

Report of Master Plan Task Force on Enhancing Open Spaces, Recreation and Athletics



Figure 1 - UNI Women's Rugby

*“To those devoid of imagination a blank place on the map is a useless waste; to others, the most valuable part.”
Aldo Leopold*

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INTRODUCTION

The University of Northern Iowa is a comprehensive Midwestern regional institution. Multiple academic programs participated in this project including the School of Health, Physical Education and Leisure Services as well as the Tallgrass Prairie Center. The committee also had representatives from the Recreation Services Department and the Division I Athletic Program. The university Facilities Planning office and Physical Plant departments were also represented. Individual membership included:

- Christopher Denison, Ed.D - Director Recreation Services (Chair)
- Doris Corbett, Ph.D. - Director School of Health, Physical Education and Leisure Services
- Brooke Croshier-Sidebotham- Assistant Athletic Director of Facilities and Operations
- Victoria Hurst - Northern Iowa Student Government
- Laura Jackson, Ph.D. - Professor and Director of the Tallgrass Prairie Center
- Tim Klatt - Associate Director Recreation Services
- Lynn Pakala - Physical Plant Grounds Operations
- Eugene Wallingford, Ph.D. - Professor and Director of Computer Sciences
- Windee Weiss, Ph.D. - Associate Director and Associate Professor School of Health, Physical Education and Leisure Services
- Laura Knowles Verden, PLA CLARB - Campus Landscape Architect, Facilities Planning

Task Force V Work Charges:

The task force was charged with the following:

- What facilities will we need to support students in 5, 10 and 20 years?
- What types of spaces are needed, both interior and exterior, to deliver high quality recreation programs and nationally recognized athletic programs?
- What type of spaces support the academic mission of the institution and foster education outside of the classroom setting?
- What types of passive spaces are needed to foster informal interactions?
- How do we utilize the space between the buildings in the most sustainable way?
- What types of partnerships can be created to serve students, faculty and staff as well as the community of Cedar Falls, and the citizens of Iowa?

Task Force V Work Plan:

The task force engaged in a series of meetings with specific agendas. The task force members quickly identified presentations that were needed from non-committee members that would enhance committee member knowledge and better prepare them for completing this report. The presentations included:

- *Collegiate Recreation Space Utilization Standards* - Dr. Christopher Denison, Director - Recreation Services
- *Envisioning the Emerald Necklace* - Dr. Kathleen Scholl, Associate Professor School of Health, Physical Education and Leisure Services
- *Department of Athletics Space Utilization* - Steve Schofield, Associate Director - UNI Athletics
- *School of Health, Physical Education and Leisure Services Space Utilization* - Dr. Windee Weiss, Associate Director and Associate Professor - School of Health, Physical Education and Leisure Services
- *City of Cedar Falls Space Utilization and UNI Collaborative Efforts* - Brock Goos, Director of Sport Programs, Cedar Falls Human and Leisure Services

- *Cedar Falls School District Space Utilization and UNI Collaborative Efforts* - Gary Koenen, Activities Director - Cedar Falls School District
- *UNI Sustainability Initiatives* - Eric O'Brien, University Sustainability Coordinator
- *UNI Grounds Operation* - Lynn Pakala, Physical Plant Grounds Operations

Definitions:

Bio Retention Cells - A bio-retention cell or rain garden is a depressed area with porous backfill (material used to refill an excavation) vegetated with deep-rooted perennial plants. These areas often have an underdrain to encourage filtration and infiltration, especially in clayey soils. Bio-retention cells provide groundwater recharge, pollutant removal, and runoff detention. Bio-retention cells are an effective solution in parking lots or urban areas where green space is limited.

Dimensions for Wellbeing (DWB) - Formerly known as Personal Wellness which are for credit academic class within the School of Health, Physical Education and Leisure Services curriculum.

Emerald Ash Borer (EAB) - EAB found its way to the United States in 2002, Black Hawk County in 2014. EAB is an aggressive pest that feeds solely on the tree species *Fraxinus* (Ash).

Recreation Services - A comprehensive collegiate recreation program encompassing: (a) aquatics, (b) family / youth programs, (c) fitness, (d) intramural sports, (e) outdoor recreation, (f) sport clubs, and (g) wellness.

