

CSUSM ANNUAL FACILITIES REPORT

FACILITIES
DEVELOPMENT &
MANAGEMENT

FY 18-21
COVID-19



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A NOTE FROM THE AVP

Facilities Development & Management (FDM) presents the Annual Facilities Report for fiscal years 2018 -2021, effectively the COVID-19 Special Edition. This report highlights the headway and undertakings of FDM Administration, Energy Management and Utility Services, Facility Services and Planning, Design and Construction.

FDM continued to make great progress in achieving our goals, in spite of a world-wide pandemic. Some of our accomplishments include winning the prestigious, internationally renowned APPA Award for Excellence In Facilities maintaining campus maintenance operations while the campus community went remote, keeping learning spaces sanitized during the hybrid learning phase and preparing the campus for the return of students, faculty and staff.

In this time of great uncertainty, FDM took large budget cuts, yet still successfully kept the campus maintained at APPA level 2 standards. I am appreciative of my teams' abilities to push forward as essential personnel in the midst of a world wide pandemic. The FDM teams demonstrated flexibility and strength, supporting each other and the campus community. They pivoted time and time again, going above and beyond as the backbone of the university, for which I am grateful and proud.

Mark Norita
ASSOCIATE VICE PRESIDENT

APPA AWARD FOR EXCELLENCE

The APPA Award for Excellence is designed to recognize and advance excellence in the field of educational facilities. Nominations are in the areas of leadership; strategic and operational planning; customer focus; information and analysis; development and management of human resources; process management; and performance results. Nominated institutions submit a comprehensive application followed by a site review conducted by a facilities management evaluation team; qualifying institutions are officially recognized by the APPA Board of Directors.

Past winners include BYU, U of Texas, Florida, Georgia Tech, Ohio State, various UCs, and others. The last CSU winner was California State University San Bernardino in 2007. This award is truly the result of a lot of great work by the FDM department, bringing home a win for the CSU, CSUSM, and our team.

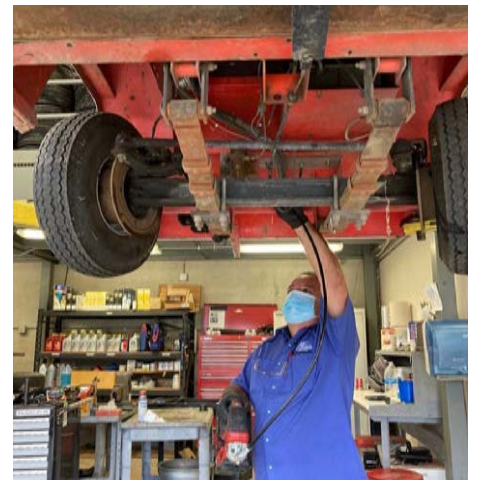
“Our success is fueled by the team we have built – their focus on continued improvement, collaboration, teamwork and supporting the campus community,” said Mark Norita, Associate Vice President of FDM.

Part of FDM's submittal package was [this video](#) highlighting the work of the team.



COVID-19 PROJECTS

In March 2020, when the pandemic hit and the stay at home orders were instituted, the FDM teams were deemed emergency workers and continued their in-person support of the campus throughout the pandemic.



Safety Protocols

Occupied spaces were sanitized daily with hand held electro magnetic disinfecting systems, cleaning protocols were increased to meet the new state and federal requirements, this included increasing the number of hand sanitizer stations from 50 to 153 throughout the campus. Each hand sanitizer and face covering station was checked weekly to ensure that they were full, and that face coverings were stocked and batteries were operational. The custodial teams worked with scheduling to sanitize classrooms in between each class to reduce the spreads of the virus.

MERV Rating

Minimum Efficiency Reporting Value (MERV) is a measure of how effectively a filter removes particles from the air that passes through it. The higher the MERV rating, the more particles the filter will catch. FDM quickly updated HVAC systems campus wide to align with new mandates, replacing filters throughout campus to a 13 or 14 MERV rating.

COVID PROJECTS CONTINUED

Federally Funded Projects

FDM also received ~\$4M in HEERF/CARES funding for COVID related projects throughout campus. These projects included but were not limited to: sliding doors for several building entrances, touchless faucets throughout campus, Kellogg Hybrid learning lab, installation of air flow stations at all Air Handler Units, occupancy sensors to reduce touchpoints, HVAC upgrades, outdoor furniture, Big Belly no touch trash cans, and touchless soap dispensers.

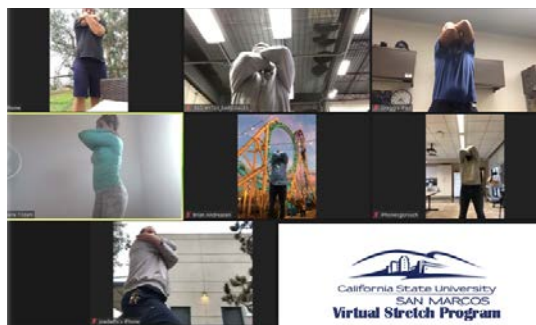
Campus Testing Sites

FDM worked collaboratively with several campus partners, the Chancellor's Office, State Fire Marshal and the testing site contractor to establish seven on-site COVID-19 testing sites. These testing sites were available to all students, faculty, and staff and were located in Markstein Hall, SBSB, USU, UVA Bldg. A, Extended Learning Building, the Clarke Field House and the Temecula Campus. As the pandemic started to wind down all of the sites were combined into one at the Clarke Field House and operational oversight was handed off.



