



KUTZTOWN UNIVERSITY

2013 MASTER PLAN UPDATE

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EXECUTIVE SUMMARY

- 1.1 Introduction
- 1.2 Goals
- 1.3 Summary of Recommendations

1.1 INTRODUCTION

The Need for a Master Plan

In April of 2012, Kutztown University (KU) engaged EwingCole to update the University’s Campus Master Plan. The update builds upon past master plans that were created in 2000 with major updates in 2002 and 2006. In addition, there have been numerous special interest master plans and feasibility studies from 2006 to present that focus on specific facilities and infrastructure. This Master Plan Update intends to create a cohesive strategy that establishes planning principles and parameters; deconflicts still relevant recommendations from previous plans and studies; combines and prioritizes the key elements of all the resultant plans while addressing current and future issues facing the University.

The most immediate issue facing the Kutztown University is declining State financial support of the Pennsylvania State System of Higher Education (PASSHE) and PASSHE’s desire to not raise tuition. This has led to tight operating budgets and slashed capital funding for projects. Compounding this issue, Kutztown University like most PASSHE institutions has experienced a decline in student enrollment over the past two years.

It is also important to recognize that we are coming to the end of the echo boom – the generation of people born between 1980 and 1995 who have been fundamentally reshaping the retail, housing and education landscape. Over the past decades, this demographic has created a surge in demand for Higher Education. Colleges and universities have been expanding to keep up with this rapid growth. However, the National Center for Education Statistics predicts that overall college student enrollment will peak around 2013 at about 18 million. That future is now. KU is already witnessing the effects of the enrollment drop.

Faced with these realities, Universities must plan for a pragmatic future that is sustainable within the university’s operating budget. This may mean finding creative ways to optimize existing space, less or leaner new construction, consolidation of services or partnering with the community to generate revenue.

This Master Plan Update is to be a “right-sized” framework recognizing that each dollar must be stretched to provide maximum benefit for students, faculty and staff. It will present the current needs of Kutztown University and propose a fiscally responsible way of meeting those needs within a 20 year time frame.

Background

Located in southeast Pennsylvania, Kutztown University was founded in 1866 and is a member of the Pennsylvania State System of Higher Education. The Board of Governors oversees the State System which includes Pennsylvania’s 14 public universities. The Council of Trustees is the local governing body for Kutztown University. The Officers of Administration for the university are the president and members of the president’s cabinet.

Comprising four colleges - Business, Education, Liberal Arts and Sciences and Visual and Performing Arts - the University covers an area of 289 acres. The campus is located within both the Township of Maxatawny and the Borough of Kutztown. Kutztown Road splits the campus into two distinct zones, North Campus which is the main academic district and South Campus which encompasses primarily housing and student life. There are currently 9,804 students enrolled in the 2012-2013 school year. Roughly 4000 students live in residential halls on campus while the rest commute. The design population considered in this Master Plan Update is 10,000 FTE students.



Image 1.1.1 - Old Main

1.2 GOALS

GOALS

The Campus Master Plan Update reinforces the framework established by the original Master Plan while taking into consideration current day challenges. Campus planning at Kutztown University has been a constant force that has been key in preserving the essential elements that make this institution unique. Through collaborative efforts between University administration, faculty, student body and facility planners, a consensus has been developed that reflects the focus on the University.

The goals of this Master Plan Update are based on the principles of the 2011-2014 Kutztown University Strategic Plan. It is the goal of the institution that by utilizing the Campus Physical Environment, Kutztown University will:

- Enhance academic success
- Reflect the priorities of the Institution
- Aid in recruiting and retention
- Remain a community resource and gathering place
- Support a holistic approach to student life/development



Image 1.2.1- Workshop sessions

PROCESS

The task of updating the campus master plan was spearheaded by the University's Steering Committee. The planning team consisted of EwingCole as the lead architect who worked hand in hand with consultants on detailed areas of study and various sub-master plans which were integrated into the overall process. These included a Space Utilization Study, Dining Services Master Plan, Comprehensive Traffic Study, Student Housing Master Plan and the Library Master Plan and Feasibility Study which is still ongoing.

A kickoff meeting was held in August 2012 which was followed by periodic updates and a series of workshop sessions to determine the direction and vision for the Master Plan Update.

The master planning process was conducted in three phases:

Phase I Assessment/Evaluation

The goal of this phase was to create a comprehensive report on the deficiencies at Kutztown that were both functional (programmatic) and physical in nature. The team interviewed multiple user groups over the course of four months to determine their needs and wants. Simultaneously, the team reviewed existing Special Interest Plans that needed to be de-conflicted and re-scoped. A matrix of "conflicts and gaps" was then reviewed with KU to identify potential projects.

Phase II - Explore & Synthesize

Building upon the data gathered from Phase I, the team generated a list of potential projects which was collated into a matrix. Each project was scored against a set of goals based on the 2011-14 Strategic Plan which determined its priority level. Alternatives for each project were explored to address the gaps and conflicts identified in Phase I. Concurrently, developments from the various sub-master plans were integrated into the planning process. All potential projects were reviewed with the Steering Committee via a series of workshops to reach consensus on its viability and phasing.

Phase III - Recommend

The team developed a Cost Analysis Matrix for the range of projects identified in the proposed master plan options. The cost analysis provided valuable information which guided the feasible scope of a project and addressed the effects of annual inflation on the overall budget. This information facilitated the final phasing strategy which prioritizes projects as funds become available. An implementation strategy charted out how the plan should be executed over a 20 year period. Year 0 to kick off the 20 year planning cycle is yet to be determined.

1.3 SUMMARY OF RECOMMENDATIONS

SUMMARY OF RECOMMENDATIONS

The Master Plan Update recommendations are designed to assist Kutztown University in efforts of recruitment, retention and continued academic success. The Update focuses on renovations and/or additions to existing facilities rather than continuing the expansion of the last decade. A handful of proposed new buildings are contingent on attaining the target student enrollment.

The Master Plan Update maps out a comprehensive strategy for program relocations which will create space for best and highest use of a facility. Some services will be consolidated to gain efficiencies in operations. Where a deficit of space was identified, conservative building expansions have been recommended. Stewardship of campus infrastructure is also a major element of this Update.

ACADEMIC

To attract and retain its students, Kutztown University needs to emphasize its strong programs – those which students and the market demand - and improve its facilities. Some program enrollments such as those for Communication Design are capped because of facility limitations and expense. Other programs could benefit from a reconfiguration of space and realigning programs so that they have better synergy with each other.

1. Consolidate the College of Business and attain accreditation

- Full Renovation of DeFrancesco Building
- Move Modern Language out of DeFrancesco to free up space for Business programs
- Move Sport Management and the Small Business Development Center into DeFrancesco

2. New North Campus Academic Building (NCAB)

- New facility for English, History, Math and Modern Language
- Replace Lytle Hall
- Provide flexible teaching environments to support new teaching pedagogies with right-sized offices and classrooms

3. STEM (Science, Technology, Engineering and Math) Improvements

- New Chemistry lab and support space in Boehm
- New Astrophysics labs in Grim
- Relocate Computer Science labs to Old Main

4. Rickenbach Improvements

- Renovate Auditorium
- Recommend a detailed space study of Rickenbach to determine best use in supporting Academic Affairs programs

5. Library Science and Instructional Technology (LSIT) relocation to create space in Rohrbach Library

- Relocate LSIT labs to Rickenbach
- Relocate LSIT faculty offices to Old Main

LIBRARY

The role of an academic library has faced a rapid transformation over the past decade. Physical collections are diminishing in terms of importance and use, as digital technologies grow in importance. The Library, once a curator of information artifacts, is becoming a destination for centralized support for student and faculty teaching and learning.

1. Transform Rohrbach Library from a modified traditional university library to a 21st century library without expanding the existing building

- Repurpose Library for Student Success
- Create Information Commons & Digital Media Lab
- Develop Student Success Center: Academic Enrichment, Tutoring, Writing
- Become Intellectual Hub of campus

2. Reaffirm Rohrbach Library as a Regional Destination & leader in stewardship

- Create environmentally controlled space within Rohrbach for Special Collections: PAGCHC genealogy collection, Dornish Collection and KU Archives

3. Phased Renovation of Library

- Create three year plan to renovate and update the entire facility
- Increase space efficiency
- Provide full fire protection coverage

4. Restructure Operations to Support 21st Century Library

STUDENT LIFE

STUDENT LIFE

Student success is measured not just by academic achievements but by quality of life and campus experience. Creating spaces that support such success is a major factor in recruitment and retention.

1. Renovation and Expansion of MacFarland Student Union

- Expand Cub Cafe
- Expand and renovate Bear’s Den
- Expand conferencing center on third floor
- Expand Multipurpose Room 218
- Expand and renovate KU Bookstore

2. Multipurpose Space and Conference Facility

- New building to accommodate large group functions for 500 persons

DINING

The overarching goal of the Dining Services Master Plan is to completely transform the dining program on campus. This transformation will encompass meal plan structure, operations and physical upgrades to the various venues across campus.

1. North Dining Hall at MSU

- Create North Dining Hall at MacFarland Student Union by expanding the Cub Café

2. Renovate Bear’s Den at MSU

3. South Dining Hall renovations

4. Retail venues at Academic Forum

- Additional points of service and vendors

5. Transition from traditional meal plan to “All You Care to Eat” board operation

HOUSING

Kutztown continues to have a strong residential housing program with a nucleus of residential activity on the south side of campus. To hedge against the flattening enrollment growth and off campus development, the housing plan recommends optimizing the operating capacity by academic year 2025-2026, reducing capacity by approximately 384 beds from the current operating capacity. Although no new housing is proposed in the plan, all University-owned housing facilities will be renovated over the planning term.

1. Renovation of student housing

- Continued life-cycle renovations of residence halls as scheduled

2. Improvement of residence hall amenities

- Enhance Wi-Fi capacity and cellphone reception within buildings
- Enhance community interaction
- Create communal kitchens and social lounges with separate quiet study lounges on each floor at Dixon Hall

3. Demolition of Johnson Hall

- Maintain housing supply in line with projected demand
- Evaluate need to retain Johnson Hall

RECREATION

1. Expansion of Recreation Center

- Expand indoor half-court to full multipurpose court
- Expand jogging track
- Develop new stretching area on second floor

2. New outdoor basketball court by C-Lot

ATHLETICS

ATHLETICS

Recreational and athletic outlets provide students with a sense of ownership and community within the university. Comprehensive, well-organized facilities at Kutztown University would likely aid the University in increasing its athletic reputation, in bringing the campus community together and in enhancing the quality of life for students, staff and faculty. Kutztown University athletic facilities should accommodate all of the 21 varsity sports as well as the basic needs for campus recreation and Sports Medicine. The overarching goals for the Athletic Master Plan are to improve the overall athletic experience for athletes and to improve the overall athletic experience for fans.

1. Stadium Renovations and Additions

- New Pressbox facility
- North and South Gateways with spectator amenities
- Event plaza by South Gateway
- Restroom annex
- Bleacher retrofit for ADA seating
- Additional equipment storage

2. Risley Hall Renovation

- New elevator tower for ADA accessibility
- New multipurpose rooms and studios
- Dedicated locker rooms for football and wrestling teams
- Tailgating zone under east bleachers

3. Keystone Hall Addition and Renovation

- Improved spectator amenities to support Keystone Arena
- Improved locker rooms for athletic teams
- ADA accessibility improvements

4. New Synthetic Field by Keystone Hall

5. Relocate Natural Turf Field north of Stadium

6. Reorientation of Baseball and Softball fields

7. New north synthetic multipurpose field

8. New North Athletic Building for spectator amenities and athletic team locker rooms

ADMINISTRATION

ADMINISTRATION

The two most crucial issues addressed with regard to Administrative affairs are student recruitment and retention. Over the past 5 years, there has been a 5.6% decrease in enrollment. Stiff competition from regional institutions and the changing demographics of the area are the biggest contributing factors to the issue. The University’s goal is to stabilize enrollment at 10,000 students. To do that, it needs to position itself to attract potential students and also improve services for current students.

1. New Visitor Center at Poplar House

- Addition and renovation of existing Poplar House
- Schaeffer Auditorium to be utilized as interim visitor center

2. Relocate Housing and Dining Services Operations to I-Wing at Old Main

3. Consolidate Diversity Services and ADA Testing to Old Main

SUPPORT/INFRASTRUCTURE STEWARDSHIP

Kutztown University depends on its buildings, structures, road ways, grounds, watersheds, utilities and other infrastructure elements to run efficiently as an institution and provide quality education to its students. Over time, infrastructure assets deteriorate through use and natural processes. As infrastructure deteriorates, it needs repair or replacement to continue functioning safely. Due to the current economic climate and budgetary constraints, PASSHE Universities are finding themselves needing to do more with less and achieve more within increasing accountability restraints.

Stewardship of the University’s infrastructure is vital to Kutztown University. Meticulous care continues to be given to ensure smooth operation of the campus. Conservation and thoughtful re-use of exiting infrastructure is a major driver in the following subject areas.

PENNSYLVANIA GERMAN CULTURAL HERITAGE CENTER (PAGCHC)

In March of 2012, a master plan was created for the Pennsylvania German Cultural Heritage Center (PAGCHC) to serve as a stimulus for multi-faceted improvements to the Center’s site, infrastructure, buildings, collections, operational staffing, programs and overall educational value. The master plan addressed the long term build-out of the Heritage Center with incremental implementations over time. While the plan for the PAGCHC is extensive, the University has identified the following items as high priority.

1. Stabilization project to maintain and preserve existing structures

2. Preservation of special collections: integrate geneology collection into Rohrbach Library

TRAFFIC

The traffic and parking recommendations address the safety of vehicular traffic and pedestrian circulation. Points of vehicular-pedestrian conflict on campus were addressed. At the same time, the University addressed the concerns of the Township specifically where internal circulation intersected public roadways.

1. Create a 4-way intersection at South Campus Drive, Shock Lane and Kutztown Road in lieu of existing off-set intersection

2. Realign South Campus Drive to eliminate blind curves

3. Create new connecting road from residence halls to Baldy Road

4. Improve pedestrian crossings on Kutztown Road

5. Revise pedestrian sidewalk paths to respond to effects of projects around campus

6. Create separation of pedestrian and vehicular traffic at C-Lot

7. Partial closure of Luckenbill Road to establish PAGCHC as part of Kutztown University

PARKING

1. Maintain existing parking counts

2. New parking deck by Stadium to replace lot F4

3. Potential replacement of Fairgrounds parking lot

LANDSCAPE

The landscape is an important part of the Kutztown Campus. Because it is the connective tissue that ties every aspect of the campus together, it affects and is affected by decisions made to the campus buildings, athletics and recreation, stormwater management, and vehicular circulation and parking.

1. Create Event Plaza at Lot F4 by Stadium

2. Renovate Tri-County Courtyard

3. Connect Promenade from Golden Bear Plaza at Stadium to Tri-County Courtyard

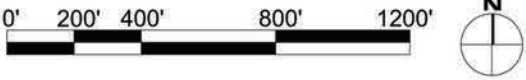
4. North Quad improvements by new NCAB

5. Recreation Lawn at Johnson Hall site

6. Amphitheater at South Dining Hall

7. Outdoor classroom by MSU

2013 KUTZTOWN UNIVERSITY MASTER PLAN



LEGEND

ACADEMIC:

- 01 NORTH CAMPUS ACADEMIC BUILDING (NCAB)
- 02 DEFRANCESCO RENOVATIONS: COLLEGE OF BUSINESS
- 03 OLD MAIN IMPROVEMENTS
- 04 RICKENBACH IMPROVEMENTS
- 05 STEM IMPROVEMENTS

LIBRARY:

- 06 STUDENT SUCCESS CENTER
- 07 ARCHIVES AND SPECIAL COLLECTIONS
- 08 LIBRARY RENOVATION

STUDENT LIFE:

- 09 MSU: CUB CAFE, STUDENT LOUNGE AND CONFERENCE ROOM EXPANSION
- 10 MSU: MULTIPURPOSE HALL AND BOOKSTORE EXPANSION
- 11 SOUTH DINING HALL RENOVATION
- 12 HOUSING RENOVATION (SCHUYLKILL HALL, BERKS HALL, DIXON HALL, BONNER HALL, DEATRICK HALL, ROTHERMEL HALL, AND UNIVERSITY PLACE)
- 13 MULTIPURPOSE SPACE/ CONFERENCE FACILITY

ADMINISTRATION:

- 14 ENROLLMENT MANAGEMENT
- 15 POPLAR HOUSE VISITOR CENTER
- 16 PAGCHC: SHORT TERM STABILIZATION
- 17 HOUSING AND DINING SERVICES: I-WING

LEGEND

- EXISTING BUILDINGS
- NEW BUILDINGS/ ADDITIONS
- RENOVATIONS
- ATHLETIC FIELD IMPROVEMENT
- INFRASTRUCTURE IMPROVEMENT
- UNIVERSITY BOUNDARIES
- KU FOUNDATION PROPERTY
- PAGCHC

ATHLETICS:

- 18 STADIUM RENOVATIONS: ACCESSIBLE BLEACHERS
- 19 STADIUM GATEWAY: CONCESSIONS, MERCH., TICKETING, STORAGE AND RESTROOMS
- 20 STADIUM PRESS BOX
- 21 MULTI-PURPOSE SYNTHETIC FIELD- NORTH
- 22 MULTI-PURPOSE SYNTHETIC FIELD- SOUTH
- 23 RISLEY HALL RENOVATIONS AND STAIR TOWER
- 24 KEYSTONE RENOVATIONS AND ADDITION
- 25 REORIENT BASEBALL AND SOFTBALL FIELD
- 26 NATURAL TURF ATHLETIC FIELD
- 27 NORTH ATHLETIC DISTRICT BUILDING AND PLAZA
- 28 RECREATION CENTER ADDITION

SUPPORT/ INFRASTRUCTURE:

- 29 69KV SUBSTATION
- 30 C-LOT RECONFIGURATION AND ADDITION
- 31 CONNECTION TO BALDY STREET
- 32 POTENTIAL PARKING TO REPLACE FAIRGROUNDS
- 33 PARKING DECK
- 34 B3-LOT RECONFIGURATION
- 35 STADIUM PLAZA
- 36 PROMENADE
- 37 TRI-COUNTY COURTYARD
- 38 NORTH QUAD
- 39 LIBRARY QUAD
- 40 RECREATION LAWN

Diagram 1.3.1- 2013 Kutztown University Master Plan Update

PHASING AND COST ANALYSIS

The sequence and phasing for each project was considered based on multiple factors. Urgency of need, available funds and the domino effect of each project were all accounted for. Some projects are stand-alone developments, able to be executed at any time while some require other projects to be completed before they can commence. The list on the right reflects highlights of the proposed sequencing of renovation, new construction and infrastructure improvements over the next 20 years.

Projects in the Master Plan Update have been broken down into 4 phases.

- Phase 1: 0-2 years
- Phase 2 : 3-5 years
- Phase 3: 6-10 years
- Phase 4: 11-20 years

These phases are not tied to a calendar year. Year 0 does not indicate a start date of 2013 or 2014. The phases represent an estimated timeline based on priority and sequencing. Each project will advance as and when funding becomes available.

The exception to this timing is the residence hall renovation plan which is guided by a comprehensive financial model. The financial model was developed to analyze the implications of proceeding with the improvements to the University’s housing system while meeting the campus goal of maintaining affordable housing rates. The dates are firm.

HIGHLIGHTS PER PHASE

- Phase 1:
- STEM Improvements at Grim and Boehm
 - MSU Renovations & Cub Cafe Expansion
 - Student Success Center at Rohrbach Library
 - South Dining Hall Renovations
 - Stadium Accessibility Improvements
 - Pedestrian Safety Improvements on Kutztown Road

- Phase 2:
- DeFrancesco Renovations for College of Business
 - Rohrbach Library Special Collections
 - Stadium Gateways and Pressbox
 - Recreation Center Addition

- Phase 3:
- North Campus Academic Building (NCAB)
 - Visitor Center at Poplar House
 - South Campus Synthetic Field

- Phase 4
- Rohrbach Library Building Renovations
 - Multipurpose Space/Conference Facility
 - Keystone Hall Renovation and Addiition
 - Risley Hall Renovation and Addition
 - North Campus Athletic Buidling

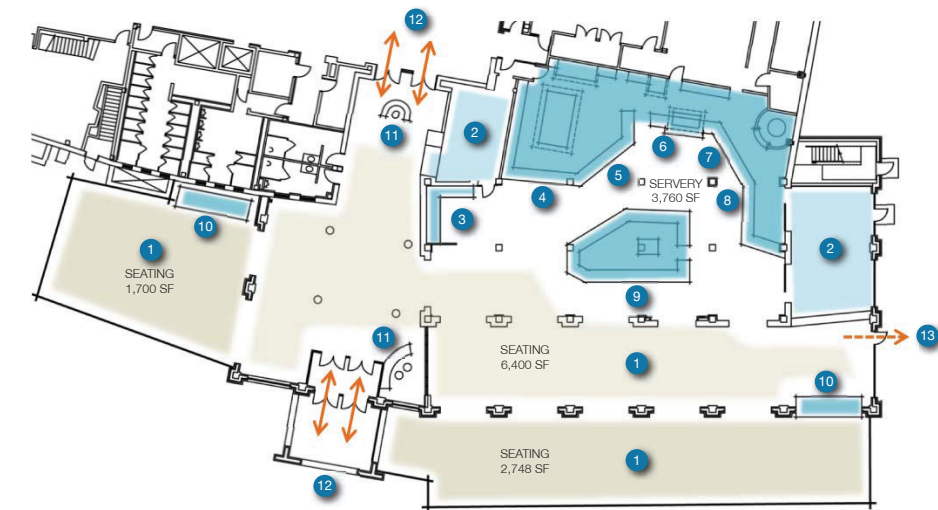


Image1.3.1- Cub Cafe expansion



Image1.3.2- DeFrancesco renovations for College of Business



Image1.3.3- North Campus Academic Building

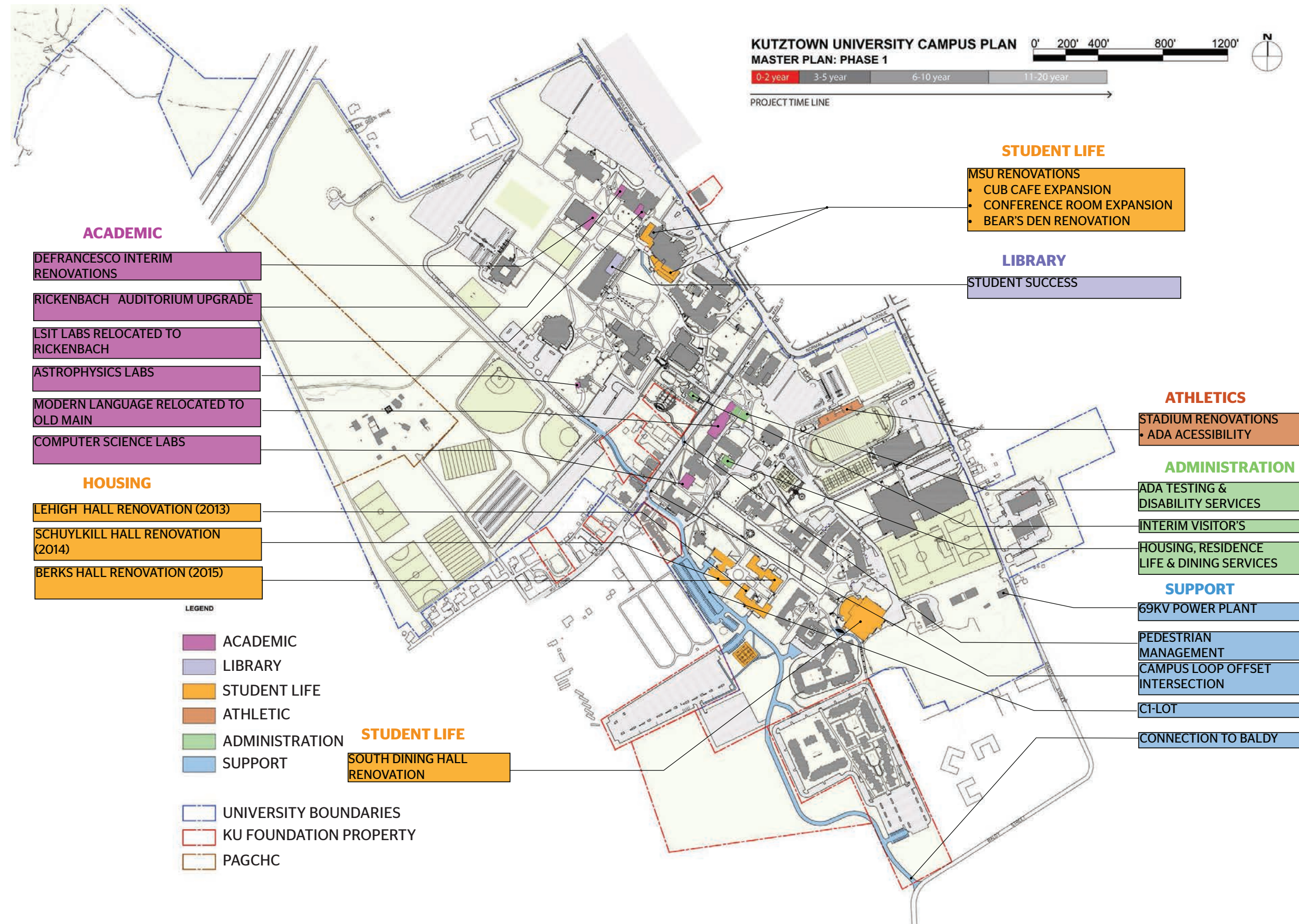


Diagram 1.3.2 - Phase 1

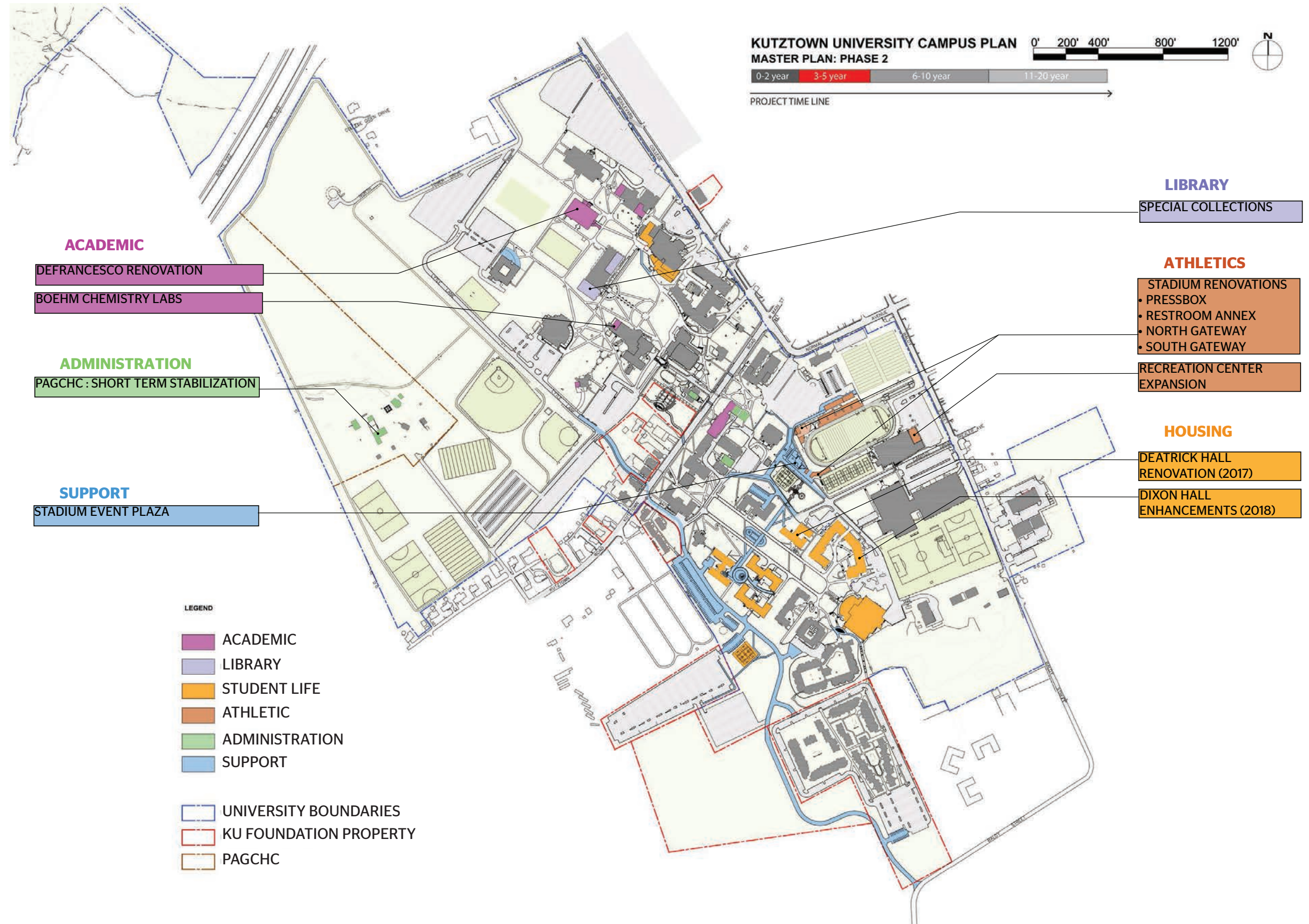


Diagram 1.3.3 - Phase 2

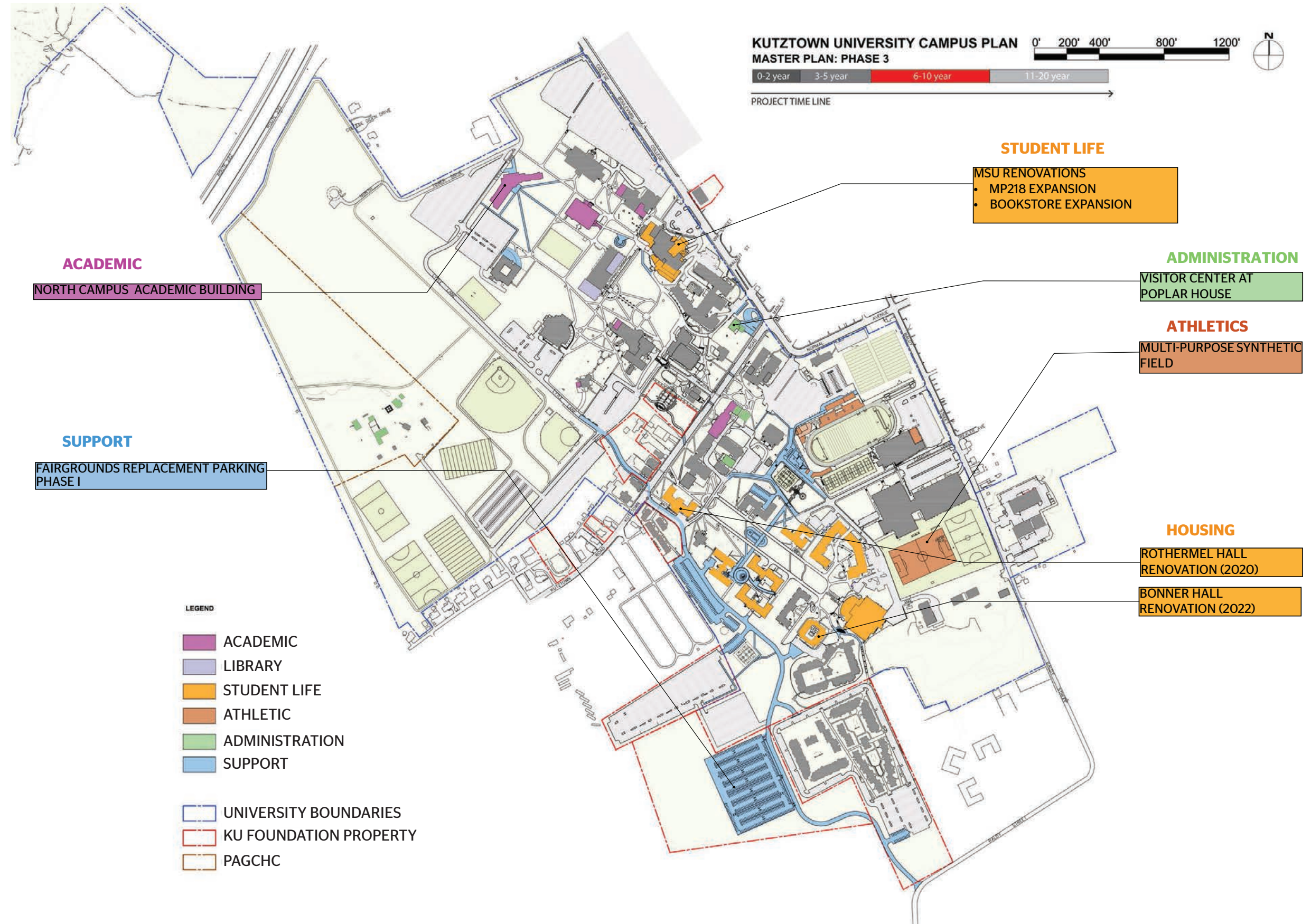


Diagram 1.3.4 - Phase 3

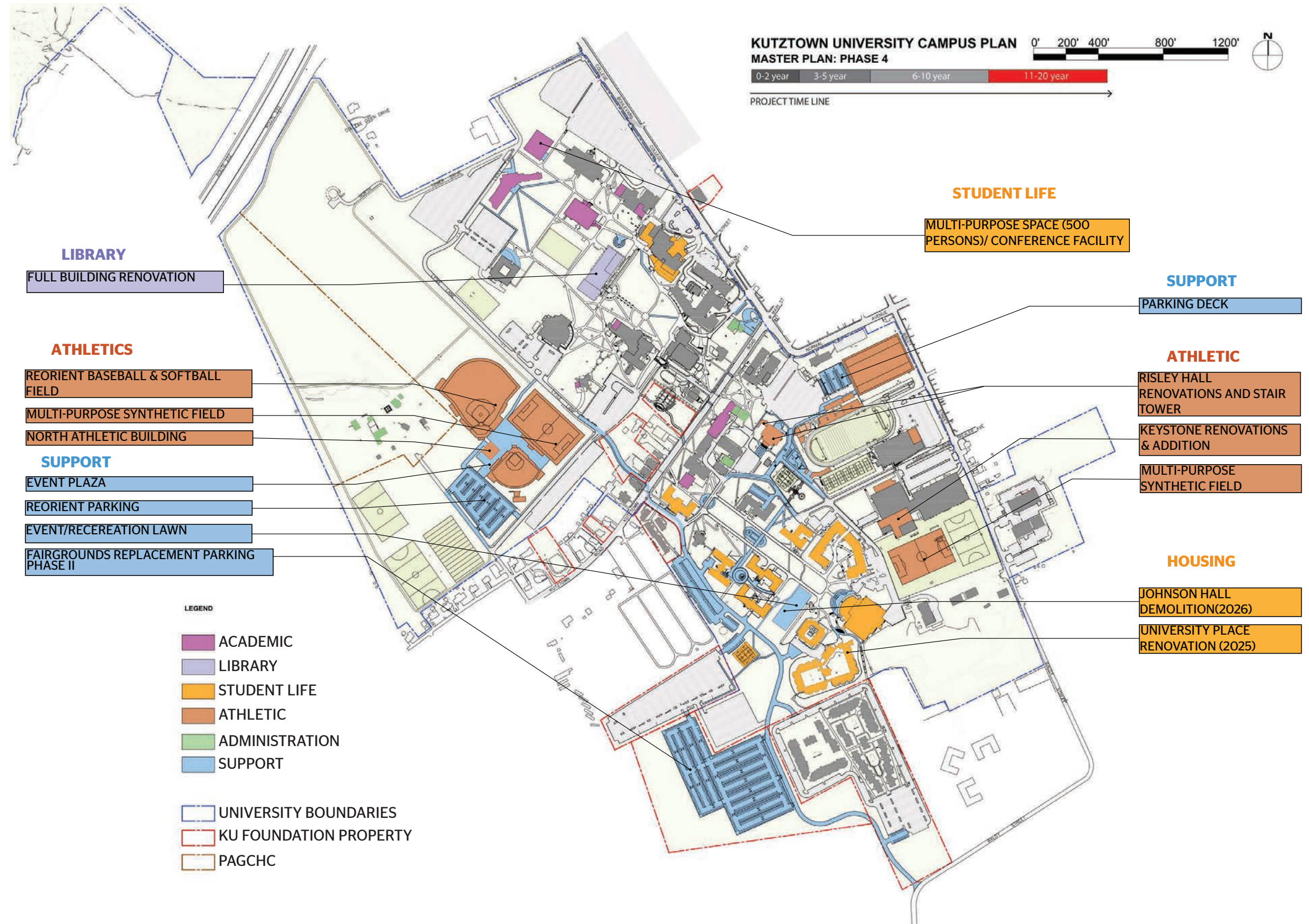


Diagram 1.3.5 - Phase 4

2

EXISTING CONDITIONS

- 2.1 Campus Plan
- 2.2. Neighborhoods
- 2.3 Significant Changes
Since 2006 Master Plan Update

2.2 Campus Plans

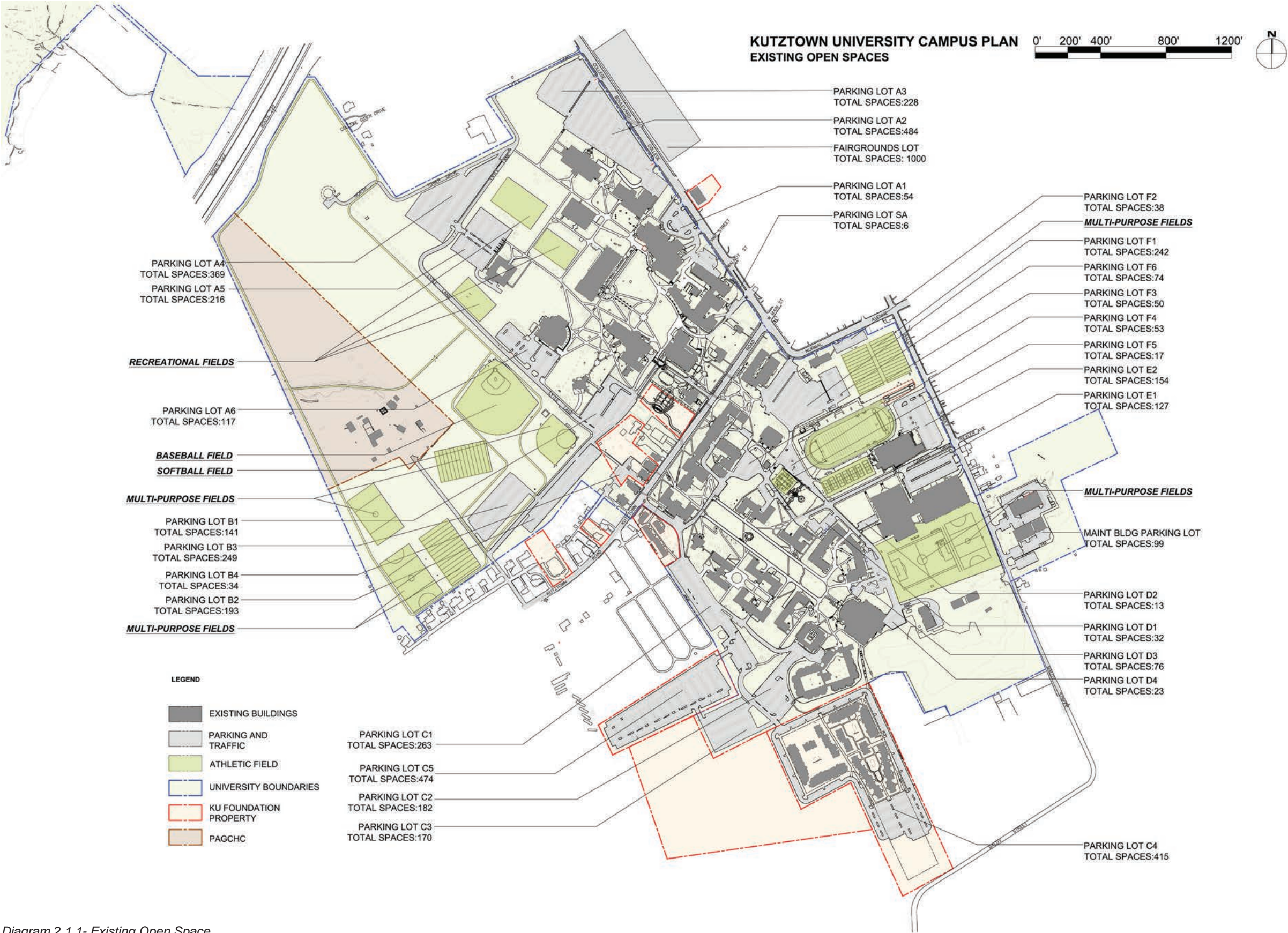


Diagram 2.1.1- Existing Open Space

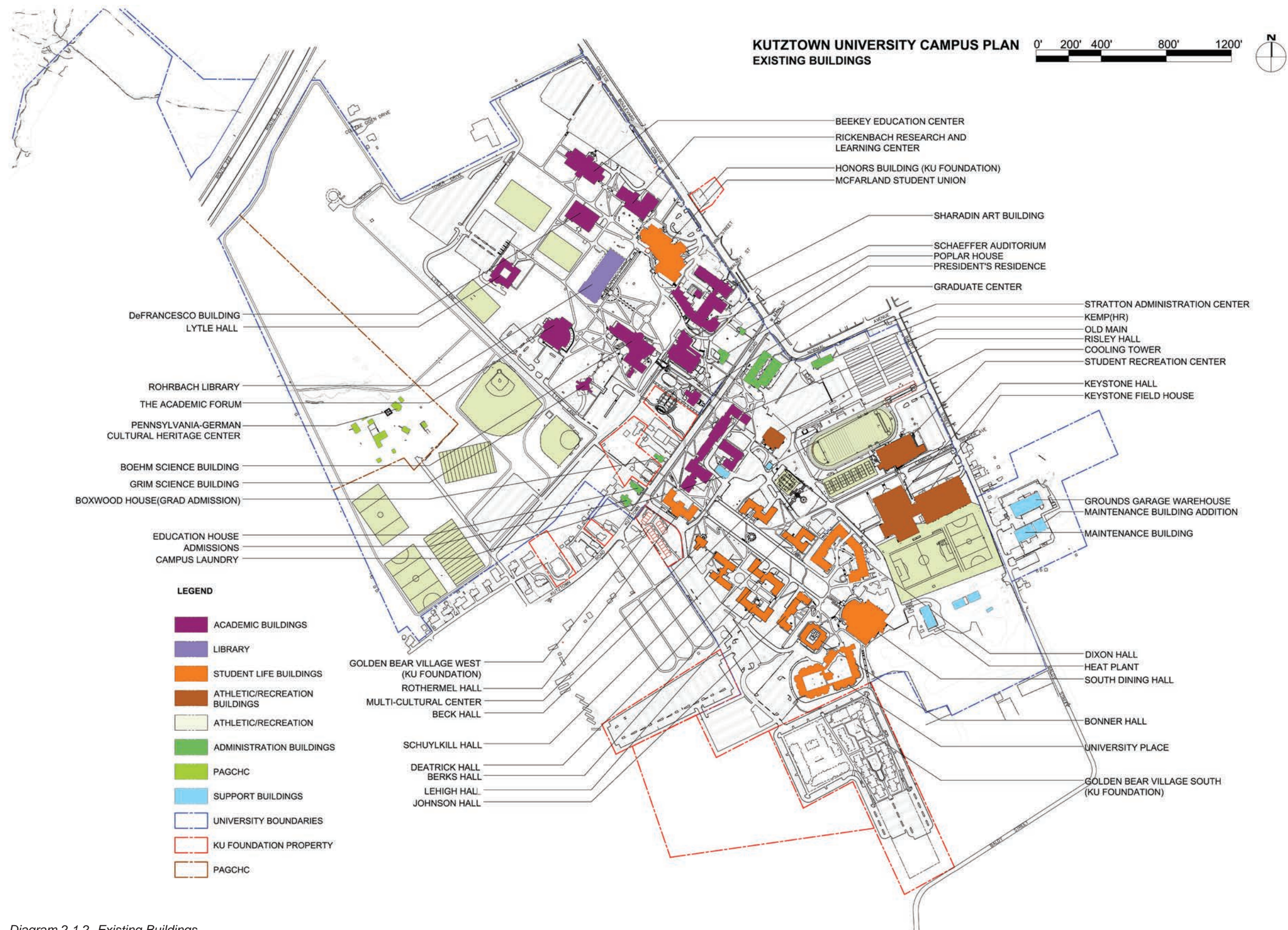


Diagram 2.1.2- Existing Buildings

2.2 NEIGHBORHOODS

There are 5 distinct neighborhoods on campus. Each has unique characteristics which are important to maintain in order to create a physical and psychological boundary as students move between each neighborhood.

The campus is not defined by one single architectural character. Most buildings grew organically in hand with the development of the university from the mid-19th century onwards. Hence the diverse structures reflect the architectural period in which they were designed. The four main intervals of construction on campus are the second half of the 19th century, 1910-1930, 1960-1970's and the 1990's to the present with various small renovations throughout.

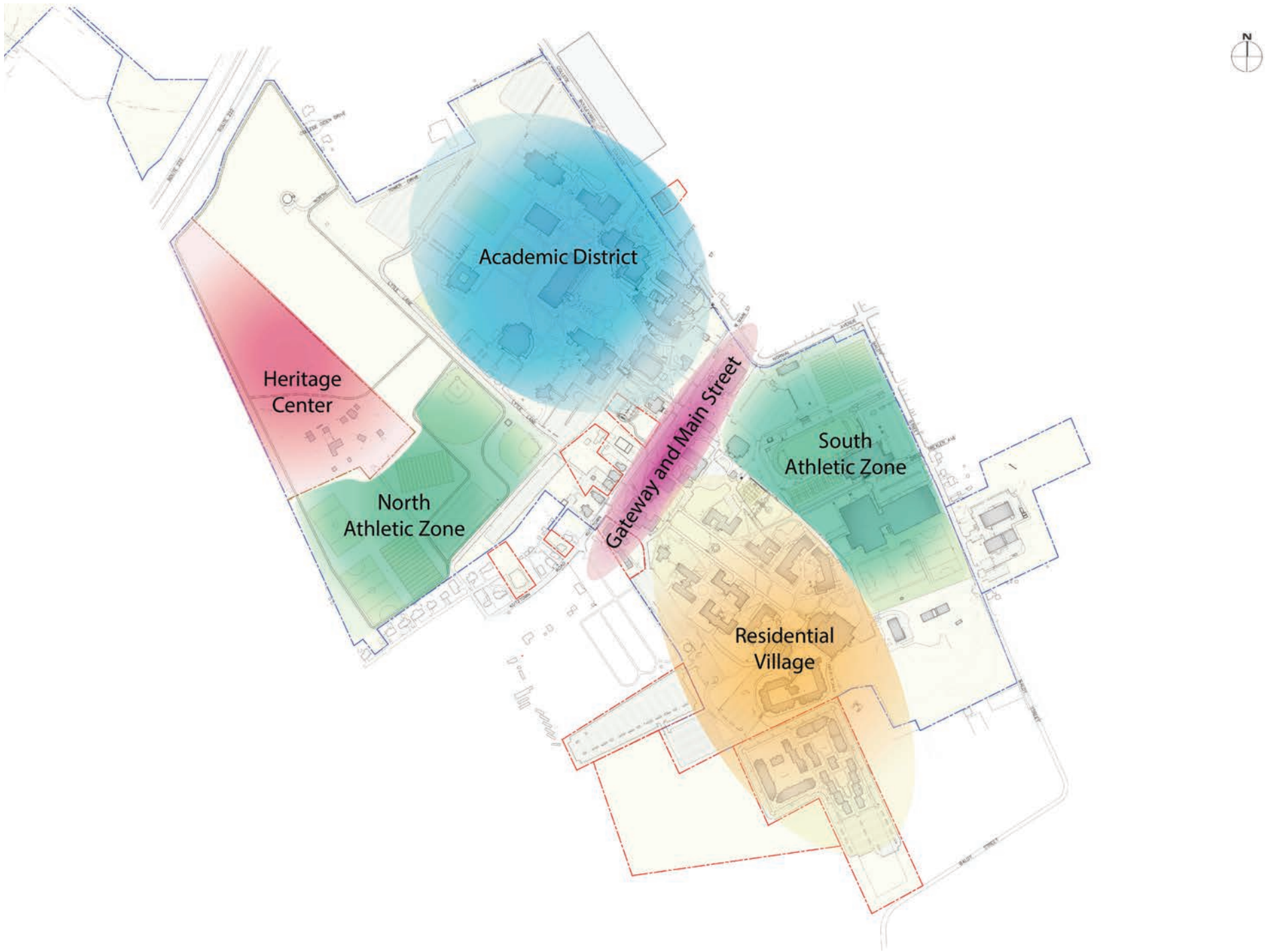


Diagram 2.2.1 Campus Neighborhood Map

Gateway and Main Street

Kutztown University is located southwest of Kutztown Borough. Main Street (Kutztown Road) is the major thoroughfare through campus where the student population and the community primarily cross paths. It bisects the campus into two zones, the North and the South. It is also the first impression of any visitor to the campus. Main Street is populated with historic buildings such as Old Main, Graduate Center, Schaeffer Auditorium and the President’s House.

