APPA’s Effective & Innovative Practices Award recognizes programs and processes that enhance service delivery, lower costs, increase productivity, improve customer service, generate revenue, or otherwise benefit the educational institution. Saint Louis University’s Facilities Services Division has achieved this award because of the Strategic Planning and Culture Change Practice, Improvement of Waste Management Through Infrastructure and Engagement, and In-House Construction Program.
Strategic Planning & Culture Change Practice

For more information, visit FS Strategic Planning
Effective & Innovative Practices Award Application
Statement of practice and results

Saint Louis University’s Strategic Planning and Culture Change Practice:

As a functional division, Facilities Services (FS) confronts numerous roadblocks when directing time and effort toward developing strategic and innovative practices. Typical for many Facilities divisions are the expectations that day-to-day functions are to be carried-out in a cost-effective manner while reserving capacity to react to unanticipated needs. The Facilities’ culture at Saint Louis University was one of being proud to be “behind the scenes” and “quietly effective”.

In 2010 we recognized that higher education will be addressing major trends requiring our division to be a proactive partner at our University. To this end, we instituted a strategic planning and culture change practice to reposition Facilities Services to be operationally excellent and strategically capable of contributing to the long-term direction of the University.

Our innovative, five-year strategic plan uses yearly cumulating themes of Building Capability, Creating Involvement, Using Measurement, Improving Execution, and Conducting Evaluation. These themes move the Division forward on its strategic initiatives of building operational excellence through best practices, benchmarking, working with key University divisions to contribute to their strategic success, developing our employees’ operational and strategic leadership abilities, and pursuing internal and external recognition and feedback.
Institutional benefits

Our Strategic Planning and Culture Change Practice created numerous institutional benefits at the strategic, division, and employee levels:

**Strategic Level:** As Facilities Services (FS) developed its capability to think and act strategically over the last four years, the work culture shifted dramatically. Our core values (*P.R.I.D.E.* in our work - Passion, Resourceful, Innovative, Dependable, and Expertise) became drivers of the Division’s mission. The Strategic Initiatives (*strategic and operational excellence, stakeholder recognition, environmental resource optimization, excellence in people, and partnering*) became the impetus for pursuing our vision. **Gradually, the work culture shifted from one of reactive responsiveness to proactive competence.** The Division’s newly acquired strategic skills, processes, and culture benefitted the University in the following ways:

- FS easily aligned its strategic plan with the University’s strategic plan.
- FS Vice President was identified for leadership roles on the University’s strategic committees.
- FS’ strategic plan was referenced by top administration as a model for other divisions.
- Divisions view FS as a potential partner in achieving their strategic success.
- Certain FS strategic initiatives are contributing to long-term University cost savings.
- FS is developing its overall level of capability to respond to shifting University priorities.

**Divisional Level:** In addition to the benefits accrued to the University, the Division is committed to becoming operationally excellent. The confidence to pursue this goal rests on having planning, measurement, execution, and personnel development processes in place. **Our Strategic Planning and Culture Change Practice provided the rationale and processes, produced the experiences and tools, and changed the culture.** Benchmarking, best practices, balanced scorecard and continuous improvement are tools used to assist us in meeting our desired outcomes. In addition to building capability to think and act strategically, this innovative practice has yielded the following outcomes:

- Finalized the strategic implementation of our Facilities Asset Management Information System (FAMIS) software for space planning and operationalized it.
- Created a benchmark ranking matrix and 5-year recognition plan to receive outside feedback about the quality of our services and to gain recognition for our accomplishments.
- Displayed mission and core value plaques at FS offices/time clocks to build employee awareness.
- Implemented numerous initiatives and collaborated with internal and external stakeholders to increase our waste diversion rate towards our goal of 30%.

**Employee Level:** This practice created opportunities for employee development as well as involvement. **Employee feedback guided our actions taken and created motivation to pursue building competencies.**

- Various types of groups/surveys continue to be used to generate input
  - Oversight meetings, action plan reviews, review & revise sessions, stakeholder response surveys, planning retreats, management audits, focus groups, functional strategic leadership assessment, etc., were incorporated into our strategic planning activities
  - Employee development activities included strategic leadership development sessions, employee training sessions, boundary spanning, mentoring, training, coaching, etc.
Characteristics or qualities that make this program or practice different or innovative

Our Strategic Planning and Culture Change Practice is different and innovative because culture change processes are embedded within a larger strategic planning and management process. The five-year strategic plan was planned and implemented with the intent of changing the culture of Facilities Services. The culture of satisfaction with the status quo of being operationally good needed to change to a work culture where employees assume responsibility for and are capable of contributing to a strategic and operationally excellent division. To do this required a culture shift from a “reactive” to a “proactive” mode of functioning. There are three significant components that were used to intertwine culture change with strategic thinking and action in our plan.

