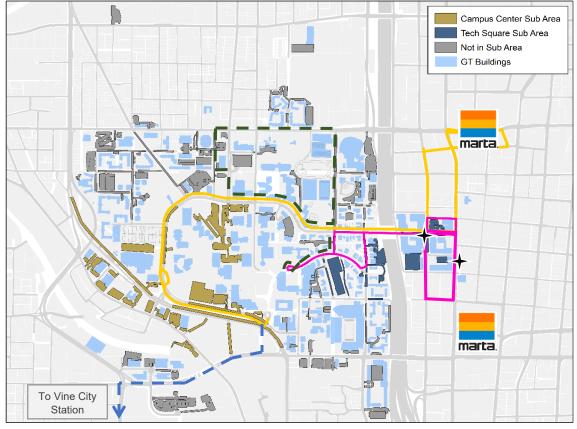


Figure 41: Potential Transit Connections and Bus Stop Improvement Locations

#### Strategy: Enhance transit infrastructure

Although Georgia Tech does not have full control over the transit trips of their commuters, partnering with its transit agency partners to enhance the transit stops and shelters, GT PTS can provide the best experience possible for transit users. Improving these spaces into welcoming, comfortable, informative entry points to the Institute will highlight the importance of the transit trip and reward the transit commuter.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2021 Coordinate with key partners to integrate high-quality transit stops into the design of complete streets along Spring St. and West Peachtree St., and enhance transit stops across the campus
- 2021 Plan transit stop improvements to enhance user experience with elements such as transit schedules, wayfinding, seating, cover from the rain, etc.

#### LONG-TERM ACTIONS: 2023 & BEYOND

 2023 – Partner with MARTA, Midtown Alliance, and regional commuter bus operators to improve shelters near Georgia Tech's Campus



Figure 42: Example of a Smart Bus Shelter for Commuter Bus Service

#### **Recommendation: Streamline parking operations**

Efficiently managing existing parking facilities will help the GT PTS address event parking demand across the campus. While the average occupancy of a parking facility is 73%, there are many parking facilities that are underutilized. Informing motorists about parking availability before they arrive to their destination can help guide parkers to available spaces. To better communicate parking availability with motorists and ensure parking facilities are operating as efficiently as possible, the GT PTS should improve its ability to gain real-time occupancy data at facilities that allow visitor parking. Additionally, GT PTS should regularly communicate parking conditions to faculty, staff, and students to allow them to choose an alternative commute on high demand days.

#### Strategy: Optimize facility utilization

Parking facilities often operate under their effective capacity. This is due to lower demands for parking in an area and inefficient utilization of facility space. GT PTS can combat inefficient parking by ensuring that customers are aware of parking availability through digital wayfinding signage and mobile guidance systems. This allows motorists to easily identify available parking near their destination rather than searching for parking at multiple facilities. As parking facilities are converted to allow for visitor parking, additional wayfinding and communication to motorists will be critical to managing this transient population.

#### IMMEDIATE ACTIONS: 2020 - 2022

• 2020 – Audit signage and wayfinding

#### LONG-TERM ACTIONS: 2023 & BEYOND

- 2023 Install real-time occupancy for digital signage and mobile app
- 2024 Review low occupancy locations to determine highest and best use



Figure 43: Parking Wayfinding and Guidance System

#### Strategy: Manage event day demand

Parking demand is expected to peak on event days as a result of an increase in campus visitors. This additional demand creates a strain on the parking and transportation system. Communicating the expected increase in demand to permit holders and advising them to avoid the additional congestion is a proactive approach GT PTS can take to manage event day demand. In addition, GT PTS can work with event operators to educate attendees about their transportation options prior to the event day. By informing event-goers and visitors about their transportation options, GT PTS can work to decrease the number of people driving to campus for events. Furthermore, when event-goers decide to drive to campus, they should have a clear understanding of their parking options and purchase their parking pass ahead of time. Educating these attendees will help to lower on-campus congestion and facilitate ingress at parking facilities.

#### IMMEDIATE ACTIONS: 2020 - 2022

- 2020 Increase visitor parking rate
- 2020 Establish event categories and create a color-coded warning system for event levels
- 2021 Tighten up parking event coordination and communication protocols utilizing existing staff
- 2021 Implement virtual permits at Tech Square & Student Center parking decks
- 2022 Combine travel decision and parking purchase with online ticket purchase/reservation

#### LONG-TERM ACTIONS: 2023 & BEYOND

• 2024 - Coordinate with event venues to offer transit passes and parking discounts at remote lots

#### DOWNTOWN SPECIAL EVENTS COMMITTEE

## **EVENT MANAGEMENT LEVELS**

GREEN	YELLOW	ORANGE	RED
Local event, most flexibility for closures and additional events			Regional event, most scrutiny for closures and additional events

#### **Overcoming Barriers**

Throughout the development of this plan, challenges arose that need further conversation amongst leadership, the working group, and the Georgia Tech community.

#### Funding

The financial impacts of these recommendations have been carefully considered; however, funding challenges remain. The Parking and Transportation Services department is not a money-making venture; it is revenue neutral, so it must spend the money that it raises from parking revenues, the student transportation fee, and other sources.<sup>8</sup> Additionally, the University System of Georgia Board of Regents must approve the budget and will heavily scrutinize increased costs to students. More so, there are currently restrictions on using parking revenue to pay for transportation and transit. A connection between parking and transportation has been presented in this plan and should be used as a central argument for easing this restriction to allow for parking revenue to fund transportation demand programs.

