



THE UNIVERSITY OF  
**TENNESSEE**  
KNOXVILLE

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FACILITIES SERVICES

**ANNUAL  
REPORT  
2020**



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# EXECUTIVE SUMMARY

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The Facilities Services Department strives to advance the University of Tennessee's overall mission by maintaining and optimizing the physical resources and environments of the Main and Agricultural campuses.

The number one priority of Facilities Services is to create and maintain a clean, safe environment for students to learn, faculty to teach and perform research, and staff to work. Our dedicated staff of 700 achieve this goal through their 5,500 years of combined service.

Facilities Services continually improves upon top industry practices in order to support the goal of providing the best possible services while also maintaining the best cost model, with our employees' vested loyalty and ownership in the work they provide to the state of Tennessee and to the UT Knoxville campus community.

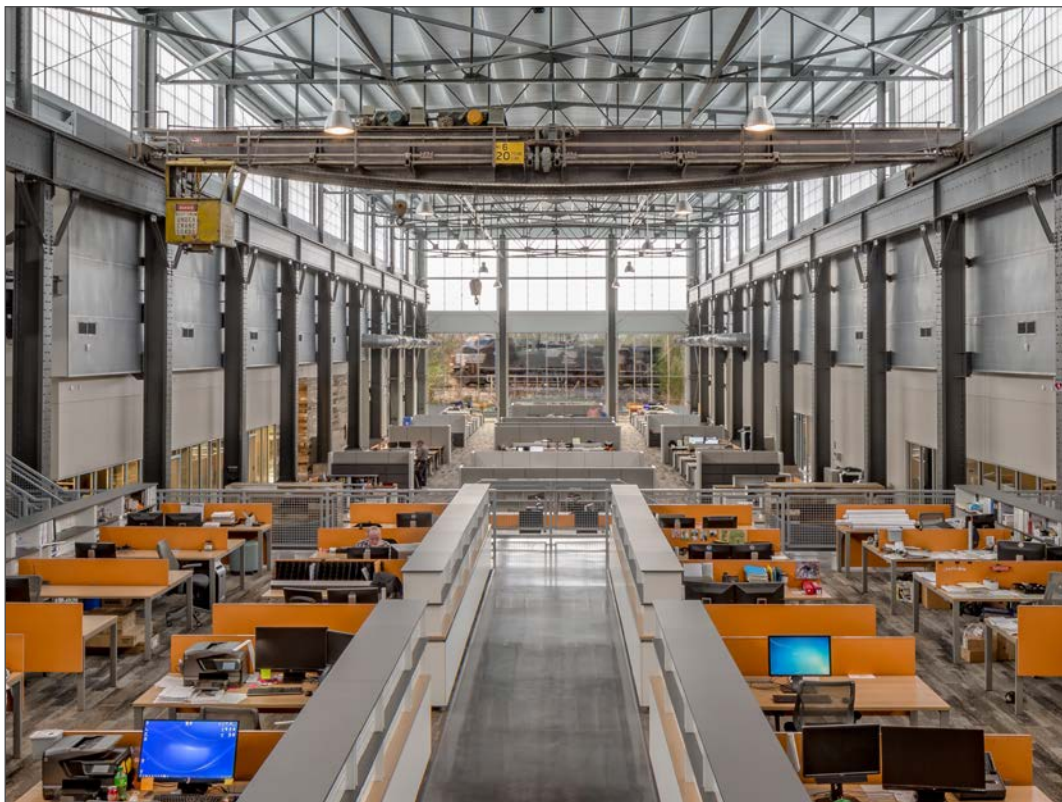
As we look forward to the university's continued advancement, with the constant support of our department, we compiled a report of our achievements for the last year in this annual report as we strive to exceed our goals for the 2019-2020 academic year.

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This report is presented to showcase the continuing initiatives of the University of Tennessee, Knoxville Facilities Services Department in our drive to become a Top 25 Facilities Department. We are committed to be in the forefront of achieving the university's goal to become a Top 25 Research Institution.

It takes a team of dedicated Facilities Services employees to provide the services worthy of the University of Tennessee. This is an introduction to our commitment to being that team.

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# FACILITIES SERVICES DEPARTMENT

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The Facilities Services Department is the largest non-academic department on the University of Tennessee, Knoxville campus. Our department is responsible for the basic operation and continuous maintenance of most facilities on the Main and Agricultural campuses of the University of Tennessee.

Campus facilities include approximately 294 buildings, more than 15 million square feet of space, 14 residence halls open for fall 2019, roughly 910 acres of land, and \$1 billion+ in projects under design and construction.

In addition to these facilities we are also responsible for electrical substations that provide power to most of our campus buildings, and a central steam plant that provides heating and hot water in most campus spaces.

We currently have more than 660 employees distributed through several specialized units in our department. These units are Administration, Administrative & Support Services, Communication & Information Services, Construction Services, Design Services, Facilities Operations, Energy Management, Building Services, Special Projects, Utilities Services and Zone Maintenance.

Our specialized offices include the STAR Team, Business Services, Central Supply, Plumbing & Heating Services, Electrical Services, Air Conditioning Services, Steam Plant, Landscape Services, Building Services, Building Finishes, Lock & Key Services, Sanitation Safety, Rapid Response Team, Communications & Public Relations, Employee Training & Development, IT Support & Maintenance, Project Coordination, Construction Team, Estimating Services, Stormwater Management, Landscape Response, Interior Design, GIS Projects, Archive & Space, Codes Enforcement, and Project Management.

Facilities Services staff members also oversee the university's environmental projects through the management of the Office of Sustainability.

Key parts of our organization are operating continuously, 24 hours a day, 365 days a year, and we are always on call.

Anyone on campus can contact Facilities Services 24 hours a day using our "One Call" program at 946-7777. Someone is always available to provide customer service and support to the campus community.

Our goal is to always enhance and maintain campus environments that are highly conducive to learning and research.

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## FACILITIES VISION:

Our vision is to be knowledgeable and experienced stewards who serve the university by providing a beautiful, state of the art campus in order to educate, elevate, and improve our community and world.

## FACILITIES MISSION:

Facilities Services supports the University of Tennessee as responsible stewards of state resources by providing the campus with safe, clean, state of the art environments and empowering a campus community with a commitment to the tradition of excellence.

We support the University, empowering the campus community with a commitment to the tradition of excellence.

## FACILITIES VALUES:

We incorporate several important values into our daily operations. By embracing and enforcing these values, our department can better support the university's own standards in education, research and public service.

Teamwork - Internally and Externally

Accountability - By Taking Ownership

Reliability - Follow Through

Commitment - Dedicated Stewards (To Our Community)

Continuous Improvement - With Pride Through Value and Innovation

Quality Services - Our Highest Priority

## TAGLINE:

Support. Empower. Tradition.

# SELF-ASSESSMENT & BENCHMARKING

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## SIGHTLINES & FPI SURVEY

Improving self-assessment and benchmarking measures has been a key component of the Facilities Services reorganization.

The ability to monitor current campus facilities conditions and forecast future risks is crucial to maintaining a safe and enjoyable campus environment.

Engaging with Sightlines Facilities Asset Advisors, the University of Tennessee Facilities Services Department has embarked on rigorous benchmarking and analysis, ensuring that reorganization efforts address critical needs on campus.

See Appendix A for more detailed Sightlines information and Appendix B for detailed APPA FPI Report information.



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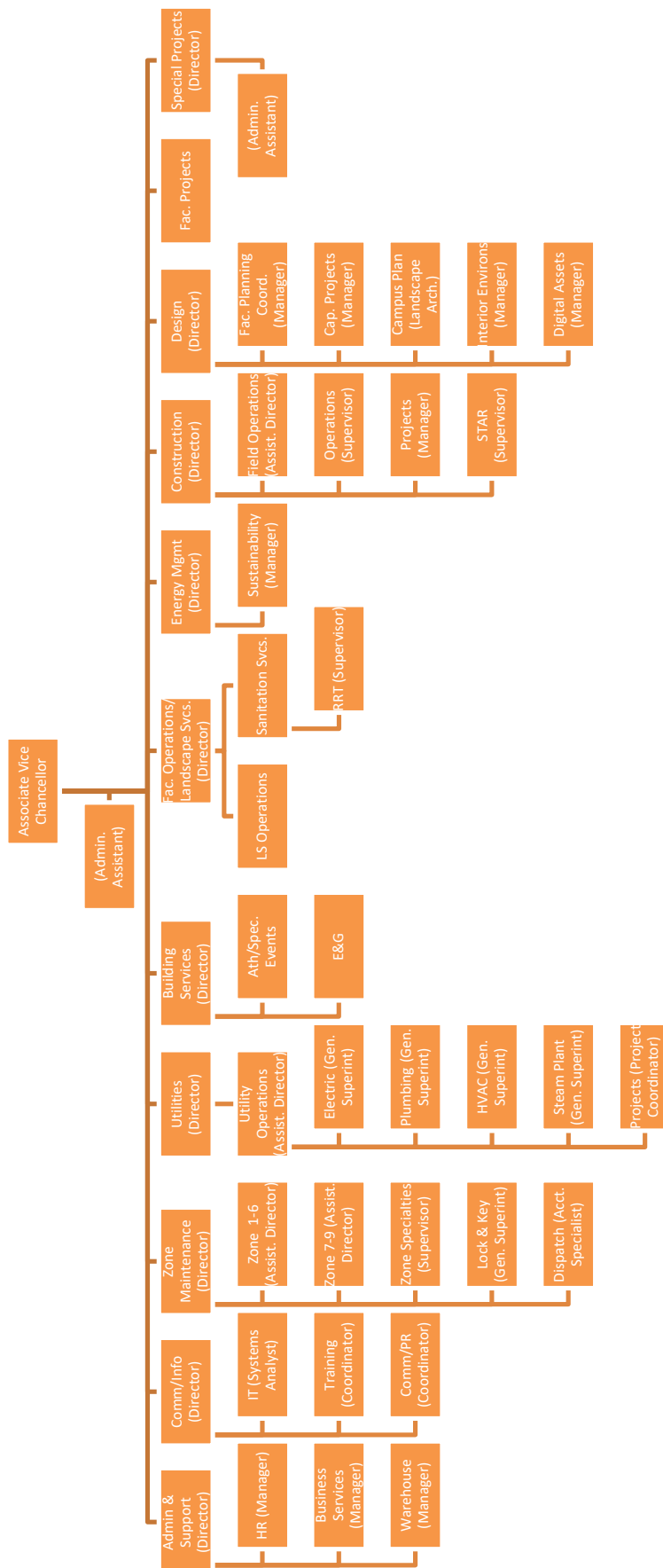
## ARCHIBUS SYSTEM



A primary component of Facilities Services increased accessibility, self-assessment, and benchmarking capabilities is the implementation of a custom Integrated Workplace Management System to replace the department's previous legacy system for requesting, tracking, and reviewing work orders. Archibus allows Facilities Services to better schedule, dispatch, manage, and report maintenance tasks efficiently using self-service capabilities to reduce operational costs and increase customer transparency and satisfaction.

The Archibus system gives our customers easier access to general work order information, broader access to more detailed reports, and real-time updates on work orders in our system. From there customers are also able to view or submit Project Requests, Key Requests, or Event Solicitations. Financial Officers are able to approve/reject work or provide substitute approvers when they know they will be out of the office.

# Facilities Services Organizational Chart



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FACILITIES SERVICES

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# FACILITIES SERVICES ANNUAL REPORTS

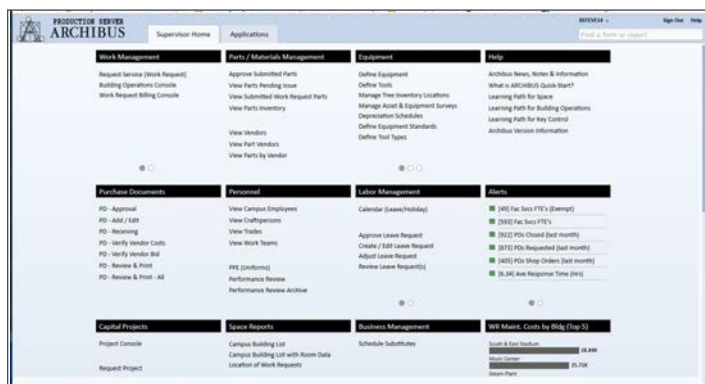
## ADMINISTRATION

### Special Projects

The office of Special Projects operates within FS Administration and is tasked with the execution and completion of all special projects assigned by the Associate Vice Chancellor. In addition, Special Projects also performs ongoing research regarding innovations and best business practices within the facilities management industry and analyzes the results to identify those innovations most applicable to Facilities Services and the University of Tennessee, Knoxville. Consults with FS Senior Management on selecting innovations to become special projects as well as taking the lead in working with FS personnel to develop, test and implement those projects.

Additionally, Special Projects manages and coordinates departmental special events from inception to completion. Collaborates with other Facilities Services units on needs for events as well as support needed before, during and after events.

Special Projects continues to work with Archibus (our Integrated Workplace Management System) to help maximize the capabilities of the system.



### Best Practices

In order to grow and learn, Special Projects works to schedule and coordinate meetings with other Tennessee higher education facilities professionals to share best practices and innovative ideas.

### Research

This unit is constantly conducting research regarding innovations and best business practices within the facilities management industry. Analyze the research results to identify those items most applicable to improvements here at the University of Tennessee, Knoxville. The goal is to stay on the cutting edge of best industry practices.

### Service

Special Projects gladly serves on multiple committees throughout the year to support the department and the University in its ongoing commitment to our students, faculty

and staff. Some of those include: Archibus, Communications, Chuck Thompson Award and Student Assistant Scholarship.

### Departmental Events

Facilities Services is like a family, and we want to celebrate our employees as such. That's why this unit coordinated and collaborated with FS Communications & Public Relations office in organizing various events hosted by the department including, but not limited to:

**Pink Day:** Every October, employees are encouraged to wear pink in support of Breast Cancer Awareness Month. This event hosts a sale of Breast Cancer Awareness items with all proceeds going to the Susan G. Komen Foundation.

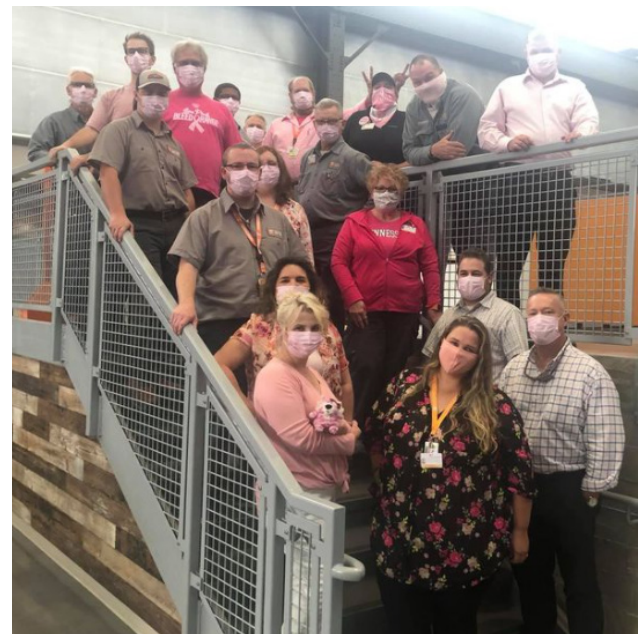
Coordinated food drive to benefit Smokey's Pantry.

Assisted with blanket collection to benefit a local elementary school.

Assisted Communications with ribbon cuttings for the First Impressions contest.

Assisted Communications with the grand opening of the department's Personnel Office Suite.

Several departmental events were scheduled to take place in 2020, but due to COVID-19 had to be cancelled. For example: 4th of July Celebration; Annual Holiday party, Employee Appreciation Week; and Student Assistant Appreciation Week.



**Space Tracing and Closures:** Through COVID-19, Special Projects changed focus from special events (which could not take place) to processing isolation forms by performing space tracing and closures for the Knoxville campus. Working with the campus EOC, FS Communications, Zone Maintenance and Building Services to determine if space(s) on campus needed to be closed and/or enhanced cleaning performed to



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reopen spaces for use by the campus community.

## ADMINISTRATIVE & SUPPORT SERVICES

The responsibilities of the Administrative & Support Services unit can be categorized into three primary areas: Financial Support Services, Material Procurement/Receiving and Warehousing Services, and Personnel and Administrative Support Services. These primary areas of responsibilities are conducted within the Business Services Office, Central Supply Office and the Human Resources Service Office.



### Business Services Office (BSO)

The Business Services Office is responsible for accomplishing financial support functions such as: budget build and execution, accounts management, accounts payable and receivable, ledger reconciliations, expense reimbursements, procurement card administration, contract administration, scholarship administration, asset management and movable equipment inventories, and maintaining multiple financial and administrative databases for the Facilities Services Department.

The Business Services Office is responsible for the financial administration and execution of the annual Facilities Services Departmental Budget which encompasses over 40 E&G Cost Centers as well as A, I, and WBS restricted accounts. In addition, this office provides departmental units information and guidance regarding university fiscal policies and procedures and serves as the central point of contact for all questions related to Facilities Services financial matters.

There are three areas within the Business Services Office: Accounts Payable, Accounts Receivable and Projects Administration with responsibilities for each identified below.

#### Work Requests and Projects

During FY 2020 the Business Services Office processed the following work requests:

Total Work Requests entered: 65,278 (chargeable & non-chargeable)

Total COMPLETED Non Chargeable Work Requests: 16,573 at the amount of \$4,978,637.84

Total COMPLETED Chargeable Work Requests: 14,029 at the amount of \$4,478,496.35

Total COMPLETED Projects: 833 at the amount of \$13,605,059.14



Total COMPLETED Work Requests and Projects for FY 2020: 30,602 at the amount of \$23,062,193.33

#### Accounts Payable

Accounts Payable operates within the Business Services Office and is the area in which Facilities Services Expenses incurred are processed for payment for items purchased, received, services rendered, etc. These payments include invoices, transfer vouchers, procurement card payments, petty cash reimbursements, and requests for special payment and special remittance.

During FY 2020 the Accounts Payable office processed the following:

Total invoices processed: 13,453 with \$21,459,980.18 paid to vendors.

Total PCard Transactions: 1,060 with \$306,872.07 paid to vendors.

Total E-Invoices processed: 1,300 with \$1,089,385.57 paid to vendors.

Total Goods & Services Procured Totals: 15,813 with \$22,856,237.82 paid to vendors.

This office also acts as a liaison between Facilities Services units and vendors for payment questions or contracts related to the procurement of goods and services needed to maintain the University of Tennessee, Knoxville campus.

In addition, Accounts Payable is responsible for the following:

- Maintaining the Facilities Services Department vendor database, including vendor contracts and contract details.
- Creating vendor requests, updating vendors remit to addresses, and obtaining W-9s for applicable vendors.
- Overseeing the Facilities Services Department procurement card purchases, distributing all of the procurement card charges to the appropriate accounts and reconciling account charges per fiscal policies.

#### Accounts Receivable

Accounts receivable represent debts owed to Facilities Services for maintenance, repairs, rentals and services provided to auxiliaries, departments, groups or individuals surrounding the University of Tennessee's Knoxville campus. These debts are considered short term and are normally expected to be paid to the university within 30 days after the Service Requests are completed. The Accounts Receivable Office operates within the Business Services Office and is the area that invoices and collects Facilities Services maintenance, repairs and service receivables while following set UT policies and standards for the administration and support of any and all UT Facilities Services work requests. Accounts receivable for Facilities Services can be broken

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down into three main categories: Auxiliary Charges, interdepartmental charges and project charges.

During FY 2020 the Accounts Receivable Office processed the following auxiliaries, interdepartmental, and project recoverable charges and non-recoverable WRs:

Total Work Requests Processed: 30,602 with \$23,062,193.33 billed to and recovered from campus entities.

## Uniform Administration

Late last year our uniform contract expired and after extensive research we elected to bid and award a contract with a uniform company to rent uniforms instead of purchasing them. This was done for several reasons, among them were:

- Ability to have them professionally cleaned and sanitized
- Avoid using warehouse space for storing uniform inventory
- Easy replacement of torn, stained or worn out uniform without additional cost

We provide each shop with appropriate PPE for their job. Employees that handle electrical issues or weld are issued Flame Resistant (FR) uniforms while others who work around campus during dawn or sunset hours are issued High Visibility (Hi VIZ) shirts so they be seen easily by vehicles when working close to roads or in street medians. Safety shoes are issued to all uniformed employees and coordinators who may need to visit job sites around campus.

Uniforms are now being picked up for cleaning/repair/replacement and delivered weekly to 42 different locker locations across campus. Billing is also done on a weekly basis. With weekly charges we are able to monitor cost trends and easily detect outliers such as lost uniform charges and size changes. We also communicate with supervisors and foremen to ensure all uniforms are returned to us when people separate from the university to avoid no-return charges for the rental of uniforms.

