Employees using Ex-Max Mobile find the set up to be E-Z!

Facilities Services completes over 36,000 maintenance and repair work requests annually all over campus with a customer satisfaction rating of 90% in our surveys. Our custodial and maintenance personnel keep campus clean, and operating in good repair within available resources.

Facilities Services consists of 390 dedicated employees, about half custodians and half trades people. As part of the “Changing for Excellence” initiatives, our organization moved primarily to a Zone model of service delivery with additional support from Central Shops. Just two years ago Facilities Services was created from a merger of the Student Housing and Academic (Facility Operations) support organizations. This office along with FS administration is also a major change agent in FS, always improving our use of Maximo, and our business processes. Key accomplishments for this past year include the following:

- We automated our Preventive Maintenance (PM) program in Maximo. Over 480 active PM schedules were entered this year.
- Major PMs include; bi-annual roof checks, compressor routes, chiller checks, backflow preventer inspection program, and fire sprinkler and alarm system inspections.
- FS has entered 6,645 total assets to date, the majority in the past year. This is critical to track costs by building and asset and trend data, as well as for targeted Preventive Maintenance.
- Eliminated 630 standing work orders; now only one overhead work order per Zone and Shop. Monthly overhead report results in greater visibility for supervisors, managers and administration.
- Emphasized use of web requests to report work. Web requests greatly reduced work order processing time compared to phone requests.
- Led FS rollout of LYNC for use on both PC and mobile platforms. LYNC communication tool is great for connectivity with our mobile staff.
- Coordinated successful transition of vehicle rental program to outside vendor - Enterprise Rental. Avoided $100K in costs annually.

The FS Work Management office receives all work requests and processes them by both phone and web request. They dispatch work to the various Zones and Central shops that perform the work.

Over 200+ users are actively using devices for work order tracking and assigning their labor hours and material costs.
FS WORKFORCE SAFETY

Safety is always a key area of emphasis for Facilities Services. We have provided about 2000 total training hours on safety issues this fiscal year (4.5 per employee). Topics included:

- Ergonomics
- Lock Out-Tag Out (LOTO) program
- New employee safety orientation
- Safety triangle
- Eye and head protection
- Hearing conservation
- Arc flash and Electrical safety
- Fume hoods
- Strobist exhaust fans
- Working in animal care facilities

Provided Forklift safety and proper operation training with over 100 employees certified

LOTO program standardized across FS
Updated selection and emphasized use of Personal Protective Equipment (PPE)
Over 4 months with no lost time accidents
Only one vehicle backing incident since using traffic cone program
Safety database created to analyze risk.
Incident reporting form revised to include root cause analysis and risk correction follow up.
Our safety motto is “Never ignore a hazard”

ZONE 1

Prompted by an Employee Advisory Council suggestion, and with help from Energy Program Manager George Werth, Zone 1 electricians changed the lighting in the FS Garage to brighter, more energy efficient lights. These lights help our FS mechanics see better to fix vehicles, and the new lights will save over $24,000 per year on energy, in line with Strategic Initiative Theme 1 “Sustaining the planet, powering the world.”

Strategic Initiative Theme 3 discusses “a broader understanding of cultures, and a respect for differences” as well as “building) mechanisms for respectful discourse of complex problems.” Zone 1 worked with the office of Institutional Opportunity and Access (IOA) to do just that. Working on a request from IOA leadership, the late Tim Thomasson, Zone 1 Maintenance Supervisor, designed a handicap-accessible “conversation ball pit.” Z1 carpenters and painters finished the pit after Tim’s untimely death, and it has been used all across campus. The pit is filled with thousands of crimson and blue plastic balls, some with questions written on them. Students spend time in the pit asking each other the questions, and learning about backgrounds, differences, likes, and dislikes. Recently, gold balls were added to the mix, to foster discussion of sexual harassment awareness and strategies to combat it.

While Zone 1 has few undergraduate students using the buildings, our 1.6+ million square feet of building space still has a wide variety of uses. Some of the University’s top pharmaceutical, molecular biology, and animal care researchers work in MRB, SBC, LSRL, and in the HBC complex. The University’s plane lives at the airport, which Z1 recently re-marked and repainted. KU Recycling’s facility on west campus processes over 80,000lbs of material each month, with electrical work by Z1 electricians making it easier and more efficient to use the recycling equipment. The BTBC Facility (the Incubator) helps foster relationships between the University and budding research companies, and Z1 works to maintain the building systems and facility.