1.) The FS management team were introduced to a Planning to Plan process which developed a shared understanding to a number of questions: What is the justification of investing in culture change and strategy?; What is the planning approach and steps to be used?; What are the assumptions and management principles to be followed? Most significant was the explicit adoption by leadership of these assumptions:
   - **Passion** for strategy and change starts with leadership and becomes contagious throughout the Division as planning/implementation becomes more inclusive.
   - **The Process** is what matters, not the written plan.
   - **Promotion** keeps stakeholders informed and establishes the Division’s credibility and worthiness in becoming a major contributor to the University’s vision.

These and other decisions gave leadership a solid platform from which to provide direction and resources to the strategy and change practice.

2.) Themes were identified for each year of our strategic plan: Building Capability (Year 1), Creating Involvement (Year 2), Using Measurement (Year 3), Improving Execution (Year 4), and Conducting Evaluation (Year 5). These themes provided the emphasis for how strategic actions were to be carried out each year and were continued forward into subsequent yearly activities.

3.) Cross-functional action teams were identified and allowed the change process to be pushed down into our Division. Action teams made progress on achieving our Division’s 5-year strategic initiatives by planning and executing yearly action plans. Because the teams are cross-functional in nature, team members are interacting with employees in different departments, modeling and reinforcing new culture norms, and working with members of other divisions at the University. The goals the teams work on are strategic steps to bring about major outcomes for the Division and the University. For example, one action team has been working for the last four years on environmental resource optimization within the division and has collaborated with various other University divisions and external stakeholders.

To accomplish their goals, team members have adopted a proactive stance to getting things done, developed the ability to think and act strategically, and understand better the potential impact that the Facilities Services division can have in contributing to the University’s strategic plan as well as to the strategic success of other divisions.
How this practice can be used by others

Trends in higher education (reducing the costs of education, competition for fewer students, need for fewer buildings, etc.) point to a reason for Facilities Services becoming a strategic partner with other divisions across the University as well as external stakeholders to address these concerns. Today is a critical time for all Facilities departments to focus on their strategic direction and make decisions that will provide the competitive advantage to remain viable and a main contributor to the university.

Our networking and research revealed that many Facilities departments at other universities do not have a strategic plan. We believe that our practice and structure will provide a foundation for others to begin to implement strategy with confidence and realize the positive impacts that will result from this process. Our Strategic Planning and Culture Change Practice can successfully be used with 1) support of the top administrative leader of the Facilities division; 2) adoption of our FS Strategic Planning Management Structure (SPMS) as identified in the next section, Demonstration of Management Involvement and Employee Commitment; and 3) education, training and involvement of employees regarding strategy.

- **The leader’s support identifies the significance, importance and priority given to the implementation.** The leader must remain visible and active as a champion of the efforts throughout the entire process.

- **The SPMS provides a structural foundation for implementing strategy in an ongoing and consistent manner.** It defines who would be involved in the process and provides avenues for how the information will be communicated. The responsibilities of each category are defined and contribute to the accountability of the employees.
  - The use of an external facilitator, teamed up with a division liaison, have kept our plan on track and provided guidance and coaching that allowed our division to be strategic and timely in our planning and decisions, focused on desired outcomes and responsive and accountable.
  - Our annual goals have desired outcomes identified by the oversight team early on, with the support of the team leaders, to assist in defining a direction and timeline for achievement by action plan teams.

- **Education, training and involvement of Facilities employees** provides opportunities for employees to know the direction that the division is taking, become effective leaders of strategic change and understand their role, responsibilities and contributions towards strategy in their daily activities.
  - Our training was developed and performed by our own Facilities employees.
  - Each action team leader was provided a Strategic Planning binder that defined and identified the components of our plan to increase their knowledge and understanding and for use as a reference.
  - The use of themes for each year’s activities helped us identify for our employees a consistent focus on our strategic efforts: Building Capability, Creating Involvement, Using Measurement and Improving Execution.