Built in 1866 of the Georgian period, Old Main is the iconic heart of Kutztown University. The Beaux Arts style Graduate Center and Georgian Revival Schaeffer Auditorium further add to the historic aesthetic of Main Street. Smaller yet equally important are the residential edifices of Poplar House, President’s House, Education House and Boxwood House which were built in the Victorian era. Combined, these historic buildings embody the traditions that are the foundation of the Kutztown experience. The urban characteristic for this neighborhood is to be welcoming while preserving its historic quality.



Image 2.2.1- Main Street looking west



Image 2.2.3- President's House

Academic District

The Academic District is located in the north zone of campus. It is comprised of the main quad, the north quad, and the science quad. Buildings in this district include the Academic Forum, Lytle Hall, Beekey Education Center, DeFrancesco Building, Sharadin Art Building, Grim Science Building, Boehm Science Center, Rickenbach Research and Learning Center, Rohrbach Library, Shaeffer Auditorium, and McFarland Student Union. The Academic District is where students spend most of the daytime hours attending classes. There is a mix of architectural styles here. The buildings are primarily Modernist from the 1960's and 70's and Post-Modernist from the 1990's and early 2000's.

The vision for this neighborhood is to create a formal academic setting, punctuated with informal outdoor learning and social areas.



Image 2.2.2- Academic Forum



Image 2.2.4- Beekey Education Building

South Athletic Zone

The South Athletic Zone is the area occupied by Keystone Hall, Keystone Field House, Keystone Courts, University Stadium, Risley Hall, the Student Recreation Center and associated playing, practice & recreation fields. It is bounded by Normal Avenue to the North, Kutztown Road to the northwest, Baldy Street to the east, and to the southwest by South Campus Drive.



Image 2.2.5- O’Pake Field House



Image 2.2.7 - University Field (Stadium)

North Athletic Zone

The North Athletic Zone contains the Baseball Field, Softball Field, Cross-Country Courses, and four fields (2 athletic, 1 recreational, 1 auxiliary). The Pennsylvania German Cultural Heritage Center lies to the north of this zone with North Campus Drive to the south and Lytle Lane to the east. Luckenbill Road bisects the site in the north-south direction.



Image 2.2.6- North athletic fields



Image 2.2.8- Baseball field

Residential Village

Residential life on South Campus is focused along the DMZ, an undulating swath of green space flanked by mid-rise residence halls and terminated primarily by South Dining Hall. Built in the 1960's, these red brick structures are punctuated with vertical strip windows and have a homogenous look. The exceptions to this aesthetic are University Place which was designed in 1984 as well as Dixon Hall and Golden Bear Village South which are the latest additions built between 2000 and 2008.



Image 2.2.9- DMZ



Image 2.2.11- Dixon Hall

Heritage Center

The Pennsylvania German Cultural Heritage Center (PAGCHC) is located at the northwestern edge of Kutztown University's campus. It consists of a farmstead complex of structures of varying periods beginning from 1785, including a farmhouse, barn and numerous outbuildings. The site also includes a relocated school house and two reconstructed log cabins. In addition the site has a contemporary library and restroom building along with one office trailer.



Image 2.2.10- Entryway to PAGCHC



Image 2.2.12- PAGCHC Barn

2.3 SIGNIFICANT CHANGES SINCE 2006 MASTER PLAN UPDATE

A majority of the targeted goals from the 2006 Master Plan Update were achieved over the past seven years. On the other hand, a few projects had to be put on hold or eliminated altogether due to budgetary issues, internal and external influences and the desire for deeper analysis. Some are reviewed again in this Update for potential restructuring.

Completed Projects:

- The Academic Forum was completed in 2006.
- Renovations to Sharadin Arts Building in 2008 allowed for all visual arts programs to be consolidated within the enlarged facility.
- In 2013, the performing arts addition to Schaeffer Auditorium was completed, providing music rehearsal rooms, offices and support space.
- Dixon Hall was completed in 2008 and accommodates 849 beds.
- Beck Hall was fully renovated in 2010 and sets the standard for future residence hall renovations.
- The Health and Wellness Center was incorporated into the first floor of Beck Hall renovation.
- Residence Hall upgrades - Lehigh Hall was the second building to be renovated (2013)



Image 2.3.1- Lehigh Hall



Image 2.3.3- Golden Bear Plaza

Eliminated or Deferred Projects:

- North Campus Academic Building (NCAB)
- Demolition of Lytle Hall
- Alumni Center (under purview of KU Foundation)
- Replacement of student dorms: Bonner and Johnson Halls
- North Campus Athletic Support Center
- Conversion of Poplar House into a Visitor's Center.

At the same time, other projects were borne out of evolving campus needs and through feasibility studies and specific master plans that came after the 2006 Campus Master Plan Update:

- 69kV station,
- Golden Bear Plaza (basketball court and fire pit)
- New Gas Steam plant
- Coal plant demolition
- Continuing classroom and class laboratory technology and furniture upgrades
- Renovation of Facilities and Maintenance Building
- Construction of new Grounds/Garage Building



Image 2.3.2- Academic Forum



Image 2.3.4- Sharadin Arts Building



Image 2.3.5- Schaeffer Auditorium

SUMMARY OF EXISTING REPORTS

2000 MASTER PLAN	2002 Master Plan Update	2006 Master Plan Update
Performing and Fine Arts		
• Consolidate PA into Schaeffer	• Capital Project Approval for Schaeffer and Sharadin	• Capital Project Approval for Schaeffer and Sharadin
• Consolidate FA into Sharadin	• Consolidate PA into Schaeffer	• Consolidate PA into Schaeffer
• 1,600 Seat Auditorium	• Consolidate FA into Sharadin	• Consolidate FA into Sharadin
	• 1,600 Seat Auditorium	
Athletics and Recreation		
• Racquetball addition to Keystone	• Racquetball addition to Keystone	
• North Campus Recreation Center	• North Campus Recreation Center moves South with racquetball near housing	• Campus Recreation Center moves South with racquetball near housing
• Free Risley for other uses	• Free Risley for other uses	• Demolish Risley
• Picnic Pavilion	• Picnic Pavilion	
	• Maintain Ball Field Locations	• Maintain Ball Field Locations
	• Maintain Cross Country Track on North Campus	• Maintain Cross CountryTrack on North Campus
		• Better Recreational Field Utilization (Luckenbill Road)
Student Residences		
• Propose 250 New Beds	• Propose 250 New Beds	• Propose 250 New Beds
	• SSHE Policy Change initiates Kutztown University Foundation leading to Golden Bear West and Golden Bear South	• SSHE Policy Change initiates Kutztown University Foundation leading to Golden Bear West and Golden Bear South
		• Net addition of 1,145 beds (new residence hall 850 beds)
Support		
• 50-room center for “retreat” type corporate users and for international business program	• 50-room center for “retreat” type corporate users and for international business program	• 50-room center for “retreat” type corporate users and for international business program
• “One Stop” Student Services in Stratton	• “One Stop” Student Services in Stratton	• “One Stop” Student Services in Stratton
• Re-use of Old Main Maintenance Areas	• Re-use of Old Main Maintenance Areas	• Re-use of Old Main Maintenance Areas
Long-term Needs		
• Residences, 250 beds	• Residences, Additional 250 beds	
• Athletic Expansion (Auxiliary gym, natatorium, food court, wrestling room, new athletics offices, tennis court)	• Athletic Expansion (Auxiliary gym, natatorium, food court, wrestling room, new athletics offices, tennis court)	• Athletic Expansion (Auxiliary gym, natatorium, food court, wrestling room, new athletics offices, tennis court)
• Science Addition		
• Alumni House addition	• Alumni House addition	• Alumni House addition
	• Alumni Plaza Design Competition	
	• Complete Expansion of SUB 1 (McFarland)	Complete Expansion of SUB 1 (McFarland)
		• Focus on North Quad/Campus Expansion
		• Demolish and Replace Lytle Hall
		• Pennsylvania German Cultural Heritage Center Expansion
		• Academic Forum
		• Health and Wellness Center
		• Alumni Center Improvements
		• Poplar House
		• Heat Plant/Storage/Parking
		• Main Street Crossings
		• Public Safety Office

LEGEND

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Projects proposed in 2000 MP

Projects proposed in 2002 MP

Projects proposed in 2006 MP

Eliminated Projects

Table 2.3.1 - Comparison of Existing Reports and Updates

2000-2012 COMPLETED PROJECTS

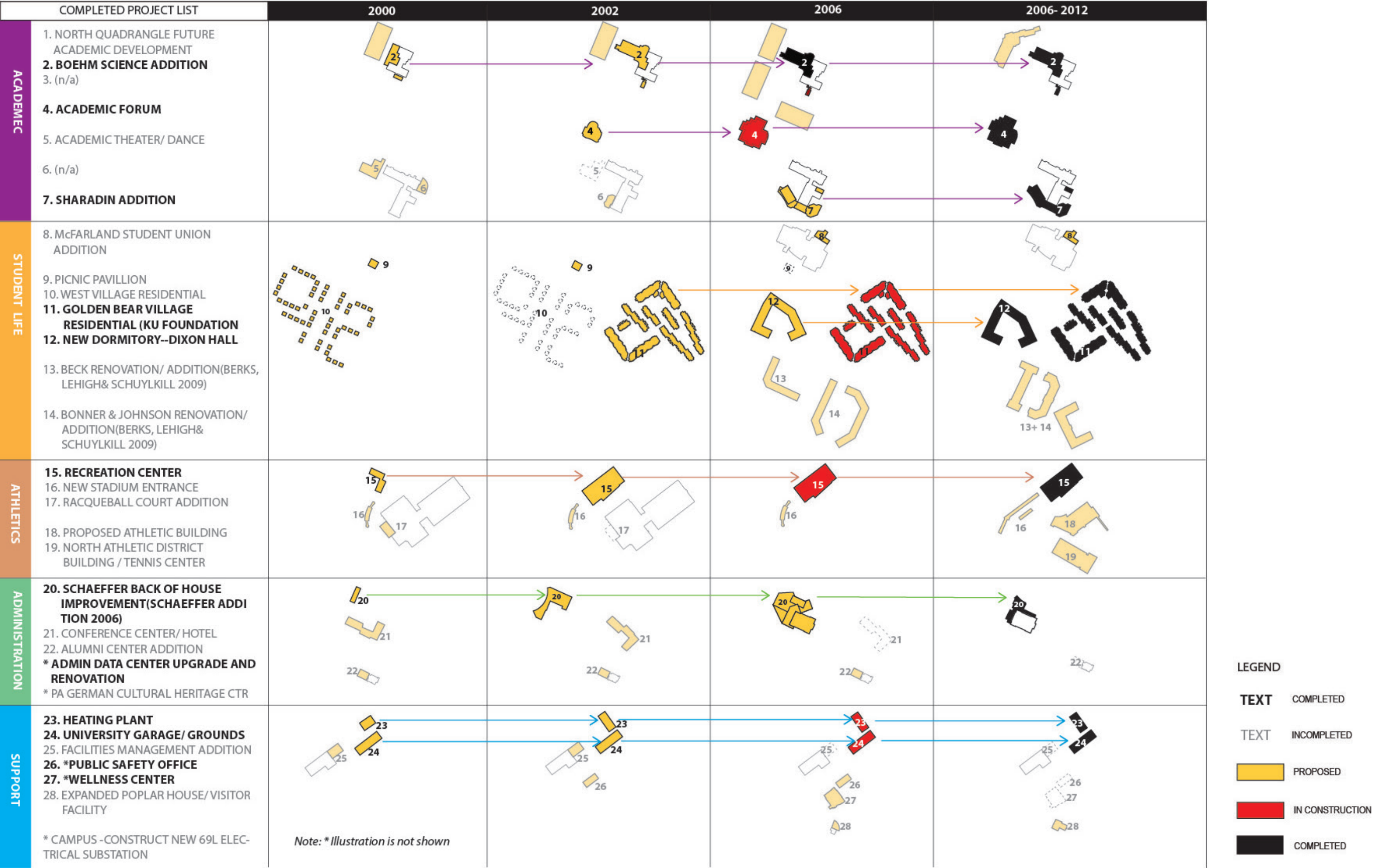


Diagram 2.3.1- 2000-2012 Completed Projects

3

2013 MASTER PLAN UPDATE

Academic Success

3.1 Academic Plan

3.2 Space Utilization

Library

3.3 Library

Student Life

3.4 Student Life

3.5 Dining

3.6 Housing

Athletics

3.7 Athletics

Administration

3.8 Administration

Infrastructure Stewardship

3.9 PAGCHC

3.9 Traffic

3.10 Parking

3.11 Landscape

3.12 Stormwater

3.13 Utilities

3.1 ACADEMIC PLAN

The strong academic structure at Kutztown University has remained constant since the 2006 Master Plan Update. Undergraduate and Graduate students make up the diverse student body at the College of Business, College of Education, College of Liberal Arts and Sciences and the College of Visual and Performing Arts.

To support the academic plan, the University has successfully completed numerous facility improvement projects. The 65,000sf Academic Forum was completed in 2006 and houses seven large classrooms ranging from 85 to 200 seats, all equipped with state-of-the-art audiovisual technology. In addition, the Marketplace Food Court is contained in a 6,000-square-foot commons area with student lounges throughout.

Sharadin Arts Building was the next large project to be completed in 2008, which enabled all visual arts programs to be consolidated within the expanded facility. Schaeffer Auditorium completed its extensive restoration and 14,000sf expansion in 2013. The historic landmark now proudly houses a reinvigorated auditorium, new large rehearsal hall, state-of-the-art classroom, music library, music labs, and support spaces for the Music Department and is home for the performances of *KU Presents!*

Following a feasibility study conducted in 2012, Boehm Science Building completed the renovation and addition of a biology and ecology lab in 2013 to support Biology Department. Other academic facilities have also undergone significant improvements. Upgrades to classroom technology and the provision of flexible furniture have been carried out over the years and continue to be rolled out on a systematic bases. In general, the faculty has expressed satisfaction with the academic facilities on campus.

The biggest issues facing the University are recruitment and retention of students. Increasing student competition from neighboring universities and changing regional student demographics are the main source of this concern. The enrollment trend at Kutztown University has been one of declining numbers over the past 3 years. Between 2008 and 2012, combined headcount enrollment at Kutztown University fell by 589 students from 10,393 to 9,804, representing a loss of 5.6%. Over the past two years, the University has faced a decline in returning and graduate students. The retention rate dropped from 77% to 71% and is projected to remain that way for the next five years. Meanwhile, the number of Graduate students has dropped by 32% in the same time period.

To attract and retain its students, Kutztown University needs to emphasize its strong programs – those which students and the market demand - and improve its facilities. While there have been renovations and new construction over the years, a number of buildings have not been upgraded and do not meet the needs of 21st century pedagogy and learning methodologies. Some program enrollments such as those for Communication Design are capped because of facility limitations and operational expense. Other programs could benefit from a reconfiguration of space and realigning programs so that they have better synergy with each other. To aid with retention, a Student Success Center will be developed in Rohrbach Library as the main source of academic support.

College of Business

The College of Business is growing but its departments - Business Administration, Professional Studies, Sport Management and the Small Business Development Center (SBDC) - are currently spread among five buildings. A feasibility study was conducted in 2012 to consolidate the entire College of Business into the DeFrancesco Building. This project remains relevant and is a priority for the University as it establishes DeFrancesco as the “home” for the College of Business and most importantly supports efforts for attaining AACSB accreditation.

The department of Modern Language Studies which currently occupies a significant amount of space in DeFrancesco will be relocated to Old Main to create space for Sport Management and the SBDC. These programs are currently housed in Old Main and the KU Foundation Professional Building respectively.

The 1968 portion of the DeFrancesco Building will undergo full life-cycle renovations. The 1998 portion will receive partial life-cycle upgrades. There will be a new main entrance on the east façade and a secondary entry addition on the south. Interior renovations will include a new Board Room, Trade Room and more study lounges.



Image 3.1.1- DeFrancesco Building



Image 3.1.2- Proposed DeFrancesco Renovation

North Campus Academic Building (NCAB)

A new North Campus Academic Building (NCAB) was proposed in 2010 to house the Math, History, English and Modern Language Studies departments. The University recognizes that at this point in time, enrollment figures do not support the construction of a new building according to PASSHE Space Guidelines. However, this project is still desired by the University and is projected to become an integral component in the development of a future academic quadrangle on the North Campus. Therefore, this project is scheduled for development as and when enrollment increases in the future.

The Math, History and English departments currently occupy Lytle Hall which was built in 1976 and is beyond its life cycle renewal period. The building's original design and shortcomings make it a deficient teaching and learning environment for new pedagogical methods. Lytle's occupants operate in smaller than preferred classroom spaces (average of 480 square feet in size), and in less than desirable office sizes for faculty and staff.

The proposed NCAB provides for an academic facility equivalent in size to Lytle Hall (33,247 gross square feet) plus an additionally identified academic space need of approximately 13,000 gross square feet. It will have classroom space more in keeping with current academic space needs and in compliance with the KU Design Guidelines. It also incorporates office space for faculty and staff members more appropriately sized for single offices. Future flexibility and student needs were also integral design considerations, including faculty/student interaction areas and resource centers for students. Space planning relative to the new facility also incorporated future anticipated growth where possible.

Should the NCAB be built, Lytle Hall will be demolished. In the interim the University will request permission from PASSHE to retain it for temporary surge space as other academic buildings receive life-cycle upgrades.

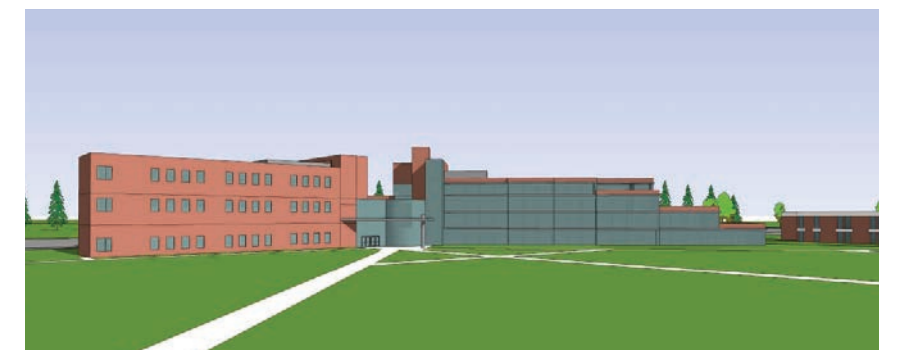


Image 3.1.3 - Proposed North Campus Academic Building

STEM Improvements

The demand for STEM (Science, Technology, Engineering and Mathematics) continues to grow. Programs in STEM areas at Kutztown University need to be supported. Classes are taken not only by Science majors but also are course requirements for all undergraduates. Chemistry, Biology, Geology and Physics are currently housed in Boehm, While the facility underwent a major addition in 2004 the growth of science programs is already testing the limits of the building. In 2013, a new Biology lab was created on the second floor and the Ecology lab was relocated and renovated. As part of ongoing efforts, a new Chemistry lab and support spaces will be built in Boehm in 2014.

The two existing computer science labs in Grim will be relocated to Old Main. This move consolidates the Computer Science program under one roof. It will promote greater interaction between the program's students and faculty.

Two new astrophysics labs will be created in Grim to strengthen the Physics and Astronomy program. Students will have the benefit of on-site access to the Grim observatory and planetarium.

Rickenbach Improvements

Over the next few years, the Communication, Speech and Theatre program will transition to become Communication Studies. The Theatre component will cease to be offered as a major. Theatre minors are encouraged to use the newly renovated Little Theater in Schaeffer Auditorium for instructional use. The Rickenbach Auditorium may be converted into a fully functioning lecture hall. This will involve lighting and technology upgrades from its current performance focused setup to a lecture style configuration. This renovated facility will complement the Academic Forum in providing large classroom space at KU. Ultimately, the Auditorium will be developed to meet the needs of Academic Affairs.

Kutztown University is currently the only PASSHE university to offer an Electronic Media program under that name for students seeking a career in digital media. This program is based in Rickenbach. However, the facilities are outdated and some spaces are technologically obsolete or oversized. While there have been continuous efforts to upgrade classrooms as needed, some spaces are relics of a past era. For example the traditional editing room on the lower level should be brought up to date with current digital editing technology. There are observation rooms on the second and third floor that were once part of a child care center. Many faculty offices are undersized and scattered through the building. The building is a labyrinth of corridors. It is recommended that a detailed feasibility study be conducted on Rickenbach to optimize space, improve efficiency and meet the needs to be determined by Academic Affairs.

Library Science and Instructional Technology

The Library Science and Instructional Technology program (LSIT) will be moved out of its current location at Rohrbach Library. The faculty offices will be relocated to Old Main while the computer labs will be relocated to Rickenbach. This move enables the University to repurpose the space within Rohrbach Library to contribute to transforming it from a modified traditional university library to a 21st century university library in alignment with the strategic visions of the PASSHE and Kutztown University.

LSIT currently occupies 6300sf of space within Rohrbach (excluding the collections and curriculum materials center). It's location within the library is a legacy condition. While having the program reside within the library is beneficial to the LSIT students, it is not typical for academic libraries to host an academic program. The role of the library is to support student success and is considered "neutral territory". LSIT is a department within the College of Education and should be located in Beekey. However, due to lack of space in the building, locating LSIT within Beekey is not feasible. By relocating the instructional labs to Rickenbach which is adjacent to both the library and Beekey Education Center, the move maintains students' easy access to both the library and the College of Education. The faculty offices will be relocated to Old Main as noted above.



Image 3.1.5- Rickenbach Research and learning Center



Image 3.1.6- Rickenbach Auditorium



Image 3.1.4 - Boehm Science Center



Image 3.1.7- LSIT Lab in Rohrbach Library

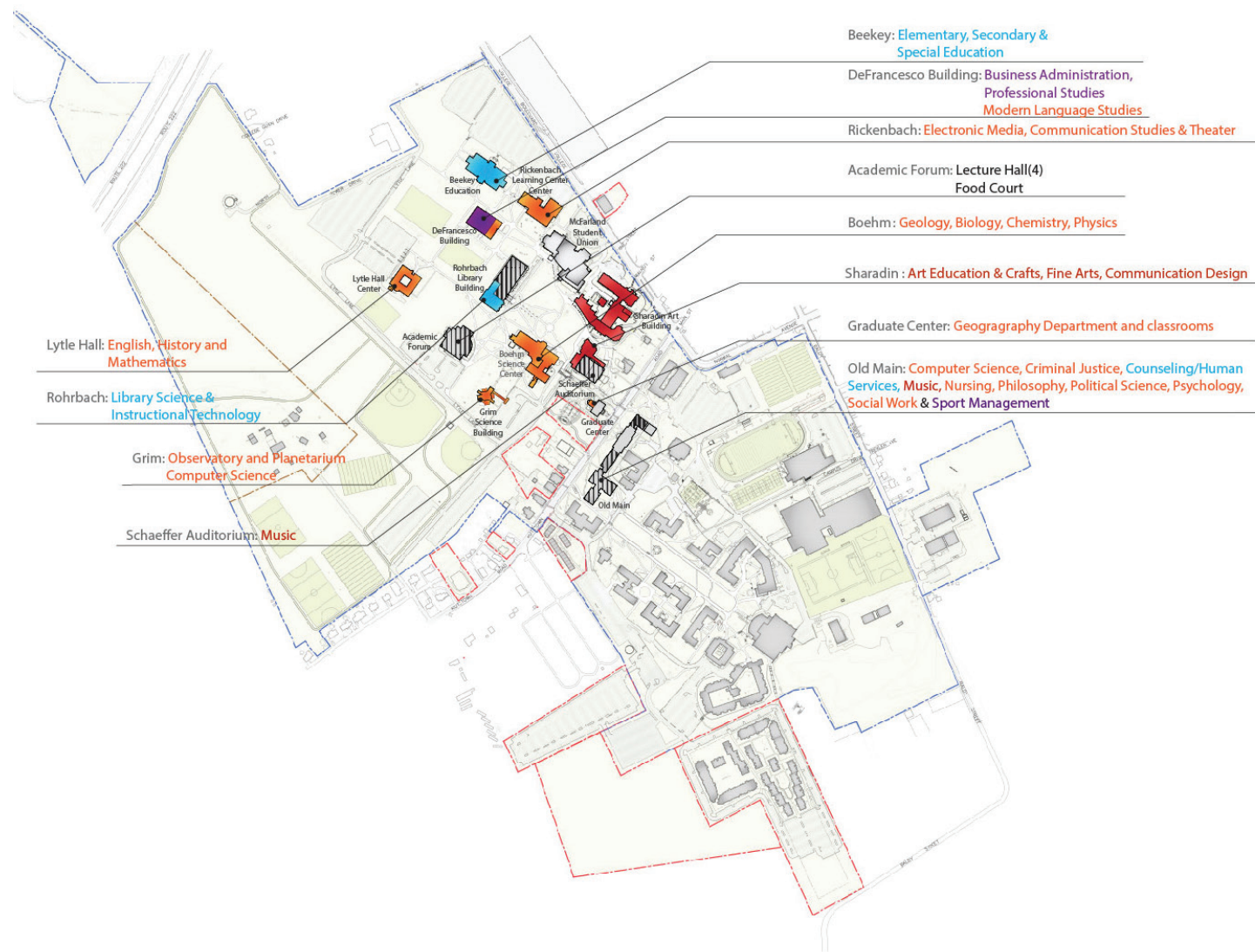


Diagram 3.1.1- 2012 Existing Academic Program Campus Location Plan

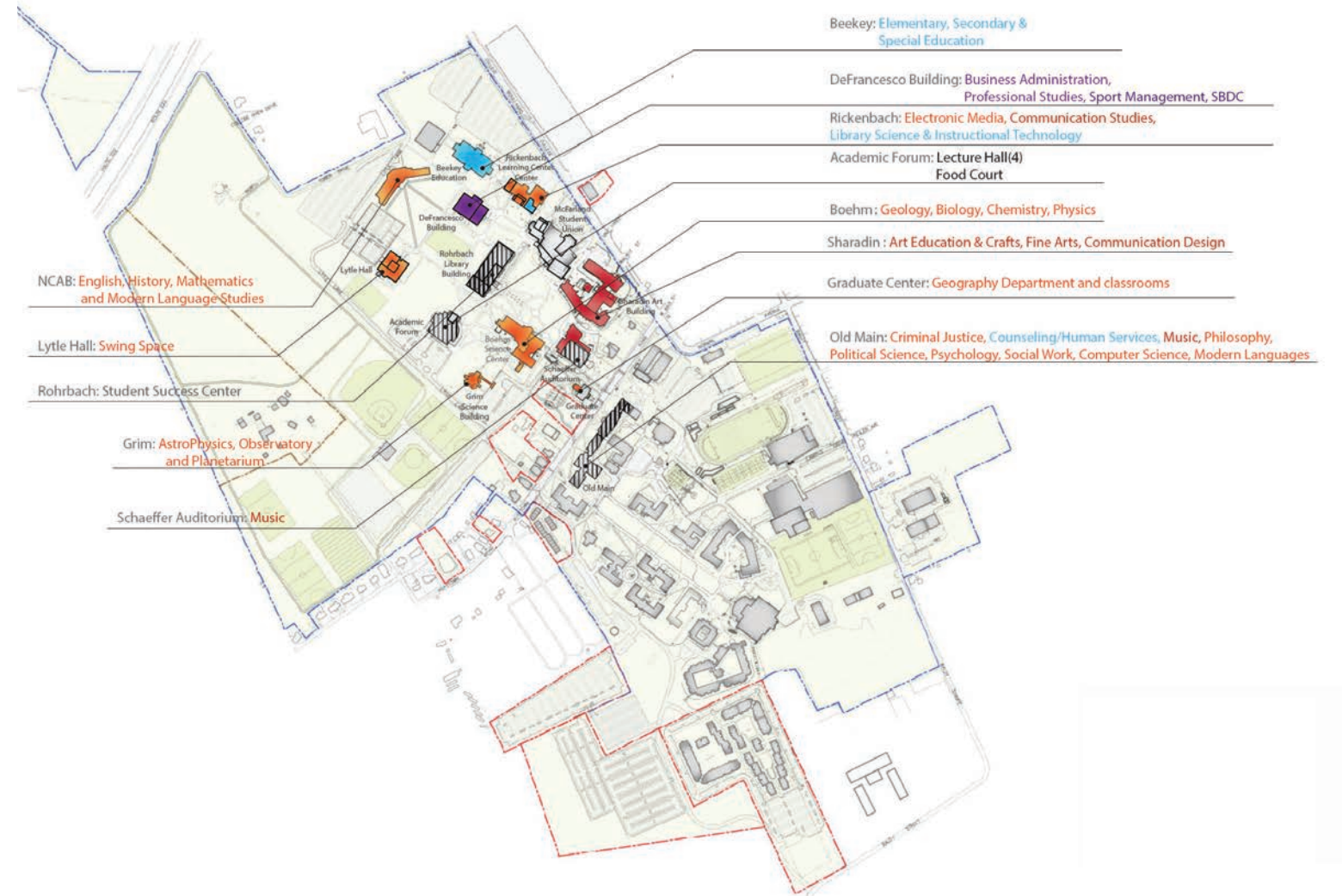


Diagram 3.1.2- 2013 Proposed Academic Program Campus Location Plan



3.2 SPACE UTILIZATION

Space utilization is an important metric used to assess the performance and space needs of an institution. As part of the Master Plan Update, a Space Utilization Study was conducted by Ira Fink Associates to calculate the use and utilization of classrooms and class labs based on PASSHE (Pennsylvania State System of Higher Education) standards. Data from the Fall 2012 class registrar was analyzed and the Space Utilization Study was published in April 2013. Overall analysis points toward the need for the University to use existing space more efficiently.

To understand the results of the analysis, it is important to first understand how use and utilization rates are determined. For planning purposes, at Kutztown University, classroom use follows the (PASSHE) use guideline rates based on a 50-hour week of 37.5 weekly scheduled class hours per room, or 75.0% scheduled use. The 50-hour week is assumed to be from 8:00am to 6:00pm, i.e., ten hours, five days. The PASSHE Utilization guideline is 67 % station (seat) occupancy of scheduled classrooms. If a classroom meets the requirements above, it is then considered to have achieved 100% Use and 100% Utilization. Similar calculation methodologies apply for class labs, except that to achieve 100% Use, class labs need to have 23 weekly scheduled class hours per room. To achieve 100%Utilization, 70% of stations in the class lab need to be occupied during its scheduled use.

Based on the findings of the Space Utilization Study, the master plan recommends the following:

1. The University should consider repurposing some existing classrooms into class labs to meet the needs of growth programs like STEM. The 72 class labs on campus are at capacity, with a 97.3% Use rate and a 105.4% Utilization rate. According to the 2012 Space Guideline inventory, the University has a shortfall of 27,586 assignable square feet (ASF) class lab space. New labs will be able to take advantage of flexible furniture and AV and IT infrastructure to accommodate multiple teaching styles. (Class Labs are defined as rooms with specialized furniture or specialized equipment for student observation, practice or experimentation. The range includes chemistry labs, geology labs, computer labs, music rehearsal rooms, art studios and editing rooms)
2. There is potential to optimize classroom usage. Classrooms are currently underutilized. On average, based on PASSHE Guidelines, the 115 classrooms use rates are at 76.0% and their capacity utilization rate is at 78.4%. According to the 2012 Space Guideline inventory, the University has a shortfall of 13,472 assignable square feet (ASF) classroom space. What this means is that some classrooms may be taken offline and converted into other functions.

3. Consider reorganizing the academic timetable. There is currently a non-scheduled period on the academic timetable from 11am till noon every Tuesday and Thursday when classes are not held. This is a legacy practice which allows a set amount of time each week for faculty and staff to meet as needed. However, this block of time creates an anomaly in scheduling as the classrooms and labs experience a surge in usage on the hour right before and after this non-scheduled period. The University should consider revising the timing of the non-scheduled period so that it occurs at the beginning or at the end of the day. This will allow the scheduling of classes to be more evenly distributed.

4. Consider increasing classroom and lab use rates by scheduling evening classes. These would be targeted at graduate students or working adults taking continuing education classes and increasing institutional revenue potential. Classes would be scheduled in one central location, for instance Lytle Hall or the Academic Forum. This would enable efficiencies in utility usage. If the lights, heating and ventilation are already operating in one building for say, two classes, it would be a waste to have two other classes operate out of a different building, as that entire facility would have to be running for the same duration. By consolidating classes in a single building, the University would save on operating costs and maintenance time of opening and closing down facilities.

PASSHE Facilities Manual: Space Guidelines

Fall Semester 2012

Room Type	Hours/Week Available	Hours/Week Utilized	% Hours Utilized	% Stations Occupied
Classrooms	50	37.5	75%	67%
Class Laboratories	50	23.0	46%	70%

Table 3.2.1- PASSHE Space Guideline

Classroom and Class Lab Utilization Study: Results

Fall Semester 2012

Room Type	Number of Rooms	Number of Stations	Use	Utilization
Classrooms	115	5,564	76.0%	78.4%
Class Laboratories	72	1,813	97.3%	105.4%

Table 3.2.2- Classroom and Class Lab Use and Utilization rates

Percentage of Rooms in Use in Scheduled Classrooms
by Hour of the Day and Day of the Week, Kutztown University, Fall 2012

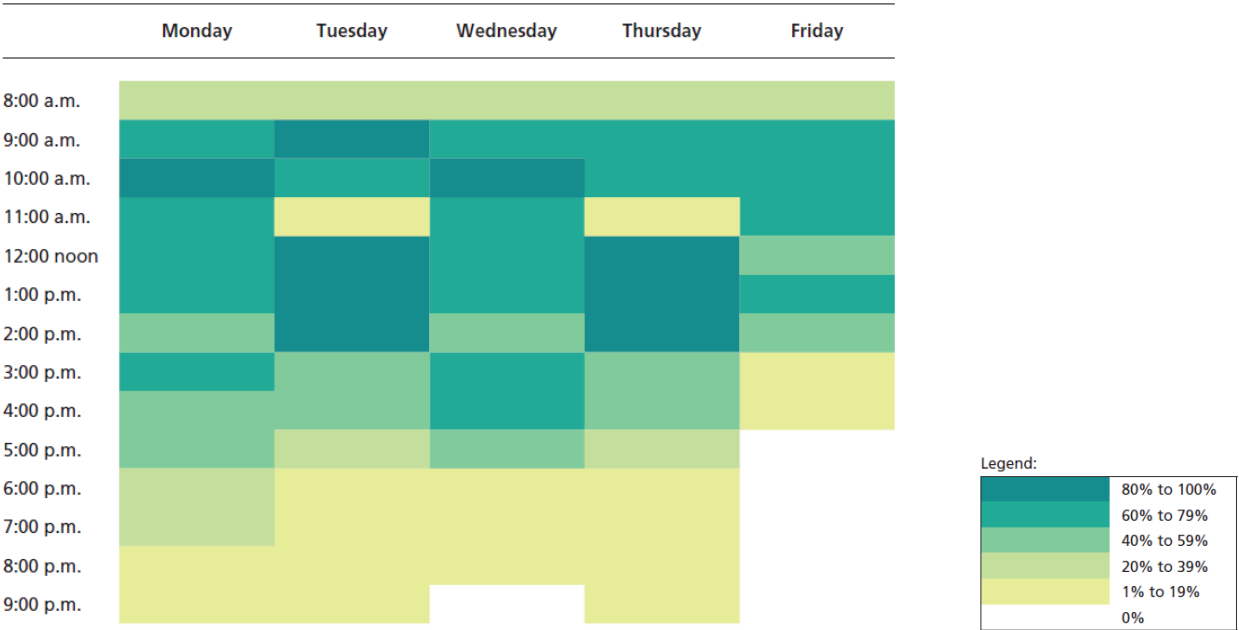


Table 3.2.3 - Weekly Scheduled Room Usage

3.3 LIBRARY

The role of an academic library has faced a rapid transformation over the past decade. Physical collections are diminishing in terms of importance and use, as digital technologies grow in importance. The Library, once a curator of information artifacts, is becoming a destination for centralized support for student and faculty teaching and learning. Spaces previously used to warehouse collections are being repurposed as technology rich information commons, cyber-cafes, collaboration spaces, classrooms and labs. The Library will enhance its support of scholarship by including academic partners to provide a one-stop-shop for students and faculty in the form of writing centers, tutoring, instructional design, math labs, I.T. Help, et al. To that end, the physical items the library chooses to store, and the manner in which they are stored will undergo continual evaluation and change.

From on-site bookstack compaction, to high density depositories, shared resources and consortias, libraries are moving from a 'just in case' model to a 'just in time' model in responses to ever tightening budgets and the need for additional space for technologies, instruction and learning. Similarly, rare and special collections will need to be assessed as to their value to the institution, and if kept, provided adequate archival environments and means of exhibit. In short the library will be the instructional icon for scholastic interaction, state-of-the-art technologies, teaching and learning, student success, and institutional memory.

An in-depth Library Master Plan is currently underway that will provide detailed recommendations on overall library operations and space programming. This report is expected to be completed after the publication of this Master Plan Update.

Based upon recommendations of the Keystone Library Network Report, current best practices, the existing Kutztown University culture, and with the overarching premise of transforming the library to better promote student success and retention, the Master Plan Update recommends the following improvements in the near future:



Image 3.3.1 - Rohrbach Library

Library as Student Success Center

As the main source of academic support, the library should embrace and enhance its role as the intellectual hub of campus. The existing Academic Enrichment and Tutoring center on the lower level should be afforded a more visible location and presence. Separate and higher capacity rooms for math lab and tutoring should also be developed to accommodate the growing demand. Partnerships with other student success services such as the Writing Center should be considered.

Enhance the Information Commons

Library spaces are becoming more social, collaborative and technology infused. In the age of digital information, users are flooded with data and require assistance navigating through the material. The Information Commons will be a key focus area of the new 21st Century Library. By increasing the numbers and variety of computer workstations, boosting the presence of Information Technology Help and providing technology rich group study spaces, users can be better geared for successful learning.

Enhance Resource Offerings

Coursework for today's students has broadened beyond the traditional essay-writing and presentation. Today, an Education major may be expected to create a video as part of his or her assignment. A Liberal Arts student may be required to integrate social media into their research. The Library can support students by enhancing the resource offerings via a central Digital Media Lab to assist students with multimedia projects relating to coursework. The Lab staff must have expertise in assisting users in creating content and usage of audio and video technology. Throughout the library, computer banks should be enabled with high speed network services. Instruction labs can be adjacent to the Information Commons to allow electronic resources to be accessed when the lab is not in use.

Unify and Enhance Rare and Special Collections

Kutztown University is fortunate to have been gifted the Dornish Collection - a special collection of primarily first edition children's books. In addition, the Library will also be the curator for a portion of the Walter Kiebach Library - the research and genealogical library collection at the Pennsylvania German Cultural Heritage Center (PAGCHC). As the single largest research center dedicated to the preservation of Pennsylvania German heritage, the library attracts a host of visiting researchers for genealogical inquiries and cultural and linguistic research assistance. Added to this collection is the University's own historic archives. Only a selected portion of these three collections will be housed in an environmentally controlled Special Collections Center within the library. This Center should have a quarantine room for untreated materials and proper archival environmental conditions. The highlight of this space will be an environmentally correct exhibit area and reading room. The rest of the collection will be housed off-campus with a delivery capability on request.



Image 3.3.2- Academic Enrichment and Tutoring Center



Image 3.3.3 - Dornish Collection



Image 3.3.4 - Information Commons

Relocate Library Science and Instructional Technology (LSIT)

LSIT currently occupies 6300sf of space within Rohrbach. Its location within the library is a legacy condition. While having the program reside within the library is beneficial to the LSIT students, it is not typical for academic libraries to host an academic program. The role of the library is to support student success and is considered “neutral territory”. LSIT should be relocated to another facility to allow for inclusion of expanded special collections, expanded Academic Enrichment and Tutoring Center, and re-spaced book stacks.

General Building Renovation

An overall building renovation is proposed over a 3-year period. There is no plan to expand the building footprint but rather to gain efficiencies with existing space. The scope of building renovation would encompass a Learning Commons, Student Success spaces and traditional library needs, including:

Quiet Spaces

The traditional “silence” in a library is being tuned out by the hum of collaboration as students’ approaches to learning are evolving. Even so, there is no “one” method for learning and need for quiet space is still a concern and various studying styles need to be accommodated. As one moves to the upper floors, the library can consider including tech rich study rooms and a larger dedicated quiet study room. This larger room could double as reservable events space for the Voices and Choices programming and other library events.

Café Improvements

Students are spending more and more hours in the library as a place to study and socialize. It is beneficial to consider a front door position for the cafe to provide the library with a destination identity, and to offer students and faculty an alternative of casual options for study and interaction while having handy access to food & beverages.

Improve Collection Storage

The library does a good job of weeding its collections - removing unused, outdated or duplicate print material from circulation. The Library continues to purge collections of material no longer relevant to the curriculum to create space for new collections or programs. Off-site storage should be acquired for materials that require only occasional access.

Concurrent with the overall building renovation, the bookstacks will be re-spaced to allow aisles to meet current building codes and ADA standards. This will dramatically impact the efficiency of the collection and either would require additional floor space or a reduction in overall collections by approximately 20% or a shift in shelving systems. Any residual non-usable AV materials and storage should be discarded if not supporting academic programs.

Right-Size Spaces

A detailed space program must be conducted prior to building renovations to determine the current needs of the user groups within the library. Scrutiny should be given to relevancy of user groups within the building and adjacencies to increase efficiencies. At the time of this report, we found multiple spaces that could be right-sized for their functions:

- Voices and Choices (this event space could multi-task with another function)
- Library Digitation Area is currently oversized. It needs to be correctly sized for function and better located.
- Staff lounge could located anywhere, but is currently in too prime of a location
- Classrooms. The Space Utilization Study revealed that the average usage rate of classrooms in Rohrbach is 15.3%
- Information Literacy Lab can be merged as an open extension of Information Commons
- Maps and Government Documents collections should continue to be vetted for inclusion in the facility, and should be placed in less valuable & day lit space.
- Dispersed open computers should trend toward inclusion in the Information Commons
- Lower level “lobby”, first floor “lobby; second floor atrium: Improve use and efficiency.
- Microforms should continue to be vetted for inclusion. Location could be less prime.



Image 3.3.6 - Cafe on lower level



Image 3.3.7 - Book stacks require re-spacing



Image 3.3.5 - Maps Collection



Image 3.3.8- Digitization Lab

3.4 STUDENT LIFE

MACFARLAND STUDENT UNION

Situated on the western edge of north campus, McFarland Student Union Building (MSU) is the social hub of campus. It is the major gathering place for students, staff and faculty. One of its most important functions is to serve the needs of the commuter student population who need a place to hang out in between classes. The facility houses multiple student organizations; the Association for Campus Events (ACE); the Student Government Board (SGB); the Volunteer Office, KUSI, PSECU and many other administrative and student organization offices. It is also home to the Kutztown University Bookstore. The MSU provides food service amenities at its Cub Café, Cub Café Snack Bar and the Bear's Den Coffeehouse.

Its sprawling size, the layout makes it hard to determine how busy the MSU is when you first enter the building. Over the years as the University grew, the original 1968 structure was expanded upon by a series of additions and expansions to meet immediate needs. The resultant effect is a constellation of spaces that, while suitable for each area's needs, is confusing to navigate. Upon initial arrival from the northwest entrance, sightlines are blocked and this continues throughout the facility with internal corridors around the central cluster of offices and President's Room. Efforts should be taken to improve circulation and visibility within the building.

One of the first things this study considered was the best and highest use of space to serve student needs. A detailed scrutiny of the building program offered a few entities that could be relocated out of the facility to make room for other priorities. Relocated offices included the One Card office, offices of the Dean of Student Services and the Student Conduct office. One Card is a financial department that occupied prime space at the entrance of the MSU. It has been relocated to the Academic Forum where it will continue to be easily accessible by students. The Dean's office and Student Conduct office carry out administrative functions. Both were a better suited in the Stratton Administrative Building where they have since been relocated.

Student Lounge Renovation

Student lounges are currently congested and the situation is exacerbated during peak lunch hours.

Bear's Den Expansion

The University desires to expand seating and dining capacities in the Bear's Den. In accordance with initial recommendations from the Master Plan Update and Dining Facilities Master Plan, the cyber lounge was eliminated and the One Card office was relocated to increase seating for beverage & food options. The final renovations of this space will include a full service Starbucks.

Cub Cafe Expansion

A major modification to the MSU will be the conversion of the Cub Café into the new North Campus Dining Hall which includes an expansion over the existing west outdoor dining terrace and the addition of the "Porch" to the north. The dining hall will have its own controlled access entrance. As a result, the main entryway into MSU will be the north west entrance. The existing façade will receive an upgrade to increase its prominence and a new entry plaza will be created to support it.

Third Floor Meeting Rooms Expansion

It is also recommended that the third floor be expanded over the existing roof of the Cub Café, in conjunction with the 2nd floor building expansion. This would provide much needed additional meeting space for student organizations and general campus needs.

Shuttle Bus Waiting Area

A small renovation of the existing parking lot entrance is recommended which will allow it to serve as a covered shuttle bus waiting area.

MultiPurpose Room 218 and Bookstore Expansion

Other recommended MSU renovations consist of the expansion of Multi Purpose Room 218 (MP218), the Bookstore expansion and the renovation of the existing first floor entrance facing College Boulevard.

There is a need for a larger multipurpose room to accommodate the events held at the MSU. MP218 will be expanded eastward to comfortably seat 500 persons. However, the resulting long and narrow shape of the space is not ideal and could limit the type of events held in the room. The facility will also have new interconnected support space that will tie in to the main food service kitchen. On the floor below, the expansion will create extra capacity for the Bookstore. This expansion supports the 2012 Student Bookstore Facility and Financial Analysis which recommended additional space for improvement of sales and efficiency.

The two interior bookstore entrances which are adjacent to each will be consolidated and the solid walls replaced with glazed storefront to improve external visibility.



Image 3.4.1 - MSU corridor



Image 3.4.2 - Bookstore dual entrances

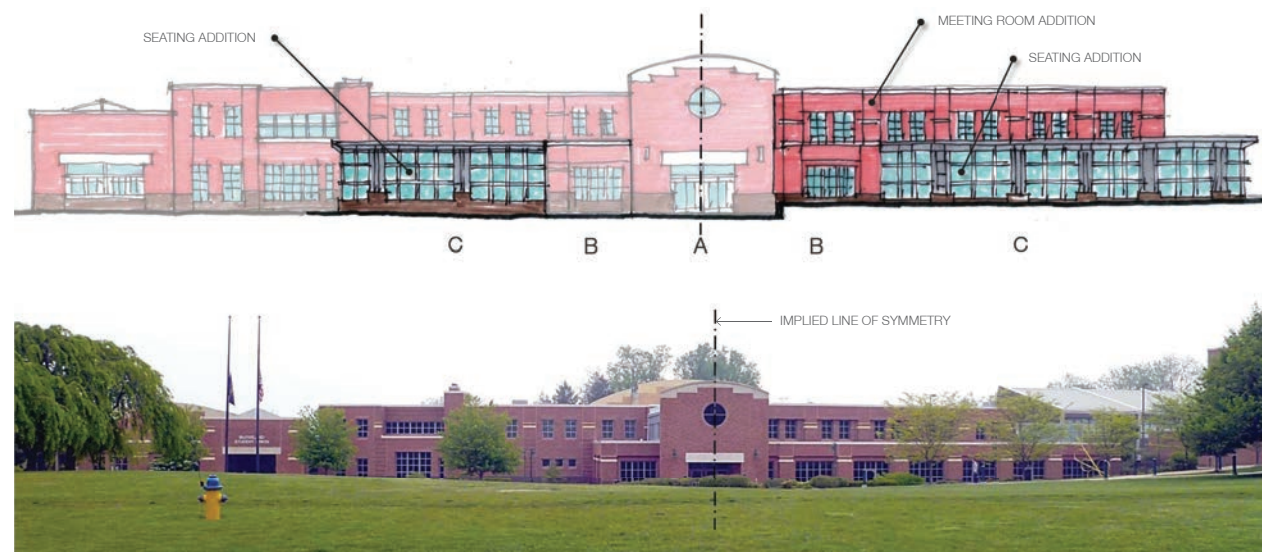


Image 3.4.3- MSU - Cub Cafe expansion



Image 3.4.4 - South entrance



Image 3.4.7- MSU west dining terrace



Image 3.4.5 - Northwest entrance lobby



Image 3.4.8 - MSU first floor entrance by bookstore



Image 3.4.6- Northwest entrance



Image 3.4.9- MSU Bear's Den



Diagram 3.4.1- MSU Proposed Floor Plans

Conference Center/ Multipurpose Space for 500

Throughout the master planning process, the team heard over and over again from multiple user groups the need for a large multipurpose space that can accommodate 500 persons or more for a variety of events. Existing large indoor venues like MSU 218 and South Dining Hall either do not have sufficient capacity. Others like Schaeffer Auditorium and lecture halls at the Academic Forum are configured with sloped-floor fixed seating.

A new 20,000sf multipurpose space is targeted for development in the northeast section of campus. Its location has not been determined. The large flat-floor space should have flexible partitions, breakout space and support facilities. Convenient access to parking should enable it to generate revenue as a conference facility available to the community when not booked for student-run events.