School of Health, Physical Education and Leisure Services - An academic school within the College of Education housing; (a) Health; (b) Physical Education- Movement and Exercise Science; (c) Athletic Training; and (d) Leisure, Youth and Human Services. The School of HPELS has approximately 1,000 majors and teaches curriculum in multi-disciplinary subjects including Dimensions of Wellbeing.

Tallgrass Prairie Center - The Tallgrass Prairie Center is a strong advocate of progressive, ecological approaches utilizing native vegetation to provide environmental, economic, and aesthetic benefits for the public good. The Center is in the vanguard of roadside vegetation management, native Source Identified seed development, and prairie advocacy. The Center primarily serves the Upper Midwest Tallgrass Prairie Region and is a model for similar efforts nationally and internationally.

UNI Athletics - A Division I program including the following sports: Women - Basketball, Cross Country, Golf, Soccer, Softball, Swimming and Diving, Tennis, Track and Field, and Volleyball; and Men - Basketball, Cross Country, Football, Golf, Track and Field, and Wrestling.

CHALLENGES

Departments and programs at the University of Northern Iowa have a strong history of collaboration both internal to UNI and with external groups. These collaborations have led to the development of superior facilities, long term staff relationships and creative problem solving. It is imperative that as future university development occurs, these collaborations continue and departmental silos are avoided. This includes community relationships with the City of Cedar Falls and the Cedar Falls School District.

Academics:

As a part of the comprehensive educational experience at the University of Northern Iowa, undergraduate students are required to complete Category ID: Personal Wellness, which is now in the transitioning phase to Dimensions of Wellbeing (DWB). The DWB program focuses on educating students about the multiple aspects of living a healthy, thoughtful, and environmentally-conscious life. Courses in the DWB program focus on at least one aspect of wellbeing: physical, emotional, intellectual, environmental, interpersonal/social, and spiritual.

Dimensions of Wellbeing is a two credit hour requirement, consisting of one lecture course and one activity/lab course. The Dimensions of Wellbeing program will meet the needs of approximately 1,000 students each semester. With these demands, the School of Health, Physical Education, and Leisure Services must provide at a minimum 25

lecture courses and 40-50 activity/lab sections. In order to continue offering this impactful and high quality program, the School of HPELS, along with Recreation Services and Student Wellness Services, must overcome some future challenges in regards to outdoor spaces and our current facilities.

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Our lack of quality tennis courts continues to be problematic. The breakdown of the current outdoor courts has led to the discontinuation of offering tennis courses within our programming. At best, tennis is now being taught in a gymnasium. Additionally, many of our courses focus on outdoor and environmental health. The development of additional outdoor classrooms with permanent structures to protect against wind and weather and provide outdoor storage which will allow our professors and students to use these laboratories throughout the year. In order to continue to promote life-long wellbeing through DWB, many of the innovative courses that could be offered are linked to outdoor pursuits, hiking, cross-country skiing, environmentally healthy choices, and other more traditional activities, such as walking, running, and biking. With this, however, we are limited to the breadth and scope of these courses due to the limited number of trails and interconnectivity between the existing trails on campus. Faculty, staff, and students alike are challenged to be able to get to campus, move across campus, and return home in a safe manner without having to cross busy intersections. An integrated trail system that connects all of campus with the surrounding community not only helps promote the mission of DWB from an academic perspective, but also provides safe, alternative means to campus for faculty, staff, students, and community members.

Recreation Services:

Current and future challenges for UNI Recreation Services are numerous. Recreation Services continues to have strong participation from students, faculty and staff registering 330,000 participations in 2014. The Wellness/ Recreation Center was awarded the Athletic Business Facilities of Merit Award of Merit (1999) and the National Intramural-Recreational Sports Outstanding Facilities Award (2000).



The Wellness/Recreation Center opened in 1998 and is starting to show its age. Although yearly improvements have been made to the building for the last few years, it is becoming difficult to keep up with repairs. The indoor climbing wall is also showing needs of major repairs.

The outdoor tennis courts were opened in 2002 and have been severely damaged twice. The flood of 2008 damaged the court surface and underground electrical infrastructure. The wind storm of 2010 blew down the north fence. Although Recreation Services manages far more outdoor play spaces than its peers, there is not one good quality game field for sport club games and intramural championships for soccer, flag football, or rugby. Additionally, the condition of the current fields are less than ideal. UNI students are participating in more varied programs as shown by a decline in Intramural participation and an increase from 13 Sport Clubs in 2010 to 26 Sport Clubs in 2014. Figure 1 shows a national comparison of guidelines for recreation space inventory. Calculations for inventory are based on an institution enrollment of 14,000. Industry standard number of spaces are shown in column three and the UNI inventory is shown in column four.