We anticipate that our next 5-year strategic plan will include as one of its major initiatives the learning and sharing of strategic and culture change practices with other institutions. We believe we could take a leadership role in promoting this outcome.
Demonstration of management involvement and employee commitment

Early on in the planning stages, we designed a management structure (as shown below) to enable our strategic planning process to have employee involvement in oversight, coordination, action plans with designated outcomes, communication and engagement. This structure has provided us with a framework to facilitate involvement and decision making and has served us well.

There is a strong commitment to our strategic plan at various levels in Facilities Services that has been interwoven into our daily operations. Our passion began with the positive support of our Vice President to keep strategy as a high priority with all FS employees and continued as our employee commitment has grown and strengthened throughout these past 4+ years, as demonstrated by the active involvement and accomplishments achieved in our plans.

Our core values have been promoted throughout the years at division-wide training sessions, employee meetings with supervisors and displayed in all FS offices and at all time clocks. They have also been incorporated into our processes including hiring practices, performance management process and recognition awards ceremonies.

We’re proud of the fact that Facilities Services has been noted by SLU’s Executive Staff for our leadership, commitment and continual progress and contributions in our strategic planning activities.

<table>
<thead>
<tr>
<th>FACILITIES SERVICES (FS) STRATEGIC PLANNING MANAGEMENT STRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OVERSIGHT TEAM</strong></td>
</tr>
<tr>
<td>Manage and oversee the activities of the division’s strategic plan and its ongoing review. Map out proactive choices and big picture strategic thinking to strengthen the division and propel it forward. Identify and document how our strategic plan aligns and contributes to the University’s strategic plan. Review and approve action plan team proposals. Participate in the review and revise sessions and provide overviews to the Facilities Services leaders and teams for the new year’s goals and outcomes.</td>
</tr>
<tr>
<td><strong>FS MANAGEMENT TEAM</strong></td>
</tr>
<tr>
<td>Keep the mission and core values as a focus in our daily operational activities and use it as a resource to guide our decision making. Work with departmental employees to develop goals and participate on action plan teams that support the strategic initiatives. Discuss and contribute to the overall strategic planning process.</td>
</tr>
<tr>
<td><strong>ACTION PLAN TEAM LEADERS</strong></td>
</tr>
<tr>
<td>Review reports and/or presentations regarding the division’s strategic initiatives. Responsible for implementing the action plans, provide a written report and report on their progress during the action plan review sessions. Focus on accountability and desired outcomes. Understand the integration of other action plans, coordinate meetings and collaborate on future activities.</td>
</tr>
<tr>
<td><strong>FS DIVISION TEAM</strong></td>
</tr>
<tr>
<td>Participate in strengthening the division’s vision for growth and success. Establish departmental goals based on the division’s strategic initiatives. Provide feedback throughout the strategic planning process.</td>
</tr>
<tr>
<td><strong>FACILITATOR</strong></td>
</tr>
<tr>
<td>Provide processes and facilitation to the various structures. Assist in guiding FS to remain strategic. Provide the organization and format for the review and revise session each year, as well as prepare FS for the development of their next 5-year plan.</td>
</tr>
</tbody>
</table>
As we approach the end of Year 4 of our strategic plan, we recognize that our approach to strategic planning and culture change is working. Facilities Services is proud of its new proactive culture. We have become visible and active in University affairs and appropriately aggressive in promoting strategic ideas.

At our recent December 2013 Facilities Strategic Planning session, we asked our group of 40+ supervisors, managers, directors for feedback regarding: “What has made strategy work? Give examples from your experiences implementing strategy that have worked to build capability, create involvement, use measurement, and improve execution (this year’s theme)?” Over 100 “actions that make strategy work” were provided on the spot. A few examples are included here, but do not capture the richness of their personal insights: providing team opportunities, engaging in strategic discussions and activities, emphasis and training regarding researching best practices, measuring outcomes as part of action plans and incorporating measurement as a strategic leadership competency, etc.

These comments suggest that if a functional division wants to become more proactive and strategic in their thinking and actions, then providing certain opportunities for development and putting specific processes in place may be necessary for success.