2013
INDOOR VENUE SIZE

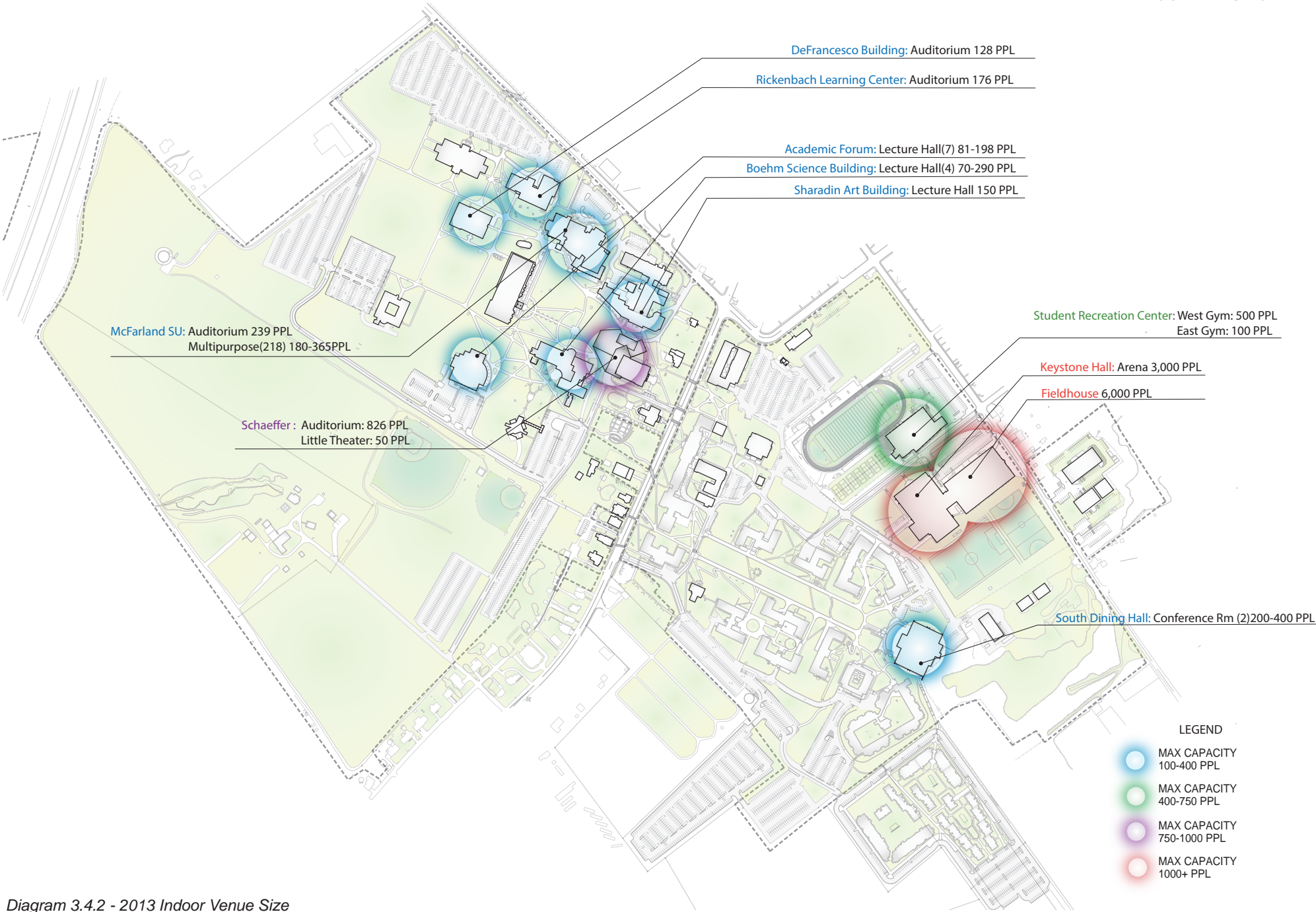


Diagram 3.4.2 - 2013 Indoor Venue Size

3.5 DINING

As part of the Campus Master Plan Update, a Dining Services Facilities Master Plan was undertaken by Porter Khouw Consulting, SHW Group (SHW) and Crabtree, Rohrbaugh and Associates (CRA). The overarching goal of the University is to completely transform the dining program on campus. This transformation will encompass meal plan structure, operations and physical upgrades to the various venues across campus.

The newly transformed residential and retail dining operations will create a best-in-class dining program that can successfully meet the evolving needs of the campus community by providing unparalleled services and creating socially rich destinations on campus. Students will be able to gather to participate in the meaningful social interactions that strengthen their relationships with each other and the University. This evolution of the dining program will maximize student participation which in turn will have a positive impact on Kutztown University's student recruitment and retention rates, as well as improved alumni relations for years to come. These dining venues will play a vital role in driving student traffic through student life areas in the buildings and serve to engage the student body, faculty and staff alike in the campus and culture of Kutztown University.

The Master Plan included the evaluation of existing and proposed venues located within the following facilities:

- South Dining Hall (SDH)
- McFarland Student Union (MSU)
- Academic Forum (AF)

SOUTH DINING HALL

The existing South Dining Hall was constructed in the 1960's with an addition added to the front of the building in the late 1990's. The upper floor houses the primary board operation on campus, a large group meeting space and two small conference rooms. The lower level has three retail venues, a convenience store, loading dock and receiving area, seating areas and storage. Interior renovations have been largely cosmetic with no major renovation to the servery or back of house operations.

The recommendations of the Master Plan call for a complete transformation of the upper floor that will require the demolition of the existing serveries, infill two interior communicating stairs and the demolition of the existing back of house and supporting functions. This transformation will include a new Marche-style Servery, a smaller reconfigured Back of House, a new entrance addition off of the pedestrian walkway leading to the residence halls, new seating to accommodate 800+ and a Conference Center comprised of dividable spaces of varying capacity.

The transformation of the upper floor will create a contemporary dining venue featuring a mix of concepts on versatile platforms with an emphasis on display cooking and "eatertainment." It will be designed to have the look and feel of a commercial restaurant.

Ideally, customers in the dining area will have a visual connection to the servery so that they can interact with the culinary staff while their food is being prepared and continue to watch the action as they dine. The servery will be designed to eliminate cross traffic and to prevent overcrowding and long lines, especially during peak serving hours. Maximum customer throughput will be achieved by allowing adequate circulation space between stations and by creating logical adjacencies between the stations within the servery and the dining area. A greeting station will be established on the Southwest corner of the dining room adjacent to a new entrance that will open to a landscaped pedestrian walkway. The placement of the greeting station will enhance speed of service and access into this facility, as well as increase throughput, and provide friendly and secure access points with adequate queuing area.

The method of service will be All-You-Care-To-Eat with an exciting mix of made-to-order action stations. It is anticipated that at least 70% of customers will dine in this new venue and that a large portion of customers will be residential students who will use a meal plan to gain entrance. Ideally, this venue will be open to customers around the clock seven days a week (with the flexibility for stations to ramp up or shut down as traffic and demand dictate).

The first floor of the South Dining Hall will be a unique interactive space on campus where students can gather together as a community for more reasons than just food. This interactive space will become a social hub, study area, lounge, and living room for residential students. To create the new dynamic for this space, the current Golden Bear Food Court will transition from the current retail based operation to an all-inclusive residential dining and living facility in concert with the upper floor operation. There will be a variety of seating options that will include soft seating, tables, banquettes, bar seating and high tops. This space may also be outfitted with group and individual study areas. This area may also offer free printing to meal plan members, and there should be high speed wireless internet access throughout the entire building.

Meal plan holders, guests, and patrons who pay the door rate will all enter into the first floor lounge through a central entrance located on the western wall. The side entrance located on the southwest side of first floor adjacent to the MAC machine will be converted into an emergency exit. The entrance on the northern side of the building will remain in use but will need to be controlled to allow visitors access to the conference center located on the second floor of the building without having to enter the dining area.



Image 3.5.1 - South Dining Hall



Diagram 3.5.1 - South Dining Hall - Proposed Site Plan

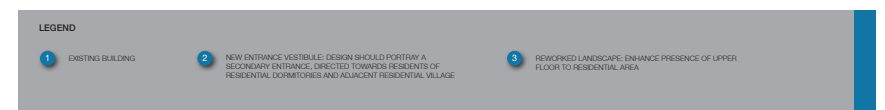
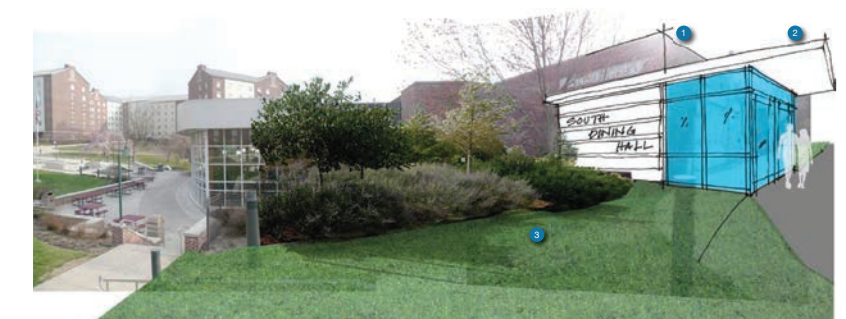
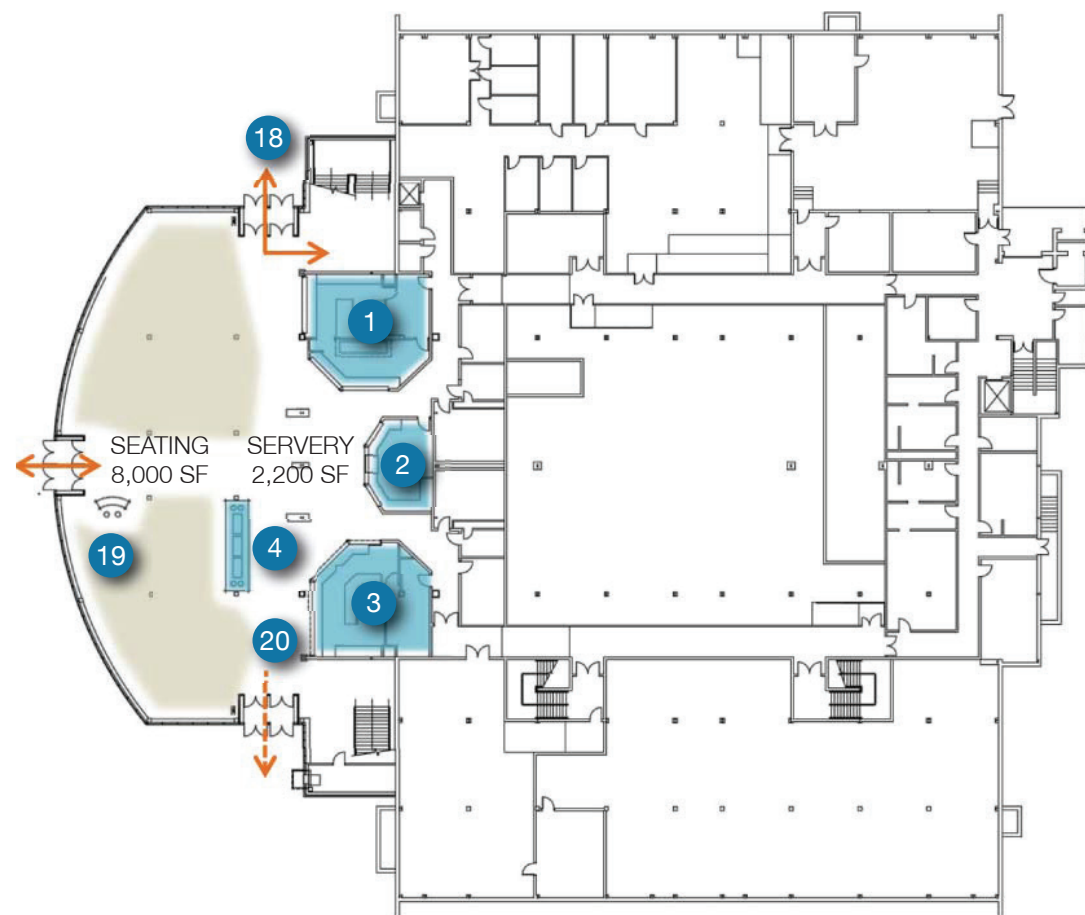
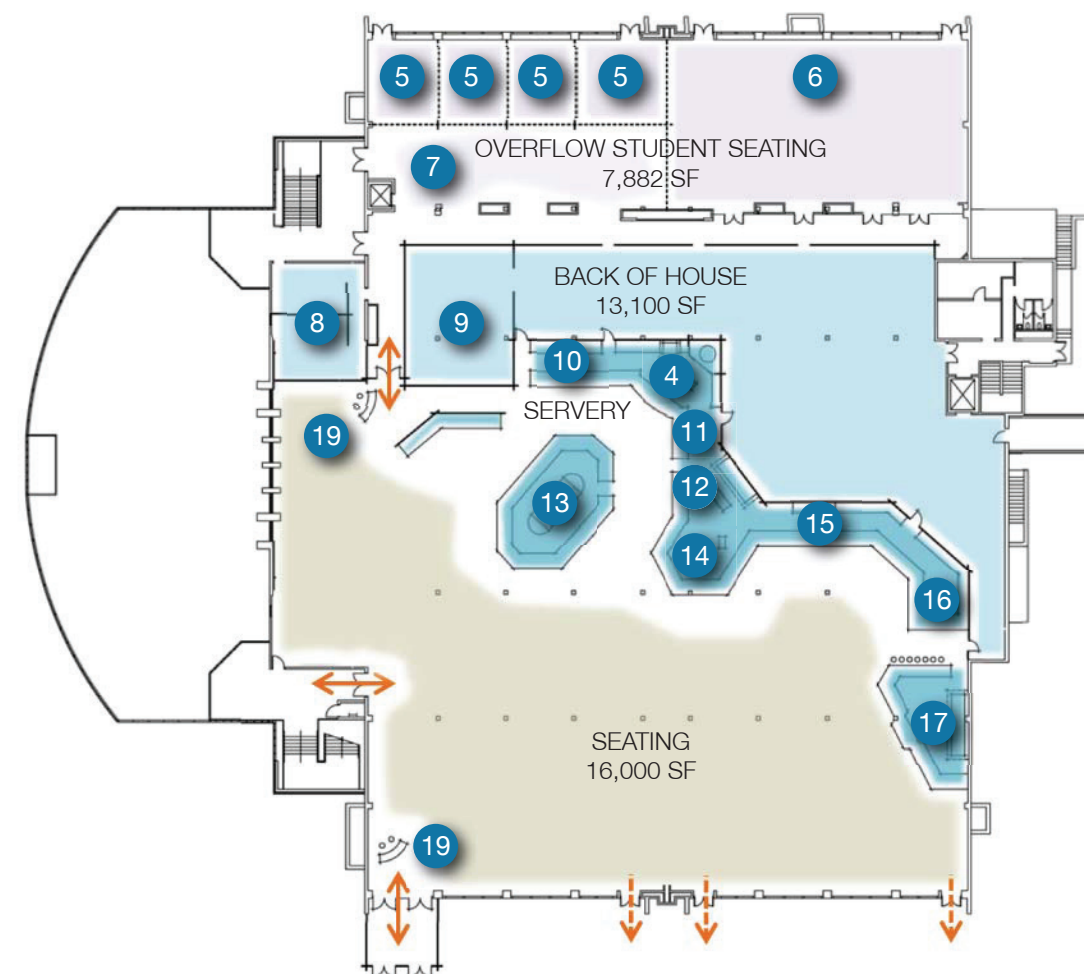


Image 3.5.2 - South Dining Hall - Proposed New Entry at Second Floor

LOWER LEVEL



UPPER FLOOR



LEGEND

- | | | | |
|----------------------------------|-----------------------------------|---------------------|--|
| 1 BREAKFAST & WRAPS | 6 LARGE SEATING ROOM (215 PEOPLE) | 11 VEGAN | 16 BAKERY |
| 2 COFFEE | 7 BREAK OUT / RECEPTION | 12 STIR FRY | 17 GRILLE |
| 3 PIZZA | 8 TOILET ROOMS | 13 SALAD BAR | 18 ENTRY FOR SECOND FLOOR MEETING ROOMS AND EMERGENCY EGRESS |
| 4 HOT/COLD FOOD BAR | 9 DISH ROOM | 14 MONGOLIAN GRILLE | 19 CHECKER LOCATION |
| 5 SMALL SEATING ROOM (30 PEOPLE) | 10 BREAKFAST | 15 DELI | 20 EMERGENCY EGRESS ONLY |



2.4

Diagram 3.5.2 - South Dining Hall - Proposed Plans

MCFARLAND STUDENT UNION

The existing McFarland Student Union (MSU) was constructed in the early 1960's and has seen a series of renovations and additions over the years. The latest addition completed in the early 2000's expanded the seating area of the Cub Cafe snack bar and added program spaces that included a movie theater, coffee bar, art gallery, computer lab and other support spaces. The most recent renovation introduced a Chik-fi I-A restaurant.

The primary goal of the master plan was to expand the snack bar servery and seating areas and transform the operation from its current retail operation to an All-You-Care-To-Eat board operation.

To accomplish this, the seating area will need to be expanded to accommodate 420 seats via two strategic additions and the servery will be completely renovated.

The change in function from a retail operation to a board operation will require that the existing main entrance be moved to the Bear's Den end of the building. In support of the new main entrance, exterior site work must be accomplished to guide pedestrians to the new entrance. The Bear's Den coffee house lounge area will be completely renovated to provide an open lounge/lobby feel.

The Cub Café will undergo a dramatic transformation from a retail dining operation to an All-You-Care-To-Eat, expanded hours operation that will better serve the campus community throughout the day. The evolution of this venue into the new North Dining Hall will include the construction of two strategic additions (totaling approximately 4,500 SF) to the building's current foot print and will enable the dining room to accommodate approximately 420 seats for patrons. This facility will be a popular destination for meal plan holders while they are on the academic side of campus.

The servery will be designed to minimize cross traffic and to prevent long lines. Maximum customer throughput will be achieved by allowing adequate circulation space between stations and by creating logical adjacencies between the servery and the dining area. Two greeting stations will be established at both the exterior entrance and the internal entrance within the heart of the MSU.

At the Bear's Den in the student lounge area, renovation will include reconfiguring the Coffee House and Lounge. In the new configuration, the walls that currently divide the rooms surrounding the Coffee House will be removed to create an open sitting area. It is important that the art gallery remain as part of the program. The Coffee House will be rotated 180 degrees and ideally would be a main focal point on this floor, visible to patrons as they enter the main entrance.

ACADEMIC FORUM

The Academic Forum is one of the newer buildings on Campus and houses a retail dining operation and seven large classroom / lecture halls. While no large scale renovations have been considered for this facility as part of the Dining Services Facilities Master Plan, the possibility of introducing branded food service concepts has been explored. As the residential dining program evolves so too will the retail dining operations.

The Academic Forum will become the ideal retail location to serve the campus community. One option is to create a brand driven food court. KU could potentially introduce nationally branded retail concepts to this location. As part of this transformation the Chick-fi I-A Express could be moved from the Cub Café to where the Grille is currently located. However prior to this transition KU must carefully assess the current facilities to ensure that the current hood system is able to handle the potential increase in load, ensuring that the cooking odors from Chick-fi I-A or similar venues do not infiltrate the surrounding classrooms. Additionally, there is an opportunity to add a Subway Concept at the back of the service area. This concept could have two service lines to handle increased capacity during busy times and transition to one service line to save on labor during slow times.



Image 3.5.3 - Cub Cafe

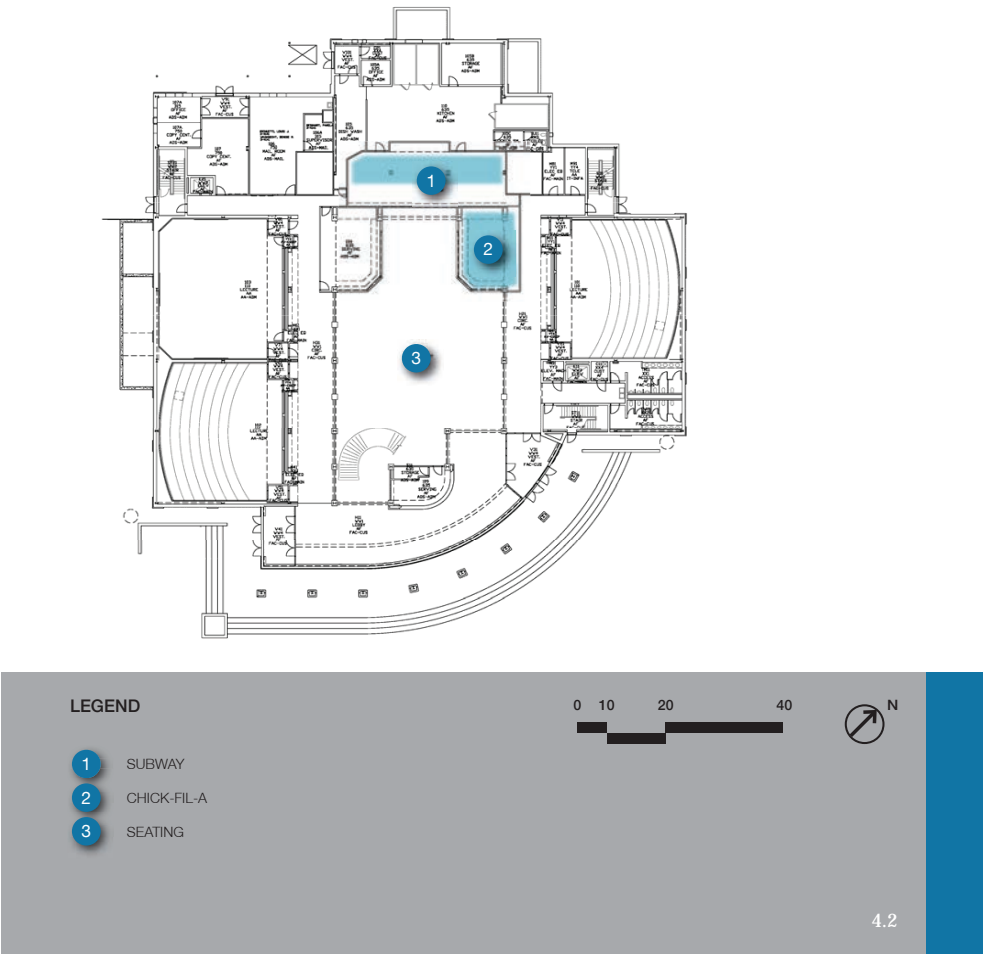
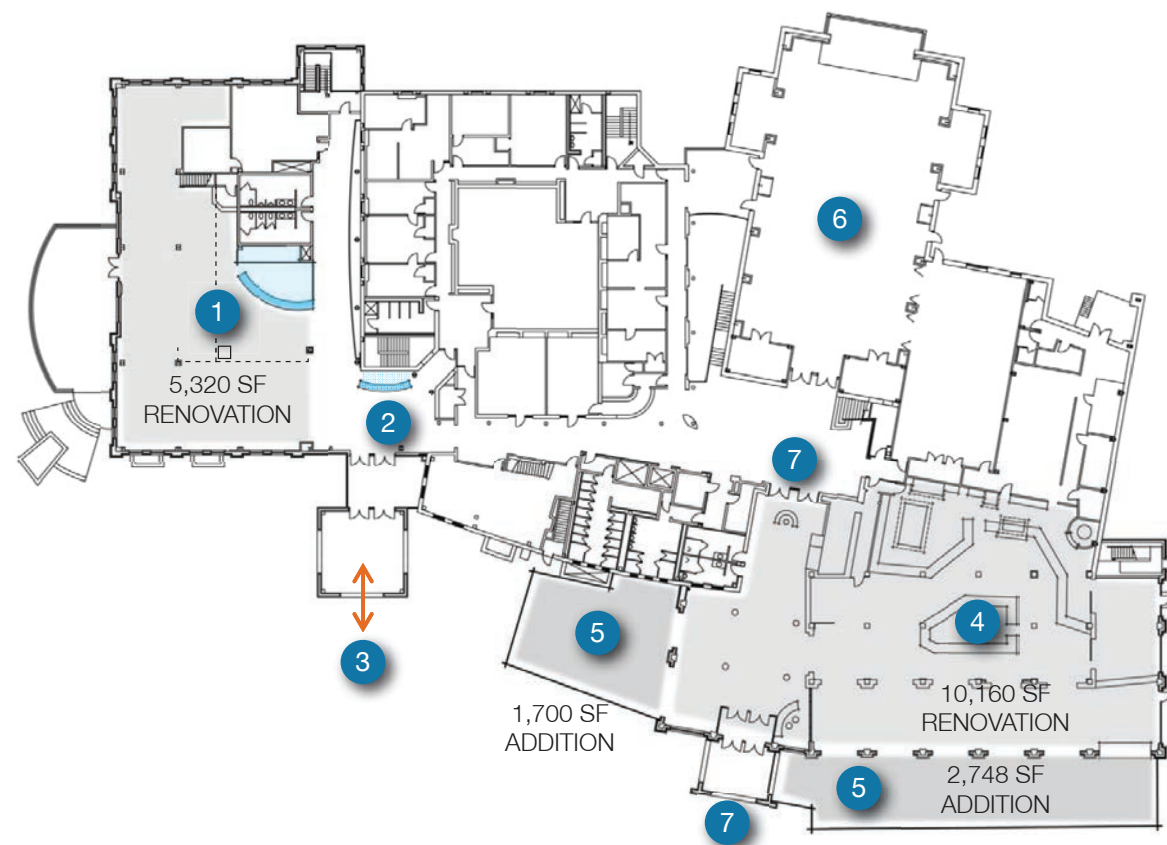


Diagram 3.5.3 - Academic Forum - Proposed Plan

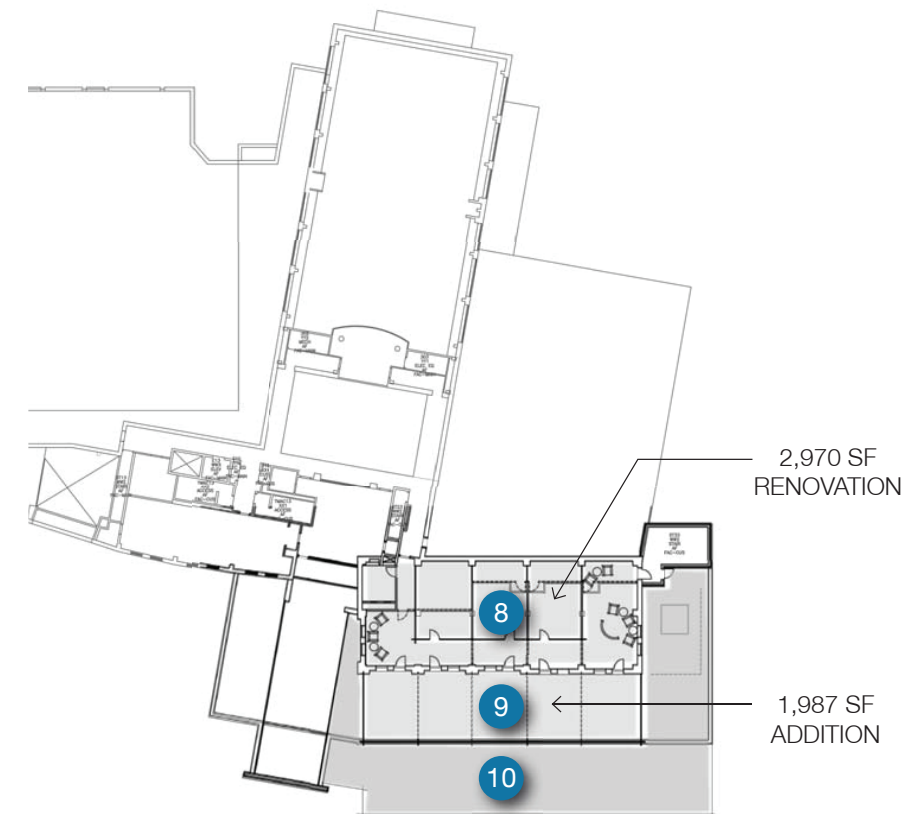


3.0 PROPOSED PLANS

SECOND FLOOR

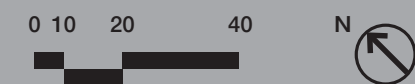


THIRD FLOOR



LEGEND

- | | | | |
|---|-----------------------|----|------------------------|
| 1 | COFFEE HOUSE & LOUNGE | 6 | EXISTING BALLROOM |
| 2 | INFORMATION DESK | 7 | DINING ENTRANCE |
| 3 | NEW MAIN ENTRY | 8 | RENOVATED MEETING AREA |
| 4 | CUB CAFE RENOVATION | 9 | EXPANDED MEETING AREA |
| 5 | SEATING ADDITION | 10 | NEW ROOF AREA |



3.4

Diagram 3.5.4 - MacFarland Student Union - Proposed Plans

3.6 HOUSING

Existing Conditions

Kutztown continues to have a strong residential housing program with a nucleus of residential activity on the south side of campus. In Fall 2012, there were 4,329 beds available on campus, including non-revenue generating beds. Spread over 14 residence halls, the university's 4,329 beds represent approximately 1.26 million gross square feet of space, resulting in approximately 291 gross square feet per bed. Housing demand remained high in Fall 2012, as occupancy was close to 94.5%.

Several macro-economic factors are influencing housing demand at Kutztown University. Student enrollment has been declining over the last several years. Meanwhile the off-campus market continues to evolve as many local and regional developers improve their housing stock and continue to attract students away from on-campus housing. Currently a 1,300-bed market-rate apartment community was given approval to proceed with development for an anticipated opening by Fall 2014. It is located immediately east of Golden Bear Village South and will offer a number of high-end amenities such as a swimming pool, recreation facility, etc. The introduction of this project will certainly have an impact on demand for on-campus housing.

Recommendations

To hedge against the flattening enrollment growth and off campus development, the housing plan recommends a bed count of 3,945 by academic year 2025-2026, a reduction of approximately 384 beds from the total operating capacity. The reduction in bed count can be accounted for by the opening of Lehigh Hall (+211 beds), the repositioning of Old Main (-179 beds), programmatic enhancements to Dixon Hall (-70 beds), the demolition of Johnson Hall (-328 beds) and the conversion of triples to double rooms (-18 beds) from Bonner, Deatrick and Rothermel Halls and University Place. Although no new housing is proposed in the plan, all University-owned housing facilities will be renovated to some capacity over the planning term with the possible exception of Johnson Hall.

	Residence Hall	Unit Type	Construction Type	Project Beds	System Beds	Project Cost
Fiscal Year 2012	N/A	N/A	N/A	N/A	4,329	N/A
Fiscal Year 2013	Lehigh Hall	Traditional	Renovation	211	4,329	\$7,173,000
Fiscal Year 2014	Old Main	Traditional	Off-line / Reposition	(179)	4,150	\$0
	Schuylkill Hall	Traditional	Renovation	211	4,150	\$7,604,000
Fiscal Year 2015	Berks Hall	Traditional	Renovation	211	4,150	\$11,255,000
Fiscal Year 2016	N/A	N/A	N/A	N/A	4,361	\$0
Fiscal Year 2017	Deatrick Hall	Traditional	Reno. & Reduction	(6)	4,028	\$7,601,000
Fiscal Year 2018	Dixon Hall	Semi-suite	Selective Renovation	(70)	4,285	\$2,366,000
Fiscal Year 2019	N/A	N/A	N/A	N/A	4,285	N/A
Fiscal Year 2020	Rothermel Hall	Traditional	Reno. & Reduction	(7)	4,076	\$8,997,000
Fiscal Year 2021	N/A	N/A	N/A	N/A	4,278	N/A
Fiscal Year 2022	Bonner Hall	Traditional	Reno. & Reduction	(4)	3,991	\$13,289,000
Fiscal Year 2023	N/A	N/A	N/A	N/A	4,274	N/A
Fiscal Year 2024	N/A	N/A	N/A	N/A	4,274	N/A
Fiscal Year 2025	University Place	Full-suite	Reno. & Reduction	(1)	3,881	\$10,206,000
Fiscal Year 2026	Johnson Hall	Traditional	Demolition	(328)	3,945	\$1,163,000
TOTAL						\$69,654,000

Note:
Deatrick Hall, Rothermel Hall, Bonner Hall, and University Place bed counts were reduced to replace triples into doubles.

Table 3.6.1 - Student Housing Master Plan Phasing Strategy

Optimizing Housing Capacity

Several macro economic factors are influencing housing demand at Kutztown University. Enrollment has been declining over the last few years and the market is poised to introduce approximately 1,300 beds by Fall 2014. Careful planning will need to be in place to ensure the housing system correctly hedges against these influential factors. To offset the potentially large injection of housing supply the operating capacity of student housing needed to be rebalanced. As the first measure, the Women's dorm in B-Wing of Old Main was taken off-line beginning Fall of 2013. However, Old Main has historically accommodated student dormitories and in keeping with tradition it is desirable to reintroduce housing in this location once on-campus housing demand increases.

Based on the planning assumptions outlined in Table 3.6.1, the University will have 3,945 beds by the end of the plan and approximately 66% of housing will have been renovated. In addition to meeting housing demand, the phasing scenario was developed to maximize the amount of first year housing capacity needed to accommodate the University's Strategic Enrollment Management Plan 2013-2016.

Assuming the University meets its projected first year enrollment targets, the plan provides a sufficient amount of housing capacity to accommodate this student group moving forward. The demolition and renovation of the larger residence halls impact the University's ability to fully house 90% of first year students, particularly in the latter years (fiscal year 2025 and 2026). Students who are not housed in first year housing may need to be accommodated in other residence halls such as Dixon Hall.



Image 3.6.1- Johnson Hall to be demolished

Residence Hall Renovation

Over the last few years, Kutztown University has improved its housing by undertaking renovation projects rather than building new construction, like many of its PASSHE counterparts. The University has been diligent in executing the recommendations set forth in the 2008 Dormitory Improvement Master Plan. Consideration has been given in taking a dormitory offline for a year to allow for comprehensive renovations as needed. Beck and Lehigh Hall were the first to be completed.

The renovation to Beck included a conversion of the first floor into the Health and Wellness Center, which administers to the medical needs of students. The remaining dorms which are scheduled for renovation are Schuylkill, Berks, Dixon, Rothermel, Bonner, Deatrick Hall and University Place.

The scope of each project, while varying from hall to hall, encompasses:

- Correcting deficiencies in accessibility to meet ADA requirements,
- Lobby improvements,
- Toilet and shower room upgrades,
- Replacing built-in furniture and casework with modular furnishings within dorm rooms
- Interior finish upgrades
- Maintenance of exterior envelope
- Exterior aluminum window replacement for energy efficiency
- Life-safety enhancements
- Life-cycle upgrades



Image 3.6.2 - Lehigh Hall renovation

Student Amenities

Students seemed pleased with many of the improvements to Beck and the other halls. However, during the focus group sessions students continued to complain about challenges with currently inadequate cell service and wireless Internet connection within the residence halls. These are now considered “must-haves” for today's students and these issues should be addressed quickly to help improve the on-campus student experience and subsequently result in greater on-campus retention and housing.

Despite being the newest housing offering on campus, Dixon Hall is recognized as being less personable than other halls on campus with low student involvement and under-utilized common areas. To improve the sense of community, programmatic enhancements at Dixon Hall will involve converting two Suite B units on each floor into social lounges with full community kitchenettes. The existing lounges will be transitioned into quiet study lounges for each floor.

University Place programmatic enhancements will include stronger outdoor lighting and the availability of WiFi within the courtyard of the facility to promote interaction and community outside the unit. To extend the spirit of community beyond each hall, the courtyard at Tri-County dorms will be renovated to offer an attractive exterior gathering space. In its current configuration there is insufficient site furniture, shade trees and a general lack of identity. By reviving the courtyard, this space will not only be reactivated, it will also promote student interaction.

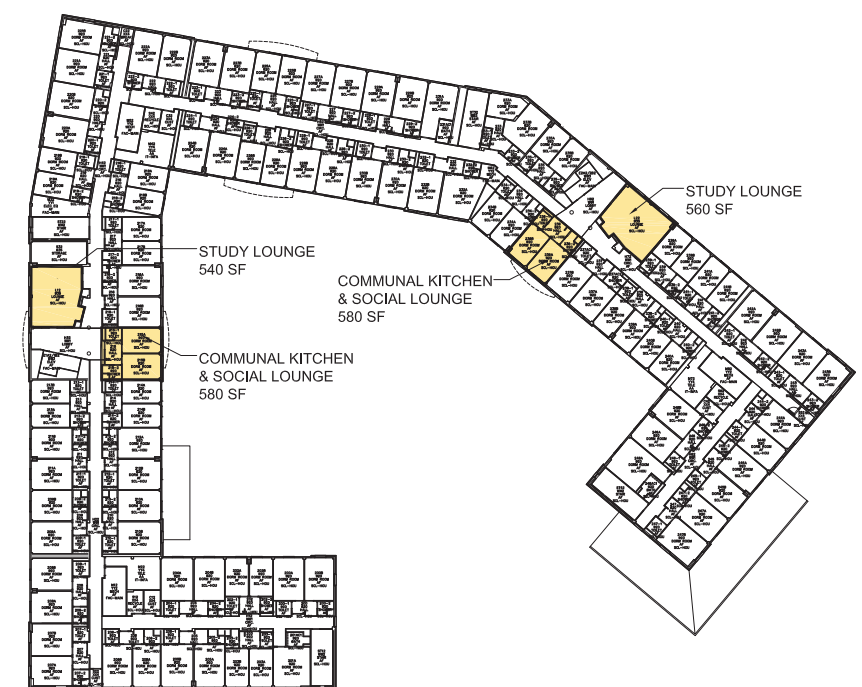


Image 3.6.3 - Dixon Hall programmatic enhancements

3.7 ATHLETICS

Quality recreational and athletic facilities play an important role in recruitment and retention of high quality students, faculty and staff. These facilities play a major role in campus life by supporting university sponsored social activities as well as the overall health and wellbeing of the campus. Past NIRSA President, Brian Carswell, remarked at a press conference for Kerr-Down Research that “students who participate in rec sports are significantly happier than those who do not. That translates into student success, dedication to a college, and a stronger sense of loyalty. And, all students reported a range of benefits that include improvement of well-being, reduction of stress, improvement of self-confidence, and contribution to feeling like a stronger part of the college community.”

Recreational and athletic outlets provide students with a sense of ownership and community within the university. Therefore comprehensive, well-organized facilities at Kutztown University would likely aid the University in increasing its athletic reputation and in bringing the campus community together and enhancing the quality of life for students, staff and faculty.

The current indoor facilities are stressed and overused. The result is limitations on practice time, available space for recreation and academic research, and wear and tear to varsity facilities. Kutztown University athletic facilities should accommodate all of the 21 varsity sports as well as the basic needs for campus recreation and Sports Medicine.

The two overarching goals for the Athletic Master Plan are to:

- Improve the overall athletic experience for athletes and
- Improve the overall athletic experience for fans

An Athletics Facilities Master Plan was generated in 2008. While many of the strategies from that plan are still valid, some recommendations were scaled back due to budget restraints and other recommendations revised based on the evolving needs of the Athletic department. It is important to note that as each project progresses into design phase, it will adhere strictly to all current Title IX regulations. This Master Plan Update recommends the following:

Overall Sequence of Moves :

PHASE 1

1. Stadium :ADA Bleacher Retrofit

PHASE 2

2. Stadium South Gateway: Ticketing, Concessions, Storage, Scoreboard and Visitor Restrooms
3. Stadium Restroom Annex
4. Stadium Pressbox and North Gateway: Concessions, covered plaza, storage
5. Stadium Event Plaza

PHASE 3

6. Synthetic Field - South
7. Recreation Center Addition

PHASE 4

8. Risley Hall: Renovation and New Circulation Tower
9. Risley Tailgate Zone
10. Keystone Hall Locker Room Renovation
11. Keystone Hall Pool Infill
12. Keystone Hall Addition
13. Natural Turf Field
14. Reorient Baseball and Softball Fields
15. Synthetic Field - North
16. North Athletic Building and Plaza



Image 3.7.1- Softball field

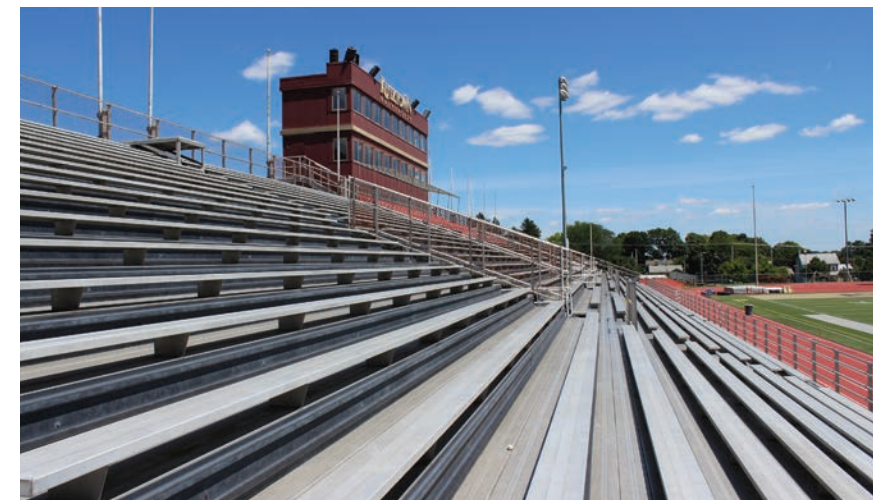
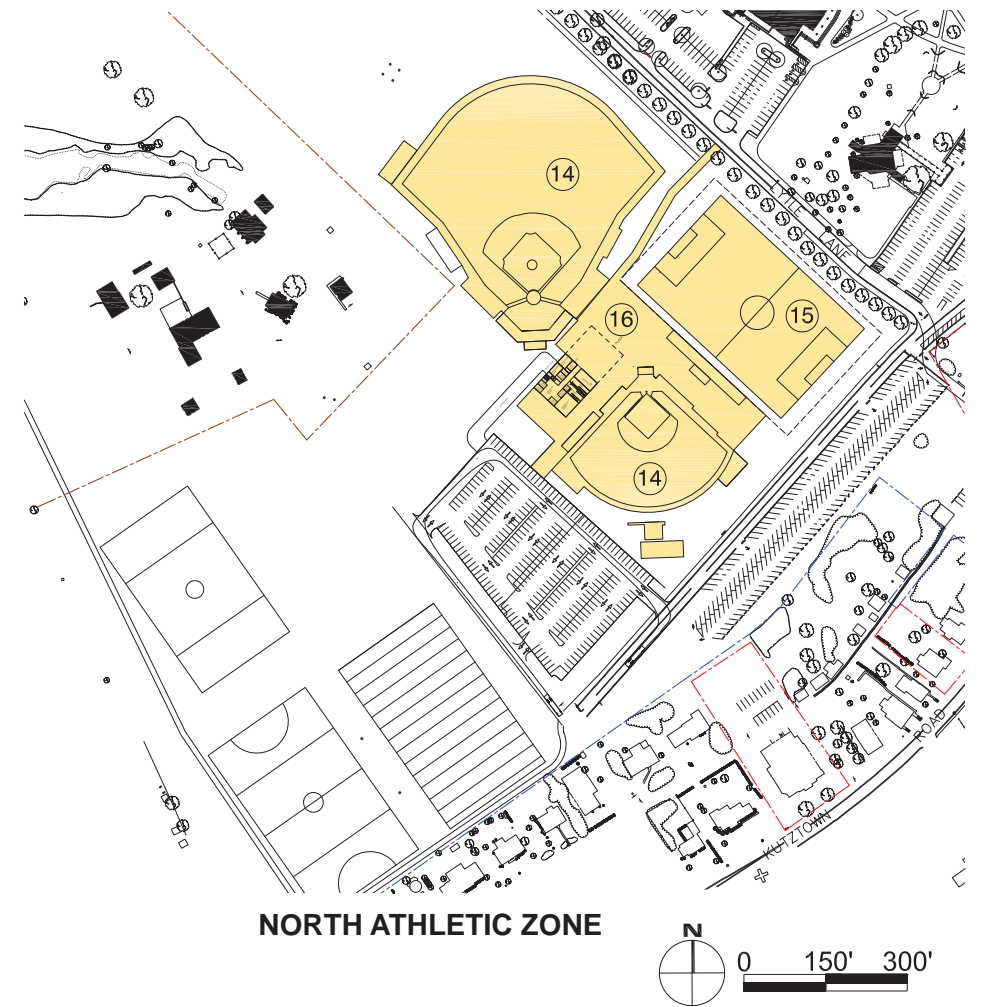
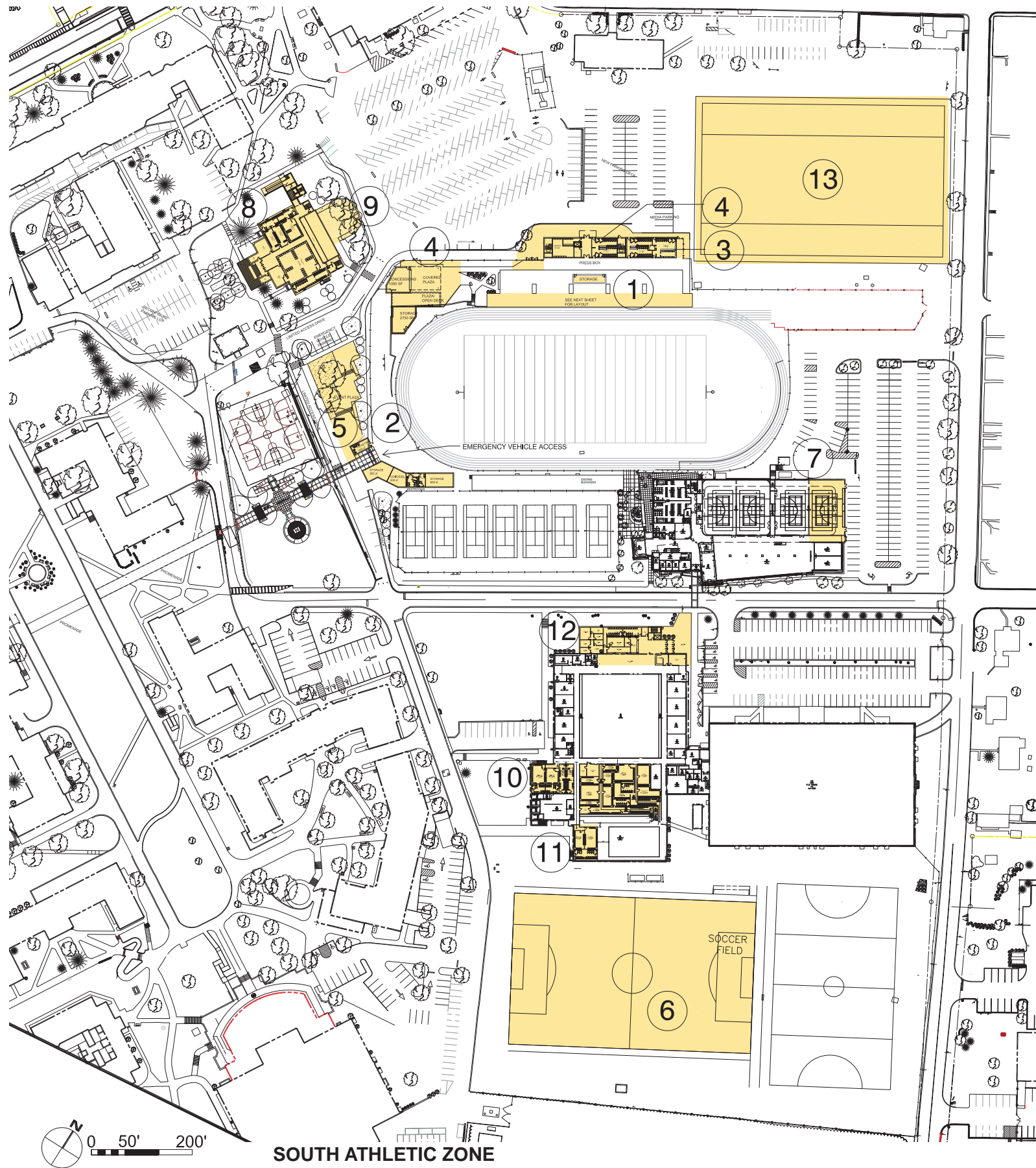


Image 3.7.2- Stadium bleachers and Pressbox



Image 3.7.3- Risley Hall



PHASE 1

1. STADIUM :ADA BLEACHER RETROFIT

PHASE 2

2. STADIUM SOUTH GATEWAY: TICKETING, CONCESSIONS, STORAGE AND VISITOR RESTROOMS
3. STADIUM RESTROOM ANNEX
4. STADIUM PRESSBOX AND NORTH GATEWAY: CONCESSIONS, COVERED PLAZA, RESTROOMS AND STORAGE
5. STADIUM EVENT PLAZA

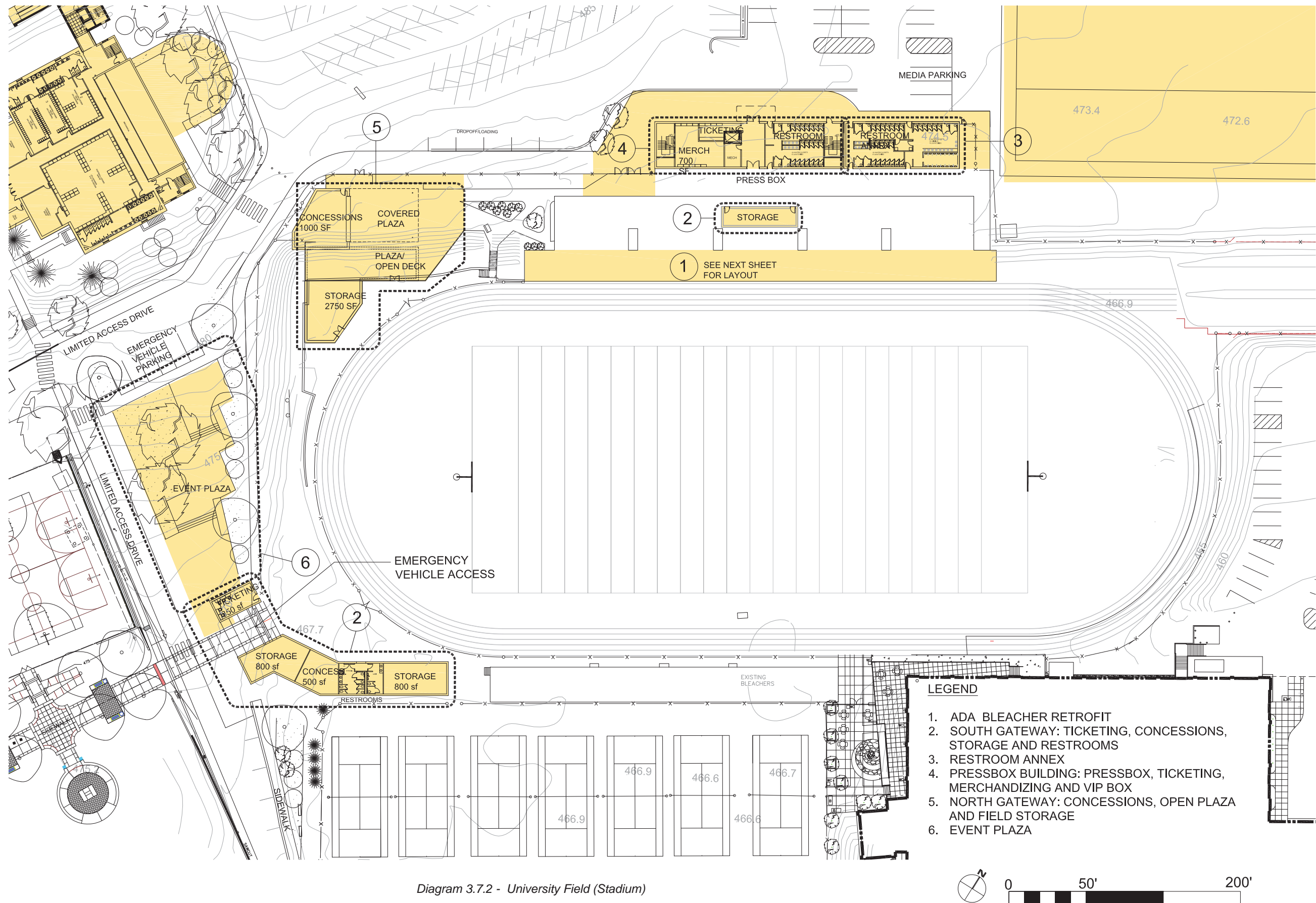
PHASE 3

6. SYNTHETIC FIELD - SOUTH
7. RECREATION CENTER ADDITION

PHASE 4

8. RISLEY HALL: RENOVATION AND NEW CIRCULATION TOWER
9. RISLEY TAILGATE ZONE
10. KEYSTONE HALL LOCKER ROOM RENOVATION
11. KEYSTONE HALL POOL INFILL
12. KEYSTONE HALL ADDITION
13. NATURAL TURF FIELD
14. REORIENT BASEBALL AND SOFTBALL FIELDS
15. SYNTHETIC FIELD - NORTH
16. NORTH ATHLETIC BUILDING AND PLAZA

Diagram 3.7.1- North and South Athletic Zones



SOUTH ATHLETIC ZONE

University Field (Stadium)

This outdoor stadium is a high impact space as it hosts multiple sports venues, track meets and outdoor events for the University. When visitors attend a sporting event on campus, this is the facility that defines their experience at Kutztown University. Therefore, it is recommended that the first athletic project to be implemented should be at University Field .