## The COVID-19 Project

Dealing with the pandemic that is COVID-19 is just like any other day to the folks in the FS Business Office, the only exception is that we wear masks under the 'new' normal! Discipline, long hours and determination account for the focus needed to close out any fiscal year...and the COVID-19 pandemic project coordination and financial records administration was no different. Our accounting specialists and project coordinators have dedicated many hours to our unseen enemy. They have worked closely with Central Supply, our FS Maintenance Department, FS Building Services Department, FS Construction Services Department, and our Directors to assure that we are meeting the needs of this university, be it contract adherence, purchasing and payment procedures, or project records keeping. Below is a list of the COVID-19 project coordination activities of which you may not be aware:

- Phase 1 of the original COVID-19 project was initiated on March 5, 2020, and included 54 individual shop work requests for the Facilities Services Department. This project is just one (1) of roughly 833 projects that were closed by the FS Business Office during the FY19-20 fiscal year. We are now in Phase 2 of the COVID-19 project.
- At its close, the COVID-19 Phase 1 project (material only) was \$777,071.71 (that's just the March-June number)! Phase 2 is well under way... with a current total value of \$332,000 in PAID material purchases on 114 PDs.
- The COVID-19 Phase 1 project included 198 PD (Purchase Documents), with a total of 869 invoice payments from March 5th to June 30th...in a work from home environment.
- Of course, no project is ever complete without paperwork...COVID-19 Phase 1 accounted for 200+ pages of required documentation to adhere to university policies and procedures.



## The COVID-19 hidden efforts...

- There are other parts of the COVID-19 efforts that may be hidden to you. Our project coordinators, added over 50 projects for Plexiglas COVID-19 protection for our campus; all of these projects are complete.
- Did you know that we have another dedicated COVID-19 project as well? Project #2 includes COVID-19 support for things that can be funded from CARES funding--This includes classroom preparation, classroom sanitation, classroom social distance signage, and classroom work in support of OIT technology work.

This is just a brief outline of the time and effort that our Business Office accounting specialists and coordinators have dedicated to The University of Tennessee's battle with COVID-19.

## Utilities Receivable

Another responsibility of the Facilities Services Accounts Receivable office is payment and processing of all utility charges on a monthly basis. Utility charges include the following activities: review and audit of utility bills from vendor(s), entering utility data into program for processing, review for accounting and metering accuracy, payment to vendor(s), interdepartmental and auxiliary billing.

Facilities Services Business Services Office audited, managed, and paid the following during FY 2020 (July 1, 2019 through June 30, 2020):

Total Number of Buildings Served: 289

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Total Square Footage Served: 17.2 Million

Total Utility invoices per fiscal year: 3,138 (campus-wide)

Total Utility Recoveries (from Auxiliaries): \$15.1 Million

Total Utility payments during FY 2020 (UT campus-wide): \$34.7 Million

In addition, the Business Services Office maintains payments, charges, ledgers, and reports for all Utility Services including:

- Utility meter lists.
- Consumption and charges database and reports.
- Installation and tracking of all new campus construction needs and costs for utility applications.
- Processing of utility contracts, applications and agreements for wastewater capacity and grease control permits.
- Title V compliance certification and emissions fees records and payments.
- Backflow testing requirements.
- Monthly and yearly budgets for all utilities.
- Reconciliation of utility account ledgers.

The Accounts Receivable Office also maintains related fiscal records for the Facilities Service Department while providing detailed information and summaries, service and support to the university community.

During FY 2020 the Utilities Receivable office processed the following:

Utilities E&G Payments: \$19,610,782.00

Utilities Recoveries (Auxiliaries): \$15,184,428.00

Total KUB Invoices Paid: 3,138 at the amount of \$34,795,210.00

## Human Resources Service Office

The Human Resources Service Office provides comprehensive Human Resource service for the Facilities Services Department. The HR office is responsible for coordinating and managing the ongoing Human Resource and payroll functions on behalf of the Facilities Services Department and provides critical support to the eight-unit directors and the Associate Vice Chancellor. The office accomplishes HR services including coordinating, managing and overseeing the recruiting, interviewing, and hiring of new staff, and assisting supervisors and staff with personnel and payroll issues.

The office serves as a vital centralized link between the Facilities Services Department, UT Knoxville Finance and Administration, the UT Knoxville Office of Equity and Diversity, the UT Knoxville Human Resources Office,

and the UT Treasurer's Office. The group interprets, communicates, and advises unit directors and supervisory personnel on Human Resources and payroll policies and procedures and provides direction and guidance in accomplishing human resource functions. The unit also coordinates and manages staffing services for more than 600 employees to include coordinating performance review evaluations, managing personnel and payroll changes, leave applications, promotions, and disciplinary procedures. The office prepares reports on staffing levels, career path progression and eligibility, apprenticeship eligibility and training, employee certification requirements and eligibility, employee leave balances, and payroll expenditures for the unit directors' and employees' planning purposes.

Additionally, the HR serves as the focal point for the University Apprenticeship Program. This program is the foundation of developing future leaders for Facilities Services and will ensure diversity is maintained within the facilities workforce.

Despite the COVID-19 Pandemic, during FY 2020 this office processed the following HR transactions:

Job Offers: 157

Total New Hires: 150

Total Terminations: 129

Position Change Forms: 256

Personnel Change Forms: 79

Total Recurring Pay Forms: 29

Total Custodial Certification Increases: 32

Total Career Path Increases: 17

Total Payroll-Timesheets/Books Reviews: 7,592

Additional Pay Forms: 9

Total Actions Processed: 8406

HR Exit Forms: 99

Job Fairs: 2 In house, 5 outside, 3 virtual

In addition, this office edited, corrected and audited 26 bi-weekly payrolls for more than 550 nonexempt employees during FY 2020 and performed 12 monthly payroll edits, corrections and audits for 58 exempt employees during FY 2020.

## **Central Supply Office**

The Central Supply Office handles purchasing and warehousing functions for the Facilities Services Department. The Central Supply Warehouse is a consolidated, well-organized, state-of-the-art warehousing facility. Located in the Facilities Services Complex, it is the central receiving

**150 New Hires**





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and issuing point for special order and stock replenishment purchases and maintains an inventory of commonly used stock items to support the Facilities Services units in providing maintenance and renovation services to the University of Tennessee, Knoxville campus.

## Parts Warehousing

Around the year 2010, UT Knoxville campus administration recognized the need and importance of maintaining the campus assets (buildings, grounds, research labs and equipment, etc.). As part of the Top 25 goal-setting initiative, the Facilities Services administration began a department-wide overhaul and reorganization which included the push for an up-to-date, organized and maintained MRO Storeroom.

As of July 2017, all warehousing locations are clearly marked and undergo a comprehensive, hands-on physical inventory each year. The Central Supply Warehouse includes the following descriptives:

- Part Number
- Part Description(s)
- Part Type
- Part Location(s)
- Quantity on Hand
- Vendor(s)
- Cost Details
- Special Information

Facilities Services Maintenance Supply is consolidated into three main parts and SKU locations for ease of service to the UT Knoxville campus. The FY 2020 Central Supply Warehouse Activity and Office Buyer Activity is detailed below.

Central Supply Warehouse Activity Totals: 77,917 transactions issued, received and replenished with an inventory value of \$575,939.

Parts Accuracy: 99.70%

Central Supply Office Buyers Purchase Document Total Orders: 5,977 orders placed with a purchase value of \$10,023,954.56

## Central Supply Office Vehicle Operations

After the Facilities Services Department moved to the Sutherland Facilities Services Complex (FSC), we had to address the issue of not having enough parking spaces for personal vehicles. The Central Supply Office implemented a shuttle program to transport staff and student workers to and from the FSC, our Concord parking lot, and the main campus. The schedule allows van operations from 5:30am

to 6:00pm, Monday through Friday. This operation was working well until COVID-19 hit in March 2020. We have suspended the shuttle program until the virus subsides or a vaccine is developed and administered.

In the spring of 2019 the Central Supply Office took over the responsibility of the pooled vehicles in our fleet (currently 16) available to any licensed Facilities Services staff member who may need transportation for job assignments.

## Central Supply Operations and COVID-19

The Central Supply Office played a key role against the outbreak of COVID-19. Some of our buyers dedicated most of their time addressing issues concerning this deadly unseen enemy. They worked closely with Zone Maintenance, Building Services and our directors working at the EOC to help satisfy our immediate and long-term needs. Our warehouse staff served as the front line in receiving outside shipments in a very responsible and safe manner to help assure the safety of everyone else in Facilities Services.



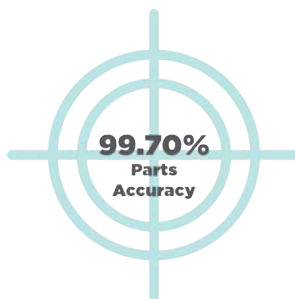
\*Above photo was taken pre-pandemic before campus mask requirements.

## COMMUNICATIONS & INFORMATION SERVICES

The Communications and Information Services (CIS) unit provides support to Facilities Services' (FS) employees (and to the campus) in the areas of Communications, Information Technology and Training. By effectively and efficiently supplying these services, CIS is able to support the primary mission of FS: to provide, maintain, and optimize the campus' physical resources and environments for all staff, faculty and students; which, in turn, supports and promotes the University of Tennessee's VolVision, its long-range Masterplan, and its goal of becoming a top research institution.

Some top accomplishments for the unit as a whole in FY20 are as follows:

- Hiring new Communications/PR and Archibus Analyst



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positions.

- Archibus Upgrade (from v21.2 to v24.1).
- OSHA training during early months of COVID-19 outbreak.
- Communications Support in EOC during COVID-19.
- Smooth transition to remote working and shift rotations.

## Communications & Public Relations

### Facilities Services Student Assistant Scholarship Fund

The Student Assistant Student Scholarship Fund was established in October 2017 by a committee that represents each Facilities unit. The scholarship was fully endowed in FY19. Due to COVID-19, many of the fundraising efforts typically planned by Communications & PR and Special Projects, with assistance from committee members, had to be cancelled. Although this year's fundraising wasn't possible, we moved forward in awarding the scholarship to two deserving student workers.

### Office of Emergency Management

The communications coordinator is involved with the Facilities Services portion of emergency management in various levels. The coordinator acts as the Emergency Operations Center Coordinator (EOC) for the department, as well as support for the call center. The office is also responsible for the upkeep of the department's Emergency Response Plan that ties into campus-wide emergency response. The coordinator also acts as the campus-wide Public Information Officer for Facilities Services related emergencies.

This year, the coordinator's role in the EOC has looked a little different in response to COVID-19. Our Communications Coordinator is heavily involved in EOC planning, especially with the coordination of space closures and enhanced cleaning. Initially, the coordinator was brought on to serve as a communications liaison between Logistics and the Joint Information Center (JIC) to develop any communications needs related to Housing, Facilities Services, and/or Vol Dining. She's also stayed busy communicating interdepartmentally through the activated Facilities Response Center (FRC) to make sure Facilities Services employees are well informed regarding campus protocol related to COVID-19. This work continues and will continue for the duration of the pandemic.

### APPA FPI Survey

Each year, the communications coordinator is responsible for the completion of the 450-question APPA FPI Survey.

The coordinator gathers all the necessary information from Facilities, as well as other campus units.

### American School & University

During the course of the year the office organized, created, and submitted separate portfolios featuring campus buildings for American School & University publications. The portfolios consisted of architectural-style images, project data, site plans, and manufacturer lists.

### Department Events

The department's two annual large scale events are organized by the communications coordinator. The Fourth of July Picnic and Holiday Parties are planned and executed by Special Projects with the support of Communications & PR. This includes space and event rentals, food orders, soliciting prizes, transportation, and hosting. An additional holiday party has been added to accommodate third shift employees and it takes place the same day as the first shift event. This year's attendance of both the Fourth of July Picnic and Holiday Party were slightly higher than previous years.



\*Above photo was taken pre-pandemic before campus mask requirements.

### Facilities Services Annual Report

The Facilities Services Annual Report is one of the large-scale projects the Communications & Public Relations Office completes on an annual basis. Last year's document details a department overview, unit summaries, and unit/office annual reports. The Communications & Public Relations Office worked with each Facilities Services office to update their summary and annual review information for the document. Each year the report is published on the department website.

### Newsletters

The Communications & PR Office has continued to maintain and expand upon the content in both Facilities Services Weekly and the Facilitator. This year, we shifted focus in the Facilitator to include more content about our people rather than focusing on procedure. Each issue highlights at least one Facilities Services employee who answer a series of questions about their work at UT as well as their life outside of FS. The response from many in the department has been overwhelmingly positive as we work to create buy-in and promote cross-unit collaboration.

Facilities Services Weekly continues to be a wealth of

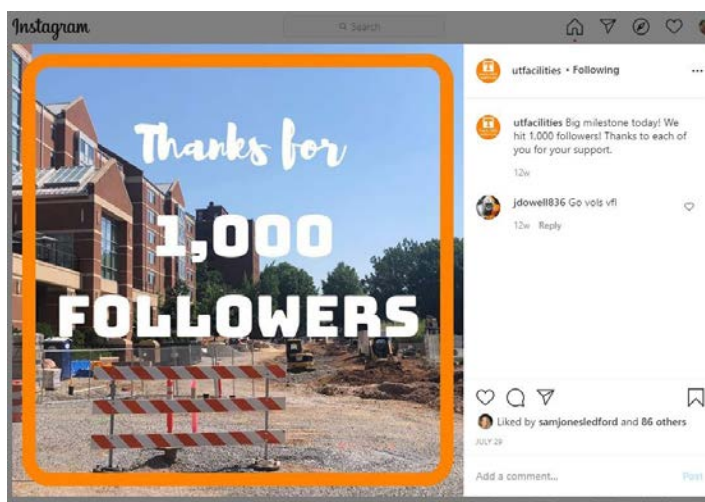


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project information for many, both inside and outside of the department. The Weekly is consistently within the Top 10 most visited pages on the Facilities Services website.

## Employee Recognition Programs

The communications coordinator organizes and promotes departmental recognition programs. These programs include Employee of the Month and Exceptional Team. Gift cards are given to Employee of the Month and Exceptional Team members each month and the coordinator organizing all details associated with the programs. This year, the awards for Exceptional Team and Employee of the Month were paused from April-June as we focused on COVID response. Exceptional Team awards resumed in July with several teams recognized for their outstanding work throughout the pandemic, and the Employee of the Month program resumed in September.



## Social Media Outreach

The Communications & PR Office is responsible for the management of the department's five different social media platforms – Twitter, Instagram, Facebook, YouTube, and Pinterest. The reach of the department's existing social media accounts expanded considerably during the past 12 months. The FS Twitter account now has 1,518 followers compared to 1,309 in August 2019, the Instagram account now has 1,016 followers compared to 711 in August 2019, and Facebook likes have increased to 855 from 707. These platforms are used to promote department events, announcements, notices, and accomplishments. Each month the office produces analytics of each of the social media sites to track the department's progress and reach.

## Building Representative List

The office continues to update the campus-wide Building Representative List three times annually. This affords Facilities Services the ability to keep a more accurate list for both maintenance and emergency preparedness.

The office also maintains an emergency contact list for the

use of the Office of Emergency Management and UTPD.

Once the list is updated it is posted to the Facilities Services website.

## Big Orange Family Campaign

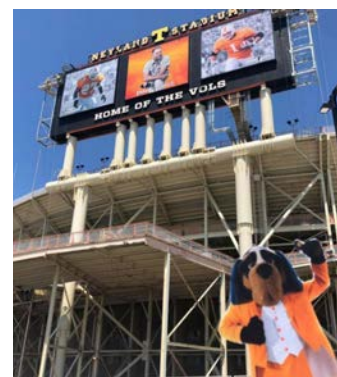
The communications coordinator serves on the executive committee for the UT Knoxville Big Orange Family Campaign. The coordinator organizes all team leads and materials, promotes the campaign, and provides assistance however necessary. In 2020, Facilities Services reached nearly 75 percent participation rate during this year's campaign which is an increase of 10 percent over the previous year.

## Public Relations Campaigns

The Communications & PR Office has implemented multiple PR campaigns in FY 20, specifically within the realm of Facilities Services' involvement in campus efforts to bring back students safely this fall. In May, we began a campaign called Mask Up Monday to show how Facilities Services team members had readily adopted the campus mask policy and to showcase the different masks our team was wearing to protect each other while showing off a bit of personality. Each week, we featured a different person or group in their masks as a way of showing how seriously we take the health and wellness of all on campus.



In July, we developed a Flat Smokey campaign where a cut-out of our beloved mascot made the rounds throughout campus to showcase all of the behind the scenes work that Facilities Services has completed prior to Phase III of the return to campus plan. This campaign had great success on Instagram and Twitter with many retweeting the photos and asking good questions about





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the work completed.

Prior to the pandemic, we launched a new social media PR campaign titled 10 Second Tuesday where we highlight a different unit or sub-unit within Facilities Services each week and include a bit of narrative on exactly what that group is responsible for on campus. Engagement on these posts is typically a bit higher than the rest of our content, and it's served as a great education snippet for those outside of our department. This campaign will continue as long as it's viable.

## Volunteers First Impressions Contest

While the pandemic interrupted our surprise check presentations for Year 2 of the Volunteer First Impressions contest, it certainly did not interrupt the work on the winning entries. While Construction, Utilities, and Design take the lead on completing the projects that make a great first impression, the communications coordinator promotes the contests, gathers all submissions, coordinates announcements of the winners, and takes before, in-progress, and after photographs of each project to share once these projects are complete. This year, 15 projects were selected from students, staff and faculty submissions, which is a 25% increase in the number of projects completed as a direct result of the contest.



\*Above photo was taken pre-pandemic before campus mask requirements.

## Employee Training & Development

### Partnerships

#### Environmental Health & Safety (UT System) -

In fiscal year 2020 we continued our partnership with Environmental Health & Safety (EHS). We worked with EHS to deliver alternative vehicle training, forklift training, Universal Waste, and RCRA and SPCC training. We also work closely with EHS to conduct respirator fit testing for all employees that wear respirators. In addition to the training that we have worked jointly to offer, we meet periodically to ensure that the safety needs of Facilities Services are being addressed, and the initiatives for campus by EHS are being supported.

#### Employee and Organizational Development (UT System) -

We worked closely with EOD to create our annual OSHA training courses within the K@TE system so all our departmental staff can maintain their compliance for safety training.

#### Human Resources (UT Knoxville) -

We partnered with Human Resources (HR) in fiscal year 2020 to host benefits chats for all shifts within our department. We partnered with Learning & Organizational Development (L&OD) to conduct management training sessions specifically developed for Facilities Services. We also hosted a STRIDE for Staff training event in FY 20.

#### Risk Management (UT System) -

Angie Robinette, the Workers' Compensation Coordinator, and Pam Jeffreys, the Director of Risk Management, spoke to our staff at the 2019 4th of July Picnic about the changes to Workers' Compensation and auto accident reporting.

### Collaborations

In addition to external partnerships in fiscal year 2020, Training & Development effectively collaborated with internal Facilities Services units to provide training and services to our employees. Highlights of this collaboration include:

Zone Maintenance – Developed and implemented Unit Level Orientation.

Landscape Services – Completed Career Path.

Utilities Services – Began the process of scheduling ride-alongs with A/C to further determine training needs.



### Accomplishments

In addition to external partnerships in fiscal year 2020, Training & Development effectively collaborated with internal Facilities Services units to provide training and services to our employees. Highlights of this collaboration include:

Building Services – Coordinated one CCP course over the course of the fiscal year. Training & Development saw 10 Building Service Aids graduate from the CCP program and become Certified Custodial Technicians.

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New Employee Orientation (NEO) – Facilities Services takes pride in its attentive process of welcoming and orienting new employees. As the largest non-academic department on campus, we hire a significant number of people every year. In fiscal year 2020, the Training & Development team conducted 26 NEO sessions for 99 new employees.

Fiscal year 2020 Respiratory Protection Program – Specific work tasks require employees from Utilities Services, Zone Maintenance, Paint & Sign Services, and Sanitation Safety to use a respirator for protection from exposure to hazardous atmospheres. Training & Development schedules medical evaluations, provides fit testing, and PPE and respiratory protection training for affected employees. Fit testing was offered bi-monthly to medically-approved employees. Data was collected from fit-tested employees on the frequency of respirator use and tasks performed while working.

Safety – Several initiatives aimed at reducing the risk of injury to Facilities Services personnel were undertaken in fiscal year 20, including:

Arc Flash Training offered bi-monthly; conducted by Cesar Penalba.

Alternative Vehicle Trainings conducted by EHS for all employees that require the training.

OSHA Compliance Training – We reported a compliance rate of 97% among full time employees for calendar year 2019. This is an increase of 7% from 2018.

OSHA 10 – 145 FS employees completed the nationally recognized OSHA 10 General Industry program.

Career Paths: Career Path development was put on hold for FY 2019 until the HR Job Family process was completed.

Landscape Academy: Landscape Academy was offered intermittently over the course of FY 2019. Work on completing level 600 courses was discussed as was a method for ensuring all Landscape Services employees are offered training at regular intervals.

Hosting two APPA events: APPA Supervisor's Toolkit and a Drive-in Workshop

New Employees: Rob Moyer was hired as our new Training Specialist. His focus is primarily on safety training.

Throughout the majority of the second half of FY 20, the Employee Training and Development team worked to support the department as they transitioned to work from home. We compiled a list of online training options for employees to complete while they worked from home. For those employees that do not have access to computer or internet, we prepared paper training packets. All of the paper

training packets were hand graded, recorded, and filed. The vast majority of the team has worked remotely since March 2020 coming in only to conduct new employee orientation. We continued to focus on training development during the



\*Above photo was taken pre-pandemic before campus mask requirements.

pandemic by transitioning as many of our in-person courses to be compatible with Zoom.

