UW-Platteville
Williams Fieldhouse Addition and Renovation – Phases 1 and 2

Final Environmental Impact Assessment

University of Wisconsin - Platteville
State Project Number 07E2H

Prepared for:

Wisconsin Department of Administration
Division of State Facilities

September 2008

Williams Fieldhouse Addition and Renovation

Environmental Impact Assessment

University of Wisconsin - Madison
State Project Number 07E2H

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Glossary of Acronyms

AHI	Architectural History Inventory
ASF	Assignable Square Feet
ASI	Archaeological Sites Inventory
AST	Aboveground Storage Tank
BAR	Bibliography of Archaeological Reports
BRRTS	Bureau of Remediation and Redevelopment Tracking System
DBH	Diameter Breast Height
DSF	Division of State Facilities
EIA	Environmental Impact Assessment
FEIS	Final Environmental Impact Statement
GSF	Gross Square Feet
HVAC	Heating Ventilating and Air Conditioning
LEED	Leadership in Energy and Environmental Design
LUST	Leaking Underground Storage Tank
NCAA	National Collegiate Athletic Association
NRCS	Natural Resources Conservation Services
NRHP	National Registrar of Historic Places
PAC	Pioneer Activity Center
SF	Square Feet
USGS	United States Geologic Survey
USDA	United States Department of Agriculture
UST	Underground Storage Tank
UW	University of Wisconsin
UW-P	University of Wisconsin-Platteville
UWSA	University of Wisconsin System Administration
WDNR	Wisconsin Department of Natural Resources
WEPA	Wisconsin Environmental Policy Act
WHPD	Wisconsin Historical Preservation Database
WPDES	Wisconsin Pollutant Discharge Elimination System

Introduction

General

The Wisconsin Department of Administration, Division of State Facilities retained Ayres Associates to prepare a Draft Environmental Impact Assessment (EIA) for the Williams Fieldhouse Addition and Renovation Project, at the University of Wisconsin-Platteville (UW-Platteville) campus in Platteville, Wisconsin. The EIA is required by University of Wisconsin System Administration (UWSA) guidelines in compliance with the Wisconsin Environmental Policy Act (WEPA), Section 1.11, Wis. Stats. The purpose of the EIA is to assess potential environmental effects of the project relative to the quality of the human environment. The Wisconsin Department of Administration, Division of State Facilities, is the project manager and the UW System Board of Regents is the project owner.

Project Description

The proposed Williams Fieldhouse Addition and Renovation project is a two-phased construction project. A/E selection for the first phase of the project has occurred and that phase is anticipated to be completed in June 2010. Design of the first phase is currently underway. Design of the second phase is anticipated to be completed between January to May 2010.

The first phase project will construct a 19,200 gross square foot (GSF) wellness center addition to the west side of the existing Williams Fieldhouse for exercise and recreational use. It will include a multipurpose room that will house free weights, weight machines, and cardio workout spaces, and will be used for exercise and recreation. This first phase of the project will also include storage for the outdoor recreation program, recreation services space, a 7,400 GSF renovation encompassing a wrestling room, and offices for physical education, coaches, and assistant coaches. Outdoor lights for the track and field complex are funded under this project, but will be installed during the fall of 2008. The impacts of the lights have previously been evaluated.

The second phase of this project includes construction of a further 17,200 GSF addition to the fieldhouse and remodeling of 10,000 GSF of existing space. This addition will be connected to the new building that is currently in design for Phase I. The second phase will include conversion of the existing pool area to an auxiliary gym and a training room. The second phase proposed addition will include an eight-lane competitive pool and diving well, a 500 seat spectator gallery, an auxiliary pool for student programming, men's and women's locker rooms, and related support and locker rooms.

The preliminary estimated project cost for the first phase is $4,988,565, utilizing Program Revenue Supported Borrowing. This does not include the $250,000 for the outdoor lights that was implemented as a separate project, but does include $183,520 for the water pipe upgrade required by the City of Platteville for fire protection. The preliminary cost estimate for Phase 2 is $9.5 million, of which $5.0 million will be funded by Gifts and $4.5 million will be Program Revenue Supported Borrowing.

EIA Process

The UW System Wisconsin Environmental Policy Act (WEPA) compliance process began in September 2008 with authorization to prepare a Type II Environmental Impact Assessment (EIA). A scoping letter to solicit input on potential environmental impacts of the project was sent

on September 5, 2008 to selected parties. A copy of the scoping letter is located in Appendix B and responses received are contained in Appendix C.

A public notice was posted in the *Wisconsin State Journal* newspaper and *Platteville Journal* to request public input prior to finalizing the EIA. Project information was sent directly to the Student Government as well as the UW Platteville *Exponent* (student) newspaper. The EIA was made available for public review electronically beginning September 22, 2008 and for hard-copy review on September 23, 2008. The public review period extends to October 7, 2008. Copies of the Environmental Impact Assessment were made available at the UW-Platteville Karrmann Library and City of Platteville Public Library and online at UW Platteville Williams EIA. Comments were asked to be directed to:

Mr. Ben Peotter, P.E.
Ayres Associates
1802 Pankratz St.
Madison, WI 53704-4069

The deadline for verbal or written comments is October 7, 2008. A public meeting to present the project and EIA findings and to take verbal and written comments is to be held on October 1, 2008, at 5:30 p.m. in Ullsvik Hall, located at the corner of Main Street and Hickory Street in Platteville, WI. The public meeting will be attended by representatives of the Division of State Facilities, UW-Platteville, UW System Administration, and Ayres Associates.

I. Description of Proposed Action

A. Title of Proposal

Williams Fieldhouse Addition and Renovation – Phases 1 and 2

DSF Project # 07E2H

B. Location

University of Wisconsin – Platteville

County: Grant

Political Town: City of Platteville, Wisconsin (Figure 1, 2)

C. Project

1. Project Description

Phases 1 and 2 of the Williams Fieldhouse Addition and Renovation Project is DSF Project # 07E2H at the University of Wisconsin – Platteville. The UW-Platteville campus is located on the west side of the City of Platteville in Grant County in the southwest corner of Wisconsin.

The EIA is required by University of Wisconsin System Administration (UWSA) guidelines in compliance with the Wisconsin Environmental Policy Act (WEPA), Section 1.11, Wis. Stats. The Wisconsin Department of Administration, Division of State Facilities, is the project manager and the UW Board of Regents is the project owner. The consulting firm of American Design, Inc. has been retained by the Division of State Facilities (DSF) to provide architectural and engineering services from the design concept and development phase through project construction and completion. All figures and plans for the renovation and building addition are included in Appendix A.

The facility to be expanded is currently located at the south side of the University of Wisconsin-Platteville (UW-Platteville) campus in Section 16, T3N, R1W (Figure 1). This is the location of the existing Williams Fieldhouse/Pioneer Activity Center and is just north of the running track east of Longhorn Drive and north of Southwest Road (Figure 2). Both phases of the new building addition will be connected on the west side of the larger building housing the indoor track. This building is the 1989 addition to the Williams Fieldhouse constructed in 1959 (Figure 3).

Elements of sustainability have been incorporated into the physical planning of the new building addition. Sustainability involves meeting current needs without compromising the ability of future generations to meet theirs. Toward that effort, the planning and design of this project maximizes desirable features of the natural environment and minimizes damage to the environment and depletion of resources during both construction and operation. In addition, the building has been designed so that when Phase 2 of the building is ready to be implemented, architectural

features on the south side of the proposed Phase 1 building will allow for straightforward building expansion without major construction changes to the Phase 1 building. The planning and design of this project have included energy efficiency, indoor air quality, and effective storm water management that mitigates the effects on neighbors of the university. These are all elements of sustainable design for UW building projects.

Phase I of the proposed project consists of a 19,200 GSF building comprised of approximately 9,598 GSF on the lower level and 9,593 GSF on the upper level. In total, this new gross square footage translates to approximately 15,900 assignable square feet (ASF). Space within the building includes exercise rooms comprising 13,848 SF; office space, reception, labs and mechanical rooms comprise the remaining 5,152 SF. These facilities will add space to the existing fieldhouse and activity center and will provide expanded services that are currently being housed in the 1959 portion of the fieldhouse building. The existing exercise/weight room is approximately 5,570 or approximately 40 percent of the size of the proposed Phase 1 exercise rooms. Phase 1 includes remodeling 7,360 GSF within the existing facility, shifting programs to the newly constructed area as well as providing remodeled space for university coaching offices and wrestling functions.

The ground floor of the proposed Phase 1 Student Wellness Center will directly connect to the lower level of the Williams Fieldhouse. The connection will reuse the north racquetball court for a passage and will convert remaining space to coaches' offices. The floor plan is a straight circulation path and will connect into the heavier fitness equipment room. The southwest corner of the addition will be used for the outdoor sports service area with direct outdoor access to facilitate sports equipment lending to students such as kayaks, bikes, etc. Ultimately, this area will provide a corridor to Phase 2, but for the immediate future, direct access to the outside will be provided.

The second level of Phase 1 addition will also connect directly to the public level of the existing fieldhouse. This necessitates remodeling the north racquetball court by inserting a second floor level to provide both passage and coaches offices similar to the ground floor of Phase 1. Core areas of this second level will provide a broad spectrum of uses including a full fitness lab, cardio workout machines and a dividable multipurpose classroom.

Both floors will use extensive day lighting. This will provide views of the new rain garden to the north and allow natural lighting to enhance energy efficiency and aesthetics. From the north, natural light will be harvested without heat gain while the southern exposure will have louvered overhangs to shade wall openings from direct sun during summer months resulting in lowered cooling requirements. Along the south side, the windows in Phase 1 will likely become interior windows overlooking the aquatic center in the second phase when it is completed.

The future second phase of the project will include the construction of a 17,200 GSF addition that will be connected to the Phase 1 building and will consist of an eight-lane competitive swimming pool and diving well, a 500-seat spectator gallery, an auxiliary pool for student programming, and locker rooms. The locker rooms will be accessible for both the pool area and also be used for the outdoor track events since these locker rooms will now be closest to the track. In conjunction with the new

construction, Phase 2 will include remodeling the existing 10,000 GSF swimming pool area within the Williams Fieldhouse into an auxiliary gym and training room.

A long-term and sustainable view of this building was a driving factor in the design. Utilization of natural lighting, incorporation of a rain garden to reduce runoff and recycling and reusing components of the remodeled areas are all features being developed for the proposed project. Plantings being selected will be both water and drought tolerant to account for the various conditions and will be selected for their appearance as well as minimal care necessary to maintain attractive appearances.

Work will include addressing necessary utilities such as extending storm sewer piping to tie into the rain garden overflow, tie in to existing site sanitary manhole and installation and extension of a water pipe loop around the existing building to upgrade capacity to comply with the City of Platteville Fire Department request to provide adequate fire protection capacity to the new building additions. Steam, electrical, and data/telecommunications will be provided to the project from the adjacent 1989 addition to the existing fieldhouse building. The campus does not have a centralized air cooling plant to provide chilled water and therefore the new buildings for Phases 1 and 2 will have individual building systems. Sustainability features will be incorporated where feasible and are described in this report.