Notable examples of success with our strategic plan are:

- Top administration views Facilities as an important strategic partner.
- Directors, managers and supervisors are actively involved in developing their functional leadership skills.
- Our employees are building trade professional ladders in response to trends for greater technical specialties and professionalism.
- Our core values (P.R.I.D.E In Our Work) are being translated by supervisors and employees into expected behaviors reflecting these values.
- Large scale resource optimization initiatives are identified and implemented.
- Asset reinvestment portfolios are being finalized.
- Our Balanced Scorecard ties goals to outcome measures across areas of financial, stakeholders, business processes and learning and growing.
- The completion of a stakeholder survey to senior SLU leaders brought insight and feedback results, with the goal for continuation with other stakeholders at the University.
- Year-end accomplishments are documented and reviewed with the division team.

At the end of Year 4 in 2014, our Review and Revise process will be used to review Year 4 accomplishments and establish goals and action teams for Year 5 of our strategic plan.

At the end of Year 5 in 2015, we will develop our next 5-year Strategic Plan. We expect to have the culture and capability in place to tackle significant initiatives that further our mission and vision and that of the University.
IMPROVING WASTE MANAGEMENT THROUGH INFRASTRUCTURE AND ENGAGEMENT

SLUstainability

For more information, visit the Green Billiken
From Infrastructure to Engagement: In 2011, eight employees of the Facilities Services Division at Saint Louis University formed the Environmental Resource Optimization (ERO) strategic action team with the goal of developing plans to minimize campus waste and improve diversion. Initially, they focused on updating the infrastructure for collecting recyclable and reusable waste, but within a year, the team recognized that they would have to branch out of their comfort zones to achieve any significant gains from these advancements. More bins and new signs were not enough; they needed to engage the community through education, dialogue, and events.

To improve campus engagement, the team launched numerous initiatives in 2013:

- Train current students, faculty and staff in ways to avoid sending post-consumer waste to landfills
- Train incoming students, faculty and staff at orientations
- Table at major campus fairs, expos, and sporting events
- Provide campus users with quick reference guides for recycling
- Support custodians and food service workers in developing expertise in single-stream recycling
- Update and improve utility of web resources for the University Community
- Develop the social identity and media to elevate environmental stewardship as a community norm
- Invite feedback from campus users
- Provide opportunities for staff and students to promote initiatives

Members of the Environmental Resource Optimization team (above) and other employees in Facilities Services (below) don their “Green Billiken” polo shirts on Sustainability Spirit Day. Initiatives such as these are geared at engaging the division and wider campus community in waste minimization and diversion.
**Sharing the Vision:** The 2011-2015 Facilities Services Strategic Plan includes five vision statements, among them is the initiative environmental resource optimization.

“We will maintain and conserve natural resources, protect our environment and do so in a sustainable manner through actions that will enhance environmental quality.”

In accord with this vision, the ERO team has set the goal to achieve 30% diversion by the beginning of fiscal year 2015. Commitment to this goal drives its efforts at improving the infrastructure and engagement in single-stream recycling and other waste minimization efforts on campus. The ERO team has established Facilities Services as the champions of single-stream recycling on campus, but it has gone beyond this to forge partnerships with other campus departments in promoting additional recycling and reuse programs. Furthermore, it has inspired the development of the Sustainability Advisory Council’s Community Engagement Action Team, as an extension of the ERO team’s efforts. This group brings in campus leaders from multiple divisions while inviting students and other sustainability minded staff to collaborate.

<table>
<thead>
<tr>
<th>Program/Event</th>
<th>Partnership</th>
<th>Description</th>
<th>Contribution to Diversion in 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battle for the Boot</td>
<td>Facilities Services and the Staff Advisory Committee</td>
<td>Annual shoe drive competition to support the Shoeman Water Projects</td>
<td>3.53 tons</td>
</tr>
<tr>
<td>E-Waste Drive</td>
<td>Facilities Services and Billiken Athletics</td>
<td>Annual day to collect electronics and appliances from members of the campus and surrounding community</td>
<td>36.83 tons</td>
</tr>
<tr>
<td>Recyclemania</td>
<td>Facilities Services and the Center for Sustainability</td>
<td>Annual tournament to be the campus that recycles the most glass, metal, plastic, and paper.</td>
<td>101.2 tons</td>
</tr>
<tr>
<td>Trash to Treasure</td>
<td>Facilities Services, the Center for Service and Community Engagement, and AmeriCorps</td>
<td>End of the semester move-out program to help students responsibly dispose of any unwanted furniture, clothes, books, and trash as they move-out of their campus residence.</td>
<td>6.5 tons</td>
</tr>
</tbody>
</table>

**Pride in Positive Press:** The ERO team’s successes with waste minimization and diversion have received positive recognition and support. This type of publicity helps generate institutional pride and further participation in and development of its programs.

