

OFPM Sustainability Report



"As we celebrate Earth Day, it is a great time to update our SMU community on key accomplishments regarding our ongoing sustainability efforts. Through the last few years of challenges, we have continually tracked our carbon footprint reduction. Specifically exciting is our success in energy consumption reduction, which translates to 8,418 metric tons of CO₂ avoided since 2017, including new construction."

**Michael Molina,
AIA, NCARB
Associate Vice President
& Chief Architect**

April 2023



SMU[®]

**OFFICE OF FACILITIES
PLANNING & MANAGEMENT**

LEED Certifications in the last 5 years...



Awarded: 2020, LEED Silver

Armstrong Field House

- Water conservation efforts focused on low flush and flow fixtures and water wise landscaping. These strategies result in a 32% indoor water use reduction and landscaping that uses 51% less irrigation. That's savings of over 95,000 gallons of water a year.
- Building materials were selected based on recycled content and distance from manufacturing location. The building is comprised of 14% of building materials having recycled content and nearly 61% of materials were extracted, harvested, and manufactured within 500 miles of the project site.
- The contractor recycled over 96% of the waste generated during the construction of the building. That's 500 tons of materials diverted from landfill that was able to be manufactured into new products. Additionally, the campus wide recycling program collects plastics, metals, paper, cardboard, glass, e-waste, batteries, and furniture for use and recycle.
- The building is 18% more efficient than similar building's that were designed to minimum code requirements.
- To offset fossil fuel consumption and reduced greenhouse gas emissions, SMU purchased 2 yrs of renewable energy for 70% of the building's predicted energy consumption.



Awarded: 2018, LEED Gold

Robson & Lindley Aquatics Center

- All restrooms located in the building have water conservation features. Water usage was reduced by 36% by installing waterless urinals, water efficient toilets, and low flow faucets and shower heads.
- Efficient mechanical and lighting systems were installed and energy performance was improved further with energy saving strategies such as high performance roof and wall insulation and high performance windows. A computer simulated model was used to determine potential energy savings, showing a predicted 31% energy use reduction overall.
- SMU proved its commitment to clean energy by purchasing 70% of the project's predicted building energy use from renewable energy sources for two years. This commitment helps reduce the air pollution impacts of electricity generation by utilizing renewable energy sources such as solar, water, wind, biomass, and geothermal sources.
- Over 90% of all construction waste was recycled. That equates to over 1,235 tons of waste diverted from the landfill.
- This project's building materials totaled over 27% of recycled content by cost, and over 24% of materials by cost were extracted, processed and manufactured within 500 miles of the project.



Awarded: 2021, LEED Silver

Gerald J. Ford Hall for Research and Innovation

Home to Guildhall Game Development Program (from Plano), AT&T Center for Virtualization, Data Science Hub, and the Dedman College Interdisciplinary Institute, the new facility aspires to create a culture of interdisciplinary inquiry through highly flexible and adaptable shared studio spaces. Students from all Colleges and Departments are encouraged to collaborate together and with industry partners on joint research initiatives in a high performance computing space.

A shared, state of the art visualization lab supports and inspires new and innovative research, and allows researchers a venue to display and celebrate their work. At the heart of the facility is a large conference room and collaborative café where students, faculty and industry partners can meet and socialize together in an effort to further encourage interdisciplinary communication.

Some key design features include:

- Demountable wall systems throughout to maximize space flexibility
- State of the art raised floor system for data and electrical distribution flexibility
- High efficiency lighting technology throughout
- Privacy for confidential game development
- Leading edge Audio Visual projectors and LED monitors

**Seeking
LEED
Certification**

- Owen Arts Center, LEED Silver
- Frances Anne Moody Hall, LEED Certified

Energy Management Program



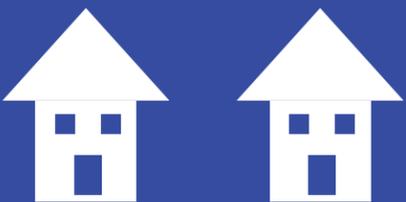
***“In FY22
we avoided
7,034,819 KWH,
saving us
\$527,612 off
the baseline”***



**Gross Square Feet (GSF)
of new facility space
increased by 167K**

YET

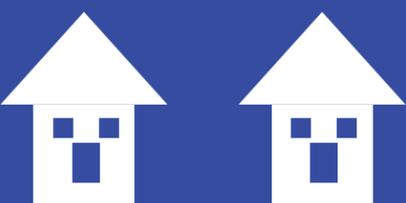
**\$/GSF has decreased
by 28.7% with \$2.5 Mil
savings/year on average**



SMU has saved 29M+ KWh



Avoided 20,552 MT CO₂e



**Avoided enough energy to
power **2,065** Texas homes
for one year.**

***IN THE
LAST FIVE
YEARS...***



Landscaping



Agronomy

To improve soil structure in the landscape, we apply an organic treatment called Holganix. This treatment incorporates the soil with over 800 species of soil microbes to improve plant performance with the following results.

- Maximize Soil Health
- Boost Root Architecture
- Faster establishment of new plants
- Fewer Fertilizers and Herbicides needed

Core aeration is used to reduce compaction in the soil and allow additional water and air to pass through to the root system.

Recycling

We use mulching mowers to reduce the amount of organic material removed.

Clippings are cut into fine pieces that fall easily to the soil surface. There, they can be rapidly broken down by soil microorganisms, which release nutrients from the mulched plant material back into the soil. All organic materials not worked back into soil are transplanted to Organic recycling partners at University Park and Organic Recyclers. This material is processed into mulch which we then use in our beds to control weeds and maintain moisture to the roots of our plants. In the 2022-2023 fiscal year, we installed 482 cubic yards of recycled hardwood mulch on campus.

Irrigation

Over 1300 irrigation zones are inspected each month and repairs made as needed to keep proper moisture on the landscape while reducing water waste from leaks or broken heads. The system is also modified as the requirements of the landscape changes and the plants mature. The system at SMU is connected to an on-campus weather station that allows us to monitor weather conditions. In addition, all zones are regulated by a central control system allowing us to access everything remotely by computers or phone.



Perennial Transplanting Project

We use perennial flowering plants along with annuals in our flower beds. This allows us to transplant the perennials to permanent locations on campus once the flowerbeds are changed out for the winter. Each year, we can transplant 4,800 plants permanently onto the campus grounds.

Landscape Upgrade/ Installation

All plants considered for use on campus are evaluated for the following traits.

- Doesn't have a known significant insect or disease problem.
- Drought tolerance (once established).
- Not invasive
- Long-lived

Sustainability Starts With Us!

1. Save energy (turn off lights when you leave a room, unplug inactive devices, and adjust window blinds to block sun's heat)
2. Avoid single-use water bottles (use the water bottle re-fill stations around campus)
3. Choose certified sustainable products
4. Use public transportation (campus shuttles, DART, bike, or walk)
5. Switch to eco-friendly products
6. When buying produce - shop seasonally
7. Buy less, consume less, discard less
8. Trade your single-use items for reusable ones
9. Bring reusable bags with you to the store
10. Eat more plants (Umphrey Lee Dining Hall, Arnold Dining Commons, The Market, Mac's Place, and P.O.D all provide vegan + vegetarian food items)

Interactive Map



Navigate to the online interactive map for on the go wayfinding to the nearest water bottle filling stations or electric vehicle charging station.