2. Purpose and Need (Objective, History and Background)

For the past several years, enrollment at UW-Platteville has grown gradually. There were approximately 6,140 students enrolled in the Fall Semester of 2006. An initiative to increase enrollment to approximately 7,600 full-time students, or an increase of 2,000 students since the initiative began (in 2005), by the fall of 2011 was approved by the Board of Regents. Known as the Tri-State Initiative, this plan increases enrollment of out-of-state students in engineering and technology-based business programs and gradually expands the number of Engineering, Mathematics, and Science students from the current 1,960 to a target level of 2,600 by the year 2011. The recent enrollment increases have already had an impact on use of campus facilities. According to campus records, visits to the fitness center at the Williams Fieldhouse have increased 7% since 2005 which equates to an estimated 5,000 individual visits. With the projected enrollment increase, the campus foresees an additional 5,000 to 10,000 annual visits to the indoor fitness and recreational facilities housed within the facility. This is attributed to a combination of factors including enrollment growth and an increased focus of students on health, wellness and fitness.

Physical activity is important for stress relief and for academic or work productivity. Establishing a setting where students can relieve stress and stay active throughout the year is important to universities, including UW-Platteville. As the Williams Fieldhouse currently exists, some of the conditions are less than ideal for those utilizing the facility. Space within the building is inadequate for current and future building loads. In addition, advanced technology in sports laboratory science as well as within exercise equipment has rendered aspects of the existing facility obsolete. In particular, power and communication systems that are highly specialized are difficult to retrofit in the building where they are currently housed.

The existing Williams Fieldhouse was built in two phases. The initial building was completed in 1959 and the addition completed in 1989. Main features housed within the initial 1959 building include locker rooms, a six lane 25-yard swimming pool, equipment storage, three basketball courts, a combined weight room/fitness center, faculty offices, balcony bleachers for swimming observation, classrooms, dance studio, physiology labs and various common spaces. Within the 1989 addition is an indoor running track, wrestling room, four racquetball courts, locker rooms, athletic offices, classrooms, equipment storage areas and concessions.

Weight room and fitness center facilities within the 1959 building of the Williams Fieldhouse are inadequate for the number of students who utilize the space. Without expanding, these spaces would continue to be utilized beyond design capacity for the foreseeable future given the increased enrollment projections. These facilities also lack proper ventilation for the current use which results in stagnant and humid environment during times of heavy use. The proposed Williams Fieldhouse addition and renovation project addresses the identified need to upgrade and expand the facilities to adequately meet existing and future demand at the facility.

Phase 2 to be completed in the future will meet the demand for a competition pool for NCAA swimming events. The current pool configuration has six lanes, which does not meet the standard eight lane 25-meter requirement to host college events. Furthermore, the pool is not deep enough for competition diving. For this reason UW-Platteville can not host or field a team in the NCAA, thus UW-Platteville does not have a women's or men's swimming or diving team. Phase 2 completion will include completion of an eight-lane competition pool and auxiliary pool for student programming (as well as for use as a warm-up pool for swim events). It also includes an associated diving well and 500 seat spectator gallery and support spaces. Then UW-Platteville can pursue accreditation for additional NCAA sports if desired.

D. Estimated Cost and Funding Source

The estimated project cost for Phase 1 is $4,988,565 that will be funded using Program Revenue Supported Borrowing. The preliminary cost estimate for the second phase is $9.5 million, which will be funded by $5.0 million Gift/Grant Funds and $4.5 million of Program Revenue Supported Borrowing.

E. Time Schedule

Design A/E Selected: January 2007
SBC Approval: October 2008
Bid Opening Phase 1: March 2009
Construction Completion Phase 1: June 2010
Construction Begins Phase 2: Between August 2010 and July 2012
Substantial Completion Phase 2: 2014

II. Existing Environment

A. Physical

Land Use

The proposed building will be constructed on the south side of the UW-Platteville campus, east of Longhorn Drive and north of Southwest Road. The project site is proposed to be located directly adjacent to, and attached to, the west side of the 1989 Williams Fieldhouse Addition. Phase 1 of the new building will be located primarily on Parking Lot P25A, though a small section of what is existing vegetation between the parking lot and Williams Fieldhouse will be encompassed by the building as well. Parking Lot P25A has 143 standard parking spaces and five handicapped spaces that can be utilized by faculty, staff, and commuters. According to campus personnel, Lot P25A is an underutilized lot. Site photographs located in Appendix D show existing site conditions.

An July 2008 bicycle parking study was completed that identified a need for updated and new bicycle parking facilities at the entrance to certain buildings around the campus. According to LEED standards, buildings must have bicycle stalls available for 5 per cent of building capacity. The Williams Fieldhouse building had adequate capacity according to the study to serve existing users and expanded enrollment for proposed uses of the addition and renovated spaces. In total, the Williams Fieldhouse has 47 bicycle parking spots for a required need of 10. However, the report notes that these spots are the older "comb style" parking racks that are prone to tipping over and bending of rims. New hitch or inverted "U" style racks are the preferred alternative.

Just south of Williams Fieldhouse is the outdoor track. Adjacent to the project area directly west and north are Parking Lots P25 and P11 respectively. While not a major pedestrian thoroughfare, the site has pedestrian traffic from students using the Williams Fieldhouse as well as some traversing to class from Southwest (residence) Hall or Lot P24 to the south. Photographs of the site and its surroundings, taken in September 2008, are presented in Appendix F. Land use in the area of the project is exclusively for university campus development and use. This area is zoned for institutional use.

Land use in the neighboring campus area is generally academic with Ottensman Hall, Boebel Hall and Gardner Hall to the north. The central heating plant to the northwest and Pioneer Student Center to the northeast also are in this area of campus.

Further west of the proposed project site and west of the Longhorn Drive, there is an open area and a ravine with a walking/exercise/cross country ski trail that continues around the Greenwood Cemetery and to the west to the Memorial Park Athletic/Recreation facility. The walking trail crosses the Rountree Branch of the Little Platte River to the south and connects to a more extensive walking path maintained by the Friends of the Rountree Branch.

The nearest residential areas to the project site are approximately 0.5 mile to the south and southwest, on the opposite side of the Rountree Branch of the Little Platte River.

Topography

General topography (Figure 4) around Williams Fieldhouse varies from slightly sloping to flat on the southwest parking lot with elevations from 937 to 939 to steeply sloping as it transitioned to the north and east of the building with elevations 952 to 954. Retaining walls, steps and steep slopes are utilized in the transitions in elevations. West of the site is a steep-sided ravine, in part, rip-rapped and acts as a drainage swale for storm water run off from the campus and streets to the southeast. This drainage ends up in the Rountree Branch of the Little Platte River. The ravine is tree-lined; to the north of the ravine is the Greenwood Cemetery.

Topography in the proposed location of Phase 1 and 2, primarily in Parking Lot P25A is flat to gently sloping (Design Figure 1). The site of both phases of the proposed building slopes down to the south to Southwest Road and then to the UW-Platteville Greenhouse Complex. Further to the south and southwest, the hill continues to slope down to the floodplain of the Rountree Branch of the Little Platte River.

Soils

Soils in the project area were formed on wind-blown silt or, where that is eroded, they formed on the bedrock. At the proposed Phase 1 and Phase 2 building sites, soils are mapped as Dubuque silt loam (DtD2) and Fayette silt loam (FaC2) (Figure 5). The Dubuque series soil is mapped as the deep, moderately eroded unit on 10 to 15 percent slopes. This soil is formed in silt and in reddish, residual clay that is between 8 and 42 inches deep. In most places the clay has a cherty horizon in the upper part. This soil has lost one-third to two-thirds of the original surface layer through erosion. The Fayette silt loam is mapped on the uplands with 6 to 10 percent slopes that are moderately eroded. This soil series is made up of deep silty soils that are well drained and that formed in a blanket of silt that overlies limestone or sandstone bedrock. (USDA, 1961)

A geotechnical investigation was performed as part of the architectural design by CGC, Inc. and showed dolomite bedrock approximately 6 feet below grade.

Utilities

City of Platteville drinking water quality has consistently been reported as good with an adequate supply to feed existing buildings on campus. However, this system does not have significant extra capacity especially as it relates to fire protection. The groundwater is hard and has a high dissolved mineral content, including nuisance minerals such as iron and sulfur which require water softening by users, including UW-Platteville. Other utilities such as electrical, telecommunication and steam are routed to the existing Williams Fieldhouse from the north.

During the summer of 2008, the Greenwood Avenue water main was updated from a 4-inch pipe to a 10-inch pipe. The Southwest Road water main is currently 8-inch diameter in size. Concern expressed by the City of Platteville Fire Department is that there is a dead end configuration near the building and that there is inadequate fire protection and hydrants around both the existing Williams Fieldhouse and the proposed addition. Because of this, an $183,520 upgrade to this water pipe has been included as an ancillary auxiliary project to the Williams Fieldhouse Addition and will be implemented within the project development and budget.

The campus owns and operates its own central heating plant which serves the majority of the campus. An 8-inch diameter high pressure steam and 4-inch diameter condensate line run from the Central Heating Plant to the steam pit immediately northwest of the Williams Fieldhouse building. This system has adequate capacity to serve the proposed addition and renovations.

The campus has 12,470V primary power distribution system that routes electrical power from the Central Heating Plant to all buildings. There are two primary services serving the building, one to the north for the original 1959 building and one to the south 1989 fieldhouse addition. Signal ducts run parallel to the power ducts in underground ductbanks. The campus signal hub is located in Gardner Hall. Four inch signal conduits route cable to both north and south electrical service entrances from the campus hub.

A 100KW, 480V natural gas generator serves the existing building life safety loads for egress, lighting, and fire alarm.

Stormwater

Stormwater in the project vicinity is collected in catch basins and routed to the west in a 12-inch diameter pipe. The pipe connects to a 5-foot diameter concrete storm water pipe that runs beneath the ground in the dry ravine west of the project site. This pipe collects campus storm water and directs it to the west toward the Rountree Branch. A small amount of overland storm water flows down to the ravine bottom and out to the Rountree Branch.

Surface Water

Surface water in the vicinity of the proposed building includes the Rountree Branch of the Little Platte River. The 100-year floodplain of the Rountree Branch is estimated at the 852-foot (msl) contour to the southwest of the proposed Phase 1 and Phase 2 building location. The Rountree Branch drains most of the City of Platteville, including runoff from the UW-Platteville campus. It has a length of 18 miles, an average depth of one foot and an average width of 8 feet. Its gradient is 12 feet per mile.

Surface water is routed to the Rountree Branch by various collection ditches as well as through curb and gutter located in the area. In the vicinity of the project site, surface water first flows across the site and is then routed to the Rountree branch by the dry ravine north of the site and by curb and gutter located south of the site along Southwest Road.

The Rountree Branch is classified as a warm water fishery by the Department of Natural Resources (WDNR, 2001). This 18-mile surface water body is a seepage and spring-fed stream that begins in Lafayette County and flows west through the City of Platteville to the Little Platte River, which is classified as Exceptional Resource Water. The City's wastewater treatment plant discharges over one million gallons of wastewater a day into the Rountree Branch on the west side of the City, approximately 1.5 miles upstream from its confluence with the Little Platte River. Located to the north of the Southwest Road Bridge, the Rountree Branch exhibits characteristics suitable for a Class II Trout Stream and as such is considered a Priority Navigable Waterway.

Wetlands and Flood Plains

There are no wetlands or flood plains in the project site. The floodplain area adjacent to the Rountree Branch is southwest of the proposed project location. Along most of its length, the floodplain of the Rountree Branch is confined to a relatively narrow valley. This floodplain contains some wetland areas in the portion that runs through the City of Platteville. In April 2005, Earth Tech performed a field wetland determination for Southwest Hall. During that fieldwork, they determined that there was a small, degraded wetland area (less than 0.5 acre) located east of intersection of the service road/exercise path and Southwest Road. They described this wetland as a likely remnant of a more extensive system that was historically associated with the Rountree Branch. The wetland is dominated by reed canary grass, an exotic nuisance species that would reduce its ability to function as a forage or habitat site for native wildlife. The wetland would, however, provide flood storage and sediment reduction for the Rountree Branch. Native vegetation observed by Earth Tech included black willow and broad-leaved cattail. They classified this wetland as fresh (wet) meadow. The elevation of this wetland area is nearly 100 vertical feet below the typical site grades in the area of the proposed Williams Fieldhouse building addition. The proposed building addition is also well above the 100-year flood plain elevation and is approximately 0.4 miles from the wetland area.