Figure 1. Space Inventory Guidelines

Type of Facility	Calculation	Industry Guideline	UNI
Outdoor Fields	14.000 x 1.04	14.56 acres	26
Flag Football Fields	14.000 x .28	3.92 fields	10
Soccer Fields	14.000 x .33	4.62 fields	5
Softball Fields	14.000 x .26	3.64 fields	8
Tennis Courts	14.000 x .61	8.54 courts	8
Sand Volleyball			4
Ultimate Frisbee			1
Rugby			2
Cricket			1

Track and Field			1
Parks (w shelters)			0
Trails (soft)			4
Ponds			0
Creeks			3

*The NIRSA guidelines do not address sand volleyball, ultimate Frisbee, rugby, cricket, track, parks, trails, ponds and creeks.



Figure 3 - Ultimate Frisbee after Dark

Comparisons are not possible due to collaborative partnerships with multiple user groups which have led to creative scheduling of outdoor spaces. For example, Recreation Services uses some fields seasonally and the Cedar Falls School district uses the same fields at different times of the year. This is also true in the case of tennis as six different user groups schedule the courts in addition to drop in play. Multiple sports can also be played on the same field. For example, softball may play on the same field that flag football played on the previous hour. Additionally, the intramural fields are used for parking during large events in the UNI-DOME.

The Wellness/Recreation Center is typically the starting point for on-campus tours and orientations.

Recent research (Denison, 2013; Forrester, 2014; Kampf & Teske, 2013) show the importance of Collegiate Recreation facilities and programs to university recruitment and retention.

Athletics:

Currently, there are three Athletic teams that play in facilities off the University of Northern Iowa campus including: UNI Softball (Robinson-Dresser Sports Complex), UNI Soccer (Cedar Valley Soccer Complex) and UNI Tennis (Black Hawk Tennis Center). Although positive relationships exist with all three venues, the distance from campus and locker rooms is an issue. Student athletes, coaches, athletic trainers, and facility staff have to travel off-campus to these venues for practices and games. Even though the UNI campus does have existing fields for soccer and tennis, they are not acceptable for inter-collegiate play.

Bringing these three female sports back to the University of Northern Iowa campus is very important to UNI Athletics. Looking to provide practice and game facilities for these sports is important for compliance with Title IX.

Coaches and support staff for these three programs are also spread into multiple office and training facilities. For example, the Track and Field offices are in the West Gym, whereas the Messersmith Track Complex is located on the northwest corner of campus, and the Track and Field locker rooms are located in the Wellness/Recreation Center. Adding a synthetic turf in the Messersmith track complex would make the space more efficient. Utilizing the Nielsen Field House for renovated staff offices, locker rooms, and meeting spaces would also provide an opportunity to consolidate these teams' needs and utilize spaces that are currently not in use.

The UNI-Dome is used over 360 days per year and is truly a facility that is used by the citizens of the state of Iowa. Many of those reservations are for team practices, special events, academic classes, and general recreational use. UNI does not have enough time or space for all events/practices that are requested. Large scale events are programmed in the facility year round and there is a lack of ancillary spaces (e.g. restrooms, concessions area, ticketing, etc.) to accommodate the demand. Additionally, the facility lacks office, meeting, storage and staging areas. This lack of space forces the need to use spaces in adjacent buildings.

Open Spaces:

UNI campus lawns, plazas and seating areas provide for a range of flexible spaces and experiences which support social interaction, quiet study, outdoor classrooms and play.



UNI campus preserves and naturalized areas contribute to the academic, recreational and aesthetic experiences of the university community. Campus preserves provide places for inquiry-based learning involving student research, as well as field courses in biology, earth science and the arts. They provide free access to undergraduate and graduate research opportunities which otherwise would only be found at a remote field station facility.

Native prairie vegetation is seamlessly blended with more traditional landscaping, giving the campus a distinctive look and feel. These areas require specialized management skills to adequately maintain.

