

2014 Campus Plan

Advanced Urban Design Studio

transforming
OU TULSA
into a sustainable landscape



Rendering of the proposed walking trail, healing garden, and outdoor exercise stations east of the Schusterman Center Clinic.

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Acknowledgements

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The Urban Design Studio also thanks the following for their help with our plan:

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OU-Tulsa campus, formerly research headquarters for Amoco, as it appeared in 1954.



OU-Tulsa campus as it appeared in 1980.

Project Background, Overview and Goals

In 2000, the University of Oklahoma established its third campus in the state. A unique and varied mix of programs from the Norman campus and the Health Science Center in Oklahoma City were consolidated from various locations around Tulsa onto sixty acres in midtown. The University acquired the BP/Amoco campus at the southwest corner of 41st Street and Yale Avenue, which featured many facilities the University needed, such as office and lab space, conference areas and ample parking. It did not, however, have essential spaces for learning, such as clinics, classrooms and auditoriums.

Former students, faculty and other stakeholders were invited to participate in an effort to plan for the site for future use by the school. The students of the OU Urban Design Studio (OUUDS) participated in the creation of a 10-year master plan which focused on creating the essential spaces needed to sustain a successful academic setting.

Over the past decade, the plan has contributed to many successful endeavors at the University by providing recommendations for building construction and future growth. Since the plan's inception, nearly all of the recommendations have been implemented — new facilities have been built and growth has been consistent with the plan recommendations.

At this time, the University has fewer plans to add more buildings. Future campus improvements will likely focus on the one subject not fully addressed since the last master plan — campus landscaping. This year's Urban Design Studio students and faculty are proposing an update to the campus master plan that focuses on the outdoor spaces surrounding the buildings. The Sustainable OU-Tulsa Landscapes (SOUL) team believes that thoughtfully planned outdoor spaces are vital to the collegiate atmosphere of campus, and that the spaces surrounding buildings are just as important as the spaces within them.

Organization: The Five Focus Areas

As a result of detailed studies conducted of the OU-Tulsa campus and interactions with constituents from across the University over the past year, the SOUL team has identified five primary areas of focus, each of which identifies a problem on campus and recommends a solution for alleviating each problem. The five focus areas determined the organization of the plan. Artwork was created by the team to illustrate many of the proposed improvements. The five focus areas are:

IMPROVE WALKABILITY



Reduce areas of conflict between cars and pedestrians by improving accessibility and current pedestrian routes, and install a walking trail to improve health and connectivity.

CREATE A VARIETY OF OUTDOOR SPACES



Maintain existing outdoor facilities and add new facilities such as outdoor plazas, outdoor learning areas, community gardens and outdoor exercise equipment near the Schusterman Clinic.

REDUCE RESOURCE USE



Add rain gardens to low-lying areas, implement a campus-wide recycling program, and continue current resource-saving programs such as automatic faucets and light sensors.

MANAGE THE CAR



Implement bike to school programming, carpool incentives and a transit program to alleviate parking concerns. Improve parking conditions by implementing a parking management system, restriping the east lot and adding a roof to the parking garage to allow for additional parking during inclement weather.

ACCOMMODATE GROWTH



Plan and prepare for future building expansions. Potential plans exist to expand the School of Community Medicine, expand the Library and Learning Center, construct a research center, and build an additional parking garage. The plan recommends placing all new construction on existing impervious surfaces.

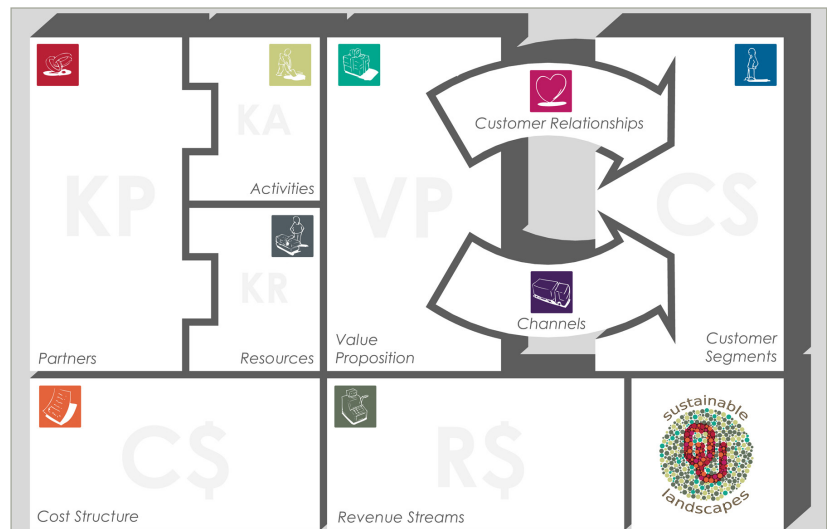
Addressing the need for better transportation management and social spaces will allow OU-Tulsa to become a self-sustaining, identifiable campus.

This plan is intended to spark conversations about improving areas of the OU-Tulsa campus that are deficient and taking advantage of the many qualities of our campus that make it unique.

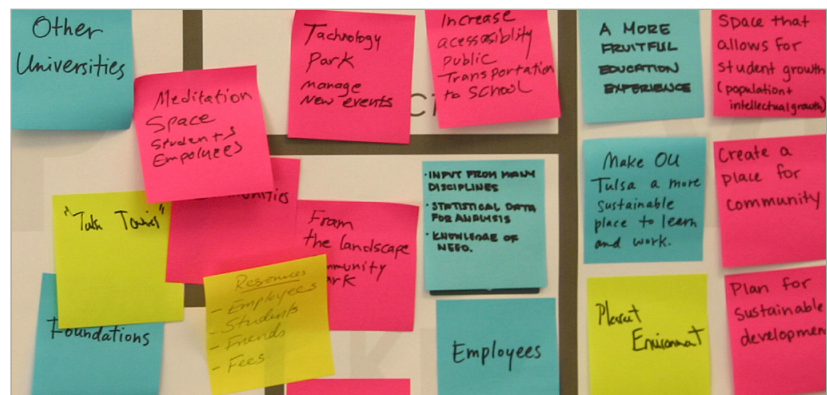
Following the plan is a listing of bibliographic references. The appendix containing data collected and other resources used in the analysis process is provided in a supplemental volume.

Methodology

OUIDS students and faculty used a variety of research techniques to better understand existing problems on campus so that appropriate solutions and implementation plans could be developed. Several meetings and workshops with campus and neighborhood constituents were conducted throughout the year to gather feedback. Additionally, students utilized a business modeling technique which visually mapped the renovation of campus. This tool was used to flush out additional revenue sources and potential implementation techniques. One iteration of this process is shown below:



Blank business model canvas used to map out the new campus plan.



Notes applied to business model canvas in constituent team exercise.

Definitions of Sustainability

There are many ways to define sustainability. "Sustainability" encompasses energy, waste, design, and policy-making. This project aims to create a plan for the OU-Tulsa campus to prosper socially, economically, and environmentally. For this project, sustainability is defined as:

Using resources responsibly to adapt to the future needs of our stakeholders.

Comparison of Sustainable Campus Plans

To learn about best practices, our team conducted research of several campus sustainability plans. The universities studied include Harvard, Bowdoin College, University of Colorado-Boulder, and our parent campus, OU-Norman.

Most campus sustainability plans include goals of reducing greenhouse gases, using less energy and updating waste policies. Here are a few examples of other universities' goals:

- **Arizona State University:** Achieve 60 percent engagement with members of the campus community by 2015
- **University of Colorado:** Achieve 20 percent reduction in paper consumption on campus
- **University of Oklahoma-Norman:** Adopt land-use policies that preserve open space and create a compact pedestrian and bicycling University of Oklahoma campus
- **University of Victoria:** Ensure that 75 percent of all new plants grown on campus are native

The University of Oklahoma-Norman Campus has a program called "Crimson and Green" that encourages sustainable practices, such as recycling and reducing energy consumption.

These examples inspired the team to research the OU-Tulsa campus' current sustainability practices. This research was vetted by our constituent team at monthly meetings throughout the year, which helped narrow the project to five focus areas:

- Improve walkability
- Create a variety of outdoor spaces
- Reduce resource use
- Manage the car
- Accommodate future growth

Selected Academic Institutions with Sustainability Practices

The SOUL team examined reports from several institutions that have implemented sustainability programs. Many universities and academic institutions have embraced and are adopting sustainability practices.

Oklahoma Universities

Northeastern State University

<http://academics.nsuok.edu/sustainability/SustainabilityHistoryandInitiatives.aspx>

Oklahoma State University

<http://sustainability.okstate.edu/>

University of Oklahoma

<http://www.ou.edu/sustainability/resources.html>

National Universities

Arizona State University

<http://sustainabilityplan.asu.edu/>

Bowdoin College

<http://www.bowdoin.edu/sustainability/buildings-grounds/index.shtml>

University of Colorado Boulder

<http://www.colorado.edu/sustainability/sustainability-campus>

Harvard University

<http://home.hppm.harvard.edu/pages/campus-planning-0>

North Carolina State University

http://issuu.com/ncstatesustainability/docs/ssp_web

North Carolina University, Chapel Hill

<http://www.sustainability.unc.edu/>

Princeton University

<http://www.princeton.edu/reports/sustainability-20080219/>

Campus Outreach

Constituent Team

Throughout the year, the SOUL student team was guided by a group of constituents representing various stakeholder groups on campus. This group included students, faculty, staff and administrators from both Norman-based academic programs and health science programs. Several key individuals from campus operations and the Schusterman Clinic are also members of the constituent team.



Constituent team meetings were held monthly throughout the year-long project to gather feedback from a wide variety of campus stakeholders.

Campus Workshops

The team conducted two campus workshops to gain feedback from students, faculty, staff and neighbors. The first campus walkability workshop took place in November 2013 at the Founders Student Center. Approximately 75 people participated.

This workshop yielded a great deal of valuable information, particularly about the proposed walking trail. Participants from campus and the surrounding community were extremely excited about the potential to walk around campus on a safe, comfortable path. Attendees participated in exercises designed by the project team, including drawing their preferred trail path on a map, showing how they travel to campus and where they travel from, and indicating on a map what kind of outdoor spaces they would like to see added to campus, and where they would like them to be placed.

The team also led workshop participants on a walk around campus and discussed details of the walking trail, such as which materials could be used for the trail surface, the potential length of the trail, and the need for lighting and benches along the trail route.

A second walkability workshop was held in February 2014 at the Schusterman Clinic to gather feedback from clinic staff. In addition to research exercises conducted at the first clinic, the team also gathered feedback about the entrances they use to enter campus and where they usually park.



The first campus workshop, "Planning a Walkable Campus," was held in November in the student center to introduce the project to students, faculty and staff. Interactive activities allowed the team to gather research data from a wide variety of stakeholders.



The second campus workshop was conducted in February 2014 at the Schusterman Clinic to gather perspective from clinic staff and students.

Planning a Walkable Campus

Thursday, February 20

Come and Go

11:30 a.m. - 1:30 p.m.

2nd floor Conference Room

(South end of the clinic building)



Introduction to Sustainable OU Landscapes Project

- Help plan social gathering spaces
- Campus walking trail design activity
- Share your ideas!

Be part of OU-Tulsa's first endeavor
to create a campus walking trail!



FREE PIZZA
to first 50 participants

The University of Oklahoma is an equal opportunity institution.
For accommodation on the basis of disability, please call (918) 660-3493.

Flyer produced and distributed to
promote the February clinic workshop.

SOUL Project Video

In addition to the workshops, the team created an educational video to make campus users aware of the SOUL project and encourage participation. The video was directed and edited by the team and featured students, members of the constituent team and other campus stakeholders.

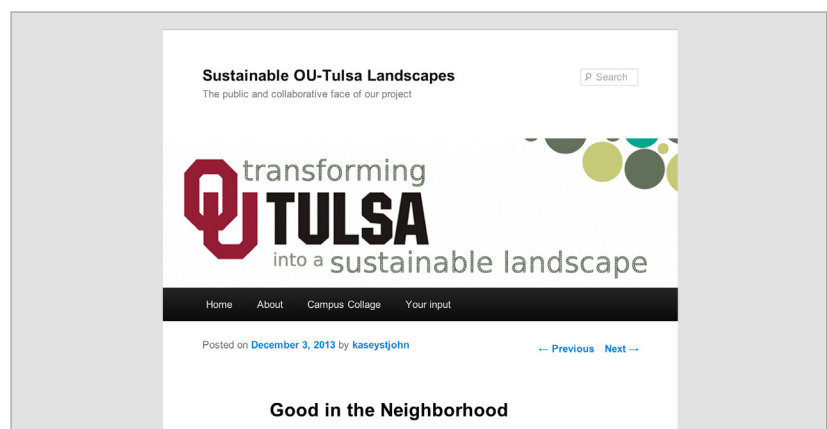
A link to the video was distributed via email campus-wide by Student Affairs at the beginning of the Spring 2014 semester. The video is available on the SOUL team student blog, www.soutl.wordpress.com.



Doug Stewart, Associate Professor of Pediatrics, spoke about the benefits of biking to work in the SOUL project video.

Student Blog

The student blog, www.soutl.wordpress.com, features writings from the team on topics related to this project. Students were required to submit engaging blog entries throughout the year. Students and the constituent team were also encouraged to submit supplemental writings, general comments and interesting information relevant to the project. A link to the blog was included in the student video, posted on campus web pages and on the OU Urban Design Studio Facebook page.



Throughout the year, the team shared information on topics related to this project by writing and publishing articles on their blog, "Transforming OU-Tulsa into a Sustainable Landscape."