Often, Facilities Services are overlooked when discussing what makes up a University. But we’re proud to do our part to help forward KU’s Bold Aspirations.

Mike Brown keeps the campus ship shape!
ZONES 2 & 6—HOUSING BUILDINGS

- Zone 6 is responsible for 35 buildings at KU; 30 residential and apartment style living, 4 academic and 1 chapel comprise over 500,000 square feet.

- In Zone 6, Stephenson, Pearson & Sellards Scholarship Halls received major overhaul projects for their mechanical systems. Margaret Amini and KK Amini’s resident rooms were repainted and oak trims refinished. Also in Zone 6, Spooner Hall received a new floor.

- In Zone 2, Templin hall we replaced the carpet on 3rd floor to 7th floor including lobbies. Oliver hall 3rd floor through 10 as well. Oliver also received upgrades with new lobby TVs in which we made in house wooden brackets to install them.

- Zone 2 custodial staff refinished a large floor area at Ellsworth Annex that had never been done in its 40 year existence. The floor looks fantastic and the customer was very pleased.

- FS works closely with student housing to coordinate all work guided by our service level agreement.

ZONE 3

- Trained and implemented the use of EZ-Max and handheld devices in both our maintenance and custodial operations.

- Welcomed Carlos Florez as the first Project Search candidate in FS.

- Responsible for athletic events in Allen Fieldhouse, including supervision of maintenance staff for events, pre-event preparation of facilities and training new staff to work events.

- Piloted automatic work orders for regularly scheduled maintenance of assets, such as air compressors, air handlers and fountains.

- Organized and established efficient levels of inventory for supplies and laundry in the custodial dens.

- Entered work orders in Murphy Hall for the entire Theater Season in advance, to help assure that additional custodial tasks would not be overlooked.

ZONE 4

- Zone 4 has some amazing accomplishments this year including building a custom stage for the groundbreaking ceremony for the new School of Business. We recycled the balusters from the original Frasier Hall. The ceremony was a great success with many VIPS’s in attendance including Governor Brownback.

- We were having an issue in Malott Hall with bathrooms getting clogged drains on a daily basis. We decided to provide toilet seat covers, and since we installed them last winter, we have had no clogged lines! This is now saving us time and money in FS.

- Zone 4 has also teamed up with IT to bring Wi-Fi to the center of the campus. The Zone installed mesh points on almost all their buildings.
ZONE 5

Zone 5 welcomed the new Shared Service Center (SSC) staff to Carruth O’Leary Hall with many cosmetic repairs like corridor carpeting, painting, corridor ceiling replacements, a new south east entry door, and numerous other updates to the building’s interior appearance. Zone 5 also assumed responsibility for cleaning and custodial operations for Carruth O’Leary and JRP Halls, aligning custodial and maintenance functions in the same Zone for those buildings.

Zone 5 assisted the IT Department at Blake Hall for their data upgrade, and core drilling and installation of conduit in other areas for the wireless coverage expansion.

Zone 5 teamed up with recycling to add approximately 17 new desk-side recycling bins to Lippincott Hall, as a follow-up the desk-side recycling pilot in Fraser Hall. Zone 5 worked with the Office of Public Affairs to give our campus map case a facelift for easier access to the map for all of the new changes coming in the near future.

Zone 5 had two employees chosen for KU employee of the month in 2014. Zone 5 is a proud member of the Facilities Services Team and prides themselves on delivering great customer service.

STOREROOM

Inventory
The Storeroom carries inventory of maintenance and repair parts and custodial supplies for the entire Lawrence campus. In June of 2013 the inventory at the Storeroom was $1,033,900. We reduced inventory on hand from a six month to a two month supply. resulting in a reduction of $154,110 in inventory as of August 2014, and are still working to reduce under-used inventory.

- Worked with all central shops and zones to get their inventory 100% entered in Maximo
- Worked with all central shops to get non-inventory materials on work orders

KUPPS & Procurement
FS went live on KUPPS in July 2013. Prior to that purchase orders (PO’s) were generated in Maximo, or were handwritten. Use of KUPPS streamlines the process for ordering and payment for materials.