## IT Support & Maintenance

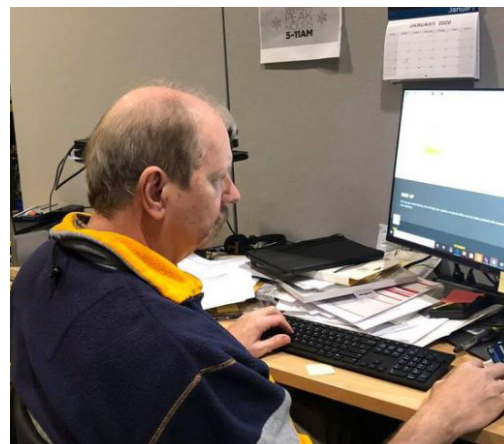
“The two words ‘information’ and ‘communication’ are often used interchangeably, but they signify quite different things. Information is giving out; communication is getting through.” – Sydney J. Harris

The Communications and Information Services IT Support & Maintenance unit serves the Facilities Services department's digital and computing needs by developing and supporting hardware and software solutions that facilitate the functions and operations of the FS department.

### Unit Definition

The purpose of the IT Support & Maintenance unit is to act as an embedded unit within the Facilities Services department to provide support for the hardware, software, and information technology needs of the entire department in order to create a highly integrated state-of-the-art office that empowers Facilities Services to act as a professional facilities management organization that efficiently and effectively operates and maintains the University's built environment in a manner that supports the larger University community's mission, vision, and values.

The unit acts as a digital forge for the Facilities Services



\*Above photo was taken pre-pandemic before campus mask requirements.



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department with the responsibility of continually investigating emerging technologies and assessing them for potential useful benefit by the FS group in order to foster and advance early adoption of technological innovation, push the boundaries of existing technology, and pave the way for the FS group to be the highest performing unit possible.

## FY20 Operating Highlights

Received approximately 80 computers/devices funded by the Computer Upgrade Program to replace or upgrade computer hardware used by the Facilities Services department.

Managed over 1,400 network enabled devices, 115 Tablets/Mobile Devices, 265 2-Way Radios including 178 user assigned desktop workstations and multiple FS Staff shared workstations. Radios were upgraded to use both 2-way radio waves and wi-fi connectivity.

Enabled and supported the Facilities Service department's transition to a remote workforce during the COVID crisis to keep workers able to continue to work effectively.

Provided technology support for the EOC (Emergency Operations Center) that was operated from the Facilities Services complex during the COVID crisis. •Completed a major software upgrade to Archibus version 24.1. The updated version offers new features that streamlines the user experience with improved performance and simplified processes.

Tested Virtual Reality applications to scout out possible future uses of that technology.

Updated the Facilities Services department website to reflect the progress made during the FS 2.0 initiative.

The team developed a first draft of a Work Order dashboard that communicates WO related metrics.

Worked on Archibus version 24 upgrade to be implemented FY2021. Version 24 will bring the promise of added and streamlined functionality that can confer tangible benefit to the FS department to help move us to the next level.

## Hardware

The team continuously evaluates computer and telecommunications hardware in use or needed to help the FS department perform at the highest possible level.

Constantly replaces or upgrades equipment with newer technology that yields ever-increasing performance by the FS teams.

The group is constantly available to respond when FS personnel encounter issues with their computer equipment.

## Software

The team works to optimize software systems in use and evaluates the potential for use of additional software to find methods by which FS can offer the highest level of service achievable.

## Other Highlights

The team has recently acquired a UAV drone that can be used to harvest data, perform exploratory evaluations of difficult to reach locations, and monitor facilities operations. The team is preparing for the day when UAVs can be used to perform maintenance and repair activities, increase safety of personnel, and further the efficiency of facilities management operations in ways yet to be discovered.

The team has worked recently to evaluate the use of Oculus virtual reality systems to identify potential uses by the department.

## ENERGY MANAGEMENT

### Office of Sustainability

The Office of Sustainability (OoS) aims to foster and promote environmental operations, education, and living on a campus, with a focus on work efficiency and cost savings. More specifically, the OoS is tasked with reducing the annual GHG emissions to zero (carbon neutral) by the year 2061. We utilize a multi-faceted approach to this, as it requires both a cultural appreciation and an infusion of sustainability as a core mission of the university.

### Zero Waste Efforts

Conducted week-long waste audits on 13 buildings to collect pre-My Tiny Trash diversion data.

Implemented My Tiny Trash into 18 buildings consisting of approximately 1,000 individual offices.

Organized 18 zero waste events throughout the year ranging in size from



\*Above photo was taken pre-pandemic before campus mask requirements.



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100 to 5,000+ attendees for an average diversion rate of 86%.

Gave 4 presentations on zero waste, waste reduction, and composting.

Audited dumpsters on campus to seek out further reductions in pick-up frequency to determine opportunity for cost savings.

Trained and oversaw compost pickup route on campus as well as the football stadium compost for each game.

Researched and initiated the switch to compostable bags in all compost bins.

## Outreach

Increased social media following by 700 people over the last year.

Coordinated RecycleMania, a 2 month-long intercollegiate recycling competition, to promote student engagement with recycling and waste reduction. As part of the competition, planned and hosted 3 workshops through the Office of Sustainability.

Organized and adapted our Earth Month events to virtual platforms including Instagram, Facebook, and Twitter. Events included Big Orange Friday, Environmental and Sustainability Career Mingle, Earth Day Live, Arbor Day, and the Environmental Leadership Awards.

Recruited volunteers who contributed about 435 hours of community service to Zero Waste Gamedays and other volunteering events.

## Campus Garden, Food Recovery, and Donations

In partnership with the Food Recovery Network, rescued 14,396 pounds of food from Zero Waste Gameday, various events, and campus dining locations that provided 11,997 meals to people in need in the Knoxville area.

Donated 60 pounds of fresh, organic produce from the Grow Lab to Smokey's Pantry and the Love Kitchen.

Donated 730 pounds of food from the POD Markets on campus.

Coordinated and directed the collection of 42,312 pounds



\*Above photo was taken pre-pandemic before campus mask requirements.

of canned food through hosting All Campus Events' Tower of Cans homecoming event.

The Free Store collected 700 pounds of donated clothing, home furnishings, kitchenware, and small appliances that were distributed through Free Store Pop-Ups.

Collected 11,187 pounds of donations from Move Out, even during the sudden COVID pandemic.

Served on the End Hunger/FEED Change Working Group, a coalition of departments across UT & UTIA, to address food insecurity on campus, in our community, and globally.

Recruited 15 volunteers who contributed 97 hours of community service work aimed at reducing food insecurity.

Local news coverage of the Food Recovery Network efforts at Zero Waste Gamedays in Fall 2019.

Leah McCord was awarded CAC AmeriCorps' VISTA Corps Member of the Year for the 2019-2020 service year.

## Academic Engagement

Grew the Sustainability Internship Program from 6 to 23 students in the 2019-2020 academic year.

Hosted 6 professional development and educational workshops for student interns.

Gave presentations to 7 different undergraduate courses and 3 student organizations about the Office of Sustainability's various projects and volunteer opportunities.

Organized the Sustainability Day Symposium in October 2019, which showcased academic research presentations on sustainability topics.

Worked with 15 students in a sustainability capstone course by providing Office of Sustainability resources and project mentorship.

Created the 5-week, online Make Orange Green Ambassador training certification as a response to the COVID pandemic. 60 faculty, staff, and students enrolled in the course and learned about various sustainability topics.

## Program Development

Gained substantial support on the Zero Waste Commitment from student groups and admin, which initiated the Chancellor to officially sign and commit to it on January 14th, 2020.

Collaborated with members of the UT community to compile research on best practices for a new campus Sustainability Master Plan.

Revamped the old Green Office Program by creating a new point system and working on new educational resources.



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Completed UT's STARS report through intensive research, which ranks our sustainability initiatives against other schools around the country

## Alternative Transportation

Organized a new week long bicycle awareness event, which raised awareness and promoted available alternative transportation methods

Started work on the Bicycle Friendly University certification for UT

Worked on an analysis of existing e-scooter and bikeshare programs

## Annual Recycling Collection Totals

Food Waste to Compost: 261.57 tons

Wood Chips to Compost: 67.5 tons

Manure to Compost: 199.89 tons

Scrap Metal: 96.51 tons

Aluminum: 5.32 tons

Paper: 296.11 tons

Cardboard: 370.89 tons

Plastic: 153.79 tons

Plastic Film: 0.89 tons

Glass: 20.33 tons

Textiles: 15.94 tons

Electronics: 6.43 tons

Universal Waste: 15.3 tons

Cooking Oil: 13.51 tons

Pallets: 150.39 tons

Total: 1674.37 tons



## CONSTRUCTION SERVICES



\*Above photo was taken pre-pandemic before campus mask requirements.

Over the last year, there have been many exciting changes in the Facilities Services Construction department. Early in

2019, the STAR team, Building Finishes, and the Paint & Sign shops moved under FS Construction. This was done per the Next Gen 2.0 reorganization of Facilities Services and doubled FS Construction's work force. In September 2019, Randy Huelsman was promoted to superintendent of STAR (this includes Building Finishes) and Paint & Sign. In October 2019, Bryan Lord was promoted to Assistant Director of Construction. In February 2020, Emily Lingerfelt was promoted to Project Supervisor. And, in March 2020, Rick Gometz was promoted to Superintendent of Construction. The whole team of FS Construction completed 2000 +/- work orders from July 2019 to July 2020 and currently have 900 +/- work orders opened. Some of our most notable projects are below.

## Project Team

Brehm Animal - Fixed egress issues due to dirt removal, make ADA accessible for use as temporary classroom space.

Completed the classroom improvements in Humanities and Social Sciences (48 classrooms & common areas), Hodges Library, Vet Med Center, Burchfiel Geography, and still working on Hoskins Library.

Wellness screens- 392 total screens completed, in 69 buildings.

Volunteer First Impressions (underway) -

- 5th Floor Dunford Hall, Institutional Research and Assessment
- McCord Hall
- Area under Stokely Management Center
- Office of Title IX
- Bailey Education Building
- UTPD Lobby
- Sidewalk in front of Dabney/ Rays place
- Melrose/Hodges "Courtyard"
- Key Shop Entry at Greve Hall
- Early Learning Center at White Ave.
- Path from Stokely to Art + Architecture
- McClung Museum Entrance
- Student Services Bldg Breezeway
- Student Health Center
- Clarence Brown Theater Concession Area

Jessie Harris Abatement and new flooring 2nd 3rd and 4th floor hallways.

Conference Center renovations of Suites 209,215,224,230 and 231.

Dougherty 508.

Serf 506.

Student Union Shell Build-out (underway).

Brehm Animal - Help with egress issues after dirt floor was

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removed.

Kappa Alpha Fraternity - Painting, repairing plumbing, Adding a second washer and dryer.

Fibers and Composites Manufacturing Facility - Setting up utilities and connecting to the new Wabash Press.

Communications - Paint in offices 92,107l, 107Y.

Nielsen Physics - Widen the doorway and install new doors to accommodate new equipment.

Bailey Education - Repair the men's restroom floor.

Silverstein Luper Building - Repair plaster walls and paint all damaged areas.

COVID-19 research lab (3 labs) set up with STAR.

Repairing EnviroSTEP Control system in Greenhouse #13.

Strong Hall - Install ceiling mounted dust collection system.

SMC - value engineering, currently a working project.

Ewing gallery, demo ceiling and hang light fixtures.

Provide power and raceways for plate cameras across campus.

Vol Hall - painting.

Thackston - New interior finishes.

Student Union - door lock project.

Dunford Hall - Carpet 4th floor.

SERF- 217&218 lab renovation.

Engineering Plaza - Repair concrete and pavers from drop out damage.

Conference Center - basement renovation.

JIAM - Helium Recovery system STAR.

Dean of Engineering suite in Perkins.

## **STAR Team**

Conference Center - replace drain piping from 4th floor.

Morgan Hall - P.O.C.A.

Eye wash replacement - SERF, Dabney-Buehler, Plant Bio, Dougherty.

Supporting research.

590 work orders completed since 7/1/2019.



\*Above photo was taken pre-pandemic before campus mask requirements.

## **Paint and Sign**

COVID-19 signage across campus.

UTPD - 12 car vinyl decals.

Jessie Harris - maintenance painting all common areas.

Neyland Stadium - Skybox painting.

555 Work orders completed since 7/1/2019.

## **DESIGN SERVICES**

The Design Services report typically highlights on-going and completed projects each team accomplished during the fiscal year. But, just like everybody else's year, our year was very different.

We started FY2019-2020 working for our desks at Facilities Services Complex and, six months later, we discovered the new world of working from home and Zoom meetings. Our work continued as planned and many more projects emerged as the University prepared to welcome students back to campus for Fall 2020.

## **COVID-19 Response Efforts**

Design Services was instrumental in multiple aspects of UTK's Re-Imagining Fall Task Force efforts to safely resume classes in the Fall semester while keeping the campus community healthy. Teamwork is the keyword. All units in Design were involved and collaborated with other Units in Facilities Services as well as other UTK departments to prepare the campus for the return of students. Design staff was involved in the following COVID-related tasks.

### Classroom Plans and Furniture Reset

Design developed over 500 classroom layouts in preparation for the fall semester and calculated maximum occupancy in each room while maintaining social distancing. This information was key for the Registrar's Office to develop timetables and assigning sections to each space. Every room was surveyed during that process. After all layouts were developed, Design Services and RRT collaborated to remove, re-arrange furniture configuration and prepare all spaces to



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welcome students before classes started.



## Wellness Screens

The Interior Design Team studied and designed more than 300 acrylic wellness screens, and provided recommendations for construction and implementation.

## COVID Signage on Campus

Design Services was part of the Engineering Task Force responsible for designing and placing COVID related signage in interior and exterior spaces across campus.

## Outdoor Study Spaces and Hammock Stands

Our Landscape Team's continuous efforts to improve and increase green spaces on campus are helping students to remain socially distanced, enjoying the outdoors, and participate in their online classes at the same time. As part of UTK's Re-Imagining Fall, the Chancellor requested our team to get creative and find ways outdoor spaces could be used as areas where students could hang out, study, and relax in between classes. The result was the installation of multiple tents, hammock stands, and improved outdoor Wi-Fi capabilities throughout campus.

## COVID-19 Air Distribution

Air circulation was suggested during the spring as a key role in the spread of COVID-19. Our Capital Projects Team worked with other Units in Facilities Services to analyze the air distribution systems in multiple campus buildings and assess what modifications of the existing systems could be made to improve outside air delivery.

## **Capital Projects Team**

The Capital Projects Team manages UTK's capital building projects. We work in concert with Facilities Planning and manage projects from the campus representation side. Our work involves extensive organization and involvement with user groups, facilities services departments such as utilities, zone maintenance, construction, and commissioning. The work includes conceptual development of projects and cost estimating, programming activities, design phases, value

engineering, and construction administration, and closeout. During FY 2019-2020, the team accomplished the following:

## Completed Projects

- Dogwood and Magnolia Residence Halls.
- Clyde Austin 4H Facility.
- White Hall Exterior and Interior Improvements.
- Morrill Hall Demolition.
- Golf Facility.
- Band Pavilion and Rec Field Turf Replacement.
- Thornton Athletics Study Area.
- Installation of a roof at the indoor football facility.
- Haslam Mezzanine Renovation.
- Pride of the Southland Marching Band Practice Facility.



## Capital Projects in Progress

- Zeanah Engineering Complex.
- West Dining Hall.
- UTIA Surge Building.
- Reese Hall chiller installation.
- West Pedestrian Mall Extension.
- Second Creek Project.
- Vet Med Teaching and Learning Center.
- West Volunteer Streetscape (project on hold due to the current pandemic).
- Energy and Environmental Science Research Building (EESRB).
- Audiology Speech and Hearing relocation to the Conference Center.
- Renovation of old Thackston school building to host the Pediatric Language Institute.
- Mezzanine and Conference Center ASP Phase 1.

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## Special Projects & Studies

- Schematics for New Garage locations.
- Schematics for indoor track location.
- Perkins Window Replacement.
- Mossman.
- HVAC Systems Improvements at Dougherty, A&A, Hodges, and Senter Hall.
- Academic/Research Storage Building.
- Programming efforts for Innovation South project.
- Carousel replacement programing.
- Student Union shell space.
- UT Culinary Institute and Creamery.
- Water issues in Disability Services.
- Fire Safety Upgrades.
- Continuing to resolve outstanding POCAs around campus.
- Development of Fire Impairment procedures.
- Disability Services.
- Preparation of documentation for THEC and the SBC.
- Construction Administration.
- A&A Restrooms to those of Hodges Library restrooms.
- Estabrook Memorial at ESF.
- Future streetscape improvements study.
- Historic structures study.
- COAD A&A Building improvement study.
- Coordinated parking closures along Lower Drive.
- Reviewed elevations for the NSSR.



Our Field Administration team continued weekly visits to construction projects on campus and developed over 100

field reports describing work in progress, observations, and pictures. We also began a facilities assessment for 10 buildings on campus in collaboration with Zone Maintenance, Utilities, and Construction.

## **Landscape and Natural Resources Team**

The Landscape and Natural Resources Team goal is to create a landscape that reinforces a sense of community for learning and living; that conveys a sense of place, history, and character unique to the University of Tennessee; conserves and protects natural resources through functional design and responsible stewardship. To achieve our team vision and support the primary mission of Facilities Services, this team develops and maintains the Campus Landscape Vision and Site Standards document. The team prepares site construction documents and specifications for projects to be executed by the Facilities Services Department and plays a vital role in site design review and construction administration for projects executed by the Facilities Planning Department. This year's accomplishments include

### Landscape

- Doug Dickey Hall of Fame Plaza
- Johnson Ward Pedestrian Mall Expansion
- UT Research Park at Cherokee Farm Parking Lot
- Cumberland Ave. Lighting and Signalization Upgrade
- Athletics Master Plan Development
- TREC Outdoor Pool Project
- Kefauver Demolition and Greenspace
- Anderson Training Center Cyrotubs
- Melrose Ave. and Francis Street Conversion to Two Way Traffic
- National Pan-Hellenic Council Plaza
- Campus-Wide License Plate Recognition Camera Project
- Facilities Services First Impression Contest – Various Designs
- Various projects to improve Campus Exterior Signage



### Natural Resources

- Installed one new rain garden.
- Assessed nine miles of shoreline under our recently developed shoreline erosion assessment protocol.
- Conducted dry weather screening on all outfalls
- Conducted 75 Stormwater Compliance inspections on

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active construction projects

- Hosted eight Adopt-A-Stream cleanups
- Converted 5,250 square feet of impervious surface to pervious
- Began rehabilitation of 2nd Creek following a significant slope failure into the stream channel.

## Digital Assets Team

The Digital Assets team provides ongoing support to Facilities Services and the University in creating, collecting, updating, managing, and maintaining all digital information relating to the University's physical environments, assets, and archived documentation. During FY2019-20, our team has accomplished the following tasks in the following four disciplines:

### Space

- Completed the Annual Space Survey of all rooms maintained by Facilities Services.
- Trained and assisted space managers throughout campus in auditing rooms.
- Continued completing 40 building space audits and updating small-scale floorplans.
- Published and tested hundreds of campus drawings for the new Archibus upgrade.
- Assisted with the general development testing for the new Archibus upgrade.
- Assisted in completing space building audit drawing changes.
- Completed the National Science Foundation Survey: FY 2019 Survey of Science and Engineering Research Facilities (Study ID: 9027).
- Assisted in completing the campus annual Schedule D report to THEC.

### Archives

- Continued organization of archives room.

### BIM

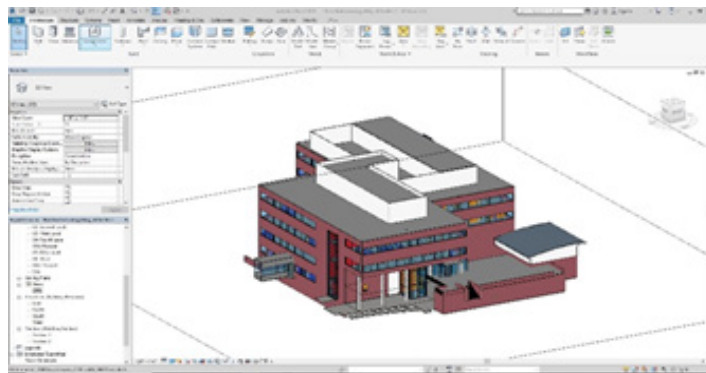
- Ongoing efforts to model the architectural components of our existing buildings.
- Inventoried and added to BIM assets maintained by our Zone Maintenance Unit.
- Finalized and applied BIM standards to the new Ellington project.
- Ongoing QA-ing and developing of BIM models.

### GIS

- Continued GIS support for roadway paving study program.
- Assisted the Office of Communications for Campus online web map application.
- Continued updating existing GIS campus data.
- Mapped outdoor wireless access points, cameras, and

copper and fiber assets for OIT.

- Provided GIS support services to several departments on campus.



## Interior Design Team

The Interior Environments Team strives to create and enhance environments for learning. The team stays knowledgeable of current design research to provide students great interiors for learning and living. We also provide design services to UTFS Construction Services, Users, and the Classroom Committee. Another facet of our team is maintaining the Campus's signage standards and collaborating with Creative Communications to assure the University's brand is upheld. Lastly, we review and assist in the direction of interior design on capital projects. During FY2019-20, the team accomplished the following:

### Classrooms

- Classroom upgrades and interior finish upgrades, including new FFE, in Humanities and Hodges Library.