Employee Care

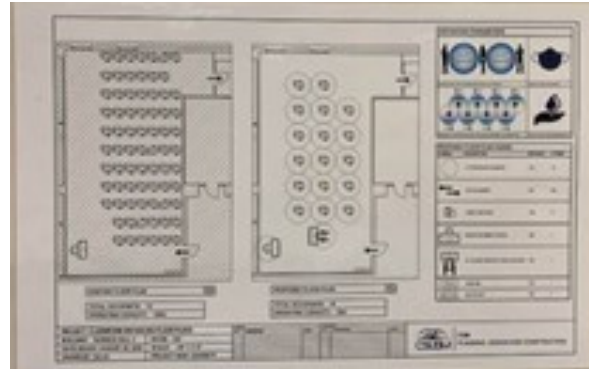
While the State stay at home orders forced us to limit our time on campus, we found a way to continue the stretching program for the physical and mental wellbeing of our staff. In collaboration with our campus partners in Campus Recreation, we successfully moved our twice weekly in-person stretch to an online platform. Not only were our teams able to stretch during the "live" stretching sessions at home or on campus, but we were able to offer the recordings to anyone who may have missed it, including our second and third shift employees, ensuring that anyone that wanted to stretch, could!



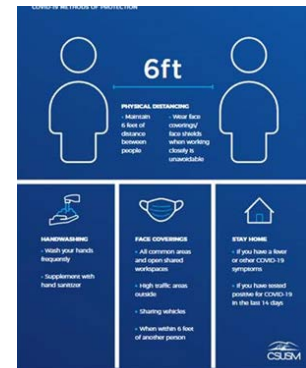
COVID PROJECTS CONTINUED

Plexiglass & Occupancy Layouts

The FDM teams worked collaboratively to rollout social distancing measures in every classroom in anticipation of the students, faculty, and staff returning in limited capacity and eventually to full capacity. FDM worked closely with a local plexiglass fabricator to create custom plexiglass dividers. Those dividers were installed in classrooms, laboratories and high traffic areas. Some of the custom creations include rolling plexiglass walls allowing a small number of face-to-face classes for the fall 2020 semester.



Classrooms utilized during the limited capacity years were reviewed for social distancing parameters and reduced occupancy layouts were created in AutoCAD and posted in each classroom as a point of reference for faculty/students and custodial staff. Those same layouts were also uploaded to 25Live for viewing so that students, faculty, and staff could see what the room set up would be. Excess furniture was removed and stored accordingly for each of these classrooms. Furniture placement dots were installed on the floors and furniture was placed correspondingly to maintain social distancing and provide a visual marker for placement.

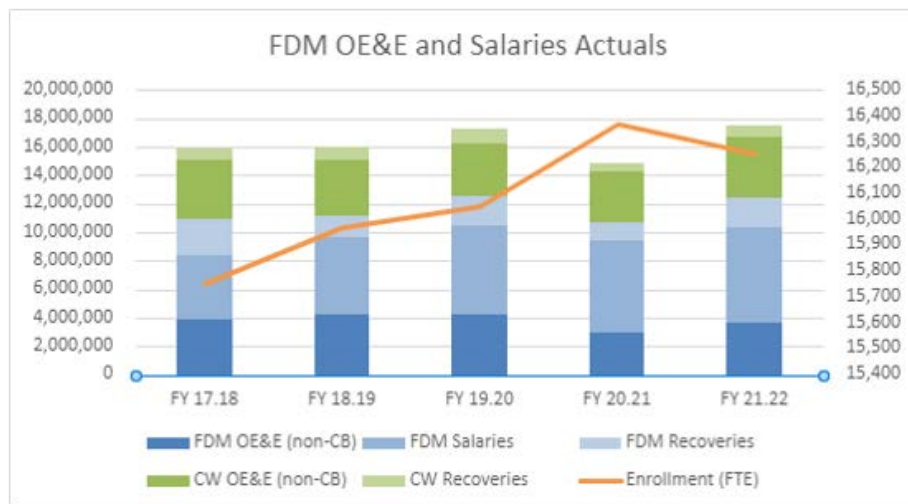


COVID Signage

In collaboration with the Safety, Health & Sustainability department and the Office of Communications signage was created, ordered and installed throughout the campus by the Facility Services team. The signage included floor decals, window clings, and a-frames. While seemingly simple, signage accounted for hundreds of man hours, as FDM adjusted with each change of direction from the CDC and other governing bodies.

