



Date: April 16, 2019

Subject: **Request for Proposals (RFP) – Architect/Engineering (A/E) Team Selection**
DuBois Multipurpose Building Renovation and Addition
Penn State DuBois

To: AE7 + Hastings & Chivetta Architects
Bostwick Design
Crawford Architects, LLC
DIGSAU
DLA+ Architecture and Interior Design
Hord Coplan Macht, Inc.
Kimmel Bogrette Architecture + Site
KTH Architects
L.R. Kimball + Moody Nolan, Inc.
Spillman Farmer Architects + AP Architects (APA)
WTW Architects

A. INTRODUCTION

The Pennsylvania State University wants to first thank the 28 submitting teams that expressed interest in this project. After careful review of the submitted Letters of Interest, we congratulate the 11 A/E teams, above, who were selected to continue to the next step in the process: invitation to respond to this Request for Proposal (RFP). PSU uses a qualifications-based A/E Team Selection Process with three assessments: Long-list (based on Letter of Interest), Short-list (based on Proposal responses), and in-person Interviews. This specific A/E Selection process is as follows.

Proposal responses are due in my office by **Noon on May 8, 2019**. After review of Proposal responses, the Screening Committee will identify three firms for in-person interviews. The **Short-List/ Interview Notice will be posted to website on May 31, 2019**. In-person interviews will occur on **June 27, 2019 in at the Penn Stater in State College, PA**. Non-Binding Fees will be requested of the three Short-Listed teams, which will be due just prior to the respective Interview. The results of the AE Team selection process will be announced at the Board of Trustees meeting on **July 19, 2019** and posted to this location on the OPP website:
<https://opp.psu.edu/planningdesignconstruction/project-bidsproposals>.

Participation in this RFP and selection process is voluntary and at no cost or obligation to PSU. PSU reserves the right to waive any informality in any or all Proposals, and to reject or accept any Proposal or portion thereof. PSU reserves the right to modify dates as/if it deems necessary. Confidentiality and Non-Disclosure. News releases pertaining to this project will not be made without prior approval from PSU, and then only in coordination with PSU. The contents of all A/E selection process correspondence are to remain confidential, and as such, not be made public.

B. PROJECT OVERVIEW

The Multipurpose Building, originally constructed in 1966, has remained largely the same for the past 50 years with only minor reconfigurations. Today the Multipurpose Building serves as the Penn State DuBois indoor facility for athletic programs, physical activity courses, intramural programs, general recreational activities, special events, wildlife studies and physical therapy. The existing

31,350 gross square foot building includes a gymnasium, fitness room, offices, locker rooms, classrooms and labs. The intent of this project is to renew the entire building's systems and fully address the ongoing space needs to support current programs and broader campus aspirations.

It is anticipated that the Wildlife Studies and Physical Therapy programs and associated support and offices spaces, currently located in the Multipurpose Building, will be relocated to the Smeal Building to better utilize academic spaces across campus and return the focus to serve the athletic, fitness, recreation and event needs of the student population. The relocation of these two programs is to be included in this project.

C. PROGRAM OF REQUIREMENTS

This project has a **\$15.0M total project cost** and is inclusive of all project related expenses including \$11.1M earmarked for construction, \$1.8M for all soft/indirect costs, \$1.6M of owner contingencies and \$0.5M for Furnishings, Fixture and Equipment. The successful A/E firm will be expected to work in conjunction with Construction Manager at Risk – separately selected by the University - throughout design and construction phases.

The University has completed a concept level program document with the assistance of Weber Murphy Fox. Attached is an excerpt of the April 18, 2018 study indicating desired highlights. The program document defines an existing building of approximate 30,000 gross square feet. This project will feature up to 14,000 GSF of new construction as an addition and 30,000 SF of renovation to the Multipurpose Building and 5,700 SF of renovation to the Smeal Building for the Wildlife and Physical Therapy programs.

The project's new construction will support program space for an auxiliary gym, lobby entrance, athletic training and meeting spaces. The existing building will be renovated to include an auxiliary gym, concessions, fitness, locker rooms, health center, and exercise studio.

The goals of the project include the following:

- Provide adequate facilities to support NCAA athletic programs, enhance the DuBois athletics brand and improve recruiting and retention
- Provide adequate recreational, fitness and athletic programs for Students and Student Athletes
- Improve interior circulation especially as it pertains to accessibility to all building levels.
- Renew the existing building infrastructure systems, including building envelop and mechanical systems.
- Create an expansion that will enhance the existing campus aesthetic and character
- In keeping with our commitment to environmental sustainability, we expect that this facility will, at a minimum, attain USGBC's LEED Certified Level.
- A completed facility that helps to positively change the wellness culture of the campus

D. PRELIMINARY SCOPE OF WORK

The first step of this project will be to validate the April 2018 WMF program statement and also prepare concept design, scope/budget alignment. The program effort will need to incorporate input from the DuBois Campus, users, and PSU OPP. This will also include the development of a room-by-room program, space adjacency diagrams, room data sheets, and cost model (to compare to the CMaR's parallel estimate).

With the project prominence and visibility of the location, the initial project will include detailed site evaluations. Site considerations will include: parking, vehicular circulation, building and campus-scale entry sequence, campus connectivity, pedestrian movements given steep grading, building orientation/massing, massing/aesthetic impact, and phasing/swing space/construction logistics.

After the program/concept phase, the project will follow the standard design phases – SD, DD, CD and CA Phases in accordance with Penn State’s standard 1-P agreement. The project will be executed with a Construction Manager at Risk (CMaR) with a Guaranteed Maximum Price (GMP). The successful A/E firm will be expected to work in conjunction with the Construction Manager at Risk, who will be in place early in the design phase.

E. RFP ATTACHMENTS AND REFERENCED STANDARDS

- **Excerpt of the Program document, titled *Programming and Feasibility Study for Building Renewal***, dated April 18, 2018.
- **Form of Agreement.** Included is the link to our Form of Agreement 1-P:
<https://wikispaces.psu.edu/display/OPPDCS/Division+00+-+Procurement+and+Contracting+Requirements>

Please review this agreement to ensure that your firm accepts all terms and conditions as written. In submitting a proposal for this project, you acknowledge that you concur, without exception, with all terms, conditions and provisions of Form of Agreement 1-P.

- **Design Phase Deliverables.** Reference this document under the heading *00 51 00 MISCELLANEOUS FORMS* at the following link:
<https://wikispaces.psu.edu/display/OPPDCS/Division+00+-+Procurement+and+Contracting+Requirements>
- **Office of the Physical Plant (OPP) Standards.** The web sites www.opp.psu.edu and <https://wikispaces.psu.edu/display/OPPDCS/Design+and+Construction+Standards> provide information regarding specific design submission requirements and standards, of the University. Please review to ensure that your team is able to deliver a compliant building.
- **OPP High Performance Standards.** The University has a commitment to environmental stewardship with a focus on University and campus-wide carbon reduction and total-cost-of-ownership. Our projects require maximum consideration of potential sustainable and energy-efficient designs and specifications for architectural, site, utility, structural, mechanical, electrical, and plumbing disciplines. Refer to the following link for the University's high performance standards that exceed building code minimum requirements:
<https://wikispaces.psu.edu/display/OPPDCS/01+80+00+PERFORMANCE+REQUIREMENTS>

A part of this is PSU’s High-Performance Building Design Standards: Building projects shall comply with ASHRAE Standard 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings, 2010 version AND as superseded by more stringent requirements of ASHRAE Standard 189.1 Standard for the Design of High-Performance Green Buildings, 2011 version. In keeping with our commitment to environmental sustainability, this facility will be a high-performance building and will, at a minimum, achieve LEED Certification.

F. SELECTION AND IMPLEMENTATION MILESTONES

- RFP Issued to Long-Listed Teams: April 16, 2019
- **Submission of A/E Proposals Due: Due Noon Eastern Time, May 8, 2019**
- Post Short-List results + Interview notice: May 31, 2019
- **A/E Team Interviews: June 27, 2019 (The Penn Stater, State College, PA)**
- Board of Trustees Selection of Team + Post Results: July 18, 2019
- **Contract Award / Letter of Intent: July 31, 2019**
- Construction Start Date November 2020
- **Construction Completion July 31, 2022**
- Project Occupancy June 30, 2022

G. PRE-PROPOSAL SUBMISSION CONTACT

The Office of Physical Plant encourages you to visit the site and discuss the project with representatives of the user group in order to understand all goals and the major issues driving this project. **We will have scheduled optional project/site tours on the following days.** The tours are optional, but if you seek to attend a tour, you must schedule a time over one of these days with John Luchini (814-375-4710 and/or jbl1@psu.edu).

- **Tour date 1: April 25, 2019 @ 10:00 AM**
- **Tour date 2: April 25, 2019 @ 1:30 PM**

Contact the PSU Project Manager Doug Wenger (JDW132@psu.edu and/or 814-863-9622) with any questions regarding the project.

Campus Planning, design-related, or A/E selection process questions should be directed to Greg Kufner, University Architect.

H. PROPOSAL REQUIREMENTS

Deliver **twelve (12) hard copies of your proposal and one (1) digital copy on a thumb drive to:**

Shipping Address (Note that this address has changed):
Greg Kufner, University Architect
The Pennsylvania State University
One Benedict House
University Park, PA 16802

Hard copies of the Proposals are due **May 8, 2019 at Noon**, Eastern Standard Time. A PDF version of your proposal should be included on a thumb drive with your submission. Proposals received after this date and time may be automatically rejected. Proposals shall be provided in an 8.5"x 11" format. Limit submission to 30 single-sided pages maximum (15 double-sided), plus a cover letter. Double-sided printing is strongly encouraged. Font size is to be 10-point type, minimum.

A cover letter shall be provided from the proposed leader(s) of the Candidate Team submitting. The cover letter should be one page maximum. The cover letter should include the following:

- A. This letter should establish the contact information (name, address, phone, and e-mail) for your team's main point of contact

- B. Primary office location of the submitting candidate team
- C. A concise summary as to why your team is best suited for this project
- D. Statement of certification that all information provided in your submittal is accurate

Collate and bind proposals according to the following four (4) Sections:

Proposals shall follow the below format, in the order stated to ensure that all pertinent information necessary for evaluation is included and easily comparable by Selection Committee. The cover letter, table of contents, and divider pages will not count towards the RFP page limitation. OPP encourages you to be as brief as possible without sacrificing accuracy and completeness.

*** Note 1: As applicable throughout the proposal, provide professional credit to architectural partners (including design architect, architect of record, and academic / lab planning partners) for all projects discussed within the proposal and for all project images shown.**

Section 1.0 –TEAM STRUCTURE

- A. Identify prime (contract-holding) firm, design/architectural partners, planning consultants, and key engineering/ consultant firms. For each firm, identify the firm differentiators, size of firm, each firm’s qualifications and experience on similar projects, and clearly identify each firm’s role on this project. Identify past collaboration between prime firm and key consultants, including number/ value of projects, and the added benefit the key consultants provide to your team.

Penn State University values variety in the composition of consultant teams. As such, teams should demonstrate previous successful collaboration, execution of projects similar to the ones in this RFP, and the ability to incorporate owner’s design standards similar to the Penn State Design and Construction Standards. While we appreciate firms with experience at PSU we do not have a preferred vendor list and encourage the selection of the best talent possible for our projects.