#### **Opposition to change**

Many commuters will be resistant to the recommendations and changes to the parking and transportation system. Overcoming the aversion to increased walking distances from parking facilities to work locations, slight increases in annual parking permit costs, and a perceived priority of visitors over everyday commuters will be difficult. The recommendations to develop a communications plan for the whole campus and for the targeted audience identified in the capture potential area will be essential to counteract these concerns. Change is only scary and overwhelming if it is misunderstood and forced. Therefore, communicating the strengthened alternative options will also be vital.

#### Equity

During the last campus visit, concerns of equity were voiced by members of the Georgia Tech Staff Council. The specific example was that many employees earning a lower wage often work multiple jobs to make ends meet. One solution to support those auto-dependent employees earning a lower wage is to allow them to choose their annual parking pass location ahead of the rest of the general population, essentially giving them priority to choose either a more proximate location or to choose a cheaper facility.

Additionally, the Parking and Transportation staff should be informing the whole community about the financial benefits of the various mobility options presented within this plan. The automobile has long been marketed as a symbol of freedom, however dependency on the automobile is financially burdensome, with costs up to \$10,000 per year according to the Bureau of Labor Statistics (2017). This cost includes gas, insurance, parking, and vehicle depreciation, however, doesn't include the other negative externalities of driving to work, such as the decline in air quality, water quality, and public health. Although the land uses in more affordable areas of town aren't necessarily conducive to living car-free, a reduced amount of driving can have major savings for low-wage employees. A significantly discounted MARTA pass supports a cheaper option of getting to campus and should be championed alongside other transit-related benefits like the reliability of service and the free park-and-ride locations for those that are out of the bus service area or a walkable distance to the train.

<sup>&</sup>lt;sup>8</sup> Additional details on permit sales and revenue generation can be found in the Needs Assessment and Future Conductions section of this report, Page 14.

# Appendix Action Plan

Recommendation 1: Align Parking and Transportation Goals with Institute Goals for Sustainability

#### Elevate Sustainability and Alternative Commuting in the Campus Culture

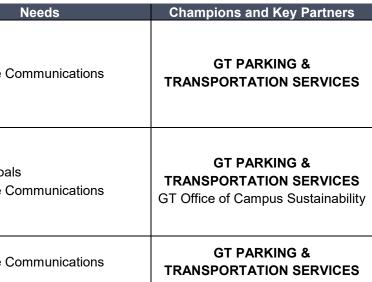
Timeline	Actions	Steps for Implementation	Needs	CHAMPION/Key Partners
Phase 1 Present – Spring 2020	Incorporate sustainability into Parking & Transportation Advisory Committee Activities	<ul> <li>Operationalize sustainability goals into measurable parking and transportation performance metrics         <ul> <li>See related commute survey and performance metrics dashboard actions under the "Increase Awareness of Commute Behavior" strategy</li> </ul> </li> <li>Track the parking and transportation progress annually and ensure that it is sufficiently contributing to sustainability goals</li> </ul>	Align Goals	GT PARKING & TRANSPORTATION SERVICES GT Office of Campus Sustainability
Phase 2 Spring 2020 – Fall 2021	Provide tailored commute assistance at new student orientation and new hire orientations	<ul> <li>Refocus the roles and responsibilities of the GT mobility professionals to include identifying neighborhoods for new hires with multiple transportation options, provide new students, recruits and new hires detailed information on GT PTS programs, including creating tailored commute plans in house, and managing GT PTS outreach</li> <li>Hire a Program Growth Administrator to focus on enhanced transportation demand management within Georgia Tech and serve as a liaison between the Institute and external partners such as transportation management associations</li> <li>Include additional staffing cost into current and future budget request</li> </ul>	<ul> <li>Improve Flexibility of Program Choices</li> <li>Improve Communications</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Human Resources GT Parking and Transportation
	Develop/refine a new hire orientation packet for GT PTS services	<ul> <li>Create communication materials that present all mode options to new faculty, staff, and students</li> <li>Design regional housing and transportation communications material that Human Resources can forward to new hires with the orientation package</li> <li>Add commute options to job listings and new employee on boarding</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Human Resources
Phase 3 Fall 2021 –Beyond	Host neighborhood focused mobility mixers that encourage parking permit holders to find carpool, biking, and walking partners and learn about best practices from existing alternative commute users	<ul> <li>Utilize the home location capture analysis of existing permit holders to determine neighborhoods/regions as the priority mode-shift focus areas</li> <li>Determine location, timing, and programming that is attractive to most audience groups</li> <li>Engage with mixer participants about their perceived alternative mode barriers to entry and discuss methods to overcome logistical and behavioral challenges</li> <li>Highlight "Commute Champions" on website and published materials</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES



Recommendation 1: Align Parking and Transportation Goals with Institute Goals for Sustainability

#### Increase Awareness of Commute Behavior

Timeline	Actions	Steps for Implementation	
Phase 1 Present – Spring 2020	Improve Annual Commute Survey	<ul> <li>Change survey mode usage question to how one travels to campus on average five days a week, allowing for telework responses (and other occasional mode uses)</li> <li>Allow survey respondents to opt-in to provide address information and cell phone number for future marketing efforts</li> <li>Analyze the survey by user group/population type</li> <li>Request information on the specific locations where permit holders/non-permit holders park</li> </ul>	Improve C
Phase 2 Spring 2020 – Fall 2021	Develop performance metrics dashboard	<ul> <li>Create a graphically engaging metrics dashboard that can be used as a one-stop-shop, showcasing number of parking pass types, transit pass sales, bike registrations, and other key modal numbers gathered through partnerships, such as e-bike/bikeshare usage. Additional performance metrics can be added over time in consultation with the Parking &amp; Transportation Advisory Committee</li> <li>Include performance metrics dashboard on the GT PTS website</li> </ul>	<ul><li>Align Goal</li><li>Improve C</li></ul>
Phase 3 Fall 2021 – Beyond	Use the performance metrics dashboard as a tool for expanding and refining the annual Commute Survey as needed	<ul> <li>Update the survey with new transportation modes as they enter the market</li> <li>Analyze the survey by population type</li> </ul>	Improve C



