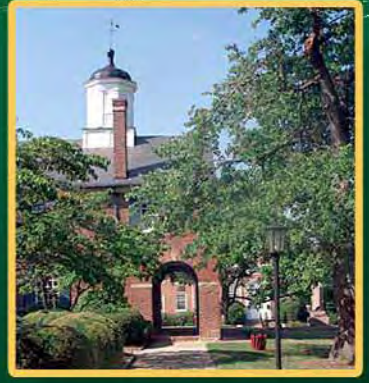
GEORGE MASON UNIVERSITY

Athletics & Recreation Master Plan



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Fax: 949.417-7590

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Las Vegas, NV 89103-4139
Main: 702.932.2788
Fax: 702.932.2789

PHILADELPHIA
Federal Reserve Bank Building
100 North 6th Street
Philadelphia, PA 19106-1590
Main: 215.923.2020
Fax: 215.574.0952

WASHINGTON
1025 Connecticut Avenue, NW
Suite 900
Washington, DC 20036-5405
Main: 202.467.1500
Fax: 202.296.8950

Project Team

George Mason University

Bruce Cooper, Asst. Athletic Director, Facilities & Recreational Sports
Benn Crandall, Senior Facilities Project Officer
Reid Herlihy, AIA, Vice President, Facilities
Mickey McDade, Senior Associate Athletic Director, Operations, Facilities & Administration
Jim Miller, AIA, University Architect
Thomas O'Connor, Assistant Vice President/Director, Athletics
Maurice Scherrens, Senior Vice President

Recreation & Athletic Master Plan Architects and Engineers

EwingCole
Federal Reserve Bank Building
100 North 6th Street
6th Floor
Philadelphia, PA 19106

Don Dissinger, Senior Vice President
Bill Jelen, Architect
Bill McCullough, Senior Sports Planner

Master Plan Consultants

Brailsford & Dunlavey
1140 Connecticut Avenue, NW
Suite 400
Washington, DC 20036

Matthew Bohannon, Analyst
Ann Drummie, Project Manager
Chris Lambert, Analyst
Jeff Turner, Vice President

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1.2.1 The Context

George Mason University is currently facing the challenge of effectively managing dramatic growth throughout the next decade. Within the context of a constrained state budget and finite land resources on a campus in the midst of economically booming and congested suburban surroundings, the institution anticipates continued growth. As of the fall of 2003, George Mason has the largest enrollment in the Commonwealth of Virginia, and expects to continue to be the largest in the coming years. Although the objectives of the Department of Athletics are relatively fixed with regard to conference affiliation and range of programs, the growing recreational, intramural, and fitness needs of the general student enrollment have clearly put pressure on the land and facility resources available.

While the Athletic Department has historically demonstrated a high level of commitment to both the health and safety of student athletes, including compliance with Title IX, and the provision of first-class student life resources to the enrollment as a whole, and a series of projects are already contemplated, the sheer growth of the University requires that a plan be laid out to ensure that future investments are made efficiently and wisely to enable the Athletic and Recreation Department to continue to perform at the same level of excellence.

The master planning effort studies the feasibility of improvement and utilization options for the PE Building and Robinson Field, the Aquatic and Fitness Center, Field House (West Campus), Patriot Center, the Northeast sector, Shirley Gate and all field areas available. This study develops a comprehensive 10 year athletic and recreation master plan that seeks to enhance the quality of student life, support the demanding needs of a successful athletic program and reinforce the University's mission of rethinking the traditional structure of the academy while creating institutional loyalty.

1.2.2 Opportunities:

There is a tremendous infrastructure and facilities already in place at George Mason University.

This planning study offers the university an opportunity to develop a strategy of possible renovations, additions, enhancements and overall improvements to recreation and athletic opportunities that will make the campus as a whole the place to come, stay and experience a collegiate lifestyle in the modern age.

This study seeks to understand:

- How the PE Building can better serve the University in the future?
- How the campus can be improved to provide better fitness and recreational facilities for all students, faculty, staff and potential community membership?

- How the current master plan addresses athletics and recreation and the potential influence that athletics and recreation can have in establishing linkages throughout the campus and enhancing the quality of the student life experience?
- Where are the right locations for athletic and recreational facilities based on the future strategic plans at the University?

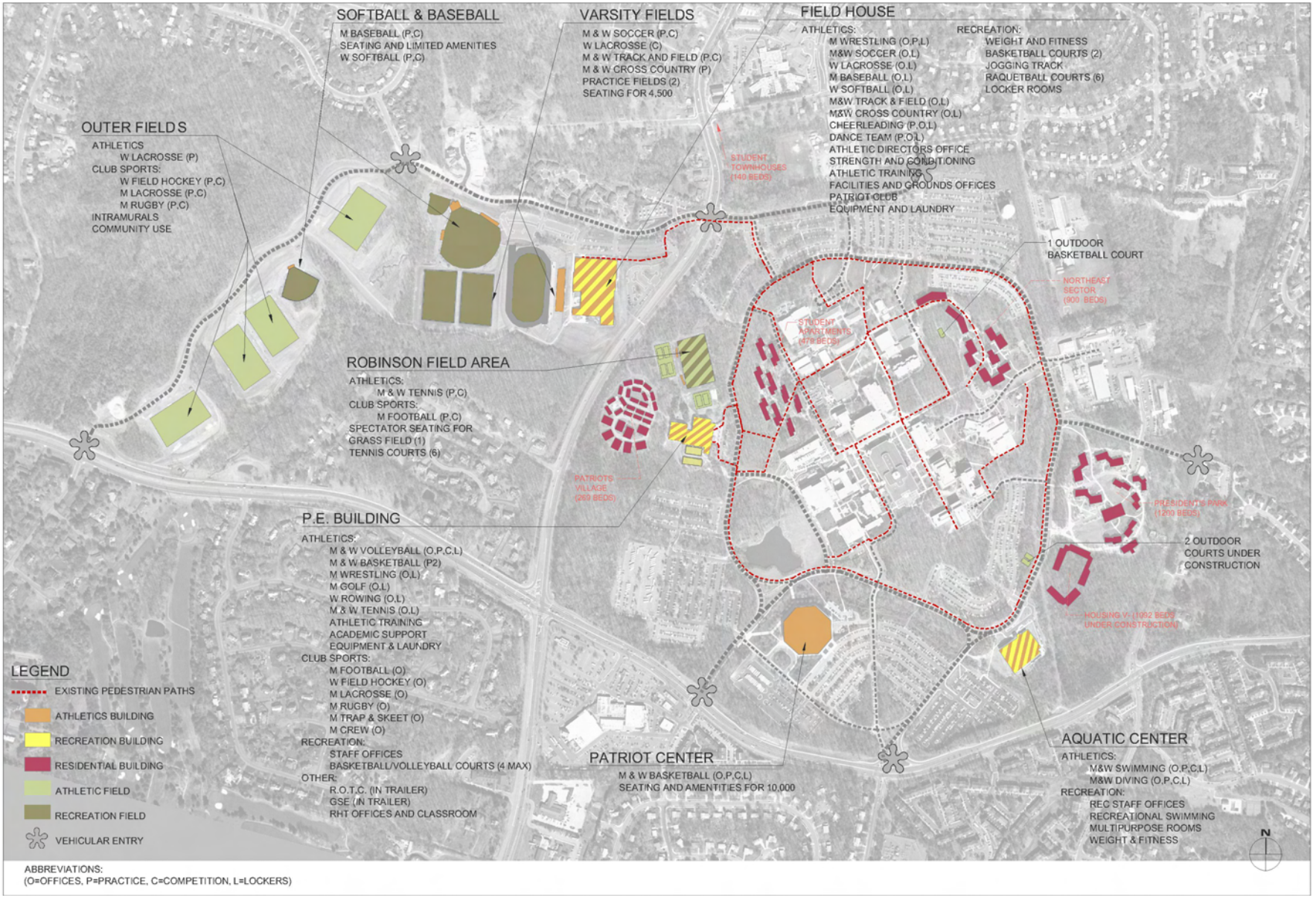
The goal is to provide the necessary information so that the University can make an informed decision as to the future needs for athletic and recreational needs and the best utilization of facilities and grounds for all students. The initial goals for development were as follows:

- Maximize PE Building multi-use considerations to improve schedule conflicts between growing recreation and athletic needs.
- Consider revenue generating opportunities other than student fees – high school, private use/membership
- Maximize flexibility – scheduling and use
- Establish strong athletic identity - potential integration between field house and baseball stadium
- Establish a user-friendly relationship with the neighboring community.
- Coordinate with other student life facilities and other campus master plan considerations
- Understand potential collateral development that will enhance additional community participation – consideration for 90-acre site at Shirley gate.
- Integrate parking and pedestrian considerations
- Coordinate related engineering infrastructure improvements with the physical plant capacity
- Improve ADA accessibility for all buildings and grounds

As the process unfolded, and we continually assessed the key goals, vision and ideas, a new priority of the prime and refined goals emerged:

- **Provide appropriate facilities to accommodate the growing needs for ICA, club sports, intramurals, and campus recreation.**
- **Provide facilities that are:**
  - Visible – establish Mason identity for students, faculty, staff and community
  - Secure – a place where students feel comfortable
  - Technologically Advanced – in concert with the University mission
  - Diverse – maximize opportunity for participation
  - Balanced – meet demand and budget; design within Context of Campus Architecture
- **Improve ability to host competitions and championships.**
- **Increase student, faculty, staff, and alumni interactions and bring the campus community together.**
- **Increase community awareness of the institution and its athletic teams.**
- **Improve the campus environment and quality of campus life for students, faculty, and staff through expansion of athletic and recreation programs and facilities.**
- **Accommodate an emphasis on "lifetime sports' programs.**
- **Develop a solid and defendable plan.**
- **Create places where students, staff and visitors want to stay and come back.**

The following 2004 Campus Plan outlines the current athletic and recreation programs in the context of Mason's campus.



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Universities across the country are realizing the benefits of quality recreational facilities on campus. They not only provide a social and physical outlet for students, but also aid in the recruitment and retention of students and the development of campus community. George Mason University (Mason) is currently facing shortages of space on campus for its recreational and athletic needs. This problem will only become more acute as the campus grows over the next ten years in both on campus population and overall enrollment.

EwingCole (EC), with Brailsford & Dunlavey (B&D) conducted a series of workshops to determine the challenges Mason is facing in its current recreational and athletic facilities and programs. A considerable amount of time was spent on campus with the key stakeholders developing the plan and gaining consensus on programs, activities and services in balance with an effective facilities improvement strategy and financial objectives. In addition to a recommended program and phased campus development plan, a competitive context was generated to determine how Mason ranked among its peer institutions and to illustrate the trends that are occurring on those campuses. A capacity analysis was completed to determine the use and frequency of use of activity spaces on campus as well. The following recommendations are the result of the synthesis of this process.

1.1.1 RECOMMENDATIONS

Centralized Athletics

The recommendation includes the renovation and expansion of the Field House and the development of this facility and surrounding area as the focal point for athletics. Some key elements involve bringing volleyball, wrestling and tennis competition to this site, as well as academic support and the athletic training arm of the RHT department. Renovating and dedicating an ICA strength & conditioning room is also integral. Further, the recommendation includes an addition to the Patriot Center to serve the needs of the basketball program as a secondary practice location when the game court is not available. Additional upgrades to the main stadium at the field house and baseball facility are expected as well as upgrades to practice and softball fields. These areas will focus on improved spectator seating and amenities, improved and expanded athletic offices and locker facilities, as well as outdoor lighting and field surface upgrades.

Regional Recreation

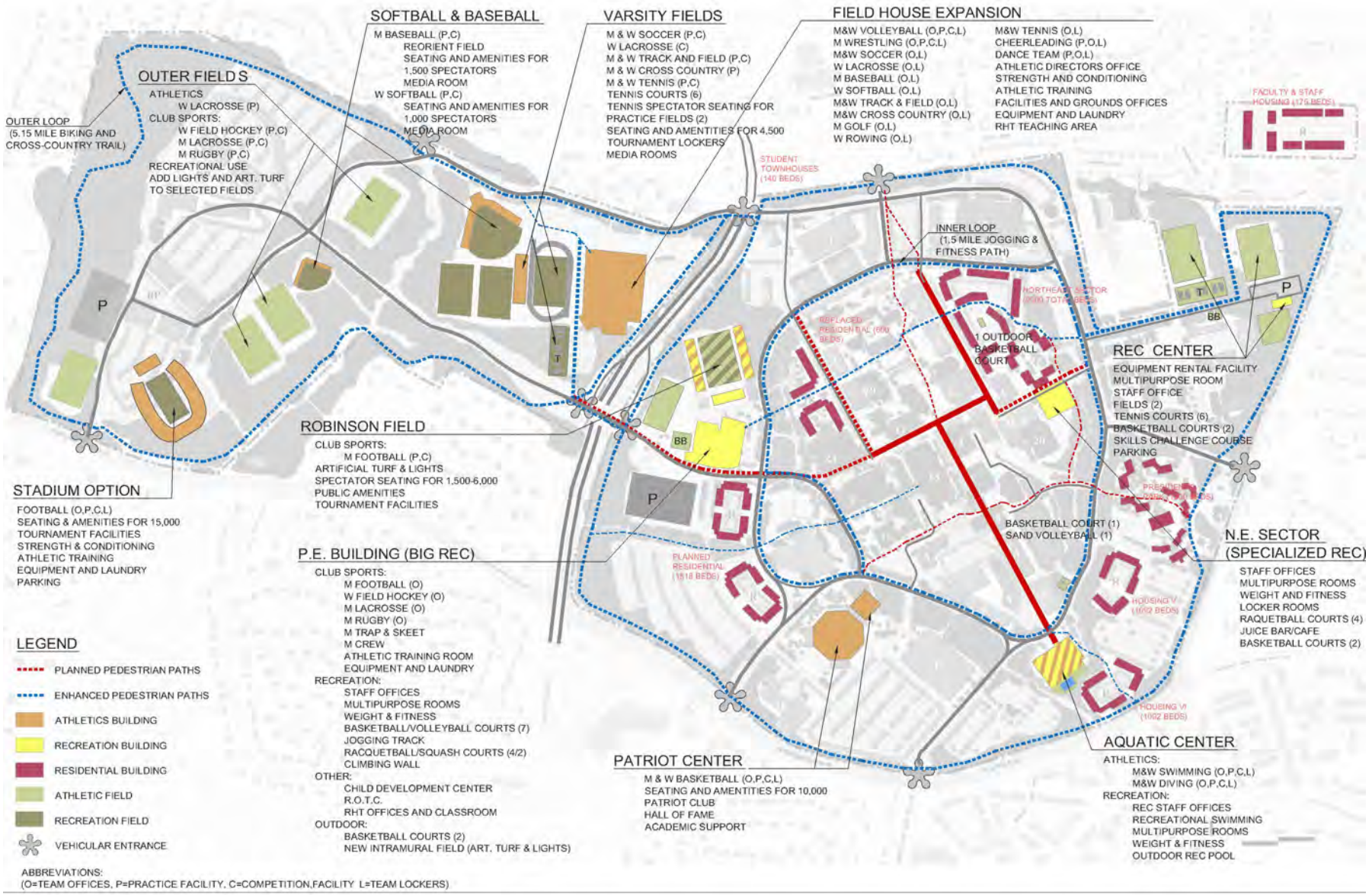
The renovation and expansion of the Physical Education (PE) Building will provide a new focal point for campus recreation in balance with the planned expansion of the Aquatics Center. The PE Building expansion will include a major weight and fitness area, basketball/volleyball courts, jogging track, a climbing wall, locker room upgrades for general recreation and club sports, multi-purpose rooms and recreation and club team offices. This building will be the major recreation destination on campus for Mason's students, faculty, staff and potential community membership. Other opportunities for providing recreation should be pursued with a recreation center in the Northeast sector, when the demand arrives, with planned dormitory expansion in the area. The indoor component includes a fitness facility, multi-purpose rooms, lockers, and juice bar. The outdoor component in nearby Aspen Grove includes two new recreation playing fields, tennis courts, a skills and rope course, a small building to house field amenities, a multi-purpose room

and equipment storage for the Outdoor Recreation Program. In addition to these areas, outdoor fitness trails through and around campus are planned as well as enhanced and additional intramural/recreation fields.

The following 2014 Campus Plan indicates the future opportunities for Mason's athletic and recreation programs in the context with the aforementioned recommendations.

2014 CAMPUS PLAN 1.2

PROJECTED PROGRAM ASSIGNMENTS



EwingCole's and Brailsford & Dunlavey's team approach to master planning involved a continuous interaction with the major stakeholders of the University. The Master plan is a BIG IDEA that embraces the overall mission of the University as well as Athletics and Recreation. The study contained two phases:

1. Understanding, Assessment and Analysis of current conditions and
2. Synthesis of this information into a 10 year master development plan for athletics and recreation at George Mason University.

One of the keys is to develop an accurate needs assessment involving two primary processes:

1. An interactive, workshop driven, consensus building process with University Staff –and,
2. The Demand Analysis complementing the workshop process by informing the needs with the following:
   - Student demographics and enrollment projections
   - Conditions and utilization of existing facilities
   - Benchmarking with peer and conference institutions
   - Student interviews and focus groups

EwingCole, with Brailsford & Dunlavey, also interacted frequently with Mason's campus master plan architects, Sasaki Associates, who were refining aspects of the campus master plan concurrently.

The workshops spanned over the summer months and included individuals from the Administration, Athletics, Recreation, Student Life, Facilities and Students to help guide and inform the process. A list of all workshop attendees is with the Demand Analysis below. From the series of workshops, we were able to develop a statistical program database for athletic and recreation needs for the university within the context of a ten year growth period for the university.

The goal was to provide program and planning option analyses including

- Sports and recreation site utilization plan analyses
- Program summary outlines for primary use facilities
- Conceptual diagrammatic facility plan analyses
- Campus opportunities diagrams to complement needs analysis
- Establish pedestrian and parking patterns related to athletics and recreation and the Master Plan

- Engineering analysis of existing primary use buildings

Once a consensus plan was approved, a master plan financial analysis was developed detailing a 10-year capital improvement strategy listing the projects. These budgets included:

- Conceptual programs for athletic and recreation facilities
- Conceptual diagrams for the larger scale and higher demand projects
  - Physical Education Building
  - Field House
- Order of magnitude project budget cost models

The consensus plan and outlay budgets were then prioritized with the university core committee as part of the workshop process.

1.4 SITE AND FACILITIES EVALUATION

1.4.1 Campuses

- Fairfax
- Arlington
- Prince William

Whereas this study focuses on the Fairfax Campus at George Mason University, we did receive feedback concerning deficiencies at the other campus locations. As Arlington expands in the future, there will be more of a demand for a small-scale fitness component to be integrated within the current plan. Prince William is currently enjoying the success of the Freedom Aquatic and Fitness Center, Northern Virginia's "Business of the Year" award. There are future expansion considerations to enhance this facility.

1.4.2 Sites at the Fairfax Campus:

- Main Campus
  - Northeast Sector
  - "South" Campus near Patriot Center and Aquatic Center
  - PE Building and Robinson Field
- West Campus
  - Field House and Soccer Stadium
  - Playing Fields
- Shirleygate

POTENTIAL AREAS 1.4

MAIN CAMPUS & SHIRLEY GATE

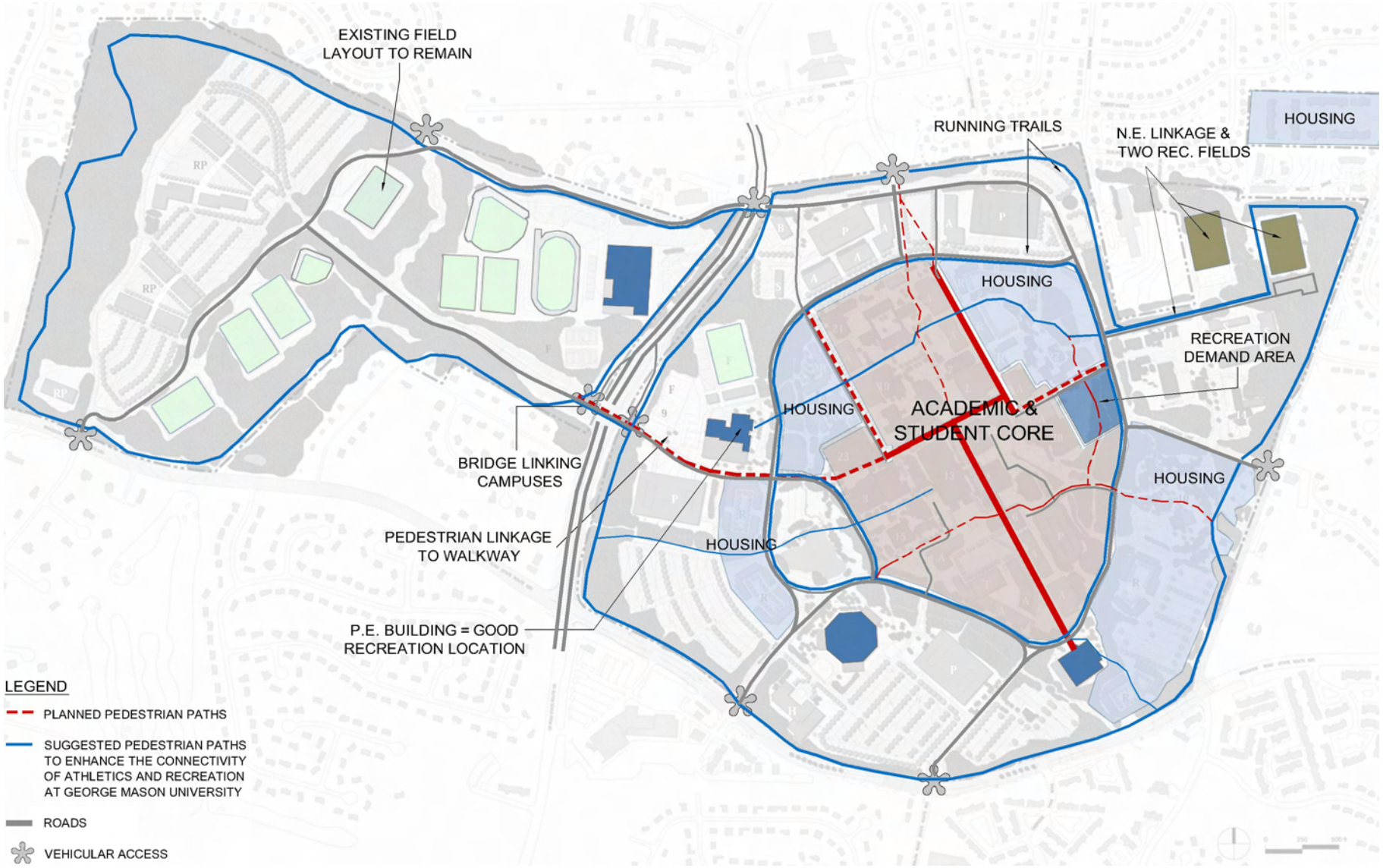
The following Master Plan Design Assumptions illustration indicates the primary planned pedestrian paths, suggested pedestrian linkages to enhance campus connectivity, and roads and vehicular access points. Using the campus master plan by Sasaki & Associates as a background, the academic and student core is highlighted as well as the intended residential, student housing development areas as a method for determining what opportunities may be present.

- A recreation demand area in the Northeast Sector of main campus is apparent when noting the existing athletic and recreation building locations. New housing development is expected in the northeast region in the near future, and provides an opportunity to combine housing and recreation development.

- Initial growth projections in the campus master plan have been exceeded, therefore increased resident student population has added pressure to provide more facilities for students. Key feedback from the interview process indicates that students feel that no one has a place to call home at Mason, that a true campus identity for recreation and athletics is absent.

- A key component shown on the master plan is the bridge over Ox Road (Rt. 123) linking Main Campus to West Campus. This connector will provide Mason with an opportunity;

    - To provide a safe way for student to cross Ox Road
    - To provide a more direct link with Main Campus to potentially increase attendance at home ICA contests on West Campus. Many coaches and students feel there is no true home field/court advantage for many of the sports because of location and poor communication with student body. This connection will likely enhance student interest in attending sporting events because the path of travel is more direct and easier.
    - Enhance Mason identity. A bridge will be one of the few Mason icons visible to the community and presents the opportunity to create a statement for the University.



1.4.3 Existing Buildings

Physical Education Building

Field House

Patriot Center

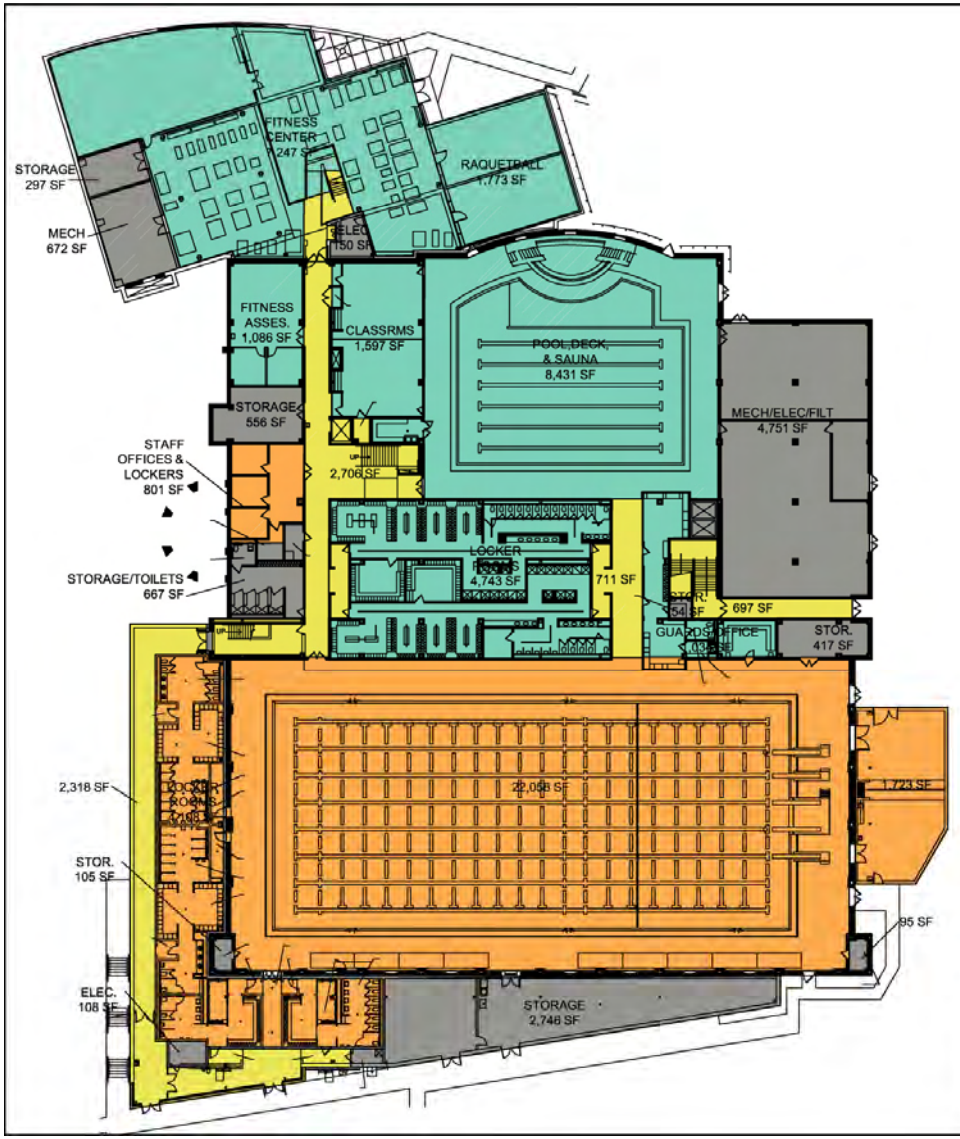
Aquatic and Recreation Center

EC conducted facility tours, compiled existing plans and prepared the following area and use diagrams. The building diagrams indicate the specific dedicated building areas used by athletics, recreation, academic support, spectator support, building services and support, and circulation. These existing square footage totals were used for comparison to the total recommended area program for athletics and recreation.