- B. Provide team organizational chart. Include prime and key consultant firms, and provide the name and role of key team members. Clearly identify which team members are designated for leadership positions on the team. Please highlight Diverse Business Enterprise Program (DBE) representation on your team.
- C. Provide role descriptions and resumes of key team members identified in the organizational chart. Include registrations/ certifications, educational background, years of experience, and relevant project experience. Relevant project experience should include size, budget, program type, project overview, and define what each team member’s role was on each project listed on their resume (emphasize the most relevant experience, including similarity of team member roles and projects). Include at least two client references for each key team member. **If possible, please avoid using Penn State employees as references.**

Note: If any individual(s) is fulfilling multiple project roles, identify multiple roles on the organizational chart and within individual resumes.

Section 2.0 – TEAM QUALIFICATIONS

- A. Provide a summary of qualifications and expertise of the firms with specific emphasis on:
1. Design Excellence, including for projects with additions and renovations.
 2. Distinguishing factors of team differentiation.
 3. Experience delivering programs, studies and projects of a similar scope, scale, and complexity. **(See Note 1)**
 4. Expertise in the planning, design, and delivery of state-of-the-art athletic and recreation facilities within higher education environments. **(See Note 1)**
- B. **Identify a maximum of 7 example projects within the last ten (10) years, which BEST exemplify qualifications and expertise listed above for the proposed team.** Include brief description of each project, project gross square feet, project budget, final project cost, and completion date of project and a client reference(s). Show illustrative representation of the example projects, particularly those highlighting design work of your team’s proposed Lead Design Architect. **(See Note 1)**

Develop a matrix that illustrates the similarities between the example projects and this project. Please be as specific as possible.

In matrix form, show the participation of individuals from the proposed team on the identified projects. List team member’s respective role on each of the example projects.

- C. The Pennsylvania State University encourages the participation of Minority Business Enterprises, Women Business Enterprises, Veteran Business Enterprises, Service-Disabled Veteran Business Enterprises, and LGBT Business Enterprises; collectively referred to as Diverse Business Enterprise (DBE) for Design Professionals.

Briefly describe your proposed methodology to include Diverse Business Enterprise participation for this project. This may include, but not limited to partnerships, joint ventures, mentor/mentee protégé program, or other outreach efforts. Participating firms should specify whether the professional or consultants being proposed is a current DBE firm. If the proposing firm itself is a current Diverse Business Enterprise, the firm should state that fact in their proposal.

Firms and consultants that are not certified DBE design professional firms are encouraged to include a certified DBE design professional firm as part of their team for consideration regarding the selection of the design professional firm.

Below is a list of acceptable certifying agencies:

1. Federal Department of Transportation
2. National Minority Development Council (NMSDC) or its affiliates
3. * Department of General Services Bureau of Small Business Opportunities (DGS BSBO)
4. Southern PA Transportation Authority (SEPTA)
5. Women Business Enterprise National Council (WBENC)
6. Pennsylvania Unified Certification Program (PA UCP)
7. National Women Business Owners Corporation (NWBOC)
8. Minority Business Enterprise Council (MBEC)

9. National Gay and Lesbian Chamber of Commerce (NGLCC)
10. U. S. Department of Veteran Affairs (VOB/SDVOB)

* Or comparable state agencies or regulating bodies in other states.

- D. List errors and omissions insurance coverage limits of the lead/ prime entity of the candidate team. Provide information on errors and omissions claims in the last (7) seven years.
- E. Provide historic breakdown of project performance. Include project delivery method, history of project budgets compared to completed construction cost, history of change orders, average response time to RFIs, and any other key project profiles relevant to this project.
- F. Acknowledgment of your review and acceptance of the attached Form of Agreement 1-P, ensuring that your firm accepts all terms and conditions as written. In submitting a proposal for this project, you concur, without exception, with all terms, conditions and provisions of this Form of Agreement.

Section 3.0 – PROJECT APPROACH AND SCHEDULE

- A. Describe your team’s design approach, including:
 1. Project visioning and goal setting, and approach to achieving vision/ goals.
 2. Validating the project program, including verifying the mix of program elements.
 3. Building planning, including: defining programmatic adjacencies, creation of blocking and stacking options to respond to project aspirations and requirements.
 4. Design approach to develop interior and exterior “look and feel”.
- B. Describe your team’s overall approach to:
 1. Planning, managing, and executing the project. Include approach to guiding the decision-making process, scheme options analysis, and consensus building.
 2. Use of BIM, technology, predictive modeling, and digital tools.
 3. Creating a collaborative environment between architects, planners, engineering consultants, and PSU/OPP stakeholders.
 4. Provide approach to incorporating your firm’s project management lessons learned on topics such as the following:
 - a. Change management
 - b. Schedule Control
 - c. Project communication
 - d. Construction Administration
- C. Briefly describe your approach to Penn State reviews, PSU design reviews, and jurisdictional reviews. With assistance of the University, the selected AE team will be responsible for securing any/all local municipal reviews, Labor & Industry reviews and/or permits that are required. Any fees associated with permits shall be paid for by the Professional and will be reimbursed by the University.
- D. Approach to MEP/ Building System design. Narrative approach to MEP planning/ design/ delivery of facility that will contain programs and space types as noted herein. Be specific with your experience and highlight your project type expertise.
- E. Approach to Sustainability. After reviewing PSU’s High-Performance Standards, describe your team’s approach to driving towards PSU’s sustainability goals on the project, including

exceeding our standards. Highlight your specific experience meeting ours or similar high-performance standards.

Among other applicable topics, discuss your team's approach and experience to:

- Utilizing natural daylight and other passive systems for recreation facilities
- Using total-cost-of-ownership analysis to helping evaluations project options
- Experience using energy models and/or other analysis to drive design thinking.

Describe overall team commitment to sustainable design, including number of completed LEED projects.

- F. Approach to Cost Control. Briefly describe your approach to cost control especially considering escalating construction costs.

How you manage scope/budget change through the entire project. Approach to help PSU get maximum value out of the project investment, especially given the project scope includes major renovations and an addition.

Discuss your impression of the budget. Outline critical factors to consider with respect to the project budget.

- G. Project Schedule. Provide your thoughts and approach to the project schedule. Create a graphic project schedule showing phase durations, owner engagement and review periods, and identify critical path items, milestones, and schedule drivers. This can be printed on an 11x17 fold-out and will only count as a single page.

Verify the entire AE team's availability to appropriately staff the project, given the project schedules and inclusive of project and/or firm workload.

Section 4.0 – PROJECT-SPECIFIC KEY DRIVERS AND IDEAS

- A. Project Understanding. Briefly demonstrate your understanding of the project. Provide any observations of the project program or other provided information. To indicate your understanding of the uniqueness of this project, describe key project drivers, critical design elements, and potential constructability considerations your team has identified as a priority for this specific project.
- B. Convey your ability to deliver a highly functional, vibrant, and utilized building. How will you help us test different design options and/or space programming options to maximize use of the gym/fitness facilities. What aspects of the building will make the project highly functional.

Convey design/technical expertise or principles/ideas related to the following programs/space types:

- a. Gymnasiums
- b. Weight/fitness rooms
- c. Health Services
- d. Athletic training and therapy
- e. Locker rooms

- C. Provide your specific insight regarding design/planning trends, student/user trends, precedents/benchmarking/exemplars, and/or other considerations for recreation/wellness facilities, especially within a higher education setting.
- D. Your firm's vision of what, beyond purely functional issues, constitutes the essence of this type of facility. Provide additional evidence of your firm's ability to translate design intentions into a meaningful project.

Discuss example project(s), relevant to our project, that best indicates the appropriate resolution of an understanding of the uniqueness of a project, design intentions, and how those design intentions translated into a meaningful and synthesized final solution.

- E. Provide any initial design ideas, thoughts or considerations regarding the project. We are not seeking design solutions, but "a look into your design thinking". Given the project's gateway/ "front door" location, how can the project be an additive proposition to campus placemaking (pedestrian and vehicular).

Thank you for your anticipated participation in this A/E Team Selection process. The Pennsylvania State University looks forward to reviewing your responsive proposal for this important project. Please feel free to contact me with any questions you may have.

Respectfully,

Greg Kufner, AIA, NCARB



University Architect
The Pennsylvania State University
206 Physical Plant Building, University Park, PA 16802
Phone: 814-865-8177 | Mobile: 614-512-2287
Email: gak21@psu.edu

CC: Screening Committee

Penn State DuBois, Multipurpose Building
PSU BLDG NO. 0976-007

April 18, 2018

EXCERPT

PROGRAMMING AND FEASIBILITY STUDY FOR BUILDING RENEWAL



Prepared for: The Pennsylvania State University Commonwealth Services

PSU PROJECT NO. 00-05693.00

Office of Physical Plant

The Pennsylvania State University

325 The 328 Building

University Park, PA 16802

Prepared by:

Weber Murphy Fox, Inc.

403 South Allen Street, Suite 115

State College, PA 16801

Phone: 814.867.3508

Karpinski Engineering

1274 Hunt Road

Ashville, NY 14710

Phone: 716.484.9191

WMF

WEBER MURPHY FOX
ARCHITECTURE INTERIORS CONSTRUCTION MANAGEMENT
LAND PLANNING & DEVELOPMENT HISTORIC PRESERVATION

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ACKNOWLEDGEMENTS

PENN STATE UNIVERSITY PARK COMMITTEE MEMBERS

DOUGLAS WENGER, Project Manager, Commonwealth Services
THOMAS P. KASE, RA, LEED AP Architect, Space Planning and Management, Penn State University Park

PENN STATE DUBOIS COMMITTEE MEMBERS

M. SCOTT MCBRIDE, Chancellor and Chief Academic Officer
JOHN LUCHINI, Director of Business Services and Financial Officer, Business Services, Penn State DuBois
TOM HIBBERT, Facilities / Maintenance Supervisor, Business Services, Penn State Dubois
KENNETH NELLIS, Athletic Director
JEAN WOLF, Development / Alumni
JOHN BRENNAN, Continuing Ed.
BRIAN HART, Information Technology
GARRET ROEN, Registrar
MELISSA DUTTRY, Director of Enrollment Services
LAURA PENTZ, Chancellor Office
Wildlife Faculty – Carrie O’Brien, Keely Roen, Emily Thomas, Nathan Weyandt
Physical Therapy Assistant Faculty - Barbara Reinard, Holly Tkacik
Student Affairs and Enrollment
Student Athletes
Student Groups (student Government and IST Club)
Coaches – Women & Men’s Athletics – Basketball, Volleyball, Cross Country, Golf, Baseball, Softball, Wrestling

STUDY TEAM

ANNA CHILDE, AIA, LEED AP (Project Manager & Project Architect / WMF)
DENNIS WILKINS, AIA, LEED AP (Lead Designer/ WMF)
TONY GRACE (Estimator/ WMF)
ROBERT LINGENFELTER, AICP, RLA, LEED AP (Landscape Architect/ WMF)
MARK D. HARRINGTON, PE (Project Manager MEP Systems/KARPINSKI)
ROBERT M. DRUGA, PE, LEED AP (Lead mechanical Engineer/KARPINSKI)
MARSHALL LINTON (Lead Electrical Engineer/KARPINSKI)

EXECUTIVE SUMMARY

BACKGROUND

The Multipurpose Building originally constructed in 1966, has remained largely the same for the past 50 years with only minor reconfigurations. The Pennsylvania State University is considering building renewal, renovations and possible additions to address current program needs at the Multipurpose Building to better serve the PSU DuBois students. This feasibility study discusses the team's review of programming with faculty, athletic administration and staff to develop a needs-based program as well as assess all building systems and make recommendations for refurbishment. The University is considering a \$15 million capital plan project to address the findings from this study. The possible construction budget could be \$10 million.

