SITES CERTIFIED PROJECT

DELL MEDICAL DISTRICT—UT AUSTIN

2017
SITES GOLD

Austin, TX, United States

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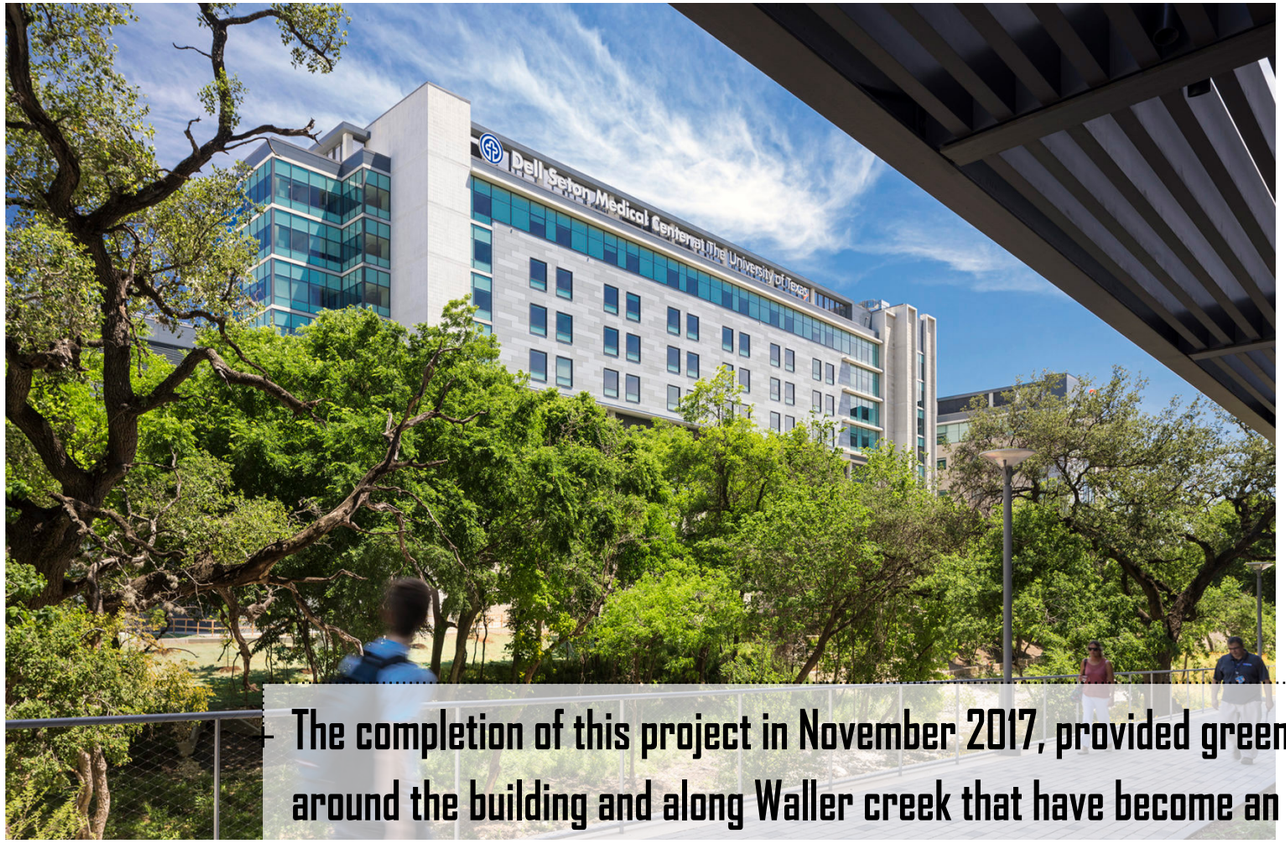
SITES CERTIFICATION

Location: Austin, TX
Project Size: 16.2 acres
Project Type: Institutional / Educational

Former Land Use: Greenfield / Greyfield
Terrestrial Biome: Edwards plateau and blackland prairie



The completion of this project in November 2017, provided green spaces around the building and along Waller creek that have become an urban oasis, providing environmental and human health benefits to students, educators, patients and the greater community.