FDM ADMINISTRATION

FDM operates under a hub and spoke model. FDM Administration (FDMA) is the hub of FDM and consists of three functional areas: Operations, Work Control and Technology. Responsible for strategic planning, and employee engagement, development and management of a \$17 million operating budget and its associated procurements, human resources, and accounts payable functions on behalf of FDM, FDMA supports the subject matter experts so they can focus on their fields of expertise.



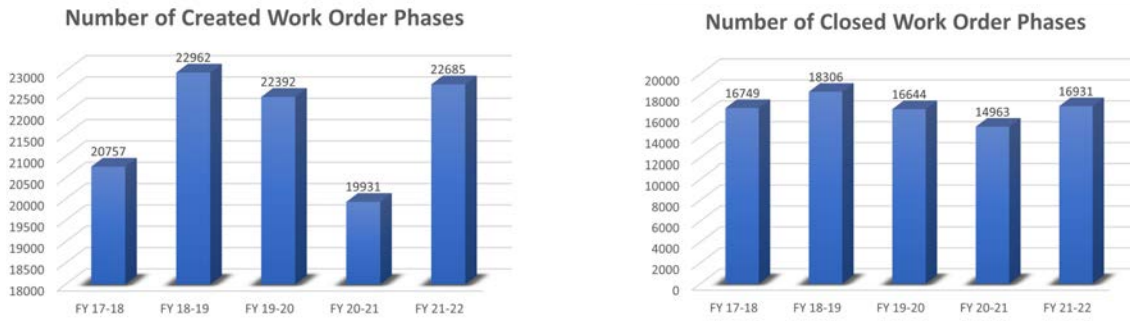
In line with enrollment, FDM's budget was on a steady increase until the pandemic. With a large operating budget FDM took a substantial budget cut in 2020. Salaries and CW EO&E (utilities) did not take any cuts.



FDM ADMINISTRATION

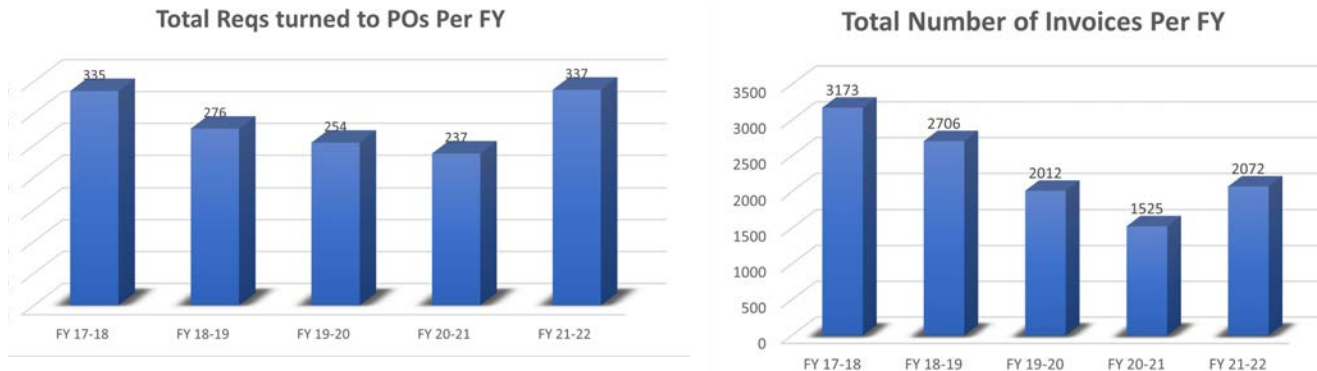
Work Control Team

Work Control is the liaison between the campus community and the facilities trades for intake and dispatch of all campus work orders. The work control team is the face of FDM customer service for the campus community, and the translator of their facilities' needs to the trades. Work Control is the keeper of our work order system.



Operations Support Team

Our Operations Support team is the business unit for all things facilities and the campus business partners of FDM. The operations personnel are responsible for nearly all components of FDM that collaborate with business financial services: procurement, accounts payable, accounting, and budget. The Operations Support team also manages all billing on behalf of FDM to the campus community and liaison with the CO for capital projects related to billing and funding.



Amount Spent Per FY on ProCard



Together, Work Control & Operations, are the support unit that allows the facilities personnel to do what they do best; maintain the physical campus. FDMA takes care of making sure that facilities work is performed with a focus on customer service, respect for our campus business partners, and within campus and Chancellor Office policies.

FDM ADMINISTRATION

Technology Support

Administration maintains and implements AiM, our CMMS system, functionality and the preventative maintenance program, iPads, cellular phones, data and data integrity, process improvement, the FDM website, FDM SharePoint sites, and OneDrive. Due to reduced funding and an administrative support consolidation FDM Administration grew as a team as the operating budget shrank, technology was leveraged to find efficiencies and savings. During COVID, many processes were redefined, moved to virtual platforms and rolled out to the teams. Using technology, FDM Admin will continue to push FDM toward sustainable processes with scaled growth at the forefront of our decision making.