Recommendation 2: Decrease Mid-day Drive Alone Trips

## **Highlight Alternative Modes**

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1	Use tactical urbanism strategies to implement quick fixes across Georgia Tech's campus	<ul> <li>Install short term mobility hub demonstrations at Tech Square and Student Center that demonstrate all the modes on campus. This could include using a parking space to showcase how much that space costs vs. the costs of all other modes. The same tactics could be used to try out temporary car free areas, encouraging more bicycling and walking</li> <li>Provide signage at Tech Square and Student Center parking decks highlighting micromobility as an easy way to get around campus without driving</li> <li>Install signage that notifies users of the location of parking areas for micro-mobility devices and integrate with GT PTS website</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> <li>Improve Communications</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	<b>GT PARKING &amp;</b> <b>TRANSPORTATION SERVICES</b> Georgia Tech Hotel & Conference Center GT Capital Planning and Space Management
Present – Spring 2020	Dedicate space within parking decks for bike commuter parking	<ul> <li>Convert parking spaces at the Tech Square, CRC, and Campus Center decks to secured bike commuter parking (other potential locations include North, Peters, and Klaus decks)</li> <li>Advertise secure bike parking locations on the GT PTS website and create a free permit for bike commuters to gain access to this new facility</li> <li>Monitor the entry/exit numbers to include in the performance metrics dashboard after Phase 2 Update campus design standards for parking decks to include a specific amount of covered, secured bike spaces for every automobile space </li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	<b>GT PARKING &amp;</b> <b>TRANSPORTATION SERVICES</b> GT Facilities and Maintenance GT Office of Campus Sustainability
Phase 2 Spring 2020 – Fall 2021	Finalize mobility hub concepts	<ul> <li>Formalize mobility hubs at Tech Square and Campus Center decks and expand mobility hubs to Curran Street Parking Deck, Dalney Deck, Family Housing Deck, North Avenue Apartments Deck, and Peters Deck</li> <li>Add additional mobility hubs based on user demand</li> <li>Open mobility center/bike shop in Campus Center and Tech Square</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES E-Bike Operator
Phase 3 Fall 2021 – Beyond	Develop a financial model that encourages the use of e-bikes and micromobility while leveraging the City's Relay Bikeshare program	<ul> <li>Investigate the possibility of making e-bikes an approved item through the Board of Regents procurement system so GT PTS or other departments can purchase as an approved fleet vehicle</li> <li>Coordinate with Relay Bikeshare program for additional station placement</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES E-Bike Operator
	Construct bike parking facility central to campus according to Georgia Tech Campus Bicycle Master Plan	<ul> <li>Identify specific locations for dedicated covered bike parking structures on campus</li> <li>Verify Tech Green location for standalone bike station as recommended in the 2015 bicycle master plan</li> </ul>	<ul> <li>Align Goals</li> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Campus Planning

Recommendation 2: Decrease Mid-day Drive Alone Trips

#### Improve Existing On-Campus Pedestrian & Bicycle Wayfinding and Connectivity

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Upgrade existing pedestrian/bicycle focused wayfinding	<ul> <li>Pilot a wayfinding campaign at the beginning of the spring semester that offers temporary wayfinding based on walking and biking distances and key campus locations. Commission template designs for pedestrian/bicycle wayfinding and decide between low, medium, and high-cost options</li> <li>Install wayfinding signage at pedestrian entrances of pay-as-you-go parking decks and major destinations to facilitate a better pedestrian and bicycling experience</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT College of Design GT Capital Planning and Space Management
Phase 2 Spring 2020 – Fall 2021	Identify gaps in pedestrian/bicycle connectivity on campus	<ul> <li>Coordinate with GT School of Civil and Environmental Engineering to conduct a gap analysis</li> <li>Create a mobility hierarchy including ADA and walking, cycling, micromobility, transit, and automobiles and use to prioritize needed improvements</li> <li>Educate and enforce campus safety regulations associated with No Parking in Bike lanes and No riding Bikes or Scooters on Designated pathways. Coordinate with Georgia Tech Police Department for enforcement</li> <li>Create a timeline to address connectivity gaps and request additional funding to begin corrective actions in Phase 3</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT School of Civil and Environmental Engineering GT Police Department
	Make infrastructure improvements to address identified gaps in ADA, pedestrian, and bike connectivity	<ul> <li>Complete connectivity projects based on prioritization list</li> <li>Include long-range/higher costs improvements into the Future Master Plan to assist with future funding</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Capital Projects GT Facilities & Maintenance
Phase 3 Fall 2021 – Beyond	Re-open the 3rd Street Tunnel	<ul> <li>Create a stakeholder group of key partners and re-envision tunnel experience</li> <li>Conduct safety audits with GT Police, Midtown Blue, and Atlanta Police Department to identify safety concerns</li> <li>Audit tunnel for infrastructure improvements</li> <li>Address identified safety and infrastructure issues</li> <li>Conduct routine follow-ups for maintenance and safety</li> <li>Install art along tunnel to enhance the pedestrian experience</li> <li>Communicate with the Georgia Tech community about safety infrastructure improvements, such as lighting, cameras, and BuzzCard access</li> <li>Inform tunnel users about best practices for safety</li> </ul>	<ul> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT REAL ESTATE GT CAPITAL PLANNING & SPACE MANAGEMENT GT Police Department Midtown Alliance/Midtown Blue Atlanta Police Department City of Atlanta Stakeholder Group