- All FS PO’s are primarily placed through KUPPS, with only a few exceptions.
- We have added one plumbing vendor, Ferguson, as a punch out in KUPPS for use by FS
- We added two hosted catalogs, Regal Distributing and Matheson Tri-Gas to KUPPS for use by FS

New contracts established for FS:
- Plumbing & Steam suppliers
- Door and Door Related Hardware
- Service of Fire Extinguishers
- Locks and related materials for the locksmith shop

“We have reduced inventory in the Storeroom by $154K in the last year.”

GRAINGER INITIATIVE

The Storeroom continues to build our relationship with our contracted vendor for MRO supplies, W.W. Grainger. Grainger’s first project was organizing all of the VBelts in the Storeroom. VBelts were stored on horizontal shelves in the Storeroom which made it hard to find what you needed and made it hard to do cycle counts. Grainger hung racking on the West Storeroom wall, moved, labeled and hung the VBelts on the wall making it easy to find what you are looking for. Grainger will generate orders using their hand held devices, the order gets uploaded through KUPPS they are then reviewed by KU staff prior to order being placed electronically.

Grainger is also providing two lockers where power tools will be kept. To get the tool out of the locker you must swipe your KU ID card, the door will open, worker can take the tool to job site for use, when finished the worker will swipe his card again to open the locker door returning.
The Central High Voltage Electric and Instrumentation Shop is responsible for the campus electrical grid; working with voltages from 12,470 volts in our major distribution lines down to 120 volt service in buildings. They work with major electrical transformers and switch gears for electrical power distribution through the riser and electrical service panels and circuit breakers in each and every building. Major projects this year include:

- Emergency repairs to primary power supply at Rieger Scholarship Hall. The primary power buss connection failed and created a small fire, leaving the building without power. The shop restored temporary power and effected permanent repairs very quickly.
- Continuing Education building main power switch failed and was replaced quickly.
- Watkins Health Center replaced auto transfer switch for emergency power to ensure critical loads properly powered by emergency generator.

Instrumentation shop tests, maintains and keeps record of over 10,000 fire alarm devices across campus, [smokes, heat, beam, duct, pull stations, strobes, speakers] along with 500 plus Variable Frequency Drives (VFD’s). Troubleshooting of these systems and security as well as emergency response to fire alarms are all part of our daily duties.

This shop also has a key role to play in home football and basketball games, and specialty games and events; working to ensure key communication systems are working such as coaches’ headsets and public address systems and scoreboards all function properly.

The Central Plumbing Shop is responsible for all domestic water and sanitary sewer systems. Our annual testing, inspection and maintenance includes over 600 Backflow Preventers, and the flow tests of 140 campus fire hydrants. Monthly testing, inspection, and maintenance includes all fire suppression systems and reading of all water meters and gas meters.

Major jobs in the last year include the following:

- Replace HVAC system loop water lines in Summerfield
- Added a new fire line, with Post Indicator Valve (PIV) into Summerfield (separated the domestic water from the fire main system)
- Repaired critical water main breaks in Fraser parking lot, Stauffer Place Apts, Hoglund ballpark & Parking Garage
- Repaired sanitary sewer line at Danforth Chapel
- Replace laundry drain at Oliver residence Hall
- Re-pipe Cooling tower- Anschutz Library
- Installed new natural gas lines at Old Fathers Studios
- Re-pipe Chiller at Ellsworth Hall
- Re-pipe Water Softener at Corbin, McCollum & Hashinger Halls
- Assisted Marvin Hall new fire system (wet stand-pipe system to a Sprinkler system)
- Install 4” Backflow Preventers in Eaton and Learned Halls

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The Central HVAC shop works on the larger air conditioning systems and Johnson Controls System. They also maintain larger chill water cooling plants that serve several buildings located near the power plant.

This year the HVAC shop updated a lot of older, outdated systems controls so we can use the Johnson Control system to alert us when there is something wrong in the building systems.