Stakeholder Interviews

Another important part of the plan's community engagement strategy involved numerous interviews with stakeholders and interested parties from the campus and the wider community. This process began in the summer of 2013. Professor Schaefer visited with over twenty high-ranking campus leaders, including:

- Leeland Alexander, Vice-President of Finance & Operations Director
- Gerard Clancy MD, OU-Tulsa President
- Josh Davis, Director of Student Affairs
- Ondria Gleason MD, Interim Dean, School of Community Medicine
- Kerri Jackson, Staff Senate President
- Tracy Kennedy, Director of University Relations
- Rick Koontz, Vice President of Administration
- William Ray PhD, Graduate College Dean & Vice-President, Academics

The purpose of these visits was to introduce the project, seek guidance, and gain approval before proceeding. Professor Schaefer also asked each of the campus leaders to either serve on or provide recommendations for the constituent team. The SOUL team is grateful for the support and enthusiasm these leaders have provided.

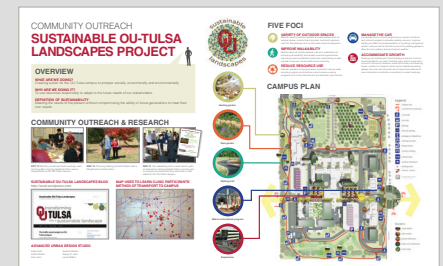
When the project began in the fall, these interviews and meetings became part of the customer discovery process introduced by the CCEW Innovation and Sustainability Institute. Students learned how the campus grounds are managed and utilized, and about the needs and concerns of various user groups. Groups consulted during this effort included Operations, Campus Security, Healthy Sooners and, under the advice of the Constituent Team, the OU Schusterman Clinic, which led to Renee Engleking RN, Clinic Operations Executive Director, joining the team.

Professor Schaefer consulted with peer institutions on their sustainability efforts. He visited Nathan Kuntz, Associate Director of Facilities for Northeastern State University, invited ORU faculty, Lanny Endicott PhD, and his class to visit the studio class, and attended the Heartland Campus Compact Conference to learn what institutions were doing in a five state region surrounding Oklahoma. Students also spoke with a globally-recognized expert in sustainable planning, Aaron Moguin, former planner for Masdar City in Abu Dhabi.

Another important group of interviewees included community partners, starting with professional landscape architect, Scott Robinson, LLA, who provided advice and expertise throughout the project. Student presentations to the Patrick Henry Neighborhood Association were met with enthusiasm and great ideas from the neighbors. Experts in sustainable garden management and operations, including Scott Swearingen from the Cherry Street Farmers' Market, Kyle Dismukes from Southwood Nursery, and Demalda Newsome from Newsome Farms were also consulted.

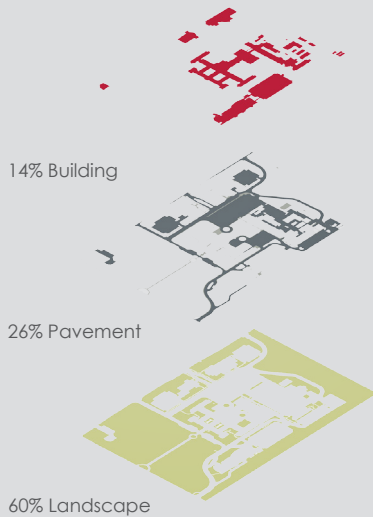
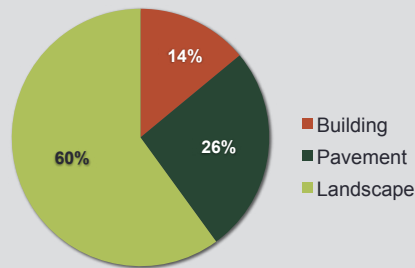
This spring, as the plan has taken shape, students have shared with their recommendations with campus groups to receive feedback. Students have presented to the OU-Tulsa Academic Council and the staffs of Information Technology and the National Resource Center for Youth Services. This dialogue will continue after the conclusion of the project.

Research Day Poster

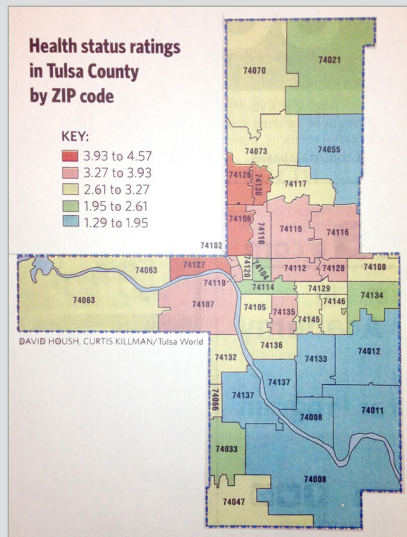


The Urban Design Studio students designed a poster for OU-Tulsa Research Day to share their project with the campus. The poster was awarded second place in the Community Outreach category.

Campus Composition



Tulsa County Health Status Rankings by ZIP Code



Map showing health status rankings in Tulsa County by ZIP code, released by the Tulsa Health Department in April 2014. The map shows that ZIP code 74135, where OU-Tulsa is located, is within the top half of poor health areas in Tulsa County. The full report can be viewed at http://www.tulsa-health.org/sites/default/files/page_attachments/_health-profile-2014-proof_0.pdf.

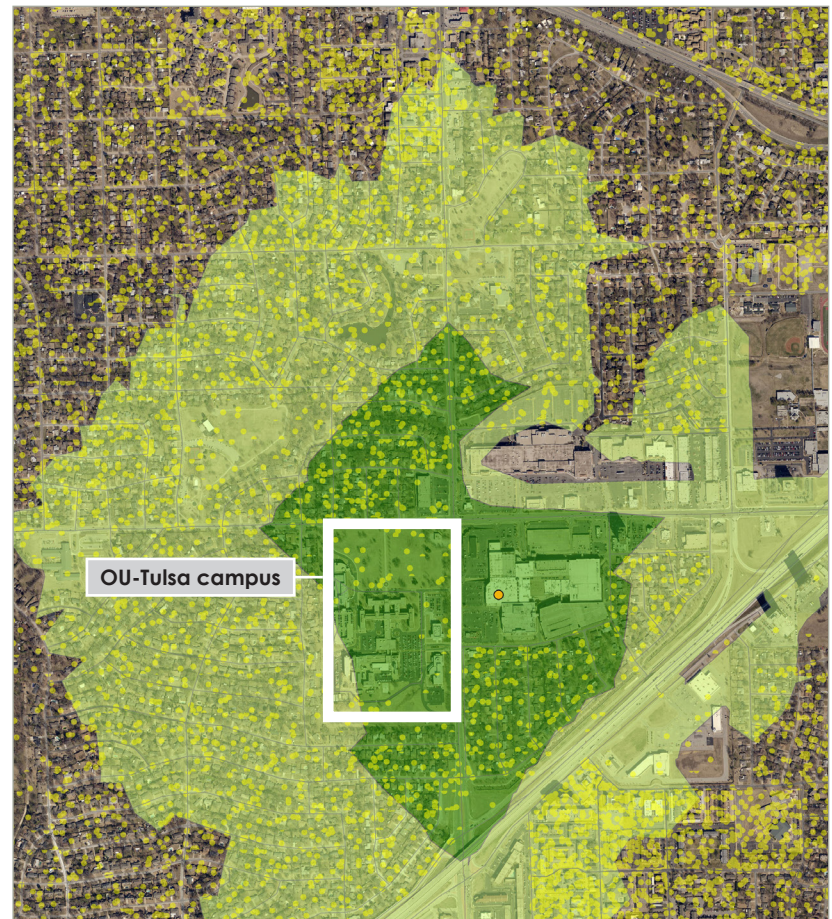
Site Analysis

The SOUL team began by examining the campus through direct observation, mapping and creation of three-dimensional visualizations. These steps helped the team understand the campus and determine which direction the plan should take.

Direct Observation

Mapping of City and Neighborhood

The following map shows the OU-Tulsa campus and surrounding four miles. The team used mapping exercises like this to demonstrate and understand accessibility to campus. This particular map represents population density (with yellow dots), biking capability networking (light green) and walking capability (dark green). By analyzing this diagram we found the number of individuals or families that are within the University's biking shed.



Map showing the OU-Tulsa direct impact area and population density.

Health Status of Neighborhoods Around Campus

Another consideration in analyzing the OU-Tulsa site is health. The Tulsa Health Department released information in April of 2014 identifying the 74135 zip code surrounding OU-Tulsa as one of the worst areas for poor health in Tulsa County. This zip code ranked 3.5 on a scale of 0 to 4.57, with 4.57 being the worst indicator in Tulsa County.

Campus Mapping

The campus is bordered by 41st Street South to the north and Yale Avenue to the east. The campus tract is composed of 60 percent green space. Fourteen percent of the campus consists of buildings.

Observations of campus led to the identification of the following key problems:

- Insufficient and unused outdoor facilities for patients, faculty members and students
- No safe pedestrian pathway across campus
- Limited contact with the outdoors or landscaping
- Several unattractive surface parking lots that act as disincentives for walking
- Limited sidewalks on and around

Three-Dimensional Visualizations

The team created three-dimensional visualizations to represent the current state of the campus and illustrate proposed improvements. These images are included in the following sections to represent ideas for sustainable improvements of campus.

Methodology

This study divides the OU-Tulsa landscape into five elements:

- **Paths:** The routes on campus along which people walk
- **Edges:** The boundaries and breaks in continuity of the landscape
- **Districts:** The areas characterized by common features
- **Nodes:** The strategic focus points for orientation like squares and junctions
- **Landmarks:** Objects that provide point-reference, such as buildings and signage.

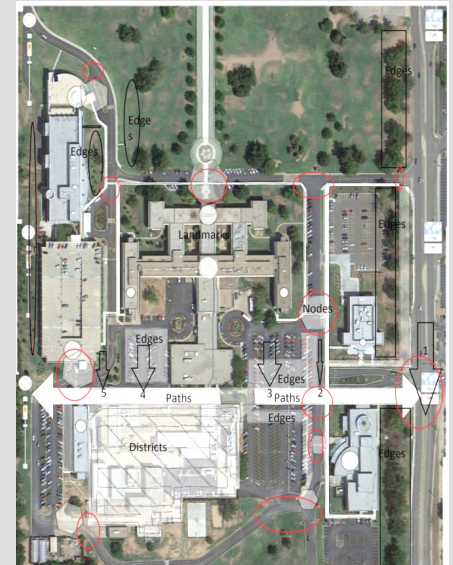
The concept of landscape legibility entails understanding a landscape as a whole system rather than viewing each element as a separate component. For example, as observers of a landscape, people cannot fully understand the function of a single element, such as a sidewalk, without considering the built environment in which it exists. All elements are relative and function together as a system.

Creating a Plan to Target Problems

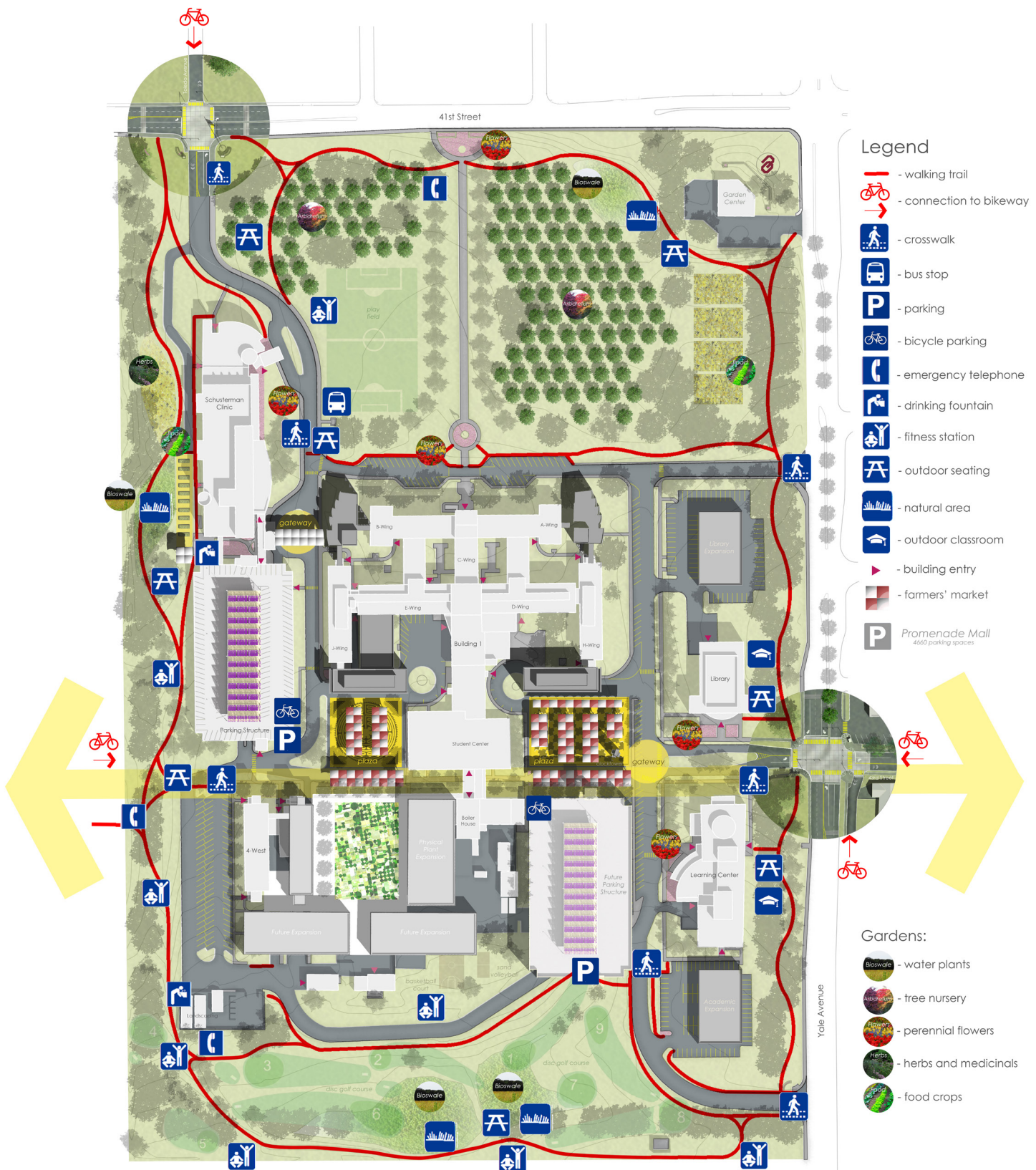
The team has introduced its goals to create a more sustainable landscape for OU-Tulsa and outlined the public process used to conduct its research. In the following sections, each of the five focus areas will be introduced in detail. Each section represents a current problem on campus, identifies recommendations to remedy that problem, and suggests implementation solutions.