Administrative Support

During COVID, like many other departments, FDM was tasked with doing more with less. In response to this FDM moved to a shared services model for administrative support. As staff retired or left the campus, the FDM administrative team was reduced by two Full Time Employees (FTEs). The new structure increased responsibility for FDM Administration but allowed FDM the opportunity to re-evaluate needs and streamline many administrative processes. For example recruiting, onboarding, separations, office supply requests, uniforms, technology support which had been done by each department became centralized, each process was refined and documented to improve the training of future employees.

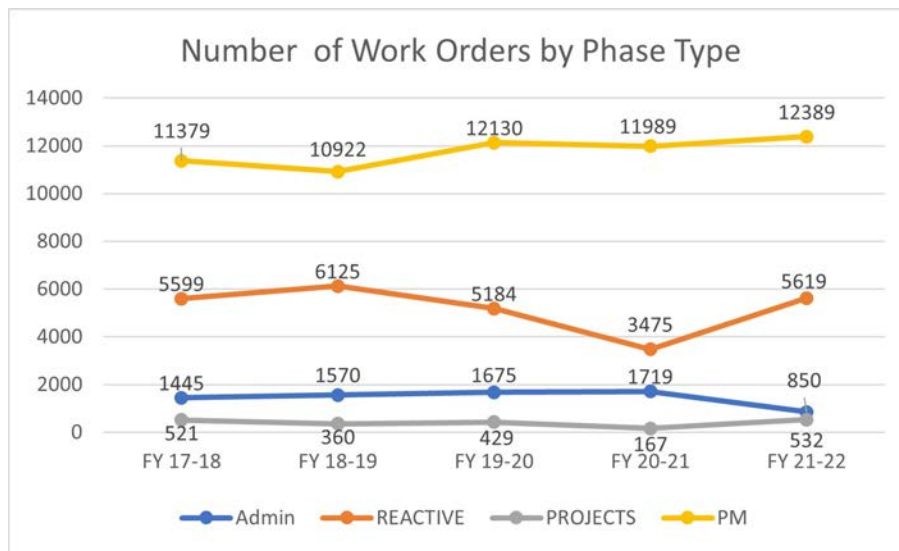
Employee Support

Collaborating with SHS the monthly safety meetings were moved to a virtual platform to better support the FDM team that was rotating their time on campus. Morale events were reimagined. Instead of traditional in-person events, like retirements, events were hosted via Zoom, individually packaged pies were distributed at Thanksgiving and staff meetings were held virtually. FDM handled over 24 recruitments, and onboardings and 7 separations, including 2 retirements.



FACILITY SERVICES

Facility Services (FS) proudly maintains a clean, sustainable learning, and working environment for our students, faculty, and staff. Facility Services is responsible for building maintenance, automotive maintenance and sourcing, custodial services, electrical, plumbing, grounds, paint, carpentry, key and lock services, and deferred maintenance and capital renewal planning.



Work orders are completed by all FDM teams, however the bulk reside with Facility Services. In FYs 19/20 & 20/21 we saw a drop in reactive project work orders due to a reduced campus population. Preventative maintenance maintained frequencies as FDM did not stop its work of maintaining equipment or the campus. As you can see, all work has returned as expected. We anticipate seeing a continued increase.

As the campus population grows the square foot per student decreases increasing campus density. This means we have a high use of our useable square footage resulting in heavy use of doors, elevators, restrooms, furniture, flooring, and other related building components. The concentrated use within a compressed schedule minimizes the time that Facilities has to perform necessary maintenance, repairs, and cleaning. Density also affects our landscape, athletic fields, roads, and parking lots. Compared to universities with similar institutional profiles, CSUSM is an extremely dense campus.

DEFERRED MAINTENANCE PROJECTS

Campus Wide Deferred Maintenance

All FDM teams work together to refine the annual process of reviewing and prioritizing the campus's deferred renewal and maintenance needs (DM). FDM's leadership team meets systematically throughout the year to present projects, prioritize and value each based on a defined set of criteria. This process is integrated with the annual Facilities Renewal and Capital Improvement Plan used by the Chancellor's Office to fund large-scale DM projects. Projects are completed in order of priority and funding availability. Annually the campus provides FDM with about \$770K for deferred maintenance projects, these funds are used to complete high priority projects that fit within this budget. Anything above this budget is moved to the Five Year Capital Plan to request Chancellor Office funding to complete.

The goal is a holistic approach to coordinate planning and maximize available funding to reduce CSUSM's deferred maintenance backlog. This data is vital in securing funding to maintain the campus systems running beyond their expected life span and the campus at an APPA level 2.