Recommendation 1: Balance Commute Costs

#### Increase Transit Discounts & Increase Annual Permit Parking Price

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Determine financial impact of increases in transit discount and annual permit parking prices	<ul> <li>Identify additional funding needed to cover transit, TDM, and maintenance</li> <li>Identify a consistent funding source to provide transit subsidy</li> <li>Determine appropriate rate of price increase</li> <li>Determine desired and feasible rate of increased transit subsidy</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Human Resources MARTA GRTA, GCT, CobbLinc GT Leadership
	Communicate future changes to parking and transportation costs	<ul> <li>Leverage new communication platforms to communicate upcoming Phase 3 transit discount increase and parking permit price increase</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Campus Services Communications
Phase 2 Spring 2020 – Fall 2021	Increase annual permit parking price	<ul> <li>Incorporate equity and supply/demand into the pricing of parking</li> <li>Coordinate with GT leadership to petition the Georgia Board of Regents for permit rate increase</li> <li>Increase annual permit parking prices starting in Year 1 and continue with incremental increases each year until a 10% increase in the cost of an annual parking permit is reached</li> <li>Implement tiered permit pricing, with high demand areas at higher annual permit rates than remote locations</li> <li>Give faculty and staff that earn lower wages the opportunity to select their parking location first before opening up the selection to the entire GT population</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Leadership
Phase 3 Fall 2021 – Beyond	Provide one free monthly transit pass to new employees as an alternative option to a parking pass	<ul> <li>Coordinate with the Department of Human Resources and the GT PTS mobility staff to communicate transit options available to new employees</li> <li>Include transit options in new hire orientation packets and offer employees the choice between a one free monthly transit pass or one free monthly parking pass</li> <li>Track transit pass selection and evaluate long-term transit ridership trends</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Human Resources
	Increase transit subsidy to GT faculty, staff, and students	<ul> <li>Subsidize all transit passes to 50% of the current discounted rate for all faculty, staff, and commuter students</li> <li>Create a targeted transit campaign through emails and digital media (specifically to permit holders that can use transit and as part of new student and employer materials)</li> <li>Monitor changes to transit usage through the annual commute survey and transit pass sales</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Human Resources MARTA GRTA, GCT, CobbLinc
	Investigate implementing a daily reward/parking cash- out for faculty/staff that take an alternate commute	<ul> <li>Work with Human Resources and GT Leadership to determine if cash outs are feasible</li> <li>Evaluate Midtown Alliance's cash out program         <ul> <li>If feasible, create framework, including costs, funding sources, and implementation strategy</li> </ul> </li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Human Resources Midtown Alliance
	Investigate integrating the daily commute into the existing well-being program	<ul> <li>Coordinate with the University System of Georgia's well-being program to promote healthier lifestyles for employees. This program allows employees to receive well-being credits that translate into money for completing certain tasks. This program could also include well-being points for employees that give up their parking pass for an alternative commute</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Human Resources



Recommendation 2: Improve Flexibility of Program Choice

### Promote and Bundle SmartPark Permits

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Enable SmartPark in all daily facilities	<ul> <li>Allow SmartPark permit holders to park at any location where SmartPark permits are accepted</li> <li>Equip all daily parking facilities to access SmartPark as a payment option</li> <li>Update digital parking map to identify where SmartPark is accepted</li> <li>Prevent SmartPark permits from being purchased in addition to an annual parking permit, other than carpool</li> </ul>	Improve Flexibility of Program Choices	GT PARKING & TRANSPORTATION SERVICES
Phase 2 Spring 2020 – Fall 2021	Advertise SmartPark as the "pay-as-you-go" option at the time of annual purchase	<ul> <li>Develop marketing plan to inform all permit holders about the benefits of the SmartPark permit</li> <li>Enable SmartPark permit holders to remain in pay-as-you-go facilities on event days but continue to encourage alternative modes or less proximate locations</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Leadership
Phase 3 Fall 2021 – Beyond	Bundle SmartPark permit with monthly transit passes	Update website to include SmartPark bundles with transit purchases	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES

## Goal 2: Educated Daily Decision

Recommendation 2: Improve Flexibility of Program Choice

## Enhance Carpool Program

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Dedicate nested carpool spaces that convert to visitor parking at 10 am	<ul> <li>Identify parking space locations in the Tech Square, Campus Center, and CRC parking decks that can be converted to carpool spaces</li> <li>Relocate service vehicles to the top floor of the Tech Square parking deck and convert spaces to a carpool area</li> <li>Convert highly desired spaces to carpool spaces and create clear signage that converts the spaces to pay-as-you-go parking after 10 am</li> <li>Enable carpool permit holders to remain in their designated parking facilities during events</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> <li>Manage Growing Parking Demand</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Hotel and Conference Center
Phase 2 Spring 2020 – Fall 2021	Market carpool permits with map of the nested space locations and number of spaces in each location	<ul> <li>Add carpool parking as a drop-down option of the parking section of the GT online map (map.gatech.edu)</li> <li>Create digital marketing package highlighting the benefits of carpool</li> <li>Market the carpool-SmartPark and carpool-transit bundles during the annual purchase time</li> </ul>	<ul><li>Improve Communications</li><li>Improve Flexibility of Program Choices</li></ul>	GT PARKING & TRANSPORTATION SERVICES
Phase 3 Fall 2021 – Beyond	Enable carpool permit holders to split daily costs	<ul> <li>Evaluate the utility of the regional commute app launched by the Atlanta Regional Commission</li> <li>Explore opportunities for carpool plug-ins to enhance the functionality of the regional commute app as needed</li> <li>Alternatively, partner with third-party app providers to enhance the carpool experience of GT carpool permit holders</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES Atlanta Regional Commission