**Notable Recognitions and Accomplishments for Waste Minimization:**

- Recyclemania featured SLU’s Adopt a Spot competition in its March 15, 2013 newsletter
- Shoeman Water Projects recognized SLU for collecting 5,496 pairs of shoes, for a total of 7,067 pounds
- The Alcoa Foundation gifted 1,548 recycling bins to encourage apartment residents on campus to collect single-stream recycling
- The St. Louis-Jefferson Solid Waste Management District granted $30,000 to expand and refresh the recycling program at Chaifetz Arena

Pictured with George “the Shoeman” Hutchings, SLU took home the Golden Boot for donating shoes for water projects in developing countries.
Going Beyond the Comfort Zone: Facilities divisions typically function behind the scenes, working off the philosophy of being quietly effective. At Saint Louis University, ERO changed all of that. In the fall of 2012, the ERO team added a former high school teacher and current graduate student in sustainability and an undergraduate marketing student. With their combined skillset and experience in working with students, developing informational handouts and leading presentations, they worked as a team to create and establish a campaign that brings Facilities Services to the people and the people to Facilities Services.

Appealing to the influence of student leaders on campus, the ERO team gave Green Billiken t-shirts to all members of the Student Government Association.

INNOVATIVENESS, CREATIVITY, AND ORIGINALITY

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Appealing to the influence of student leaders on campus, the ERO team gave Green Billiken t-shirts to all members of the Student Government Association.

To help boost use of the website, the team employed the skills of an undergraduate marketing student to design buttons (above) and wristbands (below) that promote recycling and related web resources.

Involve Student Leaders: The ERO team has been supportive of engaging student groups in the implementation of sustainability initiatives on campus. To that end, they promoted the Student Government Association’s adoption of a Sustainability Committee whose responsibilities include electing a chair to maintain contact with the Director of Grounds and Custodial Services as well as hosting and collaborating with on-campus events pertaining to sustainability and environmental awareness.

Develop a Shared Identity: In order to brand and create a shared identity related to sustainability, the Green Billiken concept was developed based on the SLU mascot, the Billiken. The Green Billiken embodies and enacts the characteristics that any member of the SLU community can take on to be more sustainable. Reducing, reusing, and recycling are some of the key qualities of a Green Billiken. To promote Green Billiken pride and encourage people to become “Green Billikens,” the ERO team’s undergraduate marketing intern designed Green Billiken “swag” and an overall theme for visibility. As the Green Billiken gains prominence on campus, the hope is more and more campus members will be mindful of their impact on campus and make more sustainable choices on a daily basis.

Let the Users be the Doers: Through a creative attempt to roll out updated single-stream standards in a cost-effective and community building manner, the ERO team invited students and staff to expand their passion for recycling to other areas on campus during Recyclemania. The team introduced a new competition, “Adopt-A-Spot,” to incite involvement. The competition asked students (and staff) to find a location on campus where their group could serve as stewards for single-stream recycling. During the two months of Recyclemania, each adopting group was challenged to improve the recycling infrastructure in that space.

This scorecard was used to measure the impact and score during Adopt-A-Spot.

<table>
<thead>
<tr>
<th>Area of Focus</th>
<th>Point Earning Efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Bin Management</td>
<td>0.1 - 2.3</td>
</tr>
<tr>
<td>B) Bin Signage</td>
<td>0.1 - 2.3</td>
</tr>
<tr>
<td>C) Motivating Marketing</td>
<td>0.1 - 2.3</td>
</tr>
<tr>
<td>Trash Audit</td>
<td>0.1 - 2.3</td>
</tr>
</tbody>
</table>

This plus other initiatives during the competition contributed to an overall improved campus diversion rate of 3%.
Practice What We Preach: To improve access and consistency with single-stream recycling, the ERO team set standards for single-stream recycling that included a color-coded system for distinguishing landfill trash (black or gray) from single-stream recycling (blue) as well as ensuring these receptacles will always be paired together. The first major wave in executing these standards occurred during the roll-out of single-stream recycling to exterior walkways. The team accomplished through the efficient and cost-effective option of repurposing trash containers to become recycling receptacles. Repurposing receptacles saved the division $38,022 while avoiding a larger environmental footprint.