The field itself is in good condition but the spectator amenities and field support functions are in need of significant upgrades. The first order of business must be to improve accessibility as it not only negatively impacts the fan experience but also poses a liability concern for the institution. The home side bleachers need to increase accessible seat capacity significantly to be in compliance with the 2010 ADA Standards for Accessible Design. As part of a phased approach, in Phase 1, a portion of the home bleachers will be retrofitted with wheelchair accessible spaces and companion seats.

From a view perspective, the lower seats are at optimum viewing angle for the accessible seats. However, this creates a compromised sight line for spectators in the first few rows behind the ADA seating section and some may not be able to see the near side line. The University could consider unifying the existing price structure into one single price point for the bleachers and red seats (VIP) by slightly increasing the base ticket price to account for renovation costs. The accessible VIP section will be implemented in Phase 3 and will provide accessible seats at the higher level whereupon the two price points can be reintroduced. The visitor side bleachers are completely accessible in its existing condition.

Phase 2 at the stadium will start with a new South Gateway for student access. The South Gateway includes ticketing, concessions, storage, scoreboard and restrooms. This will serve to boost the image of the University and improve the athletic experience for athletes and fans alike. The South Gateway complex will be the terminus of the proposed pedestrian pathway from the residential halls. It will replace the existing ticketing booth and consist of two modest buildings to house the ticketing center, concessions, restrooms for the Visitors side and field storage.

Complementing this gateway will be an event plaza that can accommodate visitors, with access limited for emergency vehicles only. Restroom facilities are also under pressure for upgrades. Currently, the University rents portable toilets for use when hosting major events as there are insufficient restroom amenities on site. It is recommended that a new restroom annex be built adjacent to the future Pressbox structure. The full requirements for plumbing fixtures will be met once the new Pressbox building is constructed in the next stage of stadium improvements. These restrooms can be accessed by tailgaters from the parking lot but will be secured so that they have no access to other stadium facilities. Once an event commences, the restrooms will only be able to be accessed by ticketed fans.

The next step will be a proposed multiple story Pressbox building abutting the north face of the home side bleachers and function as a North Gateway to the stadium for public access. It will house a state-of-the-art press box, a fully accessible VIP box for special guests and sponsors, game management facilities for home and visiting teams as well as a ticket booth, merchandizing booth and restrooms on the lowest level.

On the stadium's home side, it is recommended that the existing storage facility be expanded by excavating into the hillside. This aims to meet the growing equipment storage needs and provides an opportunity for a new covered viewing deck above with a second concessions stand.

In lieu of this phased implementation approach, there is an option of constructing the elevator bank of the Pressbox as part of Phase 1 and retrofitting the red seats with a wheelchair accessible platform. We do not recommend this approach as the cost will outweigh the short term benefit of this solution. It will reduce the seating capacity, hinder access to the existing pressbox, require significant modification to existing red seats and adjacent bleachers and complicate construction phasing.



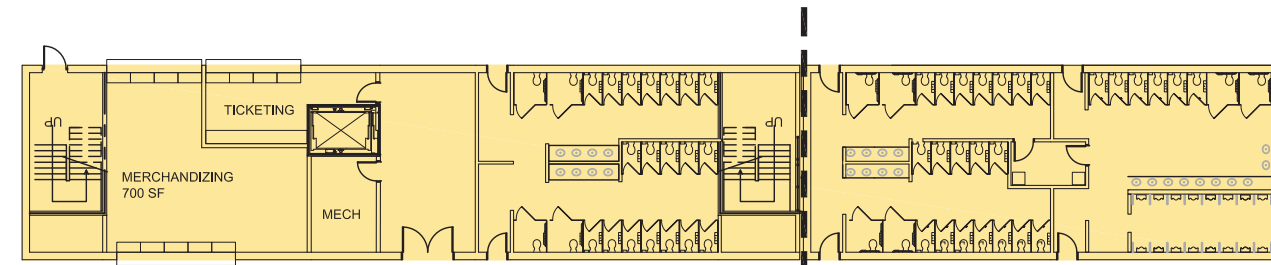
Image 3.7.4- Existing home side ADA seating



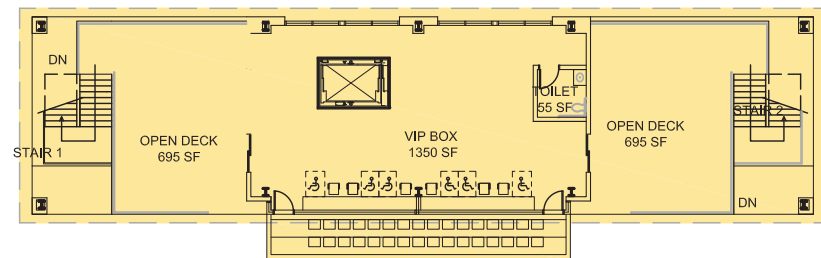
Image 3.7.5 - Existing south entrance into Stadium



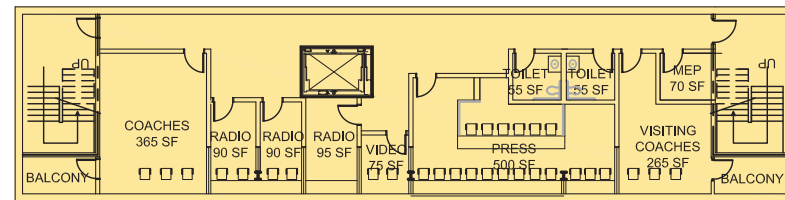
Image 3.7.6 - Existing north entrance into Stadium



FIRST FLOOR PLAN RESTROOM ANNEX



SECOND FLOOR PLAN



THIRD FLOOR PLAN

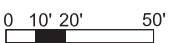
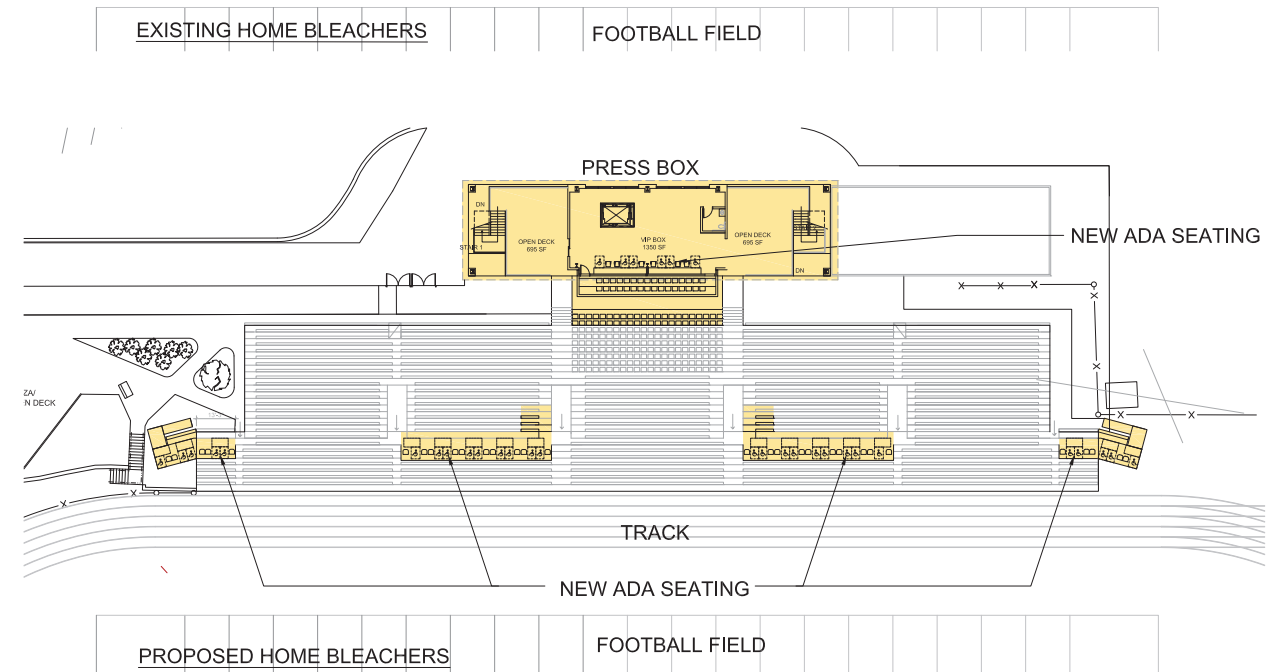
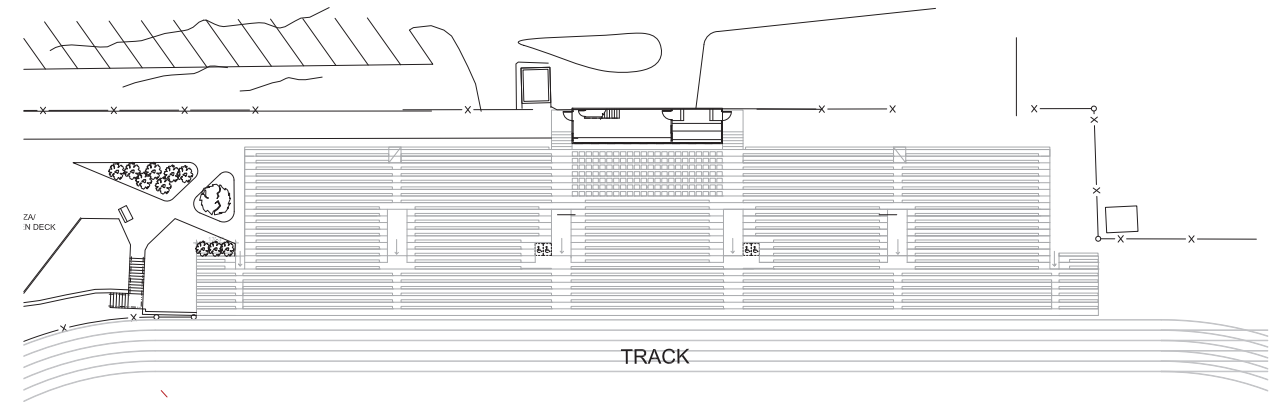


Diagram 3.7.3 - Pressbox and Restroom Annex

Diagram 3.7.4- Stadium Bleachers

South Synthetic Field and Natural Turf Field

Once the Stadium improvements are complete, Phase 3 will include the implementation of a South Synthetic Field. The need for a multi-purpose field that is available year-round with low maintenance is crucial to enable the University to host athletic events and summer camps. Should a new synthetic field replace the existing natural turf field south of O’Pake Field House, the field north of the stadium should become a natural turf competition venue in order to replace the existing field. Bleachers and toilet facilities will be provided as part of this development. It is recommended that the natural turf field be replaced at the corner of Baldy Street and Normal Avenue in Phase 4.

Recreation Center

The Student Recreation Center is the place to be for student recreation and fitness on campus. Opened in 2006, the amenities include a fitness center, weight room, two group fitness studios, indoor climbing wall, indoor multipurpose courts and a suspended jogging track. There is very high demand for the indoor basketball court. As part of Phase 3, it is recommended that the University consider expanding this facility eastward to accommodate an additional indoor basketball/volleyball/badminton court which will also allow the inclusion of a second indoor hockey and soccer arena. The double height space above this indoor court can accommodate an expansion of the jogging track. Currently the space used for stretching is at the bridge in the middle of the jogging track which is very narrow. It is recommended that a new dedicated stretching area be created on the south side of the jogging where steel framework is already in place above the weight room.

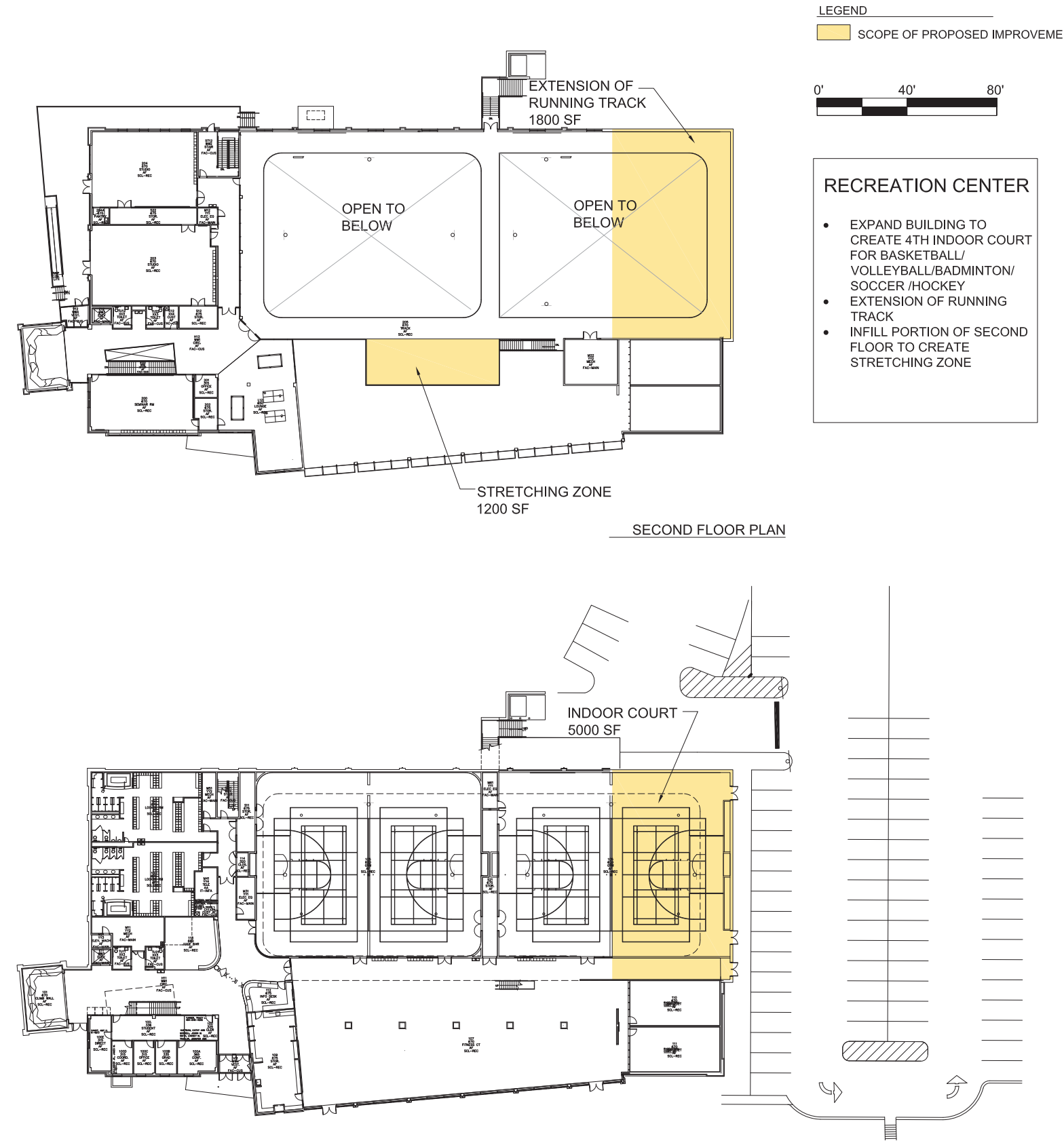


Diagram 3.7.5- Recreation Center - Proposed addition

Risley Hall

Originally built in 1908, Risley Hall has been through numerous renovations and additions to serve the athletic program functions. There used to be a swimming pool in the basement but that was filled in and now accommodates a weight training room. The gymnasium had a running track on the mezzanine level but that was removed in order to construct bleachers on either side of the gym. At the same time, the central main entrance was redesigned into two split entrances, dramatically changing the west façade of the building. On the east façade, the undersides of the bleachers were left open, creating an exterior colonnaded space that is currently used for tailgating.

The 2008 Athletic Facilities Master Plan called for the demolition of this structure and constructing tennis courts in its place. However, the desire to maintain this historic edifice, compounded with PASSHE encouragement to reuse existing buildings rather than build new has driven a push to conserve and restore Risley Hall. It is recommended that Risley be the second large Athletic project to be implemented as the spaces provided by this project will relieve pressure on Keystone Hall and allow Keystone to be renovated.

The biggest challenge facing this facility is the lack of accessibility. It has multiple split levels all connected by stairs. As the first step in Phase 4, a proposed exterior elevator and stair tower on the north face will be able to provide access to the basement, first and second floor. New pedestrian paths and ramps will be constructed to connect the tower to the bell plaza known as “College Hill Memorial Grove” and adjacent parking lots.

It is recommended that the University consider infilling the second floor to increase the usable square footage. This would mean enclosing the bleachers and reclaiming that footprint. The central space on the second floor infill will serve as dedicated practice space for wrestling. Space reclaimed from the bleachers will be utilized as a large multipurpose studio, football coach offices, storage and restrooms. The first floor will be converted into dedicated lockers for the football team, wrestling team and visiting team locker rooms. On the basement level, the weight room will be maintained and two new meeting rooms will be created out of the current studio space. The exterior space under the east bleachers will be enclosed to create an auxiliary equipment room, auxiliary laundry room, training room and storage to support the football and wrestling program.

An option to reconstruct the original central entrance and grand stairs may be considered if the University desires to return the building to its historic roots. The 1937 west bleacher addition would remain but the internal structure for the bleachers themselves would be removed. An addition to the west façade will replicate the original 1908 design and a reception lounge and an athlete lounge space on either side of the entrance. The renovation of Risley Hall will be a significant step in providing excellent athletic and recreation facilities that promote student retention and student success.



Diagram 3.7.6 - Risley Hall Proposed Sections



Image 3.7.7- Risley Hall



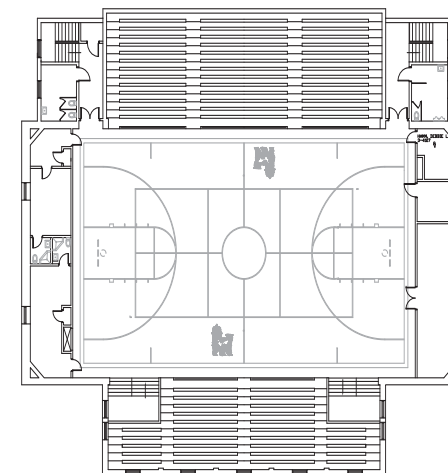
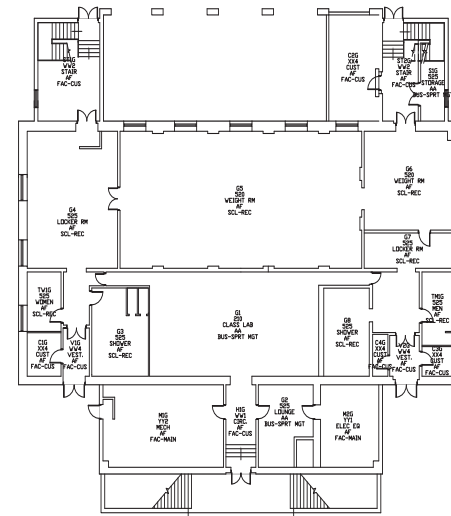
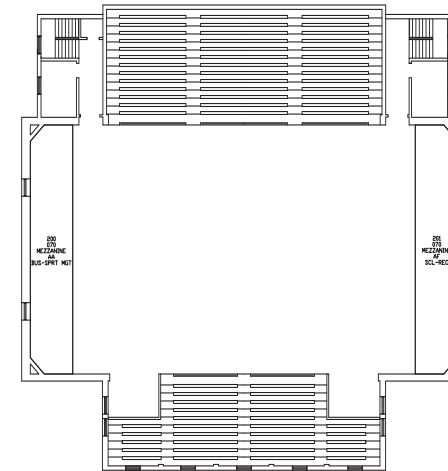
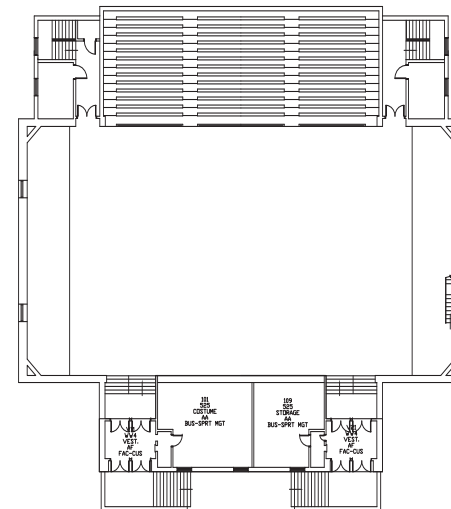
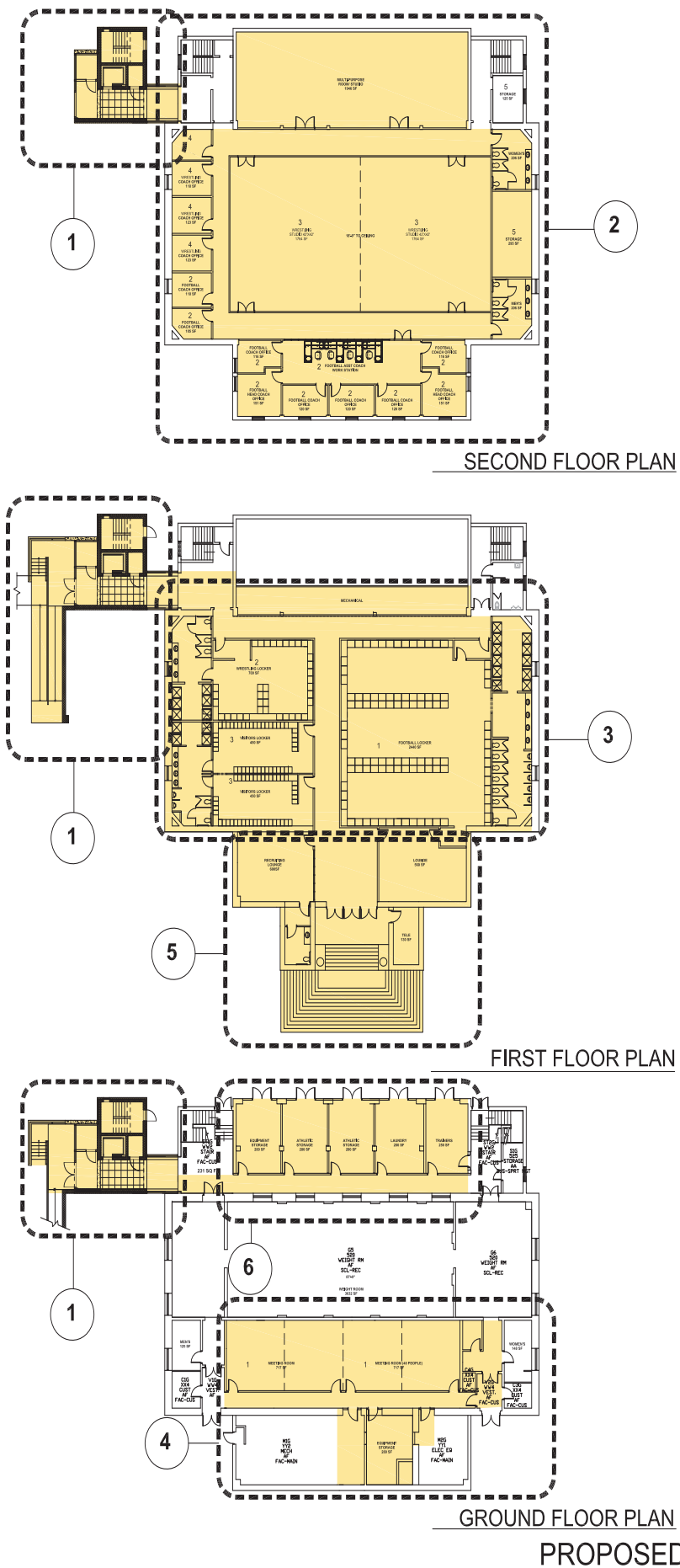
Image 3.7.9- Risley Hall: Existing Gymnasium



Image 3.7.8- Proposed elevator tower location at north facade



Image 3.7.10- Risley Hall: Renovated weight room on ground floor



EXISTING

LEGEND

1. ELEVATOR TOWER
2. WRESTLING STUDIO, MULTIPURPOSE ROOM, WRESTLING & FOOTBALL COACHES OFFICES
3. FOOTBALL & WRESTLING LOCKER ROOM & VISITING TEAM LOCKER ROOMS
4. MEETING ROOMS
5. ENTRY ADDITION (1908 RECONSTRUCTION)
6. AUXILIARY SUPPORT SPACE

SCOPE OF PROPOSED IMPROVEMENTS

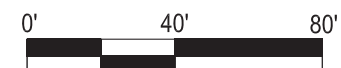


Diagram 3.7.6 - Risley Hall - Existing and Proposed Plans

Keystone Hall

Keystone Hall is the University's main indoor athletic facility. It consists of a basketball arena, natatorium, Sports Medicine facility, locker rooms, offices and storage. It is attached to O'Pake Fieldhouse which includes an indoor track. The biggest challenges facing Keystone Hall are the lack of dedicated team locker rooms, lack of office space and meeting rooms, a shortage of storage space and lack of accessibility to the second floor. The locker rooms are a concern as they influence the recruitment of potential student athletes when they visit the facility on their campus tour as well as the recruitment and retention of coaching staff. All the locker rooms are outdated with equipment in need of upgrade. On-site observations validated the need for extra storage space as the current space is literally packed to the rafters as well as in mechanical areas and in hallways. Some supplies require humidity control which needs to be addressed.

The facility itself is in good condition and there is potential for repurposing space to accommodate most of the needs. Once Risley Hall is renovated to enable relocating the Football locker room and coaches offices, it frees up significant square footage at Keystone to build new locker rooms for home teams and home coaches. By reclaiming part of the former Sports Medicine room and some underutilized bathrooms, the central locker area can be reconfigured to better serve the student athlete population. The Women's lockers can fit (6) dedicated team locker rooms and one general purpose locker rooms. The Men's locker room can fit (3) dedicated team locker rooms and one general purpose locker room. By improving the layout of both these spaces, we will be able to increase spatial efficiency.

Storage is an issue for Athletics and Sport Management. Small storage closets are carved out by reclaiming parts of existing unused spaces. By renovating the central locker area, there is also opportunity to create a centralized storage area that will be more organized and address security and humidity control issues. The University can also consider repurposing classroom 109 for additional storage. The Space Utilization Study which was conducted as part of this Update shows that it would be feasible to have one out of the four existing classrooms at Keystone Hall be taken offline.

The diving well at the natatorium is no longer being used for diving. The diving well can be infilled to build dedicated women's lacrosse and field hockey locker rooms with shared amenities. Available double height space would allow for a second floor for multipurpose rooms if desired. This would involve adding a new elevator tower for accessibility.

Other issues include providing accessible means to the second floor, conference rooms, improving pressbox facilities for the arena, upgrading concessions and right-sizing offices. To meet these needs, the University should consider a two-story expansion to the north face of Keystone Hall that will add 10,000 gsf to the building to better serve all students, coaches, athletic administration and faculty. This addition will create a new entryway into the building that redefines the fan experience and improves the image of Keystone Hall.



Image 3.7.11 Natatorium at Keystone Hall



Image 23.7.12 - Storage room at capacity

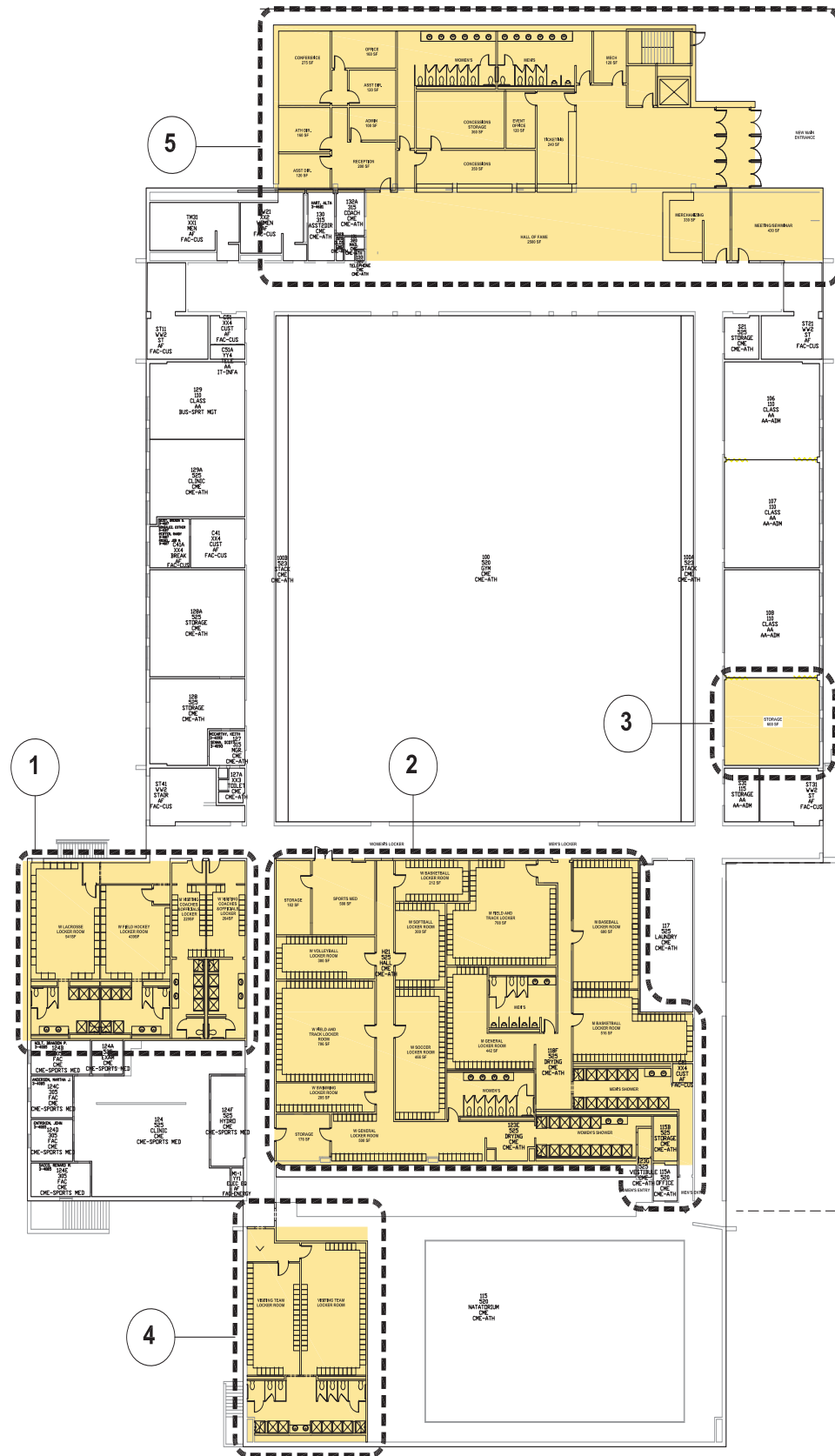


Image 3.7.13- Risley Hall: Existing Gymnasium



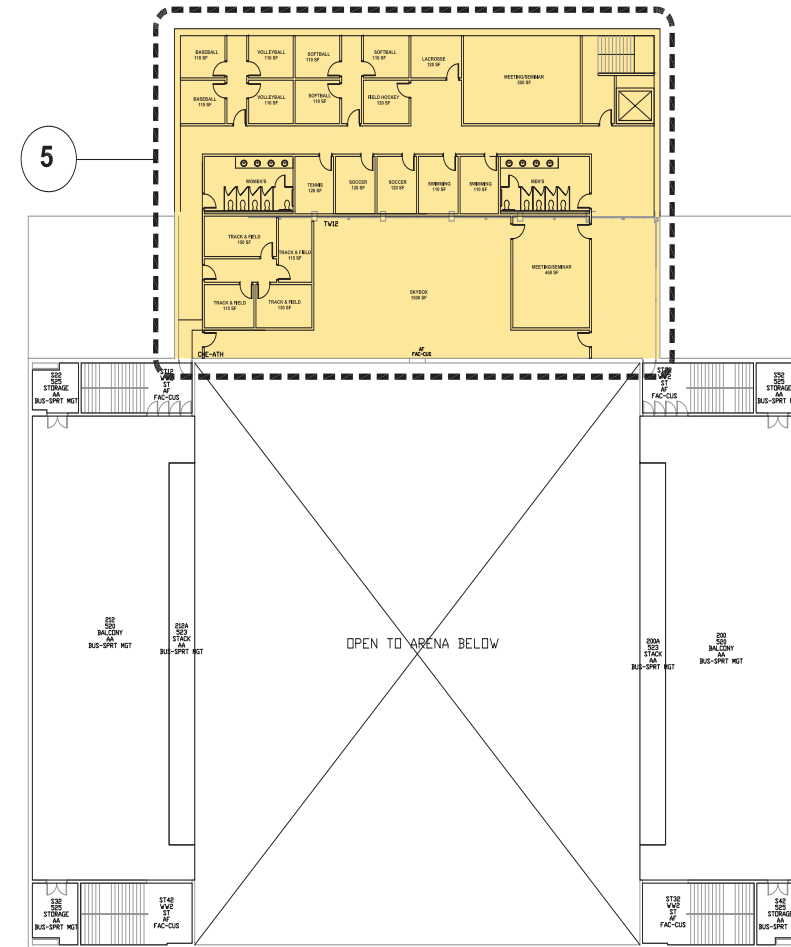
Image 3.7.14 - Existing football locker room

KEYSTONE HALL - 1ST FOOR



FIRST FLOOR PLAN

KEYSTONE HALL - 2ND FOOR

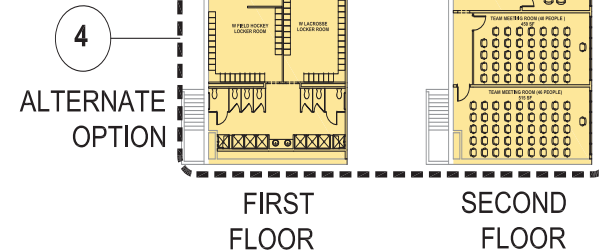


SECOND FLOOR PLAN

LEGEND

1. TEAM AND COACHES LOCKER ROOMS
2. DEDICATED TEAM LOCKER ROOMS & SPORTS MEDICINE STORAGE
3. STORAGE
4. VISITING TEAM LOCKER ROOMS
5. ENTRYWAY, CONCESSIONS, MERCHANDIZING, ELEVATOR TOWER, OFFICES, ARENA SKYBOX, SEMINAR/MEETING ROOMS & RESTROOMS

SCOPE OF PROPOSED IMPROVEMENTS



ALTERNATE OPTION

FIRST FLOOR

SECOND FLOOR

Diagram 3.7.7- Keystone Hall Proposed Plans

NORTH ATHLETIC ZONE

The North Athletic Zone is comprised of varsity playing fields for baseball, softball, soccer and lacrosse, as well as multipurpose fields utilized for practice & recreation. The concept proposed in the 2008 Athletic Facilities Master Plan was pared down in a 2010 Baseball and Softball Field Design project which is still valid and is recommended to be brought forward in this Update.

The development of the north campus athletic area attempts to improve negative existing field conditions and introduce athlete and spectator facilities where none currently exist. Since the site slopes downward to the north, the lowest competition field is the varsity baseball field.

By realigning the parking area along Luckenbill Road, space is opened up for a new synthetic field at the corner of Lytle Lane and South Campus Drive. There is a significant slope that separates the synthetic field from the baseball field. The reoriented softball field is situated at the next level above the lacrosse/soccer field. Currently the home plate location forces the batter to look directly into the sun but once rotated will improve the player experience.

All three fields will be provided with bleachers and press facilities. A plaza at the hub of three fields will orient visitors to the softball, baseball and synthetic fields. At the baseball field elevation will be a new North Athletic Building housing locker rooms and a satellite sports medicine facility. The upper floor of the new building will house much needed facilities for viewing games and for press covering the competitions. A small area for concessions will service fans and enhance the experience of supporting Kutztown's athletes



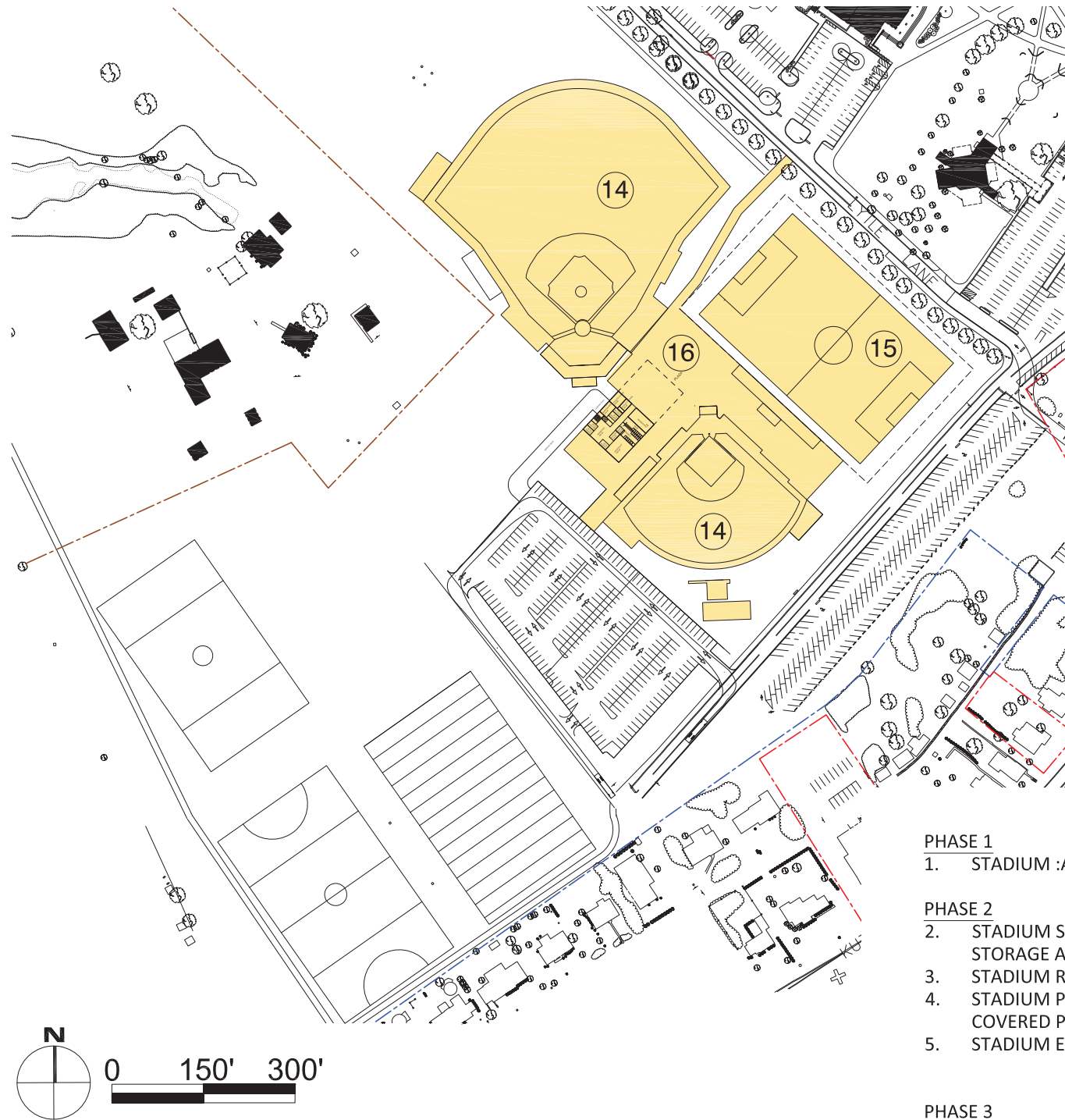
Image 3.7.15- Softball Field



Image 3.7.16 - North Athletic Zone



Image 3.7.17 - North Athletic Fields



- PHASE 1**
1. STADIUM :ADA BLEACHER RETROFIT
- PHASE 2**
2. STADIUM SOUTH GATEWAY: TICKETING, CONCESSIONS, STORAGE AND VISITOR RESTROOMS
 3. STADIUM RESTROOM ANNEX
 4. STADIUM PRESSBOX AND NORTH GATEWAY: CONCESSIONS, COVERED PLAZA, RESTROOMS AND STORAGE
 5. STADIUM EVENT PLAZA
- PHASE 3**
6. SYNTHETIC FIELD - SOUTH
 7. RECREATION CENTER ADDITION
- PHASE 4**
8. RISLEY HALL: RENOVATION AND NEW CIRCULATION TOWER
 9. RISLEY TAILGATE ZONE
 10. KEYSTONE HALL LOCKER ROOM RENOVATION
 11. KEYSTONE HALL POOL INFILL
 12. KEYSTONE HALL ADDITION
 13. NATURAL TURF FIELD
 14. REORIENT BASEBALL AND SOFTBALL FIELDS
 15. SYNTHETIC FIELD - NORTH
 16. NORTH ATHLETIC BUILDING AND PLAZA

Diagram 3.7.8 - North Athletic Zone

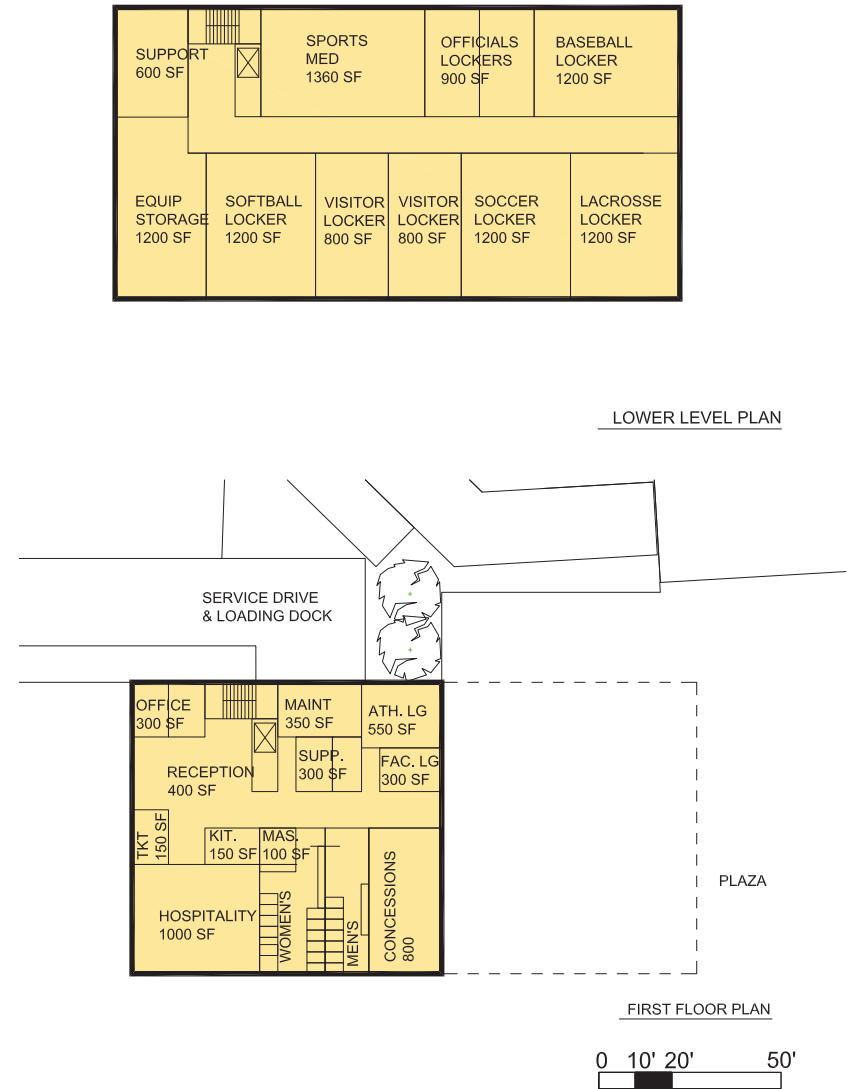


Diagram 3.7.9 - North Athletic Building

3.8 ADMINISTRATION

The two most crucial issues addressed with regard to Administration are student recruitment and retention. The enrollment trend at Kutztown University has been one of declining numbers over the past 3 years. Between 2008 and 2012, combined headcount enrollment at Kutztown University fell by 589 students from 10,393 to 9,804, representing a loss of 5.6%. Meanwhile, the retention rate dipped to 71%, down from 78%. Stiff competition from regional institutions and the changing demographics of the area are the biggest contributing factors to the issue. The University's goal is to stabilize enrollment at 10,000 students.

Visitor's Center

Kutztown University has long recognized the need for a Visitors Center to create a welcoming "front door" to campus and leave a lasting positive impression to those who visit and boost recruitment. A study was conducted in 2011 to convert Poplar House, an existing historic residence, into a new Visitor Center.

The site which is at the corner of Main Street and College Boulevard, adjacent to the President's House provides a significant opportunity to create a sense of place for the University. In addition, another considerable benefit of the Visitor Center is the ability to further enhance Town and Gown relationships with the local community. The addition and upgrade of the existing facility will be sensitive to the architecture of the existing building. External green spaces will lead visitors to the facility, creating exterior gathering spaces and inviting walkways.