Recommendation 2: Improve Flexibility of Program Choice

## Enable Occasional Transit Usage

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Coordinate with MARTA and GRTA to offer 10 and 20 trip transit cards at discounted rates	<ul> <li>Identify partners at MARTA and GRTA to enable GT to become an authorized seller of 10 and 20 trip transit passes</li> <li>Request discounted 10 and 20 trip passes from the transit agencies</li> <li>Evaluate the utility of having a Breeze Card kiosk at the GT Student Center</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES Midtown Alliance MARTA, GRTA, CobbLinc
Phase 2 Spring 2020 – Fall 2021	Advertise discounted rate for 10 and 20 trip passes with annual permit purchase	Develop marketing package for discounted transit options	Improve Communications	GT PARKING & TRANSPORTATION SERVICES MARTA Midtown Alliance
Phase 3 Fall 2021 – Beyond	Bundle 10 and 20 trip passes with annual parking permit and carpool permit as a standard offering	<ul> <li>Incorporate these bundle options into the menu of permit options offered annually</li> <li>Update the GT Parking website to market and highlight the benefits of bundling</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> <li>Improve Flexibility of Program Choices</li> </ul>	GT PARKING & TRANSPORTATION SERVICES

## Goal 2: Educated Daily Decision

#### Recommendation 3: Highlight the Relationship of Parking and TDM

### Develop a Communication Plan

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Develop a Communications Plan to streamline messaging and leverage all GT PTS customer facing communication channels for all modes	<ul> <li>The plan should identify each audience and create clear, consistent messaging among all communications channels, including website pages, social media, and print, including:         <ul> <li>Retain GT PTS branding to keep a cohesive message and "voice" around transportation. This could be revisited once the communications tone, delivery, and programming are underway</li> <li>Identify clear and specific calls-to-action for each of the targeted audiences, including students, employees, and visitors</li> <li>Establish templates that standardize design elements</li> <li>Match communication channels to the messaging. Communications channels should tie back to the website where more information is available</li> <li>Create communications by market segment, which allows for tracking and tailoring messaging according to the users' needs and opportunities</li> </ul> </li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Campus Services Communications
Phase 2 Spring 2020 – Fall 2021	Educate customers on new parking regulations and price increases	<ul> <li>Rebrand the GT PTS program to Transportation Services and roll out new branding. Ensure all communications materials reflect the updated brand of the department, updated pricing, and cost trade-offs between mode types</li> <li>Couple rebranding efforts with updated mission statement and goals for GT PTS</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES
Phase 3 Fall 2021 – Beyond	Create a mobility campaign calendar with a coordinated communications plan	<ul><li>Identify and develop digital and print materials</li><li>Determine event schedule and staffing plan</li></ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Office of Campus Sustainability



Recommendation 3: Highlight the Relationship of Parking and TDM

## Modernize Digital Platforms

Timeline	Actions	Steps for Implementation	Needs	Champions and Key Partners
Phase 1 Present – Spring 2020	Use graphic design and content specialist when developing new materials	<ul> <li>Determine overall needs for position to bring in contractors or full-time staff for these tasks</li> <li>Include into current and future budget request</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Human Resources
	Update GT PTS website to highlight alternative commute options	<ul> <li>Ensure the website is a clear, consistent curation of resources that demonstrates all travel options, including:         <ul> <li>Improve integration of GT PTS website into the main GT website to ensure visitors can find it</li> <li>Reduce website focus on driving and parking. Emphasize the various alternative mode options by choosing a more prominent space for the navigation categories</li> <li>Ensure all marketing materials reference the GT PTS website</li> <li>Highlight discount transit pass and BuzzBike information to the website</li> <li>Consider new personalized website navigation around audience categories (students/employees/visitors)</li> </ul> </li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Campus Services Communications
	Promote Georgia Commute Options programming to Georgia Tech Faculty and Staff	<ul> <li>Promote new regional ride matching and trip tracking app</li> <li>Coordinate with Georgia Commute Options to participate in regional commute programs and incentives</li> <li>Negotiate additional commute incentives for Georgia Tech faculty, staff, and commuter students from Georgia Commute Options</li> </ul>	<ul> <li>Improve Communications Increase Competitiveness of Alternative Mode Choices</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Campus Services Communications Midtown Alliance Georgia Commute Options
Phase 2	Add rotating real-time transit information to lobby screens across campus	<ul> <li>Design templates and starter kit of transportation content</li> <li>Create editorial calendar that identifies one-off and reoccurring content opportunities</li> <li>Create rotating programming for lobby screens, including Passio GO, MARTA, and Georgia Commute Options programs</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES GT Facilities Management GT Campus Services Communications
Spring 2020 – Fall 2021	Integrate existing and future transportation options into one Georgia Tech specific platform	<ul> <li>Identify platform that can integrate:         <ul> <li>Accessing and paying for parking spaces</li> <li>Real-time tracking opportunities for both GT transit and MARTA transit</li> <li>An interactive campus map of mobility hubs, parking, etc.</li> <li>Finding carpool partners</li> <li>Participating in local and regional campaigns</li> </ul> </li> </ul>	<ul> <li>Improve Communications</li> <li>Increase Competitiveness of Alternative Mode Choices</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Campus Services Communications
Phase 3 Fall 2021 – Beyond	Integrate a commute platform into the GT specific app and tie into regional ARC commute program	<ul> <li>Utilize updated communication materials and updated website to provide content for app</li> <li>Coordinate with Georgia Commute Options and Midtown Alliance to participate in ARC commute programs</li> </ul>	<ul> <li>Improve Communications Increase Competitiveness of Alternative Mode Choices</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Campus Services Communications Midtown Alliance Georgia Commute Options