Expand the System: Since expanding recycling collection to exterior walkways, the team also has improved single-stream recycling in other areas around campus. A gift from the Alcoa Foundation, valued at $7,740, provided recycling-collection bins for all on-campus apartments while a grant from the Solid Waste Management District provided the means to update Chaifetz Arena’s program so it is consistent with the rest of campus. Furthermore, the grant allows the arena to collect 1,100 more gallons of recycling while diminishing trash capacity by one hundred and ten gallons. These updates along with exterior recycling collection should contribute to a sixty ton or more increase in recycling collection across campus over the next fiscal year.

Preach It and Teach It: The ERO team determined that to maximize the impact of infrastructure improvements, community members needed to know the basics of the single-stream recycling process on campus. Therefore, they embarked on an education campaign to improve user knowledge of the program. Team members focused on developing resources such as web pages, PowerPoints, brochures, quick-reference guides, and descriptive signage. They also utilized these tools during training sessions that taught campus users about what can be recycled and where to recycle it. To date, members of the ERO team have educated nearly 1,500 faculty, staff, and students (approximately 10% of the campus population) on the basics of single-stream recycling at SLU.

Make it Easy: Easy-to-remember vanity links “recycling.slu.edu” and “greenbilliken.slu.edu” connect campus users to information they need to participate in recycling on campus. Also, the addition of a Twitter account, @greenbilliken, and the greenbilliken@slu.edu email address helps campus members connect.
Elevating the Frontline: The ERO team designed annual training programs specifically geared toward teaching custodial staff about single-stream recycling. As the employees who directly manage the waste on campus from receptacle to dumpster, custodial staff play an integral role in assuring that recycling collections remain separated from landfill trash. To support the staff in these efforts, the ERO team used the training session to introduce a liner system designed to help staff maintain separation of single-stream recyclables from landfill trash items. In the past, the same type and color of liner had been used to gather recycling and trash, but based on conversations with campus users, this system developed distrust: “If the bags are the same color, how do I know that my recycling ends up getting recycled and not thrown in with the trash?” To address this concern, custodial staff are now provided with different colored liners to coincide with the bins they protect: blue bags go in blue recycling receptacles while white bags line landfill trash containers. Because of the different colored liners, once waste is removed from its receptacle the nature of the contents can be easily identified for dumpster sorting, thus preserving the successful sorting of waste by campus users.

Another benefit of the regular training sessions is the opportunity for custodial staff to provide the ERO team with valuable insights and suggestions for how to further develop the program. Their first-hand perspective leads them to recognize issues that the ERO team may not otherwise have the likelihood of encountering. Suggestions from custodial staff have helped improve such aspects as where to place more receptacles/dumpsters and what to include in signage.

Beyond training custodial staff on improvements in the collection and relocation process of waste on campus, custodians are also periodically briefed on the types of items that go with single-stream versus landfill trash. The purpose of this education is to equip custodians with the knowledge they need to serve as experts in single-stream recycling. Campus users can then turn to custodians when they have questions about the program. This encourages interaction between Facilities Services and campus users while developing trust in the program.
**Cost Savings & Results:** Waste management data plotted over the past five years reveals greater improvement since ERO launched its campaign to engage with the campus community. Not only is a growing campus population generating less waste, it is also sending less of it to landfills. As more of the collected waste is sent to recycling centers, SLU is projected to continuously improve its diversion rate. In addition, as Facilities Services collects more recycling, it saves the division money; hauling fees for recycling are approximately 40% lower than those charged for picking up landfill trash. Decreases in waste-hauling expenses frees funds for investment in further program improvements.

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**Trends in Waste Management at Saint Louis University**

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**Overall Waste Diversion Rate**

Includes combined items recycled or donated for reuse: food and yard waste, books, clothing and shoes, furniture, and single-stream recycling.