### Signage

- Improved specifications of signage protocols.
- Designed additional wayfinding signage at the Student Union.
- Coordinated additional signage package for Mossman.
- Reviewed and revised interior signage standards.

### Facilities Management through Interior Design

- Reviewed existing All Gender Restrooms on campus.
- Updated lobby finishes for basement level at Andy Holt Tower.
- Elevator upgrades at Hodges, Communications, and McClung Tower.
- Renovation design for Office of Equity and Diversity.
- Space planning of Dean's suite in Claxton.

### Partnering

- Collaborated on multiple First Impression awards including UTPD, Dunford, Greve, Early Learning Center, and others.
- Collaborated on the design and implementation of donor



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signage at Strong Hall

- Collaborated on the design for Eastman Chemical incubator suite.
- Partnered with Creative Communications to design and renovate Skybox Level 6 at Neyland Stadium following UTK's branding guidelines.

## FF&E and Finish Selection

- Provided interior design expertise to Chancellor Plowman to design and complete office upgrades and new FFE her office suite.
- Delivered in-house Interior Design, finish, and FFE selection for numerous projects on campus including improvements at Jessie Harris, Burchfiel, McClung Museum, Walter's Life Science, Anderson Training Center, and many others.



## Capital Projects

- Programming of Stokely Management Center, 2nd floor
- Programming, design, and FFE specifications for shell space at Student Union
- Completed outstanding FFE punch list items for Mossman
- Provided FFE specifications for punch list items at Student Union

Capital Funding Requests Prepared and Submitted:

## Capital Outlay Requests -

- College of Nursing Renovation and Addition – Full Package
- Jessie Harris Classroom and Lab Facility – Preliminary Package
- Renovations to Buehler Hall – Preliminary Package
- Renovations to Dabney Hall – Preliminary Package
- Renovations to Nielsen Physics – Preliminary Package
- Hoskins Library Restoration and Renovation – Preliminary Package

## Capital Maintenance Requests -

- Window Replacements and Masonry Repairs (2020-2021)

- Building systems Improvements (2020-2021)
- Steam Plant Improvements (2020-2021)
- HVAC Improvements (2021-2022)
- Window Replacements and Masonry Repairs (2021-2022)
- Dabney Buehler Systems Upgrade (2021-2022)
- Jessie Harris Systems Upgrade (2022-2023)
- Electrical Distribution System Improvements (2022-2023)
- HVAC Controls Systems Consolidation and Upgrades (2022-2023)
- Elevator Upgrades (2023-2024)
- Steam Distribution Systems Improvements (2023-2024)
- HVAC Improvements (2023-2024)
- HPER Improvements (2024-2025)
- Blount Hall Improvements (2024-2025)
- Building Systems Improvements (2024-2025)

## Capital Disclosure Requests -

- New Parking Garage Planning and Design (2021-2022)
- Student Union Retail Renovation (2021-2022)
- Parking Lot Repairs and Improvements (2021-2022)
- Dining Services Brand Refresh (2021-2022)
- New Housing Planning Design (2021-2022)

## Quarterly/Monthly Disclosures

### February 2020

- Student Services – Bursar's Office Renovation
- Laurel Residence Hall Lentil Replacement
- Art & Architecture Ewing Gallery Maintenance Renovations

### June 2019

- Administration Parking Garage Renovation
- Strong Hall Lab
- Bass Building Renovation
- Classroom Upgrades
- Campus Wide Roadway Paving
- Fleet Management and Support (Concord Campus)
- Hazardous Waste Building
- Emergency Generators
- Library Storage Building
- Public Safety Building (Concord Campus)
- Research Storage Building

### August 2019

- Art & Architecture Improvements

### September 2019

- Andy Holt Tower Interior Upgrades

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- Melrose Addition and Renovation
- Stokely Management Interiors
- Haslam Business Interiors
- Second Creek Rehabilitation
- Conference Center SWORPS and Treasurer office
- Panhellenic Building Improvements
- Athletics Master Plan

March 2020

- National Panhellenic Markers
- 1610 University Ave. IPS Furniture Refresh
- Concord Campus Demolition
- Turf replacement Neyland Thompson Sports Complex

## BUILDING SERVICES

### Accomplishments

The Building Services Office maintains more than 17,000,000 square feet of academic and athletic space for the University of Tennessee, Knoxville and University of Tennessee facilities around or on the Knoxville campus. Building Services provides 24 hour per day, 7 day a week service when and where it is needed. This includes all athletic events, concerts, and university functions. With the Ken and Blaire Mossman Science Building and Student Union Phase II building being open, we have expanded our 4th shift coverage.

Building Services holds a Cleaning Certification Program for employees which is a 22-week education program on professional custodial techniques. Employees who complete both sections of the program successfully are submitted for a 9% pay increase.

93% of Building Services chemicals are categorized as "Green" Cleaning Products. The 7% which are not considered "Green" are hospital grade disinfectants which Building



Services uses for all restroom area type cleaning. The hand soap on campus was designed by the University of Tennessee School of Public Health's Clean Hands Graduate Committee. Building Services, also, uses Clorox T-360 hydro static disinfection system to routinely disinfect areas of campus.

Building Services has added Mossman Building to its cleaning portfolio. In addition, Building Services provides set ups for our multi-use buildings.

The office has 13 supervisors and 260 service aides. Building Services is led by an Assistant Director, two Building Superintendents, and one Coordinator. Building Services employees service all academic and athletic facilities, including the Student Union, in four shifts, seven days a week.

Building Services has successfully standardized cleaning products used by the office, resulting in reduced inventory levels.

Building Services is committed to keeping the University safe from disease and viruses. We use hospital grade disinfectants and have begun pro actively treating heavily occupied areas for germs. Building Services has been proactive in fighting and preventing the spread of COVID-19 on campus. All zones are trained to do "Enhanced Cleaning" in contaminated areas to prevent the spread of the virus.

Recycling is an important part of what Building Services employees participate in. During the past year, recycling numbers have grown and solid waste numbers have dropped in spite of the university's continued growth.

## FACILITIES OPERATIONS

### Landscape Services

The Landscape Services Office maintains 900 acres of campus grounds. The team is responsible for daily and seasonal landscape bed maintenance, general property grooming, turf maintenance, arboriculture, irrigation maintenance and upgrades, landscape renovations, project design review and construction oversight, heavy equipment operations, inclement weather response, and equipment maintenance. Landscape Services also has helped and completed multiple projects related to the effort to make campus ready for dealing with the COVID-19 Pandemic. Landscape Services also designed and created online training for its employees during the stay at home period.



### Accomplishments

- Volunteer Blvd. Streetscape Phase II: Made plant adjustments along Volunteer Blvd to allow for better sight-lines.
- Seasonal flowers: Installation of 16,000 seasonal flowers and 9,300 tulip bulbs.

# FACILITIES SERVICES ANNUAL REPORTS

- 900 cubic yards of hardwood bark mulch and 5858 bales of pine needles applied to campus landscapes.



- Campus wide turf fertilization, weed control, aeration, and over-seeding program.
- Install infrastructure for central control capabilities of campus irrigation systems.
- Retained campus certification for both Bee Campus and Tree Campus designations.
- Campus wide snow/ice treatment and removal.
- New Construction Document Reviews: Plant Sciences Building, Vet School Extension, Andy Holt Mall project, Dining Hall, Neyland Stadium Renovation
- Sorority Village: Assist with excavation and landscape repairs associated with geo-thermal system repairs.
- Sorority Village: Prep and event support for sorority recruitment events.
- Housing: Spruce-up landscape at dormitories prior to student move-in.
- Support for Student Life Welcome Back outdoor events.
- Support for Chancellor's Picnic.
- Provide excavation and site restoration for ongoing campus-wide underground utility repairs (high voltage, steam, water, telephone).
- Provide excavation and site restoration for ADA ramp installation on campus walks.
- Cherokee Farm: Provided year-round landscape property maintenance to include the Knoxville city greenway expansion.
- Ellington/Plant Biotech: Prep for Board of Trustees visit.
- Emerald Ash Borer: Treatment of ash trees throughout campus for protection against EAB.
- Powdery mildew treatment to dogwoods and crape myrtle.
- Sorority Village: Provided landscape and irrigation maintenance to common areas and 13 sorority houses.
- Hazardous tree removal across campus.
- Tree pruning as needed throughout campus to provide clearance around security cameras, campus lighting, signage, and bus stops. Approximately 250 trees.
- Campus wide asphalt pothole repair.
- Bush hog mowing along non-UT properties adjacent to campus.
- Campus wide construction: Provided daily support to contractors and Facilities Services to ensure construction quality.
- Pre/Post football game preparation and cleanup throughout campus.
- Prep and Clean-up associated with Homecoming bonfire, parade, and events.
- Campus-wide street sweeping.
- Landscape Irrigation Systems: Monitor, repair, adjust, and winterize campus-wide. Upgrade irrigation controllers and connect to central control management system.
- Leaf removal: 200 tons of leaves campus-wide taken to compost site.
- Inventory and develop a plan for street tree replacements during winter months.
- Monitor rose population throughout campus to control Rose Rosette virus management.
- Sod repairs throughout campus.
- Emergency roadway repair campus wide caused by sink-hole activity.
- Campus wide: Plant and inventory new trees throughout campus.
- We performed 72 tree removals and cleanup associated with mortality, construction and storm events.
- Systemic insecticide treatment of hackberry and river birch for aphids over parking/seating areas
- The University Tree inventory database (ArborPro) continued to be updated. At this point the update is over 95% complete.





# FACILITIES SERVICES ANNUAL REPORTS

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- North Concord property: Cut grass around parking lot and spray weeds in pavement cracks.
- Thompson-Boling Arena: Assist with Monster Jam dirt clean-up at east and west service area.
- New building construction: Transplant shrubs and trees from the site prior to site demolition
- Hoskins Library Landscape renovation project completed
- Mashburn Garden at Clarence Brown Theater completed
- Landscape improvements to Walters Life and Burchfiel Geography completed
- Melrose Park irrigation project completed
- A&A court yard irrigation project completed
- McClung Museum turf project completed
- Solar powered mower project completed
- Grounds equipment maintenance and repair for all units with Landscape Services
- Managed bore project to restore power to multiple pedestrian light poles and outdoor outlets.
- Performed cultural practice on all event lawns throughout the year including - Aeration, verticutting, and top-dressing.
- Updated and maintained equipment inventory

## Academic Research and Support

- Dr. Bass Anthropology Facility: Provide removal of fallen trees, fence repair, service road maintenance.
- Assist Urban Forestry class with basic rope setup for climbing instruction.
- Hosted Arbor Day celebration at Strong Hall on Tennessee Arbor Day. We planted a Tulip Poplar to replace one that had died at the same location.
- Coordinating talks with Urban Forestry and Facilities Services staff to develop tree inventory data collection tools, i.e. PDA, laptop, GPS, etc.
- Assisted UTIA Plant Science farm with irrigation repair.

## Training

- Landscape Academy: Conduct sessions with new and existing staff and continue development of upper level curriculum.
- Created an online Canvas based class for employees to take part in while at home during the first Covid19 response. This included 26 online lectures with a quiz after each lecture.
- Created and implemented Zoom based irrigation training

for all Landscape Services employees.

- Landscape staff holding a Tennessee Department of Agriculture Pesticide Certification attended the Ag Extension Turf and Ornamental Field Day and Knox County Extension Grounds Management Short Courses.
- Heavy equipment staff attended OSHA training to include Trench Safety, Trench/Excavation Competent Person, and construction site safety.
- Excavation and backhoe hand signal training for heavy equipment team.
- Conduct departmental snow removal training and SOP review.
- Aerial lift training (Arboriculture)

## Heavy Equipment

- Communications Chiller Building: Set new exhaust fans on roof for installation, remove and haul off the old ones.
- 2007 Lake Avenue: Complete building demolition, haul-off waste, grade and gravel for parking lot.
- Sorority Village: Assist with excavation and landscape repairs associated with geo-thermal system repairs.



\*Above photo was taken pre-pandemic before campus mask requirements.

- Provide excavation and site restoration for ongoing campus-wide underground utility repairs (high voltage, steam, water, telephone, and irrigation).
- Campus wide snow/ice treatment.
- Brenda Lawson Athletic Center: Assist with removal of chiller from roof and haul to Fleming Warehouse for storage.
- Melrose Hall: Provide excavation and landscape renovation for First Impressions Project.

# FACILITIES SERVICES ANNUAL REPORTS

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- Excavate for new driveway connection between the old Sports Bubble lot and the TREC lot and prepare for asphalt.
- Steam Plant: Excavate for new sewer line installation from building to Lake Loudoun Blvd. and set manhole in landscape bed.
- Golf Facility: Excavate and prep area for new concrete pad.
- Install new pedestrian crosswalk signs across campus.
- Football home games: Preparation and clean-up, assist with set-up of VIP trailers and setting out barricades for homeland security.
- Prep and Clean-up associated with Homecoming bonfire.
- Provide dumpsters and barricade set-up for Garth Brooks concert.
- Remove old building signs where new ones have been installed.
- Campus wide asphalt pothole repair.
- Hesler/Austin Peay: Excavate for water main break and to reroute water line to buildings.
- Pat Head Summitt Street: Excavate for landscape improvements and for new lighting.
- Cherokee Farms, Concord Street and Stevenson Drive: Bush hog and boom mow.
- Landscape Services Trailer: Excavate for water line and sewer tank installations.
- Assist with tree cleanup associated with storm events.
- Sorority Village: Remove sediment layer from bottom of storm water detention basin, clean around outlet drain and refresh rip rap to improve drainage.
- Morgan Hall: Excavation to relocate fire hydrant and valve replacement.
- Raintree Street at Food Safety: Remove asphalt, concrete curb and sidewalk, fill in with soil for lawn area and install new fire hydrant.
- Hess Hall: Excavate for sewer tie in.
- Reese Hall: Excavate for catch basin repair and parking lot improvement.
- Clarence Brown Theater: Assist with transport of production scenery storage trailer.
- Emergency response for water main break/sinkhole on Middle Drive, between Perkins, Ferris, and Science/Engineering.
- Middlebrook Pike Building: Remove large stucco sign, remove shrubs and prepare for landscape improvements.
- Neyland-Thompson Sports Center: Excavate for KUB to install new water meter, prep for sidewalk replacement and install river rock.
- BESS Building: Remove bench, excavate and prepare for new sidewalk installation.
- Service and repair equipment for Heavy Equipment shop and High Voltage shop.
- Johnson Animal Research Building: Excavate and install river rock to improve drainage from parking lot and repair asphalt.
- Golf Facility: Excavate for meter installation.
- Transport semi-trailers used for storage to Athletics and Recycle as needed.
- Thackston School House: Excavate for new sewer line installation.
- Steam Plant: Excavate for installation of new trench drain to divert water from parking lot and remove old trench drain to improve roadway.
- UT Gardens: Assist with removal/installation of garden sculptures.
- Carrick Hall/Reese Hall: Remove sidewalk and excavate for new water line installation.



\*Above photo was taken pre-pandemic before campus mask requirements.

- BESS: Excavate at rain garden and remove sidewalk for storm drain repair and improvements.

## Rapid Response Team

### Spring Cleanup

Spring Cleanup is a special event held for nine weeks annually as an effort to declutter academic buildings by moving items no longer needed. Staff from Rapid Response Team

# FACILITIES SERVICES ANNUAL REPORTS

work building by building to help simplify the process. Computer and laboratory equipment, furniture, office supplies, paper files, and more can be recycled, discarded, or sent to UT Warehousing.



\*Above photo was taken pre-pandemic before campus mask requirements.

## Special Events

RRT is responsible for setup and tear down of special events on campus. This includes delivery and setup of tables, chairs, stages, and containers for recycling and trash.

During the 2019-20 academic year more than 700 work requests were performed, including 100 events and 600 moves.

## Surplus Moves

RRT performs moves of unwanted items to the Surplus Warehouse from offices and buildings on campus. The team also moves items requested from the Surplus Warehouse to offices and buildings.

## Banners

Installation and maintenance of banners for the Main and Agricultural campuses is the responsibility of RRT.

## Relocations

RRT performs whole building and office relocations. New building moves consist of complete move-in of equipment, furniture, supplies, and personnel into facilities.

## RRT COVID-19 Efforts

Social distancing has become increasingly important as we've worked to plan and implement classroom set-ups for fall. Design Services and RRT has completed modified classroom plans for 400 learning spaces on campus. Each room was surveyed for available space and maximum occupancy so that no one is ever closer than 6 feet apart in these rooms. After Design Services developed the plans, our Rapid Response Team went to work moving and removing furniture, changing classroom configurations and preparing those

spaces for a much lighter occupancy. At present, RRT has rearranged 422 classroom spaces, completed 80 additional moves on campus and set up 10 outdoor study areas.

## **Sanitation Safety**

### Overview

Sanitation Safety is responsible for pest control, wildlife management control, asbestos & lead, restoration coordination for floods and fire and mold remediation for each of the 250+ buildings on and off campus. This year we have worked alongside the University of Tennessee – Martin to develop a Pest Control unit for their campus. This unit will serve under the Assistant Director's state license for the two years required or until they are able to obtain their own license. Each member of the UTK office holds multiple State and/or Federal Licenses and Certifications, which requires personnel to complete multiple hours of refresher training every year. Employees also take the opportunity to seek out additional training via workshops and seminars to better their understanding of their own work and to learn how to communicate more effectively with customers. The office is led by an Assistant Director licensed by the State of Tennessee in Commercial Pest Control Operations, Asbestos Operations and conducts Property Restoration for the University. Each of the technicians are Certified Basic Wildlife Control Operators and Certified Applicators. Services provided include insect, rodent, feral cats and dogs, termite, bird, odor and biological control. Sanitation Safety has managed these services on and off campus for more than 40 years. The ARCHIBUS system enables prompt response to trouble calls. Each year employees process and complete scores of work requests, the large majority of which are self-generated, preventative maintenance work requests.



### 2019-20 Academic Year

During the last fiscal year, the unit processed and completed approximately 3,000 work requests.

In each building, the team is responsible for weekly, monthly, quarterly, or annual treatments, in addition to the on-demand work requests submitted by our customers. While the Pest Control portion of the office's staffing numbers have stayed the same, the service level provided to our customers has not diminished, despite the fact that the square footage we manage has greatly increased.

### Asbestos Abatement

Samples have been taken campus-wide to determine the type, location and quantity of asbestos in our buildings.



# FACILITIES SERVICES ANNUAL REPORTS

During this fiscal year, with the help of student workers, we have completely transformed the asbestos database of over 8,000 samples and hundreds of pages of supporting documentation into the Clean Building Operating system of Archibus. The Sanitation Safety office coordinates asbestos abatement when said materials are found during a renovation or maintenance project being conducted by the Facilities Services Department. Facilities Operations has two individuals on campus who are state licensed as asbestos abatement supervisors, inspectors, designers, and monitors.

## Restoration and Renovations

Restoration and Renovations closed \$1.2 million this year due to water, fire, mold and floods in buildings throughout campus. Having been closed for five months throughout the warmest part of the year due COVID -19 has presented its own set of challenges. Mold issues developed due to the room closures. These conditions were not discovered until the staggered return of employees. Complicating these issues were condensation problems that developed during HVAC renovations in Dougherty Engineering. A similar issue developed in Clement Hall which we assisted Student Life with. We have worked with TEMA, FEMA and Risk Management on several fallouts throughout the Tom Black Track and Cherokee Farms areas. We coordinated the treatment of classrooms and lab spaces with Bio-Protect as an added protection to defend against COVID-19.

FY20 Restoration, Mold, Water, Fire and Flood Projects:

Andy Holt - P119 Water and Mold, water leaking through the wall.

Andy Holt - P116 Leak, Pipe break over desk.

Lindsey Nelson Baseball Stadium Restrooms - Water and mold leaking through the expansion joints in stadium.

Lindsey Nelson Baseball Storage Area - Coke Line leaking into the space.

Delta Delta Delta Sorority - Flood, electrolysis causes failure on backflow preventer over powering sump pump.

Conference Center – Flood from the fourth level.

Conference Center – Third floor leak. Flood pipe broke in ceiling.

Conference Center - Fourth floor kitchen flood drain back-up. Never determined the actual cause of the backup.

Conference Center - Fourth floor restroom flood. Water pipe resulted in failure breaking a 1” water line.

Conference Center – Fourth floor flood in Galley Classroom. Water pipe failure of a pipe in the ceiling.

Conference Center - First floor flood in men’s restroom. Water pipe resulted during repairs breaking a 1” water line.

Conference Center - Water penetrating a wall in basement. Cause was never determined.

Ferris Hall room 601 and 602 - Mold resulting from condensation and roof leaks.

Food Safety - Mold developed in freezer units while turned off.

Lambda Chi Alpha - Flood from February FEMA involved storms excessive rain.

Walters Life Science - Mold condensation from temperature issues.

Dougherty Engineering – 2019 - Mold condensation from temperature issues.

Dougherty Engineering – 2020 - Mold, condensation from chilled water lines on new system.



\*Above photo was taken pre-pandemic before campus mask requirements.

Frieson Student Life Center - Mold, HVAC issues.

Jessie Harris - Mold condensation from temperature issues.

Hoskins – AFROTC - Mold, air movement and condensation issues.

Alumni Hall - Suite 26 flood. Water pipe failed Winter break.

Claxton - 231. Mold residual from previous water damage.

JIAM - Flood, water from a recirculating pump was not properly tightened disconnected in the night.

Strong - 317, corrosion.