Lynchian Studies of OU-Tulsa Campus

One of the most important goals of sustainability at OU-Tulsa is to create a safer and stronger connection between the built environment and people on campus, especially pedestrians. The use of Kevin Lynch studies were used to analyze current campus conditions, and how those conditions can be improved. To read more, see the blog post about this subject: <http://soutl.wordpress.com/2014/02/12/kevin-lynch-studies-on-the-ou-tulsa-landscape/>.



OU-Tulsa Schusterman Center Campus Plan



The Five Focus Areas

IMPROVE WALKABILITY



Reduce areas of conflict between cars and pedestrians by improving accessibility and current pedestrian routes, and install a walking trail to improve health and connectivity.

CREATE A VARIETY OF OUTDOOR SPACES



Maintain existing outdoor facilities and add new facilities such as outdoor plazas, outdoor learning areas, community gardens and outdoor exercise equipment near the Schusterman Clinic.

REDUCE RESOURCE USE



Add rain gardens to low-lying areas, implement a campus-wide recycling program, and continue current resource-saving programs such as automatic faucets and light sensors.

MANAGE THE CAR



Implement bike to school programming, carpool incentives and a transit program to alleviate parking concerns. Improve parking conditions by implementing a parking management system, restriping the east lot and adding a roof to the parking garage to allow for additional parking during inclement weather.

ACCOMMODATE GROWTH



Plan and prepare for future building expansions. Potential plans exist to expand the School of Community Medicine, expand the Library and Learning Center, construct a research center, and build an additional parking garage. The plan recommends placing all new construction on existing impervious surfaces.



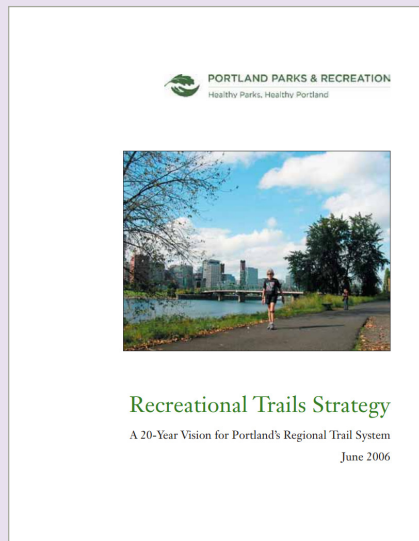
Proposed east plaza, an example of an outdoor space provided by this plan.



Designing More Than a Walking Experience

Walking trails are nothing new. In fact, they have been around for so long that standards have been written to control and facilitate good trail design.

The City of Portland's Parks and Recreation Department has published these standards which are ideal design guidelines for the OU-Tulsa walking trail. View the standards at <http://www.portlandoregon.gov/parks/article/120478>



Read more about recreational trail design on the team blog: <http://soutl.wordpress.com/2014/02/11/designing-more-than-a-walking-experience/>

FOCUS 1: Improve Walkability

Walking Trail

The ability to move around campus by foot is important for the health and safety of the various groups that utilize the OU-Tulsa campus: students, faculty, staff, clinic patients and residents of the surrounding neighborhood. A walking trail will help campus stakeholders experience the outdoors, exercise more, reduce stress, connect with others around campus and connect with the neighboring community.



Rendering of proposed walking trail and rain gardens on the south side of campus.

Trail amenities should include:

- fitness stations with instructional signage, either staggered along the length of the trail or grouped into clusters. The team recommends coordinating with the clinic staff to design the fitness stations to maximize therapeutic benefit and utilization.
- water fountains, placed at several locations along the trail.
- seating areas, spaced regularly along the trail to provide resting places for people with mobility issues, such as the elderly or clinic patients.
- rain gardens converted from low-lying water-drainage areas near the trail, to provide attractive natural areas, reduce wastewater runoff and provide natural habitat for birds and other wildlife.
- covered bulletin boards near trail entrances to provide information about wellness and other campus activities.
- lighting along the length of the trail to facilitate nighttime trail usage and increase trail safety.
- wireless internet access along the trail to facilitate outdoor classroom needs, and access to the internet and campus networks for students and faculty while using the trail and other outdoor areas.

Recommendations

Connect to Patrick Henry Neighborhood

It is recommended that the trail connect to the Patrick Henry neighborhood to the west of campus. This would allow residents of the neighboring community to use the walking trail, and would provide a much-needed pedestrian and cyclist connection from the neighborhood to destinations on the east side of campus, such as Promenade Mall.

Integrate walking trail activity into the Healthy Sooners program

Partnering with OU's Healthy Sooners program to create incentives for participating in healthy activity, such as discounts on health insurance, would encourage students, faculty and staff to use the walking trail for exercise and stress relief.

Promote the trail

The University should develop a communication plan and a grand opening event to celebrate and publicize the trail.

Develop a plan for ongoing maintenance

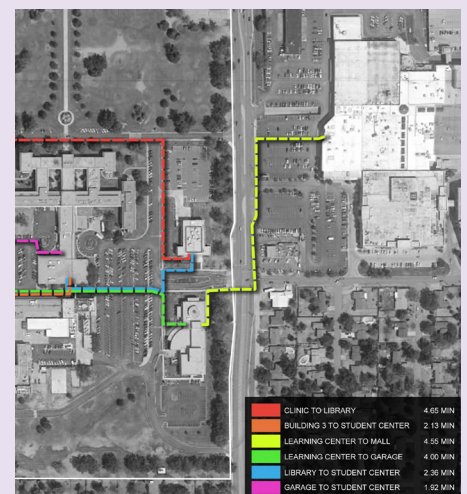
Maintenance activities for the trail include mowing and edging along the trail, keeping the trail clean, and maintaining the trail surface and amenities. An assessment is recommended to determine whether additional staff will be needed to maintain the trail.



Example of an exercise station that could be placed along the walking trail.
http://www.fittrail.com/images/station_photos/default_2lg.jpg

Have You Considered Walking Somewhere New Today?

Have you ever investigated how long it takes to walk from the parking garage to the furthest classroom building on campus? One of the project blog entries details the time it takes to travel common routes around campus by foot:
<http://soutl.wordpress.com/2014/01/17/have-you-considered-walking-somewhere-new-today/>



Maps showing paths around the OU-Tulsa campus and the time it takes to travel those paths by foot.



Targeting Problems

The current configuration of campus creates several problems. The parking lots create negative edges along a walking path. In the context of a landscape, an edge creates a barrier associated with another landscape element such as a path. The edges cause safety problems for people who cross the sidewalk; therefore, those edges are considered negative. Because the cars in the lots on either side of the path can drive through the path to get to another destination, users of the path (defined by the edges) are at risk of being hit. Also, the vehicles moving through and around the path emit toxic fumes that are health hazards to the path users.

A main path on campus is located on the east side of Boren Boulevard from Yale Avenue to the west side of Building One. This path is negatively impacted by five barriers, or edges:

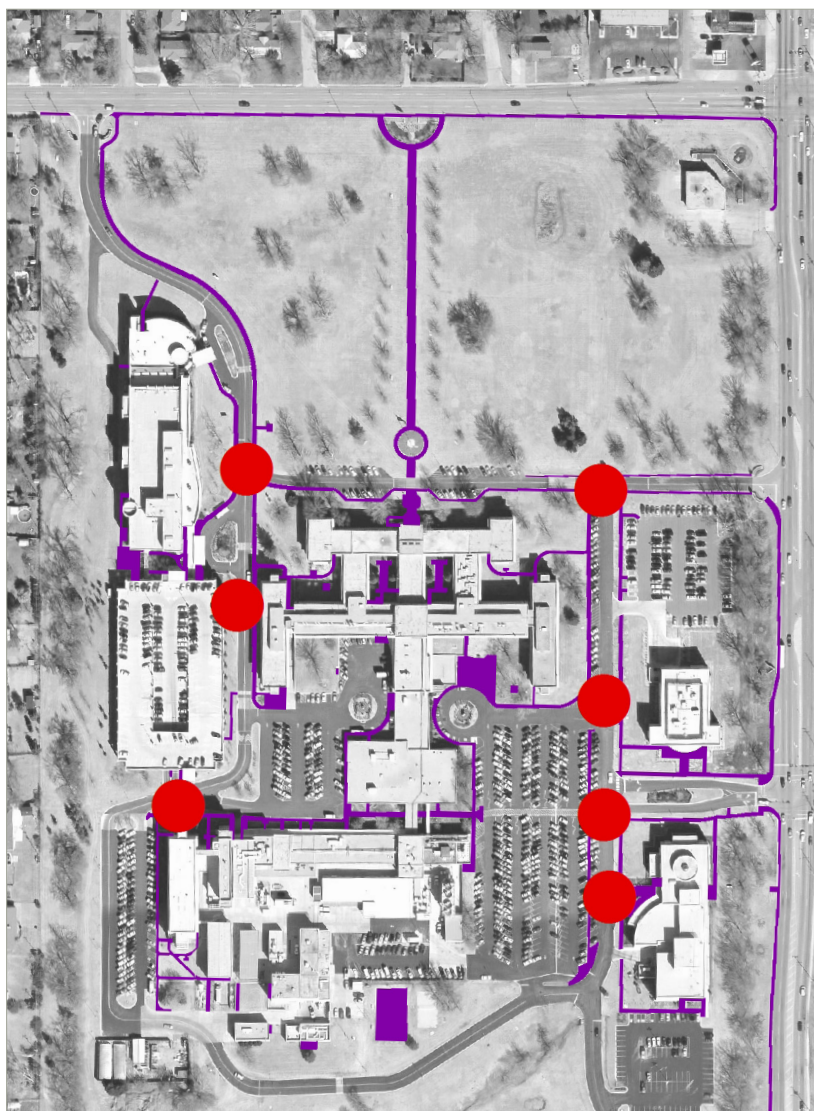
- Yale Avenue
- The north-south street between the Schusterman Library and Building One
- The parking lots on the east and south side of Building One
- The parking lot on the west side of Building One
- A driveway from north to south along the J wing of Building One

Unsafe Areas

Although OU-Tulsa is a commuter campus, visitors to campus need the ability to safely travel across campus by foot. This part of the campus plan contains an analysis of travel paths on campus and how these paths can be improved to protect pedestrians and connect campus destinations.

For this project, the term “walkability” describes the functionality of two different types of pedestrian pathways: 1) Paved paths intended for recreational use that tend to meander through isolated or vegetated areas; and 2) Sidewalks, often located near vehicular circulation or steep grade changes. It is important to protect these routes by creating separation between vehicles and pedestrians.

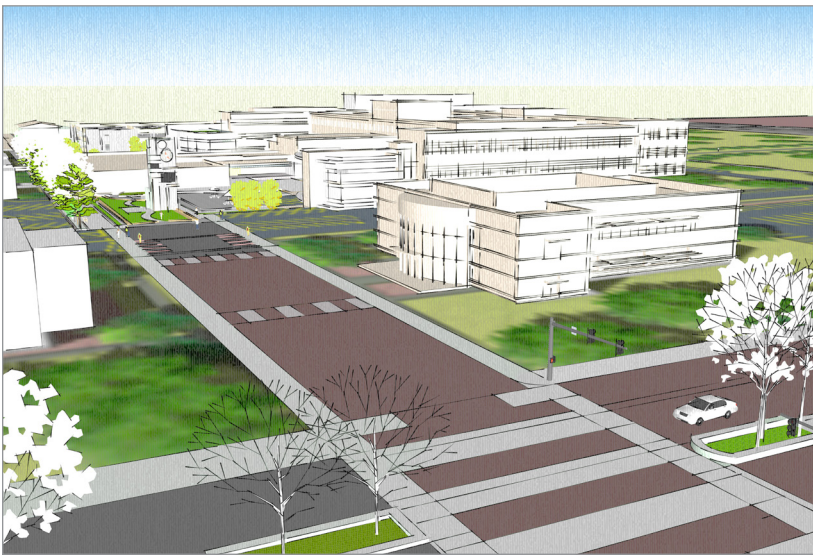
The campus already has an established internal network of sidewalks. Almost all buildings have a sidewalk connection between them. Most of the shortcomings the team has identified concern the design of existing sidewalks and the lack of accessible routes across parking lots. Specific areas with room for improvement are highlighted with red dots on the map of the OU-Tulsa campus below.



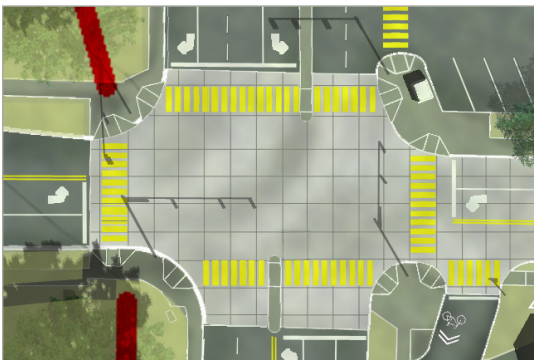
Campus sidewalks are shown in purple. Red dots indicate problem areas.

Improve Pedestrian Pathways

The team recommends creating a safe crosswalk between the east side of campus and the east side of Yale Avenue to connect Promenade Mall to the east side of campus. This path will attract pedestrians to the proposed east plaza gathering area.



Before and after views of the proposed pedestrian crossing from Boren Boulevard on the east side of campus across Yale Avenue to Promenade Mall.



Top view of proposed Yale Avenue and Boren Boulevard intersection.