Groundwater

Groundwater in the Platteville area is located at about 200 feet below ground surface in the Platteville-Galena aquifer, which is composed of mostly dolomite and limestone. The City of Platteville water supply wells get their water from the underlying Cambrian sandstone, a highly productive aquifer. The UW-Platteville water is supplied by the City of Platteville.

Air

Chapter NR 400 of the Wisconsin Administrative Code regulates air quality for new construction sites. Contaminants regulated by this chapter include the “criteria pollutants:” particulate matter, sulfur dioxide, organic compounds, nitrous oxides, and carbon monoxide. Hazardous air pollutants and visible emissions are also regulated. If an ambient monitor measures criteria pollutant concentrations or dispersion modeling indicates concentrations within the National Ambient Air Quality Standards (NAAQS), the region is designated as “an attainment area” for that pollutant. The climate of Grant County is described in the Soil Survey (USDA, 1961) as having temperature extremes within and between seasons. Precipitation, which falls as rain throughout the growing season, is distributed evenly throughout the county and is chiefly snow in the winter season. Snowfall averages 40 inches and the average frost-free season is 155 days. Total annual precipitation is approximately 36 liquid inches.

The Federal standards, termed the National Ambient Air Quality Standards (NAAQS) are established by the US Environmental Protection Agency, and were adopted by the State of Wisconsin. Chapter NR 400 of the Wisconsin Administrative Code regulates air quality for new construction sites. Contaminants regulated by this chapter include the criteria pollutants: particulate matter, sulfur dioxide, organic compounds, nitrous oxides, and carbon monoxide. Hazardous air pollutants and visible emissions are also regulated. Grant County is part of the South Central Region of Wisconsin and is

currently in attainment for all criteria pollutants. That is, the Platteville area is outside of regulated pollutant non-attainment areas; thus, more stringent air pollution regulations are not placed on the businesses and industries in the area of the proposed project.

The nearest air quality monitoring station, located in Potosi Township which is 15 miles west of Platteville, measures concentrations of particulate matter less than 2.5 microns in diameter. All pollutant concentrations monitored under the NAAQS are below ambient air quality standards at this location. The predominant wind direction for the area is from the west/southwest.

Miscellaneous

The Wisconsin Department of Commerce Storage Tank database and the Wisconsin Department of Natural Resources Bureau for Remediation and Redevelopment Tracking System (WDNR BRRTS) database were searched for potential environmental hazards within the project area. There were no identified sites within the project boundaries identified on the WDNR BRRTS database (Figure 6). However, there were several listed leaking underground storage tank (LUST) sites on the UW-Platteville campus, and while they are registered to Boebel Hall directly north of the Williams Fieldhouse, the location of the tanks were at the other locations on campus. These locations were listed as the Greenhouse, Karrmann Library and the Physical Plant. All the identified sites on the BRRTS database were closed with no further action required by the WDNR. The university physical plant building also has a number of fuel and waste oil tanks still in use registered in the Wisconsin Department of Commerce Tank Database. None of these tanks are located within the project limits nor would they be impacted by project development.

Parking use of the 148 total stalls in lot P25A is underutilized, with an estimated 50% usage during the school year. In addition, Parking Lot 24 (P24) to the south along Longhorn drive contains 112 parking stalls with similar usage.

Pedestrian traffic in the area of the proposed building comes from the central portion of campus. It is routed toward sidewalks on Longhorn Drive not through the parking areas where the proposed building facilities will be located.

Fire Department access to the existing facility is from Longhorn Drive and Championship Drive. They require a 20 foot driveway access for fire apparatus that must be accessible along the south side for fire protection. In addition, there is service vehicle access from Parking Lot P25A to the outdoor track area and the south service entrance to the Williams Fieldhouse.

B. Biological

Threatened or endangered species were not reported to be located in the vicinity of the project site, according to the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service (Appendix C) based on information provided in 2006. The majority of the site for Phases 1 and 2 consist of asphalt parking areas.

1. Flora

Platteville is located in the geographic region of Wisconsin known as the Southwestern Upland: Deciduous Forest, Oak Savanna, and Prairie, an area that

supports oak savanna and prairie communities. Today, nearly all of the original diverse savanna understory and open prairie of this area has been converted to pasture or cropland.

A number of trees and shrubs are located in the vicinity of the project area, and those that may be impacted extend from the retaining wall on the northwestern corner of the 1989 Williams Fieldhouse extension along the western side of the building to the southwest building corner. The ornamental shrubs, turf grass, and two trees that were presumably planted following completion of the 1989 building are approximately 19 years old. The trees are a 12-inch diameter breast height (DBH) maple and 12 inch DBH oak. Shrubs were Arborvitae, an ornamental coniferous, and other deciduous non-invasive ornamentals planted at building corners and along retaining walls to presumably soften the appearances of the hard surfaces. The Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish and Wildlife service did not identify any endangered or threatened plant species in the vicinity of the proposed building.

West of Longhorn Drive and west of the project site is a natural area that extends along Rountree Branch and continues to the south and southeast is part of the UW-Platteville Greenway. This greenway was designated in 1967 for multi-purpose uses and comprehensive restoration and management. The greenway has been mapped as savanna to the north, west, and south of the proposed building site. To the northwest, along the ravine, it is mapped as forest with plantation pines near the cemetery.

Endangered or critical flora species identified within a two-mile area of the site are not located on habitat found on the proposed project site. These flora were noted in a 2005 WDNR endangered resources letter for nearby Southwest Hall and include the Great Indian-plantain and Twinleaf that prefers hardwood forests, Musk-root which prefers moist shaded ledges and Adler's-tongue that is found in moist to wet open sand habitats.

A habitat survey was not conducted on the proposed project site since it consists of primary asphalt or area that was disturbed during construction of the existing building in 1959 and 1989.

2. Fauna

No wildlife surveys have been done at this site but existing conditions provide habitat typical of urban-fringe areas near the track and field complex. These include raccoon, opossum, gray squirrel and common bird species. Earth Tech performed a habitat survey in 2005 on the Southwest Hall site to the southwest determine if there was appropriate habitat for any of the federally listed endangered or threatened species that occur in Grant County and no associated habitat was found. Southwest Hall was previously located in a much more vegetated and natural condition than the Williams Fieldhouse addition site. In addition, U.S. Fish and Wildlife services stated that they had no records of critical or endangered species located in the vicinity of the site (see Appendix C). As the site of the building addition is primarily within the parking lot footprint, no suitable habitat would be expected there.

The only WDNR noted endangered or critical fauna species located in areas within two-miles of the proposed site were Blanchard's Cricket Frog and the Ozark Minnow (Appendix C). Both of these are typically located in marshes, floodplains or rivers. Since the proposed site is approximately 100 vertical feet from these features, they would not be found on the project site.

C. Social

UW-Platteville is one of thirteen publicly supported universities in the University of Wisconsin System. Founded in 1866, UW-Platteville is the oldest public institution in the State of Wisconsin. UW-Platteville offers programs in the Colleges of Business, Industry, Life Science, and Agriculture; Engineering, Mathematics, and Science; and Liberal Arts and Education. Approximately 7,190 students were enrolled at the university in the fall 2008 semester at UW-Platteville and the student body consists of approximately 60 percent male and 40 percent female. UW-Platteville interacts with local and regional business and industry by providing faculty consulting assistance, continuing education, design studies, and student projects. According to 2000 U.S. Census data, the City of Platteville has a population of 9,989, located within Grant County, population 49,597. The project site is located within the UW-Platteville Campus, zoned I1 Institutional.

An initiative to increase enrollment to approximately 7,600 full time students by the fall of 2011 has been developed and implemented by the Board of Regents. Known as the Tri-State Initiative, this plan increases UW-Platteville enrollment of out-of-state students in engineering and technology-based business programs. The proposed building addition and renovation to the existing Williams Fieldhouse will support the growth of the Tri-State Initiative by providing facilities that promote healthy living, exercise and wellbeing that contribute to a balanced academic experience. This attracts high-quality students, student-athletes and faculty to the UW-Platteville campus.

Williams Fieldhouse has an important social purpose at the university. It provides a means for the students to maintain a level of fitness, health and well being, provides mechanisms for stress relief, and a place for students to interact with each other and to bond. The facility, oftentimes referred to as the Pioneer Activity Center (PAC), hosts a number of extracurricular activities including racquetball, an indoor running track, basketball, volleyball, tennis, badminton, swimming, wrestling room and exercise equipment (aerobic, free weights and machines). The opening of the Pioneer Activity Center to the 1959 Williams Fieldhouse has enabled the University to double the capacity for free-time recreation, intramural and instructional opportunities for students. In addition to allowing university students, faculty and staff to utilize the facility, the general public can also use it by paying necessary membership dues which range from $75 for a semester to $198 for an annual pass. Total PAC membership numbers 413 for faculty, staff and the community, with a total membership number of 955. These membership dues generate an estimated $55,000 per year in revenue. In general, with the exception of special events and holidays, the Williams Fieldhouse athletic complex members may use the facility from 6 am to 10 pm Monday thru Friday, 9 am to 9 pm on Saturday and 12 pm to 9 pm on Sunday.

The PAC also is home for most of the 16 varsity sports at UW-Platteville as well as the rangerette dance team, cheerleading, and most of the six to eight intramural sports on campus each semester for students. Athletic training staff and students also have a

major presence for the sports teams (serve 375-390 student athletes). For varsity sports activities alone, Williams Fieldhouse impacts hundreds of students and provides a major role in the student-athletes' lives on the campus by providing the space to spend significant time practicing and competing.

In addition to exercise and sports-related activities, the fieldhouse also houses offices for faculty and coaches as well as providing important facilities for education and training. These include laboratory environments for testing, including lung capacity and blood testing, aerobic power testing and treadmill laboratory. These are critically important to students enrolled in physical education programs at the university.

D. Economic

In 2004, UW System Board of Regents approved a special enrollment plan at UW-Platteville designed to attract new students from Illinois and Iowa. The implementation of this plan, known as the Tri-State Initiative was designed to focus on Wisconsin workforce needs and promote additional enrollments in academic programs that are known strengths at UW-Platteville. This program also impacts the university financially, by providing additional tuition from increased student population. The original and revised cumulative enrollment goals are included below in Table 1, with the actual enrollment in this program for the last four years.

Table 1: Tri-State Initiative Enrollment Data

Enrollment Date	Original TSI Cumulative Enrollment Goal	Revised Cumulative Enrollment Goal	Actual Enrollment
Fall 2005	200	N/A	175
Fall 2006	550	N/A	450
Fall 2007	1,025	800	641
Fall 2008	1,325	1,200	858
Fall 2009	1,675	1,600	N/A
Fall 2010	1,900	2,000	N/A
Fall 2011	2,000	2,400	N/A

Annual tuition and fees for students in this program is approximately $4,000 less than regular annual out-of-state tuition and fees (approximately $9,000 in 2006-2007). This provides a competitively priced education compared to Illinois and Iowa public universities when tuition, fees, room, board, and books are totaled.