EXISTING AREAS:

FIELDS & COURTS:	
1 - TENNIS COURTS (6)	39,000 SF
2 - ROBINSON FIELD	71,600 SF
3 - GEORGE MASON STADIUM	180,000 SF
4 - PRACTICE FIELDS (2)	160,000 SF
5 - SPUHLER FIELD	140,000 SF
6 - MULTI-USE FIELDS (4)	340,000 SF
7 - SOFTBALL FIELD	45,000 SF
8 - BASEBALL PRACTICE	18,000 SF
9 - BASKETBALL COURTS (2)	13,000 SF
TOTAL:	1,006,600 SF
BUILDINGS:	
A - FIELD HOUSE	122,100 SF
B - PE BIULDING	60,600 SF
C - PATRIOT CENTER	181,000 SF*
D - AQUATIC CENTER	91,800 SF*
TOTAL:	455,500 SF

*INCLUDES CURRENT 8/2004 DESIGN AREAS



AREA SUMMARY:

ATHLETICS		
	OFFICES	801 SF
	LOCKERS	4,108 SF
	WORKOUT ROOMS	1,723 SF
	POOL & DECK	22,058 SF
	SUB-TOTAL	**28,690 SF**
RECREATION		
	OFFICES	1,034 SF
	LOCKER ROOMS	4,743 SF
	FITNESS CENTER	7,247 SF
	FITNESS ASSESMENT	1,086 SF
	CLASSROOMS	1,597 SF
	RAQUETBALL	1,773 SF
	POOL & DECK	8,271 SF
	SUB-TOTAL	**24,574 SF**
ACADEMIC		**0 SF**
SPECTATOR		**0 SF**
SERVICE & SUPPORT		
	STORAGE	4,732 SF
	MECH/ELEC/FILT	5,854 SF
	SUB TOTAL	**10,586 SF**
CIRCULATION		**6,432 SF**
LOWER LEVELTOTAL		**70,282 SF**

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		REF. DWG.: ---	REV. DATE:
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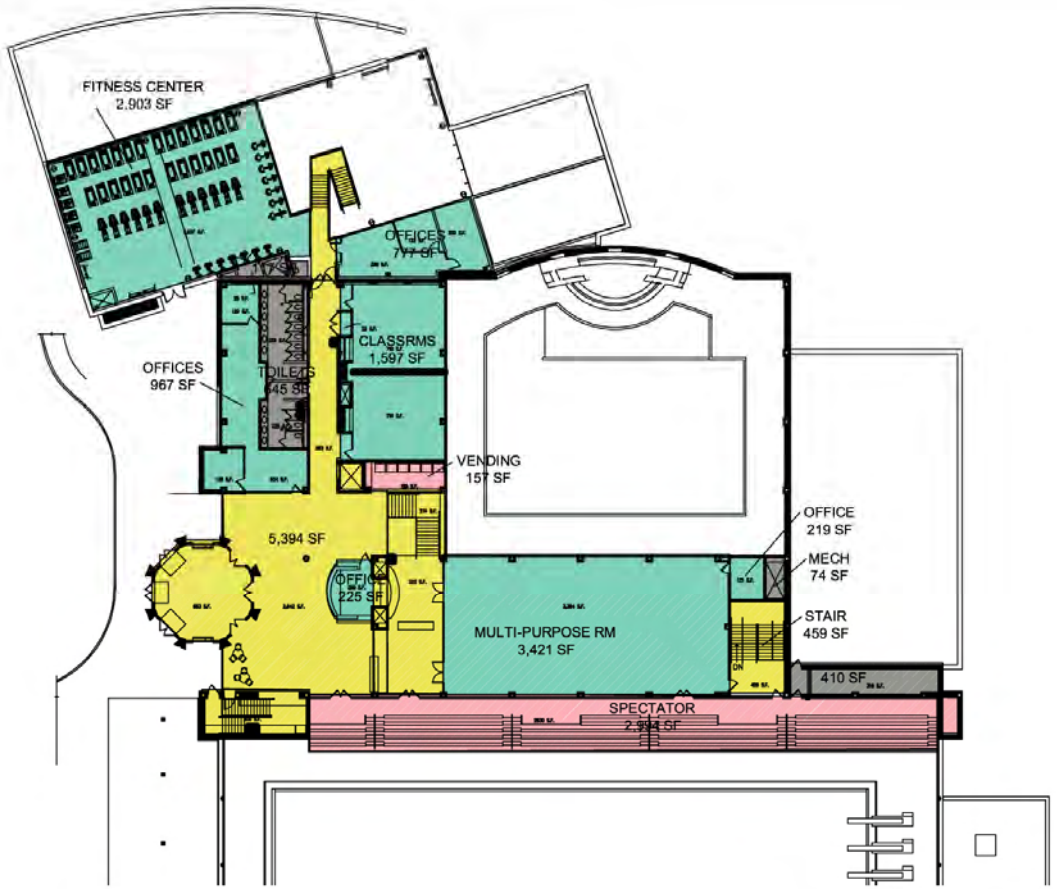

AREA SUMMARY:

ATHLETICS		**0 SF**
RECREATION		
	OFFICES	2,188 SF
	MULTI-PURPOSE RM	3,421 SF
	FITNESS CENTER	2,903 SF
	CLASSROOMS	1,597 SF
	SUB-TOTAL	**10,109 SF**
ACADEMIC		**0 SF**
SPECTATOR		
	SEATING	2,994 SF
	VENDING	157 SF
	SUB-TOTAL	3,051 SF
SERVICE & SUPPORT		
	TOILETS	645SF
	MECH/ELEC/FILT	601 SF
	SUB TOTAL	**1,246 SF**
CIRCULATION		**5,853 SF**
UPPER LEVELTOTAL		**20,259 SF**

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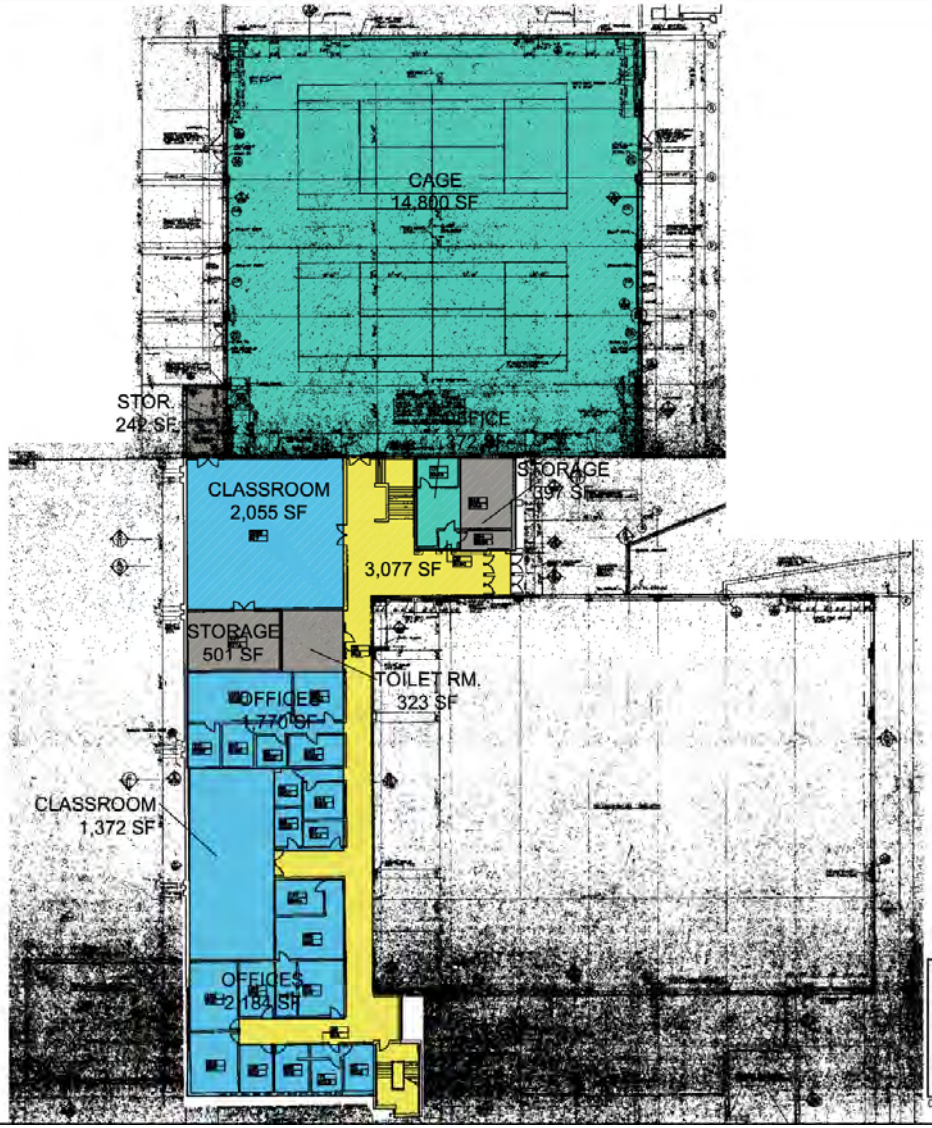

AREA SUMMARY:

	ATHLETICS	**0 SF**
	RECREATION	
	OFFICE	372 SF
	PLAYING FLOOR	14,800 SF
	SUB-TOTAL	**15,172 SF**
	ACADEMIC	
	OFFICE	3,954 SF
	CLASSROOM	3,428 SF
	SUB-TOTAL	**7,382 SF**
	SPECTATOR	**0 SF**
	SERVICE & SUPPORT	
	STORAGE	1140 SF
	TOILET ROOMS	323 SF
	SUB-TOTAL	**1,463 SF**
	CIRCULATION	**3,077 SF**
	CAGE LEVEL TOTAL	**27,094 SF**

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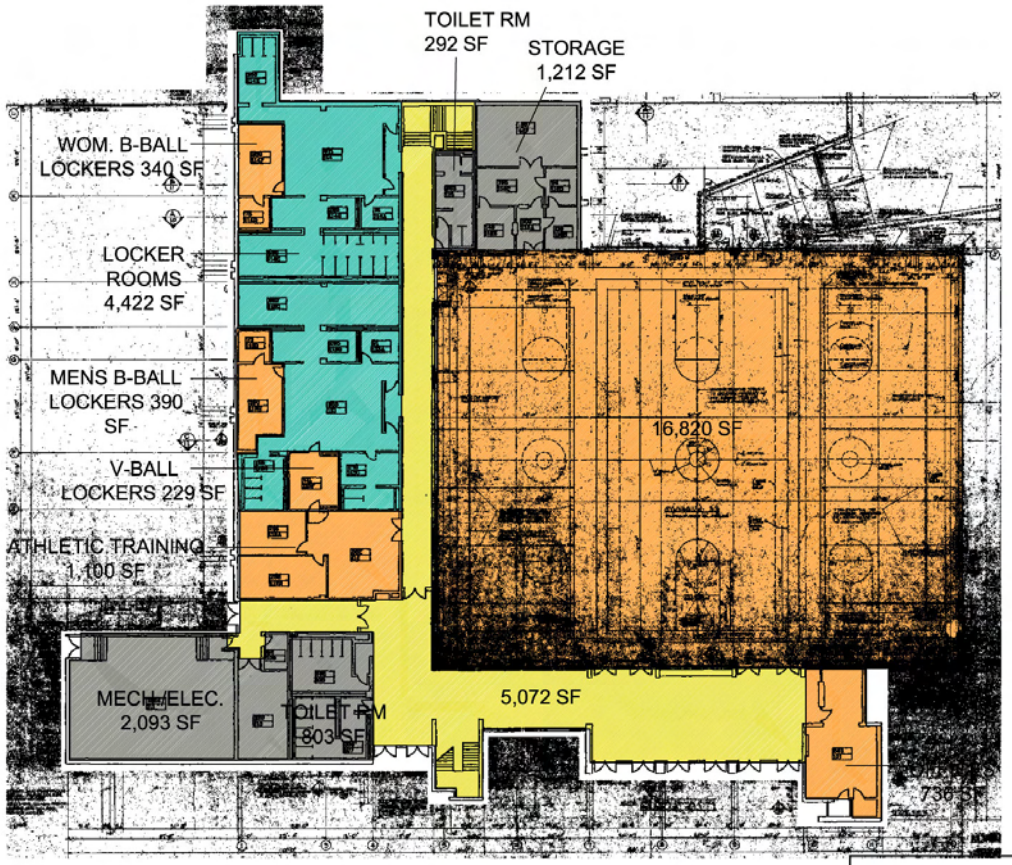

AREA SUMMARY:

ATHLETICS		
	COURT AREA	16,820 SF
	OFFICES	736 SF
	LOCKERS	2,059 SF
	SUB-TOTAL	**19,615 SF**
RECREATION		
	LOCKER ROOMS	4,422 SF
	SUB-TOTAL	**4,422 SF**
ACADEMIC		**0 SF**
SPECTATOR		**0 SF**
	(FOLDING BLCHRS 5200 SF)	
SERVICE & SUPPORT		
	STORAGE	1,212 SF
	TOILET ROOMS	1,095 SF
	MECH/ELEC/FILT	2,093 SF
	SUB-TOTAL	**4,400 SF**
CIRCULATION		**5,072 SF**
	GYM LEVEL TOTAL	**33,503 SF**

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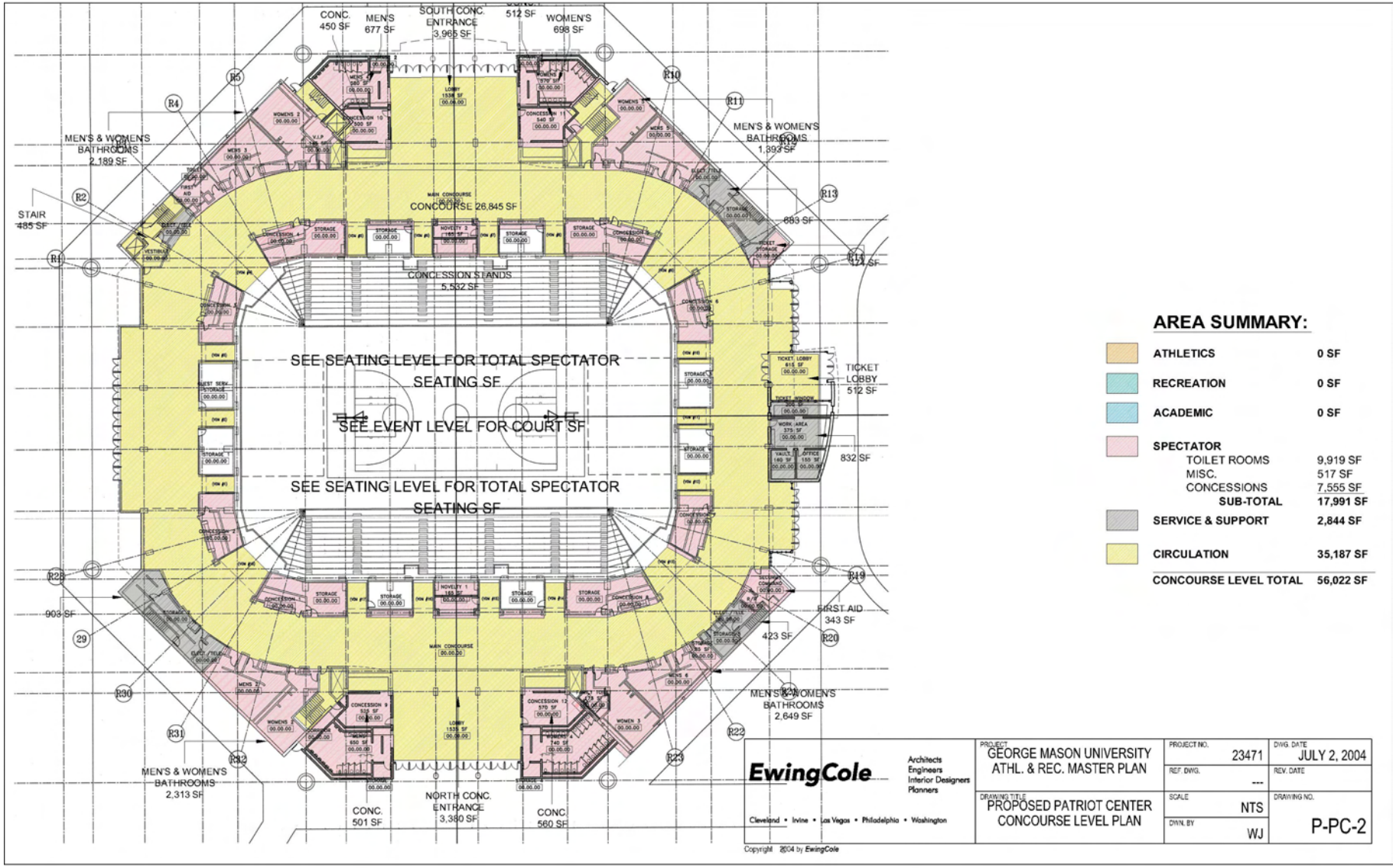

AREA SUMMARY:

	ATHLETICS	0 SF
	RECREATION	0 SF
	ACADEMIC	0 SF
	SPECTATOR	
	TOILET ROOMS	9,919 SF
	MISC.	517 SF
	CONCESSIONS	7,555 SF
	SUB-TOTAL	17,991 SF
	SERVICE & SUPPORT	2,844 SF
	CIRCULATION	35,187 SF
	CONCOURSE LEVEL TOTAL	56,022 SF

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DRAWING TITLE: PROPOSED PATRIOT CENTER CONCOURSE LEVEL PLAN

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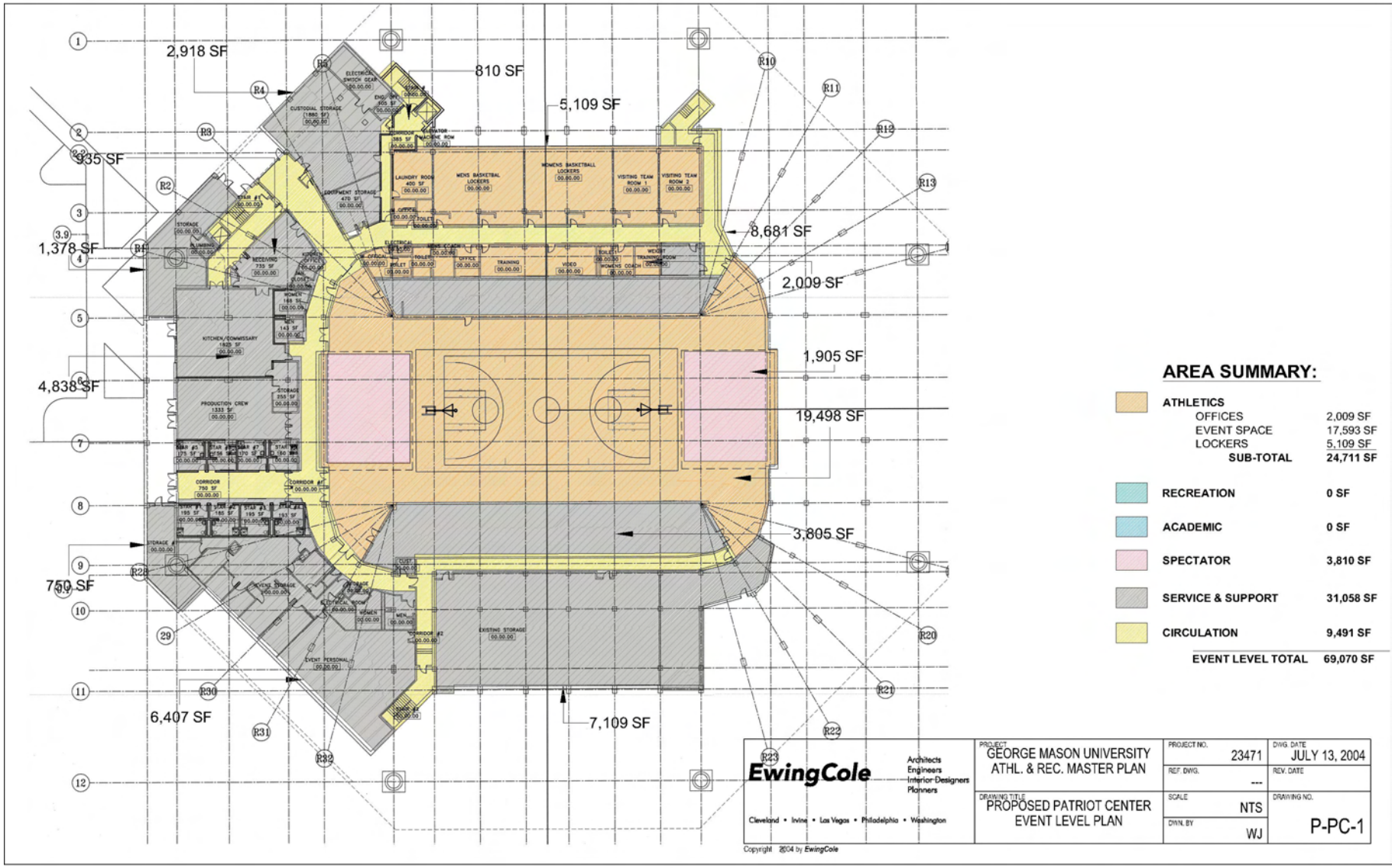

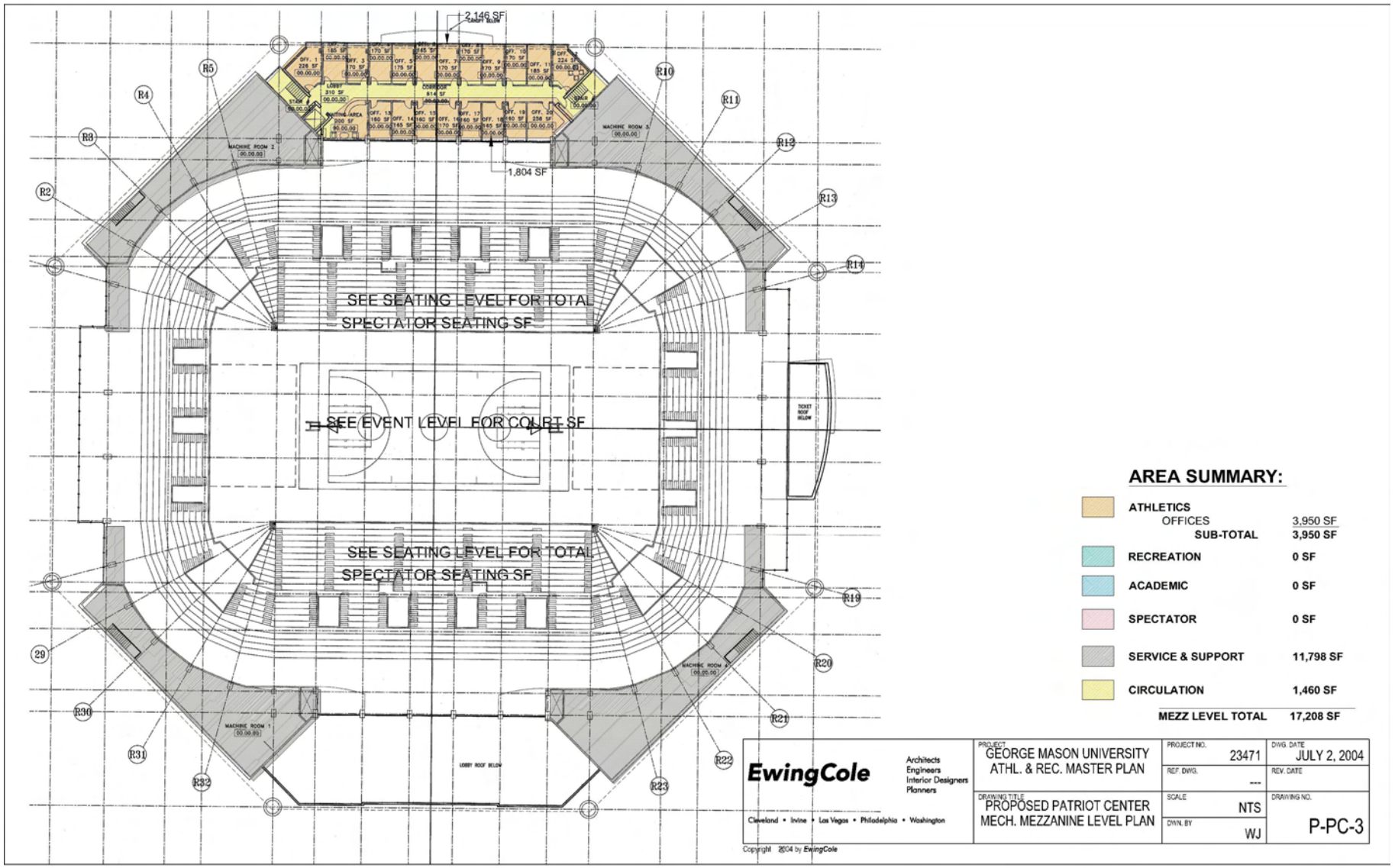

AREA SUMMARY:

ATHLETICS		
	OFFICES	3,950 SF
	SUB-TOTAL	3,950 SF
RECREATION		0 SF
ACADEMIC		0 SF
SPECTATOR		0 SF
SERVICE & SUPPORT		11,798 SF
CIRCULATION		1,460 SF
MEZZ LEVEL TOTAL		17,208 SF

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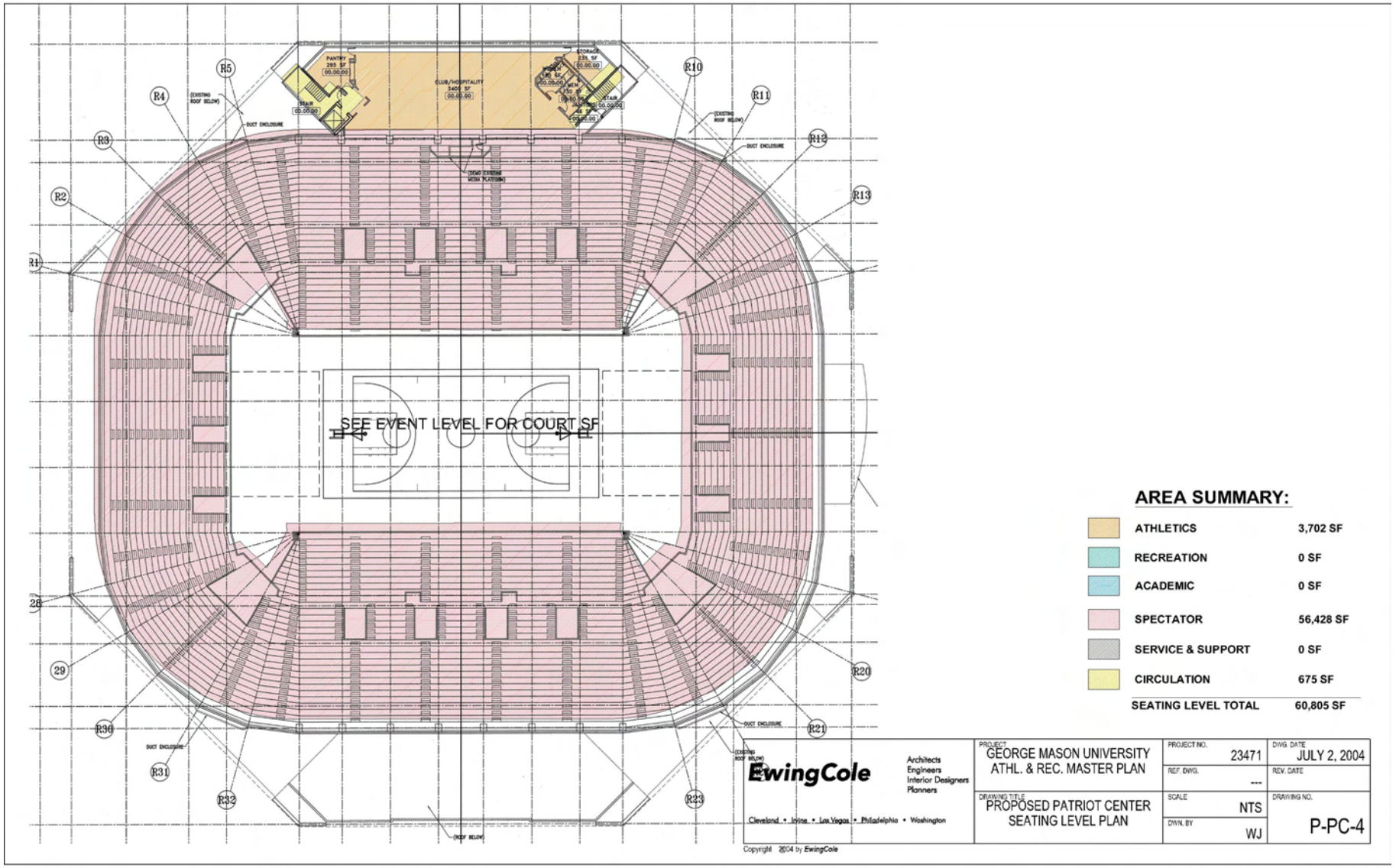