The crossing features at Boren Boulevard should be enhanced to include pedestrian refuge islands, highly visible markings, and permanent buffer elements. The illustration at left shows the proposed enhancements.





Improve Pedestrian Access Through South Campus

The south part of campus has seen the least amount of development since OU acquired the site a decade ago. This has resulted in poor walkability across the east parking lot, around the mechanical buildings and from east to west along the south drive. The majority of new development on campus has occurred along the east and west boundaries. Most renovations have been made to central buildings.

Although the south area of OU-Tulsa may be considered the “back” of campus, it is important to note that a large portion of traffic travels through this area when entering the property. Through a workshop exercise performed with clinic staff and students, we found that a majority of clinic staff enter the campus from the south and travel around the south drive to get to parking areas beyond. Patients, on the other hand, typically enter at the 41st Street entrance near the clinic. During our traffic count, the 41st Street entrance had the largest amount of traffic of all entrances on campus, with 2,869 vehicles entries and exits per day.



View toward the east along the drive on the south side of campus. There are currently no sidewalks along this driveway, so pedestrians are forced to walk on the road or the grass.

Recommendations

Construct new sidewalks on the southern part of campus

New sidewalks should be added to the southern part of campus to improve pedestrian access and safety. A sidewalk constructed from east to west (south of existing buildings) would provide the largest impact, allowing pedestrians to travel from the east to the west side of campus without walking through parking lots. A new sidewalk would also allow people to travel more safely by foot to the clinic and other destinations on the west side of campus.

Increase Capacity of Existing Sidewalks

Many of the original Amoco campus sidewalks are 36- to 48-inches wide, common dimensions for sidewalks in Tulsa. While this width accommodates wheelchair access, it does not allow for two pedestrians to comfortably walk side-by-side. If the path is located near the street, pedestrians are forced to walk in close proximity to moving traffic. If the sidewalk is against a barrier, such as a retaining wall, pedestrians are forced to walk single-file.

A common practice on university campuses is to install wide sidewalks, sometimes six feet or wider, to accommodate the movement of large groups of students without congestion. To add to the collegiate aesthetic, many schools stamp their logo into the sidewalk, stain the paving surface, or incorporate various materials into the design to add color and texture, which help break the monotony of saw-cut concrete.



Example of narrow sidewalks around campus.

Widen existing sidewalks to eight feet for primary routes and six feet for secondary routes

The OU-Tulsa campus is smaller than a central university campus, and therefore does not need extremely wide walks to move the large number of people typically found on a larger campus. However, sidewalks on campus should provide enough width to allow two people to walk side-by-side. A simple solution would be to add width to existing walkways. Since the campus already has many usable sidewalks in good locations, it would be most economical to enhance what is already in place, instead of removing thousands of feet of paving. Simply adding three courses of concrete pavers or brick along each side of existing walkways would add width for walking, as well as create an aesthetically-pleasing style that would enhance the collegiate atmosphere of campus.





Create Safe Navigation Through Existing Parking Lots

For those navigating through parking lots on foot, there are many points of potential conflict between pedestrians and vehicles. This is especially true of the two major surface parking lots to the east and west of the administrative building. Both lots use 60-degree striping with one-way driving lanes. These configurations are space efficient, but are difficult for pedestrians to travel through due to the staggering of parked vehicles. When pedestrians cannot easily walk between vehicles, their only option is to walk through the driving lane, which is dangerous.

There is a particular need to improve the conditions of the current pedestrian crossing from Boren Boulevard to Building 1 through the east lot. Currently, there are striping and hazard cones to show pedestrians where to walk. These solutions were originally intended to be temporary, but have remained as a permanent feature. Vehicles often cross pedestrians, and at times confused drivers have been seen driving on the walkway.



View of the walkway across the east surface lot. The current configuration creates conflict points between pedestrians and moving vehicles.



Rendering showing proposed redesign of east surface lot with protected pedestrian crossing.



View between rows of angled parking. Walking across parking lots on campus can be difficult because of angled parking layouts. Uneven paved surfaces also create a tripping hazard.

Recommendations

Restripe parking lots for 90-degree parking and eliminate one-way circulation

Angled parking has its benefits, including the integration of one-way driveways. However, 90-degree parking would better benefit this campus. By re-striping existing parking lots, the campus would make better use of its lots. With 90-degree parking, pedestrians can safely travel between parked vehicles, with minimal crossing over driving lanes.



Proposed 90-degree striping for the east parking lot.

Add traffic-calming devices and buffer space around pedestrian crossings

Pedestrian access across the east lot can be improved by adding width to the crossing and additional traffic-control devices, such as stop signs.





Bring Handicap Designated Parking Spaces and Accessible Routes up to Standard

The OU-Tulsa parking lots have more than the required number of handicap spaces. However, some of these spaces, particularly the ones in surface lots, do not meet ADA standards. Code requires that all handicap parking spaces be adjacent to a 60-inch aisle less than two percent in slope. Van-accessible parking with a side aisle of 96 inches must be provided in each lot.

Recommendations

Move handicap spaces to compliant locations

With surface parking lots, it is difficult to retrofit paving to the correct slope or create accessible routes where none exist. The simplest solution would be to move the current non-compliant handicap parking spaces to new locations that are compliant. The selected spaces would need to provide direct access to main building entrances and allow an accessible route from the parking aisle to the building destination.

Install code-required vertical handicap signage in parking lots

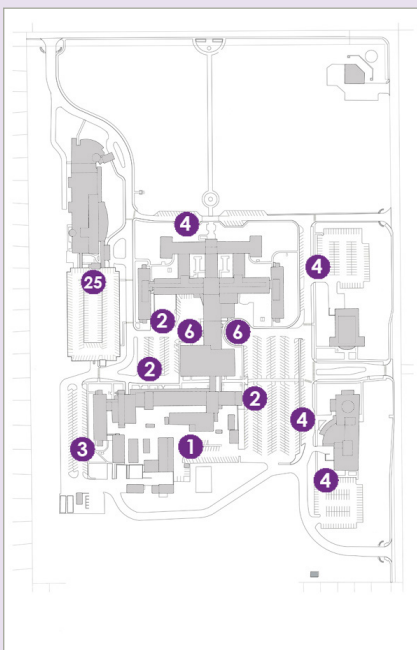
Some handicap spaces do not have required identifying signage that should be placed in front of the wheel stop. These signs can be hung on a post or on adjacent buildings. Without signs to indicate handicap parking spaces, it is difficult to distinguish between regular spaces and handicap spaces. This low visibility can make it difficult for disabled people to locate handicap spaces, and can cause able-bodied people to inadvertently park in handicap spaces.



Handicap-designated parking near the Learning Center does not meet ADA requirements for slope, accessible route, unloading aisle or signage.



Compliant parking in the north Schusterman Library lot.



Map showing location and number of handicap parking spaces on campus.

Improve Safety of Sidewalks Near Streets

Currently, if pedestrians walk from north to south along Yale Avenue or from east to west along 41st Street, they must walk along the five outermost feet of the property. Sidewalks surrounding the perimeter of campus lie within the city right-of-way and are pressed up against the street curb line. This results in an uncomfortable and unsafe trip for the traveler. Passing traffic moves within feet of the pedestrian and objects, such as utility covers, sit higher than the surface of the sidewalk, creating tripping hazards.



An example of poor sidewalk conditions on campus. This location is near the northwest corner of the property along 41st Street.

Recommendations

Widen existing sidewalks and/or move existing sidewalks away from streets

Just as the interior sidewalks of campus should be widened to increase carrying capacity, the sidewalks bordering Yale Avenue and 41st Street should be widened to provide space for separation between pedestrians and drivers. By providing extra width, pedestrians and those in wheelchairs could navigate around hazards and poor paving conditions.

Connect missing lengths of sidewalk

A portion of the sidewalk is missing from the northeast perimeter of campus along Yale Avenue. By completing the missing portion of the sidewalk, pedestrians will be able to travel all the way around campus with fewer barriers. Without this missing section of the sidewalk, north/south movement along the west side of Yale Avenue is difficult for those on foot, and effectively impossible for people traveling via wheelchair.





Connect to Surrounding Areas

Although this campus plan mostly focuses on improvements to on-campus circulation patterns, connections between the campus and surrounding areas also can be improved. For instance, if residents from the Patrick Henry neighborhood want to visit the campus to walk on the proposed walking trail, they would have to exit their subdivision by entering the Yale Avenue or 41st Street right-of-way and walk near fast-moving traffic before they enter school property. A similar scenario exists for students who walk to Promenade Mall for lunch; pedestrians must combat the treacherous traffic on Yale Avenue, then cautiously travel across the pedestrian-unfriendly McDonald's parking lot before reaching their destination.

Recommendations

Realign north vehicular entrance with South Toledo Avenue

The current north campus entrance connects to 41st Street on the northwest corner of OU-Tulsa. When the drive was originally constructed, the curb cuts on the north side of 41st Street did not exist. Realigning the campus entrance with Toledo Avenue and working with the City of Tulsa to place street lights at the realigned entrance would help control the flow of traffic in this area and would allow for safer crossing of 41st Street by pedestrians and bicyclists.



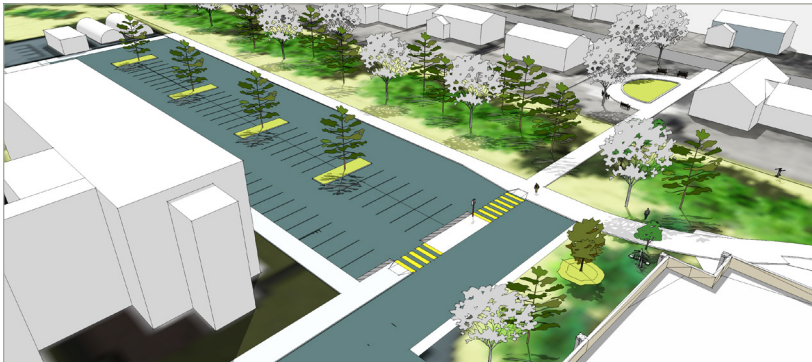
View towards the south of the 41st Street entrance from a neighbor's front yard to the north.



Proposed realignment of north campus entrance with Toledo Avenue. The red lines show part of the proposed campus walking trail.

Connect campus to Patrick Henry neighborhood

The neighborhood association for the Patrick Henry neighborhood, adjacent to campus, has expressed interest in obtaining direct access to the campus, especially to allow for access to the proposed walking trail. If the OU-Tulsa campus is to become a community hub for local residents, there should be a connection between campus amenities and those who wish to use them. If OU-Tulsa purchased one of the houses along the west boundary of campus or obtained an easement, a pedestrian corridor could be created to allow neighborhood residents entrance onto campus from South Sandusky Avenue west of campus. A possible connection point between the neighborhood and campus is shown in the figure below. Currently, residents from the Patrick Henry neighborhood to the west must walk from their neighborhood to the north and along 41st Street, or from the east along Yale Avenue, to reach the OU-Tulsa campus. Creating an access point along the west property line would break the barrier between the campus and the neighborhood, and would give neighborhood residents a much shorter, safer route to the University and commercial areas beyond.



Proposed connection between OU-Tulsa and Patrick Henry neighborhood to the west.



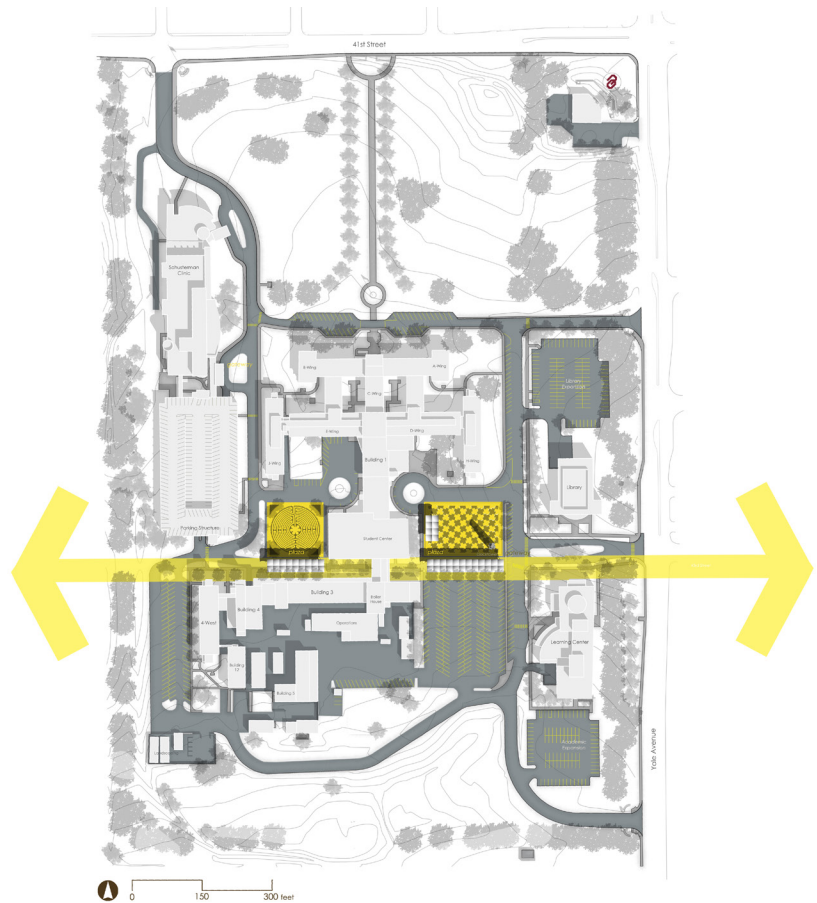
FOCUS 2: Create a Variety of Outdoor Spaces

As identified by the SOUL constituent team and students/staff during campus workshops, a variety of outdoor spaces need to be included on campus. Currently, there are some outdoor amenities on campus, such as wooden benches, enclosed courtyards and recreation areas like the volleyball court, basketball court and disc golf course. Many of these outdoor amenities are underutilized due to poor placement and wear due to weathering.