OBSERVATIONS

WMF led a series of building walkthroughs, programming sessions, and student focus groups to gather information by which to develop multiple approaches to improve the facility for recruiting and serving the PSU DuBois students. The following represents a summary of deficiencies with the existing facility.

- The existing gymnasium serves many functions such as the practice and/or performance venue for Basketball, Volleyball, Wrestling, Baseball Athletics Teams, as well as many campus special events, and accommodates intramural sports, and the casual recreation user. This makes scheduling and availability of the space problematic. When special events are held in the gymnasium, it is essentially taken off line and unavailable for sports and rec use. The size of the existing gym floor does not permit for the recommended basketball runoff space at the sides and ends of the court.
- The existing fitness center is located in space originally designed as basement storage space. This space is not inviting, lacks natural light, and presents a challenge with student recruitment efforts.
- PTA storage is not adequate forcing equipment to be stored in circulation hallways.
- Wildlife storage of field equipment including tents, coolers, and canoes does not have direct exterior access therefore making loading/unloading difficult.
- MEPT systems are in need of upgrade. The building lacks air conditioning which is an issue for late spring, late summer, early fall occupant comfort.
- Accessibility needs to be addressed at the building does not currently have an elevator, and many exterior entrances involve steps without ramps.

The upper level is lacking

GOALS

The Athletics Program has grown a lot in recent years. The building accommodates multiple uses and assessing the needs of each and suitability of relocation is required at this time. Identifying ways to enhance the facility for Athletic and Rec Sports is a goal for the study. Other campus buildings need assessed for highest and best use considering recent campus renovations (Swift) and the future relocation of Campus Career Link suite from the Workforce Development Building. The University desires to apply fresh eyes to locations of various program elements and look at clustering of 'like' offices, support spaces and classrooms etc. Tom Case, from facilities Resources, worked with study team to assess current scheduling and utilization.

- Find suitable and logical locations for faculty offices (look at clustering etc) labs, and classrooms that take advantage of efficient classroom scheduling.
- Phasing of proposed renovation work and relocation of program components to be considered with any study options proposed.
- The Campus desires to explore ways to encourage students to spend more time on campus outside of scheduled classes – to make the campus a place where commuter students want to stay longer and form a welcoming, collaborative, and vibrant campus community.
- Recruiting is important and a more vibrant campus with 'better' facilities is a tool that will help with recruitment. Students are aware of other institutions and campuses with newer facilities and amenities. The example of Showers Field – as a great facility that has helped to recruit great athletes who want to play baseball at Dubois. <http://showersfield.com/news/dubois-new-home-small-college-world-series/>
- Engaging a wide cross section of campus stakeholders, including administration, faculty, coaches and students to determine program needs and 'wish list' items is important. Determine the desire for better facilities, recreation and social programs etc.
- Solicit input from multiple viewpoints about best ways to retain students and identify desired areas of improvement.

OBJECTIVES

It is the intent of this study to provide the following deliverables:

- Assessment of existing conditions including current space utilization and building systems.
- Incorporate input gathered during meetings with administration, faculty, athletics, staff, and students to discuss athletics, special events, and academic spaces including labs, classrooms, and offices, based on current and future demands.
- Develop program space list to include types and sizes of areas needed with priority based on needs.
- Site Studies: Review the existing site, including site utilities, and make recommendations on how to expand buildings if additional area is required to meet the building program.
- Multiple conceptual options for basic floor plans of buildings including any additions that may be required.
- Identification of approach to bring existing building systems up to current University and code standards.
- Engineers report of findings.
- Conceptual construction cost estimates for the proposed program and recommendations.

EXISTING CONDITIONS



Figure 1-EXISTING EXTERIOR PHOTO OF MP BUILDING

Academics and Athletics:

Currently the MP Building houses one gymnasium used for both athletics and recreation, with spectator seating and raised stage area. Related support spaces such as locker rooms, wrestling practice room and storage for IM and Rec Sports are existing but largely undersized. The Athletics Director's office is located on the ground floor. The original building design included basement storage space which is currently being use as a fitness center.

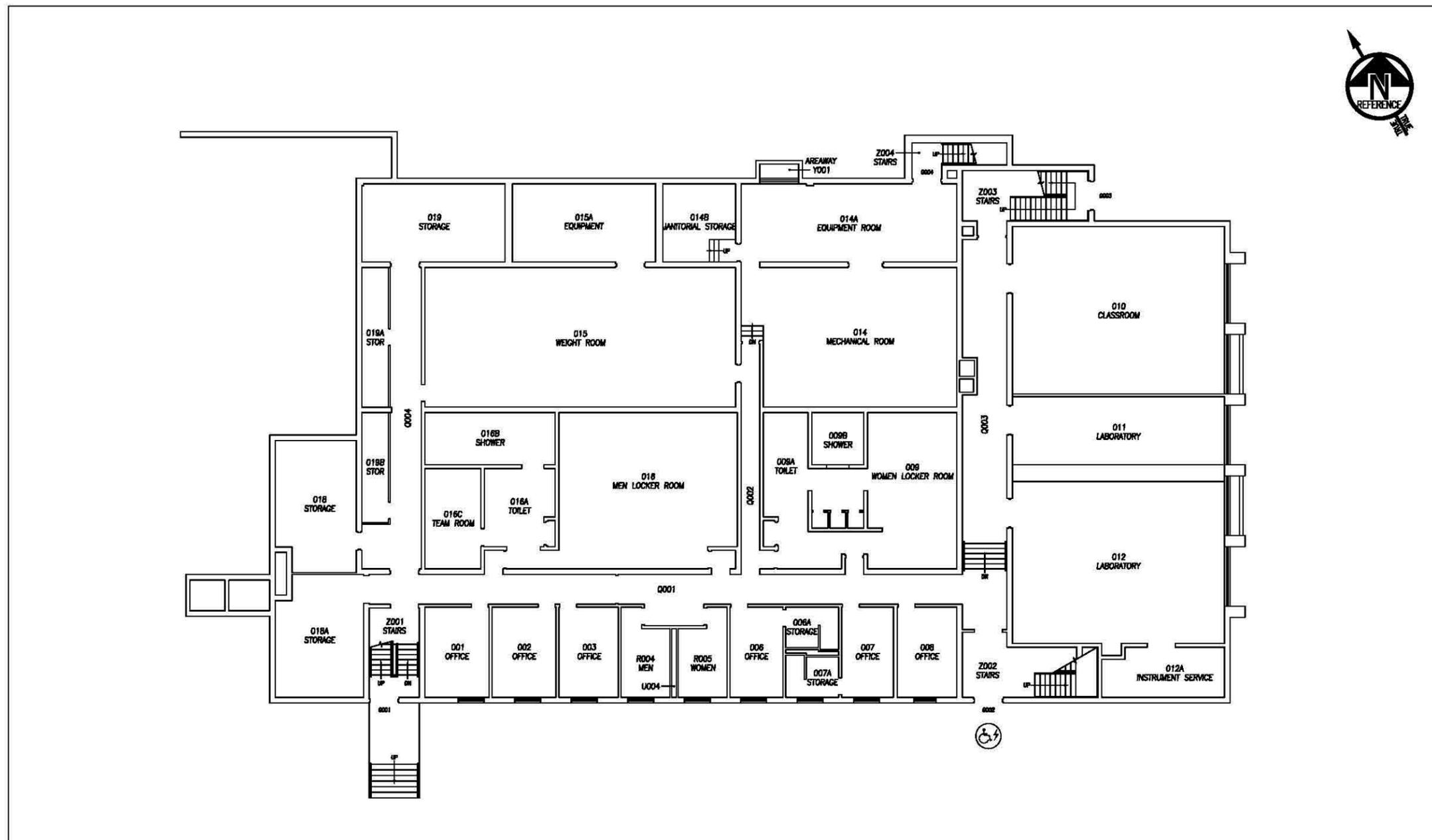
The building also is home to 2 academic programs: Wildlife and Physical Therapy Assistant, as well as associated faculty and storage for those programs. PTA faculty are spilt between MP Building and other campus buildings. Wildlife Classes use most of the classroom space (Rooms 106B, 011 and 012 and Room 010 is designated General Purpose, but mostly used by Wildlife). PT Assistant has exclusive use of Rom 107. Some other faculty also located in Ground Floor Offices.