DEFERRED MAINTENANCE PROJECTS

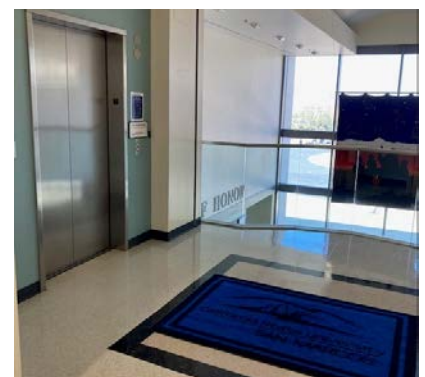
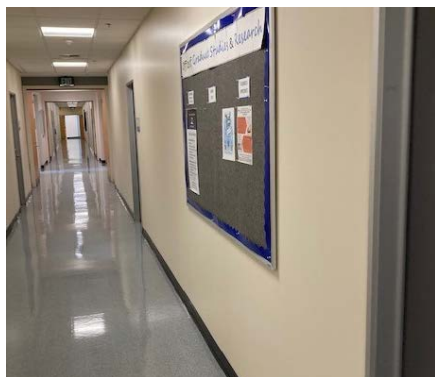
Markstein Hall South Stairwell Repair

The Markstein Hall South Stairwell was severely corroded and in need of repair. The paint was peeling off and the stair treads were loosening. Because the building was minimally occupied due to COVID-19 the opportunity arose to close the staircase for repairs. Scaffolding and containment were installed, the contractor sand blasted the metal staircase to clean out the rust and painters then painted the stairs with rust inhibiting paint. An additional contractor repaired the stair treads. Waterproofing was installed under the treads to preserve the metal as well as anti-slip material on the bull nose of the treads. New LED lighting was installed on both North and South staircases.



Administrative Building Hallways and Stairs Painting

The Administrative Building is one of our oldest buildings housing administrative services, IITS, HR, career services and campus leadership. The common areas were in need of a refresh, once completed the interior of the building now looks new and fresh.



DEFERRED MAINTENANCE PROJECTS

SBSB 4-123-A Decking

The 4th floor of the SBSB building includes an outdoor patio used by faculty, staff and students. The decking began leaking when it rained due to a waterproofing failure and improper installation of the flashing. The decking now has the proper water proofing, stainless steel flashing and new tiles. The FS team ensured that the entire deck was sealed and passed the water testing.



Custodial Modular Buildings Electrical and Data Lines

The data and electrical lines that go to the Custodial modular buildings became exposed creating a safety issue. Our crew dug a trench from U-Hall to the modular buildings to install conduit and bury the lines mitigating the safety issue.



DEFERRED MAINTENANCE PROJECTS

Commons Second Deck Drain and Deck Repair

The Commons deck is a heavily trafficked space, which sits on top of offices. Thirteen drains were replaced and the flashing was waterproofed. After passing the 24 hours water testing, new concrete was poured onto the deck level. Surface waterproofing material was installed and caulking of the cracks and joints were filled. Next the two layers of surface materials were laid. This project eliminated the water leaks caused by rain keeping the offices and bookstore storage area dry during the rainy season.

Before



After



CUSTOMER PROJECTS

Facility Services skilled trades teams also perform customer improvement projects around campus as resources allow. These projects are requested and paid for by the requestors. Examples include:

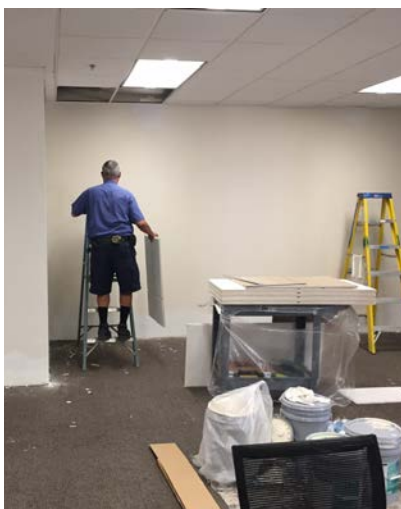
Administrative Building Suites 3700/3800 Remodel

The project consisted of the remodel of approximately 10,000 sq. ft. of Administrative space that provides financial services and registration services to students. The remodel included new carpet tiles, the painting of walls, modular panel cleaning and acoustic tile replacement to brighten and freshen up their space.



Administrative Building 3200 Title IX Conference Room Addition

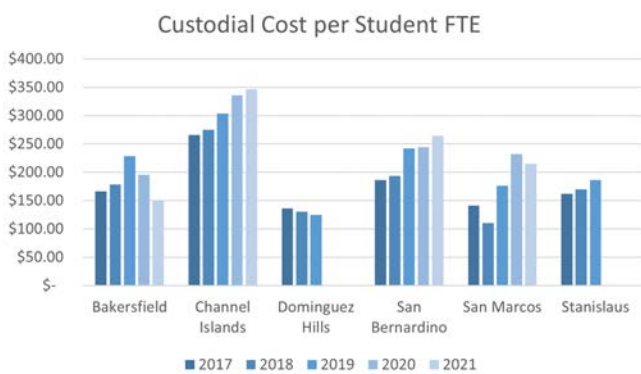
The Title IX suite was in need of a renovation. The renovation included repainting the space, new ceiling tiles, new carpet, upgraded lighting and the addition of a conference room.