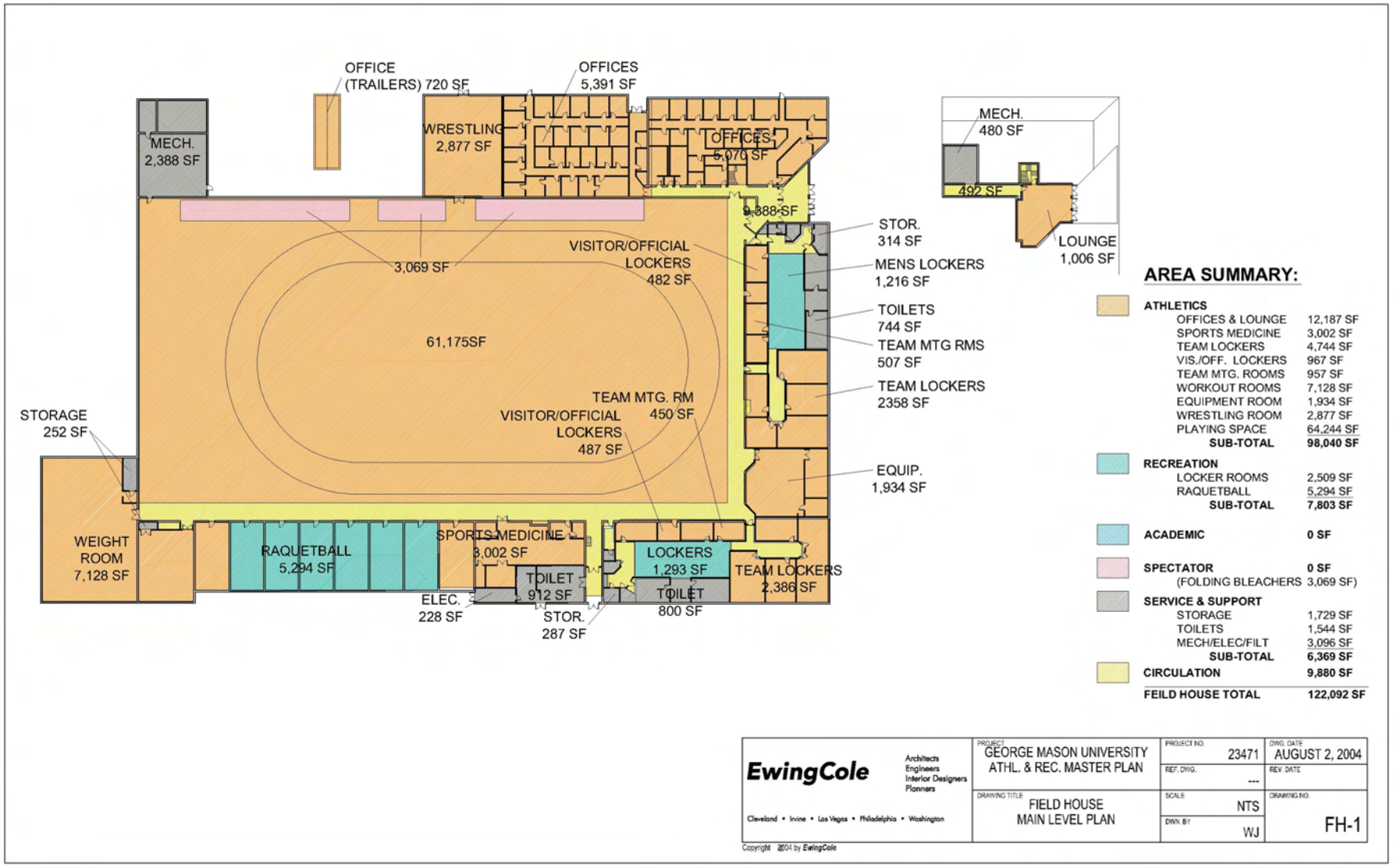

AREA SUMMARY:

ATHLETICS		
	OFFICES & LOUNGE	12,187 SF
	SPORTS MEDICINE	3,002 SF
	TEAM LOCKERS	4,744 SF
	VIS./OFF. LOCKERS	967 SF
	TEAM MTG. ROOMS	957 SF
	WORKOUT ROOMS	7,128 SF
	EQUIPMENT ROOM	1,934 SF
	WRESTLING ROOM	2,877 SF
	PLAYING SPACE	64,244 SF
	SUB-TOTAL	**98,040 SF**
RECREATION		
	LOCKER ROOMS	2,509 SF
	RAQUETBALL	5,294 SF
	SUB-TOTAL	**7,803 SF**
ACADEMIC		**0 SF**
SPECTATOR		**0 SF**
	(FOLDING BLEACHERS	3,069 SF)
SERVICE & SUPPORT		
	STORAGE	1,729 SF
	TOILETS	1,544 SF
	MECH/ELEC/FILT	3,096 SF
	SUB-TOTAL	**6,369 SF**
CIRCULATION		**9,880 SF**
FEILD HOUSE TOTAL		**122,092 SF**

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		DWN. BY WJ	

1.4.4 The Demand Analysis

B&D conducted a series of focus groups and interviews to determine the challenges Mason is facing in its current recreational and athletic facilities and programs. A Competitive Context was generated to determine how Mason ranked among its peer institutions and to notice the trends that are occurring on those campuses. A Capacity Analysis was completed to determine the use and frequency of use of activity spaces on campus and was used to inform the recommended program. Highlights from the Capacity Analysis include:

- No dedicated open recreational spaces
- High number of users in shared spaces with competing goals
  - Revenue generation impacting student user flexibility
- Few and deficient swing spaces
- Packed schedules at popular time slots
  - Particularly 7pm-11pm
- Accommodating intramurals is biggest challenge
  - 23% increase in intramural participation in last 3 years
  - No dedicated activity spaces
  - Shared Use between Open Rec, Intramurals, Cheer/Dance, Clubs, Rentals
  - Often, no available space for make-up games
  - Insufficient number of outdoor fields with lighting

As the study was conducted during the summer months, student input was limited. Further, as the study was a broad-brushed review of athletics and recreation, finer research into speculative, drop-in demand for activities such as climbing, recreational tennis, and outdoor basketball was not included in the scope. We would recommend, that as part of the next steps to pursue any or all of the projects identified in the Master Plan, that an internet-based student survey be pursued, as a well-established method of determining speculative demand for recreational facilities

Projected Enrollment at George Mason University
(headcount)

Year	Fairfax Campus	Arlington Campus	Prince William Campus	Loudon campus	Off-Campus	Total
2004	22,914	2,535	2,498	0	1,051	**28,998**
2005	22,890	2,854	2,794	90	1,100	**29,728**
2006	23,049	3,033	3,002	152	1,092	**30,327**
2007	23,290	3,217	3,155	217	1,052	**30,930**
2008	23,561	3,411	3,316	284	1,011	**31,583**
2009	23,799	3,607	3,478	354	966	**32,205**
2010	23,972	3,809	3,645	427	985	**32,838**
2011	24,042	4,013	3,845	535	1,003	**33,438**
2012	24,097	4,220	4,050	647	1,021	**34,035**
2013	24,145	4,434	4,261	762	1,039	**34,641**
2014	24,196	4,656	4,479	882	1,058	**35,271**

Further information about enrollment projections is given in Exhibit 1.

1.2 Competitive Context (Benchmarking)

1.2.1 Objectives

B&D conducted an analysis of Mason and a select list of peer and cross-applicant institutions to develop a profile of each institution's recreational and athletic facility capabilities. The objective of the competitive analysis is to understand Mason's current standings among competitive schools and the extent to which improved facilities, such as the Field House and PE Building, could improve the University's position in the market for general and athletic recruitment and retention.

1.2.2 Methodology

With the assistance of Mason, B&D selected twelve schools for this analysis because of regional, academic and cross-application attributes shared with Mason. When gathering information, B&D relied on printed documentation and websites

1.1 Introduction

Quality recreational and athletic facilities play an important role in attracting and retaining high quality students and faculty. 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 scholastic 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 George Mason University (Mason) 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. Furthermore, new and improved recreational and athletic facilities, along with the Aquatic Center and Johnson Center, will create attractive destination points on campus with the ability to meet the growing programmatic needs on campus. According to NIRSA it is estimated that "more than $1.5 billion has recently been expended (or is approved to be spent) to renovate or build new state-of-the-art collegiate recreational sports facilities."

Over the next ten years Mason will become the most populous university in Virginia with a projected enrollment of 30,000-36,000 students in the next ten years. Concurrent with this growth, Fairfax campus is also enhancing the on-campus residency program, possibly growing to 7,500 on-campus beds by year 2014. These initiatives will have an impact on the existing crowded and overused facilities as well as creating denser sections of student population centers on campus. In order to be attractive places where students have a sense of community, recreational outlets must be provided in the near proximity.

To assess the feasibility of expanding and improving the existing recreation and athletic facilities, Mason must understand the size and nature of facilities required to meet demand as well as the related expenses. Equally important is the need to achieve an understanding of the extent to which such improvements will meet the University's goals. Brailsford & Dunlavey (B&D) developed a demand analysis strategy to provide qualitative and quantitative information necessary to achieve a thorough understanding of these issues.

The tools in the study included a survey of twelve institutions representing peer and cross-applicants with Mason. In addition, B&D conducted two focus group sessions over the summer to gather input from students. A summary of each of these analyses is detailed in the following sections, leading to a list of primary recommendations for indoor and outdoor activity spaces.

The analysis is based on the following University-provided enrollment projections:

readily accessible and typically used by prospective students when searching for a school that meets their needs. When possible a single source for information was used to compare different institutions on a given element, even if minor discrepancies were apparent from other institutional records.

Many telephone interviews were also made to obtain information that was not publicly accessible but was important to the analysis. Attempts were made to corroborate information whenever possible by requesting similar information from varied sources at the same institution.

While B&D is confident that the information gathered through these sources is accurate, none of the information was validated by physical inspection of the facilities, floor plans, or photographs.

This detailed analysis examined information on tuition and fees, enrollment, recreational and athletic facilities and recreational and athletic programs. The diversity of this information allowed a thorough understanding of both Mason's current position in the market as well as a projection of its future position based on any proposed improvements to facilities. This detailed data is included in Exhibit 2 of this report.

Six peer and six cross-applicant institutions are included in this analysis. Peer institutions were selected as universities with similar or model programs, and cross-applicant institutions were identified as universities that receive applications from the same, or similar, students. The twelve institutions selected by the University and B&D are:

Peer Institutions
- Georgia State University (GSU)
- State University of New York, Albany (SUNY-Albany)
- State University of New York, Buffalo (SUNY-Buffalo)
- University of Cincinnati (UC)
- University of Missouri, Kansas City (UMKC)
- University of South Florida (USF)

Cross-Applicant Institutions
- Central Florida University (UCF)
- Florida International (FIU)
- James Madison University (JMU)
- University of California, Davis (UC-Davis)
- University of Wisconsin, Milwaukee (UWM)
- Virginia Commonwealth University (VCU)

1.2.3 Summary of Findings

While Mason offers more intercollegiate sport teams than the average peer institution, the University has fewer club and intramural sports than average. An increase in the number of recreational clubs and intramural programs would provide additional outlets for student interactions on campus, adding depth to the campus community.

RECREATIONAL & ATHLETIC TEAMS

University	ICA Sports	Club Sports	Intramural Sports	ICA Athletes
Georgia State University	17	23	37	234
SUNY – Albany	19	20	6	424
SUNY – Buffalo	14	24	9	477
University of Cincinnati	18	26	16	431
Univ. of Missouri – Kansas City	16	4	8	159
Univ. of South Florida	17	20	30	375
Central Florida University	16	25	25	410
Florida International University	15	16	15	307
James Madison University	28	33	N/P	498
Univ. of California – Davis	25	36	21	517
Univ. of Wisconsin – Milwaukee	13	38	7	275
Virginia Commonwealth Univ.	16	13	9	245
AVERAGE:	**18**	**23**	**17**	**363**

George Mason University	**22**	**6**	**10**	**401**
Percent difference:	**+22%**	**-74%**	**-41%**	**+10%**

- The twelve comparison schools averaged 23 clubs with UMKC being the only institution with fewer than Mason's six.
- Possibilities for club sports include table tennis, judo, ultimate frisbee, water polo, and fencing. Possibilities for additional intramural activities include ultimate frisbee, floor hockey, indoor soccer, racquetball ladder, tennis ladder, and boxing. Intramurals are one of the more popular trends for recreation on campuses. A recent studentPOLL published study by Art & Science Group of college bound high school seniors across the country stated that "an overwhelming 69% of this group

reported that they intend to play an intramural sport in college while 31% indicated either that they did not want to play or didn't know."

– Program expansions should consider sports that would appeal to Mason's international student population enhancing the diversity within the recreational and athletic programs.

Currently Mason intercollegiate athletes utilize the strength training equipment in a room in the Fieldhouse but it is also open to drop-in recreational users, which can create some complications to efficient team training. Mason is the only university in the study not to provide its athletes with a dedicated strength and conditioning room. All peer institutions have at least one space that is dedicated for strength and conditioning and one space for recreational weight and fitness. A dedicated room is usually equipped and managed specifically for the needs of student athletes.

DEDICATED STRENGTH & CONDITIONING ROOM

University	Gross Square Feet	Square Ft. Per Athlete	Football
Georgia State University	1,590	6.8	No
SUNY – Albany	7,200	17.0	Yes
SUNY – Buffalo	5,900	12.4	Yes
University of Cincinnati	6,500	15.1	Yes
Univ. of Missouri – Kansas City	7,000	44.0	No
Univ. of South Florida	10,000	26.7	Yes
Central Florida University	10,000	24.4	Yes
Florida International University	5,000	16.3	Yes
James Madison University	10,000	20.1	Yes
Univ. of California – Davis	3,000	5.8	Yes
Univ. of Wisconsin – Milwaukee	2,000	7.3	No
Virginia Commonwealth Univ.	5,000	20.4	No
AVERAGE:	**6,099**	**18.0**	
George Mason University	**0**	**0**	

– While the weight and fitness space in the Aquatics Center is expanded, the possibility for renovating the Field House space into a dedicated strength and conditioning room should be explored.

– The universities with the largest strength and conditioning rooms all have the largest football program as well. If Mason decides to create a Division I-AA football team, then any proposed estimate for strength and conditioning space from this report would have to be increased to address the needs and objectives of the additional program.

While the PE Building and Field House do offer some recreational opportunities, the facilities lack some of the amenities that are present at peer institutions, including an indoor jogging track, squash courts, and rock climbing. Several peer institutions have more outdoor basketball courts and tennis courts as well.

OUTDOOR COURTS

University	Tennis Courts	Basketball Courts
Georgia State University	2/Off-Campus	2
SUNY – Albany	12	2
SUNY – Buffalo	20	14
University of Cincinnati	6	N/P
Univ. of Missouri – Kansas City	Off-Campus	0
Univ. of South Florida	8	0
Central Florida University	6	3
Florida International University	12	2
James Madison University	8	5
Univ. of California – Davis	5	6
Univ. of Wisconsin – Milwaukee	2	0
Virginia Commonwealth Univ.	6	2
AVERAGE:	**7.4**	**3.3**
George Mason University	**6**	**2**

– Three universities in this analysis, SUNY-Buffalo, USF and FIU, have dedicated half of their tennis courts for intercollegiate use, with the other being shared by all other users. Mason should consider adding controlled intercollegiate courts on campus, separate from other recreational tennis courts possibly dispersed around campus.

All institutions in the analysis have either recently constructed new recreational facilities, are currently in the construction process or are planning new renovations. One of the peer institutions, University of California – Davis, recently passed a

student referendum to enhance recreation and athletic facilities on campus. The referendum included a new multi use stadium and recreation building, plus additional funding for club and intramural sports. The student fee will be phased in over the course of several years: beginning with a $5 fee for the first year, $11 for the next three years, and $126 upon completion of the projects.

- Mason should consider how new facilities may be phased in conjunction with potential student fee increases and whether a referendum will be pursued.

1.3 CAMPUS INTERVIEWS

Brailsford & Dunlavey conducted interviews with 67 members of the Mason staff and administration affiliated with the recreational and athletic facilities. These interviews provided insight into how facilities are being used, what the current obstacles are in their effective use, and general goals and desires for improvements.

The list of interviewees is given in Exhibit 3.

1.4 FOCUS GROUPS

1.4.1 Objectives

The purpose of the focus group interviews was to engage a variety of Mason students in dynamic conversation about their opinions, observations, and recommendations regarding planned improvements to the university's athletic and recreation facilities. Focus groups are intended to yield qualitative data, reveal hidden sensitivities, and raise issues previously not considered by the researchers rather than providing rigid, statistically reliable responses from a demographically representative sample of the population.

1.4.2 Methodology:

While in the middle of the summer with most of classes out of session, two focus group sessions were organized by the Associate Athletic Director for Aquatics and Recreation and held on June 18, 2004. The sessions were designed to gain a better understanding of user-group sentiment towards potential recreation and wellness facility development options and were facilitated by B&D. Both focus groups were open to undergraduate and graduate Mason students. In total, 22 students provided feedback and data on athletics and recreation. Participants in both sessions were generally very vocal on the subject matter and the sessions proved informative.

It should be noted that participants represent, to some degree, a self-selected group. The majority of participants in both focus groups were either intercollegiate athletes, club sports or intramural athletes, or avid recreational facility users. The complete Focus Group Report can be found in Exhibit 4 of this report.

1.4.3 Summary of Findings

- Students had overwhelmingly negative opinions of the university's athletic and recreation facilities. Indications were that these impressions became increasingly negative from the time of enrollment through the student's tenure at school.
- Students noted that peer universities as well as NCAA Division III schools and high schools typically compare much better than Mason.
- Students were in general agreement that spaces used for recreation on campus suffer from a number of deficiencies. Most pronounced was that there are too many user groups for most major spaces, too many individual users for spaces that are not sized appropriately, as well as the fact that facilities are outdated and worn out. The fields are also seen as being too far away and isolated from the rest of campus.
- Some students spoke about the importance of an intercollegiate football program for a large university and the associated positive impacts on school spirit, overall school atmosphere, and sense of community.
- Students were in agreement that campus life and community are scarcely present on the Fairfax campus.
- Participants were clearly enthusiastic about the idea of school spirit but were genuinely frustrated about how to apply it. This frustration was due to the feeling that the necessary infrastructure required to foster school spirit is not currently in place.

1.5 CAPACITY ANALYSIS

1.5.1 Objectives

B&D conducted an in-depth analysis of facility usage in the existing recreation and athletic areas at Mason to understand their scheduling issues and available capacity.

1.5.2 Methodology

A typical week in October and in February, of each primary activity space, was reviewed for conflicts between users and issues about prioritizing in scheduling and reliability in programming. These are graphically shown in Exhibit 5.

1.5.3 Summary of Findings

- All athletic and recreational activity spaces are shared by some combination of intercollegiate athletics, club sports, intramurals, open recreation and outside rental groups. The result is an achievable but unforgiving tight schedule.
- Frequently it is open recreation users who are unable to anticipate when a shared facility will be closed to them because of a shift in schedule to accommodate other users. Such shifts can occur because inclement weather has brought outdoor activities indoors and because a user has been 'bumped' from their primary space to a secondary space such as basketball team practice when the Patriot Center has a conflict with another event.
- Open recreation use is therefore not reaching its full potential because understandably students are hesitant to travel to the sites if they have little faith that they will actually have access for their desired activity at the time. It would be contradictory to the "drop-in" philosophy to force students to schedule their free time to match the limited availability of an activity space.
- Mason has stated a priority of providing space for student use; however, this has come into conflict with the University's need to bring in revenue generating sources to support the operations of the department. This has the unfortunate consequence of making a tight schedule even tighter.
- The critical time period is between 7pm and 11pm, when the intramural department feels it can best accommodate participation in its programs. This is also however when some rentals have interest in facilities, and when some intercollegiate teams hosts competitions.
- The outdoor intramural program is defined by the availability of Fields 3 and 4 as the only fields with lighting for use in the desired hours of 7pm to 11pm, and the only fields generally made available to intramurals. The ICA soccer fields and stadium field are dedicated, Robinson Field is semi-dedicated for football that takes most of its late afternoon capacity, Field #1 lacks amenities and quality, and Field #5 is generally held for quality amenable to ICA and club teams and rental opportunities. The program is scheduled to capacity to accommodate all interested participants, and with little to no opportunity for having indoor space during inclement weather, the situation has little flexibility for rescheduling outdoor

games cancelled for weather. This may be mitigated now that Field #3 has artificial turf, allowing for games to still occur that would otherwise have been cancelled because of safety concerns related to the playing surface during wet weather.

- Similarly, the indoor intramural program is defined by the availability of Linn Gym. The program is scheduled to capacity to accommodate all interested participants, and with inconsistent opportunities for redirecting games to the infield of the Field House when scheduling conflicts occur.
- The pressure on space has been increasingly felt as the number of intramural participants has increased by 23% over the past three years.
- There are times that are open, such as in the early to mid morning at the intramural fields; however during these times, most potential participants are understandably in class.

Field #3 – February, 2004

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
8 am							
9 am							
10 am							
11 am							
12 pm							
1 pm					Club M Lax		
2 pm							
3 pm							
4 pm							
5 pm	Club M Lax	Club M Lax	Club M Lax	Club M Lax			
6 pm							
7 pm	Intramural Softball **1 game**	Intramural Softball **1 game**	Intramural Softball **1 game**				Intramural Softball **2 games**
8 pm							
9 pm							
10 pm							
11 pm							

Linn Gym – October , 2003

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
8 am	Offl Season M VB	Offl Season M VB	Offl Season M VB	Offl Season M VB	Offl Season M VB		
9 am							
10 am						Visitor VB Prac	
11 am	Staff Basketb		Staff Basketb		Staff Basketb		
12 pm		ICA W VB		ICA W VB			W VB Game
1 pm	ICA W VB		ICA W VB				
2 pm							
3 pm							Off Season M BB
4 pm	Offl Season M VB	Offl Season M VB					
5 pm						W VB Game	
6 pm							
7 pm	Club Badmin	Intramural VB	Intramural VB	Intramural VB	W Vball Game		
8 pm							
9 pm		**2 courts.**	**2 courts.**	**2 courts.**			
10 pm							
11 pm							

1.6 PROGRAM RECOMMENDATIONS

Brailsford & Dunlavey recommends the following key program components for the Athletics and Recreation master plan.

Indoor Basketball Courts: A total of eight to ten indoor basketball courts on campus (including a dedicated practice space for intercollegiate basketball) to improve intramural program success, greater flexibility for scheduling rentals, and allow for a general growth of programs.

Outdoor Basketball Courts: Four to six outdoor basketball courts to address student interest from focus groups and encourage and support drop-in free play.

Outdoor Tennis Courts: Twelve outdoor tennis courts split into two locations. This will allow for dedicated courts for intercollegiate athletics as well as six courts for recreational use, possibly on the northeast section of campus.

Outdoor Fields: Ten to twelve fields, most with lighting and artificial turf, that will allow for more opportunities for intramural and recreational activities.

Strength & Conditioning Room: 8,000 to 10,000 square feet of dedicated strength and conditioning space to focus on the training requirements for intercollegiate and club athletics. The amount of strength and conditioning space would have to increase if football becomes an intercollegiate level sport.

Weight & Fitness: 30,000 to 35,000 square feet of weight and fitness on campus for the recreational user. Recreational area would be split between the existing space in the Aquatic Center, renovated and new space in the PE Building, and a new recreation center in the northeast of campus.

Outdoor General Fitness: Two fitness trails around the campus core and campus perimeter to provide greater access to walking, jogging, and bicycle trails.

1.6.1 Centralized Athletics

The recommendation includes renovation and expansion of the Field House and the development of this facility and surrounding area as the focal point for athletics. Some key elements involve bringing volleyball, wrestling and tennis competition to this site, as well as academic support and the athletic training arm of the RHT department. Renovating and dedicating an ICA strength & conditioning room is also integral. Further, the recommendation includes an addition to the Patriot Center to serve the needs of the basketball program as a secondary practice location when the game court is not available.

1.6.2 Regional Recreation

The renovation and expansion of the PE Building will provide a new focal point for campus recreation to balance with the Aquatic Center. It would include weight & fitness, basketball/volleyball courts, jogging track, and climbing wall. Other opportunities for providing recreation should be pursued with a recreation center in the Northeast sector, fitness trails through campus, and enhanced and additional intramural/recreation fields.