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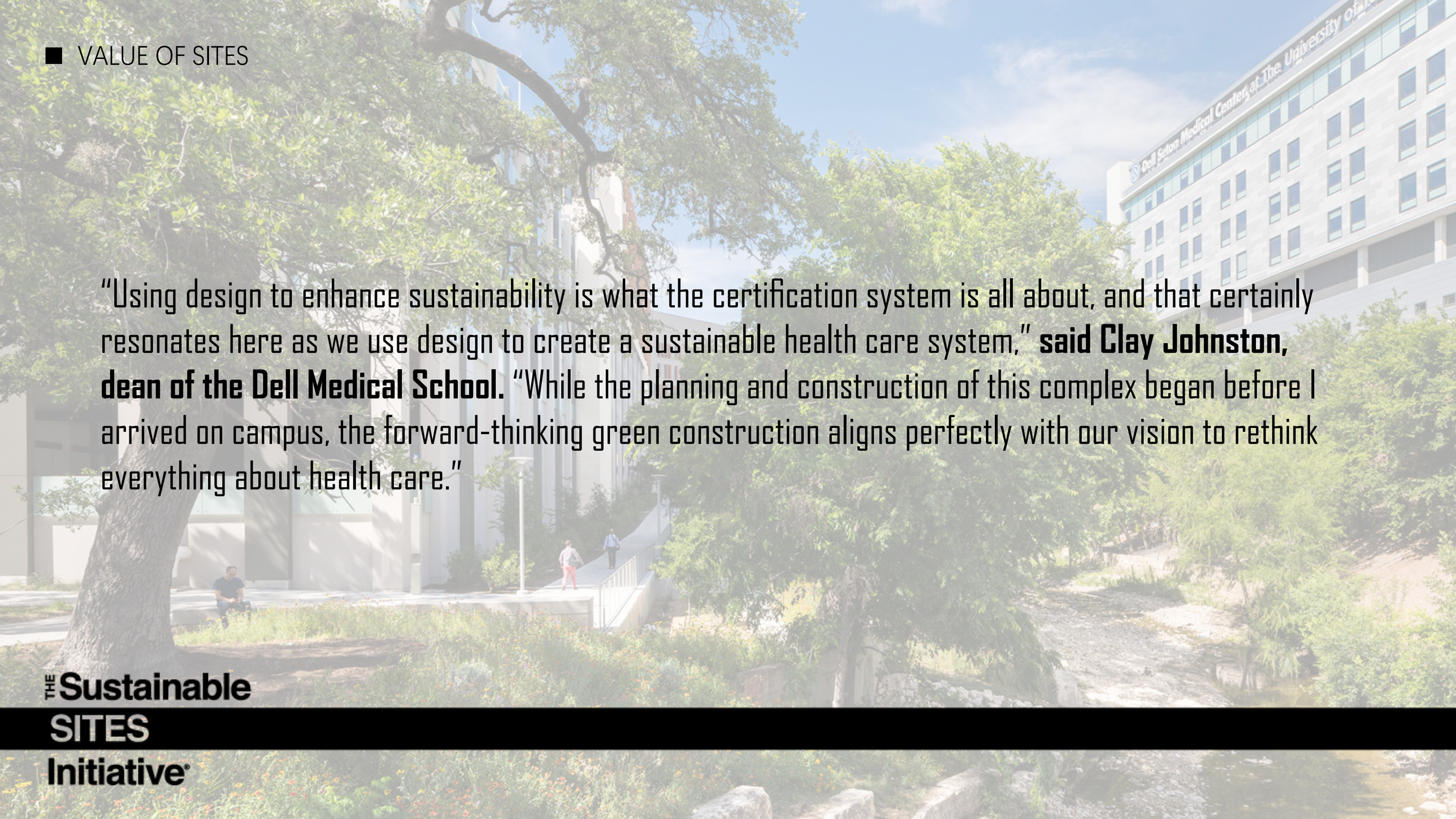
Dell Medical District - UT Austin