FACILITY SERVICES BENCHMARKING

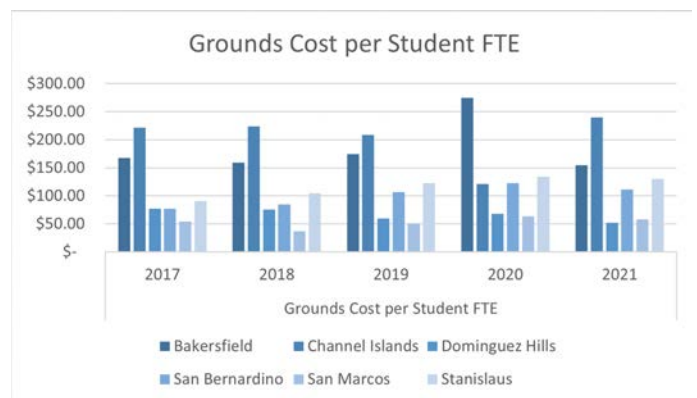
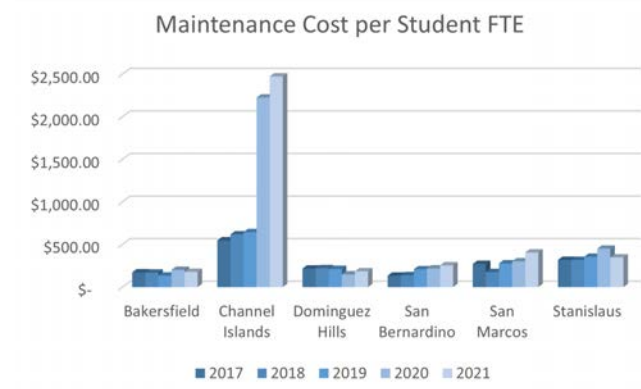
APPA NACUBO KEY FACILITIES METRICS

CSUSM is a member of PCAPPA, the Pacific Coast Region of APPA Leadership in Educational Facilities. Each year universities across the United States participate in a comparative analysis which allows universities to compare key performance metrics (KPIs) among its peers. Of the many metrics available for comparison, cost per gross square foot (GSF) for custodial and maintenance, cost per acre for grounds, and average student per GSF are compared against other CSU's with a listed enrollment range of 12,000-19,999 at the time of the survey.



In 2019, CSUSM transitioned from outsourced custodial to inhouse. Calculation of total custodial costs per student FTE, which normalizes the costs among institutions of all student enrollment sizes for comparison purposes.

Calculation of total custodial costs per gross square foot, which normalizes the costs among institutions of similar sizes for comparison purposes. Calculations rounded to nearest dollar.



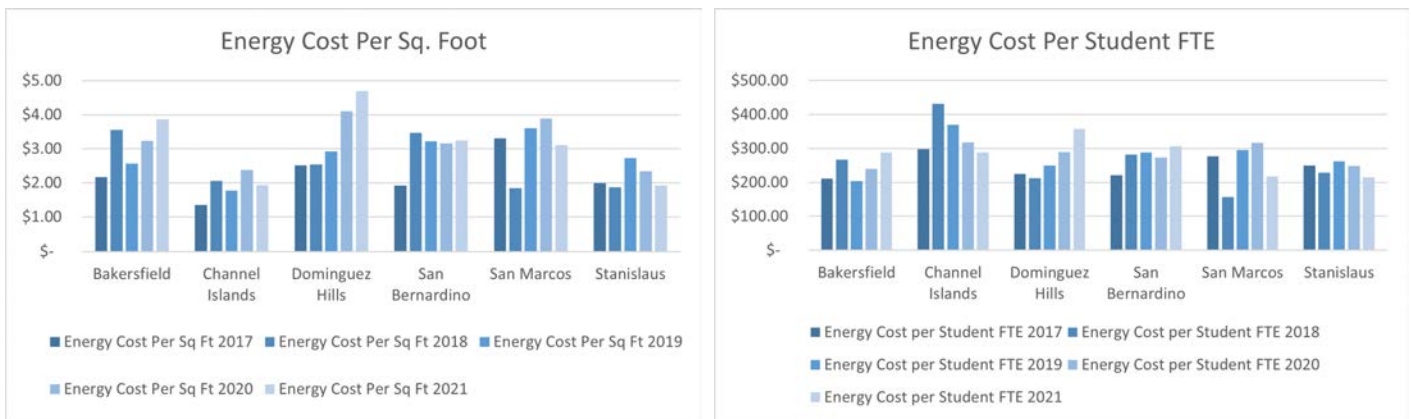
Calculation of total maintenance costs per student FTE, which normalizes the costs among institutions of all student enrollment sizes for comparison purposes. Calculations rounded to nearest dollar.

Calculation of total grounds costs per student FTE, which normalizes the costs among institutions of all student enrollment sizes for comparison purposes. Calculations rounded to nearest dollar.

ENERGY MANAGEMENT & UTILITY SERVICES

Energy Management & Utility Services (EMUS) is charged with the oversight, operations and efficient management of the campus' utility infrastructure, energy efficiency projects and energy production and delivery.