Recommendation 3: Highlight the Relationship of Parking and TDM

## Improve Visitor Experience

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Ensure messaging on all visitor-centric communications includes all modes of travel	<ul> <li>Include transit, pedestrian, and bicycle access information on Visitor's webpage as well as in all wayfinding, digital maps, etc.</li> <li>Ensure all services (Hotel, Global Learning Center, Ferst Center for the Arts, CRC, etc.) promote GT PTS information and how to access their specific building or event via alternative transportation, specifically MARTA access and GT Trolley shuttles from the Midtown Station</li> </ul>	Improve Communications	GT PARKING & TRANSPORTATION SERVICES Institute Communications GT Hotel and Conference Center GT Athletic Facilities GT Event Operators
Phase 2 Spring 2020 – Fall 2021	Highlight Georgia Tech's easy access to transit, walkability, and bike ability to event-goers	<ul> <li>Include event venues in wayfinding maps so visitors can see how close they are to venues and promote alternative modes of transportation for future events</li> <li>Place micromobility hubs and ride hail pick-up and drop-off locations in a close proximity to event venues</li> </ul>	Continue Internal Circulation and First/Last Mile Improvements	GT PARKING & TRANSPORTATION SERVICES City of Atlanta Department of Transportation
Phase 3 Fall 2021 – Beyond	Explore feasibility of pre-sale parking and transit passes bundled with event ticket purchase/reservation	<ul> <li>Coordinate with event sales websites to include advertising of alternative modes during GT events</li> <li>Add the option to purchase travel for GT events in the online cart at time of event ticket purchase/reservation</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES



Recommendation 1: Distribute Parking Demand

## Convert Decks to Daily/Visitor Parking

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Install Visitor PARCS equipment at CRC Deck to facilitate conversion to pay-as-you-go parking	<ul> <li>Determine desired equipment vendor and purchase equipment</li> <li>Evaluate entrance of the parking facility for License Plate Recognition (LPR) technology applicability and install equipment for virtual permits and easier egress</li> <li>Install PARCS equipment and pricing signage</li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES
	Begin converting the Student Center Deck to a predominately pay-as-you-go facility	<ul> <li>Monitor usage of visitor and permit holder parking at Student Center deck</li> <li>2024 percentage goal for Student Center Deck – 66% pay-as-you-go (656 spaces) and 34% permit holders (241 spaces), approximately 466 permit holders displaced         <ul> <li>Phase 2 – 44% pay-as-you-go; Phase 3 – 55% pay-as-you-go</li> <li>Continue to monitor to get to a goal of 66% pay-as-you-go by 2024</li> </ul> </li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES
	Begin converting the Tech Square Deck to a predominately pay-as-you-go facility	<ul> <li>2024 percentage goal for Tech Square Deck – 70% pay-as-you-go (927 spaces) and 30% permit holders (397 spaces), approximately 574 permit holders displaced         <ul> <li>Phase 2 – 50% pay-as-you-go; Phase 3 – 65% pay-as-you-go</li> </ul> </li> <li>Continue to monitor to get to a goal of 70% pay-as-you-go by 2024</li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES GT HOTEL AND CONFERENCE CENTER
Phase 2 Spring 2020 – Fall 2021	Conduct Phase 2 Shift of Permit Holders at Student Center and Tech Square Deck	<ul> <li>Market North, Dalney, Family Housing, and Peters Decks as alternatives to Student Center and Tech Square decks</li> <li>Reduce the number of permit holders allowed at Student Center and Tech Square decks</li> <li>Track the parking facilities chosen by displaced permit holders to identify the alternative locations of permit holders</li> </ul>	<ul> <li>Improve Communications</li> <li>Manage Growing Parking Demand</li> </ul>	GT PARKING & TRANSPORTATION SERVICES
	Begin operating CRC Deck with pay-as-you-go option	<ul> <li>2024 percentage goal for Campus Recreation Center – approximately 90% payas-you-go (500 spaces), approximately 378 permit holders displaced         <ul> <li>Phase 2 – 50% pay-as-you-go; Phase 3 – 75% pay-as-you-go</li> </ul> </li> <li>Continue to monitor to get to a goal of 90% pay-as-you-go by 2024</li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES
	Monitor Visitor Usage	Audit parking facilities for visitor usage and compare revenue generation from hour/daily parking versus permit holders prior to initiating Phase 3 shift	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES
Phase 3 Fall 2021 – Beyond	Conduct Phase 3 Shift of Permit Holders at Student Center and Tech Square Deck	<ul> <li>Based on the success of the Phase 2 shift, complete the Phase 3 shift to reach desired pay-as-you-go rates</li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES



Recommendation 1: Distribute Parking Demand

#### Support Travel from Parking Facility to Office

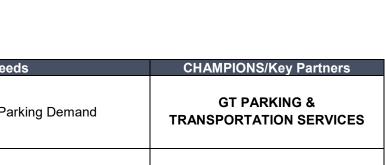
Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Explore new opportunities for improving transit experience for staff, faculty, and students driving to Georgia Tech	<ul> <li>Include evaluating the implementation of a shuttle route from the Dalney, North, Family Housing, or 14<sup>th</sup> Street decks in the Transit Plan scope of services</li> <li>Audit security and lighting at remote parking facilities</li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES
Phase 2 Spring 2020 – Fall 2021	Coordinate pedestrian connectivity and first/last mile improvements with changing parking conditions	Prioritize updated wayfinding and micromobility hubs at parking facilities	Continue Internal Circulation and First/Last Mile Improvements	GT PARKING & TRANSPORTATION SERVICES
Phase 3 Fall 2021 – Beyond	Develop a network of bikeshare stations and mobility hubs to connect parking facilities with offices	<ul> <li>Identify locations for mobility hubs at parking facilities that serve permit holders and pay-as-you-go parking</li> <li>Coordinate with Relay Bikeshare program for additional station placement</li> </ul>	Continue Internal Circulation and First/Last Mile Improvements	GT PARKING & TRANSPORTATION SERVICES E-Bike Operator