SITES v2 Gold (2017)	112*
Site Context	10/13
Pre-design Assessment + Planning	0/3
Site Design - Water	18/23
Site Design - Soil + Vegetation	13/40
Site Design - Materials Selection	15/41
Site Design - Human Health + Well-Being	13/30
Construction	11/17
Operations + Maintenance	12/22
Education + Performance Monitoring	11/11
Innovation Or Exemplary Performance	9 /9

*Out of a possible 200 points and 9 bonus points
Certified 70–84, Silver 85–99, Gold 100–134, Platinum 135–200



"Using design to enhance sustainability is what the certification system is all about, and that certainly resonates here as we use design to create a sustainable health care system," **said Clay Johnston, dean of the Dell Medical School.** "While the planning and construction of this complex began before I arrived on campus, the forward-thinking green construction aligns perfectly with our vision to rethink everything about health care."

PROJECT BACKGROUND

Site Context

The Dell Medical School and its teaching hospital, Dell Seton Medical Center, are part of a vibrant health district that is one of Austin's largest and most anticipated development projects. The 16.2-acre development is located in central Austin on the University of Texas campus. The project is located on the southern edge of campus between the I-35 corridor and Trinity, and 15th and Martin Luther King. Waller Creek bisects the site and connects visitors and building occupants to nature. The surrounding area is highly urban and within walking distance to local restaurants, museums, and recreational facilities. The site is easily accessed by public transportation.

Challenges & Solutions

The greatest challenges posed by the site were the construction of multiple large facilities in a dense urban environment and the Waller Creek floodplain. To address these issues, construction was carefully coordinated to maximize use of space and minimize unnecessary disturbance to the Waller Creek riparian corridor. Floodplain functions along the creek were improved through the removal of impeding street bridges, stream bank stabilization, the removal of exotic invasive species, and the restoration of native plant communities along the riparian corridor.

PROJECT GOALS

Reduce water consumption,
Improve stormwater quality,
Reduce soil erosion,
Increase habitat value,
Enhance landscape resilience.

The overall vision is to design a new open, inviting, and people-centered campus, connected to its environment and community. People and the environment work together as a functioning system, focused on improving health.

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PROJECT TEAM

Client: **University of Texas at Austin**
OFPC, Owner representative: **Karel Kozuh, Bill Simpson**
UT Director of Sustainability: **Jim Walker**
Landscape Architect: **Sasaki, Rvi, DWG**
Architect: **Page, HKS**
Civil Engineers: **Stantec**
UT Maintenance: **Mike Wallick, Lisa Lennon**
UT Irrigation: **Markus Hogue**
UT arborist: **Jim Carse**
Construction oversight: **Siglo**
Construction: **The Beck Group, Hensel Phelps, JE Dunn**
LEED consultant: **Center for Maximum Potential Buildings Systems, Atelier Ten**
SITES consultant: **Regenerative Environmental Design**

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STRATEGIES

Manage Precipitation:

Through a combination of rain gardens, pervious pavers, rainwater harvesting, and a green roof, the project manages the 80th percentile rainfall event or approximately 46,939 cubic feet of water. Stormwater management features were designed as site amenities to provide visitors with a connection to the local climate and hydrology. Capturing, reusing and infiltrating water on-site reduces downstream flooding, protects water quality, reduces negative impacts on aquatic ecosystems and improves dry weather base flow.