Figure 2 - EXISTING INTERIOR PHOTOS OF MP BUILDING

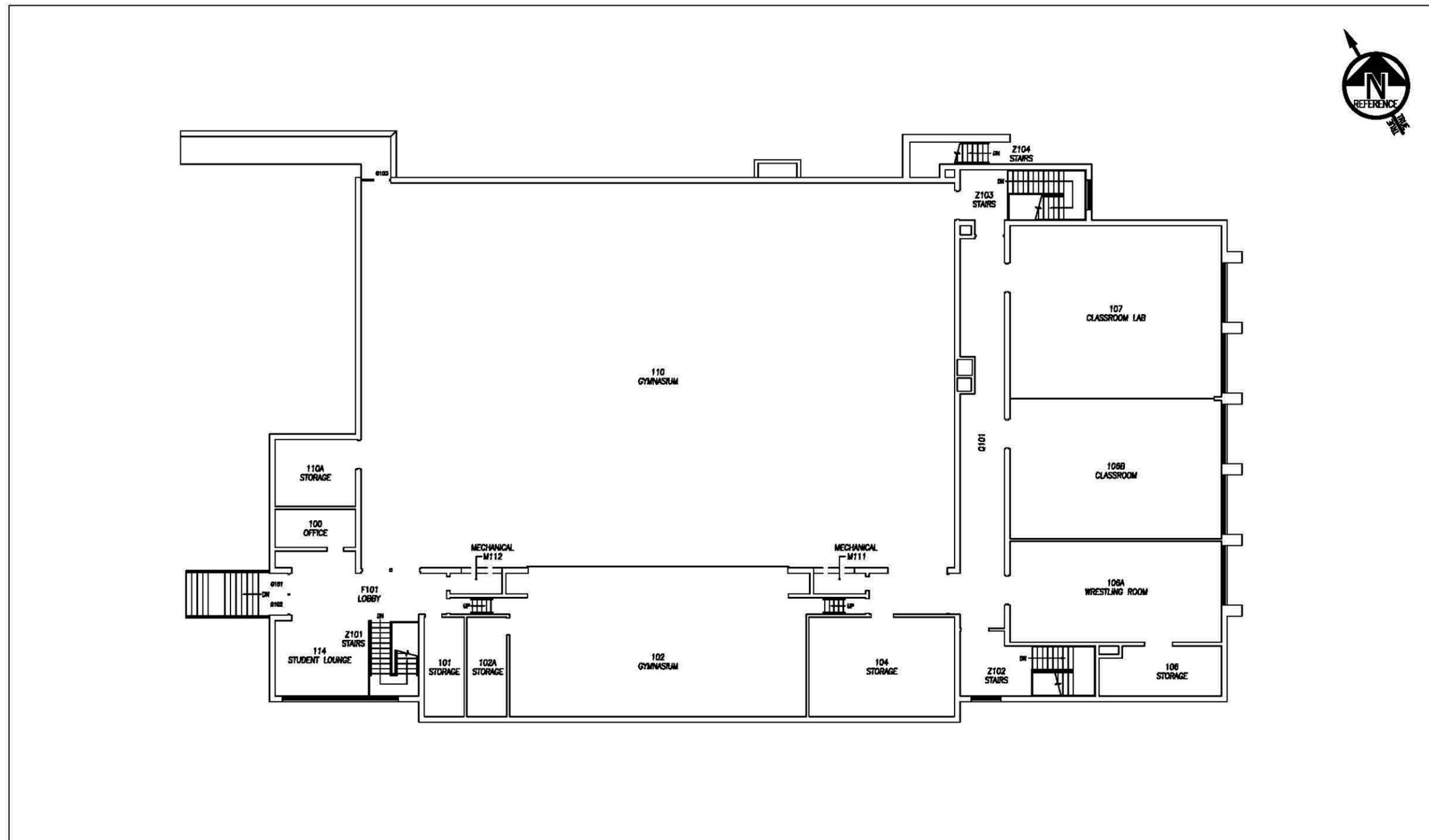
WMF

WEBER MURPHY FOX
ARCHITECTURE INTERIORS CONSTRUCTION MANAGEMENT
LAND PLANNING & DEVELOPMENT HISTORIC PRESERVATION



<p>MULTI-PURPOSE BUILDING GROUND FLOOR PLAN PENN STATE DUBOIS, DUBOIS, PA</p>	<p>PENNSTATE FACILITIES RESOURCES AND PLANNING THE PENNSYLVANIA STATE UNIVERSITY BENEDICT HOUSE UNIVERSITY PARK, PA 16802 OFFICE: 814.865.1565 FAX: 814.865.1610 www.facilities.psu.edu</p>	<p>SCALE 0 8' 16' 32' 4' 12'</p>	<p>05/07/98 07/14/16 0976-007</p>	<p>0976-007 1 OF 2 G</p>
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Figure 3 - EXISTING BLOCK PLAN



<p>MULTI-PURPOSE BUILDING FIRST FLOOR PLAN PENN STATE DUBOIS, DUBOIS, PA</p>	<p>PENNSTATE FACILITIES RESOURCES AND PLANNING THE PENNSYLVANIA STATE UNIVERSITY BENEDICT HOUSE UNIVERSITY PARK, PA 16802 OFFICE: 814.865.1585 FAX: 814.865.1810 www.facilities.psu.edu</p>	<p>SCALE 0 8' 16' 32' 4' 12'</p>	<p>05/07/98 07/14/16 1</p>	<p>0976-007 2 OF 2 1</p>
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Figure 4 - EXISTING BLOCK PLAN

ASSESSMENT OF PROGRAM NEEDS

Function	Program Space Considerations			Comments	Existing Size
	Unit Size (sq ft)	Qty	Total		
Lobby/Lounge/Public Spaces					
Entry Lobby	750.00	1	750.00	larger if also utilized as event space, to include elevator	298
Control Desk	200.00	1	200.00		0
Men's Restroom- Floor G	250.00	1	250.00		
Women's Restroom- Floor G	300.00	1	300.00		
Men's Restroom- Floor 1	350.00	1	350.00		
Women's Restroom- Floor 1	450.00	1	450.00		
Concessions/Storage	250.00	1	250.00		
Lounges	200.00	2	400.00		228
Subtotal			2,950.00		
Rec & Athletics Administrative Offices					
Director of Athletics	150.00	1	150.00		310
Assistant Athletics Dir	120.00	1	120.00		0
Full Time Coaches (in-season)	120.00	5	600.00		0
Transient Coache(s) (off-season)	120.00	1	120.00		0
Conference / Team Meeting Rooms	350.00	1	350.00		0
Media Room	300.00	1	300.00		0
Mail/Break Room	200.00	1	200.00		0
Admin Storage	100.00	1	100.00		316
Administration Lobby	150.00	1	150.00		0
Subtotal			2,090.00		
Gymnasium					
Main Gymnasium	12,000.00	1	12,000.00		7377
Main Gym Storage	1,000.00	1	1,000.00	Diagram items to confirm sq ft needed	894
Multi-purpose Storage	1,000.00	1	1,000.00	Floor covering, chairs, tables	0
Auxiliary Gymnasium	3,000.00	1	3,000.00	will this accommodate volleyball?, John to provide special events size needs	0
Auxiliary Gymnasium Storage	400.00	1	400.00	adjacent to both gym	0
Indoor Running / Walking Track			0.00	see how the gym works out, perhaps on gym floor	0
Subtotal			17,400.00		
Activity Space					
Weight/fitness Room	4,000.00	1	4,000.00	current use? Quantity of Memberships at the YMCA?	1759
Stretching	250.00	1	250.00		0
Weight/fitness Room Storage	200.00	1	200.00		0
Multipurpose Room 1	1,600.00	1	1,600.00		0
Multipurpose Room 1 Storage	200.00	1	200.00		0
			0.00		0
Subtotal			6,250.00		
Locker Rooms/Team Support					
Men's General Locker Rooms	900.00	1	900.00		1309
Women's General Locker Rooms	900.00	1	900.00		908
Men's Staff (includes coaches)	425.00	1	425.00		0
Women's Staff (includes coaches)	425.00	1	425.00		0
Officials	200.00	2	400.00		0
All-gender changing room	150.00	1	150.00		0
Varsity Lockers - Team 1	600.00	1	600.00		200
Varsity Lockers- Team 2	600.00	1	600.00		0
Athletic Training / Therapy	800.00	1	800.00		331
Subtotal			5,200.00		
Equipment/Laundry					
Equipment Room	200.00	1	200.00	control desk area?	
Laundry Room	300.00	1	300.00		
General Building Storage	300.00	1	300.00		
Subtotal			800.00		
Building Support					
Building Support (Custodial Storage)	200.00	2	400.00		120
Stage				flat surface or portable, consider access if raised	1483
Green Room	150.00	1	150.00		0
Subtotal			550.00		
Subtotal NET Rec & Athletics:			42,072.00		

Function	Program Space Considerations			Comments	Existing Size
	Unit Size (sq ft)	Qty	Total		
Academic Spaces					
General Purpose Lecture Classroom 1	1,143.00	1	1,143.00	does this need to be duplicated? Accommodate within DEF, Tom to Study schedule	1143
Wildlife Lab	1,114.00	1	1,114.00	share with biology lab or new room similar to biology lab	1114
Wildlife Map Room	465.00	1	465.00		465
Wildlife Research / Specimen Room	750.00	1	750.00		955
Wildlife Faculty Offices	120.00	4	480.00		547
Wildlife Storage	800.00	1	800.00		800
Conference Room	200.00	1	200.00		
PTA Lab	1,400.00	1	1,400.00	increase for equipment in hallway, synergies with athletic training	1178
PTA Storage		1		includes in PTA lab sq ft.	
PTA Faculty Offices	120.00	4	480.00	add one adjunct	620
Subtotal NET Academic Spaces			6,832.00		
Event Space					
Multi-purpose room	5,000.00	1	5,000.00	keep on the table, can combine with some other space	
Storage	1,000.00	1	1,000.00		
Subtotal NET Event Space			6,000.00		
Health Center					
Waiting / Lobby	150.00	1	150.00	Keep on the table to be included in the MPB	
Nurses Office	150.00	1	150.00		
Health Counselor Office	150.00	1	150.00		
Exam Room 1	125.00	1	125.00		
Rest area 1	125.00	1	125.00		
Restroom	80.00	1	80.00		
Storage	100.00	1	100.00		
Subtotal NET Health Center Spaces			880.00		
Total Net All Inclusive			55,784.00		

Table 1-PROGRAM SPACE CONSIDERATIONS

LANDUSE SUMMARY

LAND USE SUMMARY Dubois Ordinances	
Zoning District:	C-H Commercial Highway District (Multipurpose Bldg. site in R-1 but rezoning to C-H suggested by Zoning Officer)*
Potential Permitted Uses: Ord 1470, 1683, 1720	Schools and related uses
Accessory Uses:	Customarily incidental to permitted uses.
Dimensional Standards: Ord 1470	Min Lot Area: Min Lot Width: Min Lot Depth: 60' Min Front Yard Setback: 20' Min Side Yard: 10' each side of principal bldg. 30' Min Rear Yard: 60% Max Coverage: percentage covered by building Ord 1470, 1304, defined 1490 Landscape Buffer Yard: 35' Max Building Height:
*Potential Off-Street Parking and Loading: Ord 1470	9'x20' Net per vehicle: Permitted off-site with City agreement. 18' Access drive 1/3 seats Commercial Parking: Schools
Land Development Assumptions	Required.
* Verify supplemental "School" use requirements with Zoning Officer	

BUILDINGS

1	0976-001	Smeal Building
2	0976-002	Hiller Building
3	0976-003	Enrollment Services
4	0976-006	Swift Memorial Building
5	0976-007	Multi-Purpose Building
6	0976-009	Maintenance Shop/Garage
7	0976-010	Meter Station
8	0976-011	Workforce Development & Technology Building
9	0976-012	Occupational Therapy House
10	0976-013	Business Services
11	0976-014	Symmco House
12	0976-046	Gazebo
13	0976-016	Fairman House
14	0976-017	Fairman Garage
15	0976-018	Johnson House
16	0976-066	Maintenance II Building