The scope of EMUS also includes the ongoing maintenance and operation of electrical and natural gas service, domestic, well and sewer water as well as campus waste, recycling and compost. The department is comprised of management and skilled trade professionals. The team focuses on energy service and campus occupant comfort with the successful operation of the Central Plant and the delivery of reliable energy resources through a series of tunnel systems which circulate throughout campus.



The EMUS team is also responsible for the implementation of energy efficient building controls strategies, projects and equipment maintenance. Additionally, EMUS is responsible for forecasting and managing budget requirements for electricity, natural gas, waste, recycling, and sewer services. They also work closely with Safety, Health & Sustainability to provide sustainability program support to the campus. In addition to ongoing daily support, the EMUS team manages large scale projects ensuring continuity of services.

EMUS PROJECTS

Relining Chilled Hot Water Piping at SBSB and ACD

The larger buildings on campus are cooled using 40-degree Fahrenheit chilled water that is piped from the Central Plant, through an underground network of tunnels, then into cooling coils inside each building. This method of cooling is like using a radiator. The SBSB and ACD buildings have chilled water piping that was corroded; corrosion can lead to leaks or possibly failure. Replacing the lines would require extensive demolition and cause the buildings' air conditioning to be out of service for months. Applying an epoxy coating to the interior of the pipes is the least intrusive, most cost effective and quickest way to repair the pipes. The pipes in SBSB and ACD are the most recent buildings to receive this solution.

Before



After



Boiler Replacement Project

EMUS and PD&C collaborated on a project to replace Boiler 1, the first boiler on campus. It was replaced with 4 smaller boilers that are 18% more energy efficient! The Central Plant also had an emergency generator installed. Now, the Central Plant can successfully serve as a back-up Emergency Operating Center and has the capability to provide emergency Heating Hot Water and Chilled Water to critical campus functions, even during power outages.



EMUS PROJECTS CONTINUED

UHall Heating Hot Water Line Replacement

Additional EMUS projects included a new project supporting the replacement of the Heating Hot Water lines in the U-Hall building as well as replacing the 2 boilers at the Clarke Field House. The old boilers were original to the building and have reached the end of their useful life. The new boilers are 96% efficient!



Composter

In May 2020, in collaboration with SH&S, EM&US launched a test composting program in coordination with a student start-up company. The compost collected at Markstein and USB was collected and composted on-site. The project goals included looking for more opportunities to expand the composting program in order to meet our Zero Waste goals by 2025 and support our students.

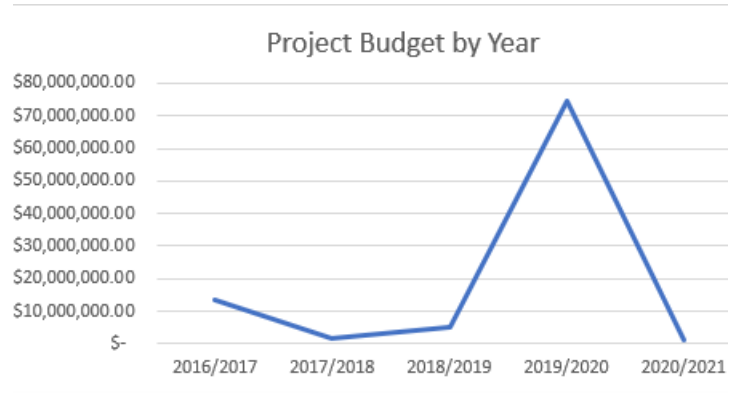


BAS Fault Diagnostics

In partnership with EcoVox, EMUS created fault diagnostics for our Building Automation System. EcoVox continuously analyzes the thousands of sensors in all of our buildings in order to detect if a mechanical or electrical system is not functioning optimally. This has increased the reliability of our systems, detect issues earlier, and help with energy savings.

PLANNING, DESIGN & CONSTRUCTION

Planning, Design, & Construction (PD&C) serves the campus community in the development of environments that promote learning, interaction, innovation, and collaboration in support of the vision, values, and goals of California State University San Marcos. PD&C is responsible for space planning, campus moves, furniture, long range capital planning, building design, code compliance, and construction management.



The number of projects completed by PDC have varied greatly year over year, with increases in 16/17 which carried over from the previous year, due to the USU opening and its secondary effects. In 2018, PDC completed the Extended Learning Building which resulted in a large increase in project budgets. In 2019, when COVID hit all projects were placed on hold, some indefinitely and others until the stay at home orders were removed. The following years coming out of COVID have proven to see an increase to pre-COVID project counts. Please note that this data does not account for additional scoping and pre-design work on tertiary projects and/or shared projects with Facility Services and Energy Management and Utility Services.

PD&C

Moves and Reconfigurations

PDC manages all relocations, reconfigurations, purchase of office furniture and removal of furniture. The moves team also oversees moves related to minor and major capital projects on campus. All campus moves are accomplished with two moves coordinators.

During the 2020/2021 period, all moves were placed on hold, along with the majority of non-major capital projects or those not under construction. Our focus as a campus was redirected towards COVID preparedness. The moves' team efforts were primarily dedicated to classroom layouts and re-configurations, identifying the need for plexi-glass, covid testing sites and coordinating plexi-glass installations throughout the campus.