UW-Platteville's Tri-State Initiative is designed to expand access to high-tech, degree programs to students from Illinois and Iowa while maintaining access for Wisconsin

residents. Students who enter this program must declare their intentions to study in one of the following areas: engineering, industrial studies, computer science, business administration & accounting, agriculture, communication, communication technologies, criminal justice, math & the sciences, or teacher education.

The need for the proposed Williams Fieldhouse Renovation and Addition project is directly related to this Tri-State initiative. Increased enrollment contributes to the increased use of this athletic facility as does a higher percentage of the enrollment that utilizes the facility compared to historic trends.

The proposed Phase 1 and 2 project sites as currently configured do not directly contribute economically to the City or university, but indirectly contribute by providing parking spaces for paying users of parking passes. Additionally, some revenue is generated by NCAA Division III sports activities that charge admission to events. These entry fees are $6 for adults, $4 for seniors (62 and older) and $3 for children (17 and under). Gate receipts for women and men's basketball, volleyball, wrestling and indoor track were $46,500 for 2007. Concession sales resulted in gross revenues of nearly $47,000 in 2007. Camps at the facility bring in approximately $175,000 over the summer. Other income from the Williams Fieldhouse facility includes High School Basketball Jamboree ($6,000 gross) and high school track meets ($9,000). Non-revenue generating activities include hosting Relay for Life and Special Olympics basketball events, which only require cleaning personnel and fees but generate revenue for those charitable organizations. In total, gross income from the PAC and general fieldhouse uses are an estimated $348,000 per year based on 2007 data.

Rental fees for outside events generate an estimated $10,000 gross per year which goes into a campus-wide account. The net rental fee ends up being approximately $5,000 following payment of employees and other incidentals.

At the existing facility, 75 student workers work a total of 7,800 hours during the school year and an estimated 800 hours in the summer. Total cost for these employees is an estimated $60,000 per year. Four people are needed to staff the PAC, including the director, assistant, administrative and facility support personnel. This results in 2.25 FTE positions.

The original approved program budget for Phase 1 of the project was $3,727,000 and will be funded using Program Revenue Supported Borrowing. A budget change to $4,988,565 is being requested to account for a size increase as well as escalating material and fuel costs and expansion of the original program.

E. Other (archaeological, historical, etc.)

Archaeological and Historical

Archaeological and other historical resources have not been reported within the project site by the Wisconsin State Historical Society. (Appendix C). In addition, the Wisconsin Historical Preservation Database (WHPD) was accessed and locally designated historical or archaeological properties were not located on or near the proposed construction site. This database includes information from the Archaeological Sites Inventory (ASI), Architectural History Inventory (AHI), and the Bibliography of Archaeological Reports (BAR). That database revealed no sites of historical or

archeological interest on the proposed Phase 1 and Phase 2 building locations. The nearest locations of archeological or historical interest are:

- Greenwood Cemetery – This historic Euro-American burial site is catalogued and subject to the provisions of Wis. Statutes 157.70. The cemetery is west of the proposed building site by approximately one-third of a mile and is separated from the campus by a fence on all sides.

- Cordes Lead Diggings – These Indian lead workings are burrows dug into the base of the hill on the south site of the Rountree Branch. The current status of this site is unknown but the proposed location of the Williams Fieldhouse building addition is north of the Rountree Branch and will not affect this site.

- Rountree Branch Camp – This campsite/village site is on the south side of Rountree Branch, between it and the road to Dickeyville. The current status of the site is unknown but the proposed location of the project is north of the Rountree Branch and will not affect this site...

III. Proposed Environmental Change

Phase 1 of the Williams Fieldhouse Addition and Renovations will consist of 19,200 GSF of floor space located within a new two-story building addition, in addition to remodeling of 7,360 GSF within the building that is vacated by program shifting. The site plan, building floor layout, and elevation views of the proposed Phase 1 building are illustrated in Design Figures 1 through 7 provided by American Design and Arnold and O'Sheridan. Figures 7 through 13 detail conceptual renderings of the building and its appearance both inside and outside.

Phase 2 will consist of 17,200 GSF building that will house a new competition pool for swimming, as well as spectator seating and adjacent recreation and warm-up pool.

A. Manipulation of Terrestrial Resources

Existing vegetation at the site expansion area for both phases consists of approximately 5,700 square feet of mostly turf grass over the area between the parking lot and existing fieldhouse building. Existing landscaping shrubs located on the southwest corner of the fieldhouse will be removed along with two 12 inch DBH maple trees, one removed for each phase of the project.

The landscaping plan (Design Figure 4) for Phase 1 of this project emphasizes the rain garden which will play a highly visible role. The large windows on the north side of the building will overlook that feature. Plantings of low deciduous and evergreen shrubs, deciduous trees, perennial flowers and grasses will provide shade and screening where needed in addition to enhancing the visual impact of the buildings. Plantings will consist of deciduous trees such as Pagoda Dogwood, Shademaster Honeylocust and Indian Summer Crab. Deciduous shrubs will consist of Dwarf Bush Honeysuckle, Grow Low and Tiger Eye Sumac. Evergreen shrubs such as Grow Sea Green and Calgary Carpet Junipers, and perennials and ornamental grasses such as Feather Reed Grass, Stella d'Oro Daylily and Black Eyed Susans will also be planted on the grounds and around the rain garden. These trees and plantings will be placed around the pond and retaining wall to soften the visual impact of the new building and to provide a visible natural sanctuary in the middle of a developed area.

Following development of Phase 1, approximately 9,800 square feet of existing parking lot will be converted to turf grass. Additionally, the rain garden feature north of the building totals approximately 5,300 square feet with an additional 1,400 square foot turf area west of the Phase 1 building addition. Post Phase 1 development will result in a net decrease in impervious area of approximately 14,500 square feet.

Following Phase 2 implementation when the new addition will be built in the area of the temporary turf grass, the net decrease in impervious area compared to existing conditions pre-development reduces to 1,000 square feet. This net increase in vegetated area does not take into account any potential expansion of the rain garden or new rain garden that may be included in Phase 2 development.

Grades surrounding the building will not be adjusted significantly. Excavation for the foundation and footings of the proposed buildings as well as the excavation for the future pools in Phase 2 of the project may require removal of bedrock that occurs at approximately 6 feet below the surface.

B. Manipulation of Aquatic Resources

Regional groundwater, which is estimated as 200 feet below grade, will not be impacted by this proposed project. In addition, wetland features were not identified in the project area or in the surface water outfall area and therefore will not be affected by the facility construction.

The change in impervious area of the building, parking area, driveway and sidewalks will decrease by approximately 14,500 SF compared to existing conditions following Phase 1. Following completion of Phase 2, impervious area will decrease by 1,000 SF. Storm water runoff from these impervious surfaces will decrease over existing conditions following Phase 1 development since the hard surface area is reduced. In addition, precipitation landing on the Phase 1 roof will first be routed through the rain garden where it will be allowed to infiltrate into the soil. If soil drainage capacity cannot accommodate the volume of runoff, it will be allowed to outfall to the campus storm sewer system. Stormwater management for Phase 2 of the project is not yet developed, but it will either route directly to the campus storm system, will be routed to the rain garden developed during Phase 1 construction, or routed to an expanded rain garden developed to account for Phase 2 runoff. These features will reduce runoff flow rate from the site, infiltrate water through the base of the basin, allow for sediment settlement and buffer and reduce outfall in the case of larger storm events. In combination, these functions will reduce the peak discharge from various storm events and minimize the amount of runoff, especially sediment-containing runoff that reaches Rountree Branch. Existing conditions at the site provide none of these key runoff control improvements.

C. Structures

No existing building structures are located on the project site. Following site excavation, a new two-story 19,200 GSF building will be constructed on the site for Phase 1 and 17,200 GSF single-story pool building for Phase 2. The new building structure will rest on a 5-inch thick slab on grade floor for Phase 1, using a standard foundation system along the exterior wall and interior columns.

D. Other

Hazardous Materials

No hazardous materials were identified in the area to be disturbed as part of this project, or within the general project limits. Medical waste is anticipated to be generated as part of the sports lab blood testing that will need to be disposed of in a manner consistent with disposal of that material. Phase 2 will require pool chemicals that will need to be stored and secured in an appropriate manner, similar to that of the existing pool.

Utilities

Site development will tie into existing sanitary and storm sewers, telecommunications and steam that are near the project area. The City of Platteville is requiring the installation of a new water main loop around the Williams Fieldhouse since the capacity of the existing water in the areas is insufficient for the proposed project. The water quality of municipal supplies to UW-Platteville is adequate, and no further treatment or filtering is necessary for this project. City of Platteville natural gas and sanitary sewer

utilities have the capacity to adequately handle the additional needs of the new building additions.

STORM AND SANITARY SEWER - Storm water drainage will be collected from a series of inlets and tied into the existing systems in this area. The new rain garden installed in Phase 1 will collect and outlet storm water to the existing 12-inch diameter storm sewer located west of the site. A UW System storm water management planning project is currently in progress.

An 8-inch sanitary sewer connection will be made to tie into the city sanitary sewer to the west which then flows toward Southwest Road.

WATER MAIN – A new water main will need to be installed around the new building and entire Williams Fieldhouse as shown in Design Figure 3. The size of the pipe has not yet been determined.

CHILLED WATER – The campus does not central campus chilling, thus any building with cooling needs has their own air conditioning system.

NATURAL GAS – Natural gas piping will be provided for use by the emergency generator.

STEAM AND CONDENSATE – The building will use high-pressure steam for heat generation, provided by the central heating Plant. A new 4-inch diameter high-pressure steam and condensate service was stubbed out during utility routing for the building additions from the existing Williams Fieldhouse.

ELECTRICAL / TELECOMMUNICATIONS – Electrical distribution will connect to the existing feeds provided for the two buildings (1959 and 1989 addition) of the Williams Fieldhouse, which is a 15 KV distribution line.

Emergency power will be provided by an on-site standby natural gas powered generator. The generator will be 480/277 Volt, 3-phase, 4-wire, 60 Hz, and will provide power for egress lighting, exit lighting, fire alarm system, building heating hot water circulating pumps, sump pumps, temperature control air compressor, DDC controls and telecommunication room equipment.

Telecommunications equipment and wiring is designed to accommodate the expected current and future telecommunications systems and to allow for flexibility and growth of structured cabling system. Wiring infrastructure for wireless access points will be installed as part of this project.