The majority of the building is proposed to house a University Welcome Center on the first level and a portion of the University Admissions Offices on the second level. The facility will include a large gathering space where campus tours will begin and will accommodate large meetings and gatherings. Many of the meeting spaces both internal and external will be available to the local community to use. The Welcome Center will contain historical and current information regarding both campus and the community.



Image 3.8.1 - Poplar House



Diagram 3.8.1 - Proposed Site Plan

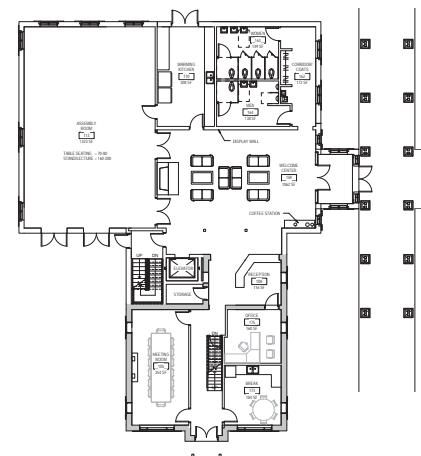


Diagram 3.8.2 - Proposed First Floor Plan



Image 3.8.2 - Proposed Visitor Center

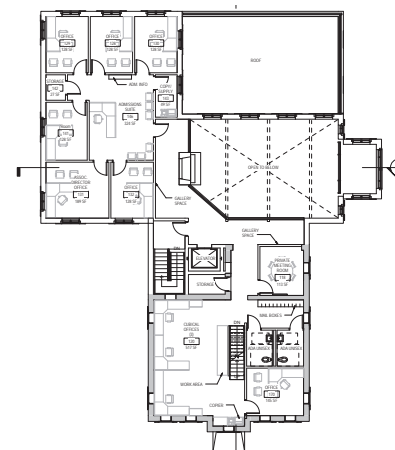


Diagram 3.8.3 - Proposed Second Floor Plan



Image 3.8.2 - Relocate Housing, Residence Life and Dining Services to I-Wing



Image 3.8.3 - Stratton Administration Building

Housing, Residence Life and Dining Services

Housing, Residence Life and Dining Services supports the University by providing diversified living/learning opportunities for students on campus. They operate, maintain and create programs for residence halls and are in charge of dining service. They are currently in A-Wing of Old Main. This division would better serve the campus population by having their offices in a more central location that is closer to the residence halls.

To this end, Housing, Residence Life and Dining Services will be relocated to I-Wing at Old Main which is a stand-alone building at the north end of the DMZ. This move provides easy access to the student residents and enables the division to independently cater to their needs without being restricted by access to Old Main after hours. I-Wing was the original school infirmary and will require some efforts in building conservation prior to occupancy. The efforts are part of the University's mission to maintain stewardship of campus infrastructure by revitalizing a historic edifice.

Diversity Services and ADA Testing

Diversity Services and ADA Testing are located in opposite wings in the Stratton Administration Building. These offices are under the auspices of and are an integral part of the Office of Social Equity which is located in Old Main. It has been the intention of the University to co-locate all three of these departments to create greater efficiency and support the academic success of students with disabilities. Diversity Services and ADA Testing will relocate to the space vacated by Housing, Residence Life and Dining Services in Old Main A-Wing. Their vacated offices in Stratton will be earmarked for consolidating the IT department and relieving the space pressure on Financial Aid and the Bursar.

INFRASTRUCTURE STEWARDSHIP

Kutztown University depends on its buildings, structures, road ways, grounds, watersheds, utilities and other infrastructure to run efficiently as an institution and provide quality education to its students. Over time, infrastructure assets deteriorate through use and natural processes. As infrastructure deteriorates, it needs repair or replacement to continue functioning properly and safely. Considering the current economic climate and budgetary constraints, PASSHE Universities are finding themselves required to do more with less, achieve more within increasing accountability restraints, all with the options of obsolescence and demolition being in increasing disfavor.

Stewardship of the University's infrastructure is vital goal of Kutztown University. Meticulous care continues to be given to ensure smooth operation of the campus.

3.9 PENNSYLVANIA GERMAN CULTURAL HERITAGE CENTER



Image 3.9.1 - Sharadin Farmhouse

PAGCHC

In March of 2012, a master plan was created for the Pennsylvania German Cultural Heritage Center (PAGCHC), to serve as a stimulus for multi-faceted improvements to the Center's site, infrastructure, buildings, collections, operational staffing, programs and overall educational value. The master plan addresses the long term build-out of the Heritage Center with incremental implementations over time. While the plan for the PAGCHC is extensive, the University has identified the highest priority items that need to be undertaken while acknowledging the current fiscal climate.

Stabilization project

The most crucial agenda item which will move forward as part of the Master Plan Update is the Stabilization Project. The Stabilization project is an effort to maintain and preserve existing structures that are most in danger of failure and general site work that is required to allow the PAGCHC to function safely. Included in the this project are ADA accessibility improvements, gravel resurfacing, fencing, signage, general exterior repairs to the Sharadin Farmhouse, Summer Kitchen, Barn and attached Wagon House, Privy and selective structural repair to the Pig Barn and the Red Corn Crib.

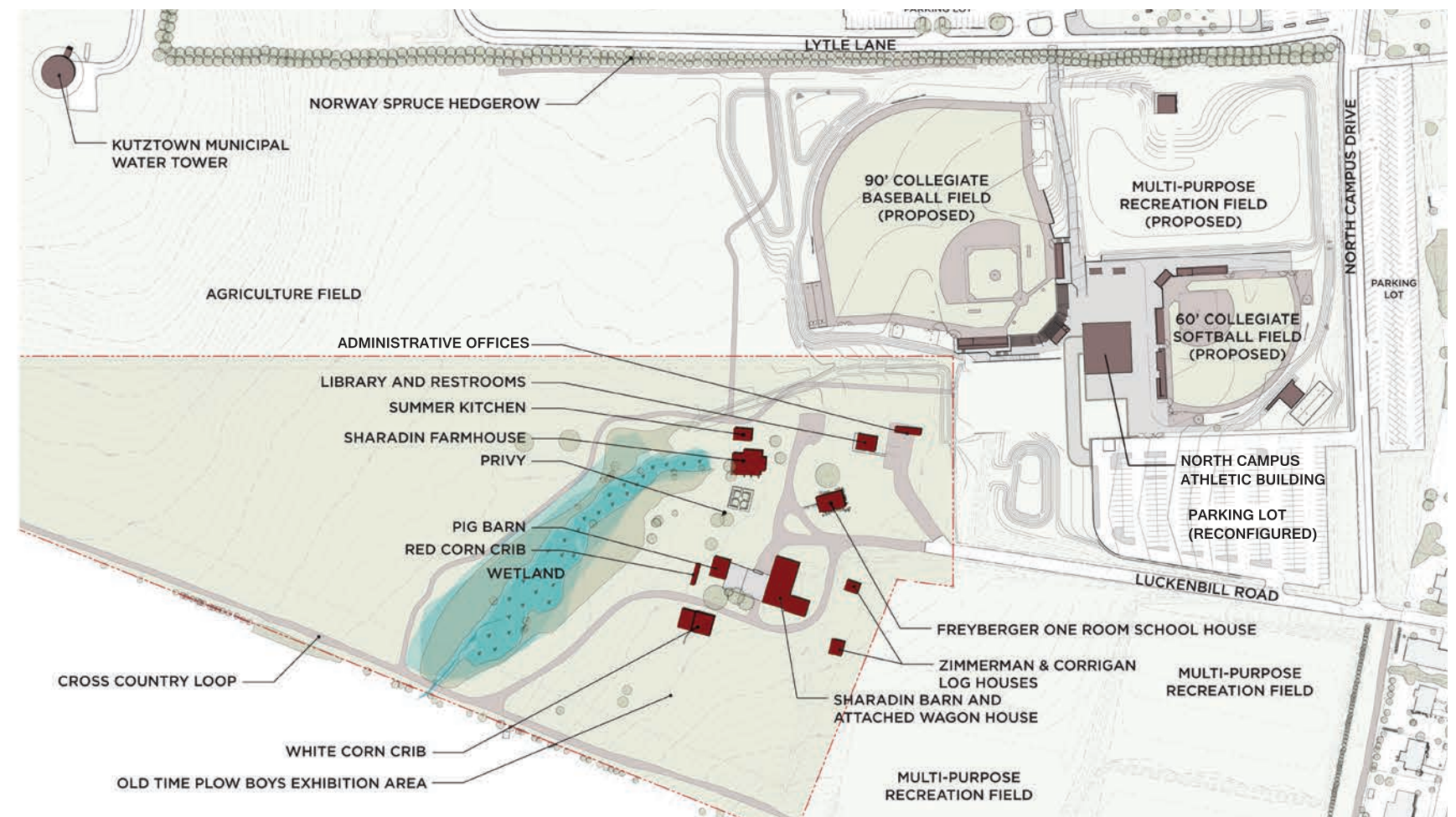


Diagram 3.9.1- PAGCHC Master Plan 2012

Perservation of Special Collections

The PAGCHC houses a significant collection that includes print material, hand tools, doilies, Mason jars, quilts, printed fraktur, home furnishings, wagon parts, and a variety of other historic objects. As such, it continues to be a regional destination for individuals seeking to do research on Pennsylvania German culture and genealogy. To that end, the University recognizes the importance of preserving this special collection by providing a secure and climate controlled environment for its storage.

The building housing the library (which shares space with the public restrooms) is not architecturally significant and does not have the proper environmental conditions required for this collection. Furthermore, the space is cramped and unable to display a majority of the print material available or provide adequate room for visitors to pore over bulky yet delicate volumes.

It is recommended that a portion of the special collections be relocated to Rohrbach Library where they can be housed in the proposed environmentally controlled Special Collections Center. There, the PAGCHC genealogy collection (also known as the Walter Kiebach Library) will be able to share amenities with the Dornish Collection and Kutztown University Archives. In order to optimize space in the new location, plans should be developed to digitize paper-based documents and make them electronically available to library patrons anywhere in the world. Off-site storage should be acquired for all remaining historically significant paper documents.



Image 3.9.2- PAGCHC Library



Image 3.9.3 - Luckenbill Road access to PAGCHC

3.10 TRAFFIC

A Comprehensive Traffic Study was prepared in support of the Master Plan Update to address several proposed projects on the campus. Future conditions were evaluated with completion of all planned projects, and improvements to accommodate redistributed traffic volumes under the proposed conditions were identified.

The traffic and parking recommendations address the safety of vehicular traffic and pedestrian circulation. Points of vehicular-pedestrian conflict on campus were addressed. At the same time, the University addressed the concerns of the Township specifically where internal circulation intersected public roadways.

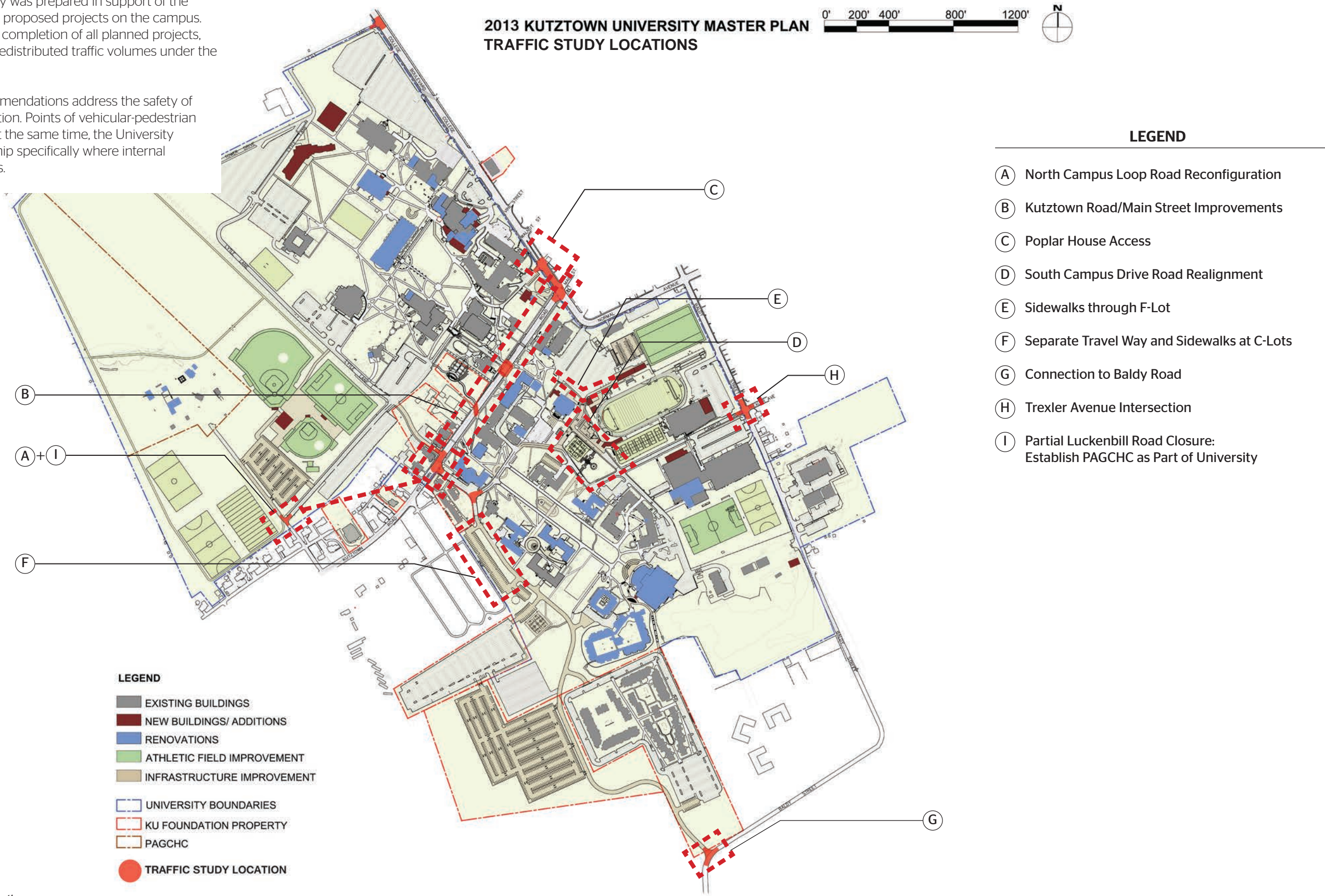


Diagram 3.10.2 - Traffic Study locations

A. North Campus Loop Road Reconfiguration

Currently part of the North Campus Loop Road, the University intends to close Luckenbill Road at North Campus Drive and make the necessary improvements at Schock Driveway to allow traffic on North Campus Drive to exit southbound to Kutztown Road. A previous study conducted to relocate Schock Education House concluded that the relocation would be cost-prohibitive. However, it may be feasible to relocate Schock Driveway from the east side to the west side of Schock Education House, so that Schock Driveway aligns with South Campus Drive, resulting in a four-way intersection.

Whether offset or aligned, the intersection of Kutztown Road and South Campus Drive/Schock Driveway will be improved to include a new traffic signal with universal pedestrian crossing indications and controls. It will be able to communicate with the traffic signals at Schaeffer Lane and College Boulevard to coordinate timing. In addition, turn lanes will be constructed on Kutztown Road where warranted to remove turning vehicles from through traffic.

B. Kutztown Road/Main Street Improvements

A pedestrian-friendly campus is both necessary and desirable, ever more so when a campus traverses a busy main street as Kutztown University does. Pedestrian crossings on Kutztown Road are heavily concentrated with the aid of bollards, chains and landscaping to create two marked crosswalk locations – a mid-block crossing between Old Main and Alumni Plaza, and at the traffic signal at Schaeffer Lane. Currently crossing guards manage the crossings from 7:30 A.M. to 4:00 P.M. every day that classes are in session in Fall and Spring terms. The crossing guards cost a substantial amount of money annually, thus alternative ways to manage pedestrian crossings without the use of crossing guards are desired.

The 4 recommended pedestrian crossing locations on Kutztown Road are:

1. The proposed new traffic signal at the intersection of Kutztown Road and South Campus Drive/Schock Driveway would include the pedestrian universal Walk/Don'tWalk with countdown indications.
2. At the mid-block pedestrian crossing in front of Old Main, a combination of PennDOT approved devices is recommended to replace the existing crossing strategies. The new warning system is proposed to consist of an overhead mast arm with flashing warning lights in conjunction with two-sided wrap around post mounted Rectangular Rapid Flashing Beacon (RRFB) devices on both sides of the road.

Proposed Improvements:

- Vehicular traffic signal upgrades/retiming
- Three-signal coordinated system
- Pedestrian accommodations/upgrades
- Communication with mid-block pedestrian crossing

SIGNALIZATION

PEDESTRIAN CROSSINGS

OFFSET INTERSECTION

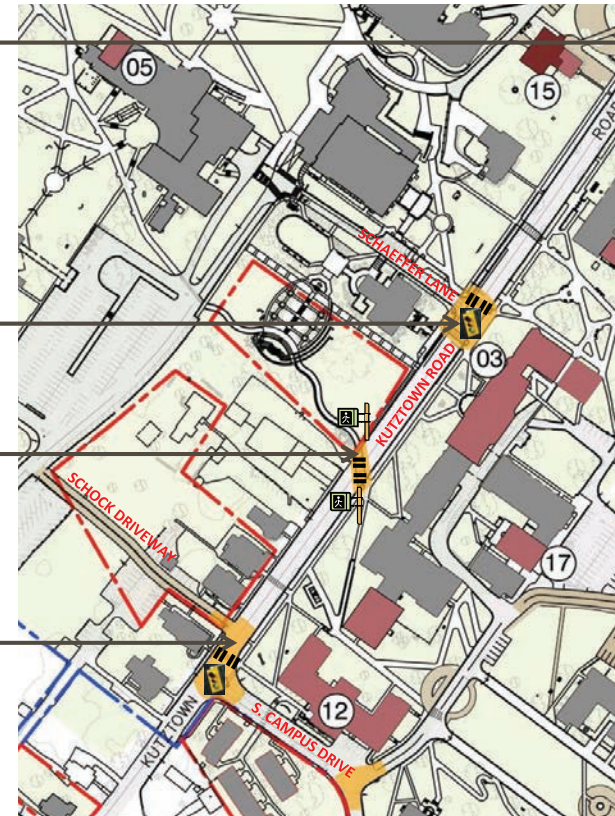


Diagram 3.10.3- Concept for Main Street Improvements (A+B)

3. Kutztown Road and Schaeffer Lane: The existing standard vehicular traffic signal at the intersection is recommended to be upgraded to provide system communication with the adjacent signals at College Blvd./Normal Avenue and South Campus Drive/Schock Driveway.
4. Kutztown Road/West Main Street and College Blvd./Normal Avenue: The existing signalized intersection should be modified to allow for system communications and timing adjustments.

The traffic signals would operate in sync such that progressive movement of vehicular traffic along Kutztown Road is emphasized.



Image 3.10.1 - Mid-block Pedestrian Crossing at Kutztown Road



Image 3.10.2 - Pedestrian crossing at Schaeffer Lane and Kutztown Road

C. Poplar House Access

The plan for establishing a visitor's center in Poplar House includes construction of a 10 stall parking lot that would be accessed from Poplar Lane. The proposed use of the renovated Poplar House is not anticipated to generate significant traffic volumes. It is expected that the security gate prohibiting through traffic on Poplar Lane will remain in place.

The existing eastern terminus of Poplar Lane is configured to limit turning movements to rights in and rights out. Once the Visitor Center is established at Poplar House, this roadway will be revised to allow full access turning movements entering and exiting Poplar Lane. Signage will be installed to indicate that through traffic is not permitted on Poplar Lane.

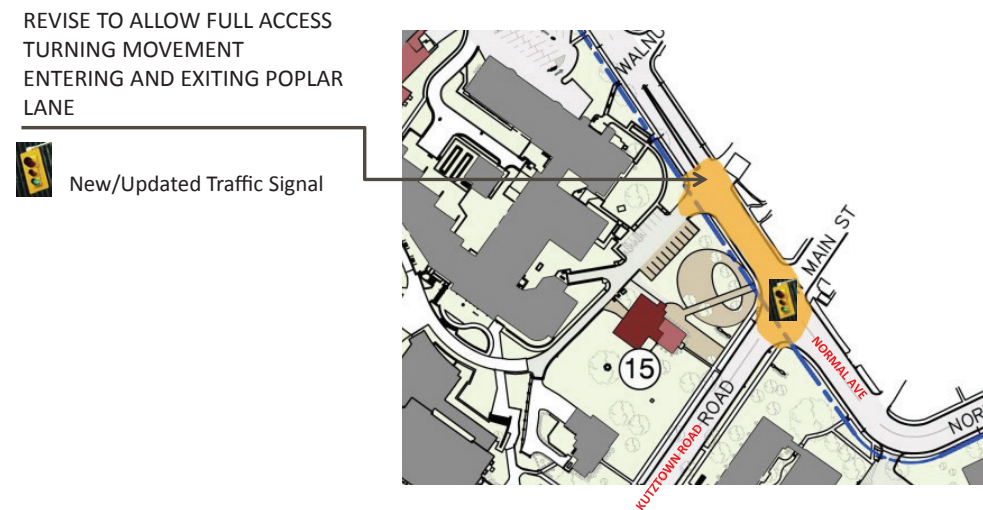


Diagram 3.10.4 - Concept for Vehicular Access to Poplar House Visitor Center (C)



Image 3.10.3 - Kutztown Road and Poplar Lane, facing north

D. South Campus Drive Road Realignment

South Campus Drive currently routes through two parking lots : F-3 and F-4 and comprises multiple quick bends as it maneuvers around lot F-3. There is added confusion with two roadways that connect the north and south portion of South Campus Drive. One portion runs along the east side of the basketball courts to F-4 while the other runs along the west side of the basketball court and connects to F-3. Compounding the issue, traffic from the F-1 lot is able to connect to South Campus Drive via a small access road which flows from F-1 into F-4. At all three lots, there is no sidewalk to separate pedestrians from vehicular traffic.

To improve both pedestrian and automobile safety, South Campus Drive will be realigned to eliminate these blind curves. F-4 parking lot will be converted into a pedestrian-only event plaza in support of the new Stadium gateway. The connecting roadway from F-1 into F-4 will be converted into a limited access lane for emergency vehicles only. Any campus traffic moving through this area will be channeled from around the west side of the basketball courts.

E. Sidewalks through F-Lot

There is insufficient separation of pedestrian and vehicular traffic between the residence halls and Main Street/Kutztown Road. It was observed that students cut through the parking lots F1, F3 and F4 to get to classes on North Campus and this creates a dangerous setting. In order to prevent the risk of pedestrian-vehicular accidents, continuous sidewalks will be constructed for safe transport.

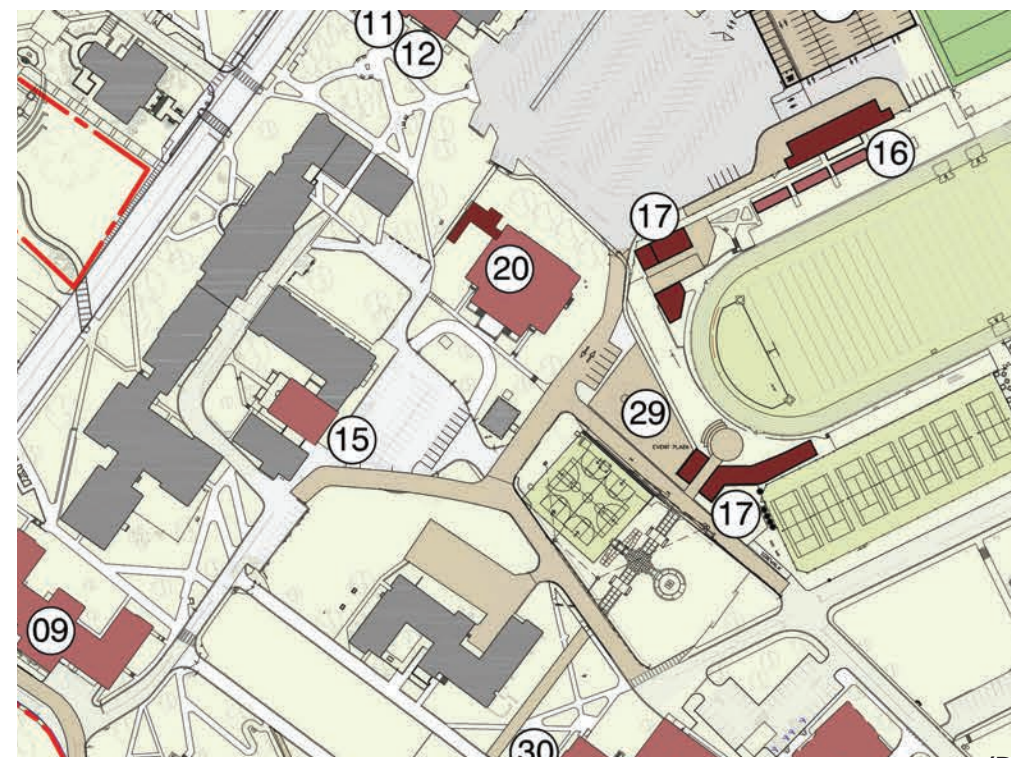


Diagram 3.10.5 - Concept for South Campus Drive Realignment and Pedestrian Sidewalks (D)



Image 3.10.4 - F-4 Lot pedestrian and vehicular traffic conflict

F. Separate Travel Way and Sidewalks at C-Lots

A similar condition occurs at C-Lot parking west of the residence halls. There is no dedicated sidewalk for pedestrians and as a result they are at risk of being struck by motorists maneuvering through the parking lot. The University put forward a plan in 2010 for a separate travelway, reconfiguration of the C-Lot, relocated parking and a connecting road to Baldy Street. It is desired to revive this proposal. A separate travelway is the most crucial element.

G. Connection to Baldy Road

There is significant congestion within the Residential Village during move-in and move-out days caused by heightened traffic volumes. During this time, the Township permits direct access to Baldy Road from South Campus Drive. It would be beneficial to maintain direct access year round to relieve traffic at the intersection of Kutztown Road and South Campus Drive. To alleviate congestion, the University will create a permanent access road from Golden Bear Village South to Baldy Road. This will serve to provide a secondary means of egress from South Campus.

H. Trexler Avenue Intersection

Improvements to the intersection of Baldy Street and South Campus Drive/Trexler Avenue were considered to address the crash history and the projected future level of service on the South Campus Drive approach. The condition of all-way stop control was analyzed which involves installing stop signs on Baldy Street northbound and southbound at the intersection. The establishment of an all-way stop control would provide for acceptable levels of service for all movements and the overall intersection under future post-development conditions.

I. Partial Luckenbill Road Closure: Establish PAGCHC as Part of University

There is a disconnect between the PAGCHC and the University. Visitors arriving by vehicular transport presently approach the site via Luckenbill Road which intersects a residential area and bypasses the campus. To establish PAGCHC as part of the University, Luckenbill Road's connection to Kutztown Road will be closed off except for access to the residential area. Vehicular circulation from PAGCHC will be redirected to North Campus Drive and flow out to Kutztown Road through Schock Driveway as part of a comprehensive traffic reconfiguration plan (see section 3.10 Traffic)

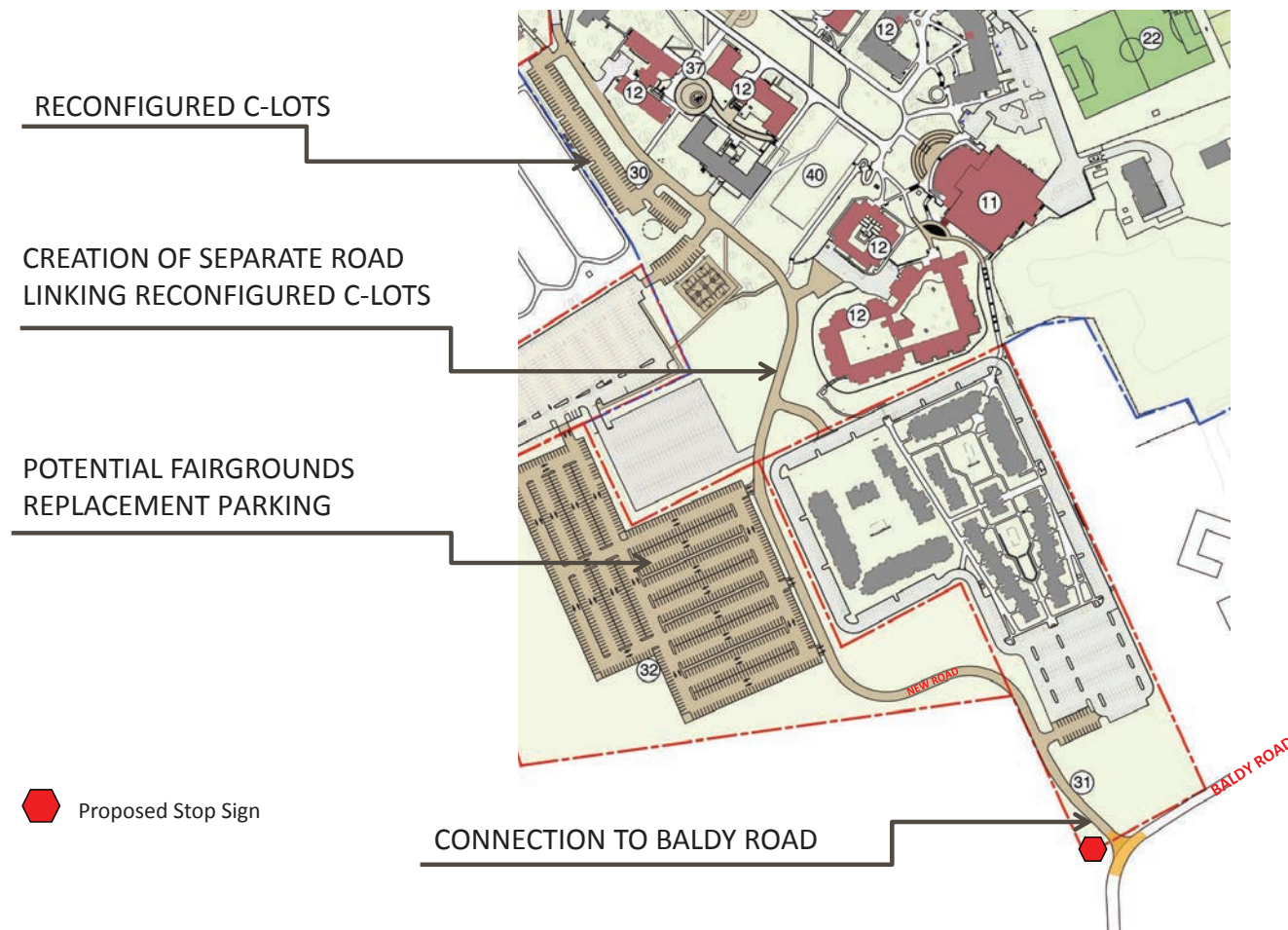


Diagram 3.10.6 - Concept for C-Lot Reconfiguration and South Campus Access to Baldy Road (F + G)

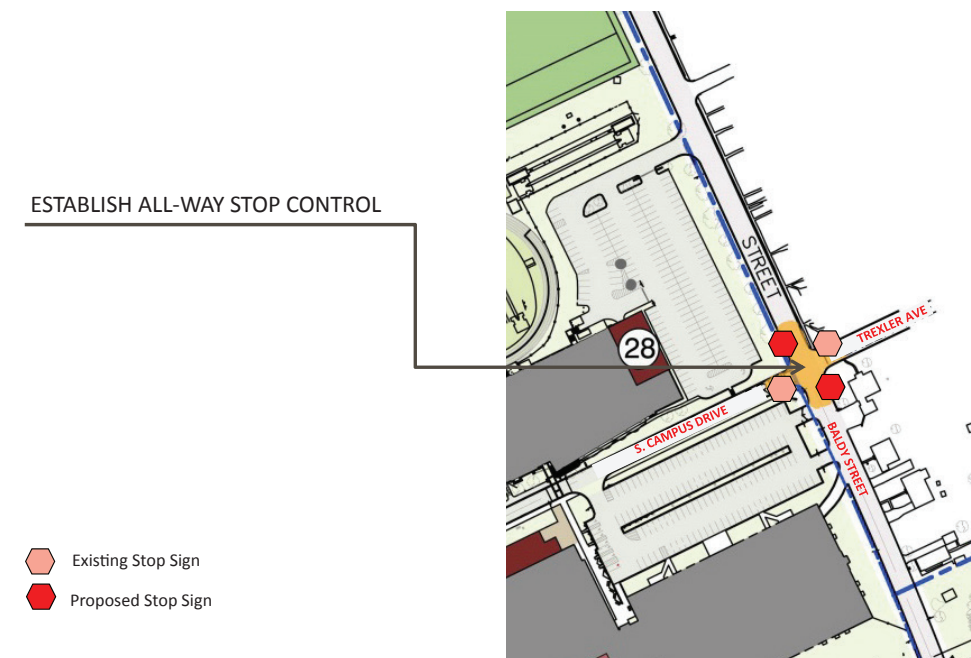


Diagram 3.10.7 - Concept for Trexler Avenue Intersection (H)



Image 3.10.5 - Luckenbill Road and North Campus Drive, facing north

3.11 PARKING

Kutztown University provides parking for faculty, staff, commuter students, resident students and campus visitors. Parking facilities are located primarily at the campus perimeter to maintain a safe and pedestrian-friendly campus. This organization also permits easy access by vehicles traveling to the campus or along the internal road system to access specific facilities. Parking facilities are designed with the intent of eliminating or minimizing the interface between vehicles and pedestrians.

Since the 2000 Campus Master Plan was adopted, all major parking areas internal to north campus have been relocated to the perimeter and the greater portion of the Loop Road (ie. Lytle Lane) has been constructed. These actions have resulted in the elimination of most points of undesired pedestrian/vehicular interface. This recommendation has been validated and carried forward in each subsequent update of the Campus Master Plan and is an objective to be met by each new design/construction project.

A detailed study of parking supply and management was conducted in 2009 as part of Traffic, Circulation and Parking Master Plan. Many of the goals and recommendations from that report are still valid and are carried over in this Update.

The following is a summary of potential parking planning and design improvements considered for the 2013 Campus Master Plan Update .

Overall goals from a parking perspective:

- Provide a more walkable campus inner core with parking on the perimeter
- Maximize parking efficiencies and space counts on existing surface lots
- Minimize congestion and pedestrian/vehicular conflicts within the campus
- Provide option for potential Fairgrounds parking replacement

Context

- The northern portion of the campus (above Kutztown Road) is considered the “day” campus and the heart of academic life where students attend classes, study, and meet. The southern portion is considered the “evening” campus and is the nucleus of student life. It is comprised of residence halls, South Dining Hall, athletic facilities, the Student Recreation Center and much more. This separation has been maintained at the request of the students to provide a sense of “going home” at the end of the day.
- The intent is to support a parking plan consistent with the master plan that ultimately provides commuter parking on the north campus and a more long-term parking scenario on the south campus, due to the residence halls.
- The University desires to have a friendly, walkable inner core, while maintaining parking on the perimeter of the campus. Based on the size of the campus walking distances and the segregation of the north and south boundaries, this appears to be achievable.
- The Fairgrounds lot, primarily a commuter lot, yields approximately 1,000 spaces, for which the University currently is under lease. This lot is unpaved and historically has had flooding issues a few times each year. There are also annual costs related to the lease and continued maintenance which is borne by the University.
- It is understood that 1st year students may have cars on campus, but the location of the parking is regulated.
- Event parking does not present a challenge at this time as the University employs a shuttle bus system that alleviates any parking constraint.
- There is desire for more visitor parking by the Admissions and Stratton Administration Buildings.
- There is an unfounded perception of a lack of parking spaces for faculty and students.



Image 3.11.1- C1-Lot Traffic and Pedestrian conflict



Image 3.11.2 - Fairgrounds parking lot



Image 3.11.3 - F4-Lot

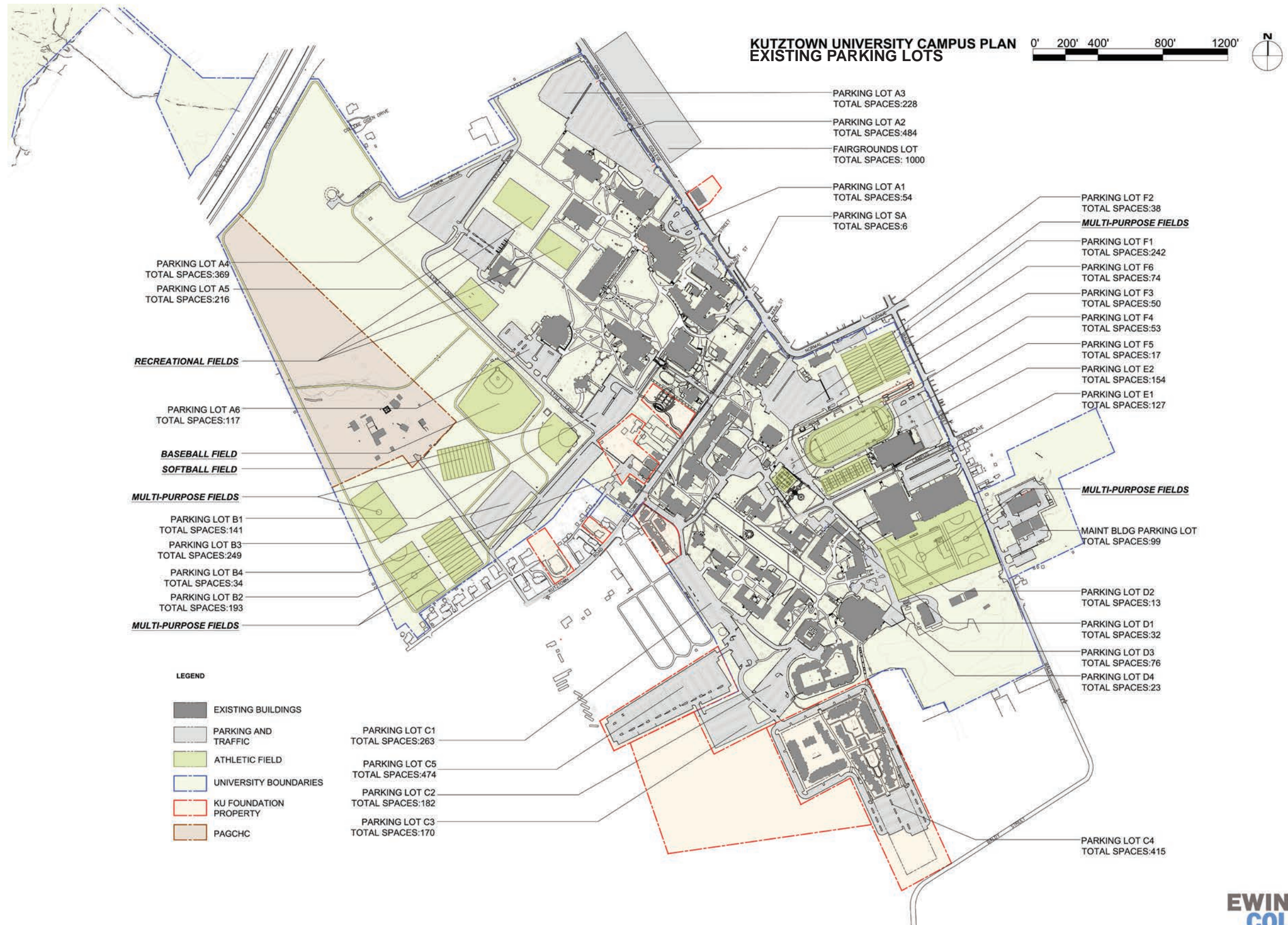


Diagram 3.10.1 - Existing Parking Lots

Maintain existing parking counts

At the time of the 2009 Study, it was determined that the existing parking supply of 5,734 spaces can accommodate a combined student, faculty and staff population of 12,513 before any additional parking facilities are required - this number included a student enrollment of 10,295. Since that time, the student population has decreased, therefore until enrollment increases in the future, it is recommended that the University maintain its existing parking count.

Lot ‘C1’ Configuration

Reconfigure Lot C1 to separate through traffic from the parking area. The existing C1 parking lot is configured such that the parking area is also the main vehicular access to the residence halls. Separating the two user groups into a distinct parking lot with access points from a separate travelway will create safer conditions for both motorists trying to maneuver in and out of parking spaces and through vehicular traffic .

Fairgrounds - Potential Replacement

With an understanding of the cost and maintenance required at the Fairgrounds parking lot, the University will need to evaluate its future lease of the Fairgrounds. In the event that either party decides to terminate the lease, replacement parking must be allocated. To this end, two (2) phased surface lots are designated to the south of existing lots ‘C-1’, ‘C-2’, ‘C-3’, and ‘C-5’. The proposed project site is currently open land and is located to the west of the Golden Bear Village South. It will be able to accommodate 1000 spaces and will be connected to North Campus via shuttle bus service.

Lot ‘F-4’ Pedestrian Plaza

Convert the existing triangular shaped parking lot into a pedestrian plaza for event use. There will be emergency vehicle parking and a limited access drive separating the plaza from the basketball courts. Currently this lot has 53 stalls and is located to the west of the Kutztown University Stadium.

Lot ‘F-6’ Parking Deck

Provide structured parking on Lot F6, the eastern portion of Lot ‘F-1’. This is currently an existing parking lot with 74 stalls located to the north of the Kutztown University Stadium. The new parking deck will be a replacement for lot F4.

Lot ‘B-2’ Baseball Lot

Provide for a reconfiguration of existing Lot ‘B-2’ to accommodate the relocation of the adjacent softball field and addition of a multi-purpose field. The lot is located at the corner of Luckenbill Road and North Campus Drive. This existing lot currently has 249 parking spaces and will be reoriented in a north-south alignment while maintaining its parking count.

Maximize Parking Efficiencies

The existing surface lots are delineated with 10’x20’ parking spaces. In 2012, the Township provided for a campus overlay which allows the University to reduce the size of a portion of parking spaces designated for student residents to 9’x18’. The University should consider implementing this strategy to maximize parking efficiencies as needed.

Visitor Parking

Additional short-term visitor parking will be provided when the Visitor Center is constructed at Poplar House. These new parking spaces will be located on the south side of Poplar Lane between Poplar House and College Boulevard.

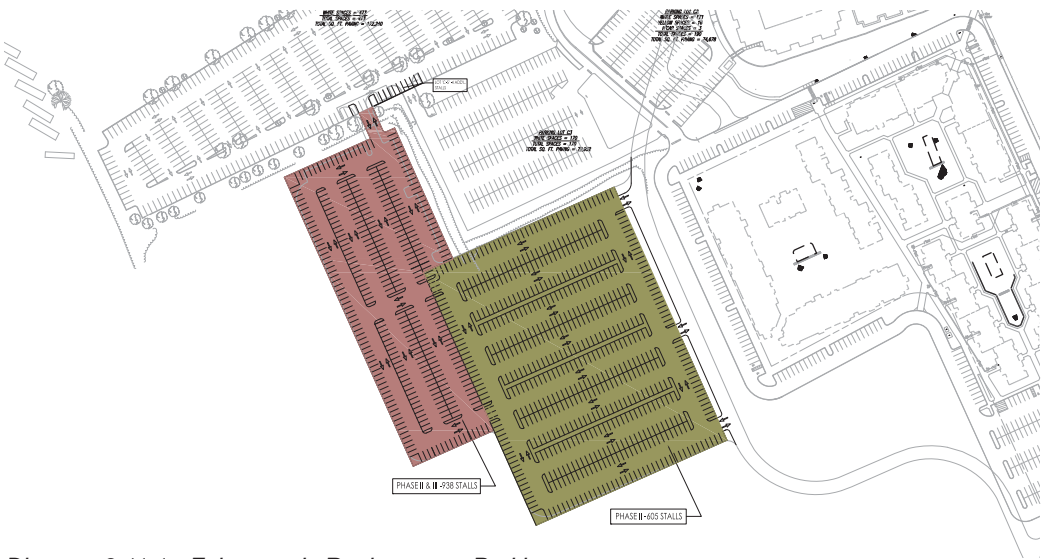


Diagram 3.11.1 - Fairgrounds Replacement Parking



Diagram 3.11.2 - Parking Deck at F-6 Lot, connecting to Lot F-1

3.12 LANDSCAPE

The landscape is an important part of the Kutztown University campus. Because it is the connective tissue that ties every aspect of the campus together, it affects and is affected by decisions made to the campus buildings, athletics and recreation, stormwater management, and vehicular circulation and parking.

The biggest landscape projects since the 2006 Update are the new basketball courts and Golden Bear Plaza by the stadium. At the same time, a few special interest master plans have been developed that directly affect the main Master Plan including the Heritage Tree and Landscape Master Plan (HTLMP) produced in 2011 by Kling Stubbins and Morris Arboretum.

This plan provides a thorough assessment of the university's collection of trees and helps define the character of the campus spaces and landscapes. It organizes the campus into identifying districts and outlines a number of landscape improvements. This plan is valid and viable and continues to be implemented by the University. In this Master Plan Update, we have incorporated most of the major projects with modifications and revisions where applicable.



Diagram 3.12.1 - Overall Landscape Plan

South West District

1. Basketball Courts - To the west of University Place we propose the construction of new basketball courts. These would be placed within the current parking lot and will require very little regrading. The resulting area to the south of the basketball courts is an ideal location for a large detention basin. This basin would manage water coming from the parking lots and the road to the south. It would be planted with hydric (wet) and mesic (transitional slope) plantings. Native plantings of wildflowers and grasses in the basin would serve a dual function as erosion control and visual interest.

2. Informal Recreation Lawn - When the Johnson Dorm building is removed, the resulting area will be large and flat. We propose the installation of a recreation lawn as an interim condition to keep this area flexible as a potential building site. Dedicated courts, like volleyball or badminton, could occupy a portion of the space, or it could be left open for Frisbee and touch football. The slope up to the access road and up to the Tri-County Courtyard would be planted with a mixture of low maintenance groundcovers and ornamental grasses. Additionally, an irrigation system consisting of a hose bib would be installed for watering purposes. GFCI outlets and light poles would be installed around the lawn for nighttime use and access.

3. Dining Hall Entry Plaza at Upper Level - The entry plaza will be redesigned to have a larger paved area than currently proposed and will be surrounded by ornamental plantings. The retaining wall, needed to maintain the slope from the University Place walk, could also act a backdrop to frame the planting area. This plaza would announce the entrance to the Dining Hall and allow for students to gather during fair weather and at meal times.

4. Amphitheater at Dining Hall - Currently, the DMZ terminates with a staircase and an extensive ramp system with handrails. The HTLMP proposes placing an amphitheater on the south lawn of the DMZ just north of this ramp and stairs. Our plan suggests moving the proposed amphitheater south, closer to the entrance of the Dining Hall. It can function as grand entry for the reimagined Dining Hall, the proposed living room of the campus. Furthermore, it can be used as a performance space and as additional seating. The amphitheater will replace the existing stairs and ramp with a sloped walk starting at the back of the amphitheater. According to the existing spot elevations shown on the base plan, this walk can be at a 4.9% slope and will not require handrails. The walls of the amphitheater will be at 18", a comfortable seat height. The proposed amphitheater will fit into the existing walls and stairs on the southwest side of the Dining Hall. Additional planting is proposed for the slopes to prevent cow paths.

5. Tri-County Courtyard - The proposed design for the Tri-County courtyard is slightly revised to accommodate a terminus to the proposed Student Walk from Athletics to the DMZ. This will help ensure continuity from the circulation from one area to another.



Diagram 3.12.2 - South West District Landscape Plan

South East District

6. DMZ Garden - We recommend expanding the existing garden around the fountain to extend and terminate just beyond the student walk. Surrounding the garden would be a mixture of flowering and evergreen shrubs, perennials, and groundcovers. Benches would line the walkways that frame a central lawn. The south side of the garden can offer a more intimate seating option.

7. Student Walk from Athletics to DMZ - Our Plan aims to complete the walk proposed in the HTLMP. The pattern from the walk will be continued in the plaza south of the basketball courts. Lined with trees, the Walk continues through the DMZ and terminates in the Tri-County Courtyard.

8. Planting on outside of DMZ walks - KU has started lining the outer walks with a variety of trees. We recommend underplanting the trees with a variety of low maintenance groundcovers and low shrubs. The planting will reduce the detail mowing required around the trees and at the curbs and walks. Additionally, it will help frame the beautiful DMZ lawn, setting it apart from the rest of the area.

9. Plaza/Planting at the north side of the DMZ - The proposed plan drawn in the HTLMP will provide the DMZ with a visual terminus and help reorganize the paths on the other side of the DMZ. The plan consists of a wider semi-circle on the north side to capture the multiple paths. This is surrounded by flowering trees and has a plant bed in the center. The south side paving is expanded slightly to allow for a place to pause, or to take photos.

10. Stadium Plaza - Reducing parking in this area allows space for an event plaza to the north of the proposed ticketing and concessions buildings at the entry to the Stadium. The plaza will need to be terraced with stairs and ramps. There is a generous plant bed proposed around the existing London Plane trees and a screening plant bed along the existing Stadium fence. The area to the south will be designed to provide entrance to the Tennis courts and will also provide access for police, ambulance, and concession supply vehicles

11. Risley - The southwest side of Risley can be reconfigured to be a pedestrian entry plaza lined with low ornamental planting to showcase the restored façade of the building. The northwest side of Risley can be a formal terrace surrounded by a garden. The terrace can be used as a picnic area during game days and can accommodate the passage of football players on their way to and from the Stadium.