## **Goal 3: Parking and Transportation Program Efficiency**

Recommendation 1: Distribute Parking Demand

#### **Opportunities for Additional Parking Supply**

		opportunities for reductional ranking suppry		
Timeline	Actions	Steps for Implementation	Nee	
Phase 1 Present – Spring 2020	Get approval for Ferst Drive Transformation to provide additional parking spaces & realign intersection of Ferst Drive, Regents Drive, Means Street, and Tech Parkway	<ul> <li>Refine Ferst Drive transportation plans</li> <li>Commission site plan design to 75% completion</li> <li>Determine project construction cost</li> <li>Identify funding source for project completion</li> </ul>	<ul> <li>Manage Growing Pa</li> <li>Align Goals</li> <li>Continue Internal Ci First/Last Mile Impro</li> </ul>	
Phase 2	Restrict Freshman parking and evaluate undergraduate residential parking locations	<ul> <li>Restrict Freshman students from bringing cars to campus when they live on- campus</li> <li>Shift residential permit holders to underutilized and secure facilities to allow commuters to park on campus at more proximate locations</li> </ul>	<ul><li>Manage Growing Pa</li><li>Align Goals</li></ul>	
Spring 2020 – Fall 2021	Execute Ferst Drive Transformation to provide additional parking spaces	<ul><li>Commission site plan design to 100% completion</li><li>Dedicate funding for project completion</li></ul>	<ul> <li>Manage Growing Pa</li> <li>Align Goals</li> <li>Continue Internal Ci First/Last Mile Impro</li> </ul>	
	Construct Ferst Drive Transformation & work with City/GDOT on event signal timing	<ul> <li>Complete Ferst Drive construction</li> <li>Coordinate signal timing at newly constructed intersections</li> <li>Monitor usage of Ferst Drive in conjunction with Student Center permit parking reduction</li> </ul>	<ul> <li>Manage Growing Pa</li> <li>Align Goals</li> <li>Continue Internal Ci First/Last Mile Impro</li> </ul>	
Phase 3 Fall 2021 - Beyond	Evaluate the demand in Campus Center during the phased openings of the Student Center and Exhibition Hall to determine need for more parking in the sub area	• Option 2: Consider Randall Brothers property as a temporary lot to provide up to 500 parking spaces	Manage Growing Pa	
	Evaluate the demand in Tech Square during the demolition of 828 West Peachtree Street and Visitor Area 6 to determine need for more parking in the sub area	<ul> <li>Conduct monthly occupancy audits to stay aware of changing conditions</li> <li>Determine flexibility of the terms of the lease with the Centergy deck and other private parking facilities for opportunities to lease additional spaces as needed</li> </ul>	Manage Growing Pa	



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TRANSPORTATION SERVICES TRANSPORTATION SERVICES Parking Demand GT Capital Planning and Space Management

Recommendation 2: Increase Transit Connections

#### Add/Modify Existing Routes

Add/ modify Existing routes			
Timeline	Actions	Steps for Implementation	Nee
Phase 1 Present – Spring 2020	Develop a Scope of Services for the Georgia Tech Transit Plan Update	<ul> <li>Evaluate the Existing Route Service         <ul> <li>Tech Trolley Route Enhancements</li> <li>Transit Signal Priority</li> </ul> </li> <li>Support Future Student and Commuter Needs         <ul> <li>Utilize Home Location data for capture analysis</li> <li>Consider connections to additional MARTA stations (Arts Center, North Avenue, Vine City)</li> <li>Consider off-campus housing locations</li> <li>Consider parking facilities</li> <li>Coordinate with regional transit agencies to improve commute experience</li> </ul> </li> <li>Propose Vehicle Fleet Improvements (sustainable fuel sources, flat floors, etc.)</li> <li>Leverage new technologies</li> </ul>	<ul> <li>Increase Competitive Modes</li> <li>Continue Internal Cir First/Last Mile Impro</li> </ul>
Phase 2 Spring 2020 – Fall 2021	Finalize Transit Plan	• Finalize Transit Plan and develop a timeline for system additions/modifications	<ul> <li>Increase Competitive Modes</li> <li>Continue Internal Cir First/Last Mile Impro</li> </ul>
Phase 3 Fall 2021 – Beyond	Implement transit improvements	<ul> <li>Implement new shuttle routes as determined by Transit Plan</li> <li>Integrate updated transit services into all GT PTS communications materials</li> </ul>	<ul> <li>Increase Competitive Modes</li> <li>Continue Internal Cir First/Last Mile Impro</li> </ul>