GEORGE MASON UNIVERSITY
PROJECTED ENROLLMENT BY CAMPUS
As of August 4, 2004

FALL CENSUS HEADCOUNTS									
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Fairfax Campus	21,671	22,883	23,056	22,914	22,890	23,049	23,290	23,561	23,799
Arlington Campus	1,653	2,071	2,127	2,535	2,854	3,033	3,217	3,411	3,607
Prince William Campus	684	918	1,392	2,498	2,794	3,002	3,155	3,316	3,478
Loudon Campus	0	0	0	0	90	152	217	284	354
Total Off Campus	889	924	1,671	1,051	1,100	1,092	1,052	1,011	966
University Total	**24,897**	26,796	**28,246**	**28,998**	**29,728**	**30,327**	**30,930**	**31,583**	**32,205**

FALL CENSUS HEADCOUNTS						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Fairfax Campus	23,972	24,042	24,097	24,145	24,196	24,337
Arlington Campus	3,809	4,013	4,220	4,434	4,656	4,853
Prince William Campus	3,645	3,845	4,050	4,261	4,479	4,673
Loudon Campus	427	535	647	762	882	1,007
Total Off Campus	985	1,003	1,021	1,039	1,058	1,078
University Total	**32,838**	**33,438**	**34,035**	**34,641**	**35,271**	**35,948**

GEORGE MASON UNIVERSITY
Brailsford & Dunlavey
Athletics and Recreation Masterplan
Competitive Context Analysis
General Information

University	Location	Affiliation	Division	Primary Conference Association	*Fiske* Ratings, 2003 ed. 1 (worst) - 5(best) scale		Web Address
					Social	Quality of Life	
George Mason University	**Fairfax, VA**	**Public**	**Division I**	**CAA**	**2**	**2**	www.gmu.edu
Peer Schools							
Georgia State University	Atlanta, GA	Public	Division I	CAA(2006)	Not Listed	Not Listed	www.gsu.edu
SUNY Albany	Albany, NY	Public	Division I[1]	America East	3	3	www.albany.edu
SUNY Buffalo	Buffalo, NY	Public	Division I	Mid-American	2	2	www.buffalo.edu
University of Cincinnati	Cincinnati, OH	Public	Division I	C-USA	3	3	www.uc.edu
University of Missouri - Kansas City	Kansas City, MO	Public	Division I	Mid-Continent	Not Listed	Not Listed	www.umkc.edu
University of South Florida	Tampa, FL	Public	Division I	C-USA	Not Listed	Not Listed	www.usf.edu
Cross-Applicant Schools							
Central Florida	Orlando, FL	Public	Division I	A-Sun/C-USA(2005)	Not Listed	Not Listed	www.cf.edu
Florida International	Miami, FL	Public	Division I	Sun-Belt	Not Listed	Not Listed	www.fiu.edu
James Madison University	Harrisonburg, VA	Public	Division I[1]	CAA	4	4	www.jmu.edu
University of California - Davis	Davis, CA	Public	Division I	Big West	3	4	www.ucdavis.edu
University of Wisconsin - Milwaukee	Milwaukee, WI	Public	Division I	Horizon League	Not Listed	Not Listed	www.uwm.edu
Virginia Commonwealth University	Richmond, VA	Public	Division I	CAA	Not Listed	Not Listed	www.vcu.edu

[1]Football program is Division I-AA
CAA = Colonial Athletic Association
C-USA= Conference USA

Interview List – Exhibit 3

	Date	Time	Meeting	Name	Position
PROJECT KICK OFF					
1	05.24.04	8:00	Project Kick Off	Bruce Cooper	Asst. Athletic Director, Facilities & Recreational Sports
2	05.24.04	8:00	Project Kick Off	Benn Crandall	Senior Facilities Project Officer
3	05.24.04	8:00	Project Kick Off	Reid Herlihy	Vice President, Facilities
4	05.24.04	8:00	Project Kick Off	Mickey McDade	Sr. Assoc. Athletic Director, Operations, Facilities & Administration
5	05.24.04	8:00	Project Kick Off	Tom O'Connor	Asst. Vice President/Director, Athletics
6	05.24.04	8:00	Project Kick Off	Maurice Scherrens	Senior Vice President
7	05.24.04	8:00	Project Kick Off	Jim Miller	Director, University Architect
USER INTERVIEWS: JUNE 10-11					
	06.10.04	8:00	Facilities Staff	Reid Herlihy	Vice President, Facilities
	06.10.04	8:00	Facilities Staff	Benn Crandall	Senior Facilities Project Officer
8	06.10.04	10:00	Patriot Center	Jim Larranaga	Head Coach, M ICA Basketball
9	06.10.04	10:00	Patriot Center	Debbie Taneyhill	Head Coach, W ICA Basketball
10	06.10.04	11:00	Coaches	Brian Shaffer	Head Coach, Wrestling
11	06.10.04	11:00	Coaches	Gary Quam	Head Coach, M Tennis
12	06.10.04	11:00	Coaches	Fran O'Leary	Head Coach, M Soccer
13	06.10.04	11:00	Coaches	Pat Kendrick	Head Coach, W Volleyball
14	06.10.04	11:00	Coaches	Billy Brown	Head Coach, Baseball
15	06.10.04	1:00	Assoc. / Asst. Athletic Directors	Jay Marsh	Assoc. AD, Events Management
16	06.10.04	1:00	Assoc. / Asst. Athletic Directors	Nena Rogers	Director, Life Skills
17	06.10.04	1:00	Assoc. / Asst. Athletic Directors	Ron Shayka	Asst. AD, Admin. and Info. Systems
18	06.10.04	1:00	Assoc. / Asst. Athletic Directors	Kevin McNamee	Senior Assoc. AD, Intercollegiate Sports
19	06.10.04	1:00	Assoc. / Asst. Athletic Directors	Sue Collins	Senior Assoc. AD, Student Services
20	06.10.04	1:00	Assoc. / Asst. Athletic Directors	D.R. Butler	Assoc. AD, Community Services
21	06.10.04	1:00	Assoc. / Asst. Athletic Directors	Debbie Wilson	Assoc. AD, Academic Services / Sports Psychologist
22	06.10.04	3:00	Recreation, IM, Club Sports	Fred Bardot	Head Coach, Club Rugby
23	06.10.04	3:00	Recreation, IM, Club Sports	Dave Bleivik	Membership & Facility Services Coordinator
24	06.10.04	3:00	Recreation, IM, Club Sports	Jarnail Bojwa	Ultimate Frisbee Representative
25	06.10.04	3:00	Recreation, IM, Club Sports	Mitch Webster	Fitness Instructor, IM Supervisor
26	06.10.04	3:00	Recreation, IM, Club Sports	Adam Huffman	Coordinator, Fitness, Intramurals, and Recreational Sports
27	06.10.04	3:00	Recreation, IM, Club Sports	Paul Bazzano	Supervisor, Intramural, Club and Recreational Sports
28	06.10.04	3:00	Recreation, IM, Club Sports	Phil Galvan	Aquatics and Fitness Center Intramural Official
29	06.10.04	3:00	Recreation, IM, Club Sports	Joe Pascale	Head Coach, Football Club
30	06.10.04	3:00	Recreation, IM, Club Sports	Bob Spousta	Head Coach, Crew Club/Coordinator, Club Sports
31	06.11.04	3:00	Recreation, IM, Club Sports	Andy Ruge	Assoc. AD, Marketing and External Affairs
	06.11.04	8:30	Sports Info, Patriot Club, FH Team Room	Mickey McDade	Sr. Assoc. Athletic Director, Operations, Facilities & Administration
	06.11.04	10:00	Meeting with University President	Maurice Scherrens	Senior Vice President
32	06.11.04	10:00	Meeting with University President	Alan Merten	University President
33	06.11.04	11:00	Facilities and Aquatics	Brian Woodfield	Facilities - Field House and PE Building
34	06.11.04	11:00	Facilities and Aquatics	Ryan Barden	Asst. Grounds Manager
35	06.11.04	11:00	Facilities and Aquatics	Lee Ann Houston	Manager, Recreational Sports Complex, Scheduling Coordinator
36	06.11.04	11:00	Facilities and Aquatics	Kim Eckert	Operations Manager, Aquatic & Fitness Ctr

Interview List – Exhibit 3

	Date	Time	Meeting	Name	Position
USER INTERVIEWS: JUNE 10-11 cont'd.					
37	06.11.04	1:00	Recreation, Health, and Tourism	Ray Yamrus	Head Athletic Trainer
38	06.11.04	1:00	Recreation, Health, and Tourism	Susan Johnson	Director
39	06.11.04	1:00	Recreation, Health, and Tourism	Martin Ford	Senior Assoc. Dean
40	06.11.04	1:00	Recreation, Health, and Tourism	David Wiggins	Chair
41	06.11.04	1:00	Recreation, Health, and Tourism	David Anderson	Director, Center for the Advancement of Public Health/Assoc. Professor, RHT
42	06.11.04	1:00	Recreation, Health, and Tourism	Dave Bever	Assoc. Professor/Director, National Center for Public Safety Fitness
43	06.11.04	1:00	Recreation, Health, and Tourism	Shane Caswell	Asst. Professor
44	06.11.04	1:00	Recreation, Health, and Tourism	Linda Rikard	Assoc. Professor
45	06.11.04	1:00	Recreation, Health, and Tourism	Janet Lozar	Assistant Professor
USER INTERVIEWS: JUNE 23					
46	06.23.04	8:30	Assorted Users	Jeanne Medford	Asst. AD, Finance & Business Systems
47	06.23.04	8:30	Assorted Users	Tracy Kirk	Asst. Athletic Director, Events Administration
48	06.23.04	8:30	Assorted Users	Mark Weader	Asst. Coach, Wrestling/Event Associate
49	06.23.04	8:30	Assorted Users	Maureen Nasser	Public Relations & Communications Director
50	06.23.04	8:30	Assorted Users	Cindy Woodfork	Manager Athletic Services
51	06.23.04	10:00	Coaches	Erica Ayers	Asst. Coach, Softball/Event Assistant
52	06.23.04	10:00	Coaches	Peter Ward	Head, Swimming and Diving
53	06.23.04	10:00	Coaches	Robert Handerahan	Head, Strength and Conditioning
54	06.23.04	10:00	Coaches	Diane Drake	Head Coach, W Soccer
55	06.23.04	10:00	Coaches	Angie Taylor	Head Coach, W Track and Field
56	06.23.04	10:00	Coaches	Amy Umbach	Head Coach, W Lacrosse
57	06.23.04	10:00	Coaches	Liz Schaffner	Asst. Coach, W Lacrosse
58	06.23.04	10:00	Coaches	Robin Burkhart	Head Coach, Cheerleading
59	06.23.04	11:30	Facilities	Bruce Cooper	Asst. Athletic Director, Facilities & Recreational Sports
60	06.23.04	11:30	Facilities	Mike Sullenberger	Sports Turf Manager
61	06.23.04	1:45	University Life	Lisa Synder	JC/UL Programs and Orientation
62	06.23.04	1:45	University Life	Nikki Elston	Assistant Director, Programming
63	06.23.04	1:45	University Life	Katie Mirick	Assistant Director
64	06.23.04	1:45	University Life	Mark Hume	*(no longer at GMU)*
65	06.23.04	1:45	University Life	Alissa Karton	JC/UL Program Director
66	06.23.04	3:00	Athletic Training	Jess Vera Cruz	*(no longer at GMU)*
	06.23.04	3:00	Athletic Training	Ray Yamrus	Head Athletic Trainer
67	06.23.04	3:00	Athletic Training	Verne Johnson	*(no longer at GMU)*

2.1 Objectives

The purpose of the focus group interviews was to engage a variety of Mason students in dynamic conversation about their opinions, observations, and recommendations regarding planned improvements to the University's athletic and recreation facilities. Focus groups are intended to yield qualitative data, reveal hidden sensitivities, and raise issues previously not considered by the researchers rather than providing rigid, statistically reliable responses from a demographically representative sample of the population.

2.2 Methodology

Two focus group sessions were organized by the Associate Athletic Director for Aquatics and Recreation and held on June 18, 2004. The participants in both focus groups included intercollegiate athletes, club sports or intramural athletes and recreational facility users, with a small number of others. The sessions were designed to gain a better understanding of user-group sentiment towards potential recreation and wellness facility development options. Both focus groups were open to undergraduate and graduate George Mason students. In total, 22 students provided feedback and data on athletics and recreation. Participants in both sessions were generally very vocal on the subject matter, and the sessions proved informative.

Each focus group was led by a moderator from Brailsford & Dunlavey (B&D) whose purpose it was to guide the conversation to address issues pertaining to specific facilities. The moderator introduced a series of questions, intentionally open-ended in nature, and permitted individuals to discuss tangential issues and engage in dynamic conversations.

The following report is an overview of the findings of the focus groups and contains a summary of the discussions, specific points raised, as well as direct quotations. The responses shown are meant to describe the range of answers, comments, and concerns voiced during the focus groups.

2.3 Participants

2.3.1 Group I: Random Students

- Included 10 undergraduates (5 men, 5 women)

2.3.2 Group II: Random Students

- Included 12 undergraduates (7 men, 5 women) and 2 staff (2 women)

2.4 Summary of Findings

Participants from the two groups were generally very interested in the master plan initiative and offered well-reasoned concerns and recommendations. Although each group contained a small number of satisfied students, the majority of each group was strongly in favor of improving and building new athletic and recreation facilities.

2.5 Detailed Findings

1. Why did you choose to attend George Mason University?

Many students were primarily concerned with finding a balance between quality, affordable education, and proximity to their current home and/or work.

- A number of students noted that they chose Mason as it is "close to home."
- Students discussed the idea that Mason offers them a more "real world" learning environment than other schools they considered attending due to the many opportunities for internships and work nearby as part of the Washington DC area. Many Mason students are above the "traditional" college age and having these opportunities is important as many also work while studying.
- One student noted the pleasant atmosphere of the Mason campus and environs.
- Students noted that Mason is considerably more "diverse" than many schools. This was perceived as an important asset, especially now, during a time of increasing international interaction and global perspective in all spheres of life.
- One student said that his decision to attend was based entirely upon an athletic scholarship that he received to play on the school's wrestling team. He had never heard of the school until the coach called.
- One student described how her "mother made [her]" attend Mason. However, she is now a very active student leader and noted: "I love Mason!"
- One student had intended to start at Mason and then transfer but did not follow through on this plan after being pleased with his experience on campus.

2. What were your impressions of Mason's athletic / recreation facilities when you began your studies? How do these compare with your impressions now?

Students had overwhelmingly negative opinions of the university's athletic and recreation facilities. Indications were that these impressions became increasingly negative from the time of enrollment through the student's tenure at the school.

Students noted that peer universities as well as NCAA Division III schools and high schools typically compare much better than Mason.

- One student said that he feels Mason's facilities are "sufficient" but that "JMU's are better."
- Students were in general agreement that the Field House is generally not available for recreational use.
- Many participants complained about the lack of air conditioning in the Field House and the "hot and stuffy" nature of its spaces.
- Students spoke about the weight room, noting that equipment is limited and in bad shape and is generally sub-par.
- Students noted that the PE Building is seldom available for recreational use. One student complained that although the competition space (Linn Gym) in the building has 3 courts, only 2 of them are usable concurrently due to an overlapping layout.
- Students explained that although Mason has outstanding playing field surfaces, the expected infrastructure to support top-notch fields is absent. This would include restroom facilities, team locker / meeting spaces, spectator seating, etc.

3. How do you feel about the speculation for an intercollegiate football program with its related costs?

Some students spoke about the importance of an intercollegiate football program for a large university and the associated positive impacts on school spirit, overall school atmosphere, and sense of community.

- A number of students agreed that the major impact of having Division I intercollegiate football on campus is not sports-related at all. These students feel that football would enliven the school, bringing students to the campus and exciting them about the university.
- Students talked about the fact that "everybody sees tailgating on TV" and friends at other schools are able to tailgate at football games. This was seen as a highly desirable activity which currently does not exist on campus.
- The majority of participants said that they had attended a Mason club football game.

4. What do Mason students typically do in their free time?

Students were in agreement that campus life and community are scarcely present on the Fairfax campus. Rather than offering examples of what students typically do during their free time during the week and on the weekends, participants offered constructive criticisms of why they believe there is so little going on.

- Many participants agreed that "students don't come to campus" outside of being there for class or other scheduled activities.
- One student said that the university has a "commuter campus" image and that the school is "dead on weekends."
- Many students felt that there is "no campus life." One suggested that there is typically "nothing going on on campus."

- Students agreed that one major use of the Aquatic & Recreation Center fitness space is as "a place to be seen." Participants felt that students need more avenues to see fellow students and to establish a true campus community.
- Some students felt that the university administration inadvertently hampers the organizing of activities and events on campus through ill conceived policies. One participant offered as an example the fact that taking out advertisements in the campus newspaper (the Broadside) to market activities or events sponsored by campus organizations is prohibitively costly.
- Students were in agreement that communication to the student body about activities and events is a major problem at the university.
- A number of participants asked that the school provide a "patch of grass," like a quad, in the campus core and near the residence halls for casual play like "tossing around a football."
- One student said that students have no time to do anything outside of class, if they play sports, due to the many hours required for classes and sports.

5. What are your thoughts on "school spirit" at Mason?

Participants were clearly enthusiastic about the idea of school spirit but were genuinely frustrated about the campus' current lack of it. This frustration was due to the feeling that the necessary infrastructure required to foster school spirit is not currently in place.

- One student explained that "it's bad here…nobody knows about games."
- Students agreed that events must be organized and publicized for students in order to interest them in what is taking place on campus.
- Participants felt that the construction of additional housing on campus would have a significant positive impact on community and school spirit.
- One participant suggested that 50% of the students who choose not to attend Mason base this decision on the university's lack of intercollegiate football. Many students said that they agreed with this suggestion.
- Participants agreed that "big events," such as those that intercollegiate football would offer, are necessary for positive school spirit.
- Participants discussed the "family atmosphere" of Mason basketball games in the Patriot Center. They agreed that when attending home basketball games, it does not feel like a place that students can feel relaxed and cheer loudly for their team. They further agreed that this situation is inappropriate and a student-focused atmosphere should be created.
- One student claimed that there is "no advising" at Mason and that "you're a number…there's no attention given to students."

- One student complained that students are not engaged during major initiatives such as the design of the athletic department's new logo. Another student pointed out that student input was sought for the new logo and that the present focus group was an example of the school reaching out to students.

6. What are your major criticisms of the athletic / recreation facilities at Mason?

Students were in general agreement that spaces used for recreation on campus suffer from a number of deficiencies. Most pronounced was that there are too many user groups for most major spaces, too many individual users for spaces that are not sized appropriately, as well as the fact that facilities are outdated and worn out.

Indoor Recreation Space:

- Participants generally felt that the Field House and PE Center are inadequate to serve the current student demand.
- One student said, "I like the Field House…It's not pretty, but it's good." The following caveat was offered, however: "it's not big enough for all of the users."
- Some students complained that the Aquatic & Recreation Center does not provide sufficient recreation space. The weight and fitness areas were specifically cited as being too small. One student stated that the building is "really a community center for swimming."
- Some students suggested building another Field House due to the many and disparate user groups of the current facility.
- Students felt that the school's indoor recreation spaces have "too many users" and are "not efficiently utilized." Two students spoke about the fact that the school attempts to generate money by renting out facilities and offered the example of the annual antiques show held in the Field House as an example of an inappropriate and incompatible use for the space.
- In terms of welcoming outside users, students offered mixed responses. Some understood the need for the school to generate revenue and the fact that some facilities are financed, in part, by revenue from outside members. However, some students felt having outsiders in university recreation spaces was incompatible. One student noted that there are sometimes young children in the Aquatic & Fitness Center.
- Participants felt that the school does not do a good job of communicating information regarding intercollegiate athletic teams using spaces also needed by recreational users and that the recreation department does not do a good job of communicating information about intramural games.

Fields:

- Students said that the fields are "too far away." This isolation makes utilization difficult.
- Some participants argued that as intramural sports are popular and are gaining popularity, while the school anticipates further growth, the current number of recreational fields will become increasingly problematic over time.

7. What are the positive aspects of the athletic / recreation facilities at Mason?

Students were pleased with a number of aspects concerning campus recreational facilities.

- A number of students said that they like the Patriot Center.
- Many students also expressed fondness for the Freedom Center. They felt that the facility is "big…and well-kept."
- Participants responded positively to the Aquatic & Recreation Center, generally.
- Students felt very positively about recreational spaces being located at the Aquatic & Fitness Center. They especially liked the synergistic relationship between the facility and new student housing.
- Students were very positive about the existing field surfaces, but noted that they can rarely get authorization to use the fields.
- Some students noted that the recreation department is "great."

8. What is your athletic / recreation facilities wish list?

Participants suggested the following improvements / additions to the campus's recreation facilities.

Indoor Recreational Sports Facilities:

- Large weight room
- Plentiful supply of indoor and outdoor basketball courts for recreational users
- Elevated indoor jogging track
- Indoor tennis courts
- Easily accessible racquetball courts
- Multi-purpose courts
- Indoor soccer facility
- Ice hockey
- Fencing space
- Climbing wall
- Boxing facilities
- Weight rooms in dormitories

Other Indoor Recreation Facilities:

- Billiards (free of charge)
- Tanning salon (few students expressed interest)

Outdoor Recreational Sports Facilities:

- Additional intramural fields
- Outdoor sand volleyball court
- Outdoor tennis courts

Other Outdoor Recreational Facilities:

- Outdoor recreation pool
- Ropes course
- Bike trail
- Park area with grills

Other Considerations:

- Restroom facilities at outdoor fields
- Concessions
- Sufficient security
- Additional classes (including aerobics, free of charge)

Students noted schools that they consider to represent positive precedents:

- College of Charleston
- West Virginia University

Linn Gym

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29
5 am							
6 am							
7 am							
8 am	M Volleyball 8-10:30am	M Volleyball 8-10:30am		M Volleyball 8-10:30am	M Volleyball		
9 am							
10 am							
11 am	Staff Basketball		Staff Basketball		Staff Basketball		Badminton Tourney 11am-2pm
12 pm	11:30am-1pm		11:30am-1pm		11:30am-1pm		
1 pm						M Volleyball Game 1pm	
2 pm		*W Volleyball*	*M Tennis 2-3pm*	*W Volleyball*	*M Tennis 2-3pm*		
3 pm	*W Tennis*	*2-4pm*	Special Olympics 3-4:30pm	*2-4pm*			
4 pm	*3:30-5pm*						
5 pm				*M Basketball 4:30-7:30pm*			
6 pm						Badminton Tourney 6pm	Basketball 6-10pm
7 pm	Basketball 7-11pm	M Wrestling Match 7:30pm	M Volleyball Game 7pm	Basketball 7:30-11:30pm	Badminton 7-10pm		
8 pm	**2 concurrent**			**2 concurrent**			**2 concurrent**
9 pm							
10 pm							
11 pm							
12 am							

ICA M VOLLEYBALL
practice
competition

ICA W VOLLEYBALL
practice
competition

ICA M WRESTLING
competition

CLUBS

INTRAMURALS

other GMU activities

RENTALS

CAMPS

FREE PLAY

Auxiliary Gym (Room 218)

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29
5 am							
6 am							
7 am							
8 am							
9 am		Rental (Hepsters) 9am-12pm		Rental (Hepsters) 9am-12pm	Rental (Hepsters) 9am-12pm		
10 am							
11 am							
12 pm		Class 10:30-2:45pm		Class 12-2:45pm			
1 pm							
2 pm							
3 pm						none	
4 pm			*W Tennis*				
5 pm			*3:30-5pm*	Class 4:30-7:10pm			
6 pm							Basketball 6-10pm **1 game**
7 pm	Basketball 7-11pm **1 game**	Basketball 7-11pm **1 game**			Community Service 7-10pm		
8 pm			Intramural Make-Up 8:30-9:30pm				
9 pm							
10 pm							
11 pm							
12 am							

LEGEND/COMMON USERS

- **PE CLASSES**
- **RENTALS**
- **CLUBS**
- **INTRAMURALS**
- **CAMPS**
- **other GMU activities**
- **FREE PLAY**

Fieldhouse Infield/Track

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29
5 am							
6 am							
7 am	W Rowing 6:30-8:30am	W Rowing 6:30-8:30am	W Rowing 6:30-8:30am	W Rowing 6:30-8:30am	W Rowing 6:30-8:30am	W Rowing 7-9am	
8 am							
9 am	*W Soccer 8-10am*	*W Soccer 8-10am*	*W Soccer 8-10am*	*W Soccer 8-10am*	*W Soccer 8-10am*	HS Track Meet	Winter Track Meet
10 am	*M Soccer 9-11am*	*M Soccer 9-11am*	*M Soccer 9-11am*	*M Soccer 9-11am*	*M Soccer 9-11am*	all day	all day
11 am							
12 pm					1		
1 pm	M Baseball / W Softball	M Baseball / W Softball	M Baseball / W Softball	M Baseball			
2 pm	1-3:30pm	1-3:30pm	1-3:30pm	1-3:30pm			
3 pm							
4 pm	M/W Track	M/W Track	M/W Track	M/W Track	M/W Track		
5 pm	3:30-5:30pm	3:30-5:30pm	3:30-5:30pm	3:30-5:30pm	3:30-5:30pm		
6 pm							
7 pm							
8 pm	Metro Volleyball		Metro Volleyball				
9 pm	7:30-9:30pm (2 courts)		7:30-9:30pm (2 courts)	Dance			
10 pm		Basketball	7:30-11:30pm	7:30-9:30pm (1 court)			
11 pm		**3 concurrent**					
12 am							

ICA M INDOOR TRACK
practice
competition

ICA W INDOOR TRACK
practice
competition

CHEERLEADING
practice

DANCE TEAM
practice

ICA INDOOR
practice

INTRAMURALS

RENTALS

FREE PLAY

other GMU activities

Field 1

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29	LEGEND/COMMON USERS
5 am								ICA W LACROSSE practice
6 am								
7 am								INTRAMURALS
8 am								
9 am								CLUBS
10 am								
11 am								FREE PLAY
12 pm								
1 pm								RENTALS
2 pm								
3 pm								CAMPS
4 pm								
5 pm								
6 pm								
7 pm	NO LIGHT FOR PLAY							
8 pm								
9 pm								
10 pm								
11 pm								
12 am								

Field 3

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29
5 am							
6 am							
7 am							
8 am							
9 am							
10 am							
11 am							
12 pm							
1 pm					M Lacrosse 1pm-3pm		
2 pm							
3 pm							
4 pm							
5 pm	M Lacrosse 5-7pm	M Lacrosse 5-7pm	M Lacrosse 5-7pm	M Lacrosse 5-7pm			
6 pm							
7 pm	Softball 7-11pm **1 game**	Softball 7-11pm **1 game**	Softball 7-11pm **1 game**				Softball 7-11pm **2 games**
8 pm							
9 pm							
10 pm							
11 pm							
12 am							

LEGEND/COMMON USERS

- **ICA W LACROSSE**
  - **practice (night)**
- **INTRAMURALS**
- **CLUB M LACROSSE**
  - **practice**
  - **competition**
- **CLUB W FIELD HOCKEY**
  - **practice**
  - **competition**
- **FREE PLAY**
- **RENTALS**
- **CAMPS**

Field 4

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29
5 am							
6 am							
7 am							
8 am							
9 am							
10 am							
11 am							
12 pm							
1 pm							
2 pm							
3 pm							
4 pm							
5 pm	M Rugby 5-7pm		M Rugby 5-7pm				
6 pm							
7 pm	Softball 7-11pm **1 game**	Softball 7-11pm **1 game**	Softball 7-11pm **1 game**				Softball 7-11pm **1 game**
8 pm							
9 pm							
10 pm							
11 pm							
12 am							

LEGEND/COMMON USERS

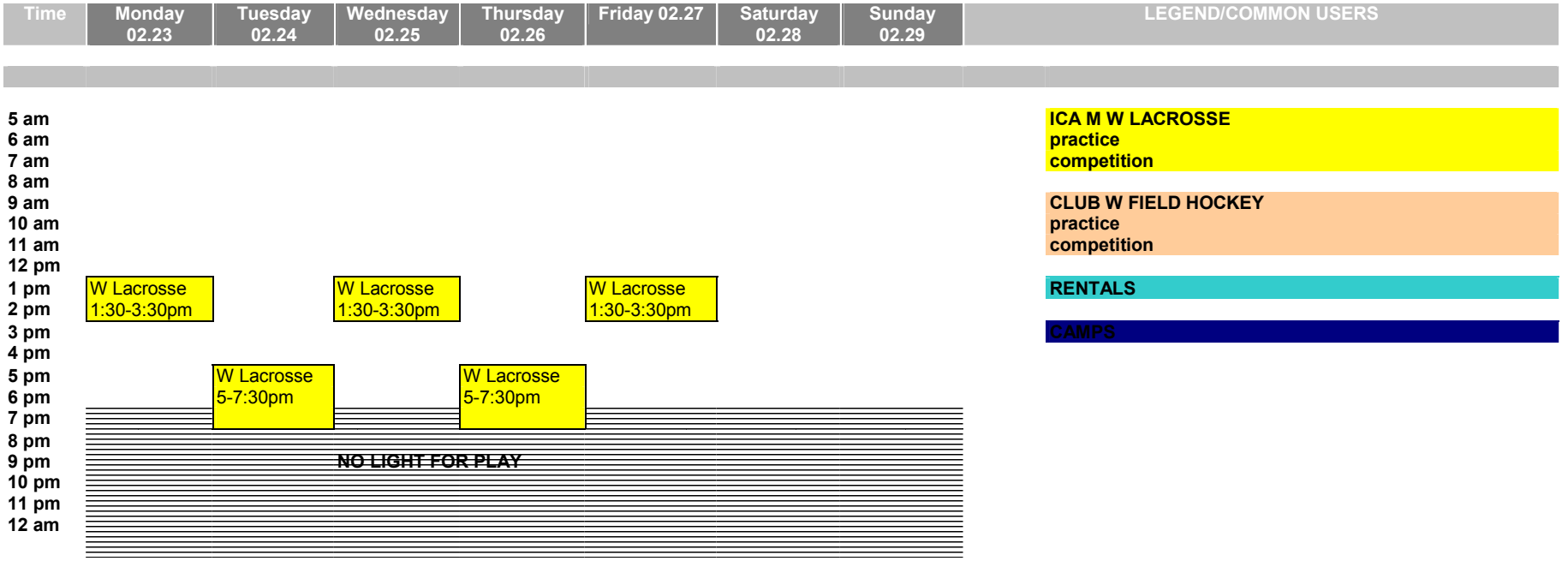
CLUB M RUGBY
practice
competition

INTRAMURALS

ICA W LACROSSE
practice (night)