Outdoor Plazas

While there may be room for learning facilities to expand on the OU-Tulsa campus, the current open space does not provide appropriate outdoor elements that can facilitate learning and improve the health and well-being of students, faculty, patients and staff. These groups may see each other outside on the way to class, offices, and the clinic, but without a comfortable and safe place to stand or sit while they visit, they will not pause to enjoy the outdoors or to visit with friends. Plazas are designed to encourage people to gather and can increase social interaction for people moving from building to building.

The yellow arrows on the map below show the most traveled path on campus for pedestrians: across campus from east to west.





View towards the east of the west surface parking lot on a Saturday.



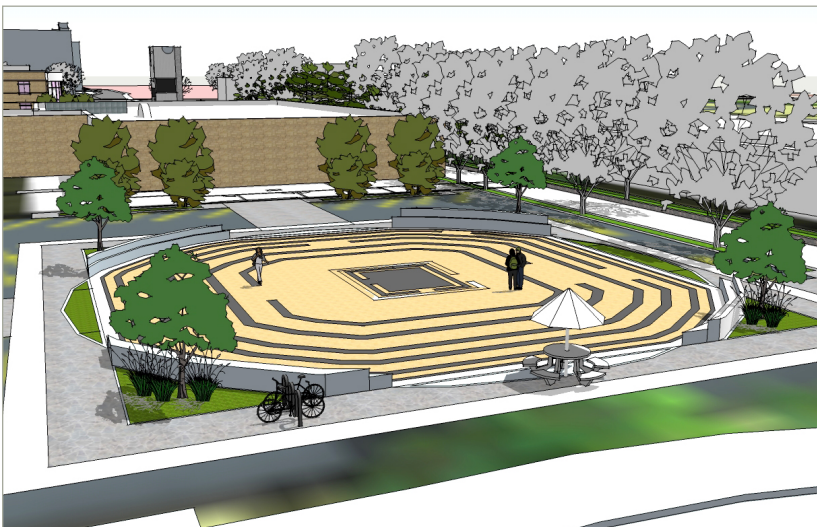
View of the west plaza and the proposed addition to Building 1.

Thoughtfully designed outdoor gathering places will bring the various groups on campus together and will facilitate cross-pollination of ideas, sharing of perspectives and an increased sense of community.

Recommendation

Place plazas on the east and west ends of the busy pedestrian pathway

Plazas should be placed near natural walkways, to attract pedestrians as they move across campus. Plazas could be used for cultural events, entertainment, farmers markets and special events such as weddings.



Proposed west plaza, looking toward the east.



Outdoor Classrooms



Outdoor classroom at the University of Maryland, College Park, Maryland. <http://www.mdgo4it.mhec.maryland.gov/pay-for-college/applying-financial-aid.html>

Experiments by researchers at the University of Michigan demonstrate nature's ability to restore concentration and improve cognition. Even brief exposure to nature can restore directed-attention abilities and cognitive control. This could be especially important for classes with long sessions like the weekend courses offered at OU-Tulsa. As the experimenters point out, to consider the availability of nature as merely an amenity fails to recognize the vital importance of nature in effective cognitive functioning.¹

¹ Berman, Marc G., John Jonides, and Stephan Kaplan. The Cognitive Benefits of Interacting with Nature. *Psychological Science*, Volume 19 – Number 12, pp 1207-1212. 2008: Association for Psychological Science.

Outdoor Learning

Spaces for outdoor learning in group settings should also be included on campus. There are many benefits to having outdoor spaces for lectures or just studying, including simply being able to modify the classroom experience. In workshops conducted by the SOUL team, many students and faculty expressed the desire for an outdoor area in which to teach or learn.

Recommendation

Outdoor learning classrooms could be placed in the two inner courtyards of the Administration Building. The two underutilized courtyards should be developed into open-air learning areas. These locations are easily accessed from the Clinic and administrative Building and are easy to walk to. Since both spaces are surrounded by buildings, high maintenance designs such as grassy lawns would be difficult to maintain. These areas should be converted to gardens with drought-tolerant landscaping, pathways, and seating areas.

Gardens

Outdoor garden areas, such as community gardens and meditation gardens, would encourage involvement from surrounding neighborhoods and could be used in the treatment of Schusterman Clinic patients. According to research, green spaces can significantly impact the healing process for patients. These outdoor spaces at OU-Tulsa could reduce patient stress (Ulrich, 2001). Outdoor garden spaces could also encourage students, faculty members, and patients to walk around campus, positively affecting the physical health of those using the campus (McLennan, 2004).

The famous British architect, Norman Foster, included garden spaces when he designed Maggie's Cancer Center in Manchester City. Explaining why he added outdoor garden-like spaces around the Center, Foster stated, "I believe in the power of architecture to lift the spirits and help in the process of therapy." (Foster, 2014) Foster wanted to provide patients and visitors with the positive benefits that outdoor spaces provide.



Maggie's Cancer Center, Manchester City, UK, an example of a healing and meditation garden.

Recommendation

Healing and community gardens beside the Schusterman Clinic

During the team's walkability workshop, held at the Schusterman Clinic, doctors, patients, and students voiced their support for the development of healing and community gardens adjacent to the clinic. This plan recommends that these gardens be placed on the west side of the Schusterman Clinic.



Existing area west of the Schusterman Clinic.



Proposed healing garden to the west of the Schusterman Clinic.



Professor Justin Van de Wiele plays on the campus disc golf course.



Example of outdoor exercise equipment.
<http://www.xccentfitness.com>

Outdoor Sports and Recreation

For many students, staff and community members, outdoor recreation areas are important. These amenities could create a sense of community and encourage people to spend more time on campus.

The campus currently features a volleyball court, basketball court and disc golf course. The basketball court and disc golf area are widely used, not only by students and staff but also by the neighboring community. The disc golf course has been listed on several websites, which rank the course highly for community utilization.

Recommendations

Maintain current outdoor sports and recreation facilities

The volleyball court, basketball court and disc golf field should be kept and properly maintained.

Provide outdoor exercise equipment

As proposed during workshops with students and staff at the clinic, outdoor exercise equipment should be included on the west side of the clinic. The exercise stations could be used for patient therapy and provide exercise opportunities for those who use the campus.



Existing area west of the parking structure.



Proposed outdoor gym to the west of the parking structure.





Rainwater Harvesting

OU-Tulsa uses over 18 million gallons of potable water per year from the City of Tulsa — at an annual cost of more than \$32,000 — for irrigation. Potable water is a limited resource based on the size of the city's treatment capacity. During hot summers, the city often nears its total treatment capacity. Tulsa has come close to instituting mandatory water restrictions during recent droughts. The campus should do its part to conserve water.

One option to reduce water usage is to use rainwater harvested from the roofs of buildings for irrigation. The total roof area of campus buildings is estimated at 256,000 sf or 5.9 acres (not including the parking structure and small roofs or canopies). With almost 41 inches of annual rainfall, over 17 acre feet or 5,500,000 gallons of water could be collected, meeting 30 percent of demand. Adding a roof with a rainfall collection system to the parking structure would add another 1,750,000 gallons, bringing the total potential close to 40 percent of demand.

A rainwater harvesting system would require large cisterns for storage, a distribution system connected to roof drains and pumps and controllers for the irrigation system. The total cost for is unlikely to be offset by economic savings alone, but grant funding from the City of Tulsa, the State of Oklahoma or the federal government could pay for the upgrades. New buildings should be designed to collect and store water for irrigation or other non-potable uses.

Even with rainwater harvesting, OU-Tulsa would still need to reduce irrigation by 60-70 percent. This could be achieved by replacing the turf grass on campus with drought tolerant plants and xeriscaping.

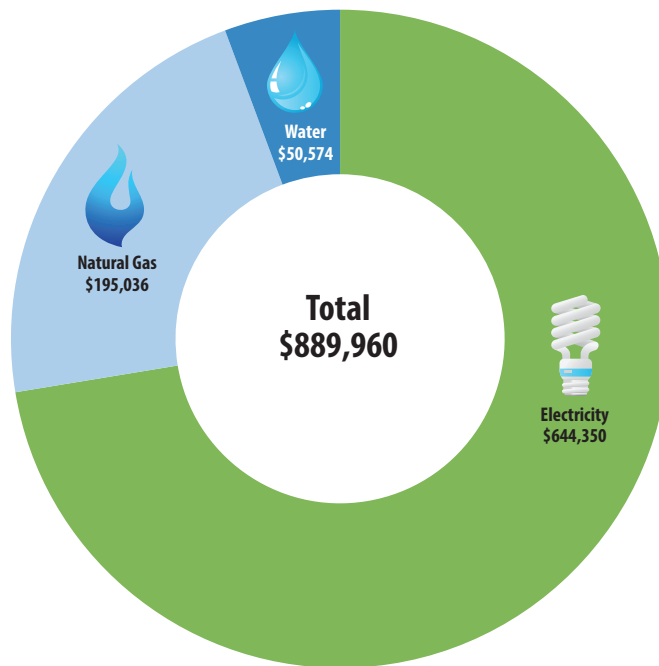
FOCUS 3: Reduce Resource Use

When most people use the term sustainability, they are generally referring to resource usage and recycling. While our team's definition is a much broader vision for what sustainability means to a university, resource usage cannot be ignored.

On any campus, usage of water, electricity, gas and disposal of solid waste must be taken into account. With the help of Joe Holderman, OU-Tulsa Associate Director of Operations, our team collected resource usage data and created simple solutions for reducing resource usage with the ultimate goal of creating a new approach to sustainability for the entire campus.

2012 OU-Tulsa Utility Costs

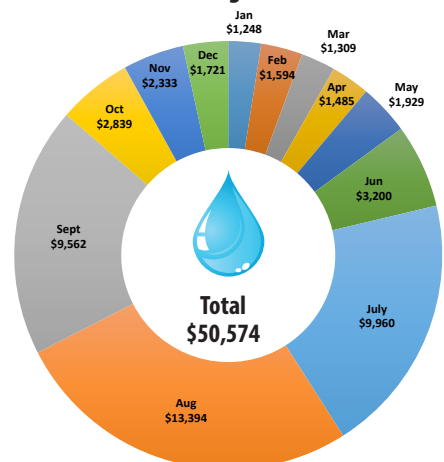
Electricity, Natural Gas and Water



Water

The total cost for water usage in the 2012 fiscal year was \$50,574. The largest cost contributor is irrigation of campus lawns. The water used for this maintenance is potable.

Water Usage - 2012



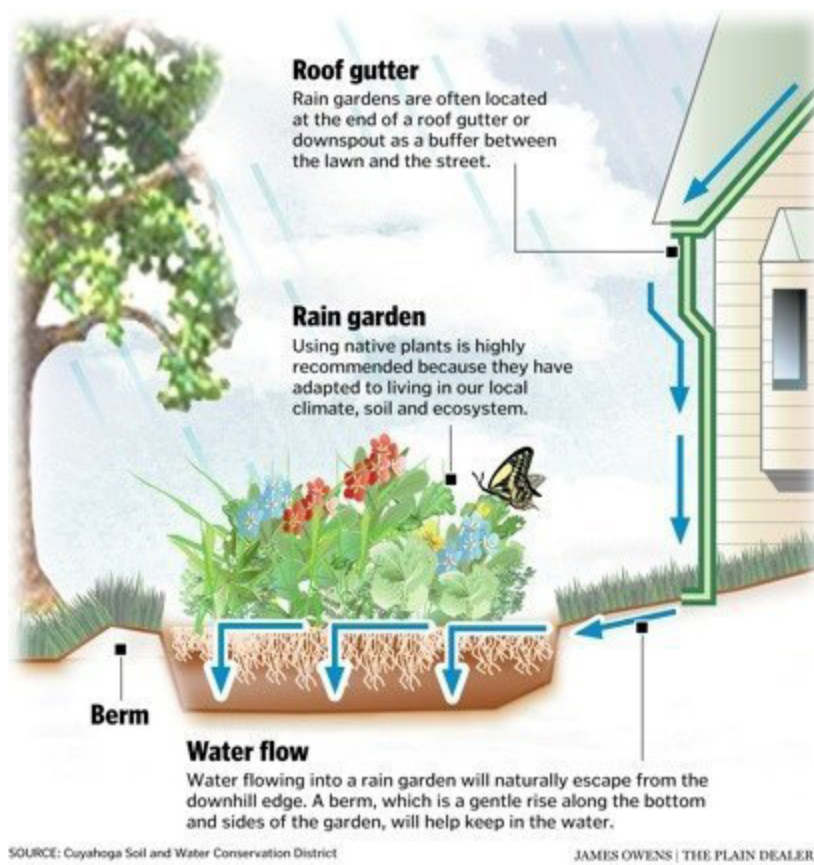
Stormwater Recommendation

Rain gardens

The campus should incorporate rain gardens, or bioswales, in low-lying areas to slow and filter stormwater runoff and provide habitat for birds and other wildlife. There are three major low-lying areas on campus that would be well-suited for rain garden development:

- The disc golf course on the south side of campus
- The area behind the Schusterman Clinic on the west side of campus
- The area near the former gas station building on the northeast side of campus

Rain garden example



Irrigation Recommendation

Installation of rain gardens would reduce the amount of area needing irrigation. The amount of water needed for irrigation could also be reduced by replacing all or part of the existing turf grass with groundcover requiring less water, such as clover or ornamental grasses, or by restoring a portion of the turf grass to native tallgrass prairie.

Rain Gardens

Rain gardens, or bioswales, can be both functional and beautiful.



<http://www.pinehurstseattle.org/2008/08/15/pretty-bioswales/>



Better Sooner Than Later: Crimson & Green

The OU-Norman campus has started a program called Crimson & Green, which includes recycling, energy saving programs and more. The OU-Tulsa campus should consider implementing similar programs.