Noise

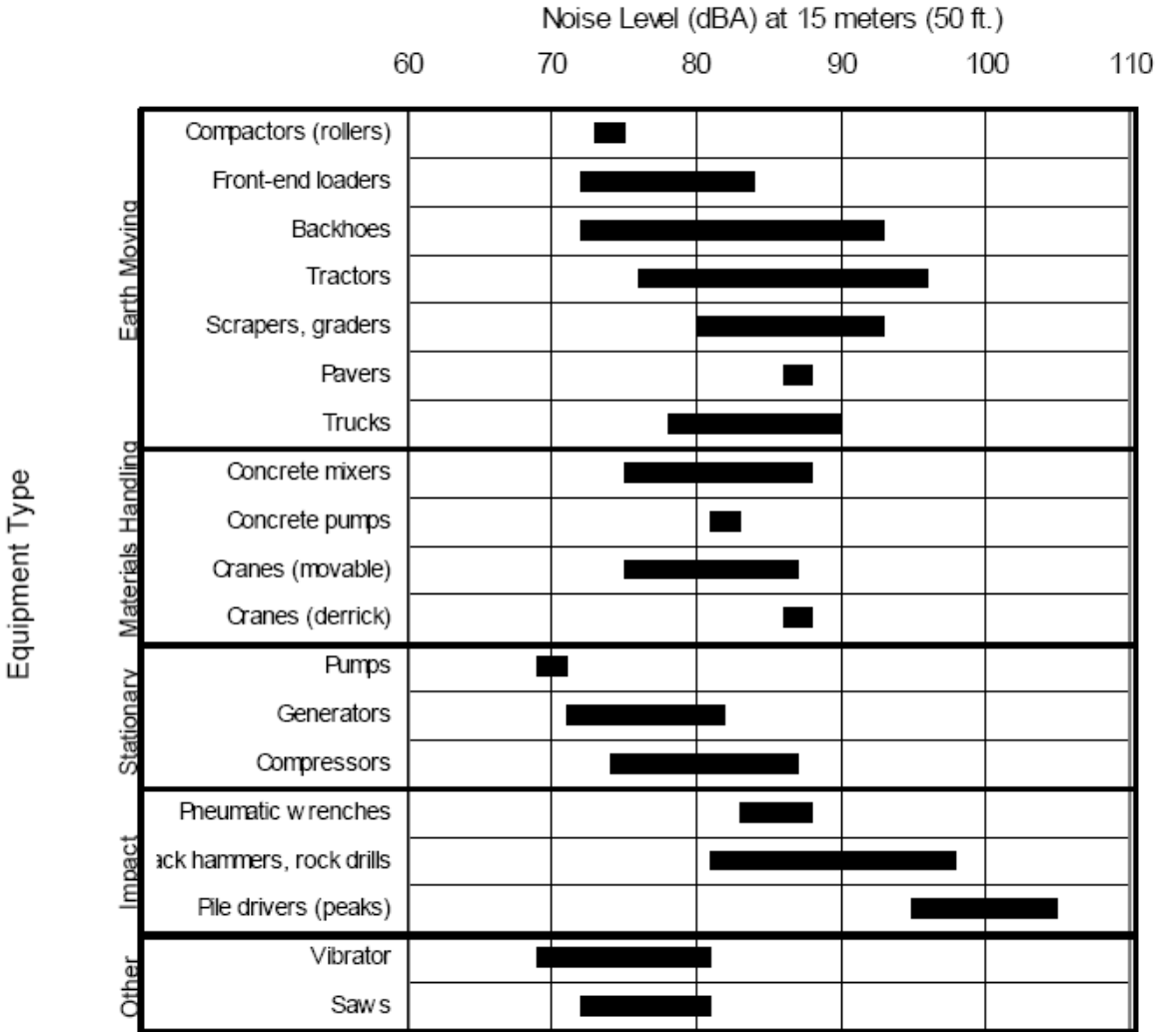
Noise levels are expected to increase slightly to moderately due to the project implementation, both in the short-term and long-term. Construction activities would result in noise during the construction period of May 2009 to June 2010 during Phase 1 and through 2014 accounting for Phase 2. The noise is expected to have the most impact on the new residence hall to the southwest and to academic buildings to the north, particularly if blasting is required for bedrock excavation in Phase 2. Construction

machinery is required to maintain noise suppression equipment and to operate in good working condition in compliance with state regulations. Construction operations will be conducted only during specific daylight hours to minimize noise impacts on the campus and the surrounding community.

Long-term noise issues would be associated with the new building's HVAC system. While specific noise decibels or frequencies are unknown at this time because equipment has not yet been specified, it is expected that the noise from this equipment will be minor.

Table 2 lists typical peak operating noise levels from construction equipment at a distance of 50 feet, grouping construction equipment by mobility and other operating characteristics.

Table 2 – Typical Construction Noise Levels



Source: U.S. Report to the President and Congress on Noise, February 1972

Vibration

Vibrations that may be felt include those caused by vibratory rolling during compaction activities or jack hammering during removal of hard surfaces such as asphalt. Removal of bedrock may result in vibrations for a short period particularly during Phase 2.

Topography and Erosion Control

Existing site grades in the specific project area are generally very gently sloping, though at the north end, the new rain garden will abut the sharp grade change and at the retaining wall. Site development should not include extensive soil and rock excavation and grading to provide appropriate elevations for the Phase 1 building foundation and other site features. Phase 2 will require excavation of the pool depths since dolomite bedrock is approximately 6 feet below surface grades. Soil material volume to be removed is estimated at 400 cubic yards for Phase 1 due to foundation and footings. Soil material to be removed in Phase 2 will likely range from 1,000 to 1,500 cubic yards. Soil volume excavated from this site will be relocated by the contractor to an off site location.

Grades for this site will not be drastically changed when comparing the existing conditions to proposed site grades (Design Figures 1 and 2). Steep site slopes along the south portion of the site will be reduced significantly, which will reduce the erosion potential of site runoff following development. In addition, a new infiltration basin to collect and infiltrate runoff from the site is part of site development. These features will limit the erosion potential of the new impervious surfaces by reducing their outflow velocity compared to existing conditions. This will minimize the impact of the impervious surfaces on nearby surface water features.

Surface water runoff from the proposed site work will be controlled both during the construction phase and following site development. Silt fences and other runoff/siltation devices will be utilized during construction activities in accordance with construction best management practices (Wisconsin Administration Code Chapter NR 151 Runoff Management and NR 216 Storm Water Discharge Permits) to minimize environmental impacts of the project. The erosion control plan will comply with campus, city, and state standards.

The erosion control plan developed for Phase 1 consists of stormwater inlet protection. Both phases of the building addition may require a construction tracking pad to reduce tracking of soil material on to city or campus streets. Surface water control features at this site include the rain garden construction, curb and gutters along the parking lot that assist in runoff routing, and established site vegetation.

Traffic and Parking

Traffic in the vicinity of the proposed building is mostly student traffic traveling to and from classes and to off-campus living or activities along Longhorn Drive. In the specific project area, traffic is limited to students utilizing Lot P25A and pedestrians crossing through this area. Parking lots available to student commuters, campus residents, visitors, faculty and staff are located throughout campus including across from the existing project site (Parking Lot 25A). Parking passes currently are based on one or two semester rates for students, faculty, staff, and Williams Fieldhouse users. One

semester costs $70 for faulty and staff, $45 for students and $70 for Williams Fieldhouse users. Two semester rates are $125 for faculty and staff, $85 for students and $125 for fieldhouse users.

Parking Lot P25A is, according to campus personnel, underutilized, with approximately 50% vacancy at any time. This is similar to Lot P24 to the south as it currently exists. Lot 25A is utilized by commuting students and staff and is not intended for use by on-campus residents. Following implementation of Phase 1, the project anticipates a total of 28 spots will remain compared to the current 148. This is a loss of 120 spots for vehicles that will need to be parked at other lots. Adjacent Lots 25, 11, and 12 as well as Lot 26, 8 and 9 located east of the Williams Fieldhouse all have capacity to account for users of existing Lot 25A. These adjacent lots (P11, P12, P24, P25 and P26) have a total capacity of 532 stalls broken out as 82 for campus residents, 261 for commuting students and staff, 44 for just commuting students, 25 for just staff, 24 for open/visitor and 20 that are designated handicapped stalls. Assuming that the loss of the stalls from the change in parking Lot 25A to new building area results in a need of approximately 46 stalls for commuters and staff, these can be absorbed by the surrounding existing lots. The 46 stalls represent an estimated 9% of capacity of the surrounding lots which, based on qualitative evidence, is more than adequate. Parking permits are not assigned for specific lots, but are assigned for the type of lot (faculty and staff, commuters, residence halls).

Visual

Visual aesthetics in the vicinity of the proposed building will be affected. The asphalt surface will be removed and replaced with a rain garden, the building(s) and temporary turf grass. Physical site topography will not be significantly changed. More important are the visual impacts of the building, which will be one of the first buildings seen when entering the campus from the south side along Longhorn Drive.

The new building additions will utilize a significant window exposure while keeping a similar material pallet as that used in the existing Williams Fieldhouse building for continuity. While the design features along their exteriors will be different from each other, the addition and existing building will complement each other. In addition, exterior building materials will be consistent with the aesthetic of other campus buildings.

Interior visual aspects provide extensive natural light into the building both through the roof and through the exterior windows. The Phase 1 rain garden will provide a natural vista from inside the building; the view from the north will be partially obscured by the retaining wall running northwest-southeast.

Energy Efficiency

Building features will be incorporated that contain energy efficient capabilities, including:

- Variable air volume handling units
- Variable flow pumping for chilled water, cooling tower fans and hot water heating
- Energy efficient water cooled centrifugal chillers with cooling towers

- Insulated and soundproofed piping and ductwork for reduced condensation and improved heat/cooling transfer and comfort

- Main air handling units are manifolded to allow operation of only one unit during reduced load needs of nights and weekends

- Carbon dioxide demand-controlled ventilation reduces outdoor air ventilation rates during evening and weekends and saves energy

- Occupancy sensors for offices, to minimize air flows and lighting during unoccupied times

Planning of the energy system included a life cycle cost analysis of energy-using systems with a 30% more energy efficient system than code evaluated. This included a geothermal evaluation as an alternate HVAC system. Arnold and O'Sheridan conducted the feasibility and cost impact of installing such a system in lieu of a standard HVAC system. A geothermal system includes a vertical loop of piping that captures ground heat, geothermal heat pumps, heat exchangers and controls. The array analyzed consisted of vertical borings spaced 20 feet apart and up to 300 feet deep. Estimated costs for such a system was $200,000 that resulted in reduction of $130,000 in mechanical aspects of a base system. Using simple payback calculations on assumed cost per therm and cost per kWH, the system payback would be 16 years. Aspects also considered include equipment life and energy savings from incentive programs. Based on this information, the payback period is too long to make this system economically beneficial. Phase 2 design will include a similar evaluation and will be considered as well.

According to the Design Report, energy requirements of the proposed Phase 1 building addition are estimated for 19,200 GSF to be:

HEATING AND COOLING –	HVAC Steam Heating	Peak = 521.3 x 10^3 Btu/Hr Annual = 61.7 x 10^3 Btu/GSF/Yr
	HVAC Heating	Peak = 66.7 x 10^3 Btu/Hr Annual = 55.8 x 10^3 Btu/GSF/Yr
	HVAC Cooling	Peak = 667 x 10^3 Btu/Hr Annual = 9.3 x 10^3 Btu/GSF/Yr
ELECTRICAL –	Lighting	Peak = 285 x10^3 Btu/Hr Annual = 17.3 x 10^3 Btu/GSF/Yr
	Connected Power	Peak = 45.9 x10^3 Btu/Hr Annual = 24.0 x 10^3 Btu/GSF/Yr
	Plug-In Equipment	Peak = 60.4 x10^3 Btu/Hr Annual = 1.14 x 10^3 Btu/GSF/Yr

NATURAL GAS (for consumption > 50,000 therms/year) = less than 50,000 Therms/Year

Building sustainability was a high priority in the development and design of the project. Building features such as modularity of the building interior, energy efficiency, natural lighting components, and building orientation all contribute to these features.

The Design Team has used the Leadership in Energy and Environmental Design (LEED) system as a "scorecard" to measure achievement in sustainability objectives. The standard of the project is to meet DSF Sustainability Standards, which requires documentation of features for the project. Although many aspects the DSF Sustainability Standards overlap with the LEED criteria, the DSF standard is the focus. The ratings established by LEED offer an indication of the level of success in reaching those goals.

Listed below are the strategies employed in the UW Platteville Phase 1 Building design, according to the LEED Rating system scorecard. Phase 2 will be required to implement similar DSF Sustainability Standards, though specifics are not yet known. The intent of the future Phase 2 features will be the same, that is, design with environmentally and sustainable building and site features implemented.