CAMPS

Field 5



Robinson Field

Time	Monday 02.23	Tuesday 02.24	Wednesday 02.25	Thursday 02.26	Friday 02.27	Saturday 02.28	Sunday 02.29	LEGEND/COMMON USERS
5 am								CLUB M FOOTBALL practice competition
6 am								
7 am								
8 am								
9 am								INTRAMURALS
10 am								
11 am								CLUBS
12 pm								
1 pm								RENTALS
2 pm								
3 pm								FREE PLAY
4 pm								
5 pm								CAMPS
6 pm								
7 pm								
8 pm								
9 pm								
10 pm								
11 pm								
12 am								

1.4.5 The Statement of Needs

The following program summary represents the understanding of the existing build capacities combined with information obtained from the interview process and from the Demand Analysis. The listing of major program elements represents the quantified total needs for Mason in the next 10 years, understanding the following assumptions:

- Assumptions
  - Existing enrollment = 28,998: 2014 projected enrollment = 30,000-36,000
  - Current Beds on Campus = 4,000 : 2014 target = 7,500
  - 22 Varsity Sports
  - 6 Club Sports with dedicated locker area separate from Rec/Staff/Visiting Team Lockers
  - Dedicated Weight Room for Varsity Football NOT included
  - Area for New 15,000 Seat Football Stadium NOT included (300-350,000 GSF)

PROGRAM ASSUMPTIONS:
1. Existing enrollment = **28,998** (exceeds Master Plan's 21,000); 2014 targeted enrollment = **35,271**
2. Current Beds on Campus = **4000**; 2014 target = **7500**
3. 22 Varsity Sports
4. 6 Club Sports with dedicated locker areas separate from Rec./Staff/Visiting Team; (football, m-lacrosse, w- field hockey, m-crew, rugby, trap & skeet)
5. Dedicated weight room for Varsity Football is **NOT** included
6. Area for new 15,000 seat Football Stadium is **NOT** included

I. ATHLETICS			Recommended		Needs	TOTAL EXIST	EXIST	EXIST	EXIST	EXIST	EXIST
							PE	FH	AFC	PC	Misc.
A. STAFF OFFICES			35,416		31,974	24342	736	13144	801	9661	0
	1.	Athletic Administration	5,300		4388			12187		2009	
	2.	Compliance - AD for Ac.Serv. (Collins)	413		375						
	3.	Sports Admin - AD for ICA (McNamee)	625		500						
	4.	Business Office - AD Finance	900		850			in 1 abv			
	5.	Internal Operations - AD Ops (McDade)	858		768			in 1 abv			
	6.	Facilities and Admin - AD Facil (McDade)	514		422			in 1 abv			
	7.	Sports Info/Media Rel/Tix&Pro. - AD (Ruge)	1,738		1375			in 1 abv			
Patriot Center	8.	Patriot Club/Devel - AD Devel (Correll)	1,306		1094			in 1 abv			
	9.	Events - AD Events (Marsh)	281		281						
	10.	Facilities and Grounds AD Facil. (McDade)	313		313			in 1 abv			
Patriot Center	11.	Basketball Coaches(M & W)	3,833		3398					3950	
	12.	Baseball Coaches(M)	844		806			in 1 abv			
	13.	Golf Coach (M)	281		244		in crew bel				
	14	Lacrosse Coaches (W)	719		681			in 1 abv			
	15	Crew Coaches(W)	531		494		736				
	16	Softball(W)	406		369			in 1 abv			
	17.	Soccer Coaches(M & W)	969		894			in 1 abv			
Aquatic Center	18	Swimming Coaches(M & W)	600		525				801		
Aquatic Center	19	Diving Coaches	281		244				in swim abv		
	20.	Tennis Coaches(M & W)	719		644		in Crew abv				
	21	Track & X-Country Coaches(M & W)	969		894			in 1 abv			
	22	Volleyball Coaches(M&W)	719		644		in Crew abv				
	23.	Wrestling Coaches(M)	531		494			in 1 abv			
	24	Cheerleading	406		369			x			
	25	Dance Team (shares w/ cheerleading)	0		0			x			
	26	Coaching Support Staff	160		160			in 1 abv			
	27	Entry Hall / Lobby	4,000		4000			in 1 abv			
	28	Recruiting Lounge	500		500						
Patriot Center	29	Patriot Club Meeting Room (in PC)	3,702		3702					3702	
	30	Team Meeting Room	1,200	Subdividable	1200			in 27 below			
	31	Meeting Rooms	1,800		1350			957			
		- - - - - - -									
		Sub Total Staff Offices	35,416	NSF							
							PE	FH	AFC	PC	Misc
B. TEAM LOCKERS REQUIRED (include individual shower, dry, toilet facilities)			41621		32952	21923	2059	10647	4108	5109	0
Patriot Center	1.	Men's Basketball Locker Room	2,488		2488		390			5109	
Patriot Center	2	Women's Basketball Locker Room	2,538		2538		340			in men	
Patriot Center	3	Basketball Coaches Lockers	900		900					in men	
Patriot Center	4	Small Star Dressing-2@240	480	Officials	480						
Patriot Center	5	Staff Locker Rooms - see E below	1,440	Use for Coaches, Staff	1440						
	6	Baseball Lockers	1,125		563			4744			
	7	Men's Track & Cross Country Lockers	1,125		563			in 6 abv			
	8	Women's Track & Cross Country Lockers	1,125		563			in 6 abv			
	9	Men's Golf Lockers	575		225						
	10	Women's Lacrosse Lockers	1,250		656			in 6 abv			

Off Site	11	**Women's Crew Lockers - At Occoquan**	0	use FH visit team facil in off season	0							
	12	**Softball Lockers**	1,125		563				in 6 abv			
	13	**Men's Soccer Lockers**	1,125		563				in 6 abv			
	14	**Women's Soccer Lockers**	1,125		563				in 6 abv			
Aquatic Center	15	**Women's Swimming & Diving Locker**	2,173		2023					4108		
Aquatic Center	16	**Men's Swimming & Diving Locker**	2,120		1970					in wm abv		
	17	**Men's Tennis Lockers**	650		281							
	18	**Women's Tennis Lockers**	650		281							
	19	**Men's Volleyball Lockers**	675		281							
	20	**Women's Volleyball Lockers**	675		281			229				
	21	**Wrestling Locker Areas**	1,845		883				in 6 abv			
	22	**Main Training Room**	4,350	Near Practice Fac	3350			1100		3002		
	23	**Athletic Services - Equipment Issue/Control**	3,263		2700					1934		
	24	**Coaches/Admin Staff Locker Rooms**	2,000		2000							
	25	**Visitor/ Recreation Locker-used for all sports**	2,500		2500					967		
At Softball Field	26	**Field Tournament Locker facilities**	2,150		2150							
		Sub Total Team Lockers	41,621	NSF								
								PE	**FH**	**AFC**	**PC**	**Misc**
C. PRACTICE FACILITIES				186664		186664	132443	16820	74249	23781	17593	
		Indoor Facilities										
	1	**Strength & Conditioning (Athletics)**	9,256		9256				7128	1723		
Aquatic Center	2	**Natatorium- Olympic Pool with two bulkheads**	23,575		23575					22058		
Patriot Center	3	**Basketball Practice Court**	27,600	4 to 5K seats = 70,000sf	27600						17593	
	4	**Volleyball /Wrestling Competition Court**	17,125	2,500 seats	17125			16820				
	5	**Batting Cages** 4,ea 12x 75	0	In Field House track area	0							
	6	**Wrestling Practice**	6,508		6508				2877			
	7	**Running Track**	62,100	In Field House	62100				64244			
	8	**Indoor Practice Fields**	40,500	In Field House	40500							
		Sub Total Practice Facilities	186,664	NSF								
								PE	**FH**	**AFC**	**PC**	**Misc**
		TOTAL ATHLETIC FACILITIES	**263,701**	**NSF**		**251590**	**178708**	**19615**	**98040**	**28690**	**32363**	

RECREATION						**TOTAL EXIST**	**EXIST**	**EXIST**	**EXIST**	**EXIST**	**EXIST**
							PE	**FH**	**AFC**	**PC**	**Misc**
A. STAFF OFFICES				9,160	8605	3594	372	0	3222	0	0
PE	1.	**Rec. Administration PE BUILDING (McDade)**	1,863		1733						
	2.	**Rec. Admin. AQUATIC CENTER (McDade)**	2,163		1938				3222		
NE	3.	**Rec. Admin NE SECTOR (McDade)**	1,338		1138						
PE	4.	**Club Football Coaches (M)**	1,938		1938		372				
PE	5	**Additional Coaching Offices (Club)**	1,860		1860						
		Sub Total Staff Offices	9,160	NSF							
							PE	**FH**	**AFC**	**PC**	**Misc**
B. CLUB TEAM LOCKERS				2780	2780	0	0	0	0	0	
PE	1	**Football Locker**	1780		1780						
PE	2	**Coach Locker, Football**	0	in dedicated rec staff lockers	0						
PE	3	**Women's Club Sport Lockers**	0	in C - rec and staff lockers below	0						
PE	4	**Men's Club Sport Lockers**	0	in C - rec and staff lockers below	0						
PE	5	**Women's Field Hockey Lockers**	0	in 3 above	0						
PE	6	**Men's Lacrosse Lockers**	0	in 4 above	0						
PE	7	**Men's Crew Lockers - at Occoquan**	0	in 4 above	0						
PE	8	**Rugby Lockers**	0	in 4 above	0						
PE	9	**Trap and Skeet Lockers**	0	in 4 above (gun storage elsewhere)	0						
PE	10	**Training Room**	1,000		1000						
		Sub Total Club Team Lockers	2,780	NSF							

									PE	FH	AFC	PC	Misc
C. RECREATION AND STAFF LOCKERS					12400		12400	11674	4422	2509	4743	0	
	1	**Recreation/Visitor Locker-used for all sports**		12,400	NSF				4422	2509	4743		
		PE Building	6157										
		NE Sector	1500										
		Aquatic Center	4743										
	2	**Dedicated Staff Locker Rooms**		0									
		- - - - - -											
		Sub Total Rec./Visiting Team Facilities		12,400	NSF								

									PE	FH	AFC	PC	Misc
D. PRACTICE FACILITIES					129220		115553	47989	14800	5294	27895	0	
	INDOOR												
Split - NE & PE	1	**Recreation Fitness Areas**		29,889		29222					7247		
		SEE 2 - DANCE AEROBICS BELOW FOR ADD. REQ'D											
		PE Building	17800										
		NE Sector	5000										
		Aquatic Center	7089										
Split - NE & PE	2	**Dance/Aerobics area / Multi-purpose Room**		12,300	NSF	12300					6324		
		PE Building	4000										
		NE Sector	2000										
		Aquatic Center	6300										
Split - NE & PE	3	**Classroom**		5,000	NSF	5000					4280		
		PE Building	1806										
		NE Sector	0	use multi-purpose									
		Aquatic Center	3194										
Split - NE & PE	4	**Racquetball Courts**		9,600	NSF	9600				5294	1773		
		PE Building	3200										
		NE Sector	3200										
		Aquatic Center	1600										
		Field House	1600										
PE Building	5	**Squash Courts**		1,440	NSF	1440							
PE Building	6	**Climbing Wall**		720	NSF	720							
PE Building	7	**Indoor Rope Course**		0	in clg over hoops area?	0							
Exist	8	**Rec. Pool**		8,271	NSF	8271					8271		
Split - NE & PE	9	**Rec. Hoop Courts**		52,000	NSF	39000			14800				
		PE Building	39000										
		NE Sector	13000										
PE Building	10	**Jogging track**		10,000	NSF	10000							
		- - - - - -											
		Sub Total Practice Facilities		**129,220**	NSF								

									PE	FH	AFC	PC	Misc
E. RHT - CEHD Dep't of Recreation, Health and Tourism					4,288		4288	63257	19594	7803	35860	0	0
PE Building	1.	**Administration**		3,325									
Field House	2	**Training Room Requirements**		963	Near Practice Fac								
		- - - - - -											
		Sub Total RHT Facilities		**4,288**	NSF								

F. Outdoor Recreation Program					2000		1000						
Split - NE & PE	1	Life Time Sports (see Outdoor Facilities below)	0										
PE Building	2	Rope Course (see Outdoor Facilities below)	0										
NE Sector	3	Rental Storage	2000										
		TOTAL RECREATION FACILITIES		**158,847**	**NSF**		**143626**	**63257**	**19594**	**7803**	**35860**	**0**	
		= = = = = =		===									

III. ACADEMIC (ATHLETICS)				TOTAL EXIST	EXIST PE	EXIST FH	EXIST AFC	EXIST PC	EXIST Misc
sports psych 1	**Academic Center**	8800 NSF			7382	0	0	0	
	Subtotal Academic Support	8,800 NSF	5550						
	TOTAL ACADEMIC FACILITIES	**8,800 NSF**	**5550**		**7382**	**0**	**0**	**0**	

IV. SPECTATOR FACILITIES	RECOMMENDED TOTALS		NEEDS	TOTAL EXIST	EXIST PE	EXIST FH	EXIST AFC	EXIST PC	EXIST Misc
A. SEATING		97,300 NSF		63232	retractable	retractable	2994	60238	0
B. CONCOURSE		30,000 NSF		35187	retractable	retractable	in seating	35187	0
C. EXECUTIVE CONCOURSE		0 NSF		0	0	0	0	0	0
D. PRIVATE SUITES		0 NSF		0	0	0	0	in Athl abv	0
E. PRIV. SUITE BALCONY(S)		0 NSF		0	0	0	0	0	0
F. CONCESSIONS		8,650 NSF		7712	0	0	157	7555	0
G. FOOD COURT STANDS 1 LIN FT.		0 NSF		0	0	0	0	0	0
H. FOOD COURT SEATING 1 PER		0 NSF		0	0	0	0	0	0
I. TOILETS		21,255 NSF		9919	in support	in support	in support	9919	0
J. NOVELTY STANDS		640 NSF		0	0	0	0	0	0
K. TEAM STORE		1000 NSF		0	0	0	0	0	0
L. OTHER SPECIALTY SHOPS		0 NSF		0	0	0	0	0	0
M. EVENT TICKET WDOS		1,000 NSF		517	0	0	0	517	0
N. VENDORS CONCESSIONS		600 NSF		0	0	0	0	0	0
				Total Exist	**PE**	**FH**	**AFC**	**PC**	**Misc**
	TOTAL SPECTATOR FACILITIES	**164,795 NSF**	**164795**	**116567**	**0**	**0**	**3151**	**113416**	

V. SUPPORT FACILITIES				TOTAL EXIST	PE	FH	AFC	PC	Misc
A. OPERATIONS		8,900 NSF	8900		0	0	645	45700	
	Patriot Center								
	Field House								
	Aquatic Center								
	PE Building								
	Fields						645		
	Sub Total Operations	8,900 NSF							
					PE	**FH**	**AFC**	**PC**	**Misc**
B. SERVICE		45,310 NSF	45310	6461	0	1729	4732	in A abv	
	Patriot Center	16,600 NSF							
	Field House	7,460 NSF				1729			
	Aquatic Center	4,750 NSF					4732		
	PE Building	5,500 NSF							
	Fields	11,000 NSF							
	Sub Total Service	45,310 NSF							
					PE	**FH**	**AFC**	**PC**	**Misc**
C. MEDIA/TEAMS (On Sidelines)		4195 NSF	4195	0	0	0	0	in A abv	
	Patriot Center	1,895							
	Field House	0 NSF							
	Phys Ed Building	0 NSF							
	Aquatic Center	500 NSF							
	Fields (Press Box)	1,800 NSF							
	Sub Total Media (Sidelines)	2,300 NSF							

									PE	FH	AFC	PC	Misc
D. MEDIA (Back of House)				3620 NSF	3620	0	0	0	0	in A abv			
Patriot Center			2,420 NSF										
Field House - media workroom			200 NSF										
Phys Ed Building			200 NSF										
Aquatic Center			200 NSF										
Fields			600 NSF										
Sub Total Media (BOH)			3,620 NSF										
									PE	FH	AFC	PC	Misc
E. FOOD SERVICE				8250 NSF	8250		0	0	0	in A abv			
Patriot Center			2,250 NSF										
Aquatics			1,000 NSF										
Field House			1,500 NSF										
PE Building			1,000 NSF										
NE Sector			1,000 NSF										
Fields			1,500 NSF										
Sub Total Concessions			8,250 NSF										
									PE	FH	AFC	PC	Misc
F. SYSTEM FACILITIES				0 NSF	0		2093	3096	6455	in A abv			
1	Engineering	in Circ below	0 NSF				2093	3096	6455				
2	Catwalks	exist. to rem. In PC	0 NSF										
3	Follow Spot Platforms	exist. to rem. In PC	0 NSF										
Sub Total System Facilities			0 NSF										
									PE	FH	AFC	PC	Misc
TOTAL SUPPORT FACILITIES			**70,275 NSF**			**69764**	**5863**	**6369**	**11832**	**45700**			
SUBTOTAL-NET PROGRAM AREA				**666,418** NSF	**635,835**	**435678**	**52454**	**112212**	**79533**	**191479**			
existing				435,678	435,678								
				230,740	200,157								
VI. CIRCULATION						**TOTAL EXIST**	**EXIST**	**EXIST**	**EXIST**	**EXIST**	**EXIST**		
							PE	**FH**	**AFC**	**PC**	**Misc**		
NON PROGRAM AREA-85% EFFICIENCY				**117,603** SF	**112,206**	**41940**	**8,149**	**9,880**	**12285**	**11626**			
Non program area includes wall thicknesses,				41,940	41,940								
chases, mechanical, electrical, telephone spaces				75,663	70,266								
overhangs, and circulation between spaces.													
TOTAL GROSS BUILDING AREA		recommended		**784,021** GSF	**748,041**	**477618**	**60,603**	**122,092**	**91818**	**203105**			
These area totals represent the recommended space allocations for the programs		exist		477618	477,618								
discussed (column 5); the approximate gross area of the minimum program as		new		306,403	270,423								
discussed (column 1); the approximate gross area of the PE Building as													
it now exists (column 2) and the approximate gross area of the Field House as it													
now exists (column 3) Aquatics, (column 4) Patriot Center													

OUTDOOR FACILITIES - Fields													
	1	**Golf Hitting/Practice**			87,120	NSF							0
	2	**Performance Fields**			284,560	NSF							
		a. Main Stadium - Soccer, Lax		72960									72960
		b. Baseball		121247 140000									140000
		c. Robinson - Football, Lax, Soccer		71600									71600
	3	**Practice Fields**	recommended	**exist**	545,000	NSF							
		a. Soccer	2 @ ' 70200	140400 160000									160000
		b. Field 1 - Lax		70200 85000									85000
		c. Field 2 - Softball		46961 45000									45000
	lights	d. Field 3 - Synthetic		70200 85000									85000
	lights	e. Field 4 - Rugby		70200 85000									85000
		f. Field 5 - Lax		70200 85000									85000
		g. Storage and Support - see support above			0	NSF							
	4	**400M Outdoor Running Track**			107,040	NSF							107040
	5	**Baseball Practice**			18,000	NSF							18,000
	6	**Softball Practice**			0	NSF							
	7	**Tennis Courts (6V)**			60,000	NSF							39000
	8	**IM/Rec. Fields**			210,600	NSF							
	9	**Rec. Basketball**			26,000	NSF							13000
	10	**Rec. Volleyball**			8,000	NSF							
	11	**Rec. Dasher**			0	NSF							0
	12	**Skate Park**			0	NSF							0
	13	**Life Skills-Challenge/Rope Course**			30,000	NSF							
	14	**Rec. Pool**			5,000	NSF							
		Sub Total Outdoor Practice Facilities			**1294200**	NSF							**1006600**

1.5.1 Study Assumptions

Our process for laying out development options involved identification of critical drivers, understanding the fundamental pieces and focusing on the remaining elements in terms of being more centralized or decentralized in the context of Mason's overall campus development strategy. Options would be evaluated by their ability to reduce scheduling conflicts and provide opportunities in the demand areas on campus. Our discussion points focused on the following:

We started with an understanding of the following 2002 master plan diagram followed by the identification of the critical drivers.

- Initial growth projections in the master plan have been exceeded.
- Blend of traditional and non-traditional.
- An obvious demand for recreation in the northeast sector.
- Feedback that no one has a place to call home – missing identity for recreation and athletics.
- No home field/court advantage for many of the sports because of location and poor communication with student body.

2002 Master Plan 1.5

Area Analysis

PROPOSED AREAS:

FIELDS & COURTS:	
1 - TENNIS COURTS (12)	65,000 SF
2 - ROBINSON FIELD (SOCCER)	71,600 SF
3 - GEORGE MASON STADIUM	180,000 SF
4 - PRACTICE FIELDS (2)	160,000 SF
5 - SPUHLER FIELD	140,000 SF
6 - MULTI-USE FIELDS (6)	510,000 SF
7 - SOFTBALL FIELD	45,000 SF
8 - BASEBALL PRACTICE	18,000 SF
9 - FOOTBALL PRACTICE (1)	55,100 SF
TOTAL:	1,244,700 SF

BUILDINGS:	
A - FIELD HOUSE	144,000 SF
B - PE BIULDING	98,000 SF
C - PATRIOT CENTER	206,000 SF
D - AQUATIC CENTER	80,403 SF
E - FIELD SUPPORT BUILDINGS	17,500 SF
TOTAL:	545,903 SF

EwingCole

1.5.1.2 Identify the CRITICAL DRIVERS:

- Bridge and/or underpass from campus master plan

  Design of the overpass is critical to Mason for two primary reasons. First, the direct link to West campus athletic venues and recreational fields creates a pedestrian opportunity to connect main campus. Secondly, this bridge will provide an opportunity to create visibility with the community. Now, whether purposeful or not, the campus is hidden for the public and there is no visible Mason Identity with the exception of the Patriot Center. Also critical to the Bridge if it is realized is the pedestrian versus auto interaction. Currently, single, northbound on and off ramps are shown to Route 123. Careful thought must be given to making this as much a pedestrian friendly environment to enhance the campus linkage opportunity. Also, development of Housing VIII in southwest near Patriot Center and parking garage though speculative, must be considered with the design of the bridge.

- Enrollment counts on Fairfax campus

- Campus residency counts and location on Fairfax campus

  The campus provides a wide range of locational opportunities for recreational and athletic development based upon the current master plan scheme. Considering where the present recreation opportunities for students are and the planned dormitory development, it was clear there is a demand for recreational opportunities in the northeast sector of campus. Whereas the current master plan recognizes the need for outdoor space and indicates future recreational fields in this area, the current goal is too expand upon these opportunities by providing additional indoor fitness and multipurpose spaces integrated, or close to, the new dorm developments planned in the near future. The recommended scale of this space would complement the existing mid-size opportunity at the aquatic center and large scale planned expansion at the PE building site.

- Potential IAA football program with 15,000 seats

  The Colonial Athletic Association is committed to the expansion of football in the conference. Therefore, considerations have been made to address the potential growth of the club football program to NCAA, Div 1 AA status. Remaining true

  to the idea of centralized athletics, the unused land on West Campus adjacent to Braddock Road became an obvious location. A possible alternate location on West Campus may be at the terminus of the new road created by the bridge linking Main Campus to West Campus. This location would mean a less efficient use of the available land because of the position of the stadium in the middle of the site. Locating the future stadium adjacent to Braddock Road provides

easier access, better visibility and more efficient use of the land. A 15,000 seat stadium development with associated parking requires 25 to 40 acres, depending upon developable land area and surface to structured parking ratios.

The Shirley Gate site is best served by remaining available for future development opportunities. Without connection to the local sewer, sewage treatment on site is a development issue. Future development considerations may include football, baseball (in conjunction with a minor league franchise), recreation center, faculty and/or retirement housing and research development park. The site diagram of Shireygate included at the end of this section explores a combination baseball-softball tournament, practice and recreation facility for Mason. It should be noted that opportunities for varsity sports were not encouraged on this site because we remained true to the desire for athletics to remain centralized on the west camps. There are transportation issues that would need to be dealt with for players and spectators. In essence, Shirley Gate becomes a destination performance venue more suitable for minor league than for attracting Mason students and college baseball or softball supporters.

- Minor league baseball shared use stadium at Shirleygate

1.5.1.3 The Fundamental Pieces:

The following became the givens – the pieces that had obvious locational demands or group consensus for development.

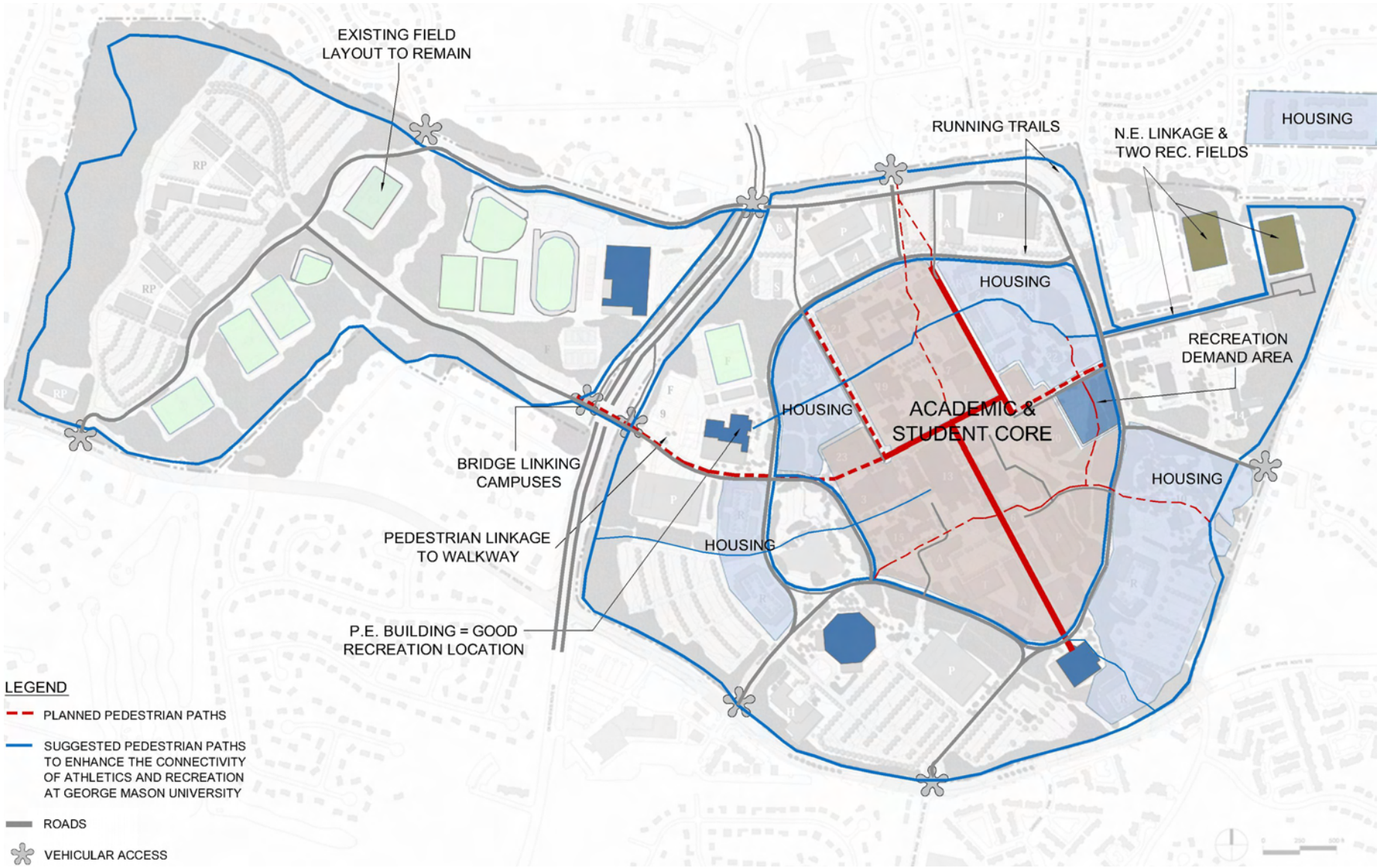
- If Mason moves from Club Football to DIAA Football, move to a stadium on West Campus near Braddock Road
- Create two fields in Northeast Sector
- Create open green space for Intramural and informal play
- Relocate stands to West side of existing stadium
- Create running and biking trails connecting campus – Inner and Outer Loop

1.5.1.4 For the remaining elements, should we?:

a. Centralize Athletics, Centralize Recreation
   §Try to pull ICA together as much as possible, as well as create a focal hub of recreation in addition to the Aquatics center?

b. Centralize Athletics, Decentralize Recreation
   §Try to pull ICA together as much as possible, and distribute recreation facilities across campus responding to housing initiatives?

c. Decentralize Athletics, Decentralize Recreation
   §Create sport specific/distinctive destinations for ICA, and distribute indoor/outdoor recreation across campus



1.5.1.5 Initial Development Options:

We asked the following questions during the discussions of each option:

What strategy will provide the solution for accommodating the list of elements in the program, in the best reflection of George Mason's vision and image?