Since 2005, a unique collaboration between campus Grounds, Facilities Planning and the Tallgrass Prairie Center has converted over 120 acres of turf grass and agricultural land to prairie or naturalized vegetation, saving thousands of dollars per year in mowing, fertilizer, and herbicide costs, while diversifying the landscape year-round. The Tallgrass Prairie Center has provided most of the skilled labor and training through in-kind labor and a course on fire ecology, but no longer has the resources to provide these services to the campus community. Proper management of the prairie and naturalized areas of campus require specialized maintenance that is not generally available within the Grounds department, thus, they are not capable of absorbing this work at this time. Consensus within the task force about the best course of action for prairie management was not achieved, which suggests that additional study and discussion is needed regarding this issue.

The UNI Physical Plant Grounds Department consists of 13 full time stewards of the land. On the UNI campus, there are 4,600 canopy/over story trees, approximately 20 miles of sidewalks, 30 acres of sport fields, 10 miles of streets and 80 acres of parking lots. Our responsibilities are extensive, but at the core is the maintenance of the outdoor spaces that make up the campus landscape.

Sustainability:

Campus open spaces devoted to native vegetation contribute to the academic mission of the university by providing places for undergraduate and graduate research, as well as regular use by field courses in biology, earth science, the arts, and Leisure/Youth and Human Services. These areas also contribute to sustainability through storm water infiltration functions, habitat for wildlife, and active improvement of soil quality.

UNI Garden - Panther Plots:

The UNI Student Garden/Panther Plot is an example of creative use of space between buildings, parking lots and city streets. The Office of Sustainability assists students who organize the planting, tending and harvest of fresh vegetables, and marketing the produce directly to UNI Dining Services with excess produce going to the Northeast Iowa Food Bank.

Under-Utilized Resources (Rain Water):

Rainwater is an under-utilized resource. Currently, rainwater that falls on campus is directed to storm sewers, and eventually finds its way to impaired campus and regional waterways, like Dry Run Creek, and ultimately, the Cedar River. Rainwater feeds the local aquifers. UNI has begun to install a number of bio retention cells to pre-treat and infiltrate run-off from campus parking lots. Bio retention cell installation is typically undertaken only with new campus projects. Due to funding constraints, many existing campus paving areas are still a cause of non-point source pollution.

Compost:

The UNI Physical Plant Grounds Department is currently hauling pre-table waste from the university's dining centers and coffee grounds from Maucker Union. The goal is to compost this material along with the campus landscape waste into useable compost that can be returned to the campus landscape for soil amending and athletic/recreation field top dressing. To be successful with this endeavor, funds must be allocated to support this effort with equipment and staffing.

Emerald Ash Borer (EAB):

EAB found its way to the United States in 2004, Black Hawk County in 2014. EAB is an aggressive pest that feeds solely on the tree species Fraxinus (Ash). Managing outdoor spaces that has over 1,700 ash trees is and will be a challenge for years to come.

RECOMMENDATIONS

As previously stated, there are a number of stakeholders involved in the Open Spaces, Recreation and Athletic Facilities at UNI. These groups include: (a) students, (b) faculty/ staff; (c) alumni, (d) Cedar Valley community; and (e) tax payers of the state of Iowa. Collaborative projects between UNI and the City of Cedar Falls as well as the Cedar Falls School District has led to the development of superior facilities and positive relationships leading to creative problem solving.

While UNI has some superior facilities, others are starting to show age and/or new leisure participation trends are forcing the need to reconsider renovation of existing facilities or building of new facilities to meet these trends. This section will be broken into three distinct areas including: indoor, outdoor and open spaces, and will identify specific stakeholders. Outdoor spaces will include those that are highly programmed, while open spaces will include those spaces which are typically used for drop in recreation and leisure pursuits.

Indoor:

The Wellness/Recreation Center continues to be the starting point for many campus tours and orientations. In many cases, this is a UNI visitor's first impression of the institution. Serious consideration should be given to making the area surrounding the WRC (parking and walkways) as well as the interior main hallway more appealing for visitors.

As current facilities age, there is a need for long term deferred maintenance and renovation planning. Planning for repairs and major renovations should help avoid the need to close buildings.