12. Stadium Parking Lot - The asphalt in the parking lot could be cut back to allow for a sidewalk along the driveway and both a sidewalk and planting in front of the proposed Press Box.



Diagram 3.12.3 - South East District Landscape Plan

North East District

13. Visitor Center Garden – This proposed design would provide a more intimate garden at the proposed Visitor Center. The garden frames the view from Kutztown Road/Main Street, through the garden to the Visitor's Center. The center will be an oval lawn, surrounded by benches, and low plantings that will provide seasonal interest.

14. Library Quad – To reduce redundant paths, we have modified the circulation system to connect Sharadin Arts Building with the Library. We propose the removal of the arced path south and the diagonal path to the north east of the grove. With the addition of a new diagonal path from Sharadin, we feel these paths are not needed.

15. Student Union Expansion and Library Entrance – We recommend the regrading the existing path in order to eliminate the stairs and ramps to the Student Union entrance and replace these with a sloped walk. A low retaining wall and planted area will be needed to the west of the walk to mitigate slope. A large entry plaza will be created for the renovated Student Union Building. The entry to the Library from this direction can be modified to create a more comfortable and inviting seating area. The part of the retaining wall facing the Student Union can come down, and planting can be used to define casual seating areas.

16. Outdoor Student Classroom – An amphitheater north west of the Library will provide outdoor classroom space in close proximity to the academic buildings and the library. It can also function as small performance space.

17. Define the quad – New canopy trees have recently been planted along the walk from Beekey to Lytle. This is a good start to redefining the Quad space north of the Library. This planting strategy should continue on the southwest side of the quad. The canopy trees could also be underplanted with a low maintenance groundcover. On the south side of the quad, the plant bed cover could be thicker, with a mixture of small evergreen and flowering trees, shrubs and groundcover.

18. Lytle Hall – We see an opportunity to design a new entrance into the building to create a connection to the parking lot to the north. The entry plaza will be larger, incorporating valuable existing oak trees and allowing more light into the building than what currently exists. This will alleviate the growth of moss on the north east face of the building and create an inviting forecourt.



Diagram 3.12.4 - North East District Landscape Plan

North West District

19. Athletic Fields – Most of the recommendations from the 2008 Athletics and Recreation Master Plan for this area are still valid and will be carried forward in this Update. The baseball and softball fields along with a new soccer/lacrosse field will be reconfigured around a central plaza and North Athletic District Building. The central plaza will be enhanced with potential planting and seating.

General Comments

It was our observation that there is an overabundance of lawn around the campus. It is beautiful and immaculately well maintained, but we understand that maintenance is a concern. We would like to suggest replacing the lawn where appropriate to alleviate the amount of mowing required. This can be done in a systematic approach, with the following categories of replacement:

Wildflower/Native Grass -At the outskirts of campus in areas beyond the parking lots where the lawn is not used for recreation or event parking, a wildflower and native grass meadow would be appropriate. These would need to be mowed once every 1.5 years, alternating between spring and fall. The idea behind the meadows is that they self-seed. They also attract native wildlife, such as birds, bees, and butterflies.

Stormwater Plantings - Any detention basins or water channels, that aren't currently used for informal recreation areas, can be planted with appropriate basin bottom and basin slope plants.

The Transition Zone - Between the wilder looking meadow/stormwater plantings and the manicured lawn could be a mixture of techniques depending on the location. In parking lots, any smaller island or area separating the parking from the driveway, could be planted with low maintenance groundcover. Liriope seems to be a successful evergreen groundcover for the campus. Plants such as creeping juniper and bearberry (arctostaphylos uva-ursi) provide alternatives to liriope that are also low evergreen groundcovers that tolerate heat and little maintenance. Larger areas such as those areas between Lehigh and the parking lot could be planted with a monoculture meadow, a native grass such as Carex pennsylvanica or Sporobolus heterolepis.



Diagram 3.12.5 - North West District Landscape Plan



Image 3.12.1 - Monoculture Meadow

3.13 STORMWATER

General

The surface drainage of the Kutztown University campus is divided into three major watersheds:

- **The North Watershed** (see Diagram 3.13.1) is on the University's North Campus (north of Kutztown Road). It is roughly defined on its west boundary by the east side of the Schaeffer Auditorium and the east end of the Rohrbach Library; The east boundary is College Boulevard. This watershed drains primary easterly toward College Boulevard where runoff is then discharged into the storm drainage system of the Borough of Kutztown.
- **The West Watershed** (see Diagram 3.13.1) is on the North Campus and is roughly defined by all areas west of and including the Rohrbach Library. This watershed drains predominant westerly and empties into the existing wetlands north of the German Heritage Center.

- **The South Watershed** (see Diagram 3.13.4) encompasses almost the entire South Campus which collects into two 36" drain pipes drains south of Keystone Hall which then discharges into the storm drainage system of the Borough of Kutztown. Golden Bear Village South and the Heat Plant drain into the quarry that is south of the Heat Plant.

NORTH CAMPUS

The storm drainage and stormwater management systems on the North Campus were analyzed by review of past reports, site reconnaissance and various meetings with the Kutztown University staff to determine its adequacy for controlling storm runoff and to determine the overall age of the system. Stormwater management systems were also reviewed for their capacity to accommodate future development as identified in this Master Plan Update.

The condition of the storm drainage system on the North Campus is good. It is composed of precast concrete inlets, manholes, and primarily Reinforced Concrete Pipe (RCP), which is quite durable. The Army Corp of Engineers suggests a design life of 70-100 years for precast concrete pipe, and there are countless examples of installations that surpass those numbers. Existing storm detention basins and/or rain gardens that collect local surface runoff exist on campus at (see Diagram 3.13.3):

1. The northwest corner of Beekey Education Center;
2. The southeast corner of Rickenbach Learning Center;
3. North of the Rohrbach Library;
4. The circular drainage area/garden east of the Grim Science Building;
5. A basin southeast of the Armory;
6. A large basin north of the athletic fields;
7. A large, bermed detention area south of Lytle Hall that has been sized to accommodate future runoff from North Campus impervious improvements.

Recommendations

While storm water management is generally good on the North Campus, improvements to localized surface runoff problems can occur during future renovation projects or as small projects of their own. These problem areas have trapped surface drainage that runs on major sidewalks between buildings and are causing on-going maintenance and safety issues.

These areas of concern are:

- Along the entire east side of Sharadin Art Building, which flows northward toward the Student Union were it floods planting areas and walkways.
- Between Schaeffer Auditorium and Alumni Plaza, resulting in flooding at the Boehm Science Building
- North of Boehm Science where runoff flows toward The Academic Forum causing flooding issues at the various pedestrian walkways associated with the busy student hub.

Since major re-grading of these areas to control surface flow is limited due to the existing building and utility infrastructure on campus, it is recommended that additional storm drains be placed in critical locations (and connected to the existing storm pipe in the area) to control the run off.

More intensive project improvements on the North Campus can reduce stormwater runoff. Implementation of some of these recommendations can occur at any time when conditions dictate while others will require detailed design in accordance with all current regulations at the time of the major disturbance. Stormwater management improvement recommendations for the North Campus are:

1. Swale to Direct Armory Runoff into Existing Basin

Concentrated runoff from the nearby Armory paved parking areas drains into Lytle Lane and Parking Lot A4. The design of a natural grass swale located between Lytle Lane and the University's parking lot would intercept this overland flow and direct it toward the existing detention area. Swale would be graded to still be able to be easily mowed. This improvement needs to be implemented as soon as possible as the runoff from the Armory paving is causing flooding concerns toward Lytle Hall and general safety concerns within the University's parking lots during heavy surface flows. It should be included in the 0-2 Year Campus Plan.

2. College Boulevard Rain Gardens

The leased Fairgrounds Parking Area has frequent flooding issues. The installation of vegetated rain gardens/bioswales located in the landscape strip between Parking Lots A2/A3 and College Boulevard would intercept a majority of the parking lot surface runoff from these large parking areas. This would allow it to infiltrate back into the sub soil (dependent upon the soil characteristics) and/or slow the release rate of the water into the municipal storm system. This would also greatly reduce the surface runoff onto the nearby Fairgrounds and will substantially help alleviate flooding in this area.

Another benefit of rain gardens/bioswales are the benefits to the runoff's water quality. Vegetated rain gardens will typically remove 85% of Total Suspended Solids (TSS), 85% of total phosphorus and 30% of total nitrates from the water that they collect, thereby improving the downstream water quality tremendously. Based on the following preliminary design assumptions, the rain gardens could capture and control the release of the following design storms:

<u>10-Year Storm</u>	<u>25-Year Storm</u>
Typical width: 10'	Typical width: 10'
Overall accumulated length: 400'	Overall accumulated length: 400'
Area of freeboard water storage: 12"	Area of freeboard water storage: 12"
Topsoil depth (for plant growth): 18"	Topsoil depth: 18"
Aggregate depth (40% void space): 3'-0"	Aggregate depth : 4'-0"
Storage Amount: 0.75 acre/feet	Storage Amount: 0.84 acre/feet
Runoff Amount: 19.0 CFS	Runoff Amount: 24.0 CFS

These rain gardens/bioswales can be implemented at any time when the money is available and is not critical at this time but should be included in the 3-5 Year phasing plan.

3. The Academic Forum Rain Gardens

Concentrated storm runoff from The Academic Forum parking lots increases the storm impact on the North Campus. Introduction of vegetated rain gardens/bioswales located in the landscape strip between Parking Lot A6 and Lytle Lane west of the Academic Forum can reduce this impact. The design would be coordinated with trees to remain. The rain gardens/ bioswales would intercept a majority of the parking lot surface runoff and allow it to infiltrate back into the sub soil (dependent upon the soil characteristics) and/or slow the release rate of the water into the municipal storm system. This would slow down the release rate of water into the detention pond across Lytle Lane that now receives this runoff through a conventional storm pipe system. This may be important in the future, as the proposed North Athletic Fields re-design also places more storm load into this existing basin.

These rain gardens/bioswales would also have the benefits of TSS, phosphorus and nitrate reductions mentioned previously. Based on the following preliminary design assumptions, the rain gardens could capture and control the release of the following design storms:

<u>10-Year Storm</u>	<u>25-Year Storm</u>
Typical width: 10'	Typical width: 10'
Overall accumulated length: 200'	Overall accumulated length: 200'
Area of freeboard water storage: 0"	Area of freeboard water storage: 0"
Topsoil depth (for plant growth): 18"	Topsoil depth: 18"
Aggregate depth (40% void space): 2'-0"	Aggregate depth: 3'-0"
Storage Amount: 0.19 acre/feet	Storage Amount: 0.21 acre/feet
Runoff Amount: 4.78 CFS	Runoff Amount: 5.88 CFS

These rain gardens/bioswales can be implemented at any time when the money is available and is not critical at this time but should be included in the 3-5 Year phasing plan.

4. Expansion of the North Athletic Field Detention Basin

The re-orientation and redesign of the North Athletic Fields, the addition of the new Multi-Purpose Field and redesigned paved parking will have a major impact on the stormwater management of the North Campus. Improved surface drainage design, artificial turf surfaces, fields' underdrainage systems, and improved parking areas will all increase the runoff from these areas. The existing detention basin west of Lytle Lane would need to be expanded and sized in accordance with the current stormwater management regulations at that time to maximize water storage in the open basin, which is the most cost effective way of achieving the required water quantity storage. Accommodation of water quality requirements within the current regulations may be accomplished through the addition of small rain gardens or vegetated swales that carry the runoff to the basin. A new detention basin/rain garden/bioswale northwest of the Pennsylvania German Cultural Heritage Center can collect the runoff from the new paved parking areas and Softball Field. This will also protect the existing wetlands from erosion and accumulation of pollutants.

Any stormwater design of this area must take into account the recommendations within the Master Plan of the Pennsylvania German Cultural Heritage Center, dated March 2012.

Implementation of these improvements must occur when the Athletic Fields project is undertaken and should be included in the 11-20 Year phasing plan.

5. Provide New Stormwater Laterals to Proposed Development

Most of the Master Plan Update recommendations are for facility renovations and upgrades, which require little additional storm system infrastructure. The construction of the proposed NCAB and Multi-Purpose/Conference Facility will require a new stormwater system connecting with the existing bermed detention facility already sized to accommodate this development. The re-orientation of the North Athletic Fields and revised parking will have a large impact on the stormwater management of the campus west of Lytle Lane. Detailed study of the capacity of the existing detention basin and design for its expansion will be required.

6. Develop New Detention Basin to Accept Runoff from the Proposed Athletic Facilities and Parking

New athletic facilities, and especially the associated proposed parking, will generate additional runoff that must be accommodated.

Conclusions:

The University's proactive planning for development on the North Campus by the creation of multiple stormwater management facilities has positioned this area well for the future planned expansions and new buildings. Small improvement projects can improve the vehicular and pedestrian safety and maintenance load on the campus. Implementation of major stormwater management projects will need to correspond with proposed, large projects, such as the Athletic Fields improvements and the construction of the NCAB and Multi-Purpose/Conference Facility. The continued design with durable stormwater system components will ensure the longevity of the North Campus storm system with minimal life-cycle costs.

SOUTH CAMPUS

In a similar fashion as the North Campus, the storm drainage and stormwater management systems on the South Campus were analyzed to determine their adequacy for controlling storm runoff and to determine the overall age of the system. Stormwater management systems were also reviewed for their capacity to accommodate future development as identified in this Master Plan.

The condition of much of the "identified" storm drainage system on the South Campus is primarily good, since it composed of durable precast concrete inlets, manholes, and Reinforced Concrete Pipe (RCP). Much of the condition of the storm system is unconfirmed. There is very little actual stormwater management taking place, as the only existing storm detention basins that collect local surface runoff is the bermed detention area within the athletic fields south of Keystone Fieldhouse. Inadequately sized piping carries most of the stormwater collected on the South Campus. It is recommended that all storm pipe condition and size be analyzed and documented to better understand the stormwater runoff today and to better accommodate future development.

Recommendations

Stormwater management is generally poor on the South Campus. Many areas with localized flooding create safety and maintenance issues that require improvement during future renovation projects or updating as small projects of their own. These problem areas have trapped surface drainage that runs on major sidewalks and between buildings and are causing on-going maintenance and safety issues. Since major re-grading of these areas to control surface flow is limited due to the existing building and utility infrastructure on campus, placement of additional storm drains in critical locations can intercept surface flows. These inlets can be connected to the existing storm pipe in the area if additional capacity exists or can possibly be routed to small bioswales created in the area. These areas of concern are (see Diagram 3.13.4):

1. Surface drainage misses most of the inlets at the west end of Old Main resulting in flooding and icing conditions at the doorways and steps.
2. Surface runoff north of the Heat Plant flows into a major steam manhole.
3. Surface runoff east of Beck, Deatrick and Dixon Halls creates flooding and safety issues at sidewalks and loading docks.
4. A lack of inlets in the east side of the DMZ creates flooding hazards at the South Dining Hall; inadequate inlets and stormwater management at north side of the Dining Hall exacerbate this.
5. Flooding at University Place, which is located in a low spot with inadequate storm drainage, is exacerbated by runoff from parking lots west of the building. Additionally, the underground detention systems at these parking areas may be leaching from underground and contributing to flooding at University Place.

More intensive project improvements on the South Campus can reduce stormwater runoff. Implementation of some of these recommendations can occur at any time when conditions dictate while others will require detailed design in accordance with all current regulations at the time of the major disturbance. Unfortunately, the South Campus has much less open space than the North Campus to develop large detention facilities. Stormwater management improvement recommendations for the South Campus are:

1. Increase Stormwater Management Capacity at New Multi-Purpose Synthetic Field

The proposed artificial turf field can be designed to store South Campus runoff within the aggregate base of the field to improve stormwater management capacity. Implementation of this improvement would occur during the construction of the new synthetic field,

2. Construct a Stormwater Management Facility West of University Place

The construction a new rain garden/basin/bioswale west of University Place would reduce much of the flow that causes the current flooding around the building. Investigate and repair and/or redesign existing underground detention facility at parking lot to reduce flows toward University Place. The largest nearby parking lot that is contributing runoff toward University Place, Parking Lot C5, is owned by the Kutztown University Foundation but maintained by the University; this lot's runoff is drained into the campus stormwater management system.

3. Provide Detention Facilities at Replacement Parking

If replacement parking is constructed on the South Campus, new detention facilities to the west and south can be designed to accept surface flow, thereby reducing storm system infrastructure costs and improving water quality and groundwater recharge.

4. Provide New Stormwater Laterals to Proposed Development

Most of the Master Plan Update recommendations are for facility renovations and upgrades, which require little additional storm system infrastructure. However, the construction of the Fairgrounds Replacement Parking west of Golden Bear Village South will require a detailed stormwater management study and design.

Conclusions:

The South Campus has many stormwater management challenges to rectify. Many localized drainage issues and flooding occur throughout a majority of this campus requiring additional stormwater system design and implementation. Small improvement projects will improve vehicular and pedestrian safety and reduce the maintenance load on the campus.

As future stormwater management is required due to development and renovation, an analysis/study of the existing double 36" storm pipes that collect a majority the South Campus is needed to determine their condition and capacity.

NORTH CAMPUS - EXISTING
STORMWATER MANAGEMENT PLAN

• PRIMARY WATERSHEDS

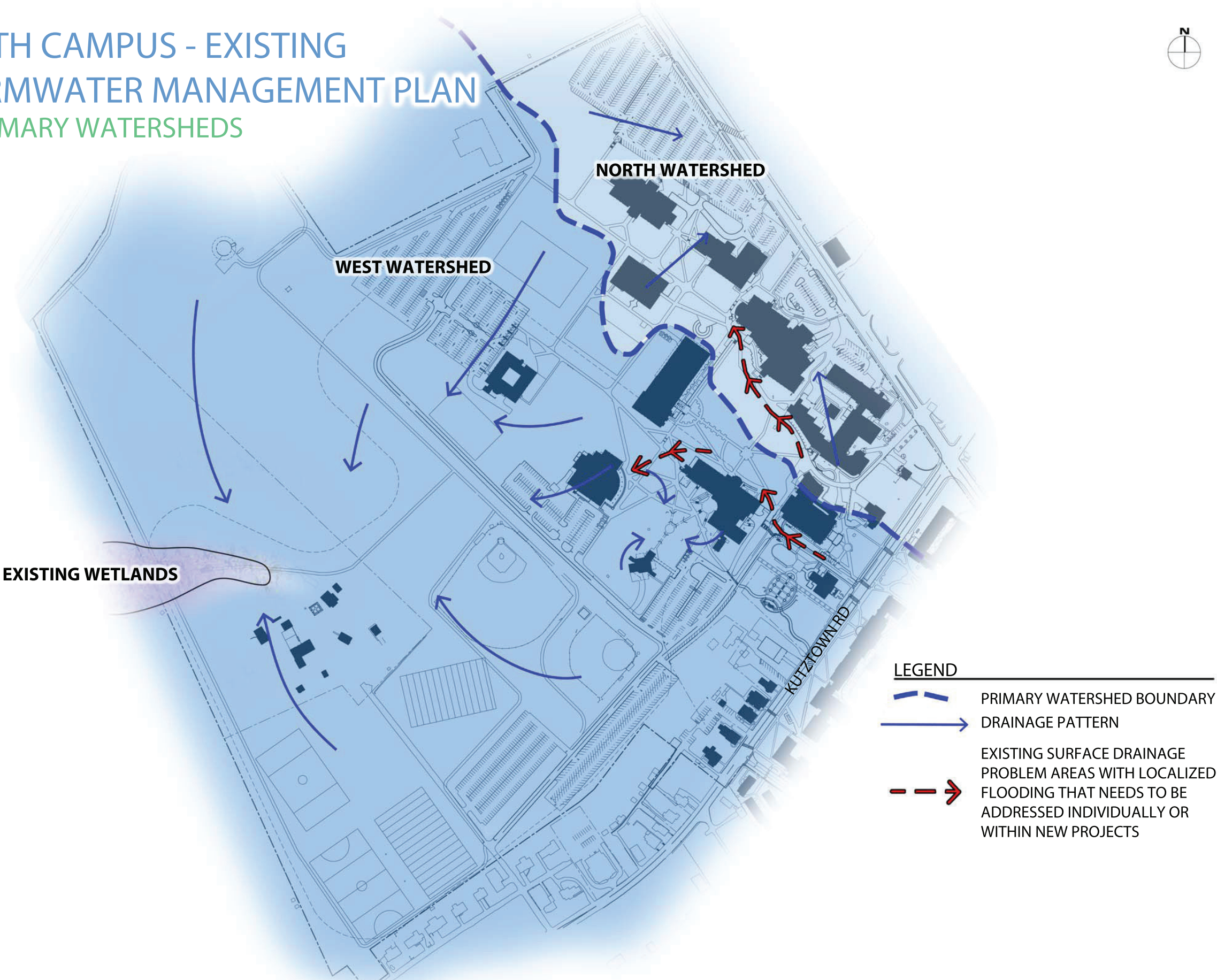


Diagram 3.13.1 - North Campus - Existing Stormwater Management Plan: Primary Watersheds

NORTH CAMPUS - EXISTING STORMWATER MANAGEMENT PLAN

• SECONDARY WATERSHEDS



Diagram 3.13.2 - North Campus - Existing Stormwater Management Plan: Secondary Watersheds

NORTH CAMPUS - PROPOSED STORMWATER MANAGEMENT PLAN

• PROPOSED STORMWATER BEST MANAGEMENT PRACTICES (BMP's)

CREATE SWALE TO DIRECT ARMORY
RUNOFF INTO EXISTING BASIN

EXISTING BERMED DETENTION AREA
SIZED TO ACCOMMODATE RUN-OFF
FROM FUTURE NORTH CAMPUS
IMPERVIOUS IMPROVEMENTS

EXPAND / RELOCATE EXISTING BASIN
FOR STORMWATER MANAGEMENT,
INFILTRATION AND EVAPOTRANSPIRATION
WHEN SPORTS FIELDS ARE CHANGED

EXISTING WETLANDS

PAGCHC LICENSED
BOUNDARY

FARMSTEAD PROTECTION ZONE

PROPOSED RELOCATED
PARKING LOT

NORTH WATERSHED

WEST WATERSHED

PROPOSED RAIN GARDENS TO INTERCEPT
PARKING LOT RUN-OFF AND REDUCE
IMPACT TO FAIRGROUNDS

DIRECT DRAINAGE FROM PROPOSED
NCAB AND MULTI-PURPOSE / CONFERENCE
FACILITY TO EXISTING BERMED AREA

PROPOSED RAIN GARDENS TO INTERCEPT
RUNOFF FROM THE ACADEMIC FORUM
PARKING LOTS

LEGEND







-  PRIMARY WATERSHED BOUNDARY
-  EXISTING RAIN GARDEN, BASIN OR
STORM DRAINAGE FACILITY
-  PROPOSED RAIN GARDENS
OR BASIN
-  PROPOSED DRAINAGE PATTERN
-  EXISTING STORM DENTENTION
BASINS / RAIN GARDENS
-  PROPOSED IMPROVEMENTS

Diagram 3.13.3 - North Campus - Proposed Stormwater Management Plan

SOUTH CAMPUS - PROPOSED STORMWATER MANAGEMENT PLAN

• PROPOSED STORMWATER BEST MANAGEMENT PRACTICES (BMP's)

SURFACE DRAINAGE MISSES DRAINS IN THIS AREA AND FLOWS TOWARD OLD MAIN DOORWAYS

NO DRAINS ON THE EAST SIDE OF THE DMZ CONTRIBUTES TO RUN-OFF / FLOODING ISSUES AT SOUTH DINING HALL

STORMWATER MANAGEMENT SYSTEM AT SOUTH DINING HALL IS UNDERSIZED TO ACCOMMODATE ALL OF THE RUN-OFF FROM THE DMZ

POSSIBLY DEVELOP BMP IN THIS AREA TO REDUCE DRAINAGE ISSUES AT UNIVERSITY PLACE

PROPOSED REPLACEMENT PARKING FOR FAIRGROUNDS PARKING, IF NECESSARY

NEW DETENTION AREAS, IF NECESSARY, TO ACCOMMODATE STORM RUN-OFF FROM REPLACEMENT PARKING

A LACK OF DRAINS AND POSITIVE DRAINAGE AWAY FROM BUILDINGS CREATE SURFACE DRAINAGE ISSUES AT DIXON, DEATRICK AND BECK HALLS

PROPOSED MULTI-PURPOSE ARTIFICIAL TURF FIELD; STORE STORMWATER AS REQUIRED IN AGGREGATE BASE OR STORE IN DETENTION FACILITY

EXISTING BERMED DETENTION AREA AT ATHLETIC FIELDS SIZED TO ACCOMMODATE PROPOSED RUNOFF FROM FUTURE SOUTH CAMPUS IMPERVIOUS IMPROVEMENTS

SURFACE RUN-OFF IN THIS AREA FLOWS INTO STEAM MANHOLE

UNIVERSITY PLACE HAS FREQUENT FLOODING EVENTS DUE TO THE UNDERSIZED CONCRETE CHANNEL AND DRAIN SYSTEM SURROUNDING THE BUILDING

LEGEND








-  EXISTING RAIN GARDEN, BASIN OR STORM DRAINAGE FACILITY
-  PROPOSED RAIN GARDENS/STORM WATER MANAGEMENT FACILITY
-  PROPOSED DRAINAGE PATTERN
-  EXISTING SURFACE DRAINAGE
-  PROBLEM AREAS WITH LOCALIZED FLOODING THAT NEEDS TO BE ADDRESSED INDIVIDUALLY OR WITHIN NEW PROJECTS
-  AREAS OF CONCERN
-  PROPOSED IMPROVEMENTS

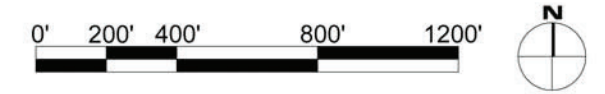
Diagram 3.13.4 - South Campus - Proposed Stormwater Management Plan

STORM UTILITY PLAN - EXISTING



Diagram 3.13.5 - Storm Utility Plan - Existing

STORM UTILITY PLAN - PROPOSED



NEW STORM LATERALS FROM NCAB & MULTI-PURPOSE / CONFERENCE FACILITY TO EX. BERMED BASIN

NEW STORM LATERAL AT RISLEY EXPANSION

NEW STORM LATERAL FROM PARKING DECK

NEW STORM LATERAL AT REC CENTER ADDITION

NEW SURFACE INLETS AND UNDERDRAIN SYSTEMS AT NEW ATHLETIC FIELDS ROUTED TO RELOCATED / ENLARGED BASIN

NEW STORM LATERAL AT KEYSTONE ADDITION

NEW INLETS / STORM SYSTEM AT ATHLETIC BUILDING, PARKING AND SOFTBALL FIELDS ROUTED TOWARD STORM DRAINAGE AT PAGCHC / WETLANDS

NEW STORM LATERAL AT 69 KV SUBSTATION

NEW STORM LATERAL FROM NEW BASKETBALL COURTS

NEW SURFACE INLETS AT RELOCATED PARKING ROUTED TO NEW BASIN

LEGEND





-  STORM LINE (EXISTING)
-  STORM LINE (PROPOSED)
-  STORM INLET (PROPOSED)
-  STORMWATER MANAGEMENT FACILITY (EXISTING / PROPOSED)

Diagram 3.13.6 - Storm Utility Plan - Proposed

3.14 UTILITIES

ELECTRICAL DISTRIBUTION

There is adequate electrical service capacity on campus for current and proposed needs. The last major upgrade to the system was in 1993 when an ongoing issue with conductor insulation led to a general wire upgrade. It is thought that all inadequate wires were replaced to be within current codes, but there may be older wires on campus that should be identified and replaced. All electrical service on campus is in underground electrical conduits except for site lighting.

The electrical power to the campus will be supplied via the University's new 69 kV Substation located inside a fenced and secured area within the Facilities industrial compound on Baldy Road. Installation of this electrical upgrade is due to the overloading of the local Met-Ed substation by the many local users that has resulted in multiple-day power outages on campus. This substation has dual redundancy transformers to maintain constant and reliable electric service to campus at all times. Service will continue from the substation to a new 13.2 kV switchgear/substation; the final location of this switchgear is in the quarry. This substation will supply the six primary electrical feed loops throughout both the North and South Campuses. This major electrical upgrade project will be 100% complete in January of 2015.

There is an **enhanced electrical system** on campus developed to maintain power to critical services to maintain the safety of campus and to be able to continue to provide basic services to the students who may be on campus during an extended outage. The loss of these capabilities could result in many safety issues as visitors or faculty – but primarily students- could be without light, heat or food services, which would be a terrible disruption to the entire University.

- Lighting is a primary safety consideration during a power outage. University lighting for all buildings includes backup facilities to maintain power to the lights.
- The Academic Forum and the South Dining Hall- both important hubs of student activity- can provide 100% of their own energy needs via generators located at each facility to maintain food services.
- The Heat Plant can provide all of its power via a local generator and will remain in service. It can provide steam to the campus during outages but applications for heat is building specific.
- The Facilities Maintenance Building has enhanced generator capabilities that can address a majority of electrical service needs during an outage, as it has a separate primary feed from the service to campus.
- The Emergency Operations Center (EOC) at the Facilities Maintenance Building is serviced by a separate power line feed to maintain power during an emergency or power failure. Continuity of emergency operations is ensured by the University's configuring of the Heat Plant as the back up to the EOC if services go off-line there.
- The Data Center in the Stratton Administration Building, a very critical campus service, has its own redundant generator separated from the emergency system of main building to maintain data services at all times.

Recommendations and Conclusions

While the electrical distribution system is serving the University's current needs and is projected to supply service to proposed development and renovations, there is a general lack of comprehensive information on the location and condition of much of the electrical system. It is strongly recommended that an overall **Utilities Master Plan** be completed to fully assess all electrical systems that are in place and planned; identify vulnerabilities; document areas of concern and the reasons causing these issues; to make recommendations for planned and phased improvements, including maintenance and life-cycle replacement costs as needed over the next 20 years; and provide opinions of probable cost for this maintenance and/or new facilities. This Master Plan should also include the GIS mapping and location of all electrical facilities (underground and visible), all top, and invert elevations for all manholes and vaults.

Specific recommendations are:

- Investigate the condition of the 13,200V underground cable that runs throughout campus to ensure that it is up to current codes and specifications as a follow-up to the work that was completed in 1993.
- Analyze the electrical capacity of the MSU prior to the design of the North Dining Hall addition to increase food services capabilities and reduce food spoilage at the Union.
- Require redundant electrical system in all new facilities or upgrades within major building renovation projects.

COMMUNICATIONS

The Communication system across campus for data, phone and internet connectivity is composed of many underground conduits and concrete duct banks containing a variety of conduits with copper wiring and fiber optic lines. A few direct-burial lines remain that are scheduled for upgrading into protective conduits. A few emergency phones are served by solar cellular technology, which is not desirable due to possible safety and liability issues associated with the occasional sporadic services provided. As technology continues to change, this campus-wide communication system will need to continue to be maintained and updated to continue to offer the most current data options to students and to efficiently run the administrative end of the University.

STV Architects completed a Communication Master Plan in 2003 for the University. The plan serves as a guide to upgrade the communication systems on campus. While this study identified much of basic cable information, it was incomplete in that it did not identify all the manholes and vaults, condition or age of the communication system. Many of the conduits on campus are still Orangeburg conduit, a bitumenized fiber pipe made from layers of wood pulp and pitch pressed together which is very vulnerable to collapse. This material was phased-out in the 1970's due to the increased strength and low cost of PVC conduits. This old conduit continues to cause maintenance and connectivity issues when localized collapses occur.

The Stratton Administration Center is the main communications distribution hub for campus, where primary data and information is shared. DeFrancesco, Boehm, Sharadin, Johnson and Berks Halls serve as fiber distribution hubs to the campus, where they house the transmitters, receivers and connectors for the system. This spread-out distribution allows the system to be repaired, upgraded or expanded with minimal disruption to the campus community.

Wireless internet service has been installed in all residence halls where there is no longer any hard-wired phone to individual student rooms. Hard-wired emergency and community use phones are located in lobbies and other public spaces within the residence halls. Wireless service is currently being installed in all academic buildings with classrooms; service is not being provided in offices. Service has been completed to both Grim and Boehm Science Buildings; wireless service to Lytle, Sharadin, DeFrancesco, Rickenbach, MSU and the Graduate Center is scheduled to be completed by end of 2014. In addition, as buildings are renovated and updated, wireless service is being provided in public areas such as lounges and conference rooms.

Cellphone service on campus is poor and very sporadic. Many outdoor areas have wireless capability that enables cellphone use. The Dixon Courtyard, DMZ, University Place Courtyards, Tri-County Courtyard, MSU/Schaeffer/Library Quad and the Stadium and Press box have good cellphone reception. Most other outdoor campus areas do not receive good cell phone service.

Many communication vaults are problematic. Some are located in low areas that are subject to flooding. Vaults with square lids are no longer desirable as the heavy lid can easily be dropped in to the vault. Truck loading capacities are unknown for all communication vaults which may lead to damage from truck traffic.

Ongoing upgrades are constantly improving the communication system on campus. On the North Campus, all splices in the communication lines and all abandoned and unused wiring has been removed. Similar upgrades on the South Campus are underway and are expected to be completed in 2014-2015. These operations make space available for additional and future service lines in the communication conduits and manholes. Other improvements can increase the capability of the communication system on campus.

Recommendations and Conclusions

While the communication system on campus was studied in 2003, it is *strongly recommended* that an overall **Updated Campus Communication Master Plan** be completed to build on relevant information from the past study and to fully assess all communication systems that are in place and planned; identify vulnerabilities; document areas of concern and the reasons causing these issues; to make recommendations for planned and phased improvements, including maintenance and life-cycle replacement costs as needed over the next 20 years; and provide opinions of probable cost for this maintenance and/or new facilities. This Master Plan should also include the GIS mapping and location of all communication facilities.

Specific areas of concern and/or recommendations that need to be addressed within the Updated Master Plan are:

- Requirement to update all old communication vaults with square lids to eliminate square lids and ensure that that no new vaults have square lids. Hatch-type access doors are preferable to topical manhole lids. Provide recommendations on overall vault conditions and strategies to prevent flooding. Provide design strategies to provide lids/doors to sustain truck loading in paved areas.
- Continued removal of abandoned/unused wires and splices throughout the system.
- Continued replacement of all Orangeburg conduits throughout the system.
- Upgrading of all solar emergency phones with hard-wired electrical and communication infrastructure to eliminate dependence on solar cellular technology.
- Analysis of the best technology to improve and expand cell phone services across campus, including but not limited to, Distributed Antenna Systems (DAS). These antennas allow cell phone carriers to increase capacity in challenged locations.
- Continued upgrading of wireless internet service in renovated buildings and to outdoor congregation areas.
- Establish design guidelines to require dual path redundancy for copper and fiber optic services on all renovation projects and new developments.

GAS

Natural gas to the campus is provided from UGI Utilities/UGI Penn Natural Gas via a primary 8” pressure gas main that runs down West Kutztown Road and branches off to supply both the North and South Campuses. This main distributes gas service throughout the University and terminates in 2” services at the North and South Campus boundaries. The age and the condition of the gas service throughout campus are generally unknown. Capacity to the North Campus is assumed to be adequate; capacity to the South Campus is generally unknown.

Natural gas is used on campus for some local, gas-fired boilers that provide steam heat for some buildings; gas is also used for many emergency generators. Gas is also used for most domestic hot water, which is consistent with the on-going change-over from electric-fired hot water heaters. This approach allows for the shutdown of the steam plant during warm weather months and the fine-tuning of hot water services at various buildings based on specific needs. The South Dining Hall and The Academic Forum have gas-fired summer boilers to provide domestic hot water when the Heat Plant is offline. Other buildings on campus also operate on summer boilers as necessary.

The proposed building additions and renovations identified in this Master Plan Update can be supplied from the existing gas system infrastructure already in place. Proposed laterals to the Athletic Building, NCAB, Multi-Purpose/Conference Facility and additions to the MSU can be supplied by the existing infrastructure on the North Campus; the proposed gas supply needed for the Stadium Upgrades on the South Campus may require additional investigation to confirm capacity and condition of the existing system.



Image 3.14.1 - Central Heating Plant built in 2007

Recommendations and Conclusions

While the natural gas system is serving the University’s current needs and is projected to supply service to North Campus proposed development and renovations, there is a general lack of comprehensive information on the condition of most of the gas system. It is *strongly recommended* that an overall **Utilities Master Plan** be completed to fully assess all gas piping and systems that are in place and planned; identify vulnerabilities; document areas of concern and the reasons causing any issues; to make recommendations for planned and phased improvements, including maintenance and life-cycle replacement costs as needed over the next 20 years; and provide opinions of probable cost for this maintenance and/or new facilities. This Master Plan should also include the GIS mapping and location of all gas facilities (underground and visible), meters, valves etc.

- Specific areas of concern and/or recommendations that need to be addressed within the Master Plan are:
- Requirement for providing gas meters on all new service laterals to track energy consumption and assist with troubleshooting of the system.
 - Requirement that all gas meters be connected to the campus Building Automated System (BAS) to assist with efficient campus energy management.

STEAM SYSTEM

The existing steam system is the University’s primary means of space heating. It is supplied from a Central Heating Plant located on the South Campus that was built in 2007. The current system consists of a 50 PSI distribution system of 40 active steam manholes and 2.6 miles of active underground steam piping ranging in size from 14” to 3”; and 2.5 miles of condensate piping ranging in size from 8” to 1 ½”. The pipe is primarily schedule 80 steel pipe. There are areas of abandoned steam and condensate piping across campus. Replacement of most of the steam piping distribution system occurred within the last 15 years, but approximately half of all of the condensate piping dates back to 1981. Renovations and replacements of portions of the underground piping system have shown that the steam system is generally in good condition, but based on the age of the condensate system and increasing frequency of leaks, the remaining life of the condensate system is a concern.

Years of flooding conditions, many caused by unsealed pipe penetrations in the manholes, has led to pipe corrosion, concrete spalling and general manhole deterioration and loss of pipe insulation. Salt-laden water leaking during the winter months accelerates the corrosion of the piping and concrete structures. Concerns over the condition of the steam system led the university to initiate a formal assessment of the steam system. In November 2013, Entech Engineering, Inc. completed a comprehensive evaluation of the University’s manhole and condensate distribution system, which is reported in the **Steam Manhole and Campus Condensate Piping Replacement Study**. This document outlines the detailed review of the manhole and condensate piping system and includes recommendations for system upgrades and improvements. Flooding of the manholes was identified as a primary issue that can be remedied by surface grading to direct water away from the steam structures in some instances, but many flooding conditions cannot be solved by grading. Entech has recommended that University transition to using HT-406 pipe, which will reduce the number of manholes needed, but most manholes and pipes will require repairs before that change can be fully implemented. The study has ranked improvement to the steam system across campus according to priorities from Immediate, High, Medium, Low to Not Needed. The University has been using this study as the guide for financing and coordination of steam system improvements.

The proposed building additions and renovations identified in this Master Plan Update can be accommodated from the existing steam system infrastructure already in place. It is assumed that most renovation and addition projects will be supplied internally from the existing building if additional heating capacity is needed. Additional laterals can be supplied from existing nearby mains to supply new service to the proposed NCAB and Multi-Purpose/Conference Facility on the North Campus.

It is recommended that the University begin to allocate funding for the design and construction of repairs and replacement of condensate piping and steam manholes per the detailed recommendations in the aforementioned Entech report. It is also recommended that all new steam laterals be constructed with meters to track energy consumption and assist with troubleshooting of problems with the system.

DOMESTIC WATER SYSTEM

Domestic water and fire protection are both served from the same system on campus. Water is supplied primarily from two water towers on campus; one on the South Campus west of Lehigh Hall and one on the North Campus north of the Armory. The domestic water system is predominantly ductile iron pipe (DIP) varying in size from 16” to 2” that is evenly distributed across campus. In addition, water service to portions of the South Campus is supplied by the Borough’s Water Department via a 10” line that crosses Baldy Street. The overall age and condition of the system is generally unknown.

The entire water system was pressure tested in 2010 to identify any leaks. All leaks that were identified were repaired. The last major update to the domestic water infrastructure prior to this work occurred in 1986. Unfortunately, leaks attributed to the old piping continue to be a maintenance issue.

Fire hydrants are adequately distributed across campus and new hydrants are added within the scope of new projects or major renovations. They are valved-off of the domestic water-piping infrastructure. All hydrants are color coded as per National Fire Protection Association (NFPA) 291 *Recommended Practice for Fire Flow Testing and Marking of Hydrants*. This allows fire fighters to identify if the hydrant is private, municipal or non-potable and identifies the gallons per minute (GPM) that the hydrant can supply. Recent testing of the hydrants indicated that they have exceptional flow and pressure. Fire protection service to the buildings varies; some are split from the domestic water at the exterior of the building and some are split in the interior mechanical spaces.

Stand-alone gas-fired units generate most of the domestic hot water system, as the change-out from electric units is ongoing across campus. This approach allows for the shutdown of the steam plant during warm weather months and the fine-tuning of hot water services at various buildings based on each one’s specific needs.

The proposed building additions and renovations identified in this Master Plan Update can be accommodated from the existing domestic water system infrastructure already in place. It is assumed that most renovation and addition projects will be supplied internally from the existing building if additional water service capacity is needed. Additional laterals to proposed projects can be supplied from existing nearby mains if needed.

Recommendations and Conclusions

While the domestic water system is serving the University’s current needs and is projected to supply service to proposed development and renovations, there is a general lack of comprehensive information on the condition of much of the water system. Frequent leaks continue to be a burden to the maintenance crews. It is *strongly recommended* that an overall **Utilities Master Plan** be completed to fully assess all water piping and systems that are in place and planned; identify vulnerabilities; document areas of concern and the reasons causing these issues; to make recommendations for planned and phased improvements, including maintenance and life-cycle replacement costs as needed over the next 20 years; and provide opinions of probable cost for this maintenance and/or new facilities. This Master Plan should also include the GIS mapping and location of all domestic water and fire protection facilities (underground and visible), water meters, valve pits etc.

Specific areas of concern and/or recommendations that need to be addressed within the Master Plan are:

- Requirement for providing water meters on all new service laterals to track energy consumption and assist with identification of leaks with the system.
- Requirement that all building fire protection piping are separated from the domestic water piping outside of the building.

SANITARY SEWER

The existing sanitary sewer system throughout campus consists of 4” to 12” polyvinyl chloride pipe (PVC) and vitrified clay pipe (VCP) and is primarily a gravity system sloping from west to east along the natural landform. A sanitary force main exists on the South Campus operated by grinder-type sewage pumps. Sewage mains leave the campus’ east boundary across College Boulevard and Baldy Road and are treated by the Kutztown Borough’s Wastewater Dept. facility located near Krumsville Road and Route 737.

The age and condition of the sanitary sewer system is generally unknown. VCP pipe is typically more prone to breakage due to compression than other types of pipes; this is evident during many renovation projects whereby the VCP is crushed by construction equipment.

The capacity of the system has been adequate to date, but is unknown how much additional effluent flow it can handle. It is assumed that there is adequate capacity within the existing sanitary sewer system for the proposed new facilities and renovations listed within the Master Plan Update, but this must be confirmed.

Recommendations and Conclusions

While the sanitary sewer system is serving the University’s current needs, there is a general lack of comprehensive information on the condition of much of the system. Frequent breaks during construction projects negatively impact project budgets. It is *strongly recommended* that an overall **Utilities Master Plan** be completed to fully assess all sanitary piping and systems that are in place and planned; identify vulnerabilities; document areas of concern and the reasons causing these issues; to make recommendations for planned and phased improvements, including maintenance and life-cycle replacement costs as needed over the next 20 years; and provide opinions of probable cost for this maintenance and/or new facilities. This Master Plan should also include the GIS mapping and location of all sanitary sewer facilities (underground and visible), and all top and invert elevations for all sanitary manholes. .

Specific areas of concern that need to be addressed within the Master Plan are:

- Study of the sanitary sewer capacity serving the MSU prior to the design of the proposed additions and renovations.
- Study of the various epoxy lining systems that can be used to repair and/or renovate existing sanitary piping as an alternative to total replacement; analysis must include cost comparisons and life-cycle projections.