Sustainable Sites

- Reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.
- Avoid development of inappropriate sites and reduce the environmental impact from the location of a building on a site.
- Storage for bicycles for 5% of building occupants with on-site shower changing facilities for cyclists.
- Carpool spaces provided for 5% of all building occupants.
- Water run-off and site disturbance reduced by limiting paved parking.
- Permanent stormwater management: reduction in runoff discharge rate and volume and increase in quality treatment.
- Restoration of site area outside building footprint to hardy, native vegetation.
- Site roof water directed toward rain garden to minimize head island impacts
- Light pollution reduction through fall cut-off exterior fixtures, eliminating contribution to night sky pollution.

Water Efficiency

- Reduced potable water usage by eliminating permanent site irrigation system.
- Irrigation and fertilization requirements minimized through use of hardy and/or native vegetation, resulting in lower utility charges for University.
- Reduced potable water usage through usage of lavatory sensors or metered faucets.

Energy and Atmosphere

- The building will meet or exceed the Minimum Energy Performance Criteria.
- Reduced energy costs by installing high performance glazing, therefore optimizing energy efficiency of the building envelope.

- Ozone depletion prevented by using HFC(R-134a) refrigerants and Halon-free fire suppression equipment.
- Zero-use of ozone depleting CFC-based refrigerants.
- Energy costs reduced above prerequisite standard by implementing additional energy savings measures.
- Reduced dependence on artificial lighting through naturally lit building exterior.
- Measurement of actual building total energy consumption to enable the Owner to understand system performance is being explored and may be implemented.

Materials and Resources

- Dedicated area for storage and collection of recyclable materials.
- 50% of collected construction waste to be recycled or reused.
- Utilize building materials containing significant recycled content, including steel, concrete, carpet, door and window frames and millwork from renovated areas.
- Efforts will be made to use building materials manufactured regionally.
- Recycled building content targets met in large part through structural steel system.

Indoor Environmental Quality

- Compliance with ASHRAE 62-1989 with the exception of 6.1.3.1- Multiple Spaces.
- No smoking policy enforced.
- Carbon Dioxide monitoring for effective ventilation control.
- Low emitting VOC content in paints, carpets, composites, adhesives and sealants.
- Minimize exposure of building occupants to potentially hazardous particulates and chemical pollutants by designing to minimize and control pollutant entry into buildings and later cross-contamination of regularly occupied areas.
- Many occupied spaces have access to natural daylight and views.

IV. Probable Adverse and Beneficial Impacts

A. Physical Impacts

1. General

The proposed project is the construction of Phase 1 and conceptual design of Phase 2 addition and renovation to Williams Fieldhouse. Other university land uses in the area include the relocated track and field facility, academic and physical plant buildings, a new residence hall and parking associated with the UW-Platteville campus. The location of the building is beneficial for students who are located in the adjacent new residence hall as well as those residing in the residence halls north of the new bridge that connects the northwest residence halls to this section of campus. The building will support the Tri-State Initiative by providing improved recreational and athletic facilities and will assist the UW-Platteville in recruiting and retaining high-quality students and faculty. Proposed land use at the project site is a change over the existing asphalt parking lot, especially when considering the past recreational uses have already been relocated to the east.

Development of Phase 1 and 2 will result in a net decrease in impervious surface of an estimated 1,000 square feet. This is primarily due to the development of the rain garden, and the fact that the change in impervious surface from parking lot to roofs has no net effect on increased impervious area.

2. Geology and Topography

The original topography of this site had been previously altered for the construction of the Williams Fieldhouse, and currently is relatively flat. No unique geologic features were identified in the area. With excavation depths of more than an estimated 12 feet below existing grades for Phase 2 pool, the surrounding topography of the site will be not be significantly modified but a volume of bedrock will likely be removed.

Soil material excavated from the project location will need to be placed off-site since there are no areas within the project location that can accommodate the removed soil and rock volume.

3. Soils

No direct or indirect impacts to unique geology or soils are anticipated to result from the proposed building addition project. Excavated material from Phase 1 site development, estimated as 400 cubic yards, will be placed off site as unconsolidated fill material. While not calculated yet, the total soil and rock excavation for Phase 2 is anticipated to range from 1,000 to 1,500 cubic yards of material, primarily from pool excavation.

After removal of the asphalt parking lot directly south of the Phase 1 building addition, a new vegetated soil condition will remain until the Phase 2 building is constructed. Due to the relatively flat grades in this area, only minimal erosion is expected. Long-term maintenance of vegetation would be the responsibility of UW-Platteville landscaping staff.

4. Building Utilities

Under this project, water utilities will be extended to meet the project requirements, and minor extensions of existing sanitary and storm piping will be conducted from the project site. The adverse impact of extending utilities to the buildings is expected to be minimal as the length of utility extensions and tie-in are anticipated to be short, with the exception of the new looped water for fire protection. However, installing subsurface pipe utilities using standard trenching methods results in bare soil until vegetation is established. This tends to increase soil runoff during storm events and requires inlet protection and other erosion control methods to minimize suspended solid transport to the Rountree Branch.

Energy loads and use of the utilities will be larger than the existing parking site. The new building contains many features designed to reduce energy loads and provide efficient building operation in the long-term. These features include variable speed air handling and water pumps, occupancy sensors for lighting and HVAC, carbon dioxide controlled ventilation to minimize operation in down times, utilization of natural daylighting features and energy efficient building chilling unit.

Water utility from the City of Platteville, and from the central campus system, can adequately handle the expected loads from this new building once the new water loop is installed. However, it is a cumulative effect that will contribute to the long-term use of the utility systems which may require upgrades in conjunction with other city and campus development in the future.

5. Potable Water

UW-Platteville derives its potable water supply from the City of Platteville. The water demands of the proposed building additions will be more than those of the existing site, though similar to that of similar exercise facilities in the existing Williams Fieldhouse building. The water loads are not expected to be significantly greater than the existing Williams Fieldhouse currently uses. However, added locker rooms and bathrooms as well as the pools to be constructed in Phase 2 will require on-going water usage which will be mostly off-set because the facilities that currently house these activities will be relocated. In addition, the new pool will require more water than the existing pool because it is bigger. Evaporation at a larger pool and pool facility is also expected to increase water loss and resultant water use. The increased number of students associated with the Tri-State Initiative will increase water demand by UW-Platteville in total, especially in on-campus living quarters.

The installation of new water service loop will provide adequate supply for fire protection as this building. Additionally, this will beneficially impact the existing Williams Fieldhouse building by providing upgraded water protection system in the event of a fire.

6. Storm Water

Construction of the Phase 1 and Phase 2 portions of the Williams Fieldhouse addition will result in a decrease in impervious surfaces of approximately 1,000 square feet. Because the individual project phases are disturbing less than 1 acre, a

Notice of Intent (NOI) will not need to be submitted to the Wisconsin Department of Commerce prior to earth disturbing activities.

Storm water runoff will decrease from the site compared to existing conditions due to the decreased impervious area from the permanent rain garden and the temporary turf grass that will be replaced in Phase 2. Phase 2 will also replace impervious surface parking area with impervious roof surface, resulting in no net gain or increase in those areas. Storm water controls will be in place to mitigate the adverse impacts of site development during construction activities. Provided the storm water controls are adequately designed and implemented, impacts such as erosion or runoff from the site are expected to be minor and insignificant.

Storm water control features include the following:

- A tracking pad will be utilized in construction staging areas to minimize soil tracking on campus parking lots and roads from construction activities.

- Silt baskets or inlet protection will be placed over all site inlets that may collect site runoff until completion of site development and permanent erosion control features

- Construction of a new rain garden that will collect surface water runoff from Phase 1 and subsequently allow higher percent of stormwater capture to infiltrate into the ground and less to flow toward storm sewer system. In addition, the rain garden will reduce the suspended solids and peak outfall that ends up flowing to the storm sewer system as well as reduce the runoff temperature from water captured in this system. It is unknown how much will actually infiltrate due to the shallow bedrock conditions that limit the quantity of infiltration possible

- Phase 2 will likely require an addition to the Phase 1 rain garden, or a new rain garden that is adequately sized to accommodate the new pool building addition.

These features will ultimately reduce contaminants, water temperature, and sediment leaving the site resulting in a minimal beneficial impact to the Rountree Branch beyond decreased total runoff volume during storm events. The rain garden have been designed and sized to provide post development site runoff characteristics for a 2-year storm event that are unchanged from pre-development conditions. A 12-inch diameter outlet pipe from the rain garden connects to the existing 12-inch diameter storm sewer pipe that flows west toward Longhorn Drive.

Long-term maintenance of the rain garden and other storm water control devices are likely to be necessary, and will require staff time and cost. The site-specific storm water control plan has only recently been developed, so specific costs for these items are not determined. In addition, any site-specific storm water control plan must comply with the UW-Platteville Storm Water Management Plan.

7. Surface Water

Rountree Branch, the nearest surface water body to the project site, is not located in direct contact with the project site, but has the potential to be impacted by runoff from the site. This adverse impact could occur if the surface water control measures such as rain garden, vegetation, silt fencing, and inlet protection are not adequately sized, installed or maintained. Impacts from improperly managed runoff could include transfer of possible on-site or nearby parking lot debris and fluids, and soil and sediment transfer. Sediment transfer is a primary concern during the construction phase of the project because much more soil will be exposed during site development while the site contains few stabilizing features to prevent erosion. Transfer of sediments, debris, and vehicular fluids through site runoff to Rountree Branch may impact the turbidity, temperature, nutrient balance and trace contaminant levels within Rountree Branch and potentially affect living species of fish or plants within the tributary. The extent of the impacts to these features is expected to be minimal post-development due to the storm water controls detailed above. Impacts during the construction phase would depend on the level and type of surface water control methods employed during site development.

Due to the loss of impervious surface from parking lot removal and gain in vegetated areas from the rain garden and turf grass, the runoff is expected to be marginally less in the long term (post-Phase 2 development) and therefore a marginal beneficial impact. If runoff control features during site development at the site are properly sized and maintained, surface water impacts will be minimal.

8. Wetlands and Flood Plains

The proposed project is not expected to have an impact on the wetlands or floodplains identified in the area.

9. Groundwater

The proposed project is not expected to have an impact on groundwater which occurs at approximately 200 feet below ground in this area. Rainwater that flows through the new rain garden is captured off the roof and therefore is considered relatively clean to begin with. This water would then be filtered through the rain garden subbase media before infiltrating through to the groundwater.

10. Climate and Air Quality

The south central region of Wisconsin, which includes Platteville, is in attainment for all criteria pollutants. The construction of the proposed building additions is not expected to have a negative impact on local or regional air quality in the long term. Short-term impacts may occur from emissions generated during construction but these will be minimized by best management construction practices. They would include: watering exposed surfaces to minimize dust and proper maintenance of construction vehicles. Elevated concentrations in air would be short-term and would decrease rapidly with distance from the construction site.

Air quality is not expected to be impacted from pool chemical use and air exhaust in the building due to the small quantity and intermittent use of chemicals in the pool maintenance and facility cleaning and disinfectants.

11. Noise

Noise will be generated during the time the proposed building is under construction, particularly during bedrock removal. Local noise ordinances will most likely be observed during this time period. Considering the relatively short-tem nature of the construction noise, impacts are not expected to be significant.

The new building will produce possible changes in the local acoustic environment from the HVAC system. These items have not yet been specified, but the auditory properties of this equipment are expected to be insignificant. This long-term equipment noise should not be noticeable to the nearest residential neighborhood located approximately 0.5 mile from the project site.