Conserve and Use Native Plants & Restore the Riparian Corridor:

Native plants were used extensively in order to reduce water use, provide wildlife habitat, connect site visitors with local ecosystems and enhance beauty. 100% of the project's riparian corridor was restored to native plant communities representative of the Edwards Plateau and Blackland Prairie ecosystems. Prior to construction, approximately 70% of the vegetative canopy along the creek was comprised of invasive species. The restoration process included the removal of extensive areas of invasives including Nandina (Nandina domestica), Japanese ligustrum (Ligustrum japonicum), Giant cane (Arundo donax) and English ivy (Hedra helix). The increased native plant diversity, and soil stabilization and restoration efforts improve the ecological function, habitat, and resilience of the riparian corridor.

Use Recycled Content & Regional Materials:

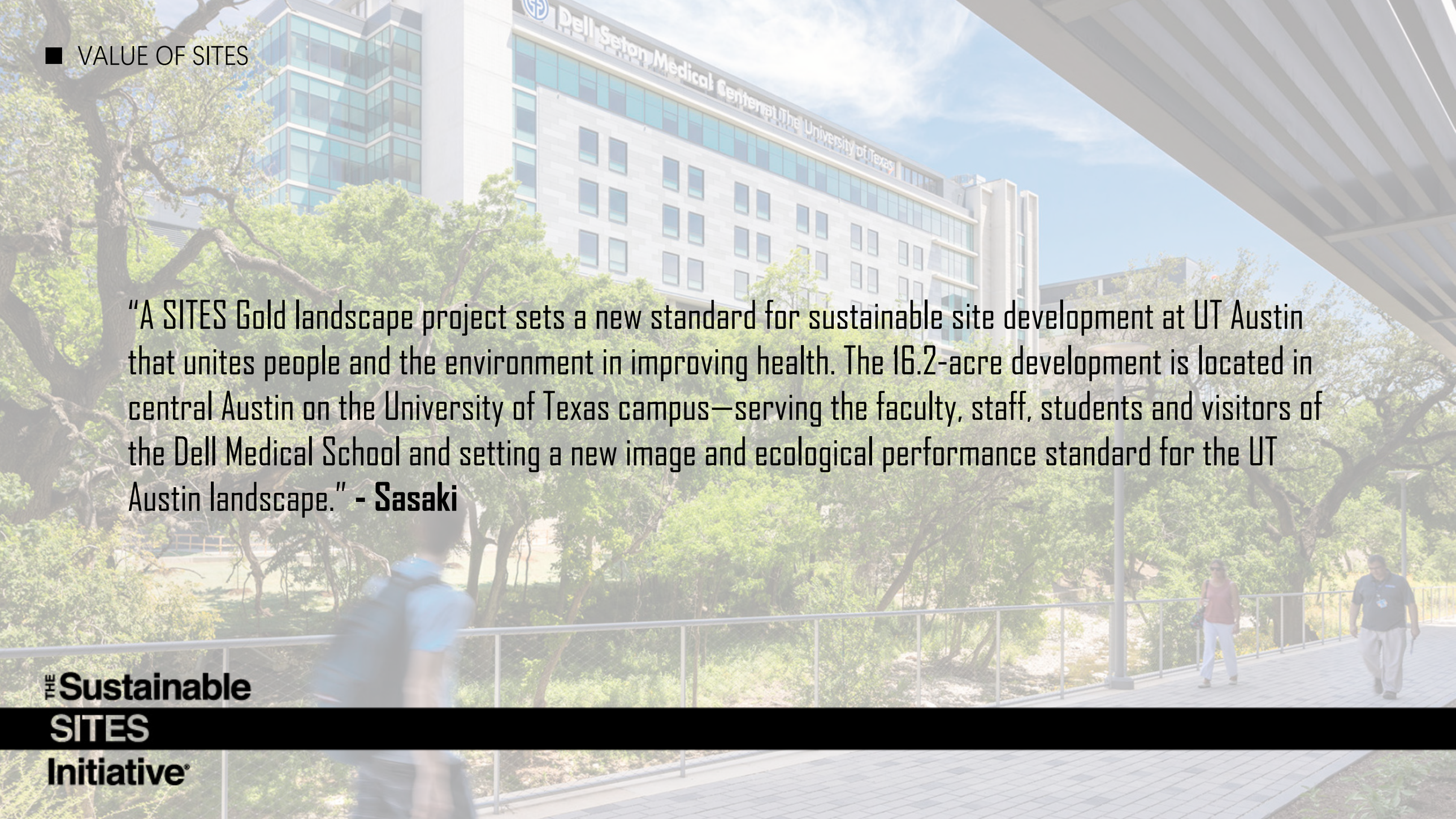
28% of the total materials cost went towards materials comprised of recycled content. These materials help to reduce the consumption of virgin feedstock and reduce landfill waste. 68% of the total materials costs went towards regional materials. These materials reduce the energy used for transportation, promote regional identity and support the local economy.