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**Continuing the Cause:** As the ERO team nears the end of 2013, its commitment to engagement and waste minimization and diversion are evident in the negotiations for the next campus food vendor. Included in the contract, for the first time ever, is the expectation that the new vendor will participate in the established single-stream recycling program as well as develop a pre-consumer food composting system. With this stipulation, the ERO team sets the path for continued education, outreach, collaboration and development.
In-house Construction Program
Saint Louis University’s in-house construction unit, named the Billiken Construction Crew (BCC), was conceived from the need for an in-house construction crew capable of performing construction and renovation in University-owned buildings. Its mission is to provide skilled trade staff to perform demolition, general interior construction and renovation services.

The BCC’s goal is to deliver quality workmanship and general construction services more cost effectively and efficiently than similar services provided by outside contractors. This program allows our Facilities Planning and Construction department to function as its own general contractor or perform as a project manager on designated projects, creating opportunities for saving cost and/or project efficiencies. The goal would be measured by how well we performed financially, the quality of work performed, customer satisfaction, maintaining an excellent safety record, and the overall productivity of the group.

Upon conclusion of the program’s initial year, a review determined that the BCC did provide construction services more effectively and efficiently than if these services were contracted out. This program met or exceeded all criteria established in the goals and objectives that were set forth in the business plan and is a successful endeavor.

Figure 1 (Initial Crew Members)
**New from the start**

Facilities Management was asked to provide a proposal and business plan for an “In-House” construction crew. The intent was to fund and sustain a program that would allow Facilities Management to act as a general contractor for small to mid-sized projects. The program would use University employees and would be directed by a University Supervisor.

A crew was assembled to perform the required construction trade tasks and skills. The trades desired were carpenters, floor layers, and skilled plaster/painters. Specific skills demonstrated by the carpenters include the fabrication of trim molding, casework and door and hardware installation. The floor layers are capable of installation of broadloom carpet as well as ceramics and VCT. Cross training and versatility were core components to the success of the BCC.

The supervisor is responsible for all of the functions of the program including: estimating, scheduling, procuring materials, and project implementation/coordination with customers.

The savings and benefits would be realized in several areas:

1) The employees would be working at our union based salary. Our Union Contract wages were 46% lower than contractor charge rates for the same skilled trades.

2) The program eliminates contractor overhead and profit fees. Contractors will normally charge up to 5% mark up on materials and for overhead and profit.

3) The University controls project scheduling and project delivery. The University would act as a project “General Contractor” providing for greater control of project scheduling and delivery dates and allowing for greater flexibility when coordinating and planning projects with our end users. We can respond quickly when priorities arise, and create a reasonable back log that will allow continuous utilization of the work crews.

4) This program eliminates the use of maintenance personnel for project work, allowing them to focus on routine and preventive maintenance tasks. Past practices included use of existing maintenance personnel to perform small projects, removing them from their primary duties. This is not a healthy practice, if continued over an extended period of time.

Our employees have a vested interest in the University and its value to the community. These employees are not just another contractor that will rotate on to the next job after this one is complete. Our employees work here every day and interact and develop professional relationships with the University community. They take pride in their work and know it serves the University as a whole.
INSTITUTIONAL BENEFITS

Cost Savings

Cost savings is one of the major benefits of the program. The University realizes cost savings in several areas: supervision, labor, and materials. The largest savings is realized in labor.

The BCC is made up of six craftsmen and one supervisor.

- The BCC workers are in a union shop, but work at a much lower hourly rate than what is charged by outside contractors.
- The supervisor’s salary is compared to contractor charge rates for General Foreman wages, again showing significant cost savings.

Project materials are purchased locally from suppliers at wholesale pricing, thus eliminating contractor mark-up, and saving approximately 5% on material costs.

Finally, unforeseen work and project change orders are not marked up as a penalty. Expenses are documented and charged appropriately.

The table below illustrates total savings for the Billiken Construction Crew for FY11 – FY13:

<table>
<thead>
<tr>
<th>Billiken Construction Crew</th>
<th>FY13 Total</th>
<th>FY12 Total</th>
<th>FY11 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT - Staff</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Temporary Staff</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Union Employees</td>
<td>6</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Labor Savings</td>
<td>$461,527</td>
<td>$415,236</td>
<td>$347,733</td>
</tr>
<tr>
<td>Contractor Fee Savings</td>
<td>$72,015</td>
<td>$159,974</td>
<td>$77,748</td>
</tr>
<tr>
<td>Total Savings</td>
<td>$533,542</td>
<td>$575,210</td>
<td>$425,481</td>
</tr>
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</table>
Customer Service

The Billiken Construction Crew is service and team-oriented. Communication with the end users is one of the reasons for the success of the program. When using outside contractors, often times customers’ needs are lost through the linear communication between customer, project manager, and outside contractors. We strive to be in constant communication with our end users to keep them involved with the project, aware of the schedule, and provide updates on the progress of the project.