How can we place the pieces of the puzzle on the campus map to make them 'fit' well?

What does the Northeast Sector Recreation Center need to be?

Viability of 2500 seat and 5000 seat venues at the Patriot Center and Fieldhouse

- Need additional parking and access
- Housing VIII is speculative near the Patriot Center

Outdoor lighting and neighborhoods – northeast sector fields

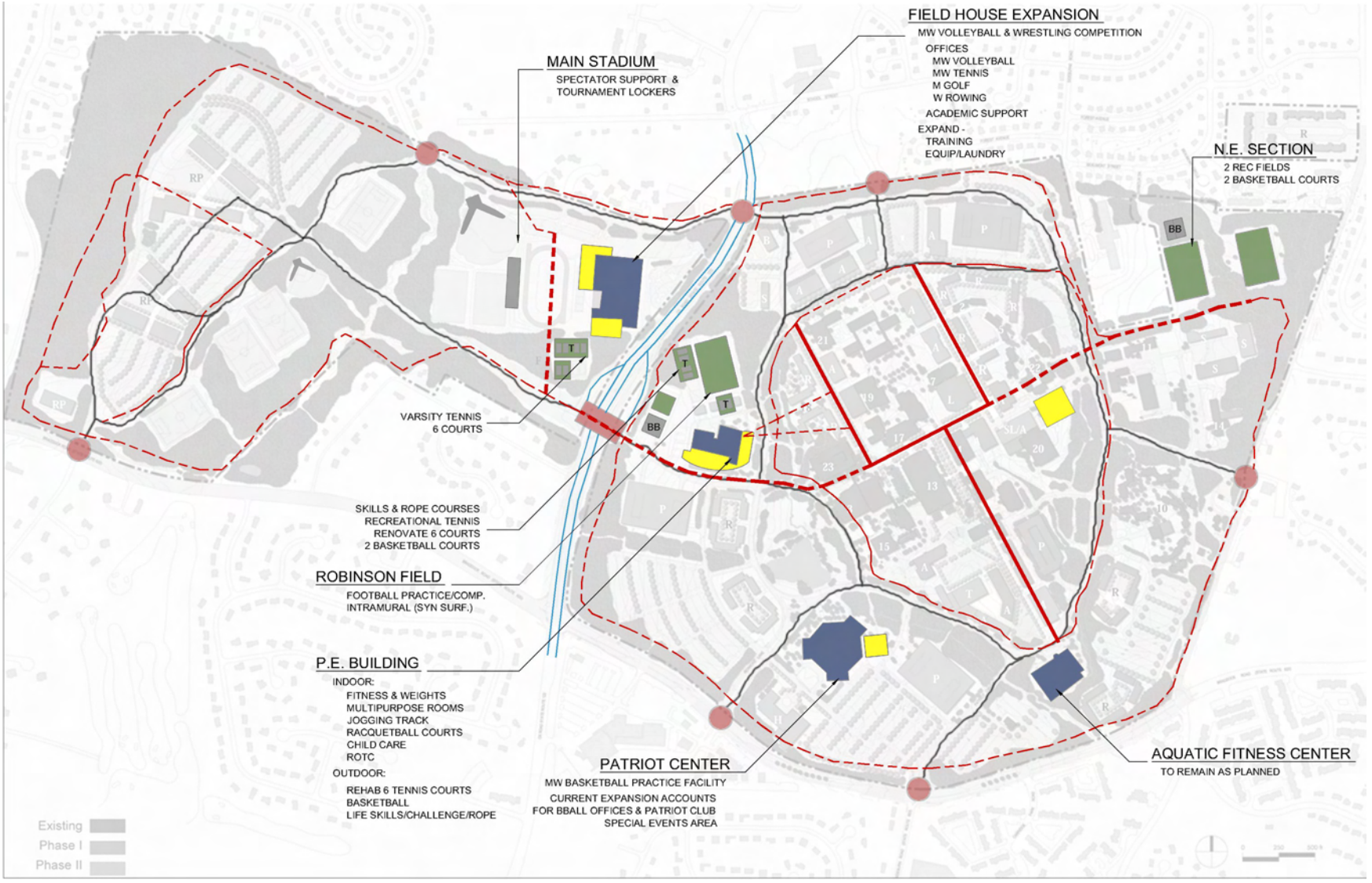
Future conf. Center and hotel – parking issue

- PE Building:
  - Accommodate volleyball and wrestling? Academic support?
  - Accommodate ICA tennis?
- Fieldhouse:
  - Accommodate recreational weight and fitness? racquetball?
- Outside Factors for timing:
  - Patriot Village empty?
  - Overpass possible?
  - Critical mass of residents in NE sector?

A - Centralized Athletics and Recreation
B - Decentralized Athletics and Recreation
C - Centralized Athletics and Decentralized Recreation

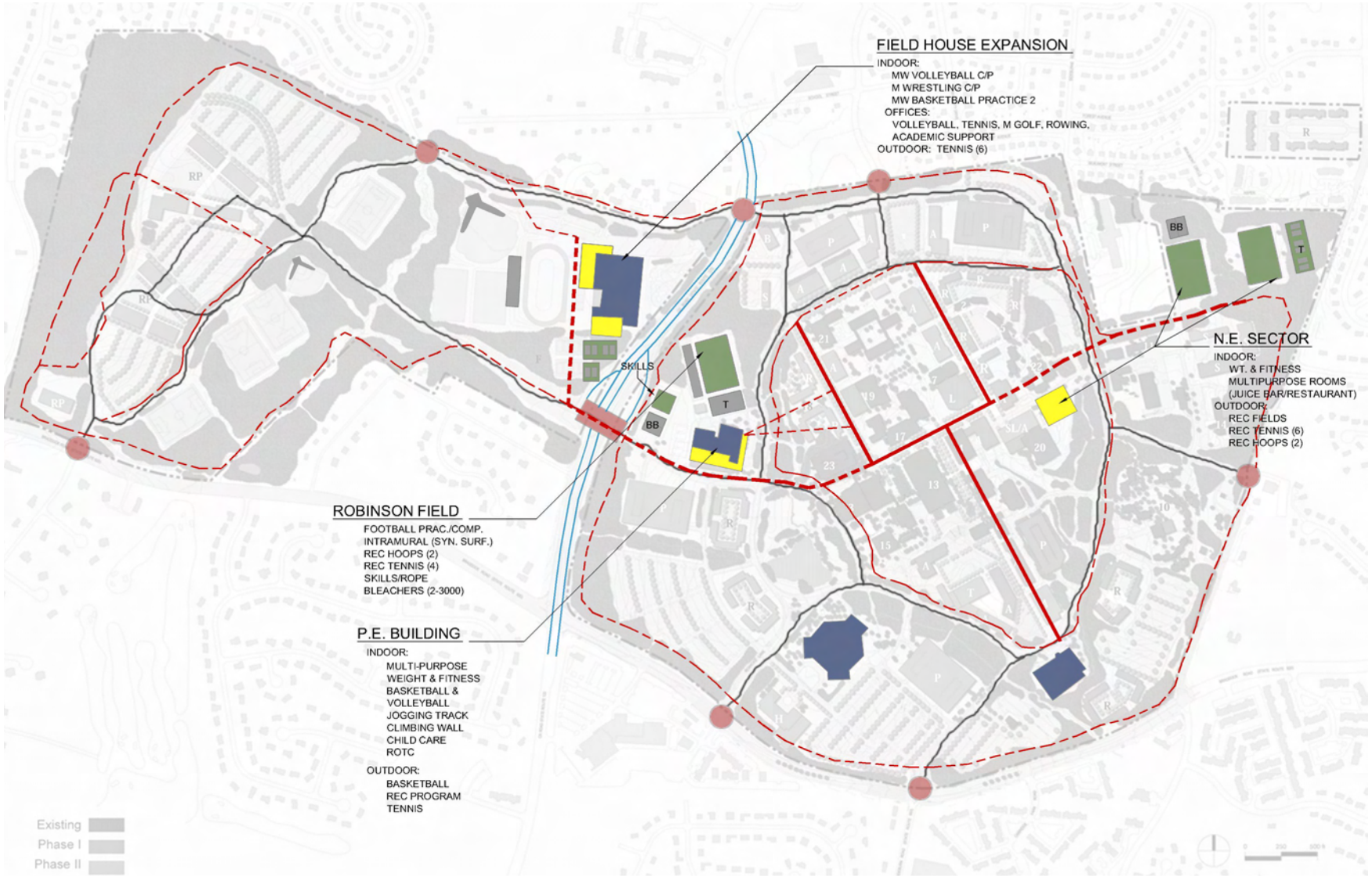
Campus Opportunities – Option A 1.5

Centralized Athletics and Recreation



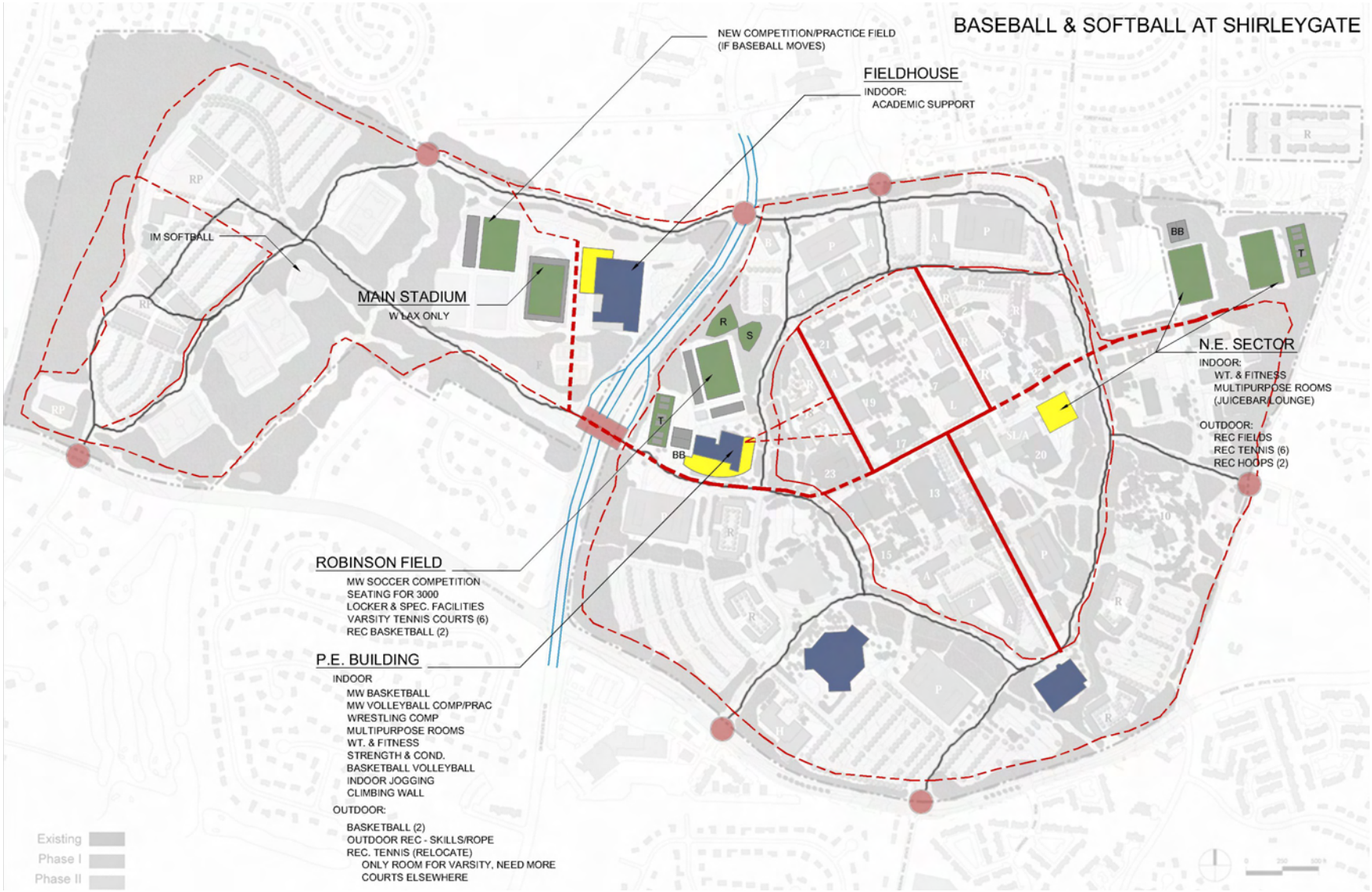
Campus Opportunities – Option B 1.5

Cent. Athletics and Decent. Recreation



Campus Opportunities – Option C 1.5

Decentralized Athletics and Recreation



1.5.2 Recommendations

1.5.2.1 Concept D – Centralized Athletics and Regional Recreation – A Place to Call Home

Centralize Athletics, create a Recreation Center at the PE Building and satellite recreation elements in NE sector

This scheme developed out of the A and C options and was termed the scheme that provided the most diverse recreational opportunities for the students and a place for everyone in ICA to call home.

1.5.2.1.1 Centralized Athletics

The recommendation includes renovation and expansion of the Fieldhouse and the development of this facility and surrounding area as the focal point for athletics. Some key elements involve bringing volleyball, wrestling and tennis competition to this site, as well as academic support and the athletic training arm of the RHT department. Renovating and dedicating an ICA strength & conditioning room is also integral. Further, the recommendation includes an addition to the Patriot Center to serve the needs of the basketball program as a secondary practice location when the game court is not available.

1.5.2.1.2 Regional Recreation

The renovation and expansion of the PE Building will provide a new focal point for campus recreation to balance with the Aquatics Center. It would include weight & fitness, basketball/volleyball courts, jogging track, and climbing wall. Other opportunities for providing recreation should be pursued with a smaller recreation center in the Northeast sector, fitness trails through campus, and enhanced and additional intramural/recreation fields.

The recreation center in the Northeast Sector will become a different kind of recreational opportunity for students at Mason. The focus of this center will be an integrated development model with the new dorms planned in the Northeast area of campus.

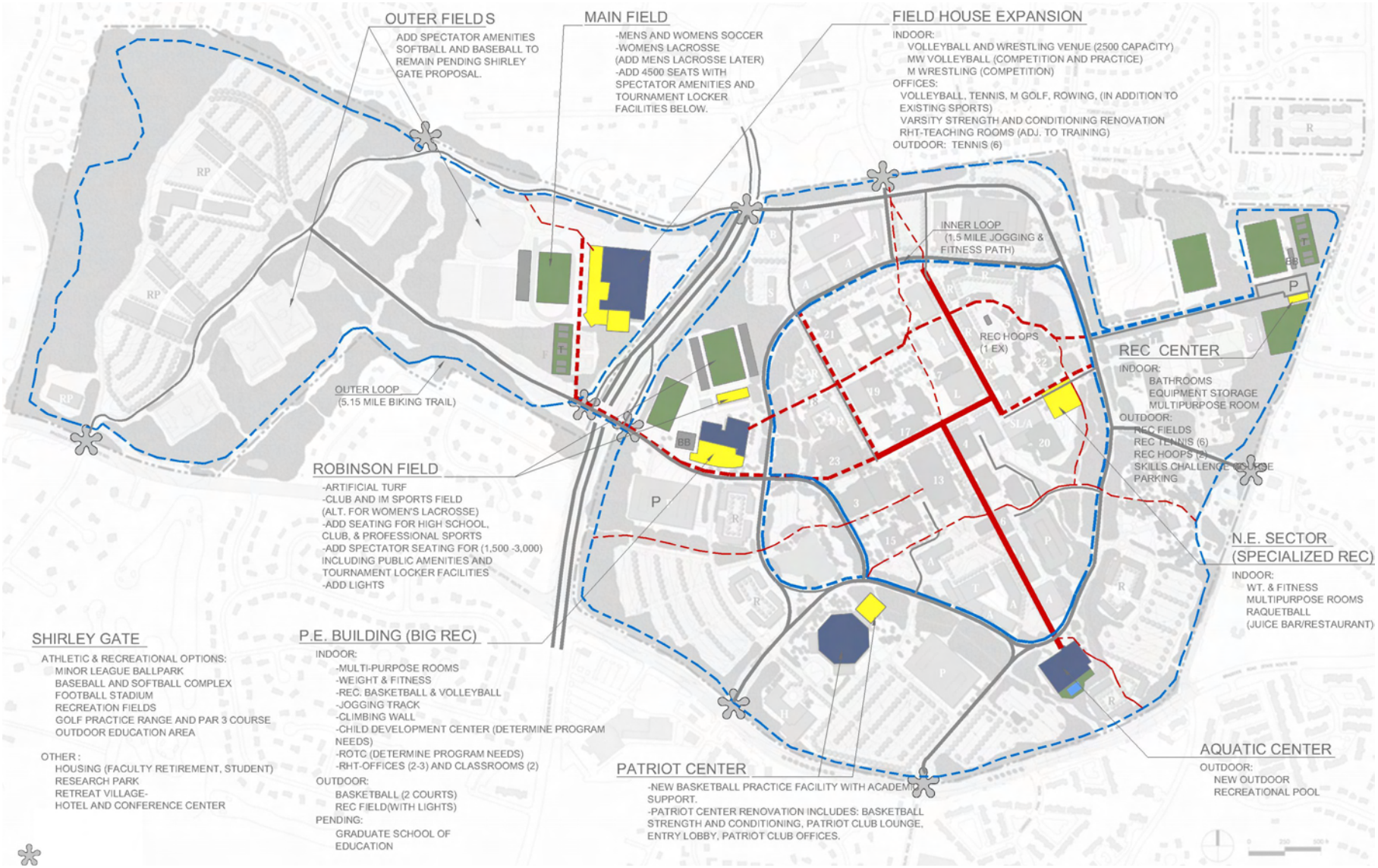
As the development of the schemes continued, the Shirleygate property became less of a focal point and considered more of a reserve site for future growth. Infrastructure development will be costly – there is no county sewer service. Options considered for this site during the study included the following:

- Joint development with a minor league baseball franchise serving as a dual use facility for Mason Baseball and a minor league affiliate. Expected site development area for the facility will be from 25 to 30 acres including parking.
- Land Lease agreement with minor league affiliate for private development.

- Expanded concept of minor league/varsity park with three other fields creating a softball and baseball tournament center with possible county use implications
- Varsity Football
- All recreation development utilizing the freedom Aquatic Center model for both indoor and outdoor spaces available for student and community use.
- In conjunction with the above schemes which would utilize 33% to 50% of the site area, reserve part of the 90 acre site undeveloped or pursue future opportunities including faculty housing, retirement housing.
- Golf driving range and teaching center.
- Partnership with the County, City or Northern Virginia Park Authority to develop fields to be shared by the partner entities in an attempt to meet regional outdoor recreational field needs.

Consensus Plan — Option D 1.5

Per Meeting August 05, 2004



1.5.2.1.3 Concept D Overview

- New basketball practice court
- New volleyball/wrestling venue with2,500 seats at Fieldhouse
- New 6 dedicated ICA tennis courts at Fieldhouse (potential indoor tennis [4-6 courts])
- Renovated and dedicated ICA strength & conditioning room in Fieldhouse
- Renovated or expanded space in Fieldhouse for new home of Academic Support
- Renovated Robinson Field with artificial turf and 1,500 seats (growth to 3,000 seats), new lighting and basic patron amenities.
- Renovate PE Building for racquetball, squash, multipurpose room(s), general weight & fitness, club sport offices, recreation basketball/volleyball, indoor jogging, climbing wall
- New facilities in NE sector for multipurpose room, general weight & fitness, outdoor recreation equipment

1.5.3 Discreet Projects

The following are general descriptions of primary spaces or components of facilities and are not intended to contain a complete program listing for individual projects.

1.5.3.1 Northeast Sector:

1) NE Outdoor Recreation (2 fields, bathrooms, equipment storage)
2) NE Outdoor Recreation (6 tennis courts, 2 outdoor basketball courts)
3) NE Outdoor Recreation (ropes/skills course)
4) NE Recreation Center (Weight and Fitness, locker rooms, multipurpose room, racquetball courts, Recreation staff offices, juice bar, etc.)

1.5.3.2 South part of campus:

5) Aquatic Center (outdoor Recreation pool)
6) Patriot Center Addition (basketball practice)
7) Patriot Center Renovation
   - Basketball strength & conditioning
   - Patriot Club lounge and offices
   - Entry lobby
   - Honors/trophies area
   - Coaching offices
8) Parking Deck between Patriot Center and PE Building

9) PE Building Indoors (New and Renovation):
   - Multipurpose rooms
   - General weight & fitness
   - Recreation basketball/volleyball courts
   - Racquetball/squash
   - Jogging track
   - Climbing wall
   - Locker rooms including tournament lockers for Robinson field
   - Satellite athletic training room
   - Recreation staff offices
   - Club team offices
   - Some RHT staff and classroom
   - Child development center
   - ROTC
   - PE Building Area:

10) Graduate School of Education (to Robinson 1)
11) PE Building Outdoors (2 outdoor basketball courts)
12) PE Building Outdoors (FH turf rec field, lights)
13) Robinson Field (artificial turf, 3,000 seats, public amenities)

1.5.3.3 Fieldhouse Area:

14) Fieldhouse Indoors (renovate infield surface)
15) Fieldhouse Indoors
   - Add volleyball/wrestling venue with 2,500 seats
   - Renovate wrestling practice
   - Move in offices for golf, crew, volleyball, tennis, etc.
   - Consolidate offices
   - Move in academic support
   - Renovate strength & conditioning
   - Add RHTAT teaching next to Athletic Training room

16) Fieldhouse Outdoors (6 tennis courts, spectator seating)

1.5.3.4 Main Outdoor Fields Area:

17) Main Field (move stands to West, amenities, lockers)
18) Baseball Field (flip orientation, amenities)
19) Field #1(artificial turf, lighting)
20) Field #2 Softball (amenities)
21) Field #4 (artificial turf)
22) Field #5 (remain grass but add lights)

1.5.3.5 West Campus:

23) Football Stadium
- 15,000 seats
- Tournament facilities including home lockers, visiting lockers and off
- Spectator amenities
- Strength & conditioning
- Athletic training
- Equipment/laundry
- Offices
- Parking

1.5.3.6 Shirleygate:

24) Baseball Stadium
- Minor league park
- Recreation softball/baseball fields
- Parking

1.5.3.7 Circulation:

25) Inner Loop Fitness Trail
26) Outer Loop Fitness Trail
27) Route 123 Overpass
28) Connecting Pathways

1.5.4 Issues of the large projects

- PE Building:
  - Accommodate volleyball and wrestling? Academic support?
  - Accommodate ICA tennis?

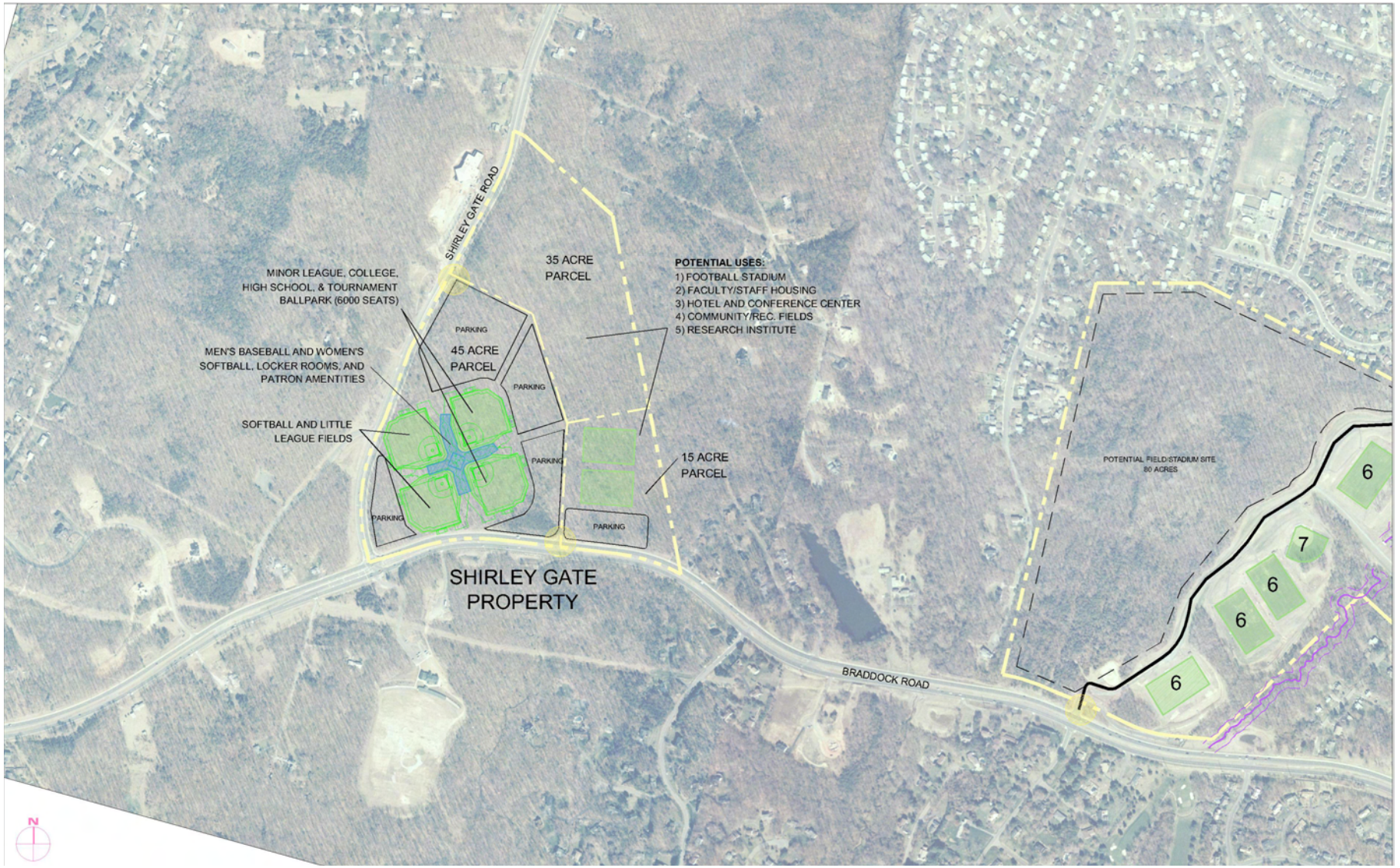
Relocation of ROTC (6375 SF) and CEHD(10,000 SF requested in programming exercise)

- Fieldhouse:
  - Accommodate recreation Weight & Fitness? racquetball?

- Outside Factors for timing:
  - Patriot Village empty?
  - Overpass possible?
  - Critical mass of residents in NE sector?

Shirley Gate 1.5

Development Options



1.6 Budget and Program Options

Once our image of campus in 2014 was established, we had several working sessions to discuss the 28 discreet projects:

- HOMES for ICA teams
- Distribution of indoor and outdoor recreational facilities

In our Working Session on each of the project packages, we discussed the following:

- Scope of Work
- Interdependencies
- Costs
- Affiliations of costs to ICA, Recreation and other uses

These projects are significant with substantial, positive quality of life implications. The priority, above all, should recognize the students at Mason.