Buildings with updated controls systems included: St Andrews Research facility, Nunemaker, Lied Center, Bailey Hall, Blake Hall, Spencer Library, Marvin Hall, Allen Fieldhouse, Haworth EGC’s, and Learned Hall

Major equipment repairs included: Budig Hall chiller, Smith Hall Evaporator coil replacement, GSP compressors and the repair of the BTBC (incubator) HVAC system when the reheat coil froze and cracked,

New equipment installed included: Anschutz cooling towers, Malott Hall lab 6086 new rooftop Air Handling Unit and Controls, and two new rooftop Air Handling Unit in the Horejsi Pavilion

The shop also assisted DCM on larger HVAC projects at Learned Hall and Watkins Health Center.
CENTRAL STEAMSHOP & POWERPLANT

The Central Steam Shop and Power Plant maintain our steam distribution system in tunnels and building and provide steam from our large, central plant boilers for heating our buildings 24 hours a day, 7 days a week, 365 days a year.

- Inspected, maintained and repaired as needed 2800 steam traps and 200 condensate return pumps on main campus for both system reliability and energy savings.
- Overhauled steam system in Corbin Hall, including steam valves, traps, condensate and boiler feed pumps and many new feet of piping and insulation.
- Restored hot water in McCollum Hall last December; repairing water heater with new parts and machined parts to finish emergency repairs quickly.
- Replaced sewage pumps at Hoglund Ballpark.
- Assisted contractor and engineers with the steam rerouting and tie in for Strong Hall and including work in the tunnel from Snow Hall.
- Built handrails, ladders and platforms to keep people safe throughout campus. An example of this is the work done to the cooling tower at Blake Hall.
- Repaired ruptured tubes in #2 boiler; Overhauled boiler feed and booster pump.
- State and insurance pressure vessel inspections validate FS safe operation and maintenance of large boilers in providing steam to the campus.

Thanks. As usual you all at FS are the most cooperative office I've experienced in my 30+ years here. And I mean that.
-Frank Barthell, Marketing & Communications

LIFE SAFETY SYSTEMS SHOP

The Life Safety Systems Shop (formally known as the Preventive Maintenance Shop) tests all emergency generators, inverters, and battery backup and other emergency lights campus wide. They also handle emergency calls after hours on a wide range of issues.

Major projects included:
- Replaced automatic transfer switchgear at Haworth Hall.
- Replaced the automatic transfer switch to Watkins Health Center.
- Upgrading emergency generator at Watkins Health Centers.
- Ready with parts stocked in van for emergency calls, and repairs on the emergency lighting.
- Test, inspect & repair all major life-safety systems monthly per code.

GARAGE

The FS Garage has changed dramatically and focused on equipment upgrades to improve safety, code compliance and to gain efficiencies.

- We performed fuel system upgrades including replacing fuel lines for unleaded and diesel fuel and ensuring our leak detection system works properly. We also installed a new unleaded fuel pump to replace the outdated and malfunctioning dispenser.
- We replaced two outdated and malfunctioning vehicle lifts, and new lights were installed for better visibility & energy efficiency.
- Staff attended technical auto repair training and we purchased new diagnostic equipment to better diagnose problems on today's more technical vehicles.
- We transitioned the KU motor pool rental fleet to Enterprise rental car services under an umbrella contract, saving money and gaining efficiency.
- We started a project to upgrade our outdated fuel software with the change underway now.
ENGINEERING & UTILITY LOCATES

FS Engineering locates all utilities for construction work on campus and maintains our master utility map in our CADD systems. This year’s milestones included:

- Performed numerous ADA compliance surveys on campus to determine where work was needed to improve accessibility for all of campus.
- Gained access to Douglas County Information Technology, including survey, section corner and right of way data, aerial and Light Detection and Ranging information from the City of Lawrence.
- Partnered with DCM and IT Departments to select a product and begin to implement a GIS based utility map with detailed asset information for utilities.

EAC - EMPLOYEE ADVISORY COUNCIL

The Employee Advisory Council is made up of FS staff members from across the entire organization, with each Zone and Shop designating a representative. The council voices employee concerns and improved communications between staff and FS leadership, to address issues. Several great ideas were successfully implemented this year:

- Custodial staff schedules were changed for holiday weekends to ensure staff on overnight shifts could get three consecutive days off like other FS employees.
- New lights and vehicle lifts were installed at the garage when a safety concern was identified.
- An FS “Employee of the Month” program was established to recognize FS staff that do a great job, as nominated by their co-workers.
- New signage is being deployed for “FS Service Vehicles Only” to help parking issues.