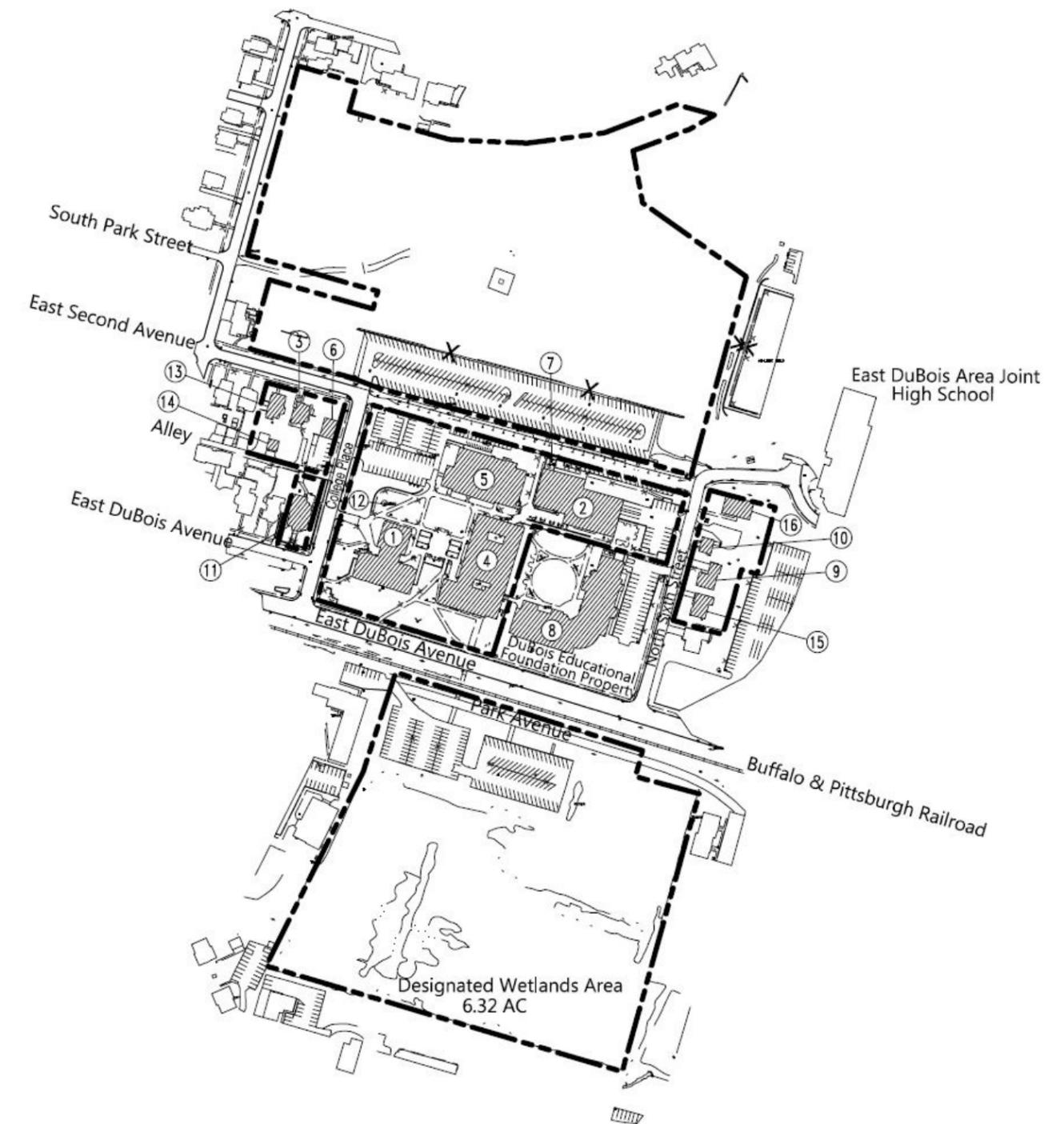


Figure 5 - DUBOIS CAMPUS MAP

SITE STUDIES

Studies include impacts to parking and building coverage showing preliminary spot elevations and ADA parking areas and accessible routes. Regarding the Options:

Both displace Faculty/Staff spaces.

The Landscape Architect suggests designating those spaces in the lot above, north of East Second Avenue and if necessary South of E DuBois Ave.

Both are better served by an Elevator Lobby at the Lower Level along the pedestrian corridor.

The Landscape Architect suggests moving meeting rooms to Upper Level with views out to campus.

Both have access from East Second Ave parking at the Upper Level.

Option 1 realigns the parking connection around the building but Option 2A suggests an event arrival with interior/thru circulation to the Lower Level.

Both will require a landscaped entry plaza at the Lower Level along the pedestrian corridor.

Both Options are permitted uses. "Schools" are permitted by special exception in the Low Density Residential (R1) district. The PSU Multi-Purpose Building (Bldg. 5) and Hiller (Bldg. 2) properties are currently zoned R1.

The Land Use Summary analysis suggests Option 1 and Option 2a Building Coverage for the PSU properties would exceed the 30% max allowed in R1. Assume a variance would be required.

The Zoning Officer believes the University would be better served by rezoning the area to Commercial Highway (CH). The PSU Smeal (Bldg. 1), Swift (Bldg. 4) and the Foundation Workforce Tech (Bldg. 8) properties are zoned CH.

60% is allowed in CH however Schools are limited to 30% in every district they are permitted uses. The Land Use Summary analysis suggests Option 1 and Option 2a Building Coverage for the Combined properties (PSU and Foundation) would not exceed the 30% max allowed for School Uses. Assume lot consolidation and rezoning of the PSU Properties would be required.

PRELIMINARY LAND USE CONCEPT / PROGRAM								
Bldg.	Name	Phase	Ex. Approx.. Footprint SF	New OPT 1		New OPT 2		Remarks
1	Smeal		12,885	0		-		
					12,885		12,885	Footprint only
2	Hiller		16,970	0		-		
					16,970		16,970	Footprint only
4	Swift Memorial		25,018	0		-		
					25,018		25,018	Footprint only
5	Multi-Purpose		15,985	4,650		12,275		
					20,635		28,260	Footprint only
8	Workforce_Tech		24,585	0		-		
					24,585		24,585	Footprint only
	Total		95,443		100,093		107,718	
	Stormwater?							

Table 2 -PRELIMINARY LAND USE CONCEPT /PROGRAM



WEBER MURPHY FOX
ARCHITECTURE INTERIORS CONSTRUCTION MANAGEMENT
LAND PLANNING & DEVELOPMENT HISTORIC PRESERVATION

LAND USE SUMMARY Dubois Ordinances	
Zoning District:	C-H Commercial Highway District (Multipurpose Bldg. site in R-1 but rezoning to C-H suggested by Zoning Officer)*
Potential Permitted Uses: Ord 1470, 1683, 1720	Schools and related uses
Accessory Uses:	Customarily incidental to permitted uses.
Dimensional Standards: Ord 1470	Min Lot Area: Min Lot Width: Min Lot Depth: 60' Min Front Yard Setback: 20' Min Side Yard: 10' each side of principal bldg. 30' Min Rear Yard: 60% Max Coverage: percentage covered by building Ord 1470, 1304, defined 1490 Landscape Buffer Yard: 35' Max Building Height:
*Potential Off-Street Parking and Loading: Ord 1470	9'x20' Net per vehicle: Permitted off-site with City agreement. 18' Access drive 1/3 seats Commercial Parking: Schools
Land Development Assumptions	Required.
Verify supplemental "School" use requirements with Zoning Officer	

Table 3 - LAND USE SUMMARY

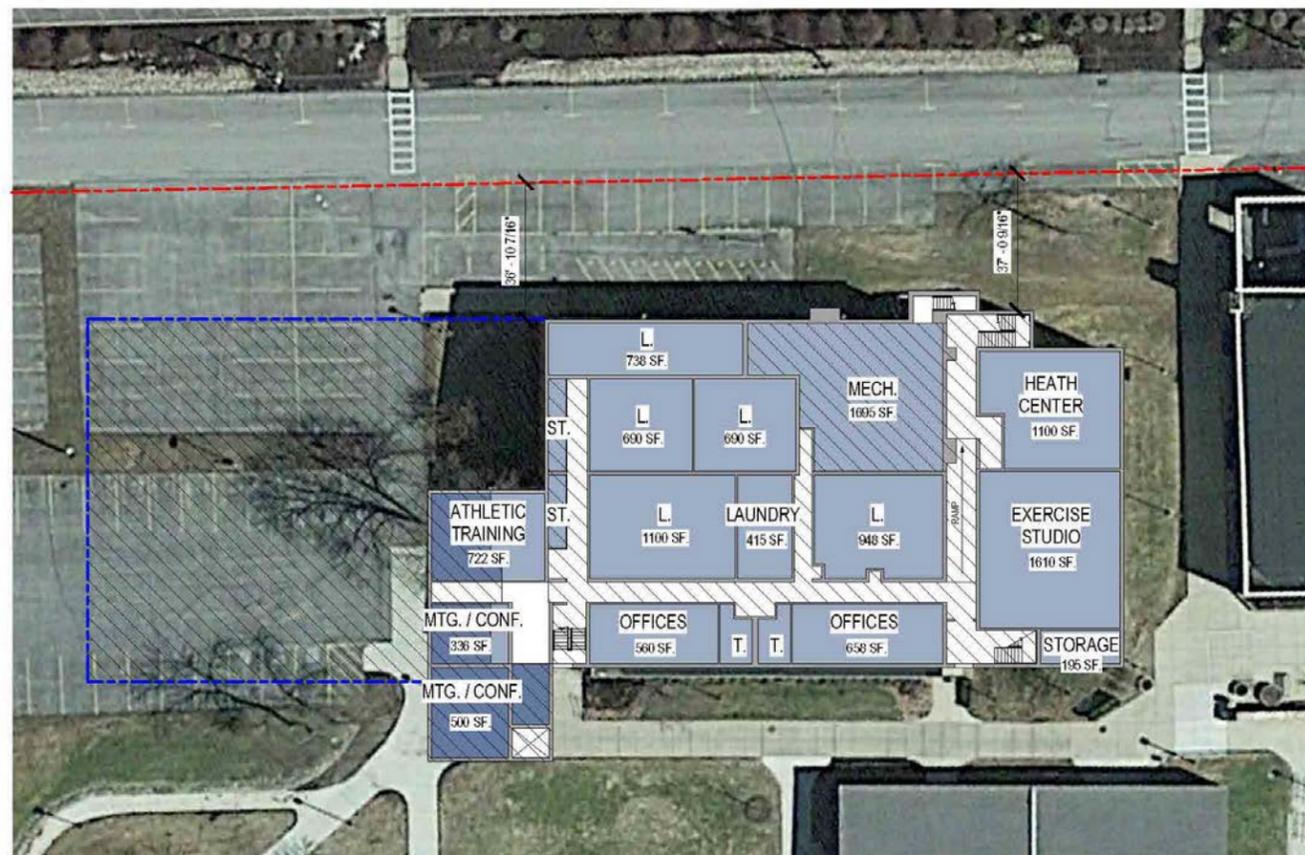
Existing	Lot	Composition			
	PSU	Bldg. 1+2+4+5 Lot	238,219		
	Non PSU	Bldg. 8 Lot	94,985		
	COMBO	Bldg. 1+2+4+5+8 Lot	333,204		
Existing	Bldg.	Approx. Land Use Coverage - Existing		% of lot	
	1		12,885		
	2		16,970		
	4		25,018		
	5		15,985		
		SUBTOTAL SF		70,858	30% <30% check
		Parking / Open Space	167,361	167,361	70%
		PSU TOTAL SF		238,219	100%
Existing	Bldg.	Approx. Land Use Coverage - Existing		% of lot	
	8		24,585		
		SUBTOTAL SF		24,585	26% <30% check
		Parking / Open Space	70,400	70,400	74%
		Non PSU TOTAL SF		94,985	100%

Table 4 - EXISTING LAND USE COVERAGES

OPT 1	Bldg.	Approx. Land Use Coverage - Opt 1		% of lot	
	1		12,885		
	2		16,970		
	4		25,018		
	5		20,635		
		SUBTOTAL SF		75,508	32% <30% check
		Parking / Open Space	162,711	162,711	68%
		PSU TOTAL SF		238,219	100%
OPT 2	Bldg.	Approx. Land Use Coverage		% of lot	
	1		12,885		
	2		16,970		
	4		25,018		
	5		28,260		
		SUBTOTAL SF		83,133	35% <30% check
		Parking / Open Space	155,086	155,086	65%
		PSU TOTAL SF		238,219	100%
COMBO	Bldg.	Approx. Land Use Coverage		% of lot	
	OPT 1		75,508		
		SUBTOTAL SF		75,508	23% <30% check
		Parking / Open Space	257,696	257,696	77%
		COMBO TOTAL SF		333,204	100%
	OPT 2		83,133		
		SUBTOTAL SF		83,133	25% <30% check
		Parking / Open Space	250,071	250,071	75%
		COMBO TOTAL SF		333,204	100%

Table 5 - PROPOSED LAND USE COVERAGES

MPB Concept Option 2A also includes an addition of 14,000 sq ft to accommodate a new performance and practice gym, with two side practice courts. The existing gym is converted to an auxiliary gym and gym storage. The fitness center, restrooms, concessions, and gym storage is also included on the main level. The lower level includes additional locker rooms for athletic team use and general use. Offices are renovated to better meet athletic needs. The PTA program remains in the MPB building in renovated space. The campus Health Center is also relocated to the MPB building. The Wildlife program is relocated to Smeal under this option.