Thompson Boiling Arena - Men’s Basketball Locker Room. Coach’s lounge flood. Filter on an ice machine failed.

Phi Kappa Phi – Fire.

Student Union – Flood form rain back up from clogged roof drain.

Clement Hall - Mold chilled water condensation.

# FACILITIES SERVICES ANNUAL REPORTS

Massey Hall – Mold, moisture and temperature issues.

Greve Hall - Mold moisture and temperature issues.

UT Softball Storage Facility – Mold, leaks in expansion joints.

## UTILITIES SERVICES

The Utilities Services unit is responsible for the operation, installation, and maintenance of all Utility systems on campus. The unit is comprised of four distinct offices including Electrical Services, Heating Ventilation and Air Conditioning Services (HVAC), Plumbing and Heating Services, and the Steam Plant. The unit has approximately 100 full time positions consisting of various skills and trades. We operate and maintain large, university owned, utility systems including electrical, sewer, storm sewer, gas, water, cooling water, air, and steam.

The acquisition of many streets by the university has greatly expanded these responsibilities by adding miles of storm water piping, many additional street lights, and other facilities previously owned by the city. We work very closely with the local public utility providers. We are by far the largest user and place a high demand on their systems, therefore, maintaining a close professional relationship is a necessity.

Our Senior Accountant receives, audits and records for payment, all utility bills from utility providers, calculates cost of service, and bills auxiliary operations such as Student Life, Athletic Facilities and Food Service for budgetary recovery as these entities are not funded by the university. This position is also responsible for monitoring the utility budgets, record keeping for all utility consumption for management, audit and reporting purposes, and many other utility operation accounting responsibilities. For perspective the 2018-2019 utility commodity cost is approximately \$38 million for the campus. This includes electricity, water, sewer, and gas and steam production but not the operational costs of the Department.



## Electrical Services

The Electrical Services unit operates and maintains the electrical distribution systems and equipment on campus. This

is primarily comprised of two main substations which distribute 13,200 volt power to all campus buildings. This power is distributed through 18 separate high voltage circuits originating from the respective main substations to various areas of campus. This unit also operates and maintains all related equipment such as building transformers, system switches, underground high voltage cables, and building switchboards. They maintain and repair building electrical systems, fire alarm, and door security systems, provide electrical power for special events and fire watch coordination.

### FY20 Projects for High and Low Voltage:

- A&A Panelboard Replacement-Electrical Support
- Surge Building – Electrical Support
- Reese Chiller Renovation – Electrical Support
- Min Kao – Evaluation of research equipment – Pad mounted transformer
- Fraternity Park Pad Mounted Transformer Repair
- Min Kao – Replacement of 750KVA UPS with a new 225KVA UPS
- Andy Holt Tower chiller Building - MCC Repairs and HVAC Support
- Covid 19 – Anchor for Outdoor Tents – Campus Wide
- EESRB at Ag Campus – Electrical Support – Design support
- UTK Outdoor Pool Renovation – TRECS - Design support
- Neyland Stadium East, Fire Pump Repair
- AG Campus – Food Safety – Emergency System Evaluation
- Main Substation Ehouse HVAC repairs

### FY20 Projects for Fire Alarm:

- Reese Chiller Building – Fire alarm Support
- Haslam Mezzanine Renovation – Fire Alarm Support
- Strong Hall – Fire Pump Controller Repairs

### FY20 Projects for Security:

- Changing out card readers on buildings across campus.
- Updating software for CARDAX.

## Air Conditioning Services

The HVAC unit is responsible for the operation, repair, and maintenance of all heating, ventilation and air conditioning systems such as chillers, large air handlers, hot water heating equipment, humidification and de-humidification equipment, heating water and chilled water pumps, control and process air compressor systems, process chilled water



# FACILITIES SERVICES ANNUAL REPORTS

systems and individual room equipment serving dormitory rooms, offices, and research areas. They also program, operate, and maintain the energy management and control system which remotely monitors and operates building systems. This system provides the data needed to confirm efficient operation and allows for such operational procedures as setback of temperatures during low occupation periods, use of outside air in lieu of mechanical cooling when temperatures allow, and monitoring of air flow and temperature for comfort and research requirements. They operate underground chilled water distribution equipment and piping from central plants, monitor, and chemically treat and maintain cooling towers and cooling water.

## FY20 Projects:

- Replaced cooling tower motor at Stokely Hall.
- Repaired process and York chillers at Tickle.
- Repaired and replaced mixed air dampers on multiple AHU's at Min Kao.
- Installed new AHU #2 at Bailey.
- Replaced minisplits in elevator control room at Pratt Pavilion.
- Replaced bearing in return air Dectron units at Alan Jones.



\*Above photo was taken pre-pandemic before campus mask requirements.

- Air Compressor System replacement at Walters Life.
- Repaired York chillers at Anderson Training.
- Replaced chilled water coil at Nursing.
- Repaired No. 2 chiller and IT room exhaust fan ductwork at Thompson Boling Arena.
- Repaired A/C system that serves IT rooms at Stokely Hall.
- Rebuilt heating water pumps at Humanities and SMC.
- Replaced gaskets on heating water heat exchanger at Student Rec.

- Repaired chiller No. 1 at Strong Hall.
- Installed new chilled water coil at Hoskins Library.
- Repaired leaks on chiller No. 2 at Walter's Academic.
- Installed 5 minisplit systems for supplement at Gate 21 Vol Shop.
- Replaced coupling on chilled water pump 2 at Hesler.
- Installed 2 split systems at Thackston House.
- Reworked fill valve on process loop cooling tower and repaired hot water pump leak at JIAM.
- Replaced obsolete boiler draft motor at the Conference Center.



- Repaired humidifier make up valve for Data air at UTPD.
- Managed new boiler installation and vent stack repair at Goodfriend Tennis.
- Installed a reach in cooler for the POD store at Hess.
- Installed a complete refrigerant system in central foods freezer at Presidential Court.
- Replaced rooftop package unit at WUOT Transmitter.
- Rebuilt #2 chiller and #2 condenser water pump at Haslam.
- Repaired heating water pumps at Dabney Buehler.

## **Plumbing & Heating Services**

The Plumbing and Heating unit is responsible for maintaining all plumbing systems on campus including air, water, sewer, storm, and steam. This includes the high pressure steam distribution system piping across campus and all other utility piping that does not belong to a public utility.

This unit also constructs and renovates new and existing systems, maintain fire hydrants, cleans both storm and sanitary sewers, performs various construction projects, and works special events as necessary. They construct and maintain handrails and perform many other welding and fabrication



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projects that require welding or plumbing skills. They are responsible for inspection and maintenance of metering, locating and repairing leaks, and emergency repairs.

## FY20 Projects:

- Installed sewer sampling ports in all dorms, sororities and fraternities across campus for COVID virus detection.
- Installed water heaters in Jessie Harris, Allan Jones, Burchfiel, Regal Soccer Stadium, Hodges Library, Gate 25 at Neyland Stadium, and Lee Softball Stadium.
- Installed all new plumbing piping inside and relocated exterior sewer line in remodel at Thackston School.
- Installed main water lines at Reese and Carrick Halls for future tie in of Caledonia main water line.
- Repaired steam condensate line at Ellington Science and Burchfiel.
- Installed fire hydrant at River Drive.
- Installed chilled water and steam lines to equipment at Fiber and Composites Manufacturing Facility.
- Replaced cast iron sewer line stack from ground level to top floor at Reese Hall and North Carrick Hall.
- Installed sink and two bottle fillers in new break room at Melrose Hall.
- Installed storm drain and irrigation valve at Hesler Mechanical Room.
- Assisted in moving and replacing 6" water line at the Steam Plant.
- Installed new piping and drains for 4th floor in the Conference Center Kitchen.
- Installed storm drains across the road at the Steam Plant.
- Installed domestic water pumps at Carrick Hall (with approx. 50% energy savings).
- Managed shut down of building plumbing systems during Covid-19 shut down on Campus.
- Installed piping to new dirt separator on chilled water system in Orange Hall, White Hall, and Bailey Building.
- Repaired water main at the Engineering Quad on the Hill.
- Coordinated with Cleary Construction during Second Creek Bank restoration due to water main break.
- Coordinated with KUB during Second Creek Sewer Line restoration project.

## **Steam Plant**

The Steam Plant produces all steam for distribution to cam-

pus. Almost all maintenance and repairs for the plant are done internally by Steam Plant personnel. This includes repair or replacement of piping, boiler repairs and operation, water treatment, pump repairs, operation of the Natural Gas Turbine for the production of electricity and keeping of records for environmental and regulatory purposes. Steam is a very versatile commodity and has many uses including, but not limited to, the heating of buildings, sterilization of laboratory equipment or vessels, domestic hot water production, cooking, humidification, and de-humidification. The plant operates 24/7/365 and is only out of service for scheduled major maintenance activities that cannot be performed under operational conditions.

## FY20 Projects:

- Installed new brine tank.
- Remove and install condensate tank.
- Insulated new condensate tank.
- Made repairs to #1, #3, #4 and #5 Boilers.
- Replaced all air inlet filters on turbine.



- Repaired PVC valves on softeners.
- Drained and inspected #2, #3 and #5 boilers.
- Rebuilt 25 hp air compressor.
- Repaired lube oil cooler on 75 hp air compressor.

In addition to these responsibilities, the Utility Services unit participates in the design and planning of major building and construction projects on campus. The institutional knowledge of the unit is unequalled and invaluable for these activities and helps to control the overall cost of such projects by providing capacity and historical information to the design team thereby avoiding many conflicts during construction.

Utilities Services works to support all other Facilities units and provides services for all special events.

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## ZONE MAINTENANCE

With the reorganization of Facilities Services in 2019, Zone Maintenance personnel have been further empowered to perform more tasks without being required to call on others. This has provided a more efficient and effective way to service the campus community.

### One Call Shift

The Zone Maintenance One Call shift is continuing to operate. There is a minimum of two people on site at all times during the shift. Having two individuals on site enables the unit to better handle repairs requiring multiple workers. Personnel are also able to better handle repair requests during peak times. One person can stay with a problem while the other handles calls. “Droppable” tasks are assigned for slow periods. This shift also provided enhanced off-hour coverage for the Zone Maintenance unit. Three people are assigned to each shift (first, second and third). These shifts rotate seven days on, two days off, eight on, four off, and repeat every fourth week.



ONE CALL AWAY, 24 HOURS A DAY.

### Zone Maintenance Inspections Initiative



\*Above photo was taken pre-pandemic before campus mask requirements.

Building inspections encompass different levels. Foremen inspect the buildings in their respective zones, which allows them to provide on-the-spot training to Maintenance Specialists in the building should any deficiency arise. Currently, each building is inspected twice a year. Other inspections are completed using a peer network of Maintenance Specialists. This entails placing Maintenance

Specialists in neighboring locations to inspect each other's buildings. This network can be increased so that Foremen also inspect each other's buildings, etc. These inspections are used to combat situations in which a person in the same environment, for a period of time, may become accustomed to seeing certain issues, and may, therefore, cease to recognize problems. This procedure also provides the opportunity to rotate the responsibility to different foremen, especially in the event of vacancies or searches.

### Zone Maintenance Specialties Team

The newest initiative is the creation of the Zone Maintenance Specialties Team. We repurposed 6 employees to create this team. Duties of the team will include glass, door operators, managing the ZM lifts and working with the zones to assist with larger projects. This will allow the zones to keep up with the work load when larger projects come up.

### Building Level Authority

A major initiative, in concert with the Archibus system, is that issues encountered by customers are routed directly to a building's Maintenance Specialist without the need to route through several levels of review. This results in quicker problem resolution and reduces the workload on several levels of review while decreasing the number of response required from central shops. Providing Maintenance Specialists with more building level authority reduces the number of work requests generated by Zone Maintenance to the central shops.

### Critical Parts Inventory

The unit will begin to keep deeper inventory parts on hand for equipment that has critical impact on the campus, especially if it is a piece of equipment where long lead times can hamper campus operations for a long period of time.

### Zone Maintenance Zero Failure Initiative

The Zero Failure Initiative within Zone Maintenance is a focus on certain components and/or modes of failure that should not be expected if normal expected maintenance is performed. Zero failure does not automatically point at the Maintenance Specialist, but will require an evaluation of the failure in each of the categories to determine if failure is the result of a manufacturing or design flaw, misapplication, needed training, poor performance by a Maintenance Specialist, or other. The goal of this initiative is to minimize these failures by improving the quality of materials and tools the unit receives, improving the training, if that is determined to be the root cause, and improve employee performance where indicated. The desired outcome of this program is to investigate any failures categorized into the zero failure category and determine why a given failure occurred. Such investigations may uncover a need for additional training or tools, in addition to parts or equipment performance. To date, this initiative has identified training

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needs for employees that were re-purposed from other areas of Facilities Services. This has culminated with ZM allowing other seasoned employees to spend more time mentoring the employees new to the tasks. For example, premature bearings failures in air handlers were occurring in one of the newer campus buildings. Additional training was provided for installation procedures while transitioning to a different bearing manufacturer.

## Zone Maintenance General Initiatives



In order to better serve our customers, the maintenance zones have been adjusted to a more customer based structure.

## Zone Maintenance & Archibus

The Archibus management system provides Zone Maintenance with information the unit has not had in the past. It is able to provide the management data and reporting the group did not have access to. With the system, work requests are routed directly from the requester to the personnel in the buildings. This direct routing results in shorter response times. Requesters will be able to provide feedback on how their request was handled. In addition, requesters will also be able to track the progress of their work request.

## **Projects Completed in Each Zone**

### Zone 1:

- We have been through all of our buildings this year. We have basically hand cleaned any part of the units we could not vacuum.
- We did all repairs in rooms that have been harder to do in the past because of time replacing counter tops and faucets in the residence halls.
- We were able to get a lot of cleaning done in the buildings that has been overdue.

- Most of our PTACs for Massey Hall and Hess Hall have been repaired and cleaned with the extra time we have had and that has made a big difference in both of those halls.
- The new chiller at the Reese chiller building was installed and is up and running. We are about to get all the bugs worked out in the buildings.
- We had new motors put in the cooling towers at Stokely Hall.
- All new faucets were installed put in the end bathrooms at North Carrick.
- We had a new PVI water system put in at Reese Hall and a new domestic water pump system put in place at North and South Carrick.
- Eskola has fixed issues that needed to be addressed.

### Zone 2:

- We replaced the pool pump, placed new ceiling tiles and paced LED lighting at HPER.
- Our team replaced all air filters throughout Zone 2.
- Throughout the COVID-19 pandemic, we placed signage in all of our buildings. Put hand wipe buckets in every room and hand sanitizing stations.
- At Bailey Education, we installed new air handler for A/C.
- We replaced the baseboards in the first and second floor hallways at Communications.
- At Clarence Brown Theater, we put in all new LED lights and switches.

### Zone 3:

Throughout FY20, Zone 3 conducted room to room maintenance and repairs. We made mold checks in our buildings and addressed any issues. Throughout the COVID-19 pandemic, we placed of signage and worked to prepare our buildings for classes to prevent the spread of the virus. We made COVID-19 filter changes throughout our zone.

- We have focused on the College of Law LED lighting upgrade.
- The Haslam College of Business under went a major renovation on the 2nd floor.
- Major chiller repairs have been on going throughout the year.
- At Hodges Library, we upgraded to electronic controls on chilled water and hot water control valves. The LED lighting upgrade throughout the building is complete. Electronic controls were also installed on the intake louvers.

### Zone 4:

- Convert PCB to LED lighting.
- Sealed dish room and kitchen floor in PCB.



# FACILITIES SERVICES ANNUAL REPORTS

- Installed new dough press in PCB.
- Installed two refurbished ovens in the PBC bakery.
- Put up new corners at Student Union Phase I.
- PM dish machines in all units.
- PM tray conveyors in all units.
- PM air handlers in all units.
- PM commercial mixers all units.
- Cleaned coils on mobile equipment.
- Removed gas equipment in all units for Aramark cleaning.
- Replaced ceiling tile as needed and cleaned air vents and returns for all units.
- Treated drains in all units.
- PM dish machines in all units.
- PM tray conveyors in all units.
- PM air handlers in all units.
- PM commercial mixers in all units.
- Clean coils on mobile equipment.
- We completed 1,929 work requests.

## Zone 5:

- Throughout the zone, we have been converting Lights to LED to finish up the buildings.
- We stocked up on filters for COVID-19. We changed and cleaned all chillers and cooling towers and greased equipment and changed belts.
- We changed out a large amount of motors.
- Upgraded emergency lights to LED frogeyes and LED exit lights for fire marshal to get beer permits in other athletic buildings.



\*Above photo was taken pre-pandemic before campus mask requirements.

- Had all generators serviced and load tested prior to the beginning of football season.
- Assisted contractors and engineers at Neyland Stadium in prep for the remodel.
- Assisted Electric Shop in testing lighting for football

season.

- Made some plumbing repairs and controller maintenance at Allan Jones Aquatic.
- Completed lighting upgrade at Goodfriend Tennis and emergency test for beer permit.
- Assisted contractor on remodel in Brenda Lawson, Anderson Training and Neyland Thompson.

## Zone 6:

- Placement of COVID-19 guideline signage.
- Filter replacement.



- Flushing water lines.
- Daily security checks.
- Classroom social distancing seating charts completed.
- Drinking fountain reminders placed.
- Clean roof drains.
- LED projects.
- Repair steam piping.
- Stadium seat strapping.
- Normal preparation for student returns.
- Wetting of drains.
- Scheduled contract work.
- Scheduled shop work.

## Zone 7:

- We cleaned the HRUs at SERF, changed filters, belts, etc.
- We have conducted room to room maintenance inspections making repairs throughout the zone.
- Our team has completed several different training classes due to COVID-19. Most of our team worked from home this past spring. We have taken hours of online training classes to gain a better understanding of general safety, ladder safety, FEMA training. We have taken multiple online training classes and attended webinars learning about COVID-19.

# FACILITIES SERVICES ANNUAL REPORTS

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- We have worked on training through Pellissippi State.
- Throughout the summer, our main focus was preparing the campus for the return of students. We put up signage, stickers, bagged up chairs, fixed seating arrangements for students return, strapped chairs in auditoriums down keeping seating spots to 6ft intervals, put hand sanitizing stations out throughout zone. We put sanitizing cleaning buckets (wipes) out in most of the classrooms.
- We have taken lots of calls all throughout the year and fixed a wide variety of issues.
- We have changed all air conditioning filters throughout Zone 7 and spent hours doing room to room checks trying to catch any mold or A/C issues before the mold issues started.
- The Zone 7 team has done extensive cleaning on shops, and machine rooms.
- We have cleaned all condensing coils on air conditioning units helping in the energy savings part of zone maintenance.
- Our team has worked on LED lighting upgrades and helped other Zones with these initiatives.
- A major accomplishment for Zone 7, was having everyone work as a team to prepare for students.
- We renovated the Dougherty Engineering building HVAC system. Our team worked alongside Interstate Mechanical. We are looking forward to the changes the new system will bring.

## Zone 8:

- BESS Labs – Having completed our LED lighting upgrades, we have been working on roof top units and getting much needed work done on the roof.
- Brehm Animal Science – The arena underwent a transformation as the dirt was removed and necessary changes were made to accommodate a totally new class schedule.
- Business Incubator – We continually strive to maintain a high quality of service to our customers and keep our building systems operating at peak efficiency.
- Ceramics Building – Making sure that the drains remain clear is a priority for this building. We have also been changing our lighting to LED in the building.
- CRC Bioenergy – We converted the building to LED lighting and continue to monitor all building systems.
- CRC Material Science – We cleaned all the HVAC units and have been working with the contractor for all warranty work on our new units for the building.
- Crop Genetics – We constantly have to keep a close eye on our HVAC units as problems arise in a very old building.
- Ellington Plant Science – We have been preparing for the closing of the building at the end of the year. We have been relocating most of our shop supplies to Brehm

## Animal Science.

- Environment & Landscape – We cleaned all of our HVAC systems.
- Food Science – We converted multiples lights to LED.
- Greenhouses - North, Central and South – We have been changing numerous louver motors and keeping a diligent eye on our ventilation systems within the greenhouse bays.
- JARTU – We continue to work with the building manager to support all of the research activities.
- JIAM – It is vital that we maintain all of our utilities and services to help support our customers. We have also been changing filters for our processed chill water system.
- Kingston Pike Building – We continue to work on converting the lighting in the building to LED and have been working with roofing contractors on necessary repairs.
- McCord Hall – With the renovation of some lab space in the building, we will be seeing to the needs of new customers.
- Morgan Hall – We continue to work on HVAC units by cleaning and making sure that they are operating at peak performance. We recently rebuilt our main building pumps.
- Plant Biotech – We continue to make progress on our LED lighting upgrade project. Our chilled water plant and the supply loop to most of the AG campus is a constant challenge to maintain peak operation and as always, during the summer, we perform routine cooling tower cleaning.
- Publication and Services – We upgraded our HVAC units to higher efficiency rated filters for better air quality.
- Racheff Greenhouse – Our LED lighting project proceeds as work request come in for the bays.

## Zone 9:

- 1525 University Avenue – We continue to convert our lighting system to LED and await the completion of a new roof installation.
- 1610 University Avenue – When the new roof was completed, we serviced all of our rooftop units for peak operating performance.
- Facility Services Complex – Servicing our exhaust fans in the warehouse area is an area of priority while at the same time, making sure that all of our building systems are operating normally.
- Glazer Building – We continued to convert our Lutron lighting system to LED. We recently installed new items in the kitchen area.
- Middlebrook Building – Our LED lighting upgrade continues and several repairs and upgrades have been made to the exterior of the building.