I’d like to thank the staff members on all of our campuses who have been hard at work the past couple days clearing the snow so the university could reopen. It is a cold, difficult job, and our community is grateful for your efforts. - Chancellor Bernadette Gray-Little

LANDSCAPING

Our landscaping crews work very hard every day to keep the campus looking so beautiful. Below are just a few examples of the many ways they contribute to campus:

- We did landscape planning to repair the new road Constant Ave road construction.
- We planted over 45 extra trees provided by the Jayhawk Blvd project to replace trees that were removed across campus, and were instrumental in the “Replant Mount Oread” project.
- Assisted with the vegetation removal at Potter’s Lake; cleaning excess lily pads and other algae producing growth without use of chemical treatment.
- FS performed at a high level during snow events to keep campus operational, even after two record breaking snow fall events.
- Staff repaired ADA issues across campus pertaining to campus curb-cuts, sidewalks and ramps.
- Landscape staff member completed Forklift Safety training course to help train and certify others in the FS organization.
SPECIAL SERVICES & CENTRAL CRAFTS

Special Services takes care of all the moving needs across campus, academic and residential. Major moves included Jayhawk Tower B moving out all the old furniture for 185 students that were living in the Towers for a major remodeling project. Upon project completion the crew had a tight timeline to move in and assemble new furniture. This dedicated crew also moved sixty offices at JRP during winter break.

The locksmith shop has a new van and portable equipment such as a key cutting machine, grinder, light and workbench to allow the locksmiths to save time and money by completing many projects right on site.

In the paint and sign shop there is a paint mixing machine. Each Zone places an order for paint and color, and then we mix it to their specifications. A major project this past year was replacing the old Brail and Accessibility Signs in each building across campus with the new regulation/standard signs, while gradually working towards improving Way finding signage, which are all the new blue building signs across campus. The Sign shop is also responsible for the crosswalk markings across campus, with hundreds of these to maintain.

The Central Crafts shop also has a critical responsibility to inspect, maintain, repair and keep records on the entire inventory of handheld fire extinguishers on the KU campus.

ENERGY & EFFICIENCY

FY2014 was a year of firsts for the Energy Office, especially since this was the first year it existed. George Werth, campus energy engineer worked on several key energy conservation projects, with others setting the groundwork for future energy projects. The following are the highlights.

1. Both the Mississippi and Allen Fieldhouse Parking Garages had the lighting in the parking areas replaced with new LED lights. This project was fast paced, focusing on both energy savings and tax credits that expired at the end of 2013. The project was completed on December 30th, 2013. The tax credit received by the University/Parking was $47,709. The energy savings for the first 6 months have amounted to $14,096.

2. Westar offered a solar energy grant to install up to 30KW of solar power. The Energy Office worked with Sustainability and DCM to apply for the grant offering several possible locations to Westar. The end result is the University received the grant to install 10 KW of solar power on the Measurement Materials & Sustainable Environment Center (M2SEC). The value of this grant is approximately $48,000.

3. The Energy Office worked with the HVAC Shop to assist the Animal Care Unit get their AALAC accreditation. This involved taking air and pressure measurements in all the labs to confirm that they had enough air flow and appropriate pressure. We also had to give detailed descriptions of all the heating and air conditioning systems for these labs. Some of the rooms required some adjustment to air flow and pressure to get them approved. All work was completed in time so that the accreditation was received in early July.

4. Metering has also been a focus for this past year. The Schneider Electric metering system required an upgrade and new automated metering was added to research buildings on West Campus and chilled water plants on East Campus. The project is 95% complete as we are still waiting for LAN connectivity and the last 2 sets of meters to be installed.

Some of the other energy office accomplishments include saving over $60,000 in natural gas cost, cutting future cost of LEEP2 by $14,000 due to correct chiller selection, and working on energy-saving occupancy sensors and LED lighting projects.

“Change is the law of life. And those who look only to the past or present are certain to miss the future.” - John F. Kennedy