We also discussed key sequencing issues:

- Swing spaces for displaced teams and rec activities
- Timing of new housing occupancy
- Timing of Patriot Village disbandment
- Timing of minor league baseball decision

1.6.1 What emerged was a strategy termed: A Place To Call Home

The following table outlays the preferred scheme of capitol development options for the next ten years.

Project Title	Cost	ICA	Rec
"Lead Off": 2004-2006			
PE Building Indoors - Phase 1	$14,500,000		$14,500,000
30,000 SF Addition			
60,000 SF Renovation			
Renovate Indoor Courts, Lockers			
Add Fitness Center, Juice Bar & Climbing Wall			
FH Tennis Venue	$500,000	$500,000	
6 outdoor courts, no lighting			
Robinson Field - Phase 1	$1,600,000		$1,600,000
Synthetic Turf (supersize field) and Lighting			
2400 Seat VB/Wrestling Gym @ Field House	$5,000,000	$5,000,000	
NE Recreation Center	$4,100,000		$4,100,000
Total:	**$25,700,000**	**$5,500,000**	**$20,200,000**
"On Deck": 2006-2008			
Field House Infield Surface Replacement	$320,000	$320,000	
Patriot Center Addition	$3,800,000	$3,800,000	
Single Practice Court - **11000 SF**			
Academic Center (4500 SF)			
Outdoor Tennis Court Lighting @ Field House	$400,000	$400,000	
PE Building Indoors - Phase 2	$5,500,000		$5,500,000
Basketball Courts (2)			
Jogging Track			
Racquetball (4), Squash (2)			
Robinson Field - Phase 2	$875,000		$875,000
Seating for **1500**, Press Box			
Public Amenities			
FH Indoors - Phase 1	$2,300,000	$2,300,000	
Strength & Cond			
Wrestling Practice			
FH Athletic Training/RHT	$200,000	$200,000	
FH Athletic Complex Allowance	$500,000	$500,000	
Main Stadium	$500,000	$500,000	
Outdoor Track Resurface			
Softball Field Amenities (Field #2)	$1,325,000	$662,500	$662,500
Total:	**$15,720,000**	**$8,682,500**	**$7,037,500**

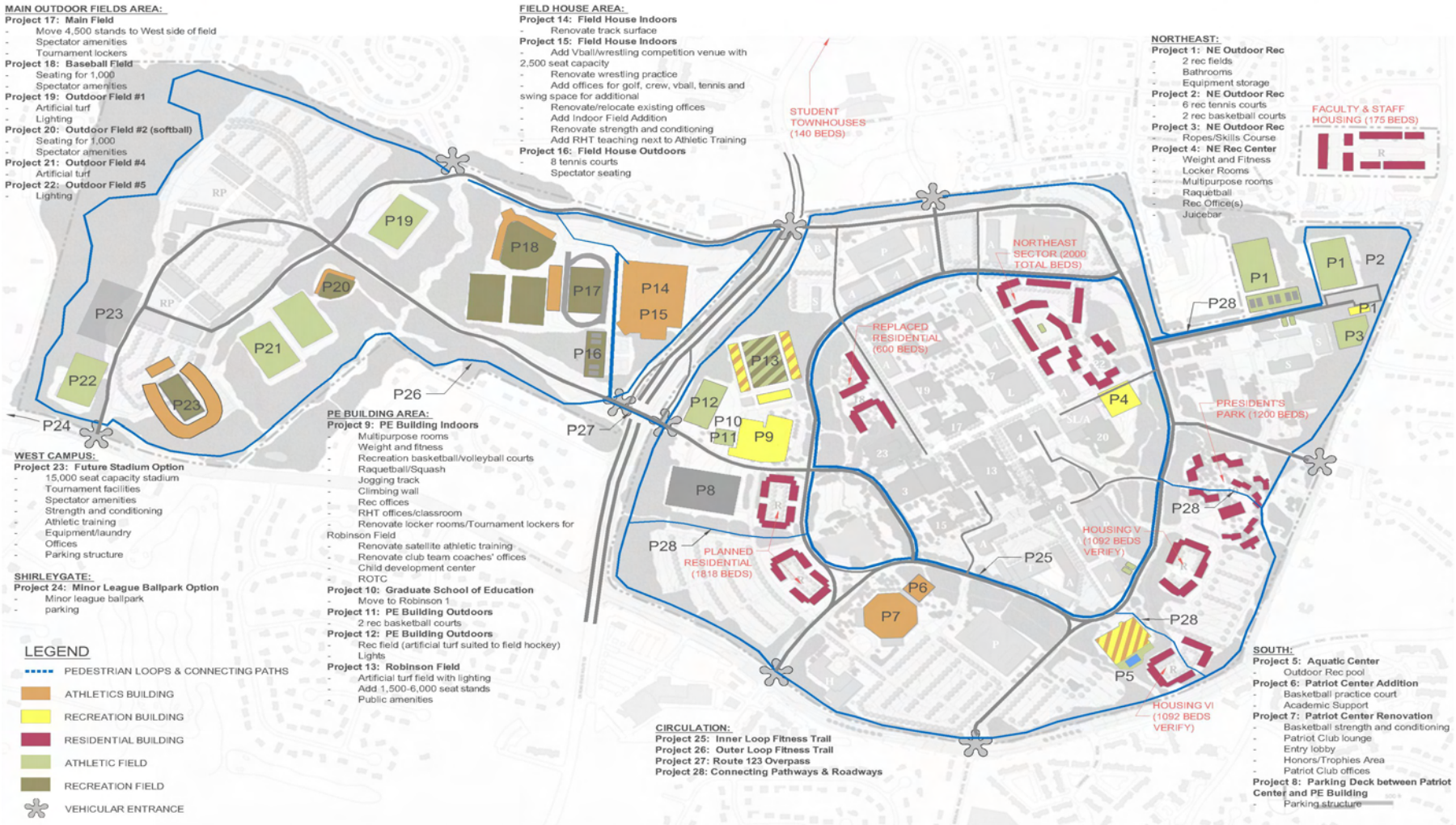
Project Title	Cost	ICA	Rec
"Clean Up": 2008-2010			
Robinson Field - Phase 3	$600,000		$600,000
Tournament facilities, support			
NE Fields	$2,780,000		$2,780,000
NE Courts - Tennis, Bball	$430,000		$430,000
FH Athletic Complex Allowance	$500,000	$500,000	
Main Stadium	$4,750,000	$4,750,000	
Baseball Field	$3,300,000	$3,300,000	
PE Bldg Outdoor Bball Courts	$65,000		$65,000
PE Bldg Field	$1,060,000		$1,060,000
Adventure Center-Skills @ NE Sector	$200,000		$200,000
Aquatic Center - Outdoor Pool	$700,000		$700,000
Inner Loop	$95,000		$95,000
Outer Loop - Phase 1	$165,000		$165,000
Total:	**$22,995,000**	**$16,900,000**	**$6,095,000**
"The Closer": 2010-2014			
FH Indoor Practice Field Venue	$8,350,000	$8,350,000	$0
3 indoor synethetic turf fields (44,400 SF)			
Lobby Connection to FH			
Restrooms, Storage			
FH Indoors - Phase 2	$10,850,000	$10,850,000	
ICA Offices, Lockers, Equip Issue			
Spectator Amenities, Support			
FH Athletic Complex Allowance	$500,000	$500,000	
Outer Loop - II	$165,000		$165,000
Field #1	$1,060,000	$530,000	$530,000
Field #4	$800,000		$800,000
Field #5	$260,000		$260,000
Total:	**$13,635,000**	**$11,880,000**	**$1,755,000**
Total:	**$78,050,000**	**$42,962,500**	**$35,087,500**

Project Title	Cost	ICA	Rec
Below the Line Items			
PE Building Child Dev. Ctr	$1,530,000		
8500 SF - in Northeast Sector			
Patriot Center Renovation	$10,000,000	(Currently in design)	
Football Stadium (incl. Parking)	$69,000,000		
Route 123 Overpass	$20,000,000	(latest estimate)	
Shirleygate - Minor League Park	$10,000,000	(or $3,000 per seat)	$22.5 to $30 M for total ballpark
Connecting Pathways	$95,000		
Parking Deck (Near Patriot Center)	$14,000,000		
	$124,625,000		

Notes:

1 The "Cost" column indicates construction hard cost with 15% Program and Design Contingency & 25% Soft Costs

2 Estimates are in 2004 dollars. A minimum escalation of 3.5% per year should be applied to project year projections



Project	Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
NORTHEAST SECTOR DEVELOPMENT						
1 NE Fields						$2,775,813
2 Rec Fields			140,400		$ 1,400,000	
Bathrooms	400				$ 70,000	
Equipment Storage for Outdoor Rec	2,000				$ 200,000	
Office	200				$ 30,000	
Multipurpose Rooms	1,000				$ 150,000	
Circulation	540				$ 81,000	
Sub-Total	**4,140**		**140,400**		**$ 1,931,000**	
2 NE Courts						$431,875
6 Rec Tennis Courts			36,000		$ 300,000	
2 Rec Basketball Courts			13,000		$ 45,500	
Sub-Total			**49,000**		**$ 345,500**	
3 NE Skills Course			**30,000**			$200,000
4 NE Rec Center						$4,044,676
Weight and Fitness	4,500				$ 787,500	
Locker Rooms	1,000				$ 150,000	
Multipurpose Rooms	1,500				$ 225,000	
Raquetball (1 @ 800)	800				$ 120,000	
Management Offices	600				$ 90,000	
Juice bar	0				$ -	
Vending	125				$ 15,625	
Lobby	750				$ 131,250	
Basketball Courts - 84' indoor (1 @ 6500)	6,500				$ 975,000	
Basketball Courts - 84' outdoor (2 @ 6500)	0				$ -	
Public Restrooms	0				$ -	
Storage	750				$ 93,750	
Circulation	1,504				$ 225,563	
Sub-Total	**18,029**				**$ 813,688**	

Project		Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
SOUTH CAMPUS AREA DEVELOPMENTS							
5 Aquatic Center							$700,000
Outdoor Rec Pool				14,885			
6 Patriot Center Addition							$3,787,813
1 Basketball Practice Court		10,500				$ 1,312,500	
Seating -portable tilt up sections for camps		deferred				$ -	
Lobby/Lounge		1,000				$ 175,000	
Academic Support (from Field House)		4,500				$ 787,500	
Circulation and Support		2,400				$ 360,000	
		18,400				**$ 2,635,000**	
7 Patriot Center Renovation			**???**			**$ 10,000,000**	$10,000,000
8 Parking Deck						**$ 14,000,000**	$14,000,000
Parking Structure - 1000 cars/2 levels		**350,000**					
PHYSICAL EDUCATION BUILDING AREA DEVELOPMENT							
9 PE Bldg Indoors							$19,953,424
MultiPurpose rooms		1,945	2,055			$ 497,250	
Weight And Fitness		17,800				$ 3,115,000	
6-7 Basketball/Volleyball Courts		13,000	31,620			$,011,000	
Racquetball (4)/Squash(2)		4,640				$ 510,400	
Jogging track		10,000				$ 1,750,000	
Climbing Wall		720				$ 126,000	
Rec Offices		335	1,528			$ 203,050	
RHT Offices/Classroom		1,325				$ 198,750	
Club Team Lockers		1,780				$ 267,000	
Rec Lockers		776	5,381			$ 654,500	
Athletic Training			1,100			$ 110,000	
Club Team Coaches Offices			3,798			$ 379,800	
Support		4,590	2,110			$ 784,750	
Spectator Amenities		182	1,418			$ 173,650	
Circulation		8,564	8,149			$ 2,099,493	
Sub-Total		**65,657**	**55,104**			**$ 13,880,643**	

Budget & Program Options 1.6

Budget Schedule

Project		Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
10 PE Bldg CDC, CEHD, ROTC							$1,529,141
Child Development Center		7,400				$ 925,000	
Center for Education and Human Devel.	10000	0				$ -	
ROTC	6500	0				$ -	
Circulation		1,110				$ 138,750	
Sub-Total		**8,510**				**$ 1,063,750**	
11 PE Bldg Courts							$62,563
2 Outdoor Rec Basketball Courts					13,000	$ 45,500	
12 PE Bldg Fields							$1,060,000
Artificial Turf				70,200		$ 800,000	
Lights						$ 260,000	
13 Robinson Field							$3,082,539
Artificial Turf - **supersize for softball**					83,250	$ 900,000	
Lighting						$ 350,000	
Bleacher Seating for 1500		5,500				$ 217,500	
Prefab Press Box (add $20 per seat)							
Future Seating for 3000 (13500 sf)							
Restrooms		1,000				$ 175,000	
Concession		750				**$ 131,250**	
Tournament Facilities							
2 Locker Rooms,		1,500				$ 262,500	
Satellite Training		250				$ 43,750	
Media - Press Box		250				$ 37,500	
Elevator (not req'd if PB < 500 sf)		0				$ -	
Storage		500				$ 62,500	
Circulation		638				$ 95,625	
Sub-Total		**10,388**				**$ 2,275,625**	

Project	Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
FIELD HOUSE AREA DEVELOPMENT						
14 FH Indoor Track Infield						$0
Renovate Track Surface		21,000			$ -	
Renovate Court Surfaces		40,000			$ -	
15 FH Indoors						$13,350,199
Wrestling Practice	6,500	0			$ 812,500	
ICA Team Offices	11,151	14,349			$ 3,386,325	
Team Lockers	9,820	10,000			$ 2,223,000	
Athletic Training	in team lockers	in team lockers				
Academic Support (moved to Patriot Ctr)	0				$ -	
Strength and Conditioning	2,128	7,128			$ 800,600	
RHT Teaching Rooms	163	800			$ 84,450	
Support	5,200				$ 650,000	
Spectator Amenities	1,850				$ 323,750	
Circulation	6,710				$ 1,006,470	
Sub-Total	**43,522**	**32,277**			**$ 9,287,095**	
15.1 FH Volleyball Wrestling Venue						$5,072,578
2500 seats - retractable bleachers	7,920				$ 990,000	
Playing surface	7,700				$ 962,500	
Lobby	1,500				$ 262,500	
Restrooms	1,500				$ 262,500	
Visiting team Lockers (2 @ 30)	2,400				$ 360,000	
Office/Ticketing	150				$ 26,250	
Concession	800				$ 140,000	
Storage	1,500				$ 300,000	
Circulation	1,500				$ 225,000	
Sub-Total	**24,970**				**$ 3,528,750**	
16 Outdoor FH Tennis Venue						$912,500
8 Tennis Courts - outdoor			48,000		$ 400,000	
Lighting - Varsity					$ 330,000	

Project		Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
						$ 730,000	
16.1 Indoor Practice Fields -FH Addition							$8,351,875
Artificial Fields (3 @ 75' x 180')		40,500				$ 5,265,000	
Lobby/Connection to FH		1,000				$ 175,000	
Restrooms		400				$ 70,000	
Storage		2,000				$ 240,000	
Circulation		500				$ 60,000	
Sub-Total		**44,400**				**$ 5,810,000**	
WEST CAMPUS FIELD DEVELOPMENT							
17 Main Stadium Improvements							$5,079,586
New Stands to West side of Field (4500)		10,000				$ 1,250,000	
1000 bleacher seats on structure						$ 25,000	
FFE for remaining freestanding (3500)		10,000				$ 300,000	
Spectator Amenities							
Toilets		3,000				$ 525,000	
Concession		800				$ 140,000	
Tournament Lockers		1,900				$ 285,000	
Training Room		250				$ 43,750	
Media - Press Box		600				$ 90,000	
Elevator		100				$ 90,000	
Support/ Storage		1,500				$ 187,500	
Circulation		983				$ 147,375	
Lighting (assume Class 2 - 50 fc)						$ 450,000	
Sub-Total		**29,133**				**$ 3,533,625**	
17.1 Main Field							$500,000
Outdoor Track resurface					80,000	**$ 400,000**	
18 Baseball Field							$3,303,555
~~Reorient Field~~						$ -	
Lighting						$ 630,000	
Structured Seating (1000 Seats)		7,000				$ 875,000	
1000 Seats (FF&E)						$ 165,000	

Project		Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
Restrooms		700				$ 122,500	
Concession		800				$ 140,000	
Left Field Concession		1,000				$ 175,000	
Scoreboard allowance						$ 60,000	
Media - Press Box		250				$ 37,500	
Elevator (not req'd if PB < 500 sf)		0				$ -	
Support		250				$ 31,250	
Circulation		413				$ 61,875	
Sub-Total		**10,413**				**$ 2,298,125**	
19 Outdoor Field #1							$1,130,400
Artificial Turf					70,400	$ 800,000	
Lighting						$ 260,000	
20 Outdoor Field #2 (softball)							$1,325,645
Spectator Seating (1000 -FFE Bleachers)		5,000				$ 125,000	
Restrooms (for all fields - 1500 patrons)		1,000				$ 175,000	
Concession (for all fields)		500				$ 87,500	
Tournament Lockers (for all fields)		2,150				$ 322,500	
2 Locker Rooms, Satellite Training							
Media - Press Box		250				$ 31,250	
Elevator (not req'd if PB < 500 sf)		0				$ -	
Storage		750				$ 93,750	
Circulation		698				$ 87,188	
Sub-Total		**10,348**				**$ 922,188**	
21 Outdoor Field #4							$800,000
Artificial Turf					70,400		
22 Outdoor Field #5							$260,000
Lighting							
22.1 Golf Practice Area							$859,375
Short Game Area w/ Putting Green (2 acres)				87,120		$ 500,000	
Pavilion		1,000				$ 125,000	
Meeting Room, Unisex toilet, Vending							
Sub-Total		**1,000**				**$ 625,000**	

	Project		Indoor New Sq. Footage	Indoor Renovated Sq. Footage	Outdoor New Sq. Footage	Outdoor Renovated Sq. Footage	Unit Cost	Revised Project Cost
FUTURE DEVELOPMENTS								
23	**Football Stadium**							$47,710,589
	Spectator Facilities		161,711					
	Seating and Concourse	139,186					$ 10,438,950	
	Concessions/Toilets/Suites	22,525					$ 3,941,875	
	Field				72,200		$ 1,083,000	
	Support Facilities		20,915				$ 2,614,375	
	Player/Performer Facilities		47,215				$ 8,262,625	
	Food Service-BOH		4,250				$ 637,500	
	System facilties		7,500				$ 937,500	
	Circulation		35,161				$ 5,274,150	
	Sub-Total		**276,752**				**$ 33,189,975**	
23.1	Parking Structure - 2500 cars/5 levels		**875,000**					$ 21,250,000
24	**Mason Commitment M L Ballpark**							$10,000,000
	6,000 Capacity Ballpark							
	Parking							
CAMPUS PLANNING DEVELOPMENTS								
25	**Inner Loop Fitness Trail**							$95,040
26	**Outer Loop Fitness Trail**							$326,304
27	**Route 123 Overpass (est. by Mason)**							$20,000,000
28	**Connecting Pathways**							$95,000
	Totals:		**565,660**	**148,381**	**701,205**	**317,050**		**$202,050,487**
	Deduct							
7	Patriot Center Renovation							$10,000,000
8	Parking Deck							$14,000,000
10	CDC, CEHD, ROTC		8,510					
23	Football Stadium		276,752					$68,960,589
24	Mason Commitment to Minor League Ballpark							$10,000,000
27	Route 123 Overpass							$20,000,000
	Total Master Plan		288,908	148,381	701,205	317,050		**$79,089,898**

1.6.2 Sequencing of Construction

The PE building and the Fieldhouse, because of the demands, will more than likely be phased projects in order to initiate projects and satisfy the current demands.

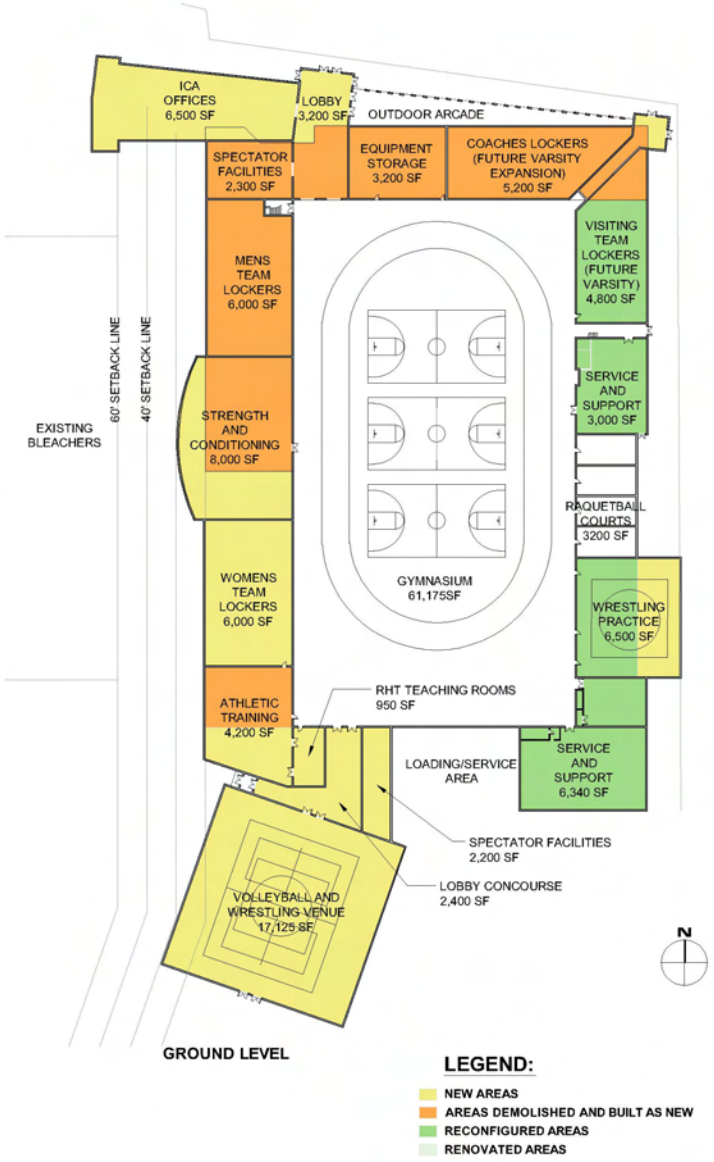
The following diagrams represent an in depth look at two of the most important projects in Mason's future: the Physical Education Building and Fieldhouse expansion renovation:

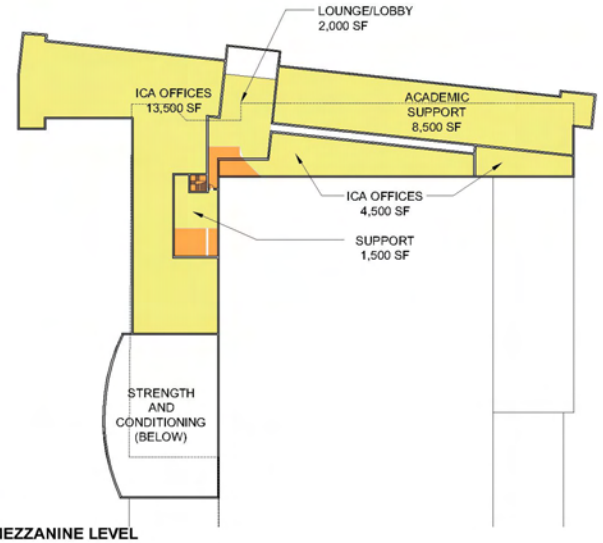
1.6.3 Financing

All of these capital projects, as currently conceived or with modifications agreed to by the University and the desires of the donor could allow the University to proceed with this implementation plan in a more timely manner. The four phase approach to implementation represents an effort to pursue the highest priority projects first with a sensitivity to the financial capacity of the institution. Effectiveness in attracting substantial private support will reduce the student fee burden placed upon the students, and also lessens the requirement to make the facilities as dependent upon rental income than from external uses. This will ultimately provide more time for the students to use existing and proposed facilities, helping to achieve one of our primary goals: creating destinations on campus where students want to stay and come back.