# FACILITIES SERVICES ANNUAL REPORTS

## ZM Specialties:

- Repaired handicap operators at SERF on 4th floor.
- New Roton hinges at Plant Bio.
- New handicap operator installed at Fred Brown.
- Repaired ADA doors at Best Labs.
- Repaired ADA doors at Min Kao.
- Changed 2 ADA motors at the Hodges Library.
- Repaired pole lights at GLO parking garage.
- Repaired handicap operator control board at Brehm Animal Science.
- Build glass rack for glass shop.
- Repaired roof at Concord building.
- Replaced lights at Gll parking garage.
- Built 2 platforms for elevator shaft at Strong Hall and installed.
- Installed new power to charging station for lifts at Concord.
- Installed new led lights at top of police station parking garage.
- Installed new ADA operator at Walters Life Science.
- Repaired dust collector at Perkins Hall.
- Installed new ADA operator at Hearing and Speech.
- Installed 2 new double operators at Baker Center
- Installed 2 new doors at Nursing.
- Installed Roton hinges at nursing on exterior doors.
- Installed Covid-19 stickers on walkways.
- Installed new operator at Min Koa on 5th floor
- Installed glass at Communications.
- Installed new pole led lights on the top of GLO parking garage.
- Installed power line for roll up door at Concord for loading dock.
- Moved lifts for multiple departments.
- Met with people and was in video for back to campus.
- Installed new glass at music building on handrail.
- Installed handrail and doorstops at Min Koa on 4th floor.
- Installed 2 new Roton hinges at student services and 2 new closers.
- Repaired lights in Andy Holt parking garage.
- Repaired lights on White Ave.
- Installed new wall packs on the back side of White Ave. parking garage.
- Repaired generator at Communications.
- Repaired lights at Lake Ave. parking garage.
- We have kept up with Fume Hood calls for the Labs on Campus.
- We have air balanced several locations around Campus as needed.
- We have water balanced and read flows for several

## locations around Campus.

- Performed AAALAC inspections for Mossman and the Vet School.
- Inventoried man lifts and forklifts.
- Worked with A/C Controls to calibrate many sensors.
- Set up the required airflow for the Covid-19 Testing Lab in SERF.
- Delivered Covid-19 signage and sandwich boards around Campus.
- Provided instruction on blocking chairs in lecture halls to enable social distancing.
- Replaced windows at Clement Hall.
- Replaced windows at Fred Brown.
- Replaced the broken glass in the handrail at Music Building.
- Distributed sandwich boards.
- Floor markings in walkways and buildings.



\*Above photo was taken pre-pandemic before campus mask requirements.

- Repair Generators.
- Finding and purchasing
- Polycarbonate for wellness screens.
- Replaced broken windows at Bailey Education Complex.
- Replaced windows at Sigma Nu.
- Replaced windows at Volunteer Condos.
- Replaced windows at Delta Tau Delta.
- Remove glass at Student Union so that new alarms wires could be rerouted.
- Repair blinds at Stokely Hall.
- Locate and document Man Lifts and Scissor Lifts for annual inspection.
- Replaced broken window at Blount Hall.

## Lock & Key Services

Lock & Key Services maintains locks and exit devices across the campus community. To include installation, repairs



# FACILITIES SERVICES ANNUAL REPORTS

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and maintenance, combination lock changes and padlock setups. All keying is done in house from configuring setup plan, pinning cores and installation. In addition we provide service for safes – combination changes and repairs. Also to include service to furniture & file cabinet locks as well as duplication and code cutting of various keys.

- Completed Work Request/Projects for 19/20 – 1,974
- Our front office is responsible for processing and cutting all key request to include key distribution and returns. As well as maintaining and entering the database records for all lock changes/updates, renovations and new buildings.
- Keys issued 19/20 – 4,980
- Keys returned/lost 19/20 - 6,029

Larger projects for the 19/20 fiscal year

- Thompson Boling Arena – Concourse Restroom renovation: all gates and doors cores setup and installed. Ray Mears room & Dining Services area – removed and installed new exit devices on most doors.
- South Stadium – 5th Floor reconfigured and setup for new occupants – cores setup and installed, database updated, new keys distributed.
- Haslam Business Bldg. – Mezzanine suite renovation – new key plan, cores setup & installed, database updated and new keys distributed.
- Clarence Brown Theatre – Classroom lock upgrades started
- On Campus – several buildings custodial closets – cores setup and changed to new cores
- Conference Center – basement renovation – RMC – keying plan configured, setup and installed, database updated new keys cut and distributed
- Knox Box Project – All Knox Boxes across campus checked updated or installed where needed
- Stokley Management Center – 5th floor renovation new keying plan configured, setup and installed, database updated new keys cut and distributed
- Greeneville Research Center, Greeneville Campus – Keying plan configured and locks and cores installed
- College of Nursing – Replaced exit hardware main entrance doors
- Bailey Education/Philander P. Education Complex – Removed and installed eight combination locks
- Communications Bldg. – All exit doors – replaced dog downs, repaired latches and keepers.
- Pediatric Language Clinic (new) – Locks installed, keying plan configured setup and installed, entered in database and keys cut and distributed.
- Walter's Academic – Renovation for new occupants continued – new keying plans configured, cores setup and installed, database updated.

For more information about each Facilities Services unit and office go to [fs.utk.edu](https://fs.utk.edu)

# APPENDICES

## **A**

**SIGHTLINES**

## **B**

**APPA FPI REPORT**

# APPENDIX A - SIGHTLINES

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Sightlines data has not been released at the time of the Annual Report's publishing. As this report becomes available, it will be added as Appendix A.



# APPENDIX B - APPA FPI

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## 1. APPA: Leadership in Educational Facilities

Facilities Performance Indicators Report (FPI) for 2019 – Comparison of average costs for grounds, custodial, maintenance, and other functional areas among peer institutions.



## **APPA FPI Report - 2019-20 University of Tennessee/Knoxville**

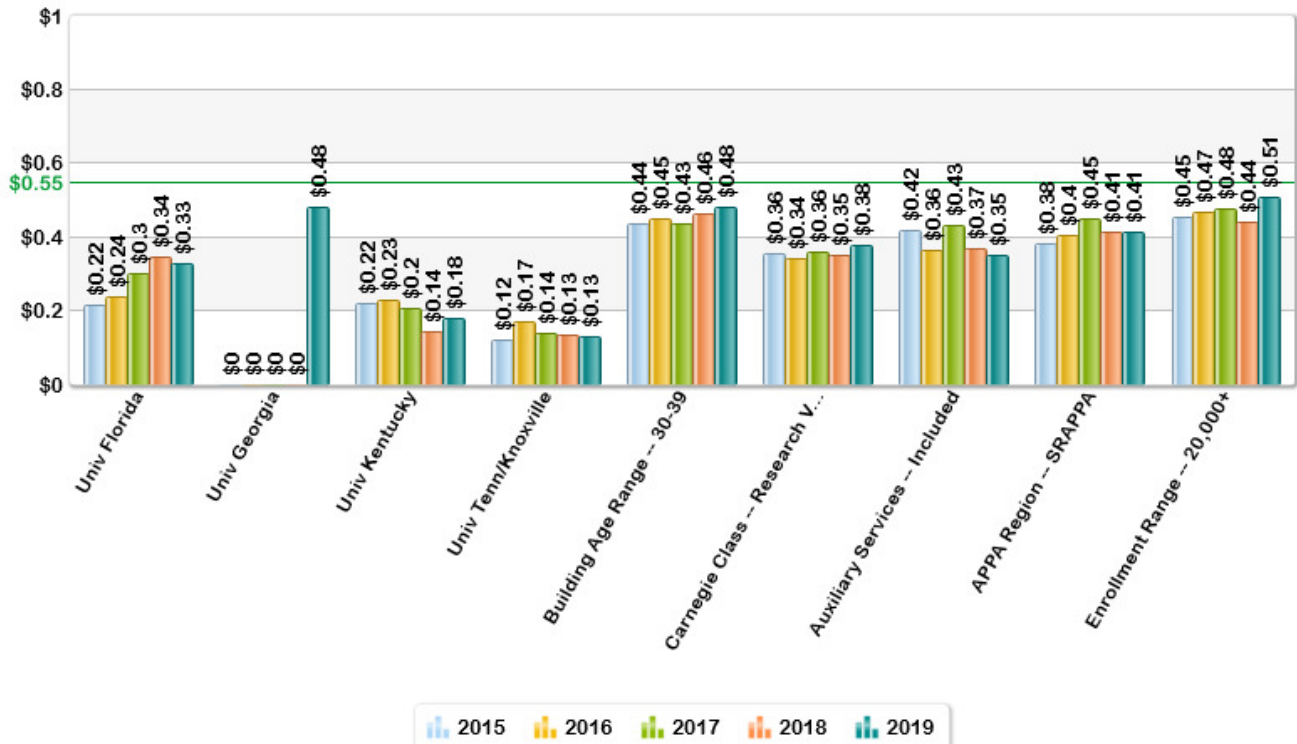
**Gross Square Feet: 16,973,493**

**Number of Buildings: 270**

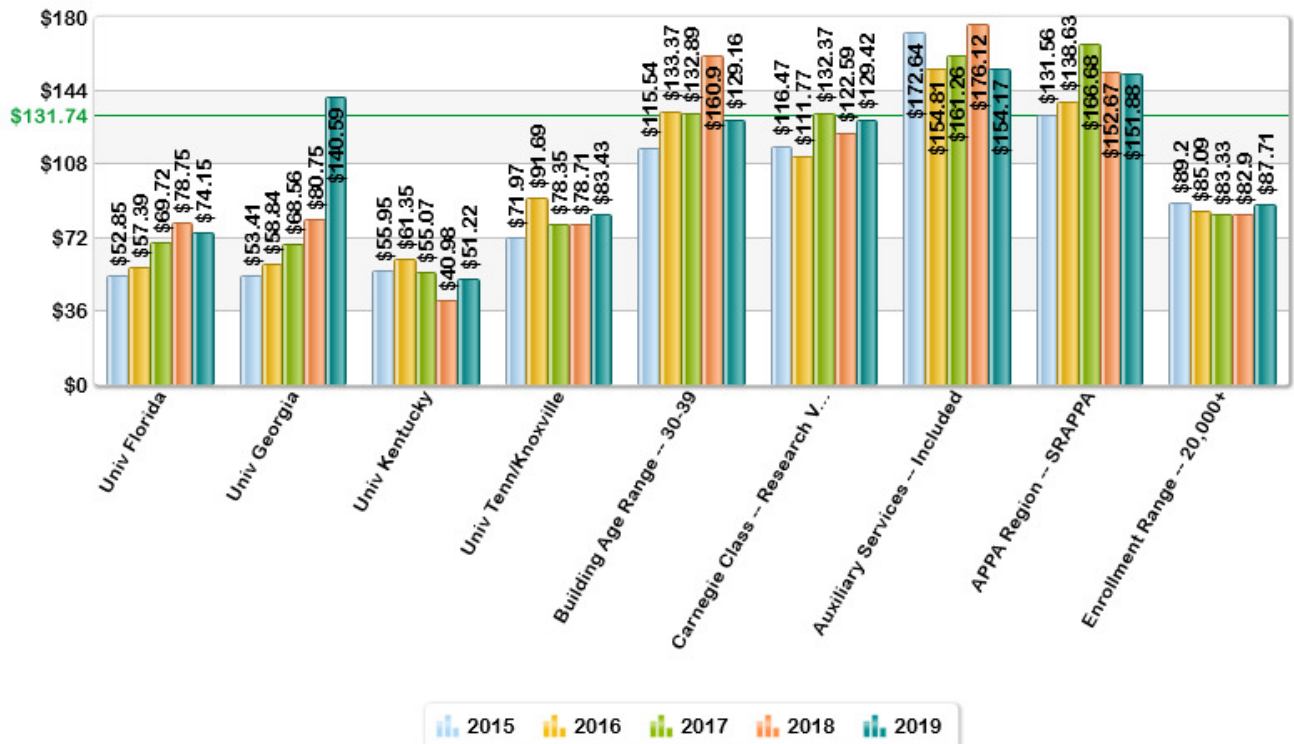
**Number of Students: 30,559 Enrolled for  
Fall 2020**