ELECTRIC UTILITY PLAN - EXISTING



ELECTRIC UTILITY PLAN - PROPOSED

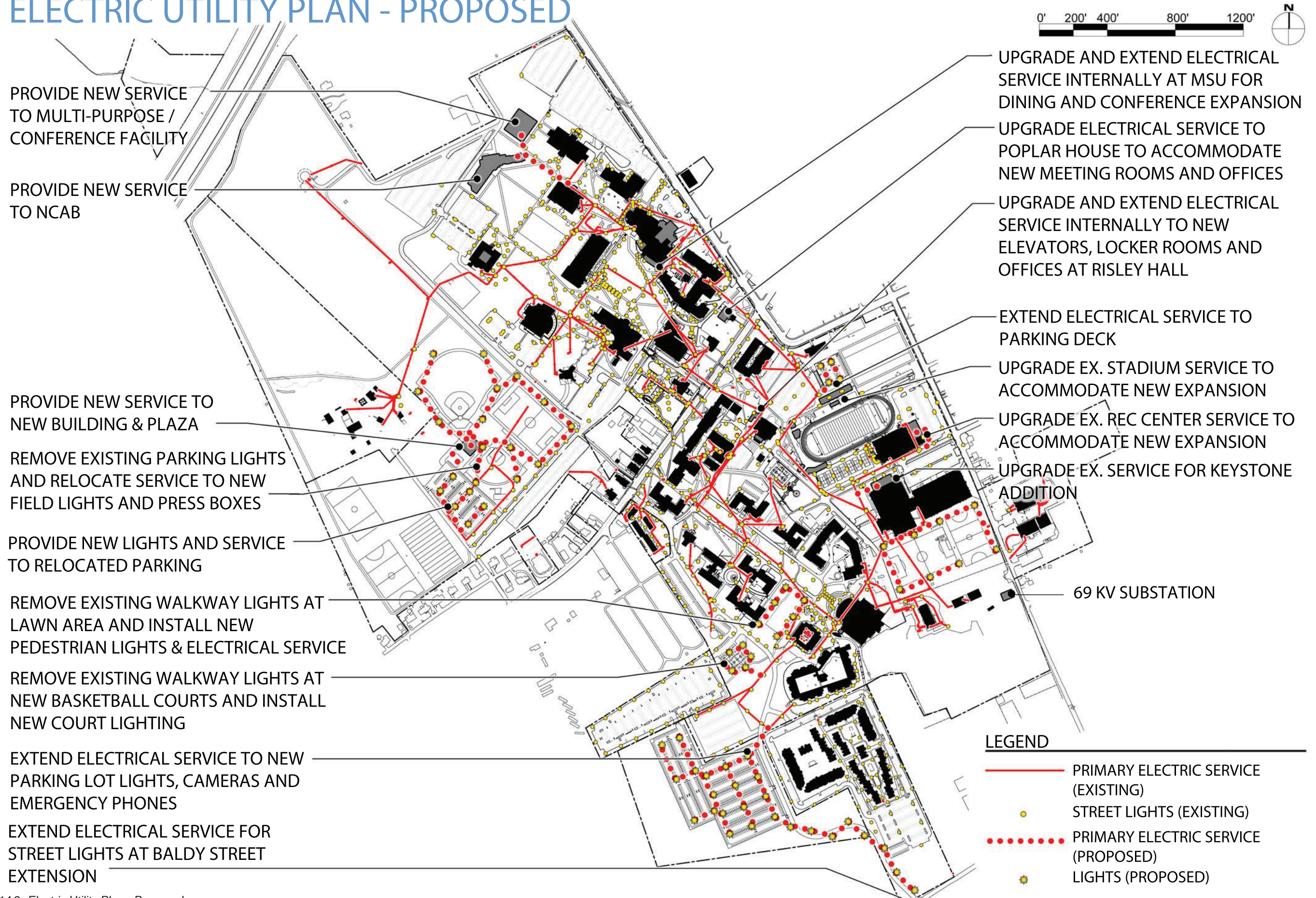


Diagram 3.14.2- Electric Utility Plan - Proposed

COMMUNICATION UTILITY PLAN - EXISTING



DeFRANCESCO BUILDING IS A
CAMPUS FIBER DISTRIBUTION POINT

BOEHM SCIENCE BUILDING IS A
CAMPUS FIBER DISTRIBUTION POINT

THE SHARADIN ART BUILDING IS A
CAMPUS FIBER DISTRIBUTION POINT

STRATTON ADMINISTRATION CENTER
IS THE CAMPUS PRIMARY
COMMUNICATION FIBER DISTRIBUTION
POINT

LEGEND

— COMMUNICATION LINE (EXISTING)

Diagram 3.14.3 - Communication Utility Plan - Existing

COMMUNICATION UTILITY PLAN - PROPOSED

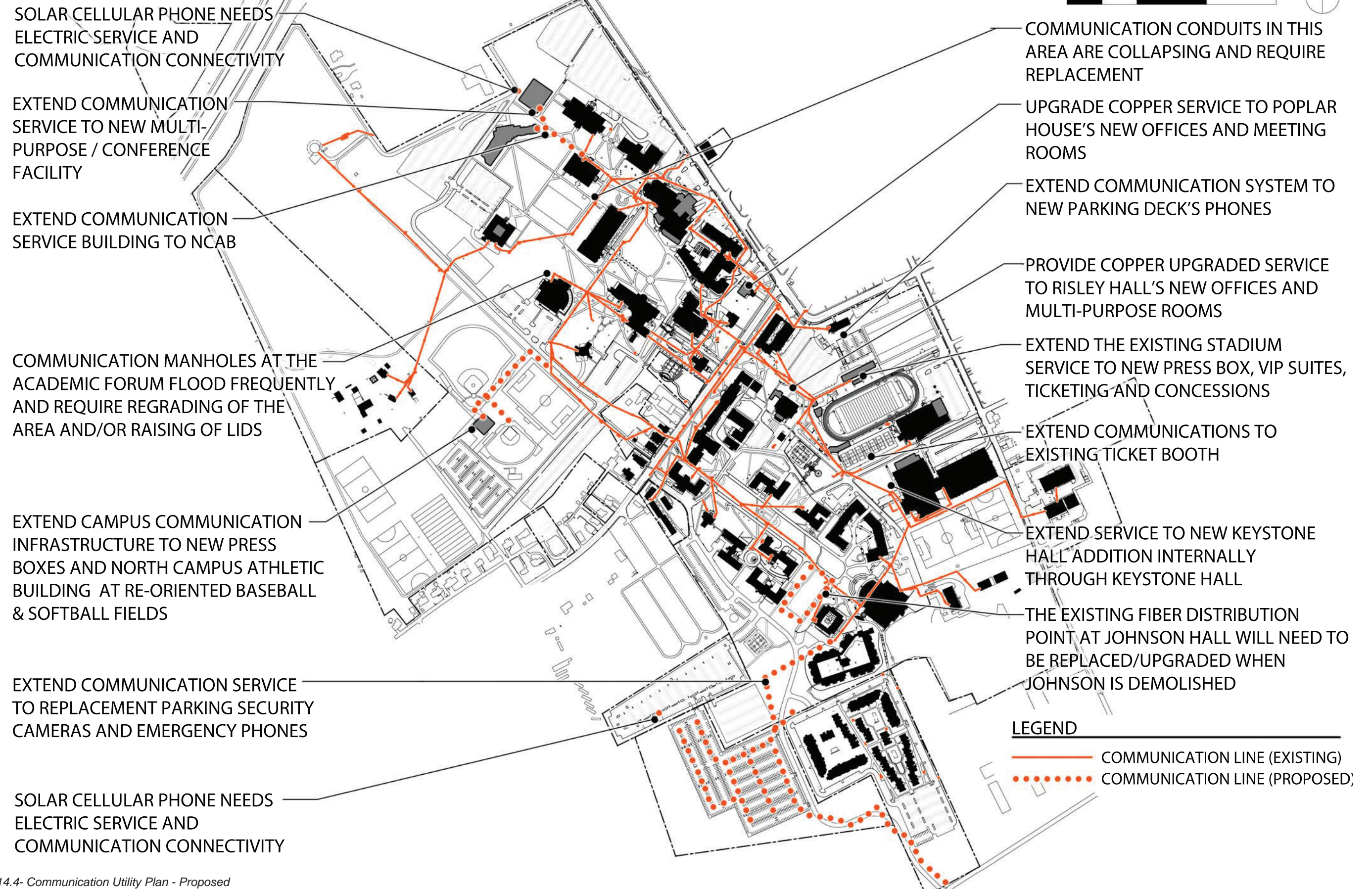


Diagram 3.14.4- Communication Utility Plan - Proposed



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GAS UTILITY PLAN - PROPOSED

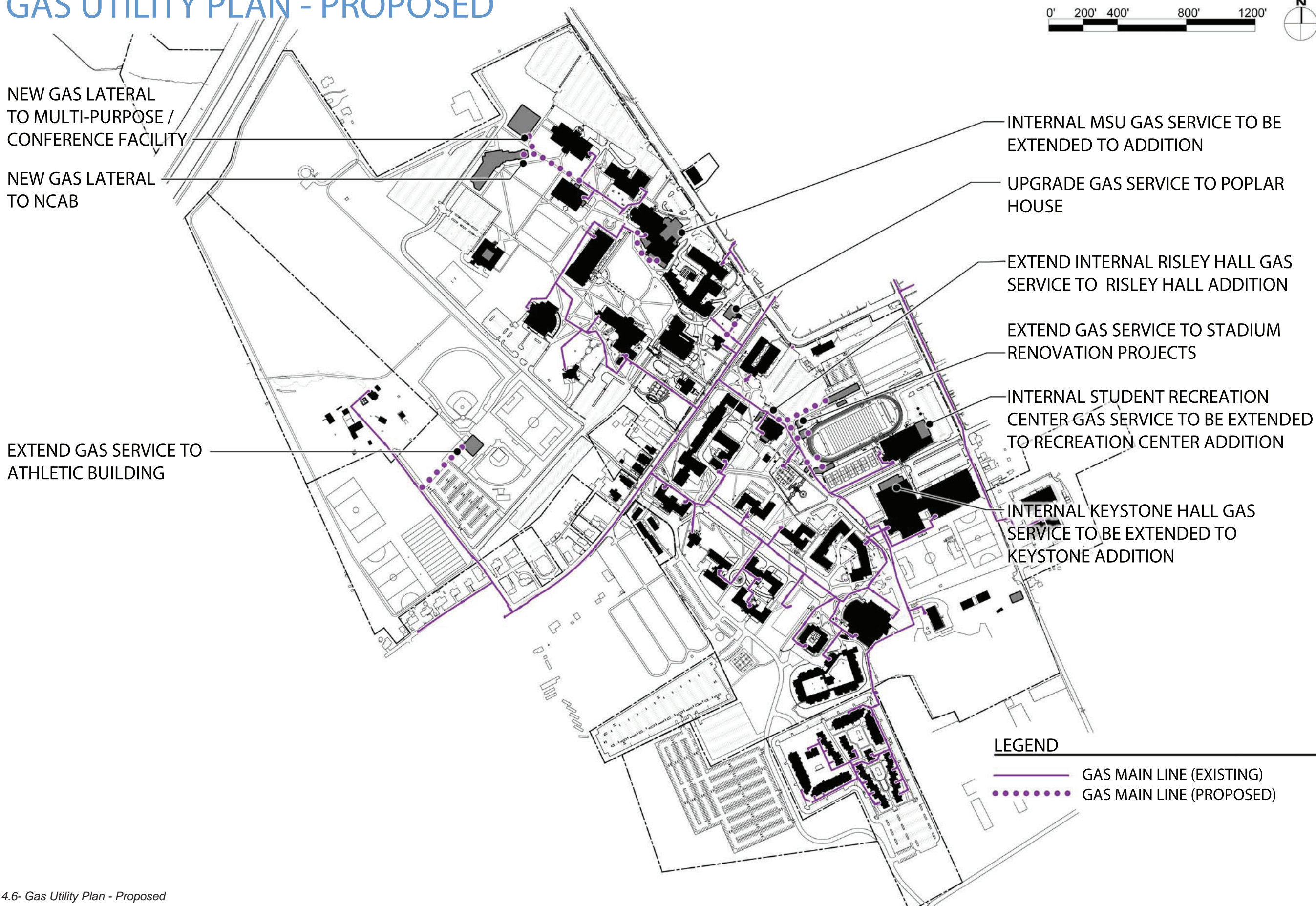


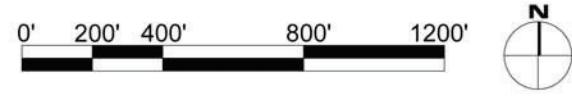
Diagram 3.14.6- Gas Utility Plan - Proposed

STEAM UTILITY PLAN - EXISTING



Diagram 3.14.7 - Steam Utility Plan - Existing

STEAM UTILITY PLAN - PROPOSED



EXTEND STEAM SYSTEM
TO MULTI-PURPOSE /
CONFERENCE FACILITY

EXTEND STEAM SYSTEM
TO NCAB

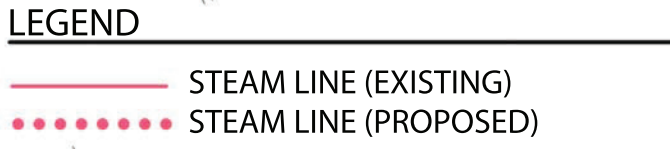
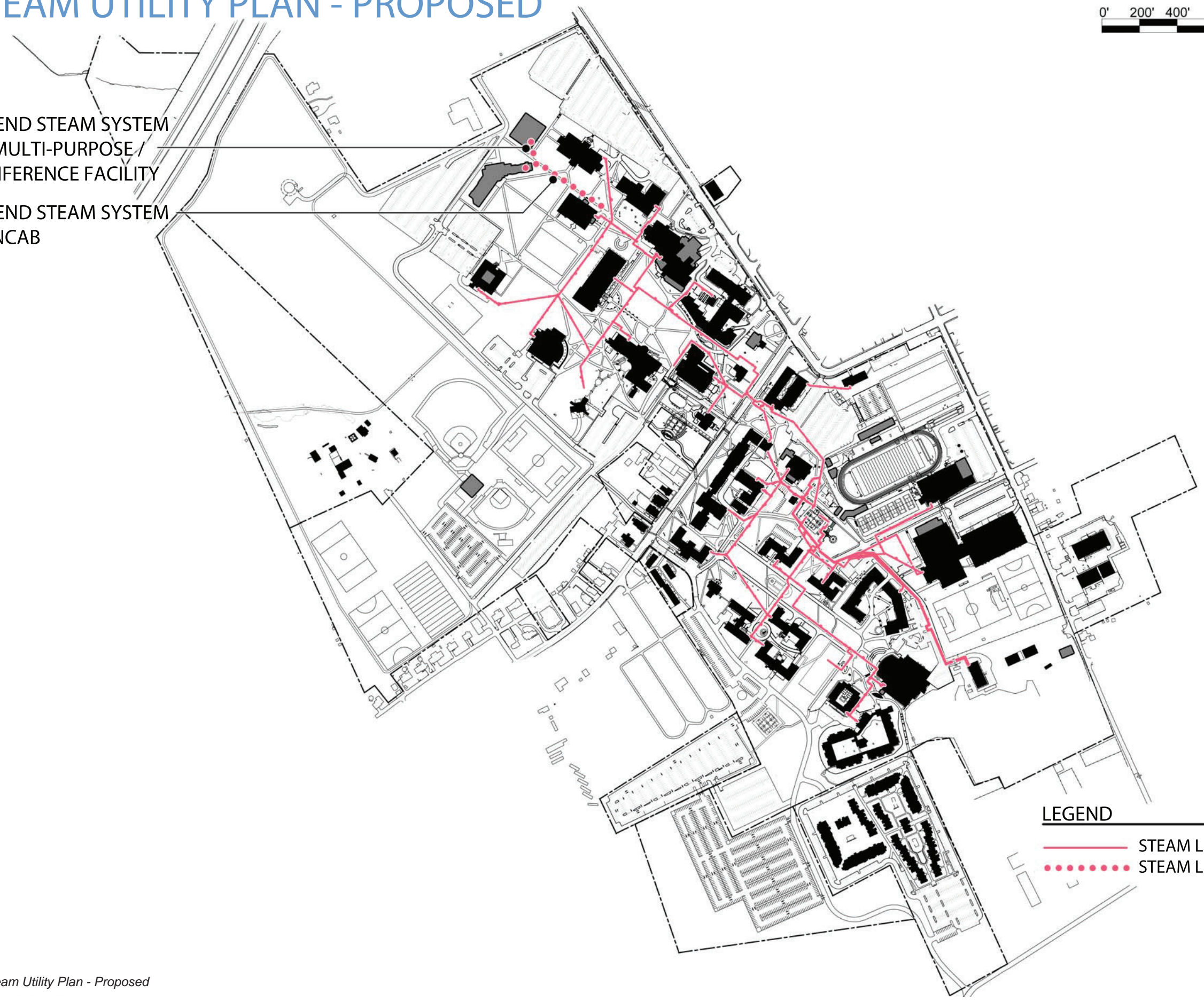


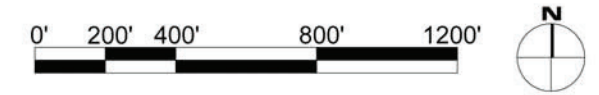
Diagram 3.14.8- Steam Utility Plan - Proposed

WATER UTILITY PLAN - EXISTING



Diagram 3.14.9 - Water Utility Plan - Existing

WATER UTILITY PLAN - PROPOSED



NEW WATER LATERAL TO MULTI-PURPOSE / CONFERENCE FACILITY.

NEW WATER LATERAL TO NCAB

NEW WATER LATERAL TO ATHLETIC BUILDING

UPGRADE WATER SUPPLY SIZE TO POPLAR HOUSE

RE-ROUTE EX. WATER MAIN AROUND STADIUM ADDITION

NEW WATER LATERALS TO STADIUM IMPROVEMENTS

UPGRADE WATER SUPPLY TO KEYSTONE AND PROVIDE NEW WATER LATERAL TO KEYSTONE ADDITION

LEGEND

- WATER LINE (EXISTING)
- FIRE HYDRANTS (EXISTING)
- WATER LINE (PROPOSED)

NOTE:
NEW FIRE HYDRANTS WILL BE ADDED
AS REQUIRED TO SERVE NEW FACILITIES.

Diagram 3.14.10- Water Utility Plan - Proposed

SANITARY UTILITY PLAN - EXISTING



Diagram 3.14.11 - Sanitary Utility Plan - Existing

SANITARY UTILITY PLAN - PROPOSED

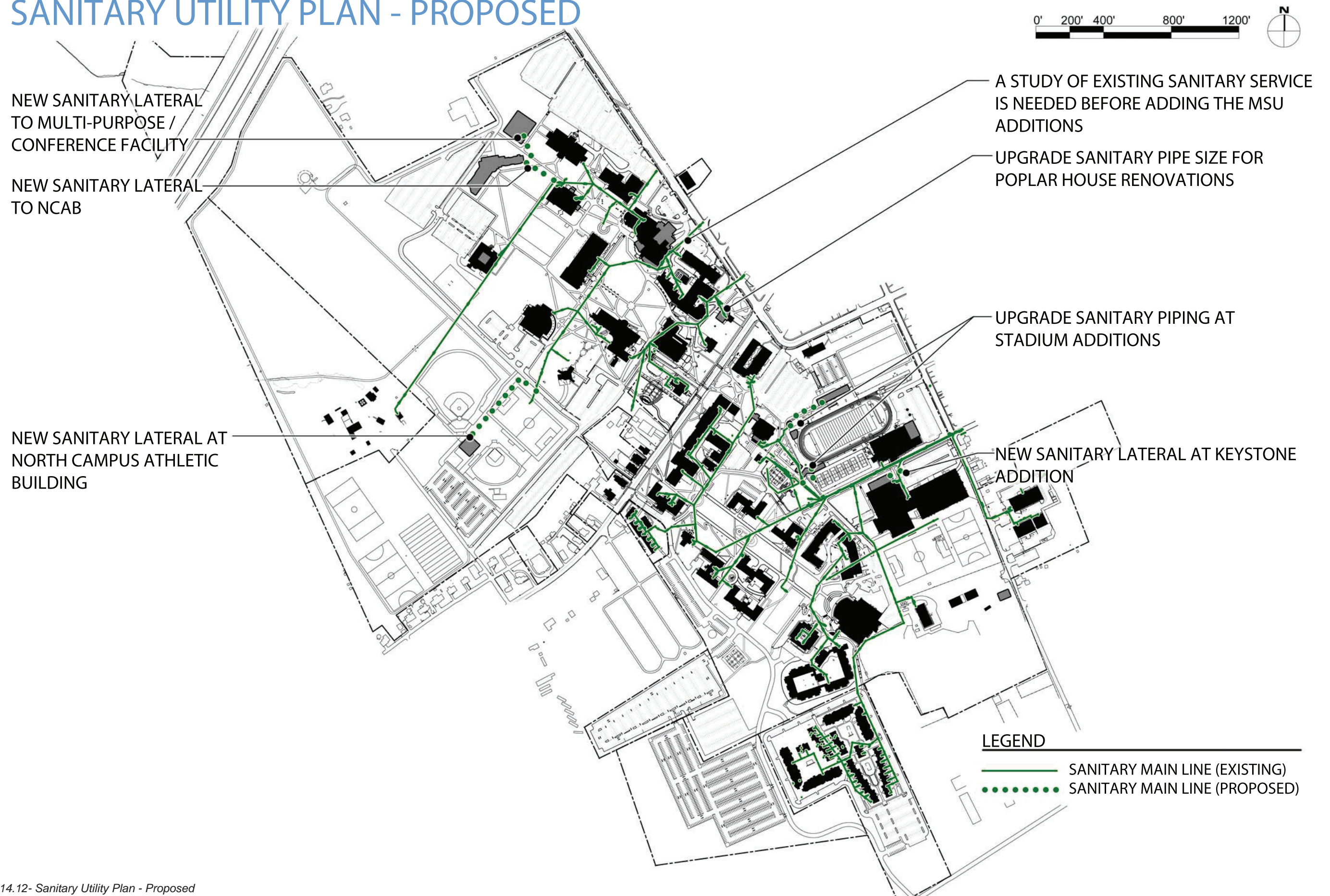


Diagram 3.14.12- Sanitary Utility Plan - Proposed

4

PHASING AND COST ANALYSIS

- 4.1 Phasing Summary
- 4.2 Phasing Diagrams
- 4.3 Cost Analysis

4.1 PHASING SUMMARY

The sequence and phasing for each project was considered based on multiple factors. Urgency of need, available funds and the domino effect of each project were all considered. Some projects stand alone, able to be executed at any time while some require other projects to be completed before they can commence. The diagram on the right reflects the proposed sequencing of renovation, new construction and infrastructure improvements over the next 20 years.

Projects in the Master Plan Update have been broken down into 4 phases.

- Phase 1: 0-2 years
- Phase 2 : 3-5 years
- Phase 3: 6-10 years
- Phase 4: 11-20 years

These phases are not tied to a calendar year. Year 0 does not indicate a start date of 2013 or 2014. The phases represent an estimated timeline based on priority and sequencing. Each project will advance as and when funding becomes available.

The exceptions to this approach are the residence hall renovations which are triggered by a comprehensive financial model. The financial model was developed to determine the sequence and timing of projects and to analyze the implications of proceeding with the improvements to the University's housing system while meeting the campus goal of maintaining affordable housing rates.

For each proposed project in the Master Plan Update, a cost analysis was prepared and refined throughout the process. All building construction and renovation costs include a 15% contingency, 10% general conditions and 10% overhead and profit mark-ups within the present construction cost of each project. The mid-point of each phase was used to factor a 3% compounding escalation for future projects.

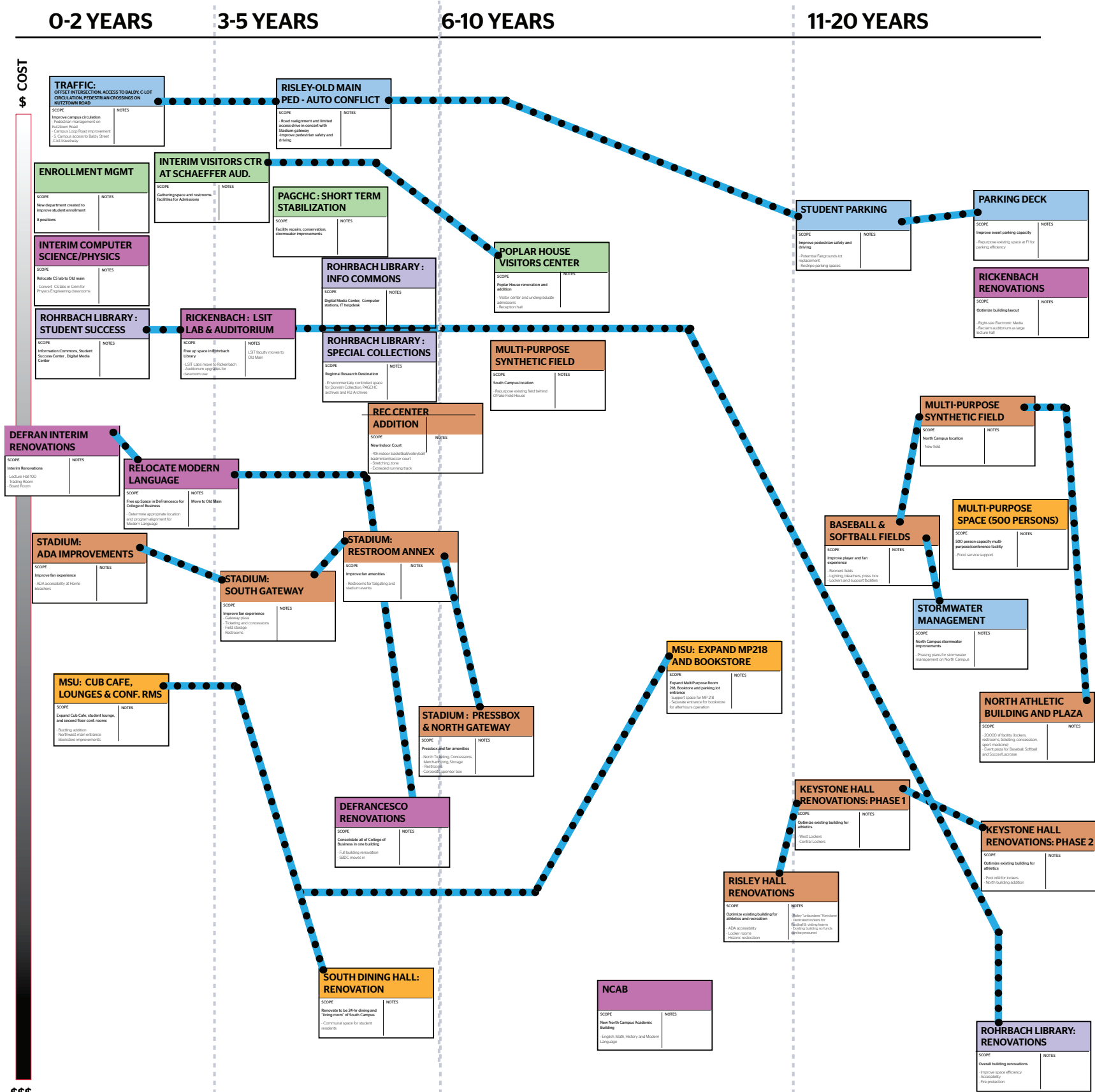


Diagram 4.1.1 - Phasing & Priority Diagram

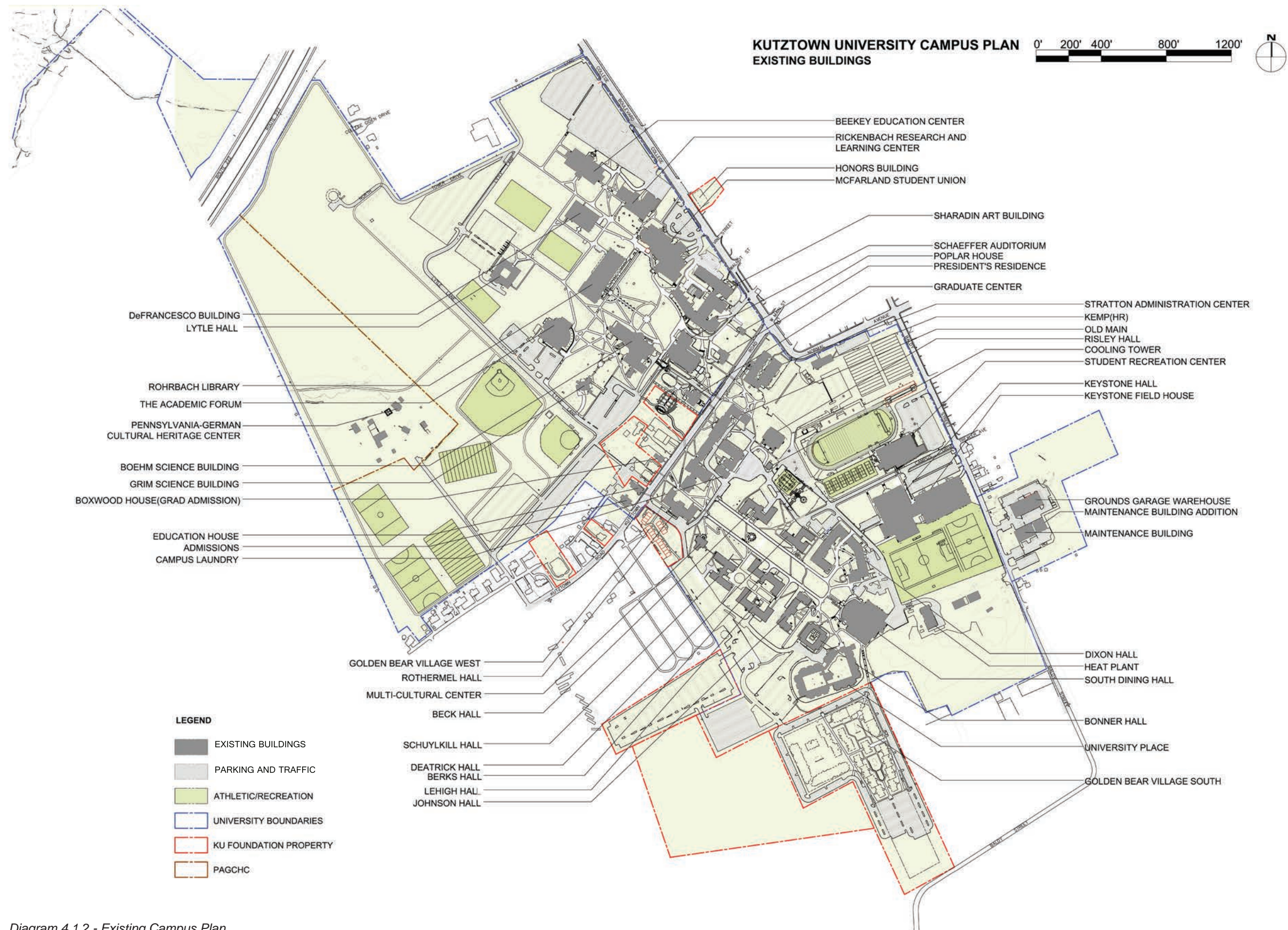


Diagram 4.1.2 - Existing Campus Plan

4.2 PHASING DIAGRAMS

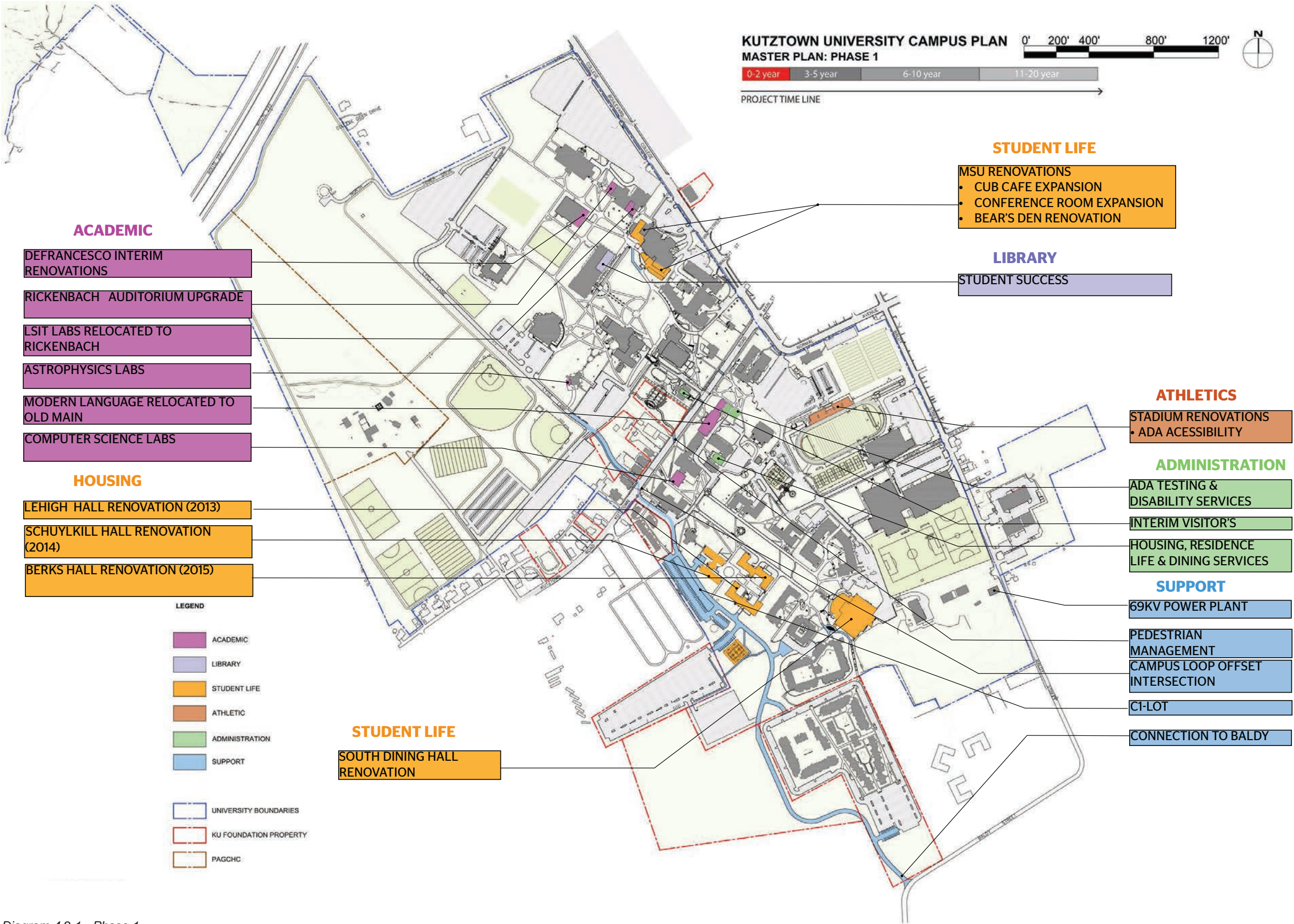


Diagram 4.2.1 - Phase 1

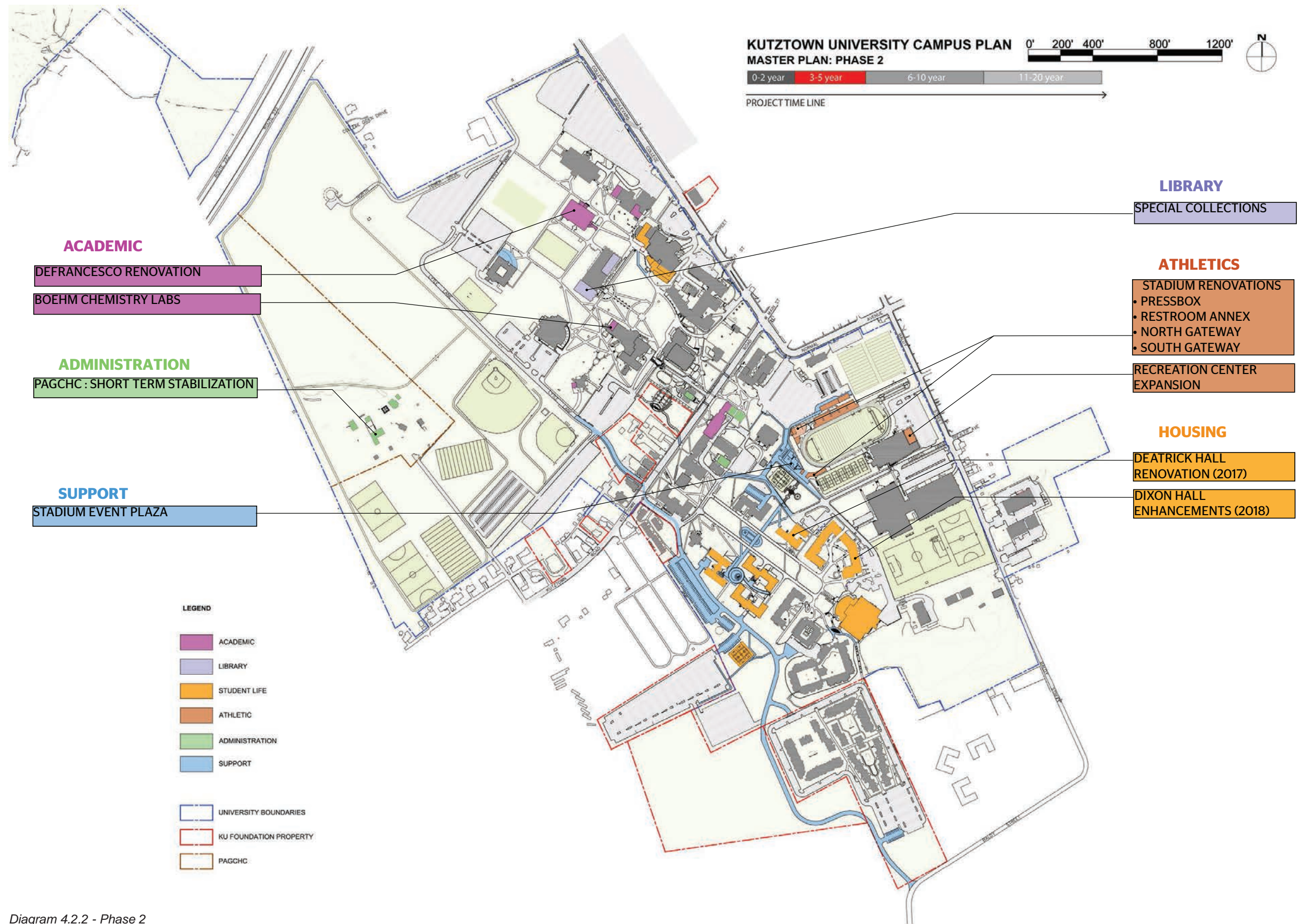


Diagram 4.2.2 - Phase 2

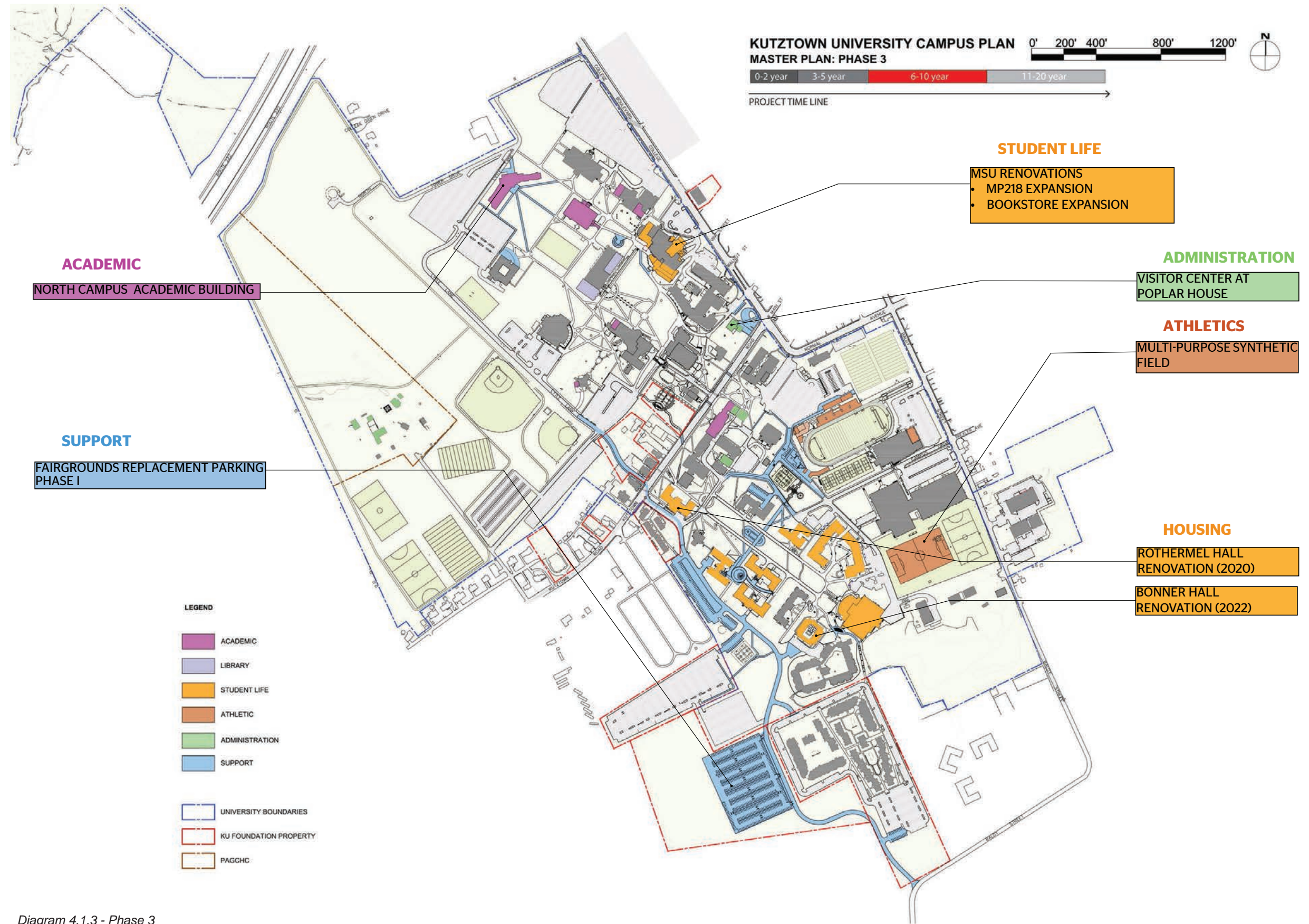


Diagram 4.1.3 - Phase 3

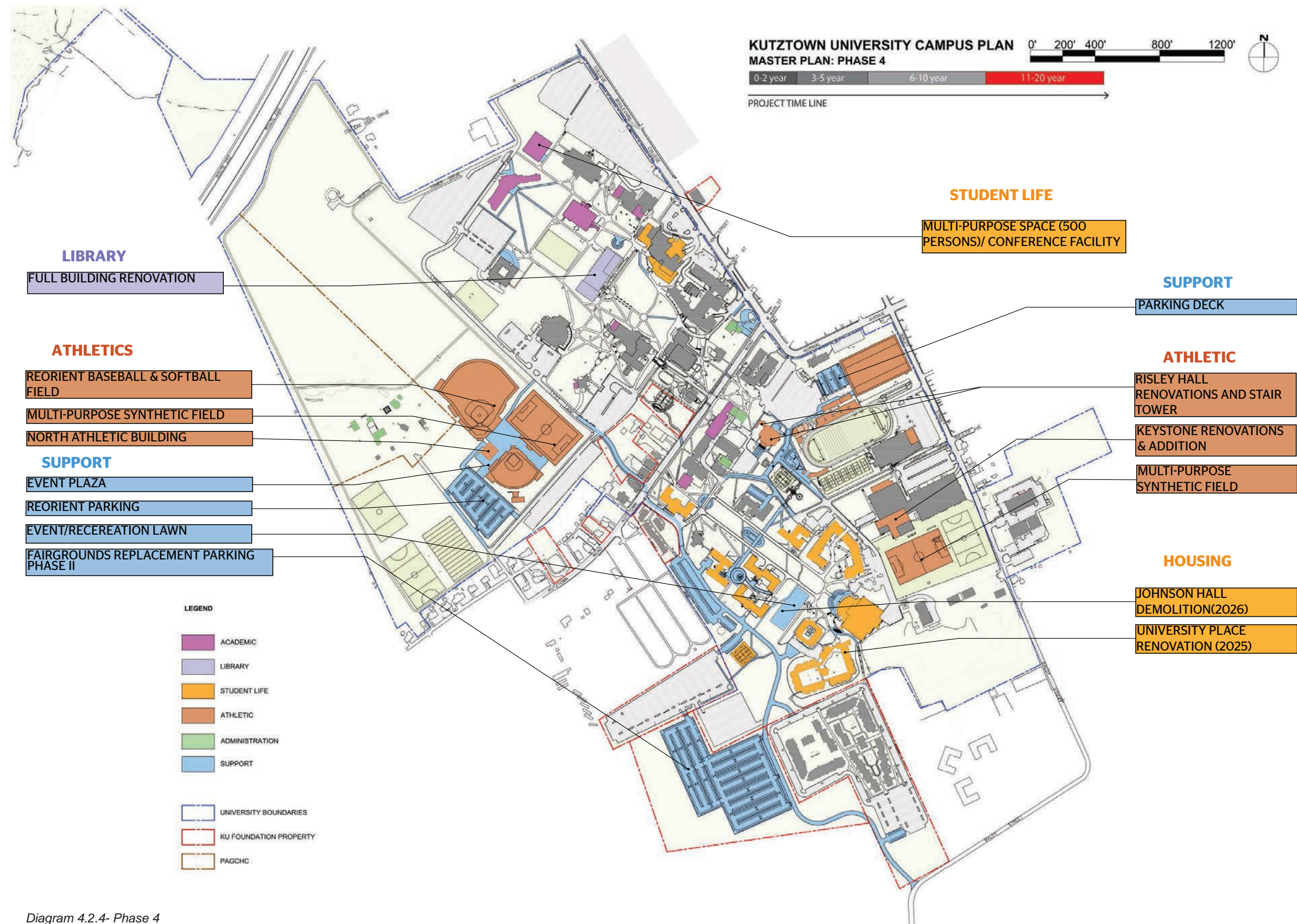


Diagram 4.2.4- Phase 4

4.3 COST ANALYSIS

Building - Task		Phase 1 - (0-2 Year)		Phase 2 - (3-5 Year)		Phase 3 - (6-10 Year)		Phase 4 - (11-20 Year)	
		E&G	Auxilliary	E&G	Auxilliary	E&G	Auxilliary	E&G	Auxilliary
	ACADEMIC								
1A	Lytle Hall - Renovations - HVAC Upgrades	\$ 1,700,000							
1B	North Campus Academic Building (NCAB)					\$ 20,240,000			
2A	Old Main - Relocate Modern Language Faculty Offices	\$ 100,000							
2B	Old Main - Relocate Modern Language Computer Lab	\$ 480,000							
2C	Old Main - Computer Science Labs	\$ 270,000							
2D	Old Main - Ground Flr. Music rooms into Classrooms	\$ 400,000							
3A	Rickenbach - Auditorium Upgrade	\$ 447,790							
3B	LSIT Computer Labs	\$ 1,100,000							
4A	Grim - Create (2)Computer Labs from Classrooms	\$ 490,000							
5A	Defrancesco - Relocate Sports Management			\$ 362,000					
5B	Defrancesco - Renovation / Addition			\$ 15,000,000					
6A	Boehm - Renovate 4th Floor Chemistry Wet Labs			\$ 836,000					
	LIBRARY								
7A	Rohrbach - Student Success Center			\$ 790,000					
7B	Rohrbach - Special Collections / Archive			\$ 2,250,000					
7C	Rohrbach - Digital Media Center / Information Commons			\$ 2,900,000					
7D	Rohrbach - Full Building Renovation							\$ 39,941,000	
	STUDENT LIFE								
8A	McFarland - Cub Café (North Dining Hall), Third Floor Conference, Main Entrance Renovation and Student Lounge		\$ 8,000,000						
8B	McFarland - MP218 and Bookstore Expansion				\$ 5,446,000				
9A	South Dining Hall - Full Renovations		\$ 14,175,000						
10A	Dixon Hall - Selective Renovations					\$ 2,366,000			
11A	Rothermel Hall Renovations					\$ 8,997,000			
12A	Johnson Hall Demolition							\$ 1,163,000	
12B	Bonner Hall Renovation					\$ 13,289,000			
13A	University Place Renovations							\$ 10,206,000	
14A	Deatrick Hall Renovations			\$ 7,601,000					
15A	Berks Hall Renovations & Tricounty Courtyard		\$11,225,000						
16A	Schuykill Hall Renovations		\$ 7,604,000						
17A	Multi-Purpose Space							\$ 10,000,000	
22A	Recreation Center Addition - Building Addition			\$ 1,950,000					
22B	Recreation Center Addition - Extend Track Over Court			\$ 140,000					
22C	Recreation Center Addition - Extend To Add Streching Zone			\$ 60,000					
	ATHLETICS								
18A	Stadium - Renovate Bleachers for 29 ADA Bleachers	\$ 311,000							
18B	Stadium - Pressbox: Ticketing, Merchandizing, Restrooms, Pressbox, VIP Room			\$ 6,030,000					
18C	Stadium - South Gateway: Ticketing, Concessions, Storage, Vistors Restroom and Scoreboard			\$ 2,328,000					
18D	Stadium - Restroom Annex			\$ 1,090,000					
18E	Stadium - Storage Excavated into Grade / Open Deck Above			\$ 610,000					
18F	Stadium -North Gateway: Concessions (2) and Covered Plaza			\$ 740,000					
18G	Stadium - Extended Open Deck			\$ 52,000					

Table 4.3.1- Cost Estimate

Building - Task		Phase 1 - (0-2 Year)		Phase 2 - (3-5 Year)		Phase 3 - (6-10 Year)		Phase 4 - (11-20 Year)	
18H	Stadium - Stadium Plaza			\$ 600,000					
19A	Keystone - Renovation of West Lockers							\$ 2,000,000	
19B	Keystone - Renovation of Central Lockers							\$ 4,700,000	
19C	Keystone - Two Story North Addition w/ Elevator Tower							\$ 10,600,000	
19D	Keystone - Pool Infill and renovation							\$ 2,900,000	
20A	Risley Hall - Elevator / Stair Tower Addition							\$ 2,200,000	
20B	Risley Hall - Exterior Façade Restoration							\$ 1,890,000	
20C	Risley Hall - Infill Floor w/ Lockers & Multi-Purpose Rooms							\$ 8,600,000	
20D	Risley Hall - Ground Floor Renovations							\$ 1,120,000	
21A	South Campus - Synthetic Field					\$ 3,400,000			
21B	North Campus - Synthetic Field							\$ 4,100,000	
21C	North Campus - Reorient Baseball / Softball Field							\$ 11,600,000	
21D	North Campus - New 2 Story Building							\$ 11,300,000	
21E	North Campus - Provide Driveway							\$ 200,000	
21F	North Campus - Event Plaza							\$ 700,000	
23A	New Natural Turf Field - New Turf							\$ 2,500,000	
23B	New Natural Turf Field - Exterior Lights And Sitework							\$ 2,000,000	
ADMINISTRATION									
24A	Old Main - Relocate ADA Services & Testing	\$ 1,230,000							
24B	Old Main - Housing and Dining Services - I-WIng	\$ 3,900,000							
25A	Stratton - Relocate Student Services into Building	\$ 100,000							
25B	Relocate One Card into Academic Forum	\$ 151,000							
25C	Stratton - IT	\$ 175,000							
26A	Poplar - Visitor Center					\$ 3,100,000			
SUPPORT									
27A	Parking & Traffic - Connecting Road to Baldy Street and C-Lot Reconfiguration	\$ 2,258,000							
27B	Fairgrounds Replacement Parking 1					\$ 6,700,000			
27C	Fairgrounds Replacement Parking 2							\$ 4,710,000	
27D	Parking - Deck at F1 Lot							\$ 3,350,000	
27E	Parking - B3 Parking Lot Reconfiguration							\$ 3,600,000	
28A	Traffic - South Campus Loop Road Realignment			\$ 90,000					
28B	Traffic - Road Realignment at F3 Lot			\$ 290,000					
28C	Traffic - Signal at Schock Lane	\$ 420,000							
28D	Traffic - Signal at Schaeffer Lane	\$ 200,000							
28E	Traffic - Pedestrian Signal	\$ 100,000							
28F	Traffic - Retiming and Interconnecting Existing Signal	\$ 4,700							
29A	Landscape - Promenade Connection Between Dorms & Stadiums	\$ 58,000							
29B	Landscape - Basketball Courts at University Place	\$ 430,000							
29C	Landscape - Informal Recreation Lawn at Johnson Site					\$ 370,000			
29D	Landscape - Amphitheater at Dining Hall	\$ 1,000,000							
29E	Landscape - DMZ Garden			\$ 190,000					
29F	Landscape - Plaza / Planting at DMZ North					\$ 75,000			
29G	Landscape - Terrace / Walks at Risley Hall							\$ 181,000	
29H	Landscape - Outdoor Student Classroom					\$ 540,000			
29I	Landscape - Library Quad			\$ 103,000					
29J	Landscape - North Quad			\$ 290,000					
30A	Stormwater - Runoff Swale at Armory	\$ 36,000							
30B	Stormwater - Rain Garden at College Blvd.	\$ 110,000							
30C	Stormwater - Rain Garden at Lytle Lane			\$ 42,000					
30D	Stormwater - North Fields Detention Basin							\$ 153,000	
30E	Stormwater - South Campus Detention Basin					\$ 210,000			
31A	Miscellaneous Site Items							\$ 2,830,000	
32A	PAGCHC Stabilization	\$ 1,320,000							
Total		\$ 16,791,490	\$ 41,004,000	\$ 34,593,000	\$ 15,197,000	\$ 34,635,000	\$ 24,652,000	\$ 121,175,000	\$ 21,369,000
Average Cost per year		\$ 8,395,745	\$ 20,502,000	\$ 11,531,000.00	\$ 5,065,666.67	\$ 6,927,000	\$ 4,930,400	\$ 12,117,500	\$ 2,136,900
Total Cost per phase		\$ 57,800,000	\$ 49,790,000	\$ 59,290,000	\$ 142,600,000				
Total Average Project Cost per fiscal year		\$ 28,900,000	\$ 16,596,667	\$ 11,858,000	\$ 14,260,000				