Leadership meets every week to insure that the lines of communication are always open, and everyone has the opportunity to provide input. Each part of the project is discussed from initial demolition to the final walk through and punch list. Information Technology and electrical work is normally sub contracted out, but the coordination and implementation of this work is addressed through weekly meetings. The BCC builds a personal relationship with our end users and strives to make sure they are happy with the project and its end result.
In-house construction services departments can be established by other colleges and universities.

Factors to consider:

- **Union vs. non-union labor costs**
  SLU already employed union Maintenance workers performing similar types of construction/renovation activities and SLU typically hires union contractors for its work.

- **Job classification to hire skilled-trades persons**
  SLU hired painters, carpenters and floor layers under our union Maintenance worker job classification.

- **Plan for the type/size of projects in-house crew will handle to make sure they remain active year round.**
  SLU staffed and sized its construction services department with 6 Maintenance workers to handle projects of a smaller size, scope and duration, focusing on restoration and minor construction.
  
  We wanted a crew that would be flexible and adaptable to handling multiple smaller scale projects and not tied up on one project for months. We also wanted to ensure we had enough projects to keep the entire crew active throughout the year. Colleges and universities can supplement the crew with temporary staff if/when needed for a larger project, as SLU did on one project handled by the BCC.
  
  Over the three year period (FY11 – FY13) the BCC’s average project size is $35,773 with a 2.6 week completion time.

- **Supervision**
  SLU has a full time Maintenance Supervisor to manage the construction services department. The Supervisor is also responsible for purchase and delivery of materials, scheduling and coordination of work with other vendors and completion of project paperwork.

- **Start-up costs**
  SLU purchased tools, a truck and equipment appropriate to the size crew and scope of services the crew would perform.
Management involvement

With full support from the University President, the program was implemented. The program was monitored by many groups within the University to insure its viability and continuation. Participation involved Business and Finance for cost effectiveness, Facilities Management for quality and productivity, and Facilities Planning and Construction for schedule delivery. The original business plan for the BCC included the intent, goals and objectives for the initiative. When the individual groups recognized that established criteria was being met, funding and staffing resources were continued and the BCC was rewarded with project responsibilities of greater scope.

Employee commitment

Our employees display a sense of ownership while making a positive change for our customers. The University offers many benefits and job security not always found in the construction industry. Our employees are committed to their work, and display a feeling of responsibility to the University itself and its mission. They see their employment as a way of life not just a job.

Our employees are constantly striving to meet the needs of the University. They know that their work and accomplishments are a reflection of themselves and the “core values” of the Facilities Services division of the University. Their commitment and dedication are consistent with Jesuit values of teaching, research, and service to the community.

Figure 5 (Homecoming Parade Float)
An example of the BCC’s dedication and commitment was demonstrated in the completion of a float entry for the Parents Weekend Homecoming parade. They modeled a Spirit of St. Louis replica to fit atop a golf cart, symbolizing the forward thinking and pioneering spirit to be an industry leader.
Customer Satisfaction

Two different “Customer Satisfaction Surveys” are used to gather information on job performance. Each survey is reviewed and evaluated to determine if more effort is required to better serve our clients.

- One survey is sent to the end user and provides feedback about service, professionalism, and how the customer would rate the overall experience of the project.
- The second survey is sent to the University’s Supervisor, to assess the crew’s performance relating to quality of work. This includes craftsmanship, and deadlines, as well as meeting overall project expectations.

The surveys are Likert Scale Surveys, asking for a “1 to 5” grade with 5 being the best score. In 3+ years, the BCC has never scored below a 4, and has received a perfect score of 5 on 93% of all project surveys. This speaks highly of the efforts of the BCC and the complete satisfaction of our customers.

Summary

Over the last three years, the BCC has completed 52 projects with an estimated three year savings of 1.5 million dollars. All of the work was completed within scheduled time frames and within budgeted parameters, and has met or exceeded managerial as well as customers’ expectations.