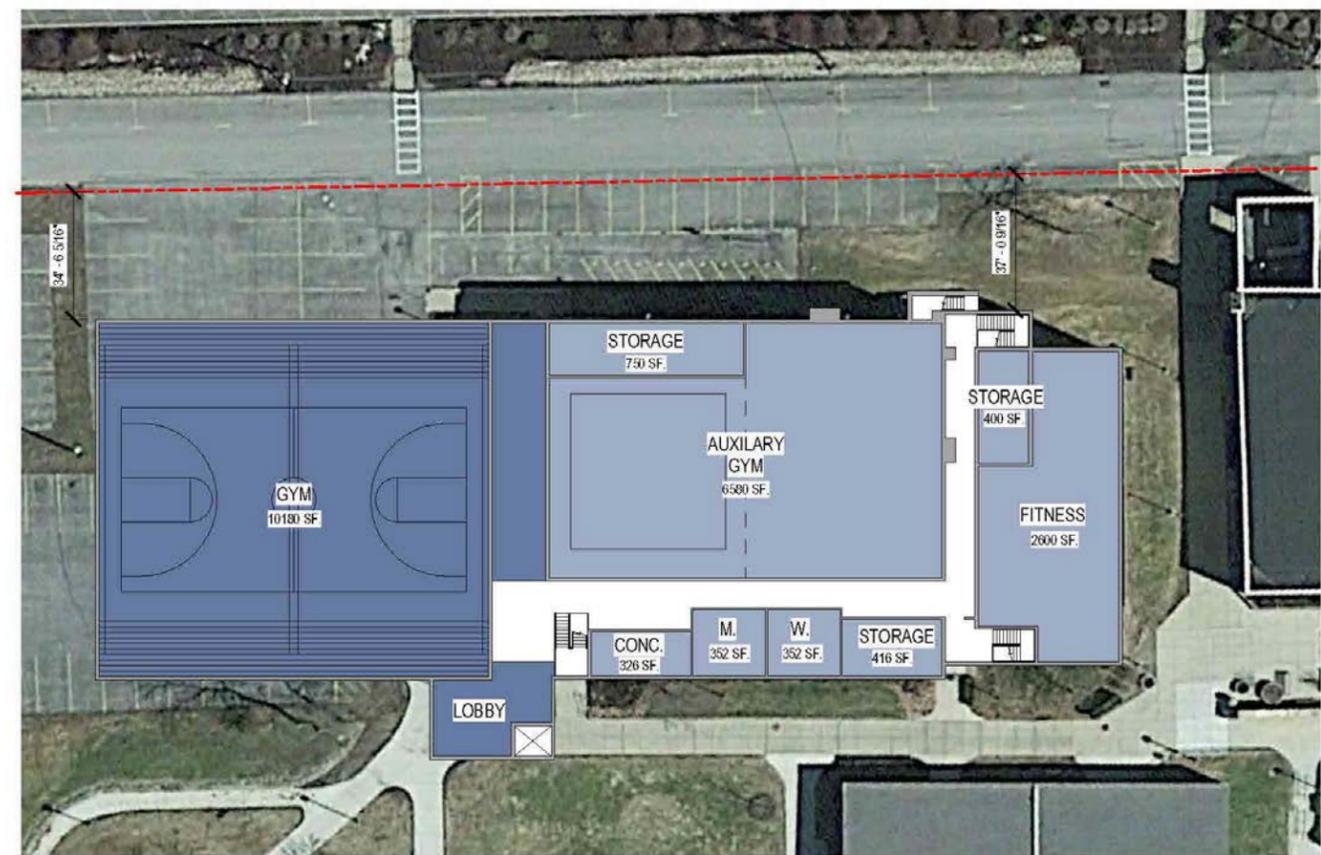


LOWER LEVEL (OPTION 2A)

SCALE: 1" = 30'

LEGEND:

- EXISTING FOOTPRINT
- BUILDING EXPANSION



UPPER LEVEL (OPTION 2A)

SCALE: 1" = 30'

LEGEND:

- EXISTING FOOTPRINT
- BUILDING EXPANSION

Figure 13 - MPB OPTION 2A - LOWER LEVEL PLAN

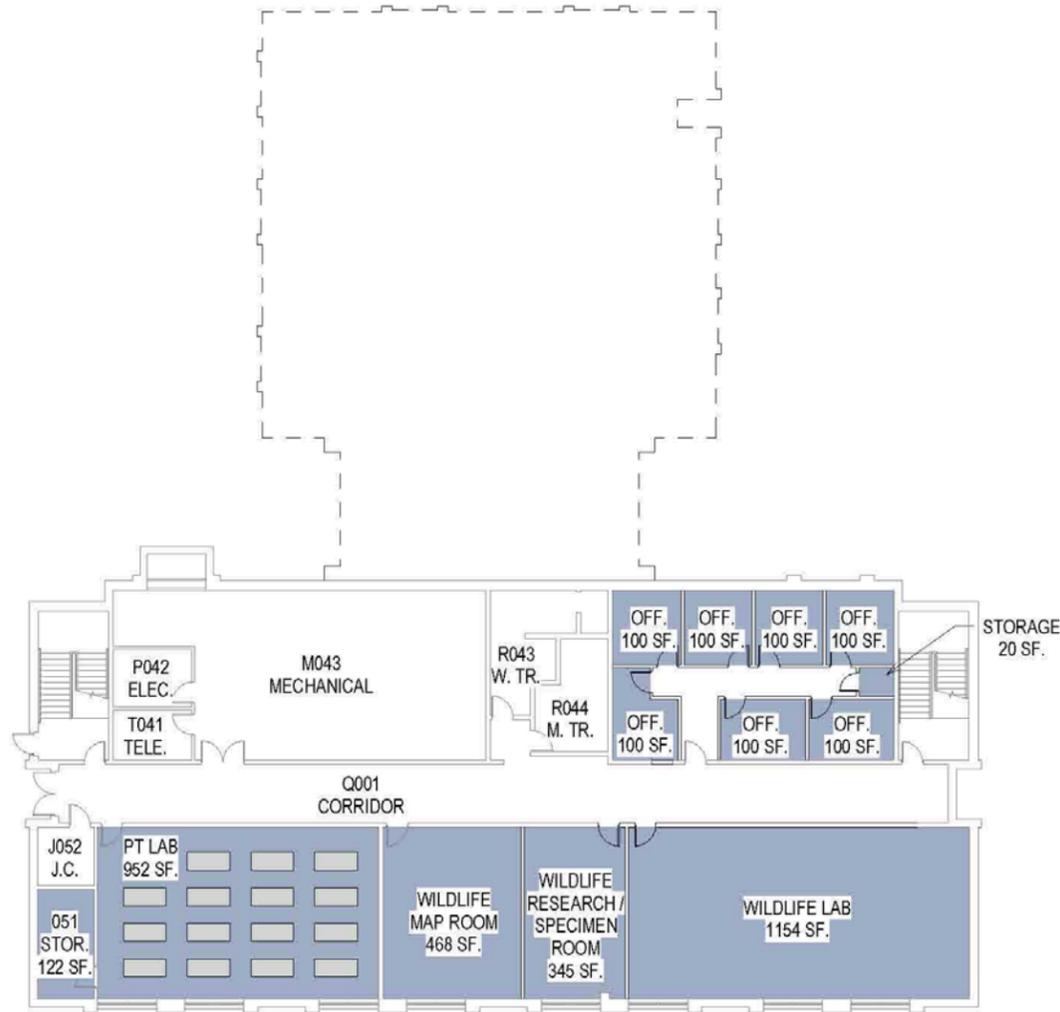
Figure 12- MPB OPTION 2A - UPPER LEVEL PLAN

SMEAL PLAN DIAGRAMS

Attached are updated plan diagrams for Smeal. After our last session on Campus, WMF revisited Smeal to develop diagrams for the potential relocation of the Wildlife program (except outdoor gear storage) to Smeal. This visit resulted in several Smeal options. They are also coordinated and numbered in reference to the MPB Options, 1, 2, & 2A.

Smeal Options 1 & 2A

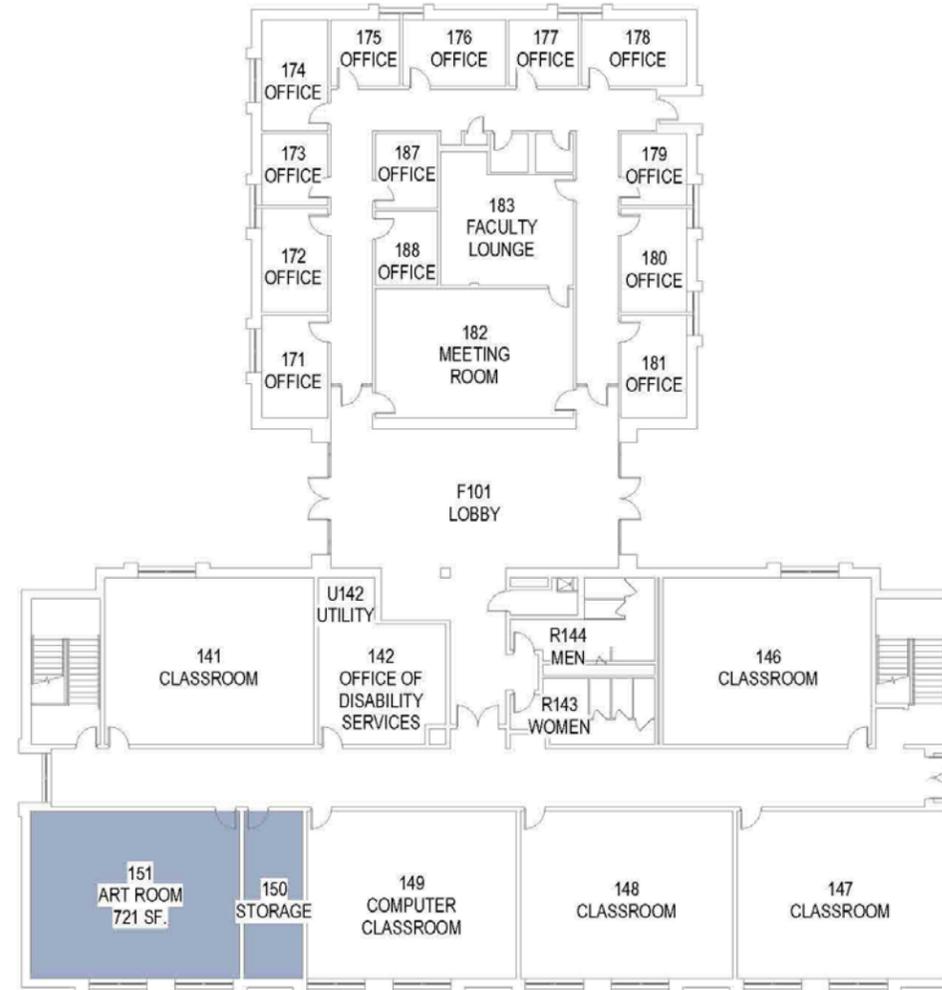
Includes PT and Wildlife teaching spaces, support spaces, and offices on the lower level and relocates Art and Art storage to the upper level. This scheme is quite compromised in comparison to the program request. The shortcomings are shy by one office, PT storage area is undersized, PT classroom is smaller than the existing, wildlife research/specimen room is 400 sq. ft. less than the program ask. Trying to accommodate both programs on the lower level doesn't seem to work particularly well.