# APPENDIX B - APPA FPI

## Administration Total Cost per GSF

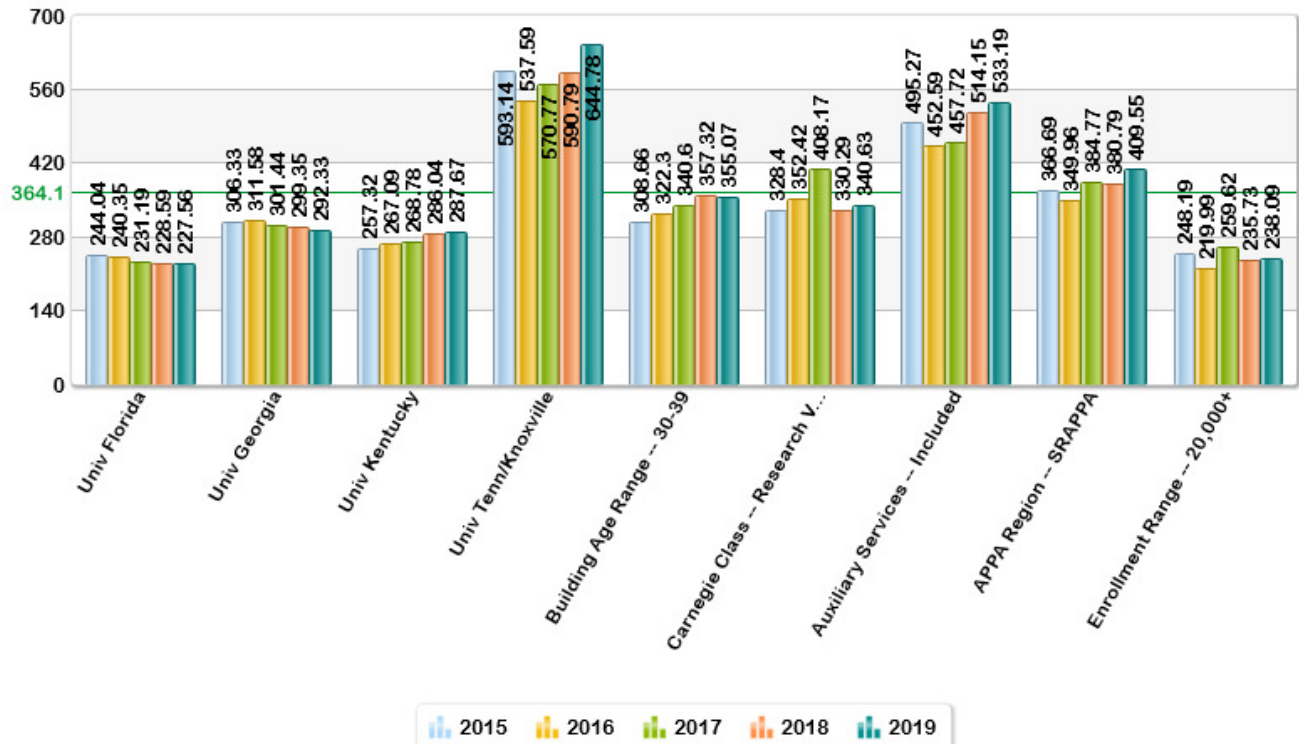


## Administration Total Cost per Student

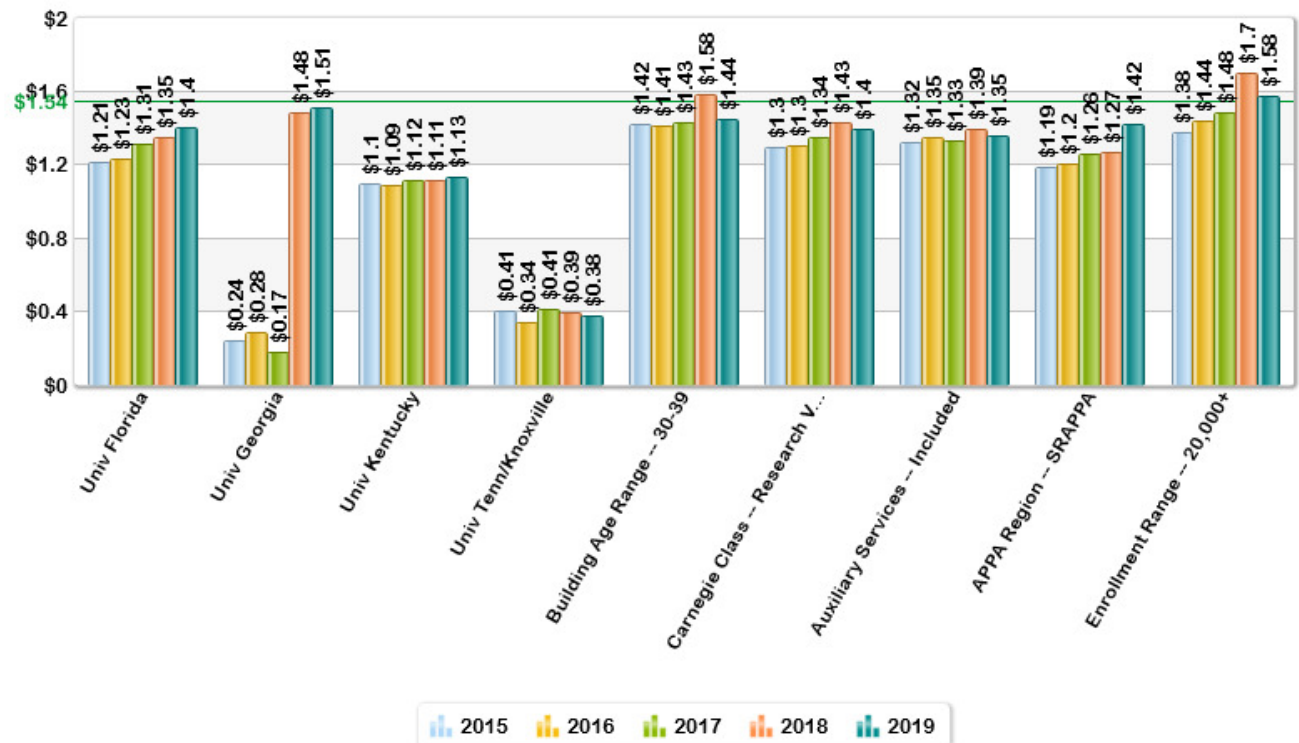


# APPENDIX B - APPA FPI

## Average GSF/Student FTE



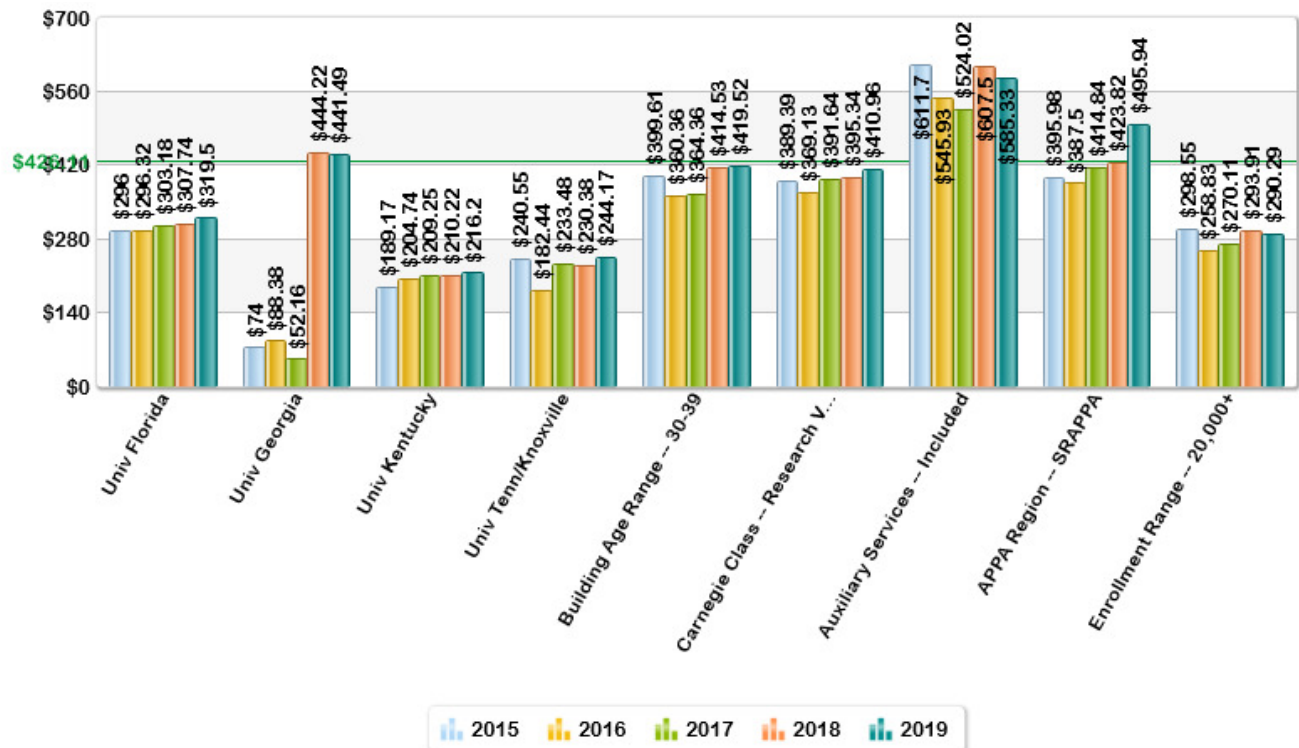
## Custodial Total Cost per GSF



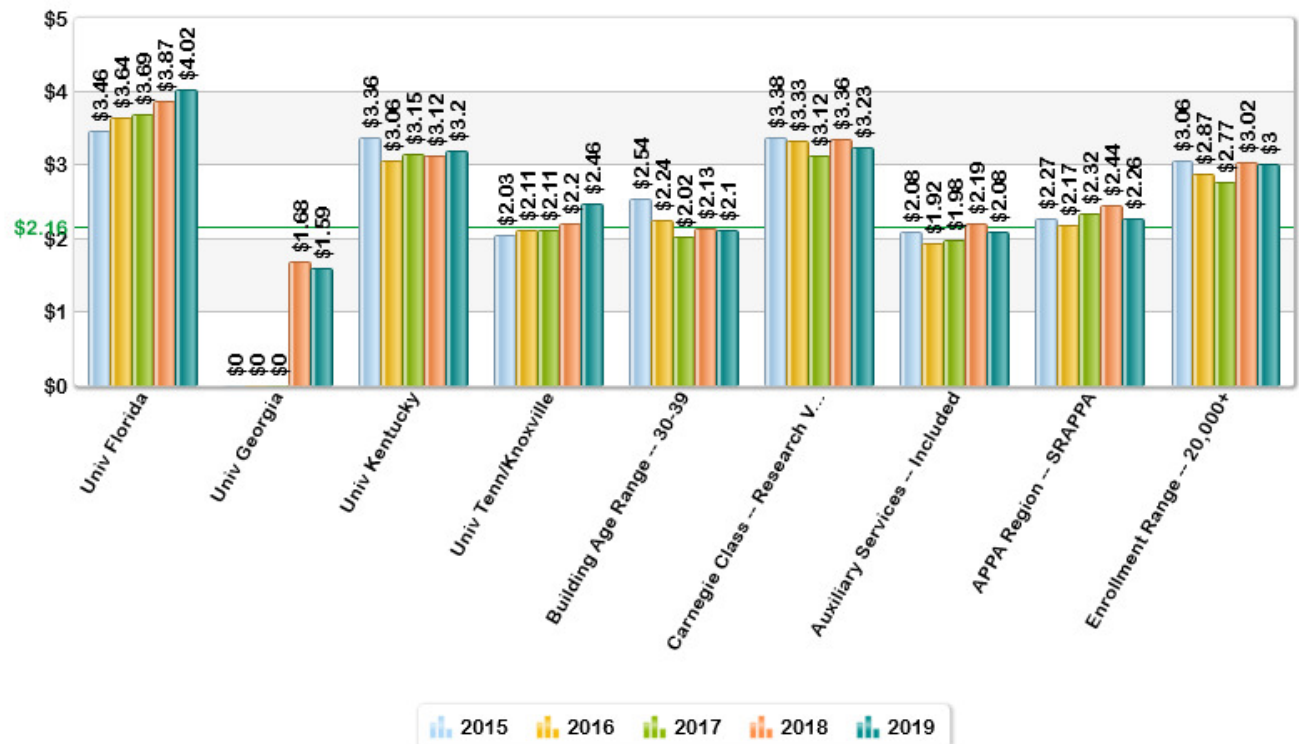


# APPENDIX B - APPA FPI

## Custodial Total Cost per Student

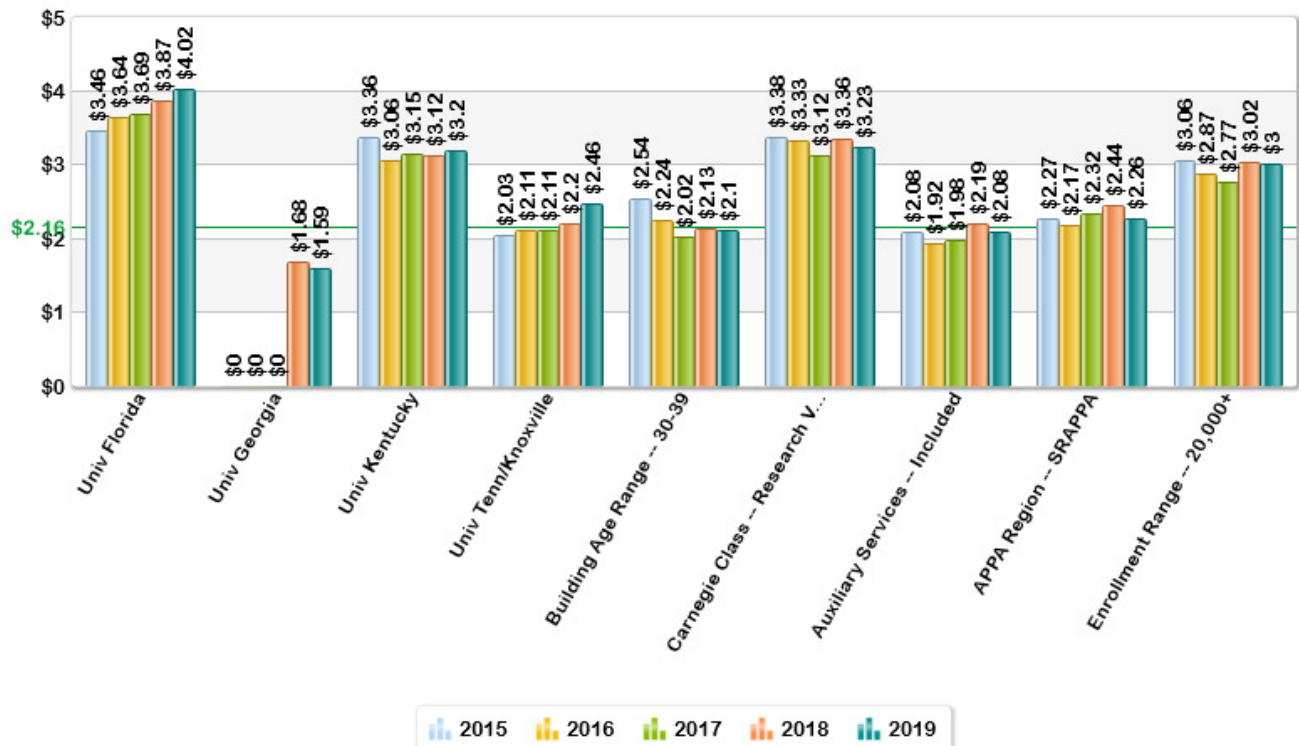


## Energy Total Cost per GSF with Purchased Utilities

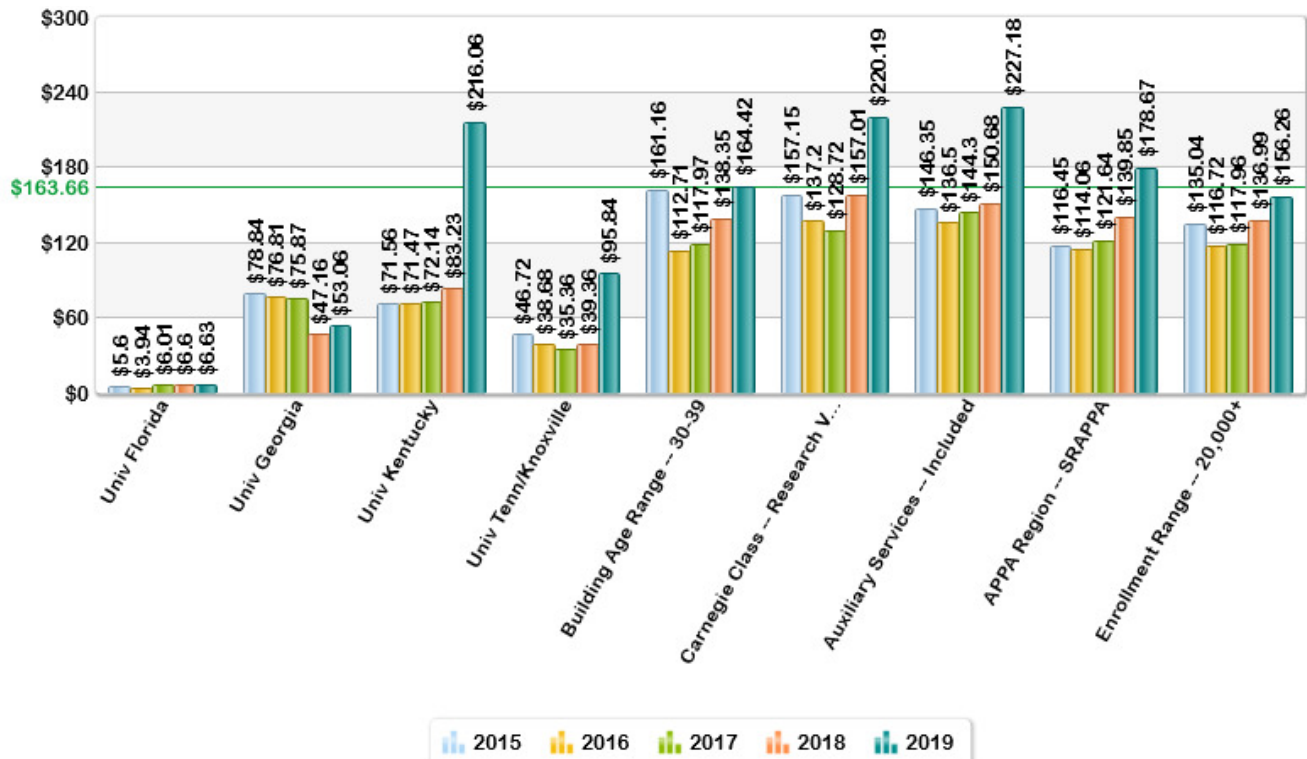


# APPENDIX B - APPA FPI

## Energy Total Cost per GSF without Purchased Utilities

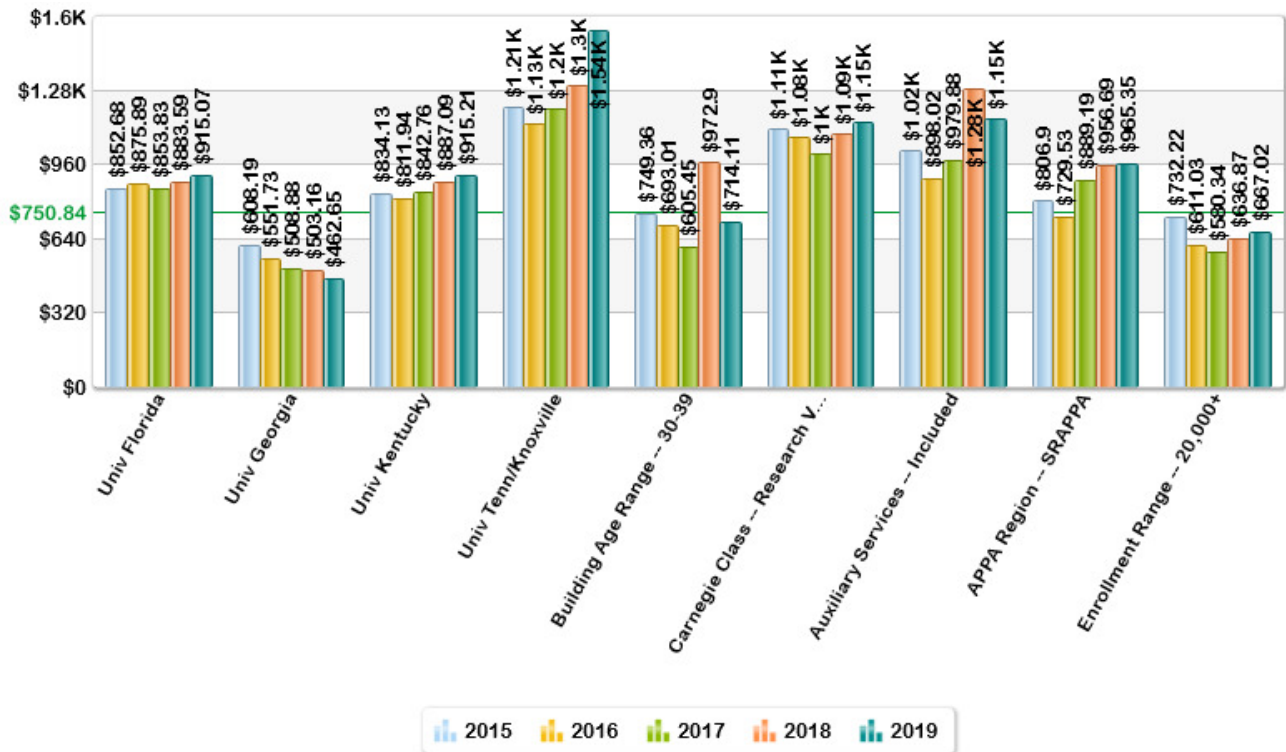


## Energy Total Cost per Student FTE without Purchased Utilities

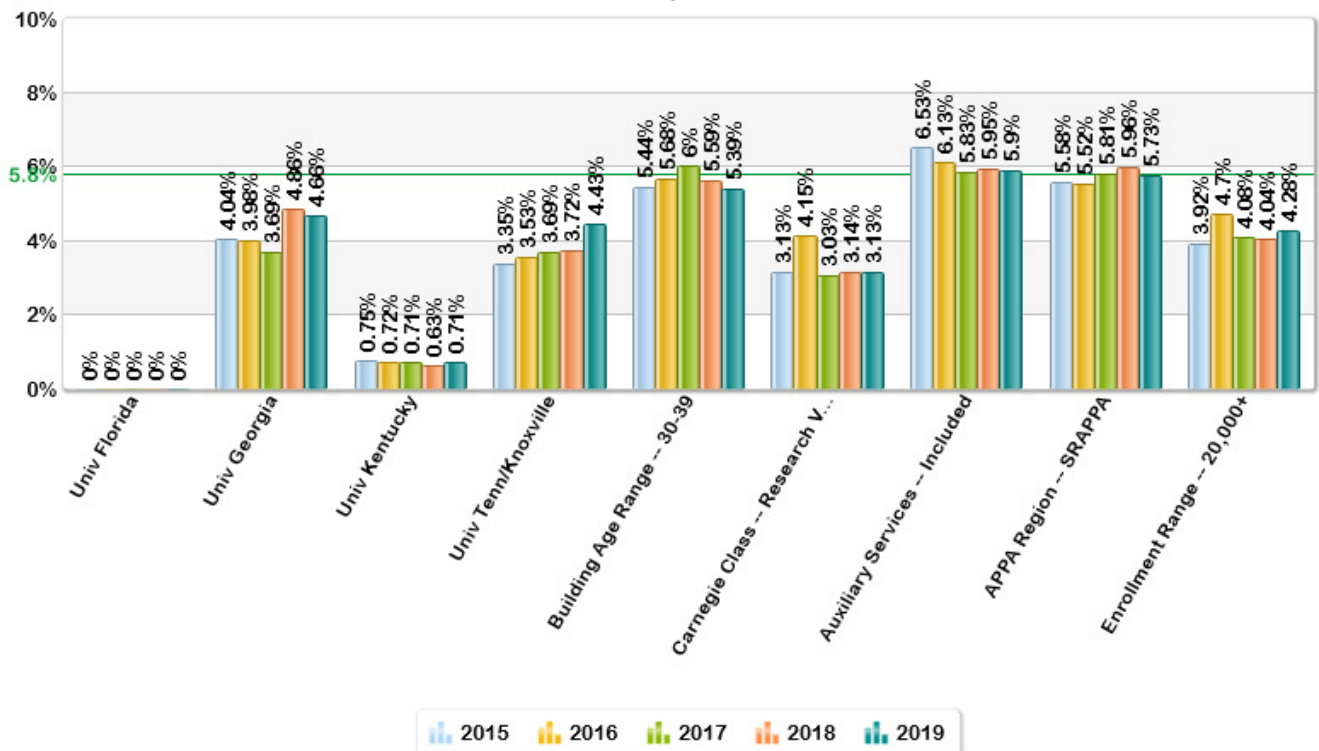


# APPENDIX B - APPA FPI

## Energy Total Cost per Student FTE with Purchased Utilities



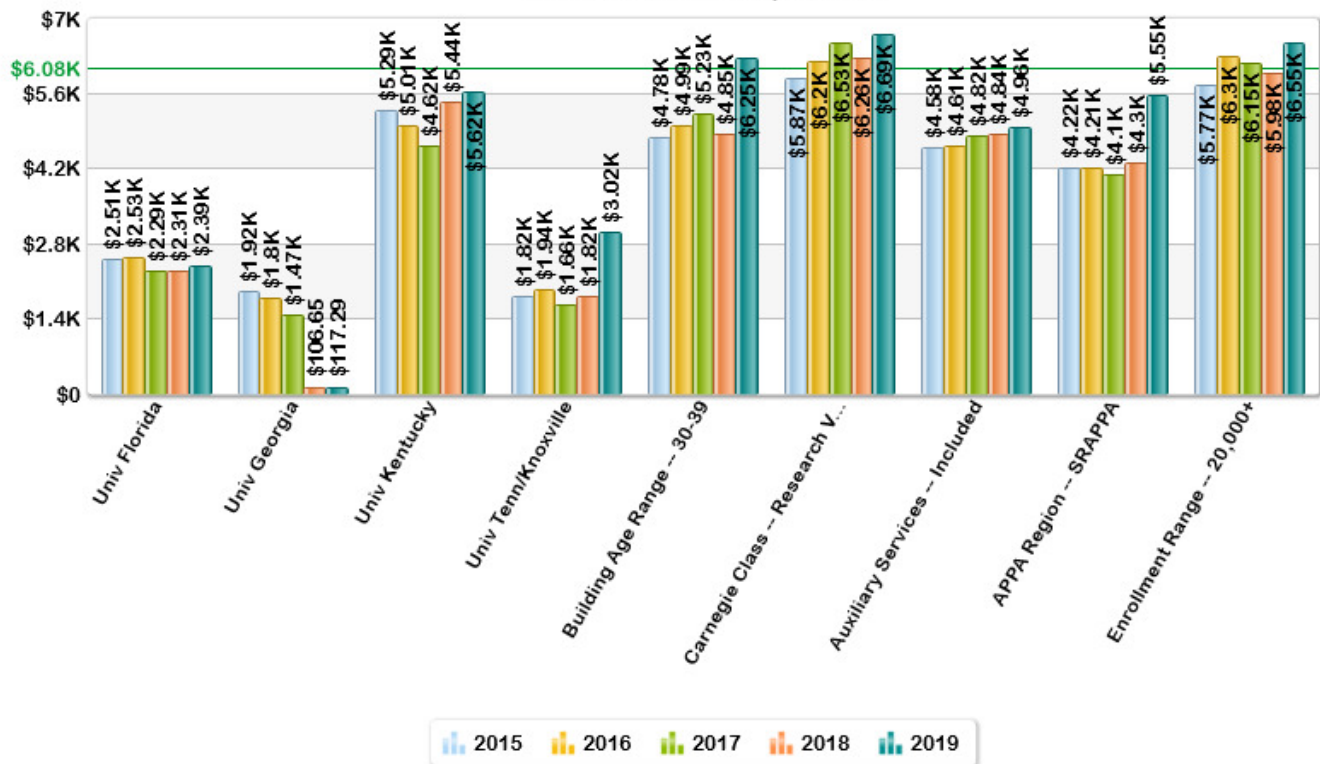