12. Transportation and Parking

Vehicular traffic impacts from the new building will likely be insignificant compared to existing pattern due to similar building users. Pedestrian traffic in this area is expected to remain the same. The walkways from the campus area to the north will be sloped at 5% or less for improved pedestrian and wheelchair access where possible. Additional improved pedestrian access to the building will be provided to the north and south sides of the main building entrances by providing established pedestrian sidewalks around the redesigned parking facilities.

Beneficial impacts to transportation from this project include additional parking spaces for bicycles located at the entrance to the new Phase 1 building addition. Loss of vehicle parking in Parking Lot P25A will be a short-term adverse impact as users become accustomed to the availability in nearby lots. Phase 2 development will likely result in additional loss of parking spaces, which will result in a second transition period. Long-term parking facilities will still have capacity following Phase 2 development. As these parking lot users are absorbed by underutilized surrounding lots, this impact should be reduced and only minimally felt in the long-term during high-capacity events at the facility.

In summary, the physical effects of this project have minimal adverse impacts, anticipated to be primarily limited to construction activities. Short-term noise and minor air impacts from construction activities are expected to affect the campus for the duration of the project. Though unanticipated, localized utility outages could occur while portions of this project are being implemented. No groundwater or soil impacts are expected to arise as a result of this project. Long-term beneficial impacts will be realized by incorporation of the utility features into the future of the campus plan and by providing additional services to buildings that need these utilities.

B. Biological Impacts

Adverse biological effects of the addition and renovation project have not been identified by the Wisconsin Department of Natural Resources or the U.S. Fish and Wildlife

Service. This proposed construction and renovation project will be limited in the area and depth of site disturbance and the site contains no protected species. Letters, including e-mail, from the WDNR and U.S. Fish and Wildlife Service, included in Appendix C, state there are no critical areas in the location of the project development. Though the letters are directly related to the EIS for the New Engineering Building, the findings are still applicable due to the proximity of the Williams Fieldhouse to this previous project. The WDNR and U.S. Fish and Wildlife have been given an opportunity to respond to this specific project local, and to date, have not provided a written response.

Beneficial biological impacts of additional trees and vegetation planted as part of this project will provide additional habitat for nesting song birds and tree dwelling mammals and a pastoral and aesthetically pleasing addition to the area. The addition of the rain garden will offer a vista for users of the facility and will increase diversity of habitat in this part of the campus.

None of the species that were noted in the WDNR Endangered Resources Review from 2005 for the nearby new residence hall had adequate habitat on this site location, a parking lot, nor were noted on this previously developed proposed project site. These species will not be affected by this proposed project.

C. Socioeconomic Impacts

1. Social

Adverse social aspects of the proposed addition and renovation are primarily related to the construction and relocation phases of the project. During the construction phase, pedestrian access to this site will be limited and some re-routing of pedestrian traffic will be necessary in this area. The inconvenience of re-routing will be primarily focused on the current users of the underutilized parking lot although some access to the current facility may be affected during construction as well.

Following the new addition completion, some existing athletic and recreational facilities, coaches' offices, and equipment storage space provided in the fieldhouse will be relocated to space in the new building so that 7,360 GSF of Williams Fieldhouse can be renovated. Following relocation of those items and renovation, backfill of empty space within the renovated fieldhouse will be accomplished, creating more efficient use of space in Williams Fieldhouse. This physical relocation will inconvenience the parties involved, but is a necessary step in the occupancy and relocation process and is offset by the positive effects of the backfill use of the space and the updating involved in the renovation. The renovation will result in a new wrestling practice room which benefits one of the varsity teams on campus. Existing practice facilities are dated and the wrestling mats have become worn and are past their designed athletic life.

Beneficial social effects of the new additions and renovation include expanded and improved facilities that will serve the current and projected needs of the campus, particularly students but including faculty and community members who use the facilities. Improved athletic trainer facility and lab allows for more space to conduct testing on performance including lactic acid blood testing, VO_2-max testing and other measurable kinesiology performance tests. These facilities will directly contribute to

improved academic understanding and testing associated with academic programs at the university.

Other beneficial social effects will include new recreational and athletic facilities that will allow users to maintain fitness, health, and well being as well as supporting the Division III athletic teams at UW-Platteville that provide a cultural outlet and sense of community to those involved. The Phase 2 addition will have the benefit of allowing UW-Platteville to add NCAA-level swimming and diving sports, if desired, and to host regional events.

Further social improvements include a 500-seat gallery that overlooks the pool that will allow ample room for spectators to view swim meets for both collegiate and high school events. This facility will be modern and likely be utilized for regional and sectional events at the interscholastic level. The associated new locker rooms will provide space for swimming as well as outdoor track and field access to the south.

Physical activity provides the social benefit of stress relief and there is a strong link between academic or work productivity and physical exercise. Establishing a setting where students can relieve stress and stay active throughout the year is social benefit to UW-Platteville. Such a facility can become a social hub for university students and today's student frequently expects to have these facilities made available as part of their university experience. Another benefit of the enlarged and renovated facility will be to attract students. This will support the Tri-State Initiative to increase enrollment at UW-Platteville.

Multiple windows on both floor of Phase 1 will overlook the new rain garden feature. During rain events, the design of the garden will result in a cascading water-fall effect as roof collection routes water to the garden. In addition to this calming and visually effective feature, the windows on the south side of the Phase 1 building addition will likely overlook the Phase 2 aquatic center, providing another enhanced visual feature to users of the exercise equipment housed in Phase 1.

The new project seeks to gain direct and possibly indirect beneficial impacts by increasing wellness and fitness at the school, attracting new students, potentially increasing enrollment, staff and student retention, student success, student preparedness for an active life beyond the university, and an increase in alumni interest and participation related to Division III sports. The Tri-State Initiative anticipates a large increase in enrollment and construction of the building will play a part in this by supporting student activities into the future. Building hours are also intended for late access, allowing students the benefit of these facilities during off-peak hours as part of their social life at the university.

2. Economic

The original approved program budget for Phase 1 of the project was $3,727,000 and will be funded using Program Revenue Supported Borrowing. However, a budget change to $4,988,565 is being requested to account for escalating material and fuel costs, expansion of the original program and increased building size. This permanent commitment of funds has an economic impact as building materials, jobs and long-term revenue generation both indirect and direct in nature. The budget for Phase 2 is $9.5 million and will have a permanent impact on University funds. Based

on the standard Industry Economic Multiplier of 2.2, the positive economic impacts of Phases 1 and 2 will be approximately $30.3 million. This would equate to an estimated 45 new jobs using standard formulas used by the UW System as developed by Northstar Economics in determining impacts from Capital Projects.

Positive economic impacts will benefit UW-Platteville and City of Platteville for hosting collegiate, local or regional swimming competitions. Use of hotels, restaurants, shopping and campus amenities by out of town participants, family and friends will all positively impact the local economy. High school swim events are also anticipated to occur at this future Phase 2 facility since it will be modern with a large seating capacity making it a likely venue for regional or sectional competitions. The price structure and strategic plan has not yet been established for these uses and therefore an economic analysis to determine the impact on the local economy can not be done.

An adverse economic impact of the proposed project is the loss of revenue from the spaces in Lot 25A that will no longer be available. This loss will be offset by the potential for an increase in fees to use the facility from community members who will have a greater incentive to enroll to use the Fieldhouse after it is expanded and renovated. An economic benefit of the proposed Phase 2 project would be the small amount of revenue that could be generated by NCAA Division III sports activities that charge admission to events. These entry fees are $6 for adults, $4 for seniors (62 and older) and $3 for children (17 and under). Projected numbers for have not been developed. Finally, approximately full time faculty and maintenance staff and 75 students that serve as part-time equivalent non-coaching staff for 7,800 hours are associated with the existing facility; these positions have impacts on the university's budget and a positive impact on the local economy. A potential positive impact is that high school events as well as Division III events could be hosted in the new facility. The ticket price structure has not been determined for this scenario, but existing rental fees generate $10,000 gross per year. In total, at 100% capacity (which is not the case), reduction of 120 spots at Lot P25A would result in $10,200 to $15,000 in gross revenue fees depending on whether students or faculty purchase the passes. However, the finite number of passes sold will integrate into the existing surrounding lots. It is possible that as enrollment increases, additional parking passes could be sold that may have utilized the lot.

The expanded and renovated fieldhouse will also impact the appearance of the campus as one of the first building visitors see when entering the campus from Southwest Drive. The visibility and impact will provide a positive first impression of the UW-Platteville campus and will help attract and maintain high quality staff and students. As university students have come to demand access to high-quality recreational facilities, this project will support the enrollment efforts associated with the Tri-State Initiative.

A beneficial short term economic impact is that the construction will require multiple skilled laborers, who will spend money in the Platteville locale, as well as building materials, some of which are likely to be acquired from local merchants or collected from nearby areas. As part of the rain garden design, Arnold and O'Sheridan

In lieu of taxes, the University of Wisconsin-Platteville annually pays a lump sum fee for services such as police, fire, ambulance, and sewer. This building will not

appreciably impact this fee since it takes into account many different factors, including number of students, utility usage, and building locations. The water system upgrade for fire protection is being paid for as an ancillary part of this project and won't affect these on-going fees.

Long-term operating costs of the proposed utility installations will result in an increase in maintenance costs to keep the various systems in good operating conditions. For Phase 1 and 2, maintenance costs are estimated as $1.06 per square foot per year and include maintenance, supplies, and landscaping. Utility operating costs will primarily consist of air handling units, lights, and the pool mechanical system, and operating costs of treadmills and other exercise equipment is minor in comparison. For Phase 1, utility operating costs have been estimated as $2.00 per square foot per year and for Phase 2, $3.00 per square foot per year. Upon completion of both phases, operation and maintenance costs for the new building addition have been estimated at $128,584 per year. Based on this information, total maintenance costs indicate a new 1.0 FTE in custodial staff at an annual rate of $38,000.

In addition, SUFAC and three large governance groups voted in support of Phase II in spring 2008. Starting in 2009-10, the annual student fees will be increased by $70 to support of Phase 2.

D. Other (archaeological, historical, etc.)

The project will not impact any known historical or archaeological resources on the campus according to Wisconsin historical and archaeological databases.

V. Probable Adverse Impacts That Cannot Be Avoided

An unavoidable impact of the proposed action is the commitment of energy, materials, and financial resources in the amount of $4.25 million for Phase 1, and $9.5 million to be allocated for Phase 2, as well as increased annual operating and maintenance expenses. In addition, increased usage of the building features are expected to result in a small amount of additional traffic entering and exiting the driveways along Longhorn Drive. .

New roof areas from Phase 1 and 2 will result in additional impervious areas that will decrease attenuation time during storm events and will result in additional runoff that will need to be controlled. However, runoff control measures such as the rain garden provide features to drastically reduce the impact from the site development. Primarily, the rain garden allows for cooling of runoff prior to discharging from the site as well as results in reduced runoff due to increased infiltration. If these features are adequately maintained, the impacts to Rountree Branch or other areas are expected to be minimal due to reduction in impervious area from elimination of the surface parking areas.

Construction activities may necessitate alternate pedestrian or bicycle routes to or from campus classes. Any detours around the construction site are expected to be minor and take only a few minutes longer than the direct route through the completed site.

Relocation of existing facilities and staff within Williams Fieldhouse will present an inconvenience to these parties both during the move and when initially setting up and familiarizing themselves with new building rooms and features. The long-term impact on these new or relocated facilities will be beneficial by providing technologically-advanced areas, additional space for students and equipment, coaches, student-athletes and recreational users. Those services that remain in Williams Fieldhouse will backfill and expand into the newly vacated spaces.