LOWER LEVEL (OPTION 1 & 2A)

SCALE: 1/16" = 1' - 0"

Figure 14 - SMEAL PLAN DIAGRAM (LOWER LEVEL OPT 1 & 2A)



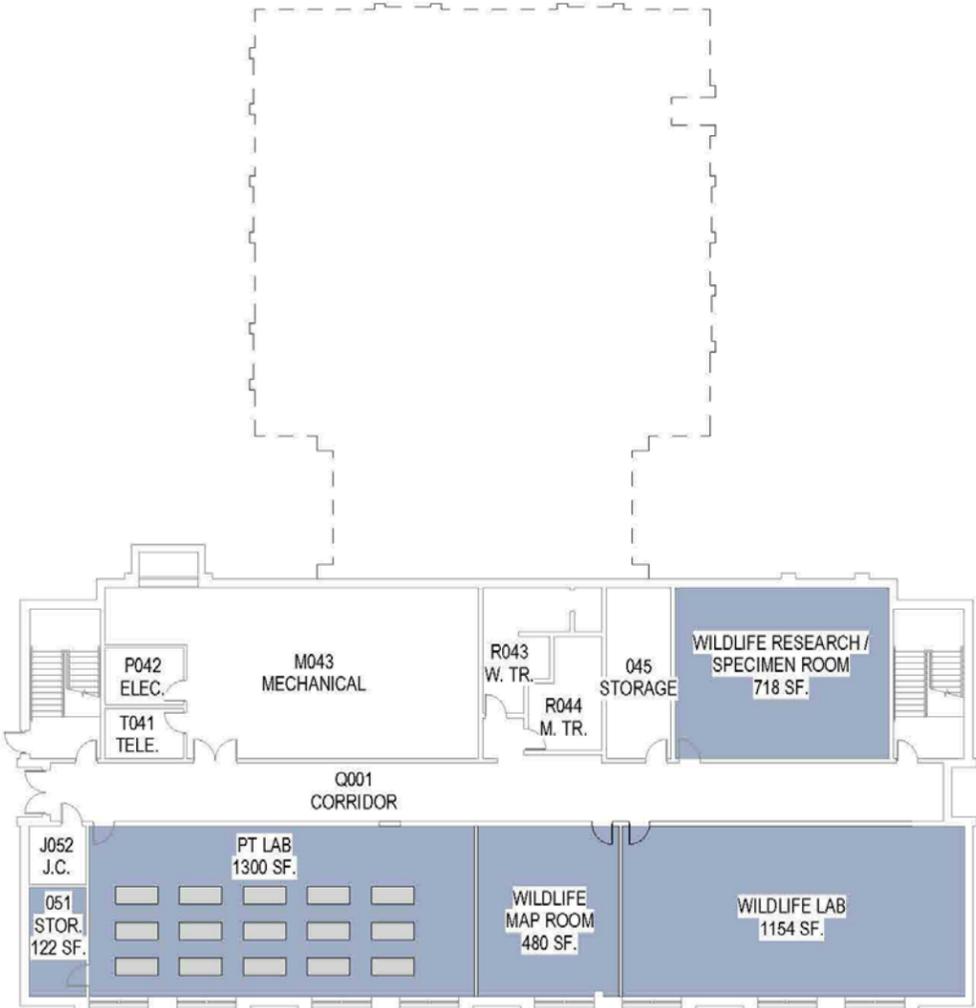
UPPER LEVEL (OPTION 1 & 2A)

SCALE: 1/16" = 1' - 0"

Figure 15 - SMEAL PLAN DIAGRAM (UPPER LEVEL OPT 1 & 2A)

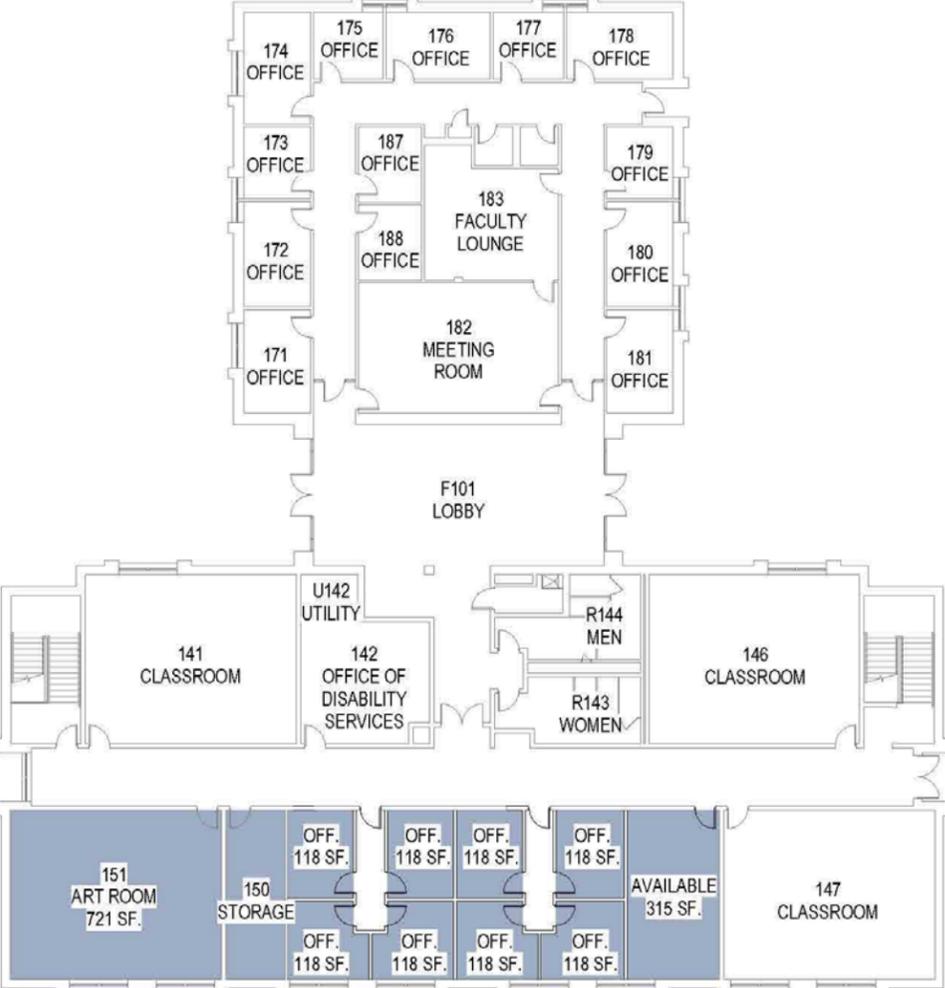
Smeal Option 1 & 2A – Alternative

The intent with this scheme is to look at what it would take to accommodate both PT and Wildlife in Smeal at their full program quantities and sizes. It would mean capturing two additional classrooms on the upper level to have enough space for faculty offices. Perhaps through juggling the utilization and scheduling Tom provided, there is a way to accommodate this idea.



LOWER LEVEL (OPTION 1 & 2A)
SCALE: 1/16" - 1' - 0"

Figure 17 - ALTERNATIVE SMEAL PLAN DIAGRAM (LOWER LEVEL OPT 1 & 2A)

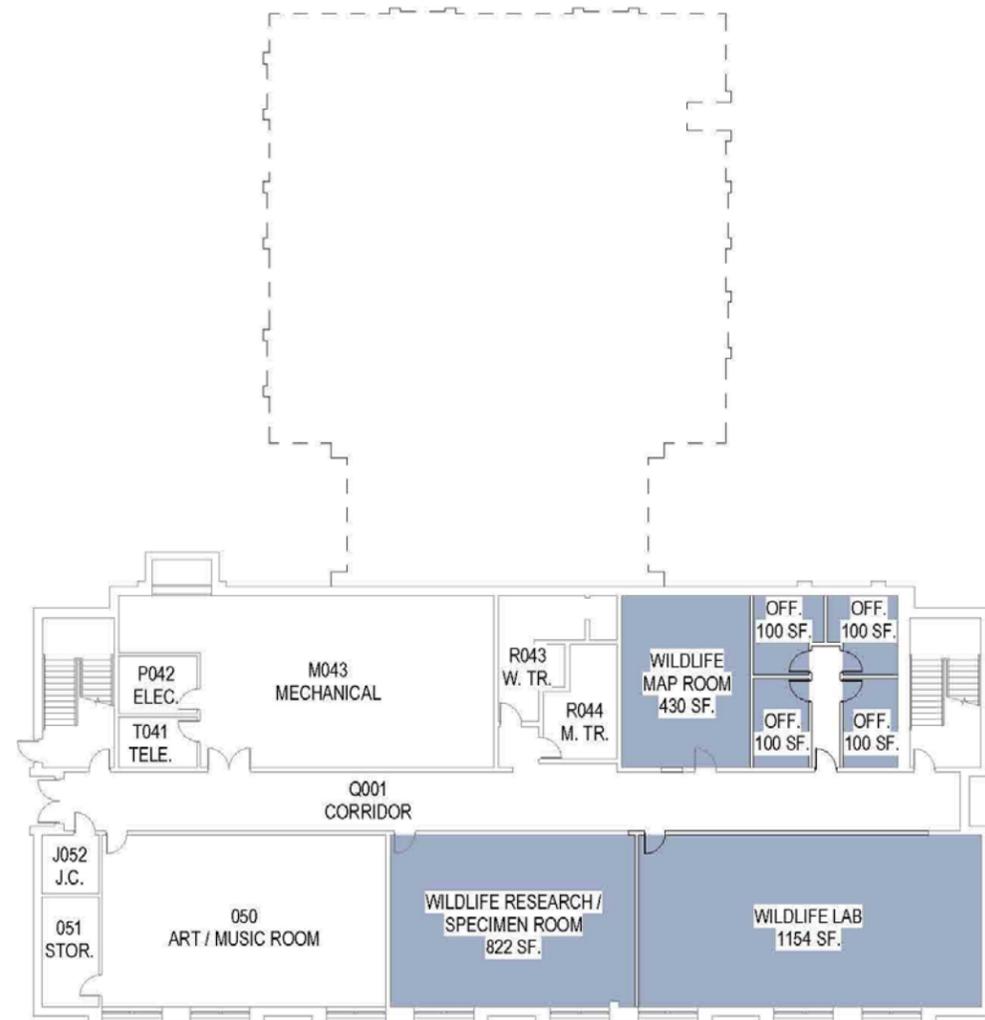


UPPER LEVEL (OPTION 1 & 2A)
SCALE: 1/16" - 1' - 0"

Figure 16 - ALTERNATIVE SMEAL PLAN DIAGRAM (UPPER LEVEL OPT 1 & 2A)

Smeal Option 2 (not necessary for wildlife faculty only in Smeal, necessary if both faculty groups move)

Utilizing Smeal to accommodate Wildlife only seems to work well. All the Wildlife lab, support spaces, and offices can be accommodated on the lower level. Art and Art storage could also remain in place on the lower level.



LOWER LEVEL (OPTION 2)

SCALE: 1/16" = 1' - 0"



Figure 18 - SMEAL PLAN DIAGRAM (LOWER LEVEL OPT 2)

MEPT SYSTEMS EVALUATION

Site Utilities:

Domestic water is provided to the east wall of the lower level Mechanical Room with a 3" line, which is connected to an 8" municipal main in East Second Avenue to the north of the building. The service entrance has a meter, reduced zone pressure backflow preventer and a pressure reducing valve, which is set to a 52 PSI discharge temperature.

The service size should be adequate for the proposed renovations and addition, but should be replaced if determined to be original to the building.