The OU-Norman campus differs significantly from the OU-Tulsa campus: OU-Norman is much larger geographically, has more students and is a residential campus. There are, however, several components of OU-Norman's plan that could be applied at OU-Tulsa. OU-Norman uses environmentally-friendly products, including:

- Phosphate-free glass cleaner
- Natural citric acid cleaner
- Renewable multipurpose cleaner made from corn and other natural products
- 100 percent recycled toilet paper
- Eco-friendly vacuums and other machines

Planned resource-saving upgrades at OU-Norman include:

- Replacing battery-powered signs with glow-in-the-dark exit signs
- Reduced-wattage exterior lighting replacement
- Replacing interior light bulbs with lower wattage bulbs and occupancy sensors
- Motion detectors on vending machines
- Low-flow toilets and faucets
- More efficient heating and cooling systems

OU-Norman currently accepts the following for recycling:

- Aluminum cans
- Plastic #1 – #7
- White paper, mixed paper and newspaper
- Batteries

Potable Water Recommendations

■ Continue current policies

To reduce potable water usage on campus, OU-Tulsa should continue its current policy of installing low-flow toilets and automatic toilet flushers and faucets when replacing outdated equipment.

■ Education and outreach

An outreach and education program should be initiated to educate the various groups on campus about ways they can modify their habits to use less water in their daily lives.

Electricity and Gas

Information provided from Campus Operations indicated that the majority of OU-Tulsa's electricity is used for cooling the buildings. The total 2012 fiscal year cost for electricity was \$644,350 and \$195,036 for natural gas.

Recommendations

■ Campus outreach to key stakeholders

A program should be started to encourage people on campus to set building thermostats a few degrees warmer in summer and a few degrees cooler in winter to reduce the electricity used for cooling and heating.

■ Continue current policy

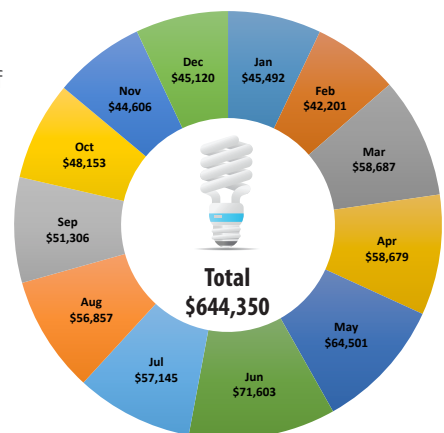
The campus should continue its current policy of installing motion-detection sensors in buildings to reduce electricity used for lighting in unused rooms.

Solid and Green Waste Recycling

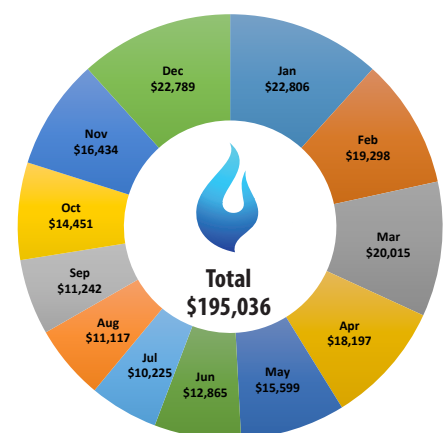
The OU-Tulsa campus currently does not have a campus-wide recycling program.

The Norman campus leads by example for the other OU campuses with its Crimson and Green Program. In fiscal year 2012, OU-Norman recycled 932.55 tons of material. This marked a 20 percent increase in recycling from the previous year's total in fiscal year 2011. The OU-Norman campus also accepts cardboard, toner cartridges, pallets and phonebooks. Old files can also be shredded and recycled upon request.

Electricity Usage - 2012



Natural Gas Usage - 2012



Recommendations

■ Work with Crimson and Green program

The OU-Tulsa campus should work with the Crimson & Green program, OU-Norman's comprehensive recycling program, and local recycling companies, such as the M.e.t., to implement a campus-wide recycling program that would allow students, faculty and other campus constituents to easily recycle paper, plastic and other recyclable materials on campus. Each occupied building should have its own recycling receptacles for paper, plastic and glass recyclables located near the entrances.

■ Host recycling events

The OU-Tulsa campus should host periodic campus recycling events where people from the community could come to safely discard items such as oil-based paint, medicine, batteries, cell phones, electronics and other hazardous materials.

■ Recycle green waste

The OU-Tulsa campus should establish a program to recycle green waste, such as grass trimmings, leaves and wood chips, into mulch for use on the campus grounds. Excess mulch could be made available to the community.





Hey-oh, Lets-go!



Tulsa Regional Bicycle & Pedestrian Master Plan
A PLAN FOR PEOPLE POWERED MOVEMENT

You may have seen recent media attention or participated in a public forum concerning the Tulsa Regional Bicycle and Pedestrian Master Plan, or the "GO Plan" for short. INCOG, the planning agency for the City of Tulsa, is coordinating with regional stakeholders to produce a plan which will provide further opportunity for connectivity between surrounding communities and around town.

Learn more about the GO Plan initiative on the project blog: <http://soutl.wordpress.com/2014/03/31/hey-oh-lets-go/>, or by visiting the official website: <http://tulsatrc.org/goplan/>.

FOCUS 4: Manage the Car

With no on-campus housing and a diversity of programming that caters to the working adult, OU-Tulsa's Campus can be categorized as a commuter campus. Most students, faculty and staff drive to campus in personal vehicles and are not required to pay parking permit fees. OU-Tulsa's status as a commuter campus poses design problems in terms of accessibility to bicycles and pedestrians. Providing programs and incentives for carpool or transit and creating a sustainable parking network are potential solutions for managing the number of vehicles on campus.

Alternative Transportation

A truly sustainable campus plan includes proper consideration of alternative forms of transportation such as walking, biking, carpooling and transit.

Walking

The campus is positioned on the corner of two arterial roads, East 41st Street South and South Yale Avenue. A sidewalk is located directly off the curb on both the north and south sides of 41st Street. However, Yale Avenue only features a partial sidewalk. There is no paved surface to walk on between the north entrance and the 41st Street traffic signal.



Aerial view facing south. The highlighted routes represent current sidewalks adjacent to 41st Street and Yale Avenue.

Recommendations

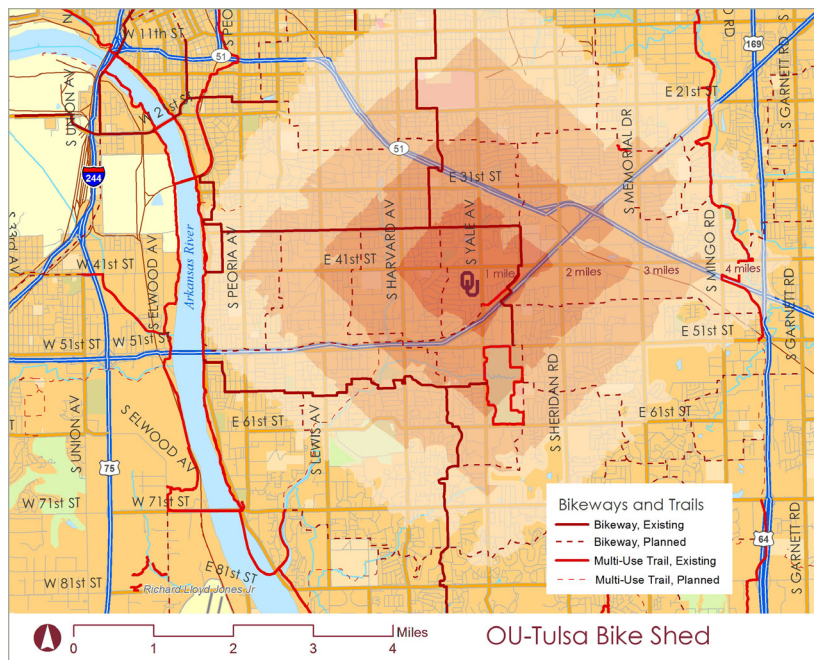
Participate in GO Plan

To improve walkability to campus, students and staff should participate in upcoming planning for the Tulsa Regional Bicycle and Pedestrian Master Plan, known as the "GO Plan." The plan will identify and prioritize recommended bicycle and pedestrian-related improvements for the City of Tulsa to implement. The City of Tulsa has included \$4.2 million dollars in the capital improvements package to implement the GO Plan's recommendations.

Cycling

Although it is not currently a common mode of transportation to campus, biking is an option for some. The bike shed map below shows the area around campus that can be considered “bikeable” to students or staff living within a four-mile radius of the campus.

The campus already features several bike racks that fit approximately 10 bikes per rack. These racks are scattered across campus, but some are not in prominent areas where campus constituents might notice them. Placing racks near the Schusterman Library and Learning Center entrances could create more interest in biking.



OU-Tulsa campus bike shed map

Many universities across the nation offer bike policies or resources to incentivize biking as a mode of transportation. UC Berkley's "New Directions" program offers a variety of benefits as part of their biking and walking policies, including discounted daily parking rates and a guaranteed ride home in case of emergencies. The program also provides a fleet of shared bicycles that may be used on campus and a portable bike maintenance station for convenient fixes.

Closer to home, the OSU-Stillwater campus offers Orange Ride, a bicycle rental program that promotes affordable and convenient transportation on and off campus. The University of Tulsa also provides a bike share program.



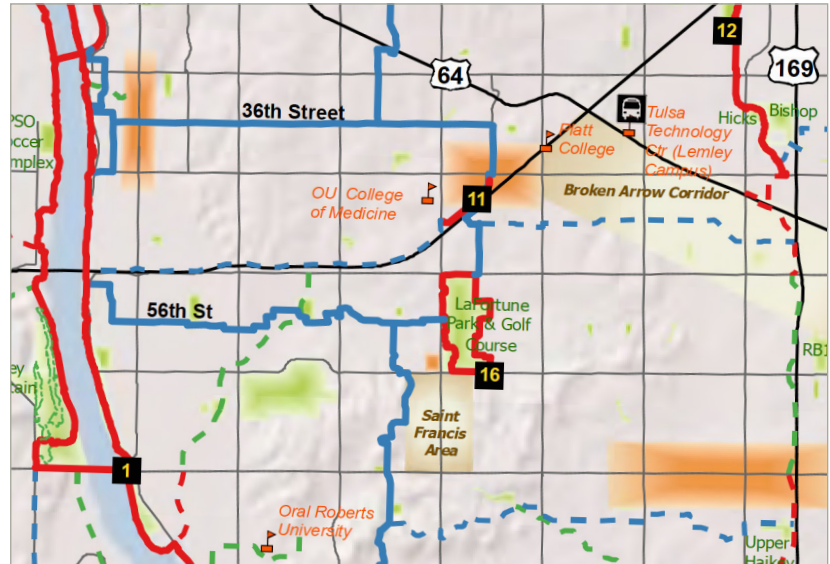
Bicycles used in OSU's Orange Ride bike share program.



Recommendations

Incorporate the OU-Tulsa Campus into the Tulsa Bikeway System

By extending the existing bikeway on 36th Street south to the OU-Tulsa campus, the campus could become part of the bikeway system and be more accessible to bicyclists.



Map showing current bikeway system (solid blue lines), planned additions to the bikeway system (dashed blue lines) and walking trails (red lines).

Create Bike-to-School program

Because the OU-Tulsa campus does not have paid parking, there is less incentive to students and staff to choose alternate forms of transportation, such as biking. The campus should create a Bike-to-School program that offers free maintenance, "how to ride safely" classes and better-stationed bike racks at key points on campus to provide some incentive to campus constituents. These bike racks should be located prominently at building entrances such as the Library, Learning Center, College of Pharmacy and the Student Center. A partnership could be formed with the Healthy Sooners program to encourage and incentivize biking to campus.



Rendering of bike rack in front of library.

Transit

The OU-Tulsa campus is served by Tulsa Transit's 222 Route. The bus currently runs on a 52-minute frequency and curves through campus to let riders out at the bus shelter located across from the clinic. Transit on campus primarily serves patients and visitors of the clinic. There is currently no incentive for students or staff to ride Tulsa Transit.



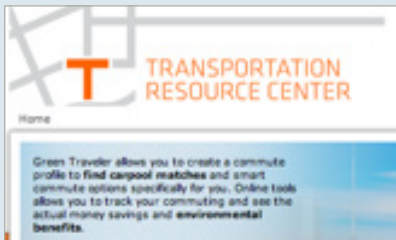
Tulsa Transit bus stop in front of the Clinic.

With a small campus population, a system similar to Tulsa Community College's transit program is recommended. TCC offers free and unlimited rides on all Tulsa Transit buses to students and staff that show an ID badge. TCC paid \$25,000 for this program in their 2013 fall semester to provide unlimited rides to thousands of students accessing their four campus locations. Ridership rose to approximately 31,500 and will cost TCC \$31,500 for the spring 2014 semester based on \$1 per rider.

Recommendations

Create Tulsa Transit pilot program

Based on the success of the TCC transit program, OU-Tulsa should invest in a pilot program to provide bus service to students and staff. By paying \$1 per student at a total cost of only \$1,500, students and staff could have unlimited bus rides, which promotes public transit as a viable transportation option. To fund this pilot program, administration should reach out to donors who are interested in providing sustainable options to students.



"Rideshare," a website that connects drivers who wish to share car rides in Tulsa, is available on www.tulsatrc.org, along with trail maps, transit information and other helpful information about how to get around Tulsa.