Recommendation 2: Increase Transit Connections

Enhance Transit Infrastructure

Timeline	Actions	Steps for Implementation	Needs	Champions and Key Partners
Phase 1 Present – Spring 2020	Coordinate with key partners to integrate high-quality transit stops into the design of complete streets along Spring St. and West Peachtree St.	<ul> <li>Identify transit stops that need additional amenities such as bus shelters, arrival schedules, real-time arrivals, etc.</li> <li>Survey transit riders for desired stop improvements</li> <li>Evaluate and pilot relocating the regional bus service pick-up/drop-off areas to locations that have enough space for bus shelters and improved signage</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES Midtown Alliance City of Atlanta GRTA, CobbLinc, GCT
Phase 2 Spring 2020 – Fall 2021	Plan transit stop improvements	<ul> <li>Select and determine the cost for improved transit stops</li> <li>Identify funding for improvements</li> <li>Develop a timeline for transit stop improvements</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES Midtown Alliance City of Atlanta GRTA, CobbLinc, GCT
Phase 3 Fall 2021 – Beyond	Partner with MARTA, Midtown Alliance, and regional commuter bus operators to improve shelters near GT's Campus	<ul> <li>Install improvements to GRTA transit stops at 5<sup>th</sup> Street and Spring Street/5<sup>th</sup> Street and West Peachtree Street</li> <li>Conduct satisfaction surveys for transit riders that use improved transit stops</li> <li>Adjust transit stop design based on rider satisfaction survey</li> <li>Continue transit stop improvements</li> </ul>	<ul> <li>Increase Competitiveness of Alternative Modes</li> <li>Continue Internal Circulation and First/Last Mile Improvements</li> </ul>	GT PARKING & TRANSPORTATION SERVICES Midtown Alliance City of Atlanta GRTA, CobbLinc, GCT

## Goal 3: Parking and Transportation Program Efficiency

**Recommendation 3: Streamline Parking Operations** 

## **Optimize Facility Utilization**

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Audit parking signage and wayfinding	<ul> <li>Dedicate GT PTS staff to catalog signage used at parking facilities that allow visitors</li> <li>Develop a database of all signage types in use throughout the campus</li> </ul>	<ul><li>Improve Communications</li><li>Manage Growing Parking Demand</li></ul>	GT PARKING & TRANSPORTATION SERVICES
Phase 2 Spring 2020 – Fall 2021	Provide real-time occupancy for digital signage at parking facilities and integrate into a mobile app	<ul> <li>Integrate parking control barrier gates with the performance metrics dashboard to monitor the entry/exit of parking facilities</li> <li>Use mobile LPR vehicles to count occupancy at parking facilities and create an occupancy baseline</li> <li>Install real-time/dynamic parking occupancy signage at the Tech Square, Campus Center, and CRC decks</li> <li>Integrate LPR and control barrier gates into real-time parking occupancy digital signage and mobile app</li> </ul>	<ul><li>Improve Communications</li><li>Manage Growing Parking Demand</li></ul>	GT PARKING & TRANSPORTATION SERVICES
Phase 3 Fall 2021 – Beyond	Review low occupancy parking locations to determine highest and best use	<ul> <li>Conduct quarterly parking occupancy audits with mobile LPR vehicles</li> <li>Identify parking facilities that are underused and determine if these facilities would operate better as pay-as-you-go facilities or if they should be converted to non-parking related land uses</li> </ul>	Manage Growing Parking Demand	GT PARKING & TRANSPORTATION SERVICES



Recommendation 3: Streamline Parking Operations

## Manage Event Day Demand

Timeline	Actions	Steps for Implementation	Needs	CHAMPIONS/Key Partners
Phase 1 Present – Spring 2020	Increase visitor parking rate	<ul> <li>Increase visitor parking rate by \$1.00 per hour at Tech Square and keep campus center visitor rates the same</li> <li>Set visitor daily max to \$20 per day</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Improve Communications</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Event Operators
	Establish event categories and create a color-coded warning system for event levels	<ul> <li>Coordinate with event venues to determine the number of events occurring on a 6-month, 3-month, and 1-month horizon</li> <li>Determine the event thresholds for each category of events</li> <li>Use the existing alert system to notify permit holders of the parking demand for the day</li> <li>Develop a weekly/monthly calendar of events and send color coded calendar to permit holders to keep them informed about upcoming events</li> <li>On event days, encourage permit holders to use transit or other modes of transportation</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Improve Communications</li> <li>Increase Competitiveness of Alternative Modes</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Event Operators
	Tighten up parking event coordination and communication protocols utilizing existing staff	• Refocus the roles and responsibilities of the GT mobility professionals to enable them to focus on coordination with event operators, manage event day operations, and coordinate with communications staff for event day alerts	<ul><li>Manage Growing Parking Demand</li><li>Improve Communications</li></ul>	GT PARKING & TRANSPORTATION SERVICES GT Event Operators Capital Planning and Space Management
	Implement virtual permits at Tech Square & Student Center parking decks	<ul> <li>Develop communications plan for the transition from physical permits to virtual permits at Tech Square and Student Center decks</li> <li>Manage entry and exit of permitted vehicles through LPR</li> <li>Monitor nested carpool parking areas with a mobile LPR unit</li> </ul>	<ul><li>Manage Growing Parking Demand</li><li>Improve Communications</li></ul>	GT PARKING & TRANSPORTATION SERVICES
Phase 2 Spring 2020 – Fall 2021	Combine travel decision and parking purchase with online ticket purchase/reservation	<ul> <li>Audit event venue website to identify disconnects between the event ticket purchase/reservation and the travel decision and parking purchase to that event</li> <li>Include alternative mode options on event venue websites to inform attendees about all travel options</li> <li>Coordinate with event venues to add the purchase of parking to the "cart" during online sales/reservation through a common vendor</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Increase Competitiveness of Alternative Modes</li> <li>Improve Communications</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Event Operators
Phase 3 Fall 2021 – Beyond	Coordinate with event venues to offer discounts at remote lots	<ul> <li>Integrate parking lot reservations into GT's interactive parking web-based map</li> <li>Identify point of contact for all existing and future event venues</li> <li>Develop online request form for parking lot reservations to streamline existing manual processes</li> </ul>	<ul> <li>Manage Growing Parking Demand</li> <li>Improve Communications</li> </ul>	GT PARKING & TRANSPORTATION SERVICES GT Event Operators



# Kimley Horn

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Parking and Transportation Demand Management Immediacy Plan

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