Natural gas is provided to the Mechanical Room by a new medium pressure service with regulator and meter located on the north side of the building from a National Fuel main in East Second Avenue.

The medium pressure main should be adequate for either proposed scheme, with possibly a meter upgrade required.

A 6" sanitary sewer exits the west side of the building to a manhole near the building. The discharge flows to a 10" municipal main in College Place.

The manhole will require relocation, and the portion of the sewer line beneath the addition should be replaced under the addition. The remainder of the sewer line should be camera-inspected, and replaced as determined by those results.

Storm sewer from roof drains is connected to on-site facilities.

The additions will partially replace impervious pavement with roof, but further documentation and evaluation of this system should be performed.

Power is provided to the building by Penelec, from a pole-mounted transformer bank on East Second Avenue. The transformers appear to be of original building vintage and in poor condition. The overhead service enters the Mechanical Room on the north wall, where the interior electric meter is located.

The service will require upgrade to a larger service due to the addition. The service should be replaced with an underground feeder and a pad-mounted utility transformer, at the north side of the building. The meter should be relocated to the building exterior.

Telephone service is provided from the utility pole on East Second Street. There is currently no cable TV connection from Comcast for the building.

Requirements for dedicated utility services will be determined during design, and the required underground service conduits should be provided from the utility pole.

Fire Protection:

There is currently no fire protection sprinkler system provided anywhere in the building.

If the occupant load of the new or renovated gym is 300 or more, sprinkler protection will be required for the main level of the building as a minimum.

Plumbing:

Domestic hot water is provided by an AO Smith Copperfin boiler gravity burner natural gas boiler, rated 1,600,000 Btuh input and 1,200,000 Btuh output. This boiler is connected to two 1000 gallon insulated storage tanks, where hot water is stored at 120 degrees F for distribution. The boiler is of 1988 vintage, and the tanks original to the building in 1966. This equipment is located in the Mechanical Room. There is a recirculating pump and piping for the system. There is no water softening or treatment system.

This system should be replaced with a more efficient system of high efficiency gas-fired water heater/storage tank units, sized to maximize recovery and reduce storage. Hot water should be stored at 140 degrees and mixed down to 110 degrees for distribution, to minimize the potential for legionella bacteria growth. A new recirculating pump should also be provided.

Building plumbing piping systems consist of cast iron for sanitary and storm sewer, insulated copper for domestic water piping, and black steel for natural gas. Pipe insulation is fiberglass with cement joints of unknown material. Domestic water valves are gate valves, which are reported to be in working condition, but have recently required some repairs.

The building sewer systems should be camera inspected and replaced as determined by those results. Pipe insulation joint cement should be tested and replaced if required. Copper domestic water piping should be replaced if scale is found by cutting out samples during design. Valves should be replaced as a minimum, if piping is reused.

Plumbing fixtures and fittings appear to be of original building vintage, except the lavatories in the Locker Rooms which were replaced, and the Lower Level Toilet Rooms which were renovated in 1998. Toilets and urinals are wall-hung flush valve. Lavatories are wall hung with wrist blade trim. Showers are recessed, with vandal resistant head and two-handle mixing valves. Gang showers have deep perimeter trench with floor drains.

All plumbing fixtures and fittings should be replaced, to reduce water consumption and maintenance issues, per current PSU Fixture Standards. The 1998 toilet room fixtures could be evaluated for possible reuse.

HVAC:

The building heating plant consists of two JR Smith cast iron sectional boilers with power burners, located in the Mechanical Room. Each is rated 2,500,000 Btuh input. The boilers are of original 1966 building vintage and appear to be in good condition for their age. There are two constant flow heating water circulating pumps, with one serving as back-up. There is an in-line air separator and two suspended expansion tanks. Heating system components are also of original vintage. Both boilers are said to be required to operate on a design heating day to maintain building temperature.

The boiler plant is well beyond its average life expectancy and should be replaced with a new high-efficiency plant, sized to serve the current loads and the addition. The plant would include one redundant module for system backup. New pumps with VFDs, new boiler room piping with air separator and expansion tank should be provided.

Building heating piping system consists of a combination of black steel and copper. Pipe insulation is fiberglass with cement joints of unknown material. Heating water valves are gate valves, which are reported to be in working condition. Piping is arranged in a direct return configuration.

Due to the magnitude of the proposed renovations, all piping should be replaced, to suit new equipment locations.

The Gymnasium is heated and ventilated by two newer-vintage vertical air handling units located in closets flanking the Stage Platform. Each unit consists of a filter/mixing box, a hot water heating coil and a fan. Supply air is provided to the Gym through a high sidewall grille for each unit adjacent to the Stage. Code-required outdoor ventilation air is ducted to these units from louvers in overhangs above lower level windows along the south face of the building. Return air is ducted to these units through a low sidewall grille adjacent to the Stage. During our site visit on October 5th, these units were operating in full-return mode, with no outdoor ventilation air being provided. There are also transfer grilles below the face of the

Stage, intended to provide makeup air for the Lower Level Locker Room exhaust. Gravity roof ventilators provide relief when the units are in full outdoor air mode.

The spaces housing the existing gym air handling units will be eliminated under both proposed schemes, so replacement will be required. New units would be located on the roof, or possibly in a new mechanical penthouse space. The air transfer to the locker rooms is not Code compliant, and will be eliminated with the removal of the stage under both proposed schemes. The addition would also be served by rooftop units or new penthouse units.

The Classrooms are heated and ventilated with individual unit ventilators and finned tube radiation. Gravity roof ventilator or rooftop exhaust fans provide relief or exhaust for the rooms.

The current Classroom spaces are reprogrammed under both schemes to fitness, health center or exercise spaces, all of which will require additional ventilation and would be better served by air handling systems or rooftop units.

The Lower Level offices are heated with finned tube radiation with individual room control, and operable windows are provided for ventilation.

These spaces are reprogrammed under both schemes as storage spaces, and should be provided with mechanical ventilation in addition to the hot water heat.

The Lower Level Locker Rooms are each provided with hot water cabinet unit heaters and a centrifugal exhaust fan located in the Mechanical Room, which discharge to a wall louver and areaway on the north side of the building. Makeup air for this exhaust is designed to come from the Gym. The Men's Locker Room exhaust was extended and rebalanced to also serve the Weight Room and adjacent Equipment Room.

The locker room exhaust and makeup air transfer systems air should be replaced with energy recovery ventilation systems, which could be located in the current exhaust fan locations in the Mechanical Room.

Entries and Stairs are served by hot water cabinet unit heaters.

These units should be replaced as part of the renovations.

The only spaces in the building with air conditioning are the Upper Level Classrooms, which have two residential window air conditioners each.

The extent of air conditioning required for the building will determine the cooling solution. If only selected areas are desired, DX rooftop units or split systems would be recommended. If air conditioning of the larger program areas is also desired, DX or chilled water with a packaged chiller should be examined as options.

The temperature control system for the building were originally pneumatic, but has been upgraded to Barber Coleman and then Schneider Invensys standalone electronic controls. There is not currently a campus standard for controls.

A new DDC temperature control system should be provided for the renovated building to replace all existing controls. This system could be the first piece of a central campus system.

should be replaced due to age and lack of replacement part availability. Additional branch panel capacity will be provided for future loads.

Emergency power for life safety lighting is provided by a newer 9.5 kw 120/240 volt, single phase natural gas Kohler generator, which is located in the Mechanical Room. The generator feeds a newer Asco transfer switch and a 60 amp split-bus panel, with normal/emergency and emergency-only branches.

Depending on the loads desired on the generator, the existing generator may be reused. However, if the heating plant or other loads are desired to be added, a new, larger generator will be required. A new generator could be located in the Mechanical Room or outdoors.

Lighting in the Gymnasium was recently replaced with new LED fixtures, which are said to not be in ideal positions for some sporting events. The interior lighting in the remainder of the building is mainly older technology lay-in or surface fluorescent fixtures with outdated T-12 lamping. Exit signs have incandescent lamping. Site lighting consists of new LED fixtures at the west parking lot.

All existing building lighting should be replaced with new LED fixtures, except the existing LED gym lighting, which could be repositioned if this space remains the gym. New LED exit signs and emergency lighting should also be provided. Site lighting should be removed or relocated, depending on the final scheme.

Stage platform lighting consists of three rows of red-blue-white incandescent border lights and eight spot lights on the stage, and six spot lights mounted on a bar at the front of the stage in the Gym. These lights are controlled by a 1981-vintage Electro-Controls rheostat-type dimmer panel.

The stage platform is eliminated under either scheme, so existing stage lighting and controls will be removed.

The building fire alarm system is original to the building, and consists of an old Simplex AC system which is non-supervised. The other system devices are manual pull stations, mounted at six five or six feet above the floor, and bells for audible annunciation. There are no strobes for visual annunciation in the building.

A new addressable fire alarm system should be provided, for manual activation and automatic detection. Audible/visual annunciation will be provided and device heights will be adjusted to current Standards.

Technology:

The building is served by an open technology rack which is located in the Mechanical Room. This rack serves data, VOIP phone, access control, and surveillance systems for the building.

A room should be provided to house this equipment, with proper environmental conditioning and access control. This room could be located at the current rack location, or elsewhere in the building.

Access control is provided for the building exterior doors and the Locker Rooms.

These control locations would remain where appropriate with the renovations, and additional controls would be provided for new spaces.

Surveillance cameras are provided for the building exterior and the building Corridors.

These camera locations would remain where appropriate to the renovations, and additional cameras would be provided for new spaces.

Electrical:

The building is served by a 400 amp, 120/208 volt, three-phase power service which consists of a 400 amp fusible switch and 400 amp main distribution panel, which are located in the Mechanical Room. There are four branch circuit panels located throughout the building, typically 100 amp, three-phase. All of the distribution equipment is original building vintage and manufactured by ITE.

The existing service and distribution will require replacement due to the addition and other new building loads. A new service in the range of 1200-1600 amp range, 120/208 volts, three phase, depending on the extent of air conditioning desired. All existing distribution equipment, feeders and branch circuit panels

APPENDIX

CURRENT UNIVERSITY AND CODE STANDARDS

**Office Space Guidelines
New Construction and Major Renovations**

Position/Title/Function	Maximum Square Feet Per Station
Vice President	400
Dean	400
Associate/Assistant Dean	350
Associate/Assistant Vice President	350
Academic Department Head	350
Endowed Chair	220
Endowed Professorship	185
Administrative Director	175
Receptionist/Space for Visitor	160
Assistant Director/Manager	150
Full Professor	150
Assistant/Associate Professor	150
Instructor	150
Graphic Designer	130
Architect	130
Engineer	130
Administrative Assistant	120
Financial Officer	120
Technician	120
Analyst	120
Professional Staff	120
Staff Assistant	100
Adjunct Instructor	100
Secretary/Receptionist	100
Class Lab/Heavy Discipline	100
Graduate Assistant	50-90
Wage/Hourly	50-90
Class Lab/Regular Discipline	50
Telemarketing	40-50
Computer Stations	30-40
Study Carrel	30-40
A/V Station	30-40
Studio Lab	30
Conference Room/Formal	25-30
Conference Room	20-25
Classroom/Seminar Style	20-25
Space for Visitor Waiting	20
Classroom/Lecture Style	16

Table 7 -PSU OFFICE SPACE GUIDELINES

WMF

WEBER MURPHY FOX
ARCHITECTURE INTERIORS CONSTRUCTION MANAGEMENT
LAND PLANNING & DEVELOPMENT HISTORIC PRESERVATION