Protect Air Quality:

Manual- or electric-powered equipment will be used to maintain the site. No fossil fuel-based maintenance equipment will be used. The manual and electric equipment will protect site users and maintenance staff from localized air pollutants and greenhouse gases commonly generated by fossil fueled equipment.

Encourage Fuel Efficient and Multi-modal Transportation:

The site reduces emissions and promotes a healthy lifestyle by encouraging and supporting efficient and adaptable modes of transportation. Site users can take advantage of local public transportation, car and bike share programs, or ample bike racks. The parking garage provides bike lockers and preferred parking spaces for fuel-efficient vehicles.



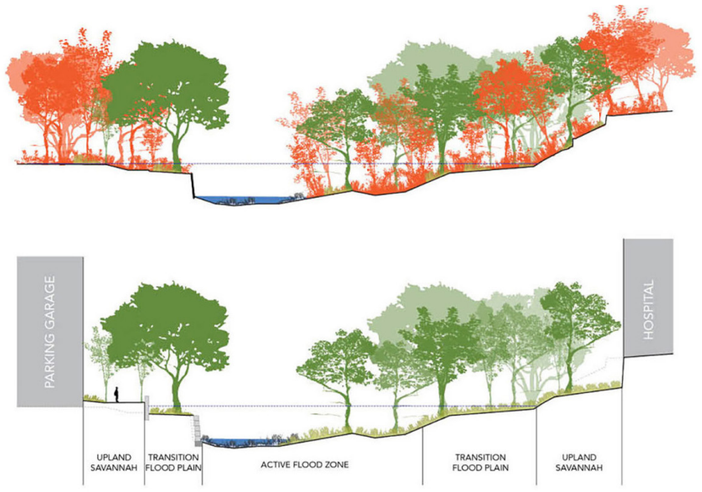
"A SITES Gold landscape project sets a new standard for sustainable site development at UT Austin that unites people and the environment in improving health. The 16.2-acre development is located in central Austin on the University of Texas campus—serving the faculty, staff, students and visitors of the Dell Medical School and setting a new image and ecological performance standard for the UT Austin landscape." **- Sasaki**

FINAL DESIGN

Prior to construction, the project area consisted of both green space and previously developed sites. Waller Creek, a neglected urban stream that has been greatly impacted by development, runs through the middle of the district and was identified early on as an asset to the project.

Design efforts focused on improving the ecological function of the creek corridor. Restoration of the creek was an 18-month multi-step process that included the removal of invasive species, stream bank stabilization and the re-vegetation of diverse native plant communities. Formal planting areas around buildings prioritized the use of native vegetation, which has helped reduce irrigation by over 75%. Rain gardens, pervious pavers, rainwater harvesting, and a green roof manage stormwater and connect visitors to the local climate and hydrologic cycle. Green spaces around the buildings and along Waller Creek are an urban oasis that provides environmental and human health benefits to students, educators, patients and the greater community.