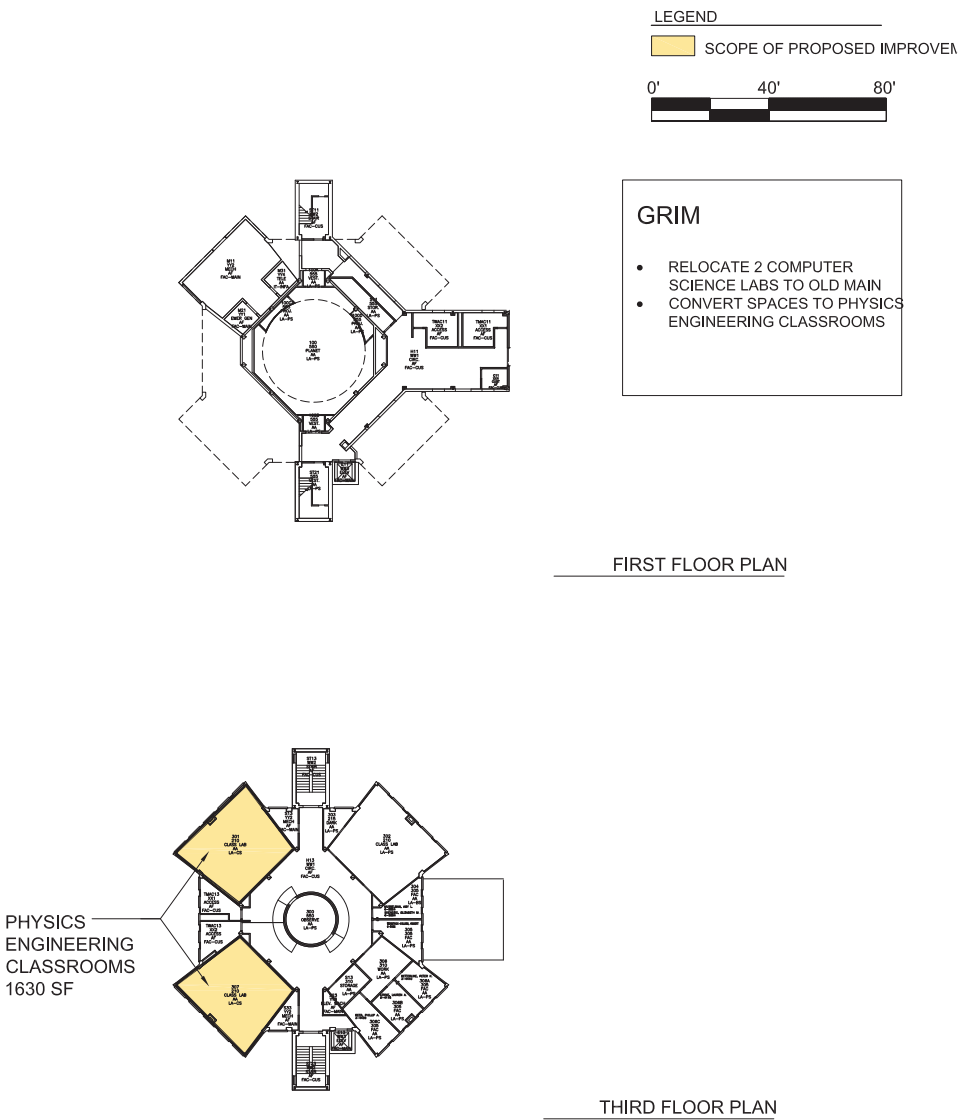
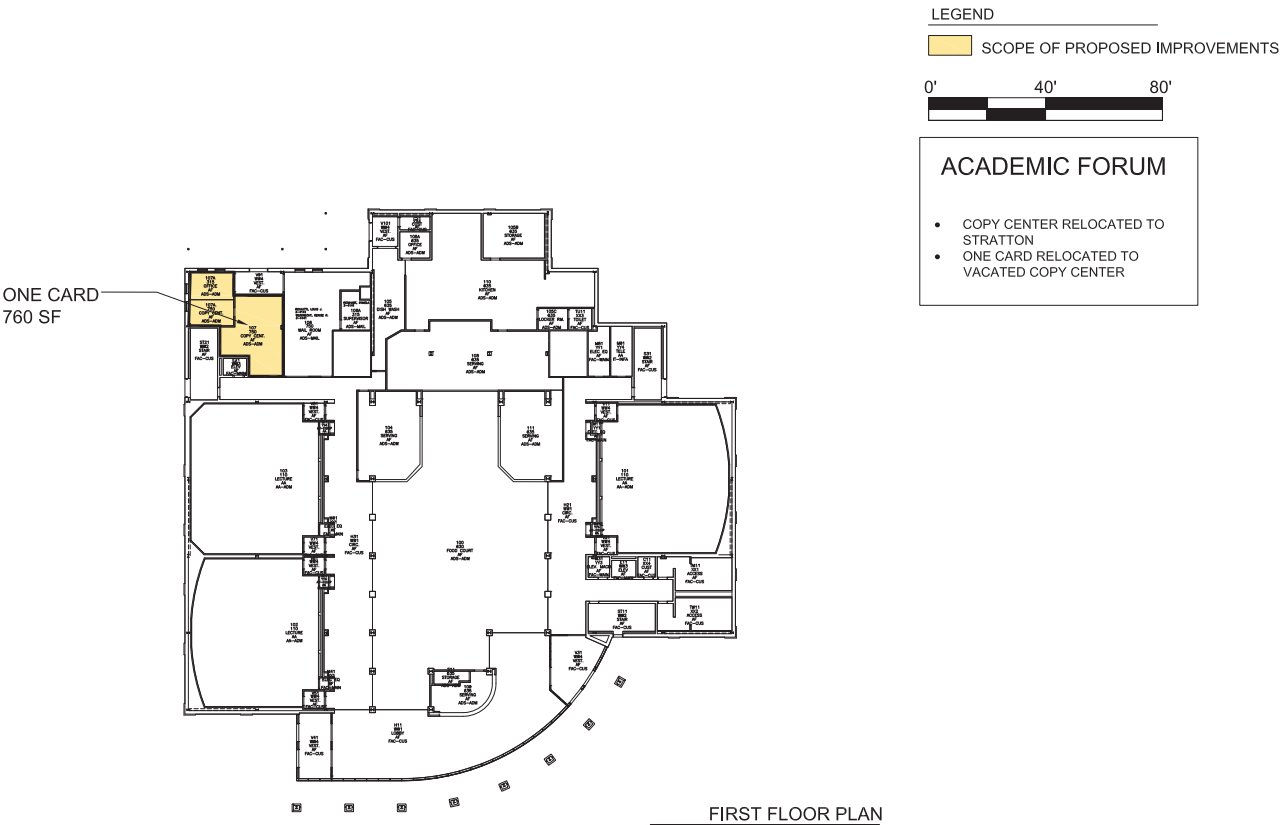
Table 4.3.2- Cost Estimate

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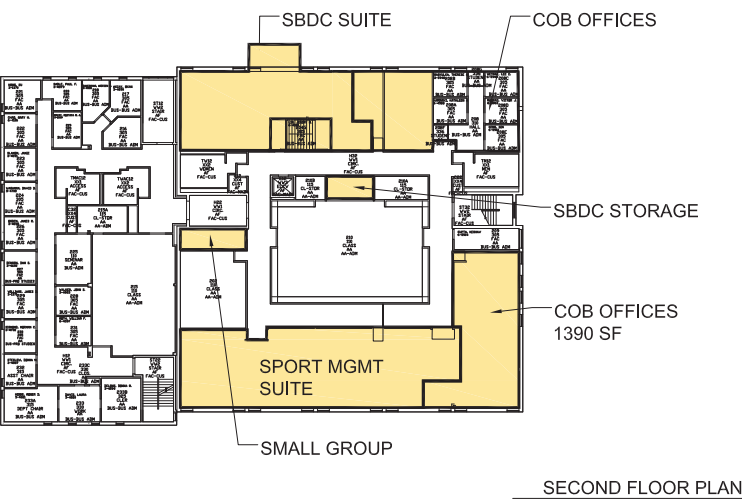
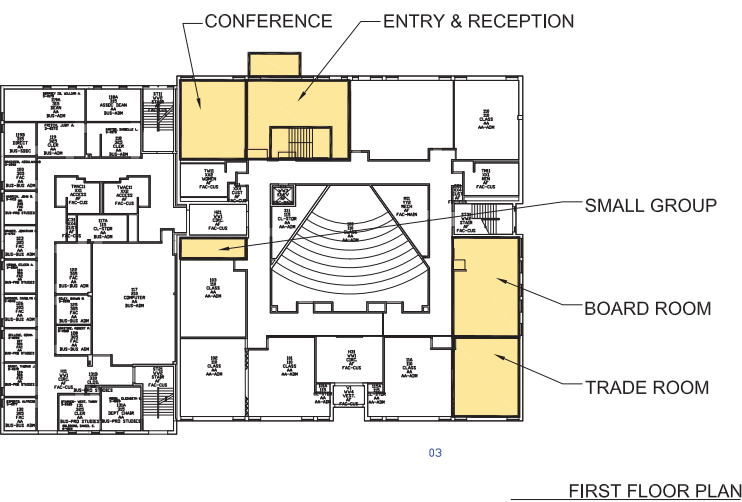
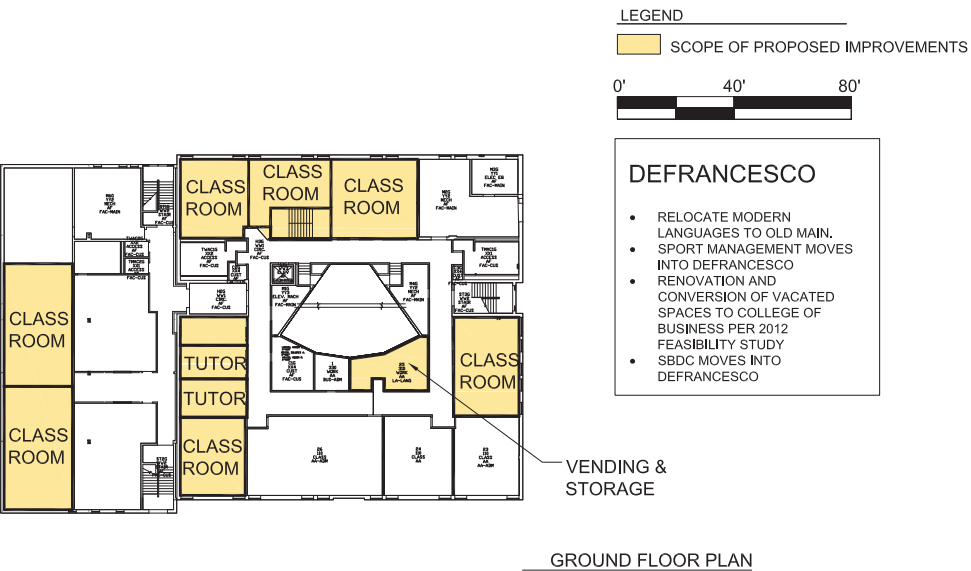
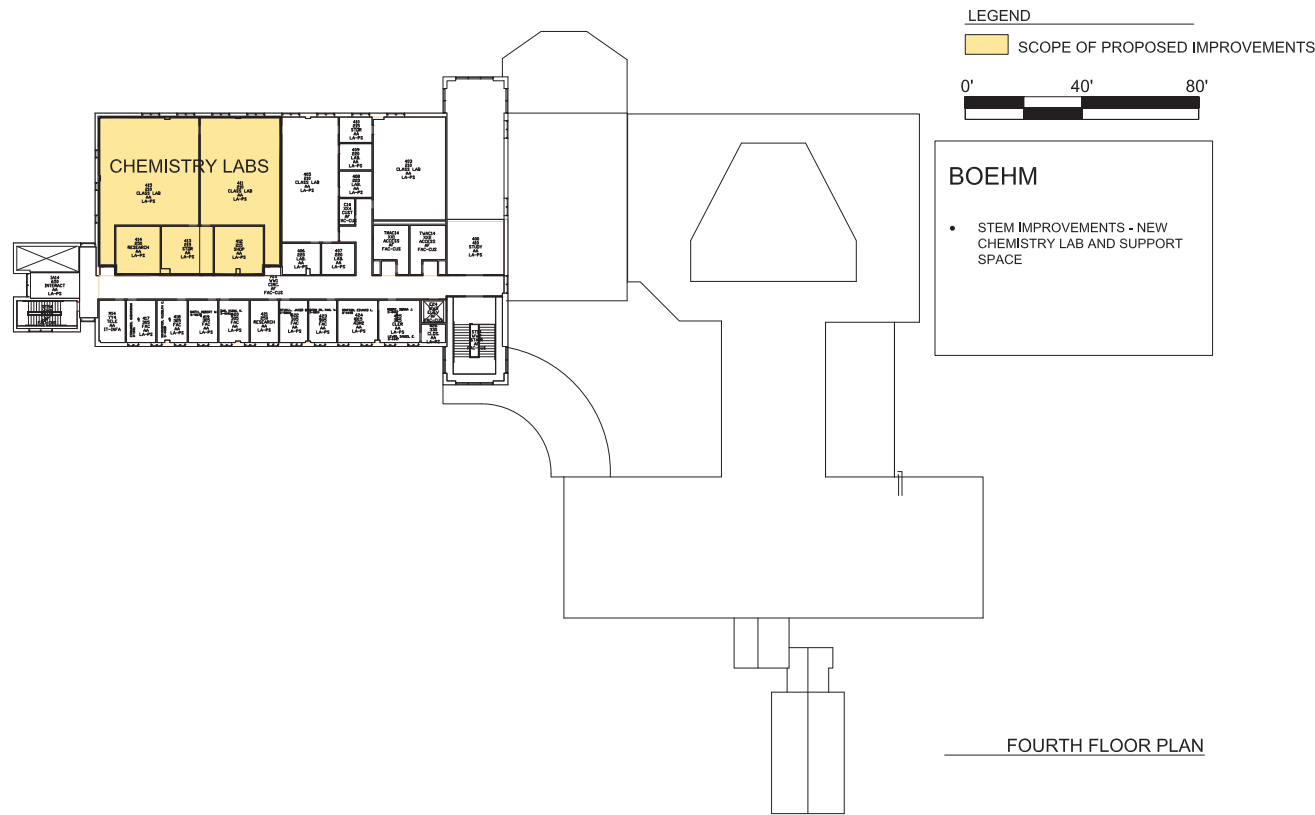


APPENDIX

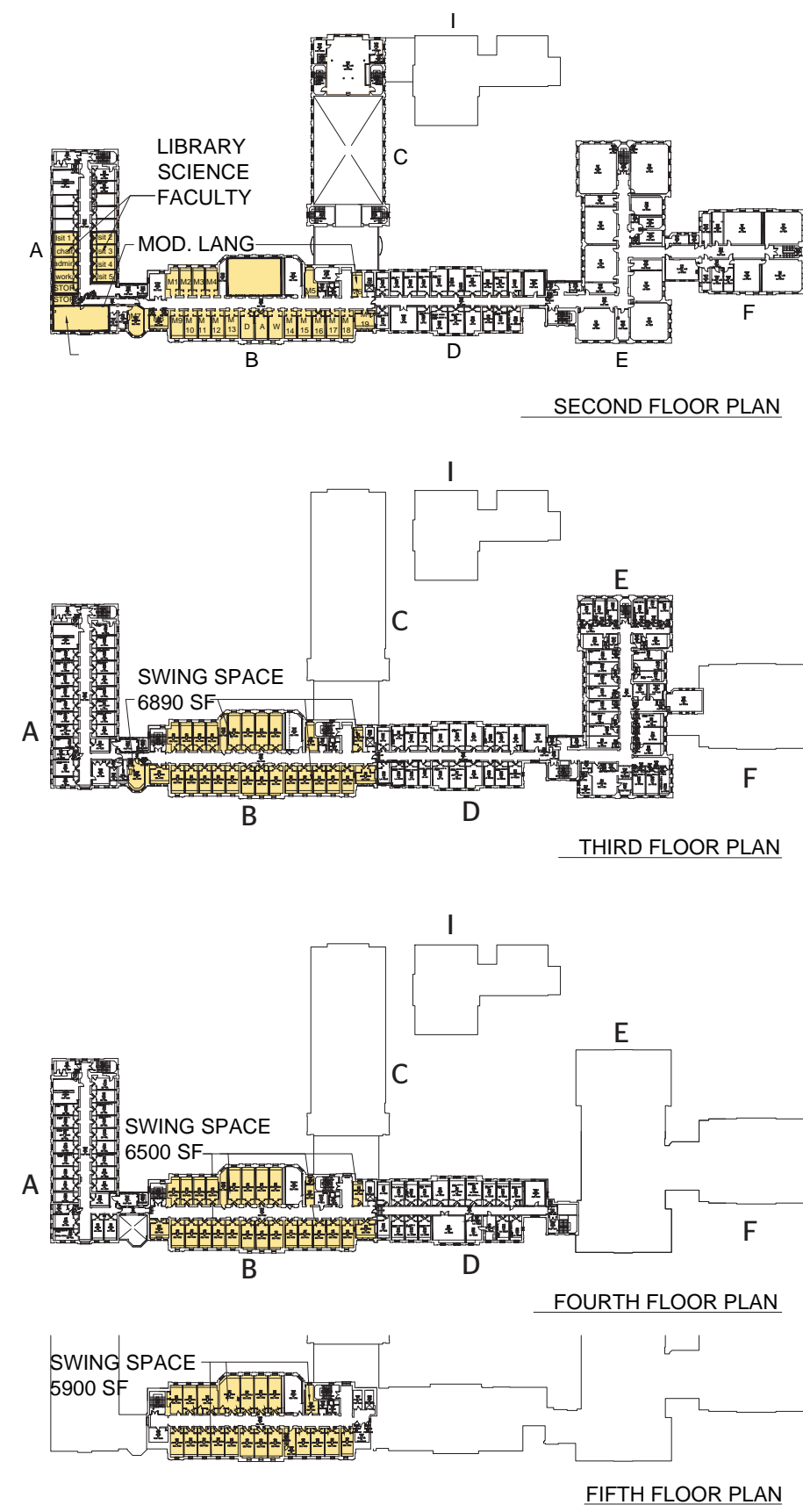
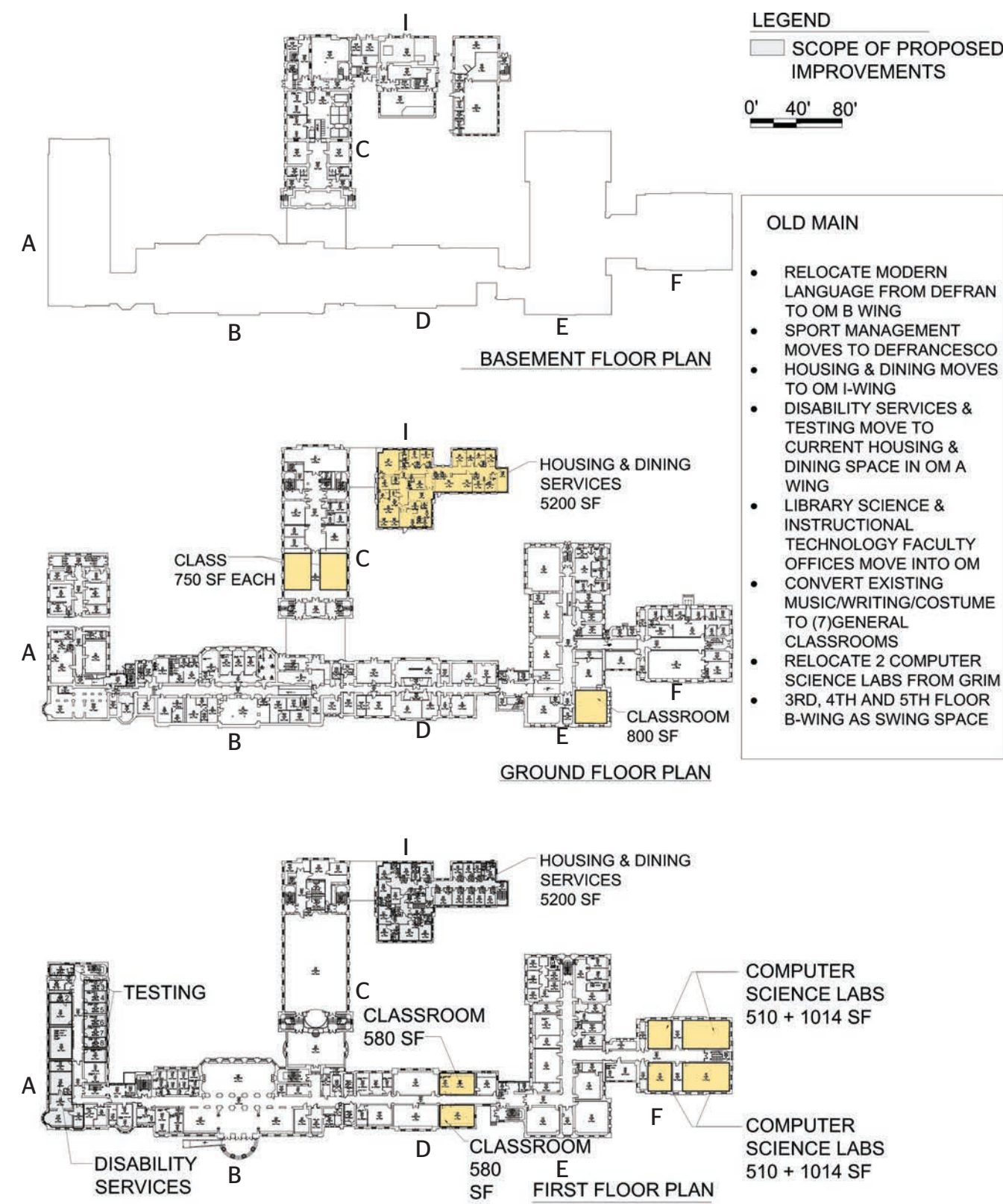
POTENTIAL MOVES



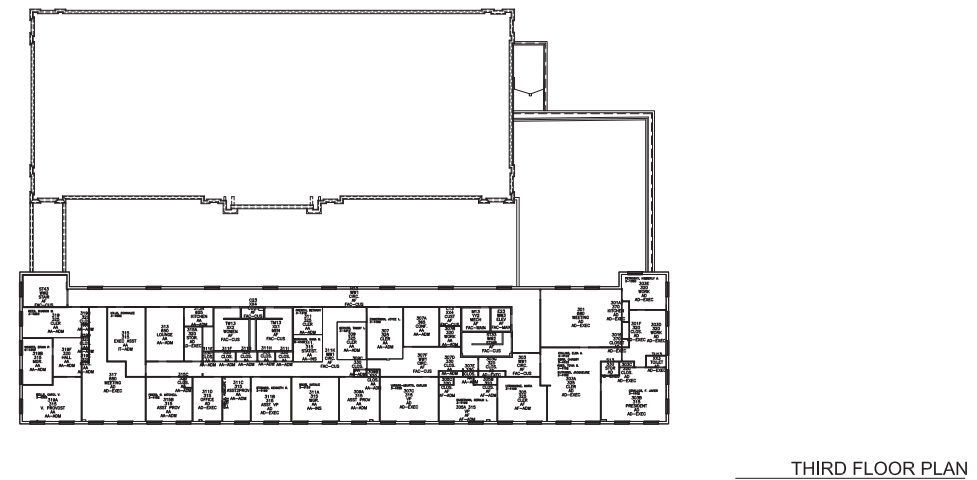
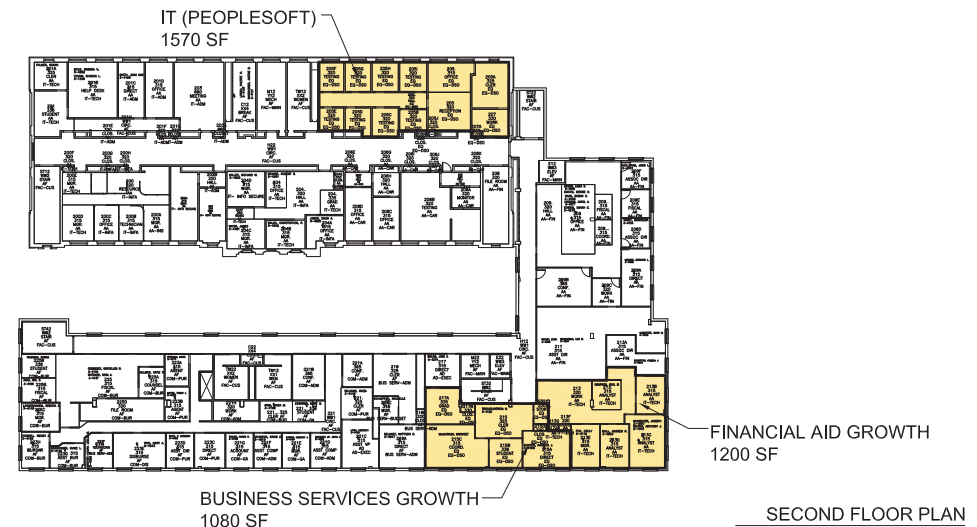
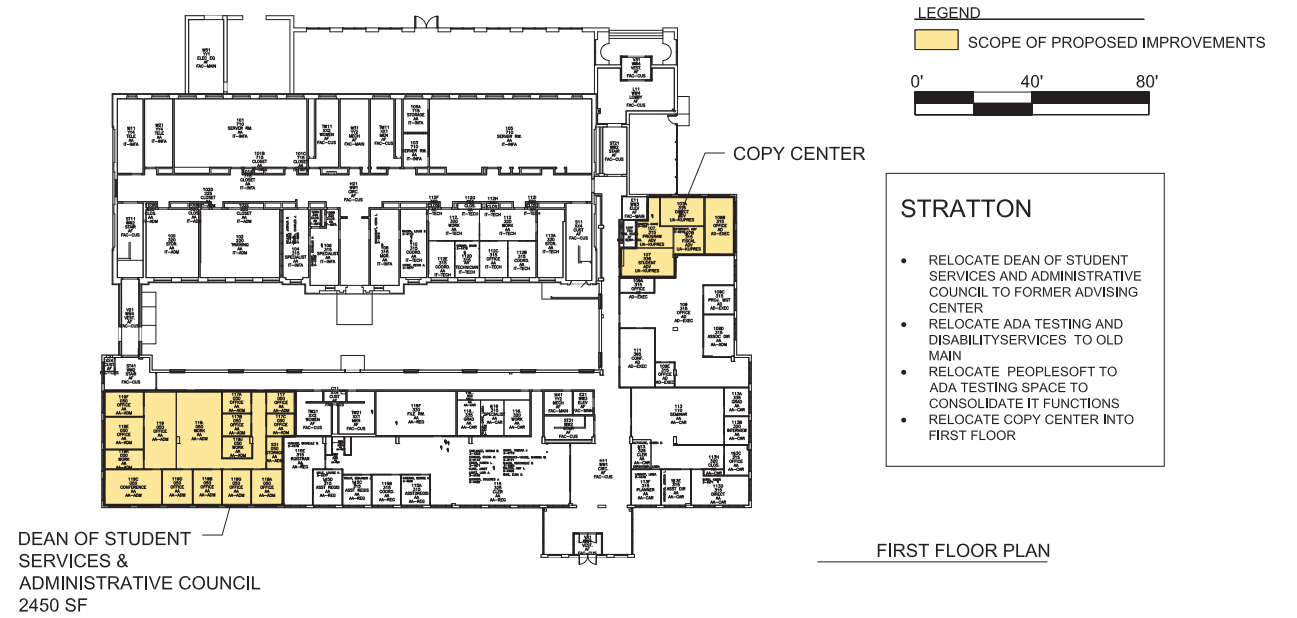
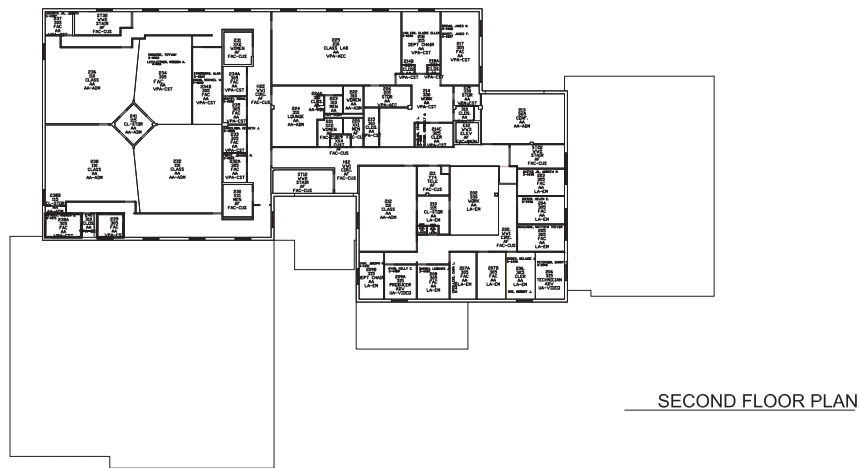
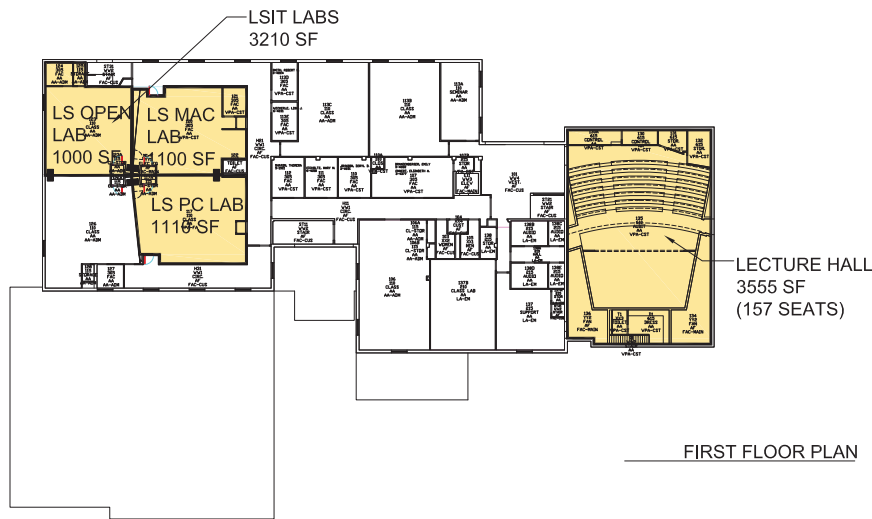
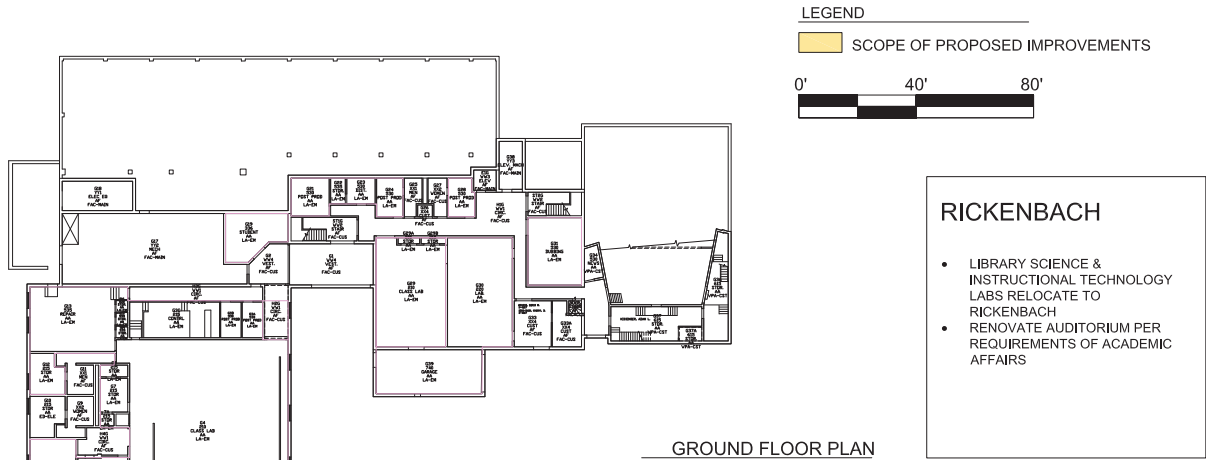
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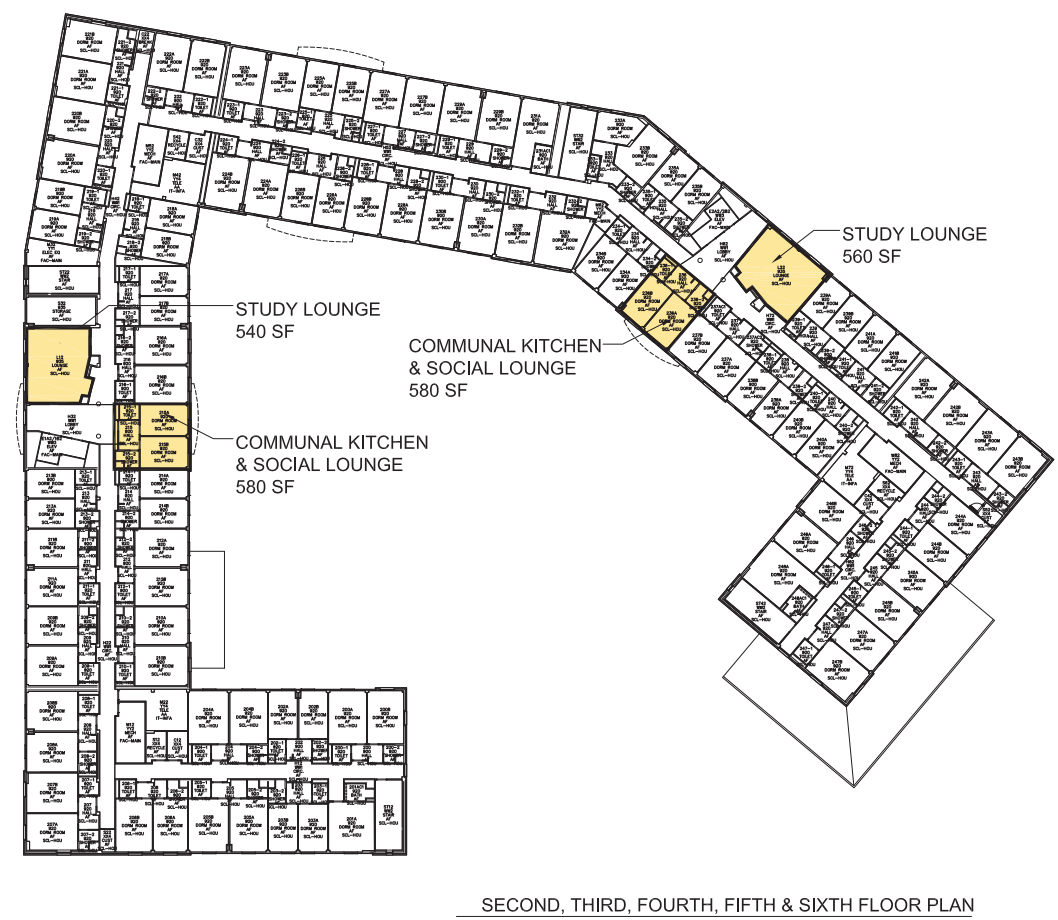
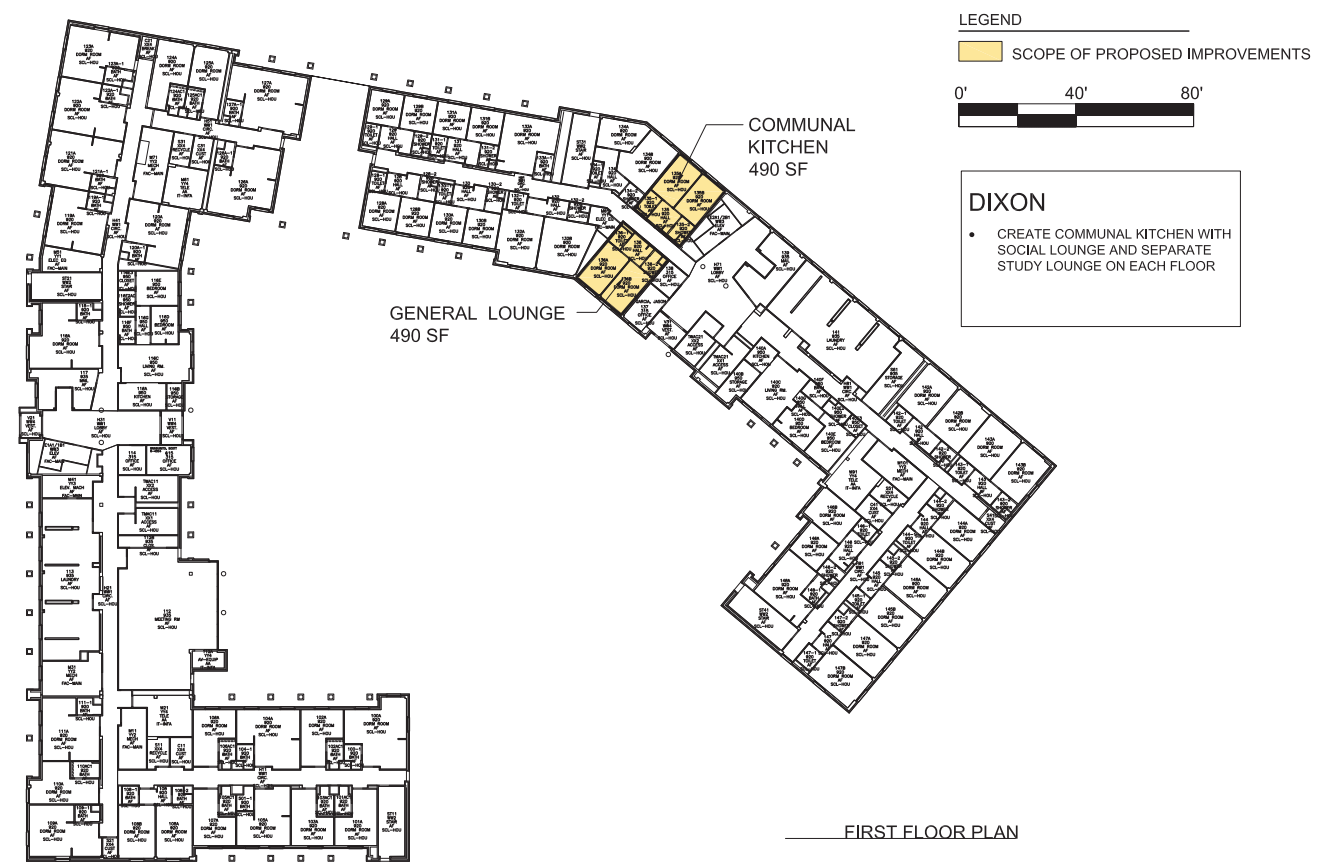
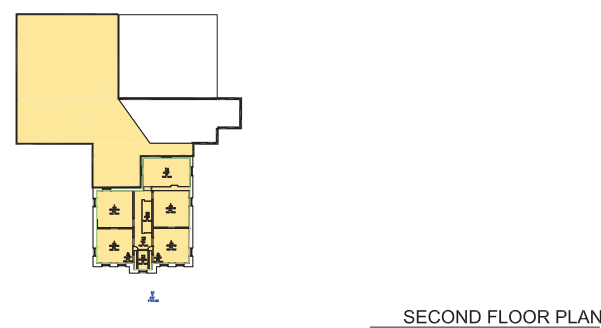
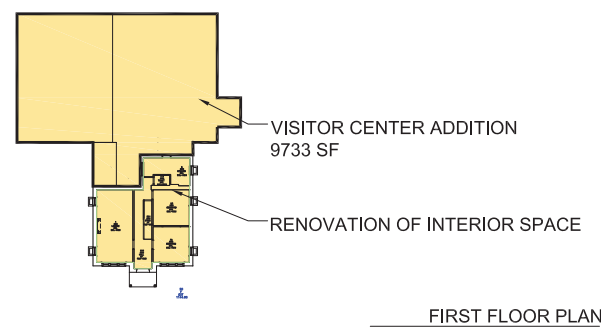
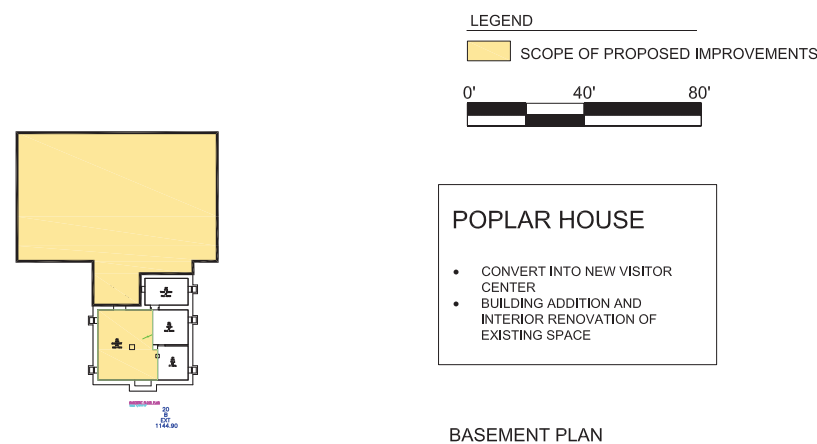
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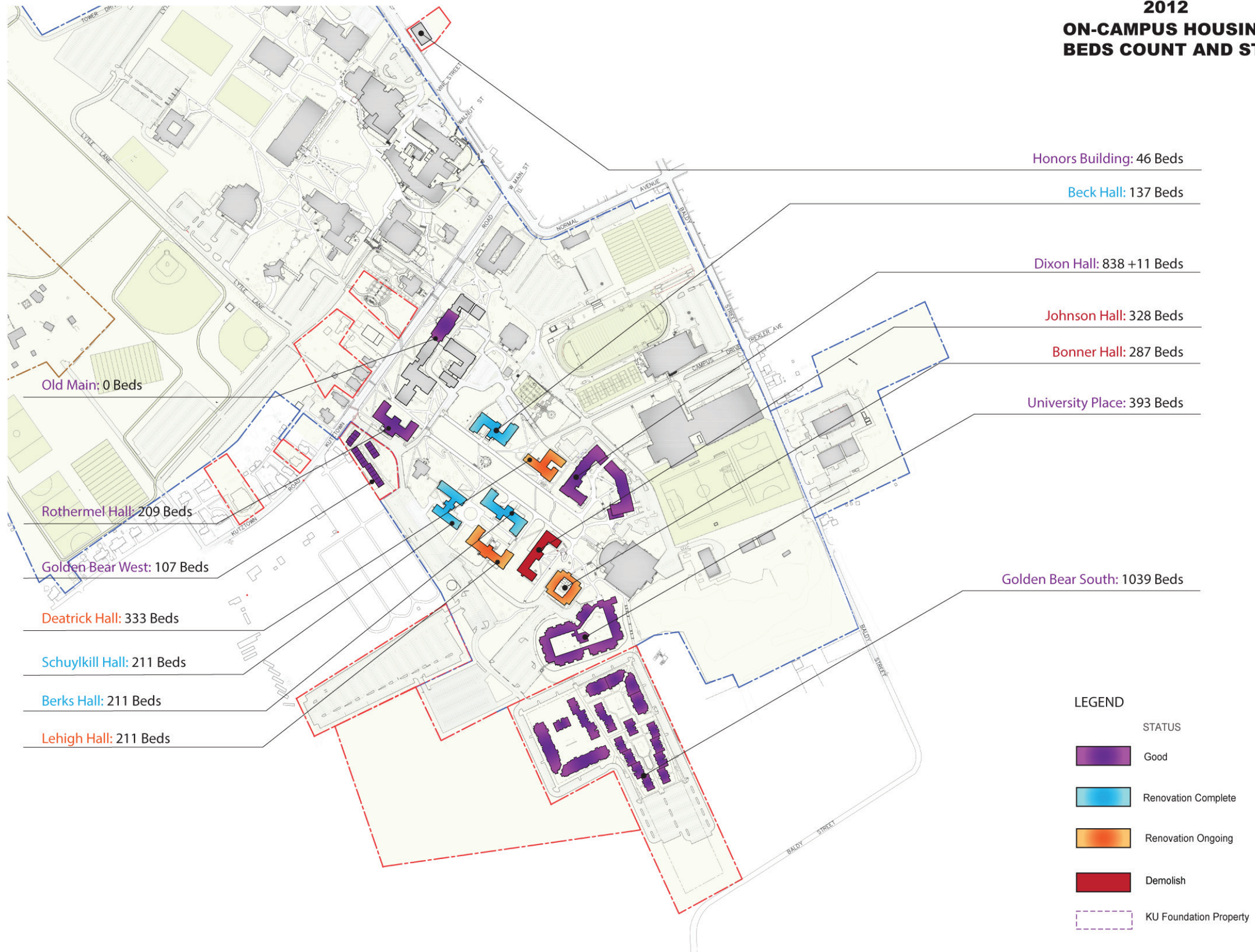
POTENTIAL MOVES



POTENTIAL MOVES



2012 ON-CAMPUS HOUSING BEDS COUNT AND STATUS



KU EXISTING MASTER PLANS, REPORTS AND STUDIES

	DATE	TITLE	AUTHOR
1	2000	Architectural Guidelines (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
2	2000	Engineering Guidelines (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
3	2000	Campus Master Plan (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
4	2000	Implementation Strategy (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
5	2000	Landscape Plan (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
6	2000	Lighting Master Plan (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
7	2000	Signage and Wayfinding (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
8	2000	Space Program Analysis (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
9	2000	Traffic and Parking (MP2000)	Wallace Roberts & Todd, STV, Anthony Blackett, Orth-Rodgers, Cloud & Gehshan
10	2002	Campus Master Plan Update (MP2002)	Wallace Roberts & Todd
11	2005	Housing Master Plan Final Report	Brailsford & Dunlavey(B&D)
12	2006	Campus Master Plan Update (MP2006)	Wallace Roberts & Todd
13	2007	Education House Relocation Feasibility Study	W2A Design Group
14	2007	Masonry Preservation Report	MPS
15	2008	Campus Stormwater Study	Spotts Stevens McCoy (SSM)
16	2008	Dormitory Improvement Master Plan	MGA
17	2008	Kutztown University Hazard Mitigation Plan	URS Corporation
18	2008	Campus Communication Alert System Master Plan Engineering Phase 1 – Investigation Phase Revision 1.2	Brinjac Engineering
18A	2009	Budget Request Support Mass Notification System Project, Phase 2, Parts A and B	Brinjac Engineering
18B	2010	Budget Request Support Mass Notification System Project, Phase 2, Part B, Revision 1	Brinjac Engineering
18C	2012	2012-2013 Budget Request Support Mass Notification System Project Exterior Speaker Coverage	Brinjac Engineering
19	2008	Athletic Facilities Master Plan	DRS/SASAKI
20	2009	Traffic, Parking and Circulation Master Plan	W2A Design Group
21	2009	Housing Master Plan Update Final Report	Brailsford & Dunlavey(B&D)

	DATE	TITLE	AUTHOR
22	2009	Street Addressing Proposal for Individual Campus Buildings (white paper)	Kutztown University
23	2009	Emergency Operations Plan	URS
24	2010	North Campus Academic Building Feasibility Study	STV
25	2010	2010 KU Lighting Design Guidelines	Barry Isett and Associates
26	2011	Strategic Plan 2011-2014	Kutztown University
27	2011	Heritage Tree & Landscape Master Plan	Kling Stubbins, Morris Arboretum of the University of Pennsylvania,
28	2011	Fred & Martha Hafer Visitor's Center (Poplar House)	CRA
29	2011	Kutztown University Design Guidelines	Kutztown University
30	2011	Grounds Operation Manual	Pennoni
31	2011	Building Automation System (BAS) Master Plan	RPA Engineering
32	2011	Signage Standards Manual	Kling Stubbins
33	2012	Keystone Field Feasibility Study - Conversion to Synthetic Turf	Architectural Concepts PC
34	2012	MarketMATCH Recommendations	Aramark
35	2012	Master Plan of Pennsylvania German Cultural Heritage Center	John Milner, Stromberg/Garrigan, Structural Design, Dewberry-Goodkind, International Consultants
36	2012	McFarland Student Union (MSU) Five Year Planning Report	Kutztown University MSU 5 Year Plan Committee
37	2012	Annual Safety & Security Report 2012	Kutztown University
38	2012	2012-13 Housing Pro Forma	Kutztown University
39	2012	Feasibility Study for the DeFrancesco Building - Life Cycle Upgrades and Building Renovations	CRA
40	2012	Green Plan 2012 - draft	Kutztown University
41	2012	1996-2012 Completed Projects Log	Kutztown University
42	2012	Building Envelope Conditions Assessment Report	Klein & Hoffman
43	2012	Manhole and Condensate Piping Replacement Study	Entech Engineering
44	2012	Boehm Lab Addition Feasibility Study	Spillman Farmer Architects
45	2012	2011-12 Rorhbach Library Annual Report	Kutztown University
46	2012	Keystone Field Feasibility Study:Conversion to Synthetic Field	Architectural Concepts
47	2012	Schaeffer - Post Construction Stormwater Plan	Brinjac Engineering
48	2012	PASSHE Keystone Library Network Review	Global Library Consulting
49	2012	2011-12 Library Expenditures Analysis	Kutztown University
50	2012	2012 LibQUAL Survey Results	Kutztown University