## Facilities Expenditures/GIE



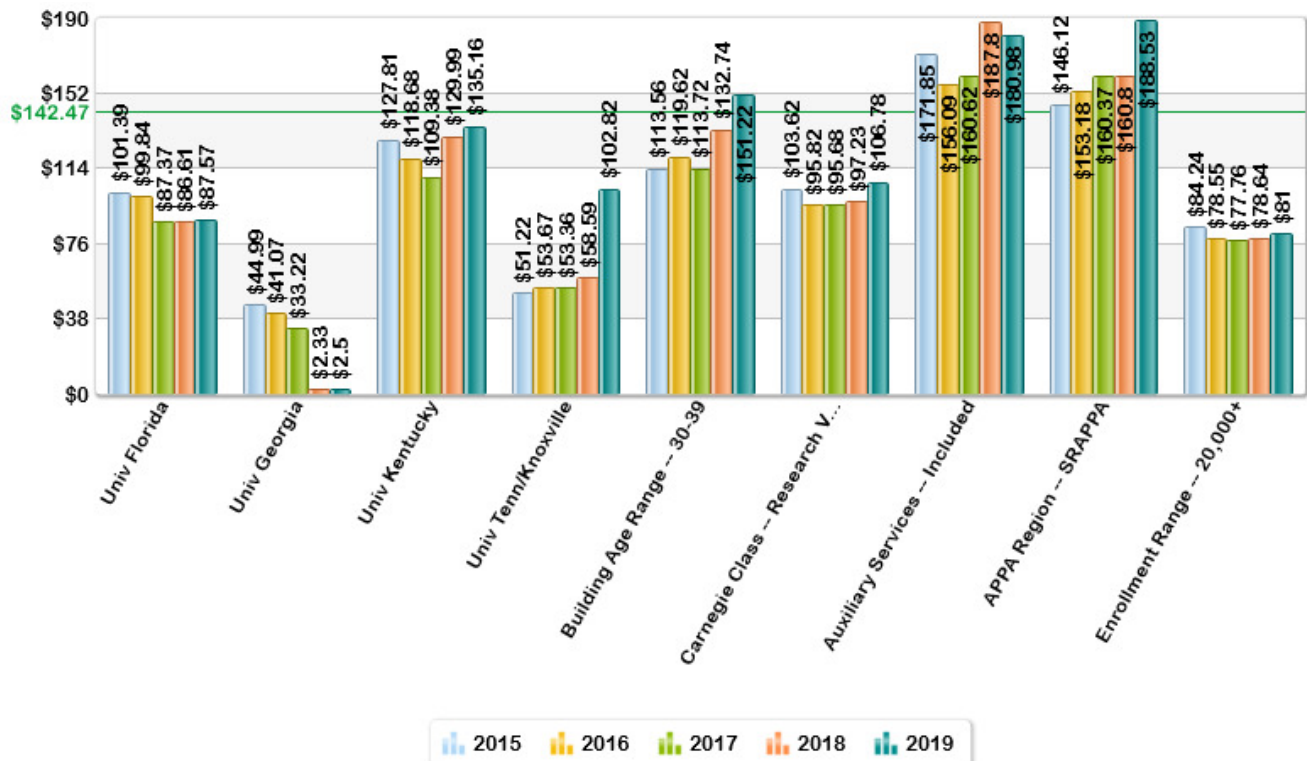


# APPENDIX B - APPA FPI

## Grounds Total Cost per Acre

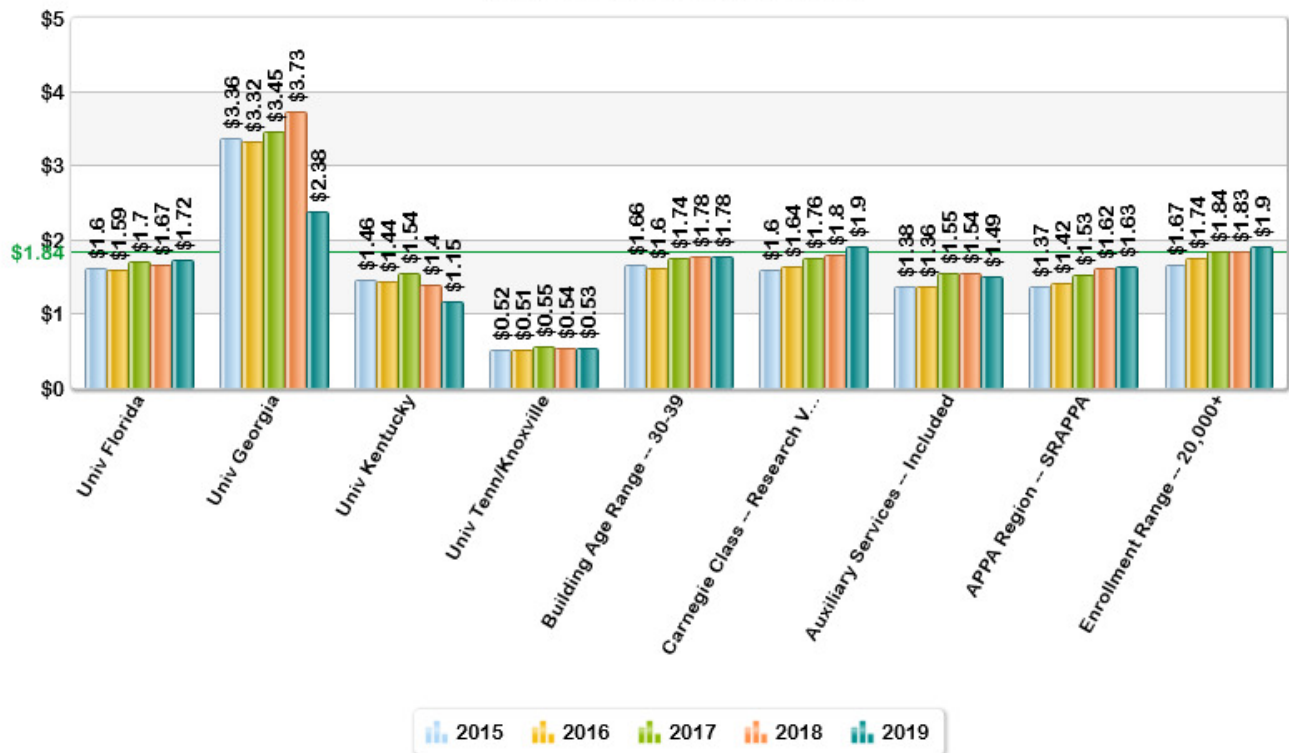


## Grounds Cost per Student

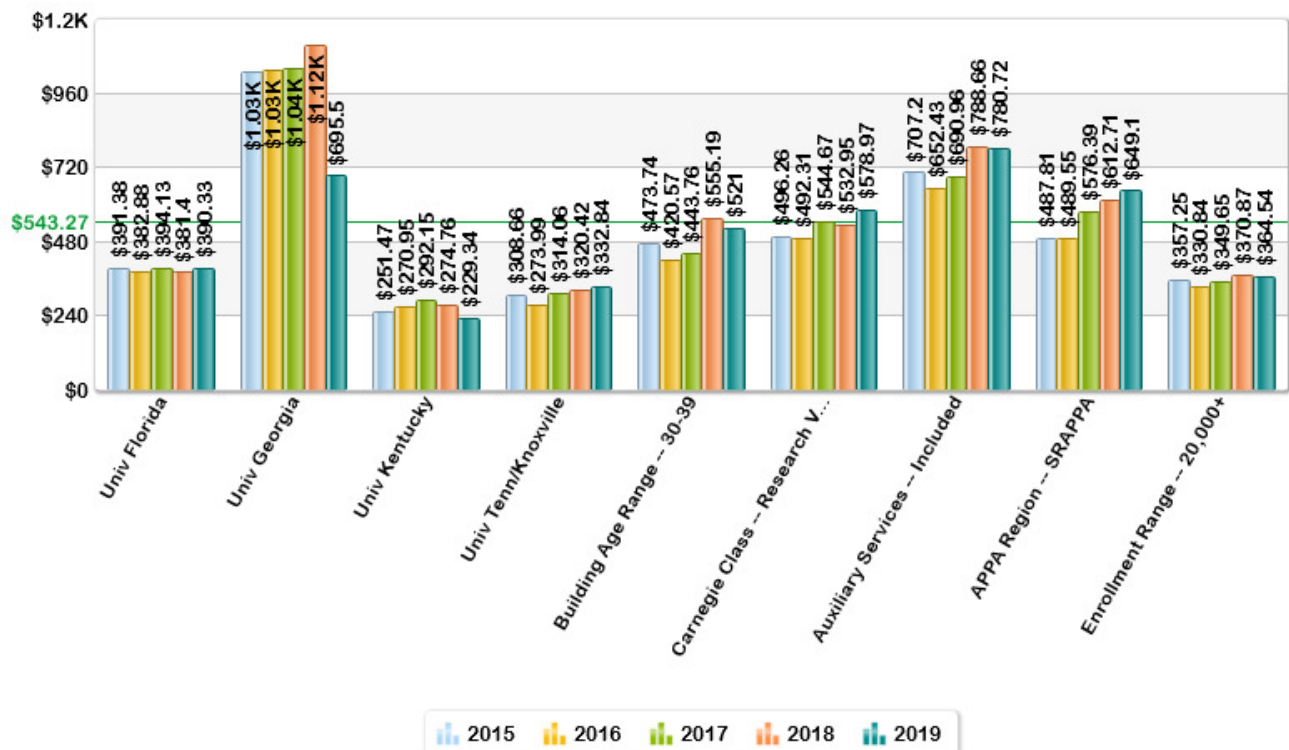


# APPENDIX B - APPA FPI

## Maintenance Total Cost per GSF

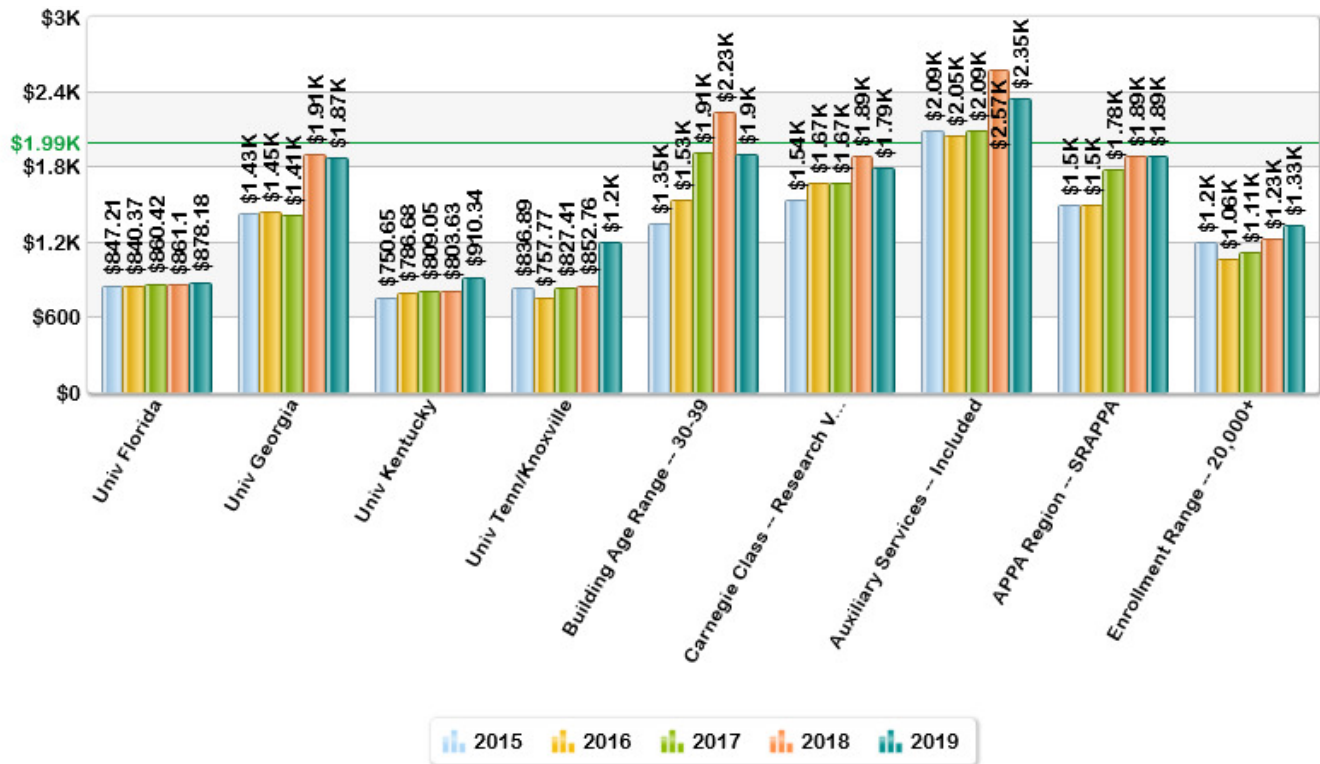


## Maintenance Total Cost per Student

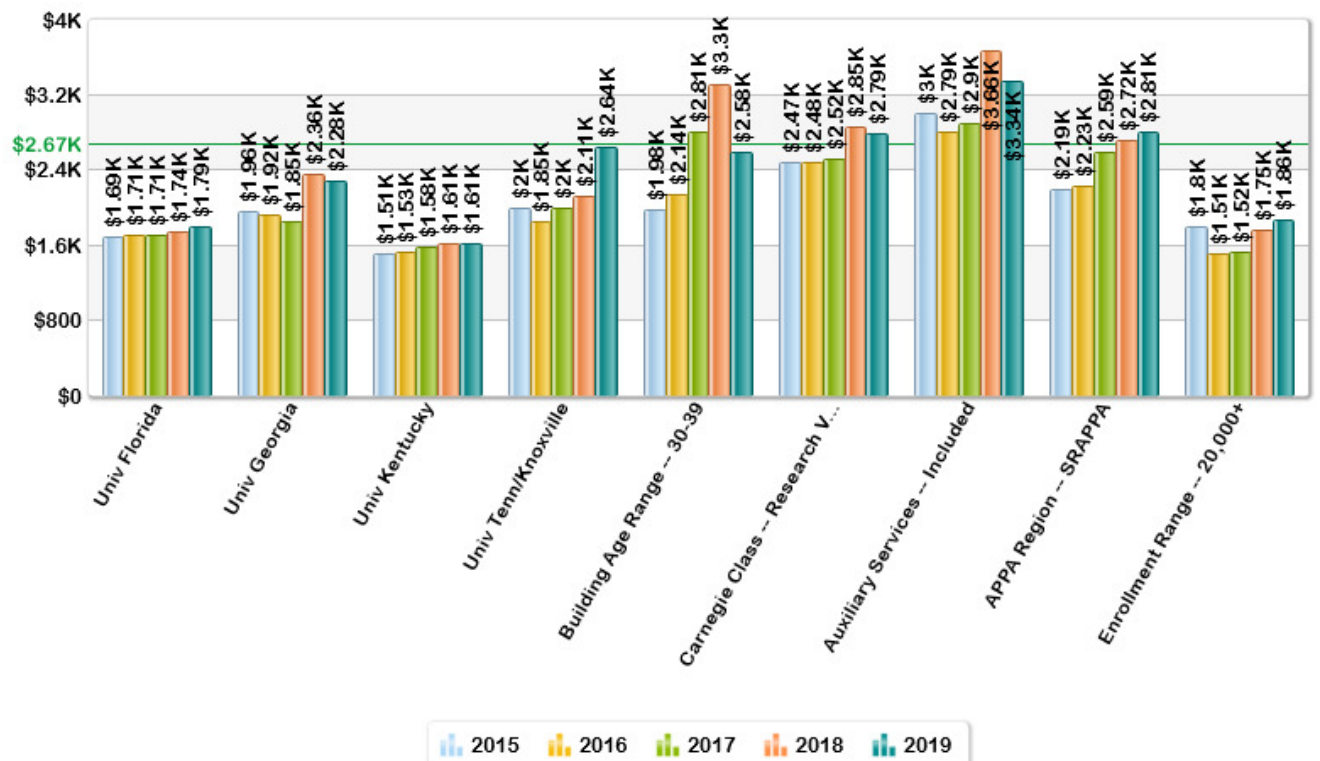


# APPENDIX B - APPA FPI

## Total Operating Cost per SFTE without Purchased Utilities



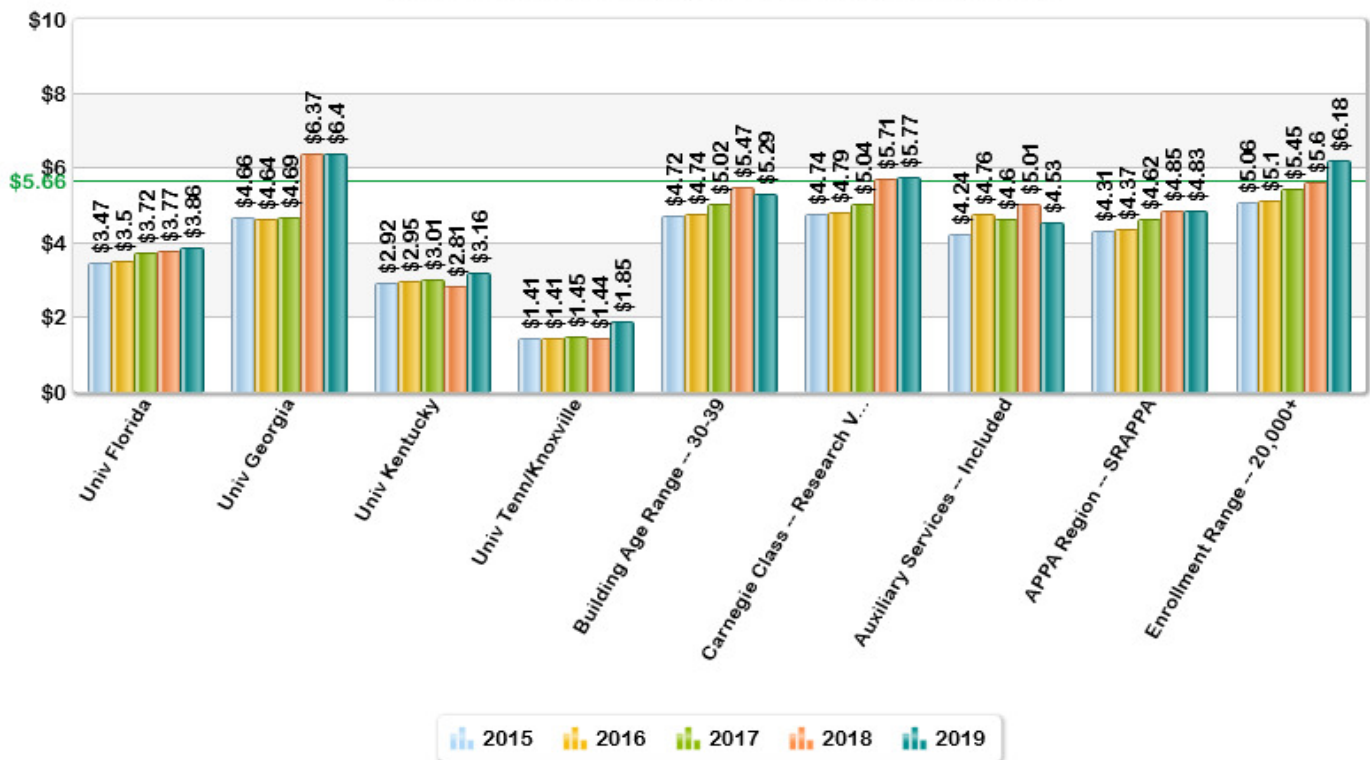
## Total Operating Cost per SFTE with Purchased Utilities



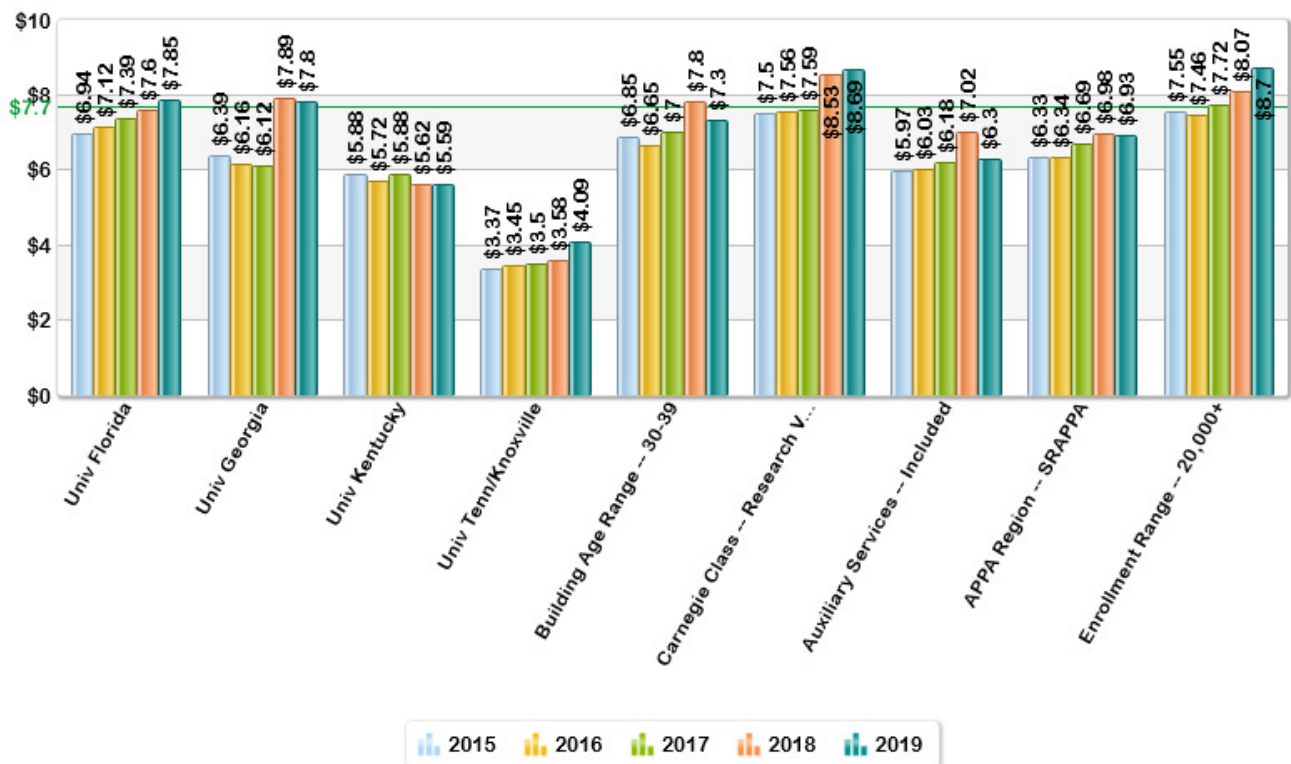


# APPENDIX B - APPA FPI

## Total O&M Cost Per GSF without Purchased Utilities



## Total O&M Cost Per GSF with Purchased Utilities





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FACILITIES SERVICES

## ANNUAL REPORT 2020

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