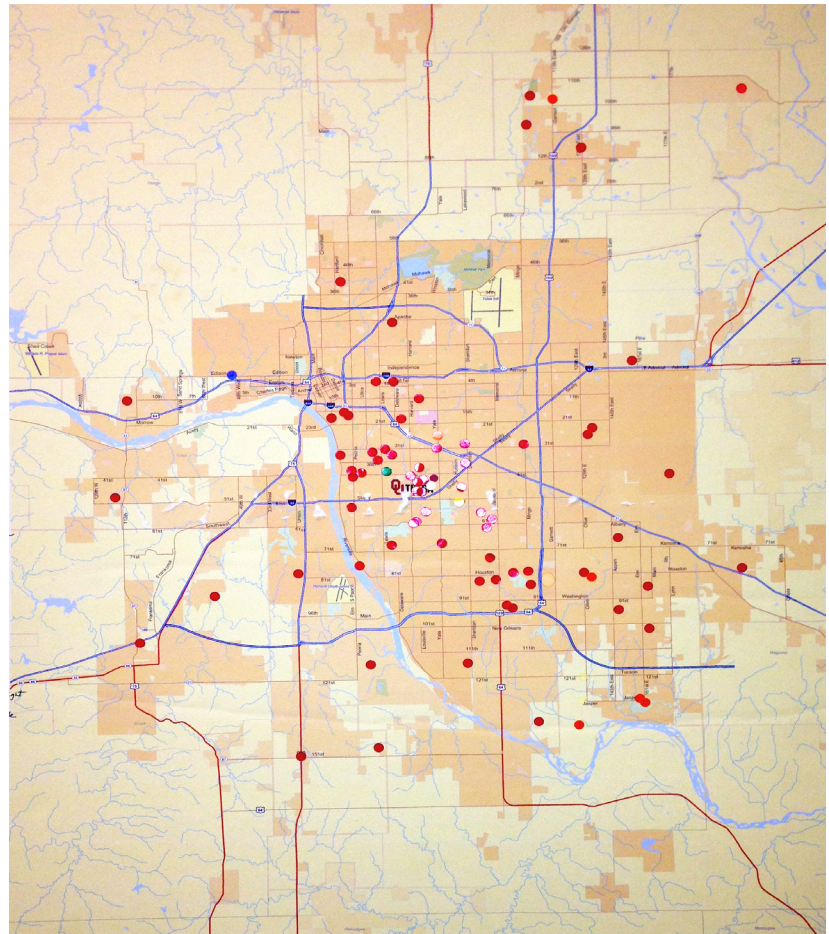
"How do you get to campus?" map legend

- I drive my own vehicle
- I ride with someone else (carpool)
- I walk
- I bicycle
- I take the bus
- I call a cab

Encourage Carpooling

Sharing a ride to campus is an option that many students and staff may already practice — but they may not be aware that it is considered "alternative transportation." There is no current policy that encourages or incentivizes this practice and no data collection to determine how many students and staff already share rides.

In campus workshops, students were asked to place dots on a map showing where they commute from and how they get to campus. Most students used a red dot to signify that they drive alone. This map demonstrates where workshop attendees live and how convenient it may be for them to consider sharing a ride.



Map used in one of the Walkable Campus workshop exercises to show where people come to campus from and what mode of transportation they use. Dots indicate answers such as red for "I drive my own vehicle" and yellow for "I walk."

Campuses across the nation offer carpool incentive programs that provide reduced parking fees and more convenient parking spots. The OSU-Stillwater campus Parking and Transit Service department provides these cost-saving benefits in addition to an online matching service that helps people locate others who are interested in carpooling. Similar matching software is available for the entire Tulsa area through INCOG's transportation program, the Transportation Resource Center, www.tulsatrc.org.

Recommendations

Host carpool matching event

The OU-Tulsa campus should host a mixer for those interested to register on carpool matching software to facilitate meeting other campus constituents they could share rides with.

Create carpool incentive program

People interested in carpools could be given hang-tags for their cars that would allow them to park more desirable parking spaces dedicated to carpoolers.

Automobile Systems

For those who choose to drive a personal vehicle, proper infrastructure and policies must be put in place to ensure availability of parking and safety for drivers.

Campus drives

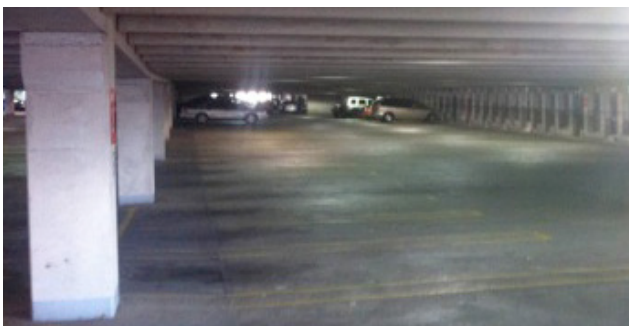
The campus has four entry drives: one located off 41st Street and the remaining three off of Yale. Our team completed traffic counts of each drive to determine which drives were used the most and which were being under-utilized.

Encourage parking at Promenade Mall

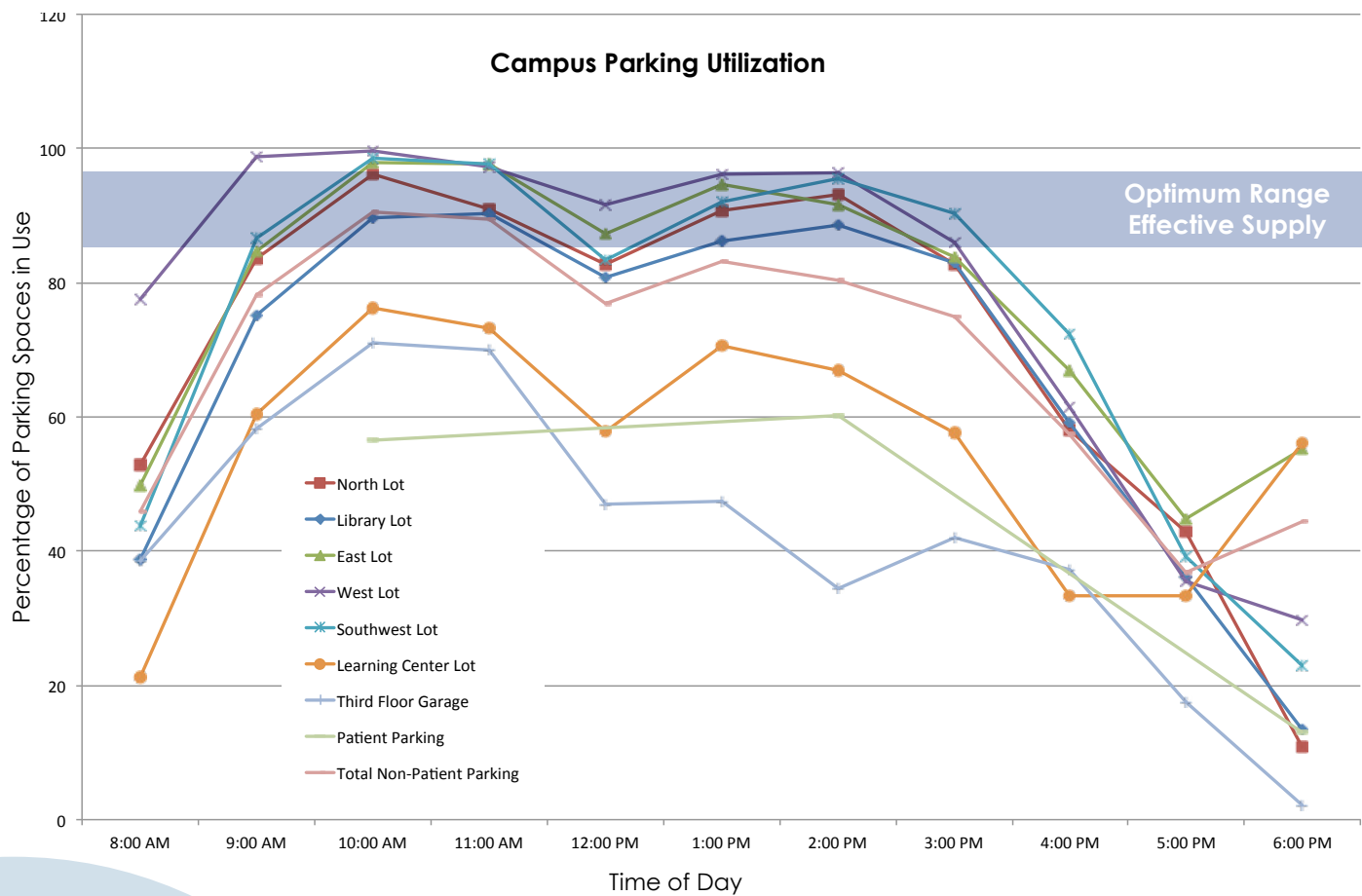
Observations at Promenade Mall indicated that there are many parking spaces available. The four-floor parking structure on the east side of the mall provides over 2,400 parking spaces. During the week, there are always plenty of parking spaces available.



Available mall surface parking on a weekday morning.



Promenade Mall parking structure.



Parking

In August, OUUDS students combined efforts with Campus Security to study campus parking. Our parking space count showed that there are 1,292 parking spaces, of which 790 were on surface lots and 502 in the clinic parking structure. The parking structure contains 296 spaces reserved for clinic patients and 14 spaces reserved for physicians. There are 982 parking spaces for faculty, staff, students and visitors distributed in the following parking lots.

Parking Lot	Number of Spaces
3rd Level of Parking Structure	192
East	324
Learning Center	91
Library	105
North	37
Northeast Drive	22
Operations	44
Southwest	83
West	84

Sixty-two parking spaces are designated handicap accessible, but the four handicap accessible spaces on the east side of the East Lot do not comply with the Americans with Disabilities Act Accessibility Guidelines, leaving 58 accessible spaces. Section 502 of the guidelines requires 40 spaces in the campus parking areas, leaving a surplus of 18 spaces (25-27 spaces if disability access aisles are included). Student observations indicate that the surplus is not required to meet demand for disabled parking spaces. Forty spaces are located in the structured parking deck, which is where most of the surplus disabled parking exists.

Ample overflow parking can be found nearby at Promenade Mall on the east side of Yale Avenue. Mall operators encourage OU-Tulsa to use their parking at no charge to give the appearance that the mall is busy.

The total number of vehicles entering and exiting campus estimated by our count is approximately 7,400, or 3,700 vehicle trips per day. Dividing the number of vehicle trips per day by the number of parking spaces indicates an overall turnover rate of 2.86 cars per day. Theoretically, some parking, such as for patients and short-term visitors, has a much higher turnover rate. More detailed traffic counts are needed to quantify the different rates for separate lots.

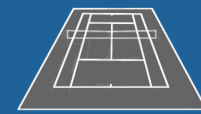
Parking professionals consider 85 to 95 percent utilization to be the optimum range for parking lots to maintain an effective supply of spaces. This rate allows efficient turnover of spaces without excessive searching by incoming users, while maintaining a high level of return on the cost of the facility. Rates greater than 95 percent are considered over-utilized and undesirable. Rates less than 85 percent are considered underutilized and also undesirable.

The structured parking deck near the clinic is severely underutilized. The third floor level for faculty, staff and students rarely exceeds 70 percent utilization. The third level peaks during the morning but does not recover during the afternoon, suggesting that the morning peak is the stronger of the two peaks on campus. The patient parking is never more than 60 percent utilized, especially the second floor, which rarely exceeds 50 percent. It should be noted that the third level of the parking structure cannot be used during ice and snow conditions since the ramp is uncovered and does not have a melting system. During rare inclement weather events, the third level of the structure is closed, which affects the number of parking spaces available. Often, the campus is closed during inclement weather, so the impact may be less significant than it might seem.

Currently, there is no parking shortage on campus. Total non-patient parking achieves optimal utilization from 10 a.m. to 11 a.m. during the morning peak, but is well below optimal most of the day, largely due to underutilization of the parking structure. Parking may seem scarce at peak times in the high demand lots, but there are always spaces available in slightly less convenient locations. The campus has 200 to 250 surplus parking spaces, mostly in the parking structure. This surplus could theoretically accommodate a growth in enrollment of 500 to 600 students at optimum effective utilization. Alternatively, some parking could be removed from service for higher and better land uses.

What Would You Trade Parking Spots For?

Below is a list of amenities that would be beneficial additions to the OU-Tulsa campus. The number of parking spaces that take up the same amount of area are shown with each amenity.



REGULATION SIZE TENNIS COURT



17 SPACES



REGULATION SIZE SWIMMING POOL



18 SPACES



SPACE FOR 30 YOGA-FANATICS



8 SPACES



ROCK-CLIMBING WALL



4 SPACES



SPACE FOR STUDYING WITH FRIENDS



1 SPACE



STUDENT HOUSING FOR 3 PEOPLE



10 SPACES



SPACE FOR KIDS TO PLAY SAFELY

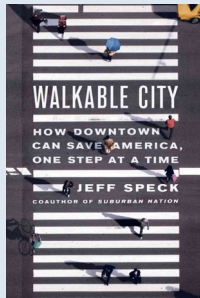


8 SPACES



Paved Paradise

Jeff Speck's book *Walkable City* includes steps communities can take to ensure that their walkability. Step 3, "Get the Parking Right," posits that parking often determines the disposition of an urban area more than any other factor. Although parking policy can be a sensitive issue on campus, one thing that we should all agree on is that the campus should be walkable. With thoughtful planning, cars and pedestrians can peacefully co-exist on the OU-Tulsa campus.



View Jeff Speck's *Walkable City* video at <http://youtu.be/Wai4ub90stQ>.



Read more about this topic on the SOUTL blog: <http://soutl.wordpress.com/2013/11/04/paved-paradise/>

Recommendations

Inhibit surface lot development

OU-Tulsa should avoid building any future surface parking. Future parking demand should be accommodated by utilizing existing parking surplus, building new parking structures or taking advantage of available free parking at Promenade Mall.

Cover parking structure

OU-Tulsa should consider covering the third floor ramp or even the entire third level of the parking structure to ensure adequate parking supply during inclement weather and special events that draw large numbers of people to campus.

Create parking management system

To effectively implement parking management, the campus needs a method of designating and enforcing parking policy. OU-Tulsa currently does not issue parking permits or charge for parking, either directly or through user charges or fees. Most campuses designate parking areas for different user groups. Because this is not of interest to the administration, a plan for designated staff parking in the parking structure could alleviate strain in the surface lots and utilize the surplus spaces available in the structure. We recommend the creation of a transportation committee representing constituents across campus to design and implement this system.