Specific examples of indoor facility needs include:

- Add a covered structure (bubble) to accommodate year round use (Academics, Recreation Services, Athletics, City of Cedar Falls and Cedar Falls School District).
- Investigate the possibility of developing an indoor tennis center with the assistance of the UNI Foundation (Academics, Recreation Services, Athletics, City of Cedar Falls and Cedar Falls School District).

- Consider re-purposing of racquetball courts if participation continues to decline (Academics, Recreation Services).
- Consider changing non-programmed space into more comfortable passive leisure spaces (both indoor and outdoor) (Academics, Recreation Services).
- Consider changing classroom furniture (including fixed furniture) to more mobile friendly furniture to meet the changing ways in which students interact within indoor teaching environments (Academics).
- Investigate improvements, renovations and additions to the UNI-Dome (Academics, Recreation Services, Athletics and the citizens of the state of Iowa).
- Investigate renovations to the Messersmith Track and Field Complex and specifically, adding a synthetic turf infield for soccer (Academics, Recreation Services, Athletics, City of Cedar Falls and Cedar Falls School District).
- Investigate renovation of Nielsen Field House spaces for offices, meeting rooms, locker rooms and training facilities for Soccer, Softball, Tennis and Track and Field (Athletics).

Outdoor (programmed):

Previously mentioned collaborative efforts between UNI and City of Cedar Falls as well as the Cedar Falls School district has led to year-round use of facilities and the addition of new sports and activities. These collaborations have led to UNI using City property to implement programs and the City and School District implementing programs at UNI. These programs include; cricket, baseball, softball, and soccer. In addition to these programs, multiple organizations would benefit from the addition of the following:

- Investigate the development of a semi-enclosed outdoor structure to support multi-disciplinary for credit academic course, drop in use and not for credit outdoor recreation activities (Academics, Recreation Services, Athletics, City of Cedar Falls and Cedar Falls School District).
- Renovate the soil on existing practice football fields, add another field and automatic irrigation (Athletics).
- Renovate the soil and add automatic irrigation to west complex and fields at the farm (Recreation Services).
- Add new automatic irrigation to lighted recreation field (Recreation Services).
- Renovate the existing rugby field or re-develop and designate a rugby field (Recreation Services).
- Explore the possibilities of moving grounds staff and needed equipment to Recreation Services, HPELS, and Athletics. The intent of this is to support the academic mission by employing and teaching students how to maintain outdoor spaces, recreation and athletic fields (Academics, Recreation Services, Athletics, UNI Grounds).
- Start De-Compaction process and amending soils where feasible.

Open Space (non- programmed):

There are many ways in which students, faculty/staff and community members use open spaces. This section will focus on the UNI Garden - Panther Plots as well as some sustainability and transportation issues.

UNI Garden - Panther Plots:

- Investigate the degree of interest among student, faculty/staff for use of campus grounds as garden plots.

Underutilized Resources (Rain Water):

- Provide more opportunities and budget dollars to pre-treat and infiltrate rainwater in campus landscape areas, including retrofit of existing parking lots, repair of permeable paving, and evaluation and repair of bio retention cell soils impacted by high soil salt levels.
- Provide methods for intercepting rooftop runoff in order to harvest, store in cisterns, and reuse to water campus plantings and food production gardens.
- Consider design of a campus wide storm water master plan.
- Consider snow and ice management salting methods that strike a better balance with the environment by effecting better water quality.

Trail Development:

- Investigate new campus interconnectivity to reduce foot and bicycle traffic crossing busy streets and intersections.
- Add gazebos to soft trail areas on campus.
- Plan for and fund the specialized management needs of naturalized open spaces related to soft trails and many forms of outdoor recreation using savings from reduced costs of turf management.
- Simplify and streamline the responsibilities and resources for management of naturalized areas (preserves and non-preserve areas) now currently fragmented in several units (Biology, Grounds, Tallgrass Prairie Center and Recreation Services).

Other:

- Consider soil restoration language in construction projects.
- Consideration should be given to support a site/soil restoration engineer/consultant position.
- Add automatic irrigation and drainage tile to areas of center campus where needed.
- Continue the use of landscape curbing throughout center campus.
- Continue looking for opportunities to use rooted perennials and infiltration; basins to offset runoff from roofs, sidewalks and parking lot areas.
- Create and design passive spaces to encourage informal interactions between students, faculty/staff and the public. This could include permanent closure of some institutional roads and parking lots.

The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land... In short, a land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such."

Aldo Leopold

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