Campus Wide Space Audit

In coordination with a consultant from the chancellor's office, PD&C completed a campus wide space audit. Nearly all academic, administrative, and infrastructure spaces within all buildings on campus were verified against existing campus building floor plans to ensure that our space management data is accurate. During the weeklong space audit, the team traversed miles all around campus. CSUSM lived up to its nickname of Cal State Stairmaster.

During this audit:

- 3686 doors were opened to review use of space
- 105 roll up doors were opened
- 61,942 steps were taken
- 22.5 miles were walked

PD&C PROJECTS

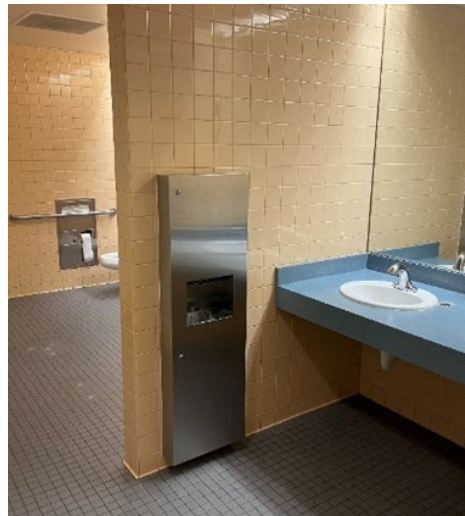
ELB Innovation Hub

The build out of the CSUSM Innovation Hub within ELB was completed with furniture, maker spaces, and AV installations. The newly completed space will further CSUSM's commitment to innovation. The vision for the space is to serve as a gateway to campus as we emerge from the pandemic. The innovation hub will be used by students, faculty and community members. In the lounge and collaboration zone there are 15 nesting tables and 30 rolling classroom chairs that can be staged in front of the video wall for classes, and then stored in the storage room.



SBSB GIR & Arts GIR

In SBSB an existing Sociology closet on the 4th floor was renovated to become a single occupant Gender Inclusive Restroom (GIR). In Arts an existing men's and women's restroom on the 1st floor were renovated to become single occupant GIRs.



PD&C PROJECTS

Campus Storage Container Lot

A Container storage lot, 40' X 128' with 6' chain link fence and a 12' asphalt drive lane was created to hold 18 40' containers and 8 20' containers. The storage container lot and new recycle yard will limit the placement of storage containers throughout campus into a central location for assist with CSUSM department's storage needs.



Vet Center Solar

The Vet Center Expansion project is the first Zero Net Energy building (ZNE) building on campus with the installation of a solar canopy over the new deck. The canopy will power the new and existing buildings, which have a combined maximum electrical use of 15,657 kWh annually. This, in combination with the cross-ventilation and sun-shading strategies, results in the buildings producing more energy than they use on an annual basis. The canopy includes twenty-four (24) photovoltaic panels and one (1) Utility Interactive Inverter. Light fixtures are installed on the underside of the canopy to provide lighting in sunsetting conditions. Prior the installation of the canopy, the Vet Center project was also awarded the prestigious Judges' Choice Award, awarded to the single highest scoring project from all categories, as well as three Awards of Distinction at the Modular Building Institute's 37th annual World of Modular convention and tradeshow in Orlando, Florida.



PD&C PROJECTS

Mangrum Track Resurfacing

An anonymous donor provided the campus with funds for resurfacing the Mangrum Track running surface and replacement of the rubberized surface around the track drain. The project was approved in January 2021 and was completed before the 2021 Commencement ceremonies. CSUSM now proudly a cougar blue track!



ENGAGEMENT SURVEY RESULTS

CUSTOMER SATISFACTION RESULTS

Annually, FDM requests feedback from campus customers, including students, faculty and staff. The survey, run out of UCSD, allows us to determine primary areas of opportunity and primary strengths. The valuable and confidential feedback helps our departments plan and prioritize initiatives to improve service quality and processes. Once participating departments receive and review their data, they are asked to develop action plans for improvement. Results and goals are posted annually on FAS' website. Click the link to department for review of annual results.

FY 18/19

Facilities Services and Energy Management & Utility Services

Planning, Design and Construction

FY 19/20 and FY20/21

The campus elected to not participate in Customer Satisfaction Surveys as most staff, faculty and students had not been on campus due to the pandemic.



SURVEY RESULTS CONTINUED

EMPLOYEE ENGAGEMENT RESULTS

The Employee Engagement survey was designed to assess employees' satisfaction with their work environment. CSUSM Finance & Administrative Services (FAS) division has conducted Employee Engagement surveys since 2004 and transitioned to UCSD's Employee Engagement survey in 2016. The goal of the survey is to identify key Strengths (areas where FAS is doing well) and key Opportunities (areas needing improvement). Each year, FDM leadership reviews findings and develops goals to address areas of opportunity.

Click the link for the year's results.

FY 18/19

FY 19/20

FY 20/21