VI. Relationship Between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

Long-term productivity of the environment for social and cultural uses was previously chosen when much of the former city land was converted into university campus buildings. This particular site location was chosen as parking and athletics/recreation building in the late 1950's. Continued long-term campus development has become more critical since the development of the Tri-State Initiative that will result in an expected enrollment increase of 2,000 students by 2012. Since certain features of the existing Williams Fieldhouse are currently operating near capacity, new facility space for long-term use as well as facility upgrade is needed to accommodate the increased enrollment and use.

University officials and planning participants value campus green space, so the location of this project was chosen to maintain those goals and impact a non-critical, previously developed campus parking lot that was being underutilized as opposed to constructing on a green-space location. In practical terms, maintenance and enhancement of the environment of the building site applies to the rain garden and enhanced landscaped shrubbery, a portion of which will be eliminated by the construction and currently does not provide useful space for students, staff, or visitors of UW-Platteville.

University staff and students, alumni, and residents of the City of Platteville and surrounding areas will benefit during the long-term use of the facility for general student, faculty, staff and public use. In addition, the footprint of the building addition is environmentally insignificant in relation to land resources available on the campus. While long-term impacts to city utilities from additional campus development will need to be evaluated, this specific project has a minimal impact on the capacity of the utilities as a whole.

VII. Irreversible or Irretrievable Commitments of Resources if Action is Implemented

A. Energy

Energy resources that will irretrievably be consumed consist of electricity and petroleum fuel used to operate construction equipment during the building construction, to operate manufacturing plants that produce the building materials, and during gathering of raw materials from the environment. Energy consumption also will increase with the operation of the building additions. Most of the building materials consumed in the project also will be irretrievably committed, although building materials are reused and/or recycled increasingly in contemporary building projects. In addition, construction of the new and remodeled facility will generate construction waste and operation of the new facility will marginally increase solid waste produced at the campus. The hauling and disposal of these items may also result in marginal increases in the use of petroleum fuel by solid waste disposal operations.

Energy use by the facility following the addition will increase because the facility will be larger. However, high-efficiency products have been specified or are being investigated, which will decrease the future energy demand of the facility. These products include variable air handling systems, variable speed hot water pumping, high efficiency motors, high efficiency lighting systems, and lighting and HVAC occupancy sensors throughout the building to minimize wasted energy. Day lighting is used extensively in the design and will minimizing the use of supplementary interior lighting.

The project will require an initial financial commitment as well as on-going annual operating and maintenance expenses. Annual operating expenses are expected to be approximately $128,584 for the combined phases and are budgeted for utilities, custodial and maintenance of the building paying for staff, materials and equipment to complete these tasks. This includes $58,752 for Phase 1 and $69,832 for Phase 2.

B. Archaeological and Historic Features or Sites

The project will not impact any known historical or archaeological resources on the campus according to Wisconsin historical and archaeological database search conducted September 2008.

C. Other

As a consequence of the construction, consumables such a building materials, HDPE, PVC, copper, and steel piping will be used within the addition and renovation. These materials could be recycled, in part, at a some time in the future and, therefore, they are not irretrievable.

Theoretically, the land could be restored to its pre-development state, and therefore, this action is not considered an irreversible commitment of land.

VIII. Alternatives

Alternatives to the proposed project were “No Action”, renovation of the existing 1959 Williams Fieldhouse building, and constructing at an alternative location.

No action/defer the project request

The “No Action” alternative was not pursued because it would not fulfill the objective of addressing the critical space need of the existing Williamson Fieldhouse nor provide a competition pool making NCAA swim teams a possibility in the future. Operation of the existing space within the current building is nearing capacity at peak times and has insufficient HVAC during those times. With both standard university enrollment growth and the enrollment growth from the Tri State Initiative, new space is needed to accommodate the current and future students. This need is further increased by an increased percentage of students using the facilities than had in the past. Therefore, a “No Action” alternative would not meet the long-term or short-term needs of the campus.

Renovation of existing Williams Fieldhouse building

Renovation of the existing Williams Fieldhouse facility (either the 1959 or 1989 buildings) was not a viable option for a number of reasons. First, past expansion has resulted in the mechanical and HVAC equipment in the building being stretched to capacity. Past renovations have also been done to maximize the useful life of the building. Second, expansion, renovation, or addition to this existing building would not be cost-effective since modifying existing building features is more expensive than building new. Third, some of the building technology is dated, especially that located in the 1959 building. While still supporting existing uses advanced technology features are difficult to provide to this building now nearly 50 years in age.

Renovation of the pool area within the existing Williams Fieldhouse building would be prohibitively expensive to modify or replace the existing pool in the current area to be competition level with 8 lanes. Pool design and gutter systems have drastically changed since the 1959 pool was installed, and it would be very difficult to replicate new pool features into the existing space, as well as inability to provide appropriate seating areas within the existing facility.

Construction at alternate location

Building or expanding the new facility phases on “green space” to the east side of the Williams Fieldhouse building was explored but could not reasonably be implemented due to the major grade changes and stormwater drainage piping that are located on that side of the facility. Furthermore, the east side contains green space and additional plantings that the west side of the building does not have. University of Wisconsin-Platteville places a high value on green space for recreational, educational and visual benefits.

IX. Evaluation

A. As a result of this action, is it likely that other events or actions will happen which may significantly affect the environment? If so, list and discuss. (Secondary effects)

No. New construction of the building addition or renovation features will not change the nature of the environment at UW-Platteville. This project is distinct and separate from other campus projects, and therefore follow-up work associated with this project that could significantly affect the environment is not anticipated at this time. Features such as rain garden, decorative plantings and turf grass proposed on the site are a benefit to the environment as is the decrease in impermeable area compared to existing conditions following Phase 1 and 2 developments.

An overall net decrease of impervious surface to the University grounds of approximately 1,000 square feet will be realized with the completion of the both phases of the addition. This will result in a decrease in storm water runoff total volume. Storm water run off will be routed to an on-site rain garden where design engineers have calculated that it has the storage capacity to accommodate the roof area for Phase 1 and provides an area to settle solids prior to infiltration or discharge in accordance to state standards. It is anticipated that Phase 2 will have either a new rain garden, or will expand the Phase 1 rain garden to accommodate the runoff from the aquatic building. Proposed features such as limestone screening along the parking lot provide additional settlement, temperature reduction and contamination absorption to further reduce impacts to the environment.

The development of this project resulted in a need for additional fire protection in the area. As a result of this proposed project, a new $183,520 water supply system will be installed around the existing Williams Fieldhouse and the proposed addition. This will result in additional excavation and soil disturbance as well as multiple new fire hydrants to provide adequate fire suppression.

B. Does the action alter the environment so a new physical, biological, or socioeconomic environment would exist? (New environmental effect)

The proposed action alters the physical environment but does not create a new one. The existing site grades of the parking lot will not be changed in a noticeable manner. A rain garden will be created that will be a new permanent physical environment that will vary between dry and wet depending on the weather events. The rain garden will support new vegetation, but is not designed to support other biological life like fish or water-dwelling creatures.

The project is not expected to alter the biological environment significantly as no scarce biological species were identified on the existing, previously developed site. New biological features not currently on the site will be added as part of landscaping, including trees, shrubs, and decorative plantings. These features will increase the habitat diversity in this area but do not provide a new environment.

A new socioeconomic environment will not be created, but the existing environment at the Williams Fieldhouse will be enhanced by project development. Increased revenues are possible with a future NCAA swim and diving team through ticket and concession sales and from increased participation and membership dues at the facility.

C. Are the existing environmental features that would be affected by the proposed action, scarce, either locally or statewide? If so, list and describe. (Geographically scarce)

The existing environmental features that will be adversely affected are turf, shrub and tree plantings located directly adjacent to the west side of Williams Fieldhouse and the asphalt parking lot. These features are not scarce locally, or on a statewide basis, and only several trees will be permanently removed. These features were planted in 1989 during the earlier building addition on the 1959 Williams Fieldhouse. This project will result in a net increase of trees, ornamental shrubs and plants.

D. Does the action and its effects require a decision, which would result in influencing future decisions? Describe. Is the decision precedent setting?

The decision to build the project will have a positive influence by increasing student athletic and recreational opportunities and increasing student and athlete recruitment. The addition also addresses the current space deficiency within the Williams Fieldhouse and thus improves campus life. The decision to build the project does not restrict future decisions or development on campus.

E. Discuss and describe concerns which indicate a serious controversy? (Highly controversial)

Serious controversies have not arisen during the development of this project. Faculty representatives have been given the opportunity to provide input to facility needs at various stages of the design. In addition, student, faculty, local government, and community groups have been presented the opportunity to provide comments regarding this project. Comments received by the University and during the course of this environmental assessment have not indicated serious controversy regarding the new engineering building project within these community or campus groups. Comments received to date are included in Appendices C.

F. Does the action conflict with official agency plans or with any local, state or national policy, if so, how? (Is the action inconsistent with long-range plans or policies?)

The action is not in conflict with the UW-Platteville, local, state, or national policies. The proposed action is consistent with the University plans of providing a quality athletic area for students, staff, community and Division III teams. This project complies with long-range university plans and policy, including the Tri-State Initiative.

G. While the action itself may be limited in scope, would repeated actions of this type result in major or significant impacts to the environment? (Cumulative impacts)

Additional building construction projects at UW-Platteville would result in improved environments on a campus that currently has an abundance of open space. These existing spaces, including the common area in the center of campus generally contain a limited number of unique environmental features. Many open areas consisting of turf grass and walkways are located near buildings on the main portion of campus, and if future project planners consider the various key matters in the design, significant impacts would not result. In the future, key design features would consider visual aesthetics, cost-effectiveness, energy consumption, environmentally friendly use of space, and value-added impact to the campus. Due to the location of the nearby recreational features such as the dry ravine and Rountree Branch, it is important to consider the impact of future development on those items. If properly designed and controlled, future building would likely result in only minor impacts to the environment as a cumulative effect.

H. Will the action modify or destroy any historical, scientific, or archaeological site?

The project does not have any reported historical, scientific, or archaeological items of significance in the area where building development or construction will occur.

I. Is the action irreversible? Will it commit a resource for the foreseeable future? (Does it foreclose future options?)

In theory, the property could be restored to a green space or converted to other use if necessary. Razing the building would return the entire building area to a state that could be deemed undeveloped condition; however, surrounding buildings would also need to be demolished to bring the area closer to the original environmental condition. Therefore, for all intents and purposes, the building action is irreversible for the foreseeable future. Construction will commit a variety of resources including construction materials, furnishings, and utilities. Many of these items and equipment could be reused or recycled should the building ever be razed; however some would be irretrievable committed to the site.

Development of the project will also commit financial resources which are not reversible. If the capacity of this building is reached in the future, additional financial resources would be needed to expand and modify this building to provide additional building square footage.

J. Will action result in direct or indirect impacts on ethnic or cultural groups or alter social patterns?

The development of this project will have positive impacts on disabled groups because the building will be completely ADA accessible. While ethnic or cultural student groups related to the proposed buildings will be supported, no specific direct or indirect impacts are anticipated from this project in that regard

The development of the Tri-State Initiative has resulted in student recruitment from the larger communities of Dubuque (Iowa), Freeport and Rockford (Illinois). These cities have a higher minority population and providing affordable and competitive educational opportunities to these students has already resulted in an increased minority student population at UW-Platteville. This multicultural atmosphere being created is a benefit to all students at this university and the UW System as a whole. This project positively contributes to the recreational opportunities for all students.

K. Other

The Platteville Municipal Airport is 16,300 feet from the project site and is not impacted by development of the project. If cranes of 200 feet in height or greater are needed, which is not expected, additional coordination with the Wisconsin DOT Bureau of Aeronautics would be necessary.

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