Proposed Field House 1.6

Preferred Development Option



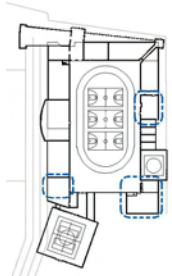


FIELD HOUSE PROGRAM

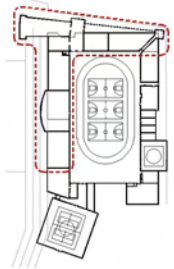
INDOOR ADDITIONAL AREAS	TOTAL	NEW	POTENTIAL RENOVATED
·VOLLEYBALL & WRESTLING VENUE	17,125 SF	17,125 SF	0 SF
·WRESTLING PRACTICE	6,500 SF	3,300 SF	3,200 SF
·STRENGTH AND CONDITIONING	8,200 SF	8,200 SF	0 SF
·ICA TEAM OFFICES	24,500 SF	24,500 SF	0 SF
·ACADEMIC SUPPORT	8,500 SF	8,500 SF	0 SF
·VARSITY TEAM LOCKERS	12,000 SF	12,000 SF	0 SF
·COACHES & STAFF LOCKERS	5,200 SF	5,200 SF	0 SF
·VISITING TEAM LOCKERS	4,800 SF	0 SF	4,800 SF
·ATHLETIC TRAINING ROOM	4,200 SF	4,200 SF	0 SF
·EQUIPMENT ROOM	3,200 SF	3,200 SF	0 SF
·RHT TEACHING ROOMS	950 SF	950 SF	0 SF
·SPECTATOR AMENITIES	4,500 SF	4,500 SF	0 SF
·SUPPORT	10,840 SF	9,340 SF	1,500 SF
·LOBBIES AND CONCOURSES	7,600 SF	7,600 SF	0 SF
·CIRCULATION (@15 %)	8,500 SF	8,500 SF	0 SF
TOTAL INDOOR PROGRAM	124,465 SF	114,965 SF	9,500 SF

PHASING STRATEGY

PHASE I



PHASE II



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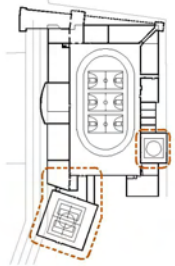


Proposed PE Building 1.6

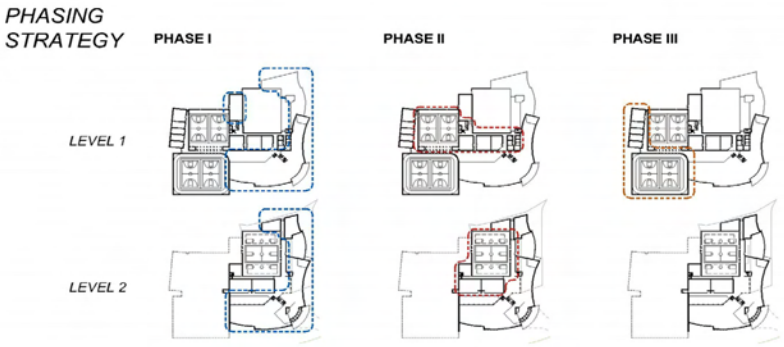
Preferred Development Option

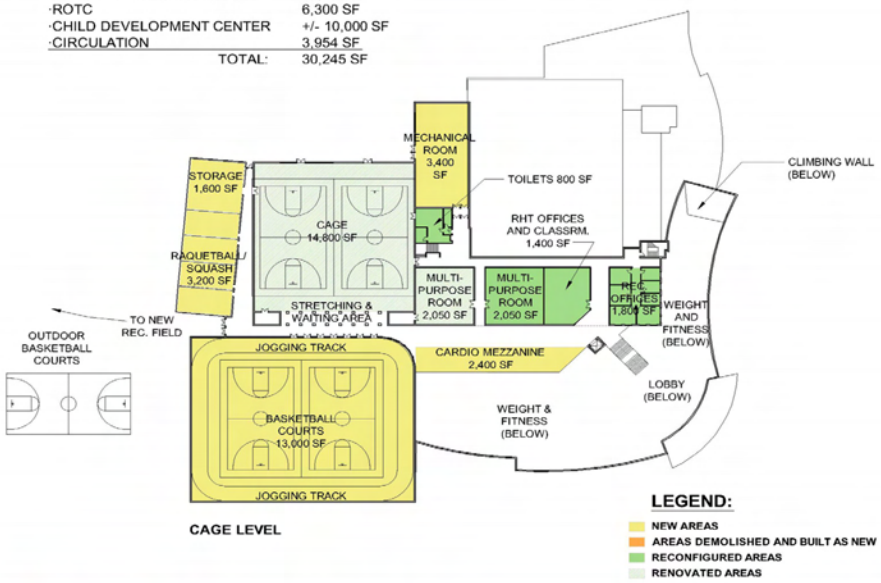
PE BUILDING PROGRAM

INDOOR ADDITIONAL AREAS	TOTAL	NEW	POTENTIAL RENOVATED
·BASKETBALL COURTS (7)	44,620 SF	13,000 SF	31,620 SF
·WEIGHT AND FITNESS	21,900 SF	21,900 SF	0 SF
·RAQUETBALL COURTS (4)	3,200 SF	3,200 SF	0 SF
·JOGGING TRACK	10,000 SF	10,000 SF	0 SF
·MULTIPURPOSE ROOMS	4,100 SF	0 SF	4,100 SF
·CLUB TEAM COACHES OFFICES	4,000 SF	4,000 SF	0 SF
·REC OFFICES	1,850 SF	0 SF	1,850 SF
·RHT OFFICES	1,400 SF	0 SF	1,400 SF
·CLUB TEAM LOCKER ROOMS	2,700 SF	2,700 SF	0 SF
·REC LOCKER ROOMS	6,000 SF	0 SF	6,000 SF
·ATHLETIC TRAINING	1,800 SF	0 SF	0 SF
·CLIMBING WALL	720 SF	720 SF	0 SF
·JUICE BAR/CAFE	1,000 SF	1,000 SF	0 SF
·TOILETS	800 SF	800 SF	0 SF
·SUPPORT	6,400 SF	5,000 SF	1,400 SF
·CIRCULATION	16,700 SF	8,550 SF	8,150 SF
TOTAL INDOOR PROGRAM	127,000 SF	57,093 SF	55,104 SF

OTHER ADDITIONAL AREAS	
·RELOCATE EXISITNG GSE	10,000 SF
·ROTC	6,300 SF
·CHILD DEVELOPMENT CENTER	+/- 10,000 SF
·CIRCULATION	3,954 SF
TOTAL:	30,245 SF

PHASING STRATEGY

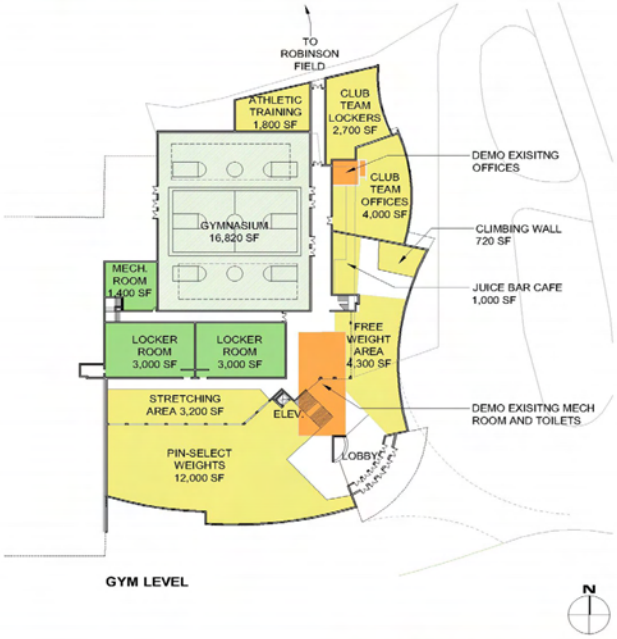




CAGE LEVEL

LEGEND:

- NEW AREAS
- AREAS DEMOLISHED AND BUILT AS NEW
- RECONFIGURED AREAS
- RENOVATED AREAS



GYM LEVEL

Process is the key to the success of any project. The EwingCole and Brailsford & Dunlavey team strived to create a deep understanding of the functional, technical and financial issues for the recreation and athletics ten year master development strategy. We began the process with a thorough review of the goals, expectations and project requirements with the University's core committee. Together, we developed a strategy that emerged from the following activities:

- Conduct a thorough needs analysis of the Athletic and Recreation Department activities and related facility requirements through an interview/workshop process with key university personnel.
- Review the existing condition of Mason's facilities and assess the potential to meet the ultimate program and schedule demands.
- Compile an agreed upon program of requirements for Mason.
- Develop a series of development alternatives which address the agreed upon goals.
- Evaluate site utility, infrastructure and building engineering requirements.
- Develop and evaluate alternative building site location options.
- Develop a recommended development option that serves Mason's long range vision, in concert with the campus master development plan.
- Develop a master development budget prioritizing projects with greater demand.

Understanding athletic and recreation opportunity is a key to Mason's culture. Today's college and university modern-day athletic and recreation centers are synonymous with student life. These facilities are a hub of student life due in part to their location and position relative to existing campus facilities and the overall campus master plan. Recreational support needs to increase as more students move on campus. The relationship of housing to recreation has been changing and on-campus housing will continue to grow to 7500 beds within a five to ten year period. Meeting the recreational demand for students by providing the appropriate facilities will create places on campus where people want to stay and come back again. Enhancing the Intercollegiate athletic offices and varsity facilities will be critical to recruiting and maintaining student-athletes, coaches and administrators who are responsible for the overall success of the program. We have addressed the range of needs by providing a plan to develop the facilities that will reduce the scheduling conflicts of both varsity and recreation demands on campus. Ultimately, the goal is to provide a sense of place, where people want to stay, and come back again; a place to call home for everyone at George Mason University.

The following program was derived by statistics gathered from detailed interviews with the athletic and recreation staff, the demand analysis, student focus groups and a follow-up session with the Director of Athletics and Senior Associate Athletic Director, Operations, Facilities and Administration. Information published represents the needs on campus based upon growth projections for the next ten years.

Also within is a master development program for a Div 1AA 15,000 seat football stadium. Part of the process was to understand the impact of a Div 1AA football program on the University from land requirement and budget perspective.

- Assumptions
  - Existing enrollment = 28,998 (exceeds Master Plan's projection)
  - Current Beds on Campus = 4,000 : 2014 target = 7500
  - 22 Varsity Sports
  - 6 Club Sports with dedicated locker area separate from Rec/Staff/Visiting Team Lockers
  - Dedicated Weight Room for Varsity Football NOT included
  - Area for New 15,000 Seat Football Stadium NOT included (300-350,000 GSF)

PROGRAM ASSUMPTIONS:
1. Existing enrollment = **24,000** (exceeds Master Plan's 21,000); 2014 targeted enrollment = **30,000**
2. Current Beds on Campus = **4000**; 2014 target = **7500**
3. 22 Varsity Sports
4. 6 Club Sports with dedicated locker areas separate from Rec/Staff/Visiting Team; (football, m-lacrosse, w- field hockey, m-crew, rugby, trap & skeet)
5. Dedicated weight room for Varsity Football is **NOT** included
6. Area for new 15,000 seat Football Stadium is **NOT** included

I. ATHLETICS					Recommended	Needs	TOTAL EXIST	EXIST PE	EXIST FH	EXIST AFC	EXIST PC	EXIST Misc.
A. STAFF OFFICES					35,416	31974	24342	736	13144	801	9661	0
	1.	**Athletic Administration**			5,300	4,388			12187		2009	
		a. Recept/Lobby	Cooksey	250		250						
	fh	b. Director & Asst. VP	O'Connor	250		250						
	fh	c. Manager HR	Holt	120		120						
	fh	d. Adm. Asst-1 @ 120	Gregg	120		120						
	fh	e. Director's Conf. Rm.		200		200						
	fh	f. Sr. Assoc AD-ICA	McNamee	200		150						
	fh	g. Sr. Assoc AD-stu serv (comp)	Collins	200		150						
	fh	h. Sr. Assoc AD-Admin	McDade	200		150						
Academic	fh	i. Assoc AD-acad serv	Wilson (Collins)	200		150						
	fh	j. Assoc AD-events	Marsh	200		150						
	fh	k. Assoc AD-mkt'g	Ruge	200		150						
	fh/pc	l. Assoc AD-Development	Correll	200	no space ded. In PC	150						
	fh	m. Assoc AD-comm rel	Butler	200		150						
	fh	n. Director (Champs)	Rogers	200		150						
	fh	o. Secretarial-2 @ 80	TBD	160		160						
		p. Files/ Archives		200		150						
		q. Conf Rm 1 @ 300		300		300						
		r. Conf Rm 1 @ 150		150		0						
		s. Work Rm		150		150						
		t. Toilets-M + F 2 @ 100		200	Serve all offices	200						
		u. Mailroom(entire complex)		100		100						
		v. Employee Breakroom		300		200						
		w. Circulation-80%		1000		838						
	2.	**Compliance - AD for Stu.Serv. (Collins)**			413	375						
		a. Recept	shared w/ admin.	0		0						
	fh	b. Compliance Director	Hairston	150		120						
		c. Compliance Asst.	TBD	80		80						
		d. Staff Assts-1 @ 100		0		0						
		e. Files/ Archives		100		100						
		f. Work Rm	shared w/ admin.	0		0						
		g. Circulation-80%		83		75						
	3.	**Sports Admin - AD for ICA (McNamee)**			625	500						
		a. Recept	shared w/ admin.	0		0						
	fh	b. Asst AD-sport admin/sys	Shayka	150		120						
		c. Staff Assts-1 @ 100		100		80						
		d. Files/ Archives		100		80						
		e. Work Rm		150		120						
		f. Circulation-80%		125		100						
	4.	**Business Office - AD Finance**			900	850			in 1 abv			
		a. Recept	shared w/ admin.	0		0						
	fh	b. Asst. AD	**Medford**	150		150						

	c. Bus. Mgr	Schulien	120			120		
	d. Controller-1 @ 100		100			100		
	e. Staff Assts-1 @ 100		100			80		
	f. Files/ Archives		100			80		
	g. Work Rm		150			150		
	h. Circulation-80%		180			170		
5.	**Internal Operations - AD Ops (McDade)**			858			768	in 1 abv
	a. Recept	shared w/ admin.	0			0		
	b. Off. Mgr.		120			120		
	c. IT Suppt		120			100		
	d. Staff Assts-2 @ 80	share w/ Bus Off	160			160		
	e. Files/ Archives		100			80		
	f. Work Rm		150			120		
	g. Circulation-80%		208			188		
6.	**Facilities and Admin - AD Facil (McDade)**			514			422	in 1 abv
	a. Recept		0		in FH circ.	0		
fh	Allen (fh)				fh front desk coord			
fh	b. Facility Manager	Houston	150			120		
	c. Supervisors -1 @ 120		120			100		
	d. Files/ Archives		100			80		
	e. Work Rm	shared w/ Int Op	0			0		
	f. Circulation-80%		144			122		
7.	**Sports Info/Media Rel/Tix&Pro. - AD (Ruge)**			1,738			1,375	in 1 abv
	a. Sec/Recept		150			120		
fh	b. Director-PR & Comm	Nasser	150			120		
fh	c. Director-multi-media	O'Bier	150			120		
fh	d. Director-Tickets & Promo	Meyer	0		located in ticket office (IV.M. below)	0		
	e. Asst Directors(3 @ 120)		360			300		
fh	Coco, Walsh, White							
	f. Workrm-4 Student Asst		160			120		
	Multi-media workroom		150			120		
	Video Storage		120			100		
	g. Files/ Archives		150			100		
	h. Circulation-80%		348			275		
8.	**Patriot Club/Devel - AD Devel (Correll)**			1,306			1,094	in 1 abv
	a. Recept		150			120		
	b. Director	AD-Correll	0			0		
fh	c. Asst. Director	Baker	120			120		
	d. Coordinators(3 @ 150)		450			360		
fh	Morehead							
	e. Workrm		150			120		
	f. Office Mgr		0			0		
	g. Secretarial-1 @ 100		100			80		
	h. Work Study-1 @ 75		75			75		
	i. Circulation-80%		261			219		
9.	**Events - AD Events (Marsh)**			281			281	
	a. Recept		0			0		
fh	b. Asst AD-event adm	Kirk	150			150		
fh	c. Asst. Director		0			0		
	d. Coordinators(3 @ 150)		0			0		
	e. Workrm	shared	0			0		
	f. Office Mgr		0			0		
	g. Secretarial-1 @ 100		0			0		

		h. Work Study-1 @ 75		75		75							
		i. Circulation-80%		56		56							
	10.	**Facilities and Grounds AD Facil. (McDade)**			313		313			in 1 abv			
		a. Recept	share w/ admin	0		0							
	fh	b. Asst AD-facilties	**Cooper**	150		150							
	fh	c. Grounds Super	Sullenberger	0	in FH maint area	0							
	fh	d. Asst. Grounds Mgr	Barden	0	in FH maint area	0							
	fh	e. Service Foreman	Bailey	0	in FH maint area	0							
		f. Staff Assts-1 @ 100	shared	0		0							
		g. Files/ Archives		100		100							
		h. Work Rm	shared	0		0							
		i. Circulation-80%		63		63							
Patriot Center	**11.**	**Basketball Coaches(M & W)**			3,833		3,398					3950	
	pc	a. Head Coach-M	Larranaga	250		200							
	pc	b. Head Coach-W	Taneyhill	250		200							
	pc	c. Sec/Recept-M	Marsh	150		120							
	pc	d. Sec/Recept-W	Thackwray	150		120							
		e. Asst Coach-3 @ 120-M		360		360							
	pc	Courtney, Cherry, Konkol											
		f. Asst Coach-3 @ 120-W		360		360							
	pc	Harrison, Howard, Alexander											
	pc	g. Admin Asst.-2 @ 100	TBD	200		200							
		h. Op's Manager-1 @ 150		150		150							
	pc	Fain											
		i. Workrm-M	Caputo	80		80							
		j. Workrm-W		80		80							
		k. Conference - 2 (+100 Sto)		500		400							
		l. Recruiting Lounge		250		200							
		Multi-media workroom		150		120							
		Video Storage		120		120							
		m. Files/ Archives		150		120							
		n. Circulation-80%		633		568							
	12.	**Baseball Coaches(M)**			844		806			in 1 abv			
	fh	a. Head Coach	Brown	150		120							
		b. Asst Coaches-3 @ 100		300		300							
	fh	Stiffler, Munoz, Filson											
		c. Sec/ Recept	shared w/ admin	75		75							
		d. Workrm	shared	150		150							
		e. Circulation-80%		169		161							
	13.	**Golf Coach (M)**			281		244		in crew bel				
		a. Head Coach-1 @ 150		150		120							
	fh	Gaudi,											
		b. Asst Coaches-0 @100		0		0							
		c. Work Rm	shared	0		0							
		d. Sec/Recept	shared	75		75							
		e. Circulation-80%		56		49							
	14	**Lacrosse Coaches(W)**			719		681			in 1 abv			
		a. Head Coach-1 @ 150		150		120							
	fh	Umbach											
		b. Asst Coaches-2 @100		200		200							
	fh	Schaffner											
		c. Work Rm/Stor	shared	150		150							
		d. Sec/Recept/workrm	shared	75		75							
		e. Circulation-80%		144		136							

	15	**Crew Coaches(W)**			531			494	736	
		a. Head Coach-1 @ 150		150			120			
	fh	Rassam								
		b. Asst Coaches-2 @ 100		200			200			
	fh	Smail, TBD								
		c. Sec/ Recept/workrm		75			75			
		d. Workrm		0			0			
		e. Circulation-80%		106			99			
	16	**Softball(W)**			406			369	in 1 abv	
	fh	a. Head Coach	TBD	150			120			
		b. Asst Coaches-1 @ 100		100			100			
	fh	Ayers				Event Asst.				
		c. Sec/ Recept/workrm	shared	75			75			
		d. Workrm	shared	0			0			
		f. Circulation-80%		81			74			
	17.	**Soccer Coaches(M & W)**			969			894	in 1 abv	
		a. Head Coach-2 @ 150		300			240			
	fh	Drake, O'Leary								
		b. Asst Coaches-4 @ 100		400			400			
	fh	Haitz, Sillery								
	fh	Allan, Wateridge								
		c. Sec/ Recept/workrm	shared	75			75			
		d. Workrm	shared	0			0			
		f. Circulation-80%		194			179			
Aquatic Center	18	**Swimming Coaches(M & W)**			600			525		801
	afc	a. Head Coach-1 @ 150	Ward	150			120			
		b. Asst Coaches-1 @100		100			100			
	afc	Weinberger								
		c. Work Rm/Stor		150			120			
		d. Sec/Recept/workrm	shared	80			80			
							1			
							(			
							5			
		e. Circulation-80%		120						
								2		
								4		
Aquatic Center	19	**Diving Coaches**			281			4		in swim abv
		a. Head Coach	McDonald	150			120			
		b. Asst Coaches-1 @ 100		0			0			
		c. Sec/ Recept/workrm	shared	75			75			
		d. Workrm	share w/ swim	0			0			
		f. Circulation-80%		56			49			
								6		
								4		
	20.	**Tennis Coaches(M & W)**			719			4	in Crew abv	
		a. Head Coach-2 @ 150		300			240			
	fh	TBD (W), Quam (M)								
		b. Asst Coaches-2 @100		200			200			
		c. Work Rm/Stor	shared	0			0			
		d. Sec/Recept/workrm	shared	75			75			
		e. Circulation-80%		144			129			
	21	**Track & X-Country Coaches(M & W)**			969			894	in 1 abv	
		a. Head Coach-2 @ 150		300			240			
	fh	Ebanks, Taylor								

		b. Asst Coaches-4 @100		400			400											
	fh	Jackson, Vernon-Watson																
	fh	Harvey																
		c. Work Rm/Stor	shared	0			0											
		f. Circulation-80%	shared	75			75											
		e. Circulation-80%		194			179											
	22	**Volleyball Coaches(M&W)**			719			644		in Crew abv								
		a. Head Coach		300			240											
	fh	Kendrick, Chao																
		b. Asst Coaches-2 @ 100		200			200											
		c. Sec/ Recept/workrm	shared	75			75											
		d. Workrm	shared	0			0											
		f. Circulation-80%		144			129											
	23.	**Wrestling Coaches(M)**			531			494			in 1 abv							
	fh	a. Head Coach	Shaffer	150			120											
		b. Asst Coaches-2 @ 100		200			200											
	fh	Curtis, Weader			Weader = Event Asst.													
		c. Sec/ Recept	shared	75			75											
		d. Workrm	shared	0			0											
		e. Film Rm		0			0											
		f. Circulation-80%		106			99											
	24	**Cheerleading**			406			369										
	fh	a. Head Coach-1 @ 150	Burkhart	150			120											
		b. Asst Coaches-1 @100	Owen	100			100											
		c. Work Rm/Stor	shared	0			0											
		d. Sec/Recept/workrm	shared	75			75											
		e. Circulation-80%		81			74											
	25	**Dance Team (shares w/ cheerleading)**			0			0										
	fh	a. Head Coach-1 @ 150	Chin	0			0											
	fh	b. Asst Coaches-1 @100	Rodeffer	0			0											
		c. Work Rm/Stor	shared	0			0											
		d. Sec/Recept/workrm (share w/ Cheerleading		0			0											
		e. Circulation-80%		0			0											
	26	**Coaching Support Staff**			160			160			in 1 abv							
		a. Admin Asst-2 @ 80		160			160											
	fh	Carpenter, TBD																
	27	**Entry Hall / Lobby**			4,000			4,000			in 1 abv							
	28	**Recruiting Lounge**			500			500										
Patriot Center	**29**	**Patriot Club Meeting Room (in PC)**			3,702			3,702								3702		
	30	**Team Meeting Room**			1,200	Subdividable		1,200			in 27 below							
		120 positions@ 10																
	31	**Meeting Rooms**			1,800			1,350			957							
		a. Large Breakout		750		Subdividable	750				temp trailer							
		b. Meeting-2 @ 300		600			300											
		c. Small Mtg	3 @ 150	450			300											
		-	- -	- -	-		- -											
		Sub Total Staff Offices			35,416	NSF		31,974										
											PE	FH	AFC	PC	Misc.			
B. TEAM LOCKERS REQUIRED (include individual shower, dry, toilet facilities)						41621		32,952	21923	2059	10647	4108	5109	0				
Patriot Center	**1.**	**Men's Basketball Locker Room**			2,488	NSF		2,488		390			5109					
		a. Locker Rm-17@ 30 sf		510			510											
		b. Shower/Drying 12 @ 20		240			240											
		c. Toilet-3WC,2U, 4 Lav		240			240											

		d. Meeting Rm	300		300						
		e. Player Lounge	200		200						
		f. Bball Equip	250		250						
		g. Training Area	250		250						
		weight training	900		900						
		h. Circulation-80%	498		498						
Patriot Center	**2**	**Women's Basketball Locker Room**		2,538 NSF		2,538		340		in men	
		a. Locker Rm-17@ 30 sf	510		510						
		b. Shower/Drying 12 @ 20	240		240						
		c. Toilet-5WC, 4 Lav	280		280						
		d. Meeting Rm	300		300						
		e. Player Lounge	200		200						
		f. Bball Equip	250		250						
		g. Training Area	250		250						
		weight training	0	shared w/ men	0						
		h. Circulation-80%	508		508						
Patriot Center	**3**	**Basketball Coaches Lockers**		900 NSF		900				in men	
		a. Men Coaches- 4@ 30 sf	120		120						
		b. Men SDT-4 Units@ 30	120		120						
		c. Women Coaches- 4@ 30 sf	120	For Women's Team Female	120						
		d. Women/Men- 4@ 30 sf	120	For Women's Team Male	120						
		e. Women SDT-8 Units@ 30	240	Split Betw M, F Coaches	240						
		f. Circulation	180		180						
Patriot Center	**4**	**Small Star Dressing-2@240 Dedicated to Patriot Center**		480 NSF- Officials		480					

Patriot Center	5	**Staff Locker Rooms - see E below**		1,440	Use for Coaches, Staff		1,440					
		Dedicated to Patriot Center										
		a. Men Staff-2 -30 @ 20	600			600						
		b. Men SDT-2 @ 300	600			600						
		c. Women Staff-2-20@ 20	120			120						
		d. Women SDT-2 @ 200	120			120						
	6	**Baseball Lockers**		1,125			563			4744		
		a. Locker Rm-30@ 20 sf	600			450						
		b. Shower/Drying 8 @ 20	160			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	225			113						
	7	**Men's Track & Cross Country Lockers**		1,125			563			in 6 abv		
		a. Locker Rm-30@ 20 sf	600			450						
		b. Shower/Drying 8 @ 20	160			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	225			113						
	8	**Women's Track & Cross Country Lockers**		1,125			563			in 6 abv		
		a. Locker Rm-30@ 20 sf	600			450						
		b. Shower/Drying 8 @ 20	160			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	225			113						
	9	**Men's Golf Lockers**		575			225					
		a. Locker Rm-12@ 20 sf	240			180						
		b. Shower/Drying 4 @ 20	80			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	115			45						
	10	**Women's Lacrosse Lockers**		1,250			656			in 6 abv		
		a. Locker Rm-35@ 20 sf	700			525						
		b. Shower/Drying 8 @ 20	160			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	250			131						
					use FH visit team facil in							
Off Site	11	**Women's Crew Lockers - At Occoquan**		0	off season		0					
		a. Locker Rm-30@ 20 sf	0		football issue - expansion	0						
		b. Shower/Drying 8 @ 20	0			0						
		c. Toilet-2WC,1 U, 2 Lav	0			0						
		h. Circulation-80%	0			0						
	12	**Softball Lockers**		1,125			563			in 6 abv		
		a. Locker Rm-30@ 20 sf	600			450						
		b. Shower/Drying 8 @ 20	160			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	225			113						
	13	**Men's Soccer Lockers**		1,125			563			in 6 abv		
		a. Locker Rm-30@ 20 sf	600			450						
		b. Shower/Drying 8 @ 20	160			0						
		c. Toilet-2WC,1 U, 2 Lav	140			0						
		h. Circulation-80%	225			113						

	14	**Women's Soccer Lockers**		1,125		563			in 6 abv		
		a. Locker Rm-30@ 20 sf	600		450						
		b. Shower/Drying 8 @ 20	160		0						
		c. Toilet-2WC,1 U, 2 Lav	140		0						
		h. Circulation-80%	225		113						
Aquatic Center	**15**	**Women's Swimming & Diving Locker**		2,173 NSF		2,023				4108	
		Note: no provision for Water Polo Team									
		a. Locker Rm-35@ 20 sf	600		450						
		b. Shower/Drying 12 @ 20	240		240						
		c. Toilet-5WC, 4 Lav	280		280						
		d. Meeting Rm(Dry)- to be shared with Men's	600		600						
		e. Sauna/Steam	120		120						
		h. Circulation-80%	333		333						
Aquatic Center	**16**	**Men's Swimming & Diving Locker**		2,120 NSF		1,970				in wm abv	
		Note: no provision for Water Polo Team									
		a. Locker Rm-35@ 20 sf	600		450						
		b. Shower/Drying 12 @ 20	240		240						
		c. Toilet-3WC,2 U, 4 Lav	240		240						
		d. Meeting Rm(Wet)- To be shared	600		600						
		e. Sauna/Steam	120		120						
		h. Circulation-80%	320		320						
	17	**Men's Tennis Lockers**		650		281					
				Used for visitors							
		a. Locker Rm15@ 20 sf	300	in existing	225						
		b. Shower/Drying 4 @ 20	120		0						
		c. Toilet-1WC,1 U, 2 Lav	100		0						
		h. Circulation-80%	130		56						
	18	**Women's Tennis Lockers**		650		281					
				Used for visitors							
		a. Locker Rm15@ 20 sf	300	in existing	225						
		b. Shower/Drying 4 @ 20	120		0						
		c. Toilet-1WC,1 U, 2 Lav	100		0						
		h. Circulation-80%	130		56						
	19	**Men's Volleyball Lockers**		675		281					
				Used for visitors							
		a. Locker Rm-15@ 20 sf	300	in existing	225						
		b. Shower/Drying 6 @ 20	120		0						
		c. Toilet-2WC, 2 Lav	120		0						
		h. Circulation-80%	135		56						
	20	**Women's Volleyball Lockers**		675		281		229			
				Used for visitors							
		a. Locker Rm-15@ 20 sf	300	in existing	225						
		b. Shower/Drying 6 @ 20	120		0						
		c. Toilet-2WC, 2 Lav	120		0						
		h. Circulation-80%	135		56						
	21	**Wrestling Locker Areas**		1,845		883			in 6 abv		
		a. Home Locker-30@ 20	600		450						
		b. Shower/Drying 16 @ 20	320		0						
		c. Toilet-3WC,3 U, 6 lav	300		0						
		d. Sauna- 16 @ 10	160	for use in all sports	160						
		e. Steam- 8 @ 12	96	for use in all sports	96						
		f. Weight Cutting	0		0						
		g. Visitors 12- 2' Lockers	0		0						

	h. Equipment			0			0						
	j. Non Program-80%			369			177						
22	**Main Training Room**				4,350	Near Practice Fac		3,350		1100	3002		
	a. Taping Stations-12@40			480			480						
	b. Treatment-10@40			400			400						
	c. Reception Area			100			100						
fh	d. Head Trainer Off	Pullen		120			120						
fh	e. Assoc. Trainer Office	Yamrus		100			100						
afc	e. Rehabilitation Specialist Office	TBD		100			100						
	f. Grad Asst-5 @ 60			300			300						
	g. Conf Rm/Library			150			150						
	h. Storage			250		Adj to ext Access	250						
	i. Rehab Equip-10 @ 40			400			400						
	k. Doctor office			100			100						
	l. Exam-1 @ 80			80			80						
	m. X-Ray			100		Radiation Prot	100						
	n. Hydrotherapy			800			0						
	1. Therapy Pool 20X20		0										
	2. Jacuzzi-2