Create wellness program incentives

Another alternative to fees is the use of incentives. Faculty and staff could earn "wellness points" as part of the Healthy Sooners program for parking on the third floor of the parking structure or at Promenade Mall. Carpooling and walking or biking to campus could be rewarded in this way as well. Faculty and staff would accumulate health benefits from the program and the University would save on the premiums it pays its insurer, Blue Cross and Blue Shield.

Improve disabled parking spaces

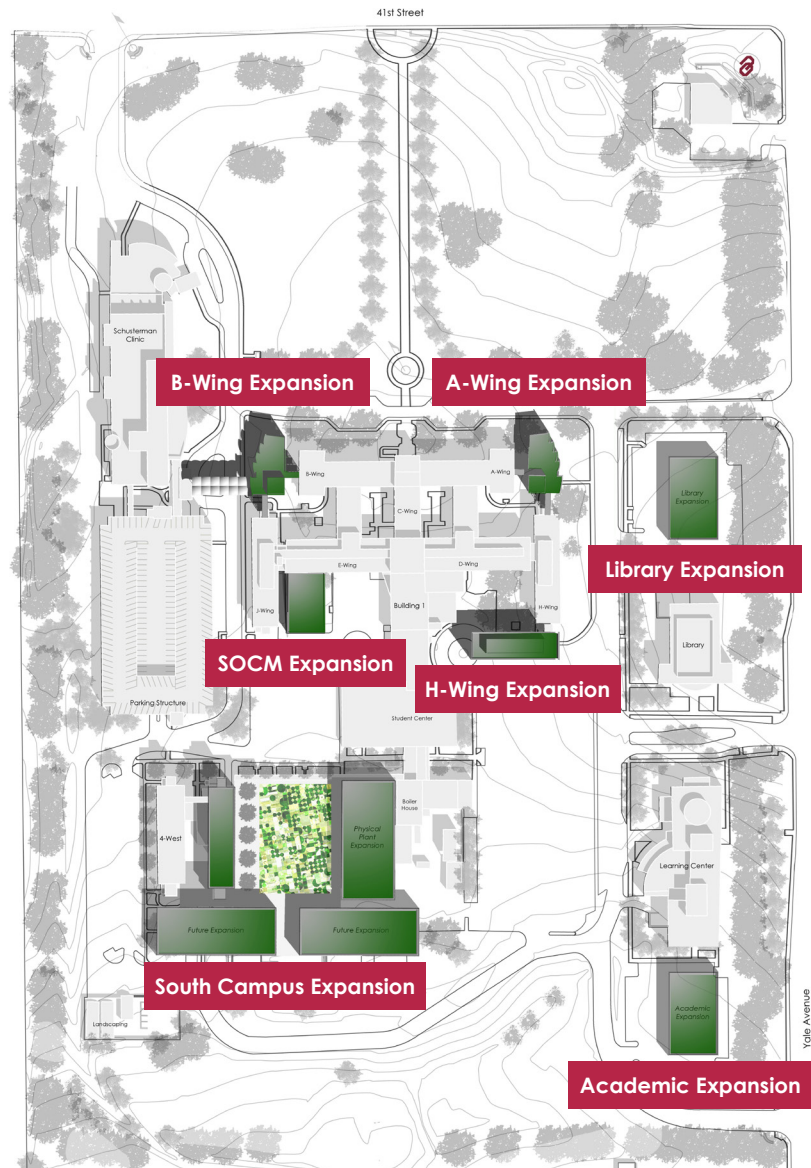
As discussed earlier, the campus has excess parking for those with disabilities. There is no need to remove these extra spaces unless parking supply becomes constrained; however, the campus might consider moving some of its accessible parking in the surface lots, particularly near the circle drives in the East and West lots, to areas closer to accessible entries. The vacated spaces could be used for short-term visitor parking or for those choosing to carpool. The campus should correct or eliminate the non-compliant spaces in the East Lot.





FOCUS 5: Accommodate Future Growth

While OU-Tulsa has already expanded several parts of campus over the past 10 years, there is still need for additional expansion, especially for the School of Community Medicine and research facilities. To prepare for these additions, it is important to assess potential expansion locations when planning future outdoor amenities on campus. Below are several recommendations that will prevent the overlapping of planned outdoor spaces with potential building expansions.



Map of existing buildings with potential expansions highlighted.

Recommendations

Expand the School of Community Medicine into the west parking lot or space north of current location

There are two spaces that would be viable solutions for the expansion of the school from Building L. The area north of the current building is a location that would prominently display the new building for those who enter from the north. This recommended location has many benefits: adjacency to the clinic entrance, nearby parking in parking garage, direct access to current school location in Building 5 and existing circulation to the main wings of administrative buildings.

The second recommended location has similar benefits in that it connects to the existing circulation to the south of the current building. Extending the school into the west surface parking lot would create nicely-proportioned outdoor spaces in the voids between buildings. This location would have the benefit of direct access to the adjacent parking garage, but would not have a prominent entrance, as it would be tucked behind many older buildings.

Expand the Library and Learning Center into adjacent parking lots to north and south

The most viable areas for each of these buildings to expand is into their adjacent parking lots, to the north and the south. Removing parking from the easterly portion of the property may create the need for additional parking.

Replace southern half of the east surface lot with a multi-story parking garage

Instead of adding additional surface parking, a new multi-level parking garage should be built on the southern half of the east parking lot. This area is already covered in asphalt that will eventually need to be replaced. Placing a parking structure in this location removes the need to replace the existing lot and maximizes the use of space.

Construct research center on northern half of east surface lot, symmetrical to proposed community health building

A need has been expressed for a new medical research facility on campus. This building may be similar in size to the new School of Community Medicine expansion. This facility should be located symmetrically to the Community Medicine wing. This location will produce two benefits: 1) Building entrances will be easier to navigate by visitors; and 2) Outdoor spaces around these buildings will be similar in area and proportion.

South campus expansion

For long-term future plans, it would be beneficial to redevelop the southern portions of campus near the physical plant. By strategically removing buildings, green space could be created in the shape of a square. An illustration of this layout is shown on the map on the opposite page.



Implementation Strategy

The first step toward implementation of the Sustainable OU Landscapes plan is to create a Building and Grounds Committee of campus leaders and department chairs at OU-Tulsa to review the plan, make refinements and guide implementation. The members of the Sustainable Landscapes Constituent Team would be a good core group to establish such a committee. The constituent team already contains students, staff, faculty and administrators representing both the OU-Norman and OU Health Sciences who are familiar with the plan. Department chairs and supervisors from Operations, University Development, the School of Community Medicine, Dean's Office, and OU-Physicians, among others, should also be consulted for feedback and advice. The plan next goes to the OU-Tulsa Vice-President for Finance and Administration to be included as part of the review of the campus master plan and inclusion in the OU Health Sciences Center annual planning initiative. Several pedestrian and cycling projects currently rank highly on the Norman Campus Plan, even outranking life safety improvements for some buildings.

The university may also want to consider appointing other committees for transportation and parking; energy efficiency and sustainability; and campus health and wellness. Staff may need to be added in these areas. OU-Tulsa is currently looking for a campus wellness coordinator. OU-Norman has recently announced the search for a sustainability coordinator.

Capital Funding

Once adopted, we recommend that several projects from the plan be added by the Office of Architectural and Engineering Services to the cross-campus Campus Master Plan of Capital Improvements Projects. This plan would then have to go before the University of Oklahoma Board of Regents for approval. The next opportunity to submit projects is in February 2016. The following five projects are identified as high-priority:

Campus Walking Trail

The campus walking trail is an approximately two-mile-long walking system, intended to improve campus accessibility and provide recreation and wellness opportunities for students, faculty, staff and patients. The trail will include amenities such as seating areas, outdoor instructional space, and fitness stations. The trail will be eight feet wide, asphalt paved and lighted. The trail was first proposed as part of the 2003 OU-Tulsa Campus Master Plan, and is the only one of eight major initiatives identified by the plan not yet completed. The estimated capital cost is \$1,800,000.

Schusterman Clinic Healing Garden

The healing garden would be located on the west side of the Schusterman Clinic and would connect to the walking trail proposed above. It would feature several areas, including a rain garden, an herb/medicinal garden, a demonstration garden for growing vegetables, a pergola-covered gathering area, and alcove seating. The healing garden could be used by clinic staff during breaks or for consultations with patients. The estimated capital cost is \$900,000.

West Plaza

The West Plaza is a 16,000 square foot paved area adjacent to the new entrance for the School of Community Medicine, replacing an 80 space parking lot. The plaza could be used as a social space and a place to host campus events. The estimated capital cost is \$1,000,000.

East-West Walkway

The East-West Walkway connects the main campus building to the Library and Learning Center and eliminates the need to cross the East Parking Lot. The walkway will improve the safety and comfort of pedestrians on one of the busiest paths of campus. The walkway also provides landscaping and screening of the campus cooling tower. The estimated capital cost is \$1,500,000. This project is already included on the Campus Master Plan for Capital Improvements and is ranked 7th for the OU-Tulsa Campus.

Parking Ramp Roof

This project would add a 20,000 square foot roof over the third level ramp of the Schusterman Center Parking Ramp. Currently, the third level of the parking structure is closed during ice and snow, reducing the campus parking supply by 192 spaces. Covering the ramp would allow it to be used in all types of weather. While it is not economically feasible to include a photovoltaic array at this time, the roof structure should also be structurally designed to support an array in the future. The estimated capital cost is \$440,000.

These projects could be funded in a variety of ways. They could be included in requests for state funding, particularly bond issues. They could also be funded by private gifts and donations from private philanthropy. The walking trail, in particular, has a variety of features and the flexibility to be funded in several phases if needed by smaller gifts. Another possible strategy is to adopt a budgeting policy that includes a percentage for campus site improvements for all major building projects that can be used for development of the campus grounds.

Operations Funding

Another important consideration is the operations budget impacts of the plan. We recommend establishing operations and maintenance budgets for the projects listed above and others described in the plan. Major expenses include labor for gardening, cleaning, repairing and painting, as well as expenses for landscaping materials, programming charges and utilities. Endowments should be raised as part of fundraising efforts. Endowments for the maintenance and operation of the five priority projects listed above need to be around \$2.1 million to provide \$100,000 in annual operations funds.

Alternatively, operations funding could come from a variety of other sources. Students pay a variety of fees, a portion of which might be appropriated to pay for support of these improvements, including health and wellness, culture and recreation, student facilities and activities, and special events.

An agreement with the university health and wellness program, Healthy Sooners, could also be a potential source of funding since some of the site improvements, including the walking trail and healing garden, could be integrated into wellness efforts. Healthy Sooners

receives some funding through the university health insurance provider, Blue Cross and Blue Shield (BCBS), if the wellness program leads to better health outcomes and lower insurance claims. BCBS could also be approached as a grantor for some of the capital funding.

Finally, some of the new campus spaces might be leased for private or community events that would generate leasing revenue. For instance, the West Plaza could host a farmers' market, food trucks or outdoor entertainment. Likewise, the healing garden could be leased out for weddings or parties. The walking trail could be used for fundraisers.

Community Relations

The campus should work closely with the City of Tulsa, our neighbors, and community partners to implement the plan.

The University should work closely with the Mayor's Office to review the plan with the city's planning office, engineering department and capital improvement's committee. Of particular interest are the recommendations for improvements at the 41st Street and 43rd Street campus entrances and the future expansion of Yale Avenue. Inclusion in the city's bicycle and pedestrian plan is also necessary and the campus should be connected to the citywide bikeway system. Finally, the plan should be submitted to the Tulsa Metropolitan Area Planning Commission for inclusion in the City of Tulsa Comprehensive Plan as a supporting document.

The Building and Grounds Committee should meet regularly with the Patrick Henry Neighborhood Association to discuss campus issues and review future improvements. The neighbors have expressed an interest in having a pedestrian entrance to campus from the neighborhood. The university should work with them to identify a property owner that might negotiate an easement with the University for a new entrance and/or sell a property for that purpose. Similarly, the committee should meet with representatives of the Promenade Mall. The sharing of parking at the mall is one avenue of discussion that should be pursued.

Another area of opportunity is in the realm of community-based partnerships. The university could work with both for-profit and non-profit community organizations to contract for services or establish mutually beneficial understandings. For instance, community gardeners, such as Newsome Farms, Global Gardens, or Southwood Nursery, could help in the establishment and management of the campus gardens and arboretum. The Downtown Tulsa Coordinating Committee has also expressed an interest in an arboretum to grow street trees in downtown Tulsa.

Conclusion

This year's Urban Design Studio students and faculty are proposing an update to the OU-Tulsa campus master plan that focuses on the outdoor spaces surrounding the buildings. The SOUL team believes that thoughtfully planned outdoor spaces are vital to the collegiate atmosphere of campus, and that the spaces surrounding buildings are just as important as the spaces within them. By addressing the need for outdoor social spaces, it is hoped that OU-Tulsa will become a self-sustaining, identifiable campus. We hope this plan sparks conversations on improving the parts of the OU-Tulsa campus that are deficient and taking advantage of the many qualities that make the campus unique.

Improving the OU-Tulsa campus would benefit students, faculty, and staff, as well as Tulsa residents and businesses. Students, faculty and staff would have opportunities to exercise, relax in a natural setting, and collaborate with people from other areas of the University. The residents of the adjacent neighborhood would benefit from a vibrant, university campus with places for outdoor recreation opportunities, such as the proposed walking trail. Local businesses would benefit from added pedestrian connectivity and increased visitor traffic resulting from the plan's implementation.

The team believes that instituting this plan will benefit OU-Tulsa — and the entire Tulsa community — for many years to come. This plan has the potential to transform the OU-Tulsa campus into a Tulsa landmark, greatly enhancing the already highly-respected reputation of the University of Oklahoma, and attracting new students, faculty and staff to the OU-Tulsa campus.

The SOUL team thanks you for reviewing this plan. For more information, visit the project blog at <http://soutl.wordpress.com> or contact the OU-Tulsa Urban Design Studio.

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