SECTIONS



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SITE PLAN

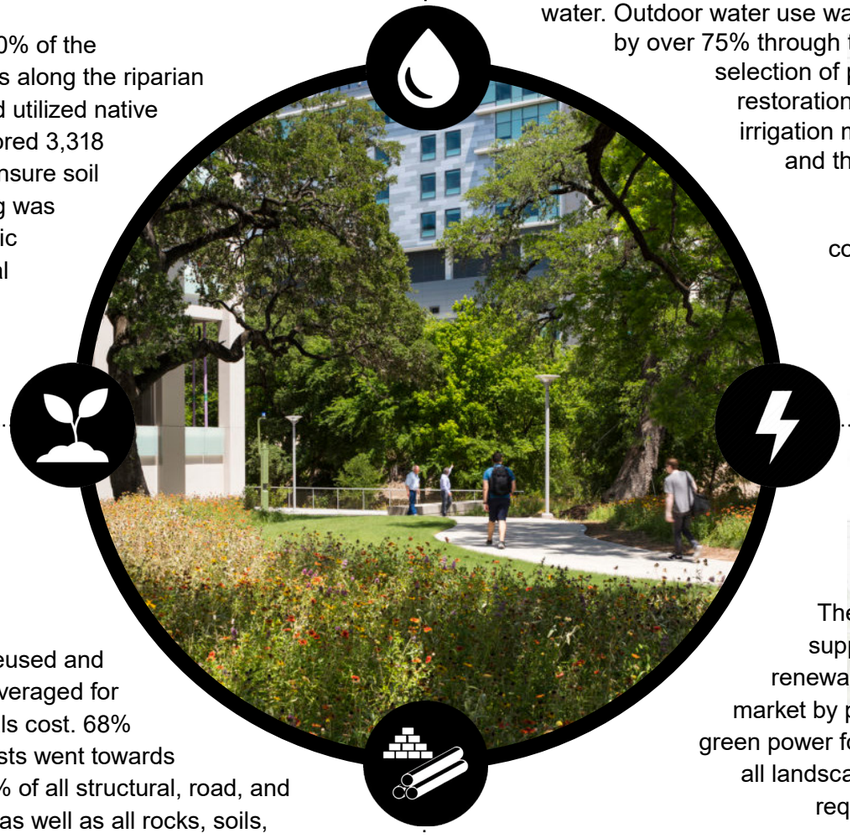
VALUE OF SITES

Plants + soils

The project restored 100% of the native plant communities along the riparian corridor, conserved, and utilized native plants. The project restored 3,318 cubic yards of soil. To ensure soil quality, extensive testing was conducted on the organic matter content, chemical characteristic and bulk density of the soil.

Water

Using a combination of rain gardens, pervious pavers, rainwater harvesting, and a green roof, the project manages the 80th percentile rainfall event or approximately 46,939 cubic feet of water. Outdoor water use was reduced by over 75% through the careful selection of plants, soil restoration, real-time irrigation monitoring, and the reuse of rainwater and A/C condensate.



Materials

Salvaged plants were reused and recycled content was leveraged for 28% of the total materials cost. 68% of the total materials costs went towards regional materials. 100% of all structural, road, and infrastructure materials as well as all rocks, soils, and vegetation were recycled within 50 miles of the project site. All green waste from the site will be composted by the University for reuse on campus.

Energy

The project is supporting the renewable energy market by purchasing green power for 100% of all landscape energy requirements.

ENVIRONMENTAL FEATURES

SOCIAL

The project transforms the Waller Creek corridor from a neglected backwater to an attractive, health-promoting landscape. Streetscapes and plaza areas encourage social engagement and connect the campus to its surrounding urban environment. The Medical District landscape plan is designed to enhance ecosystem services and be a model for a resilient and affordable-to-maintain landscape. Stormwater management features were designed as site amenities to connect visitors to the local climate and hydrology—through a combination of rain gardens, pervious pavers, rainwater harvesting, and a green roof.

ECONOMIC

Using a combination of rain gardens, pervious pavers, rainwater harvesting, and a green roof, the university can count on saving $137,600 by managing the 80th percentile rainfall event.

Using 3,318 cubic yards of restored soil on the site rather than new soils can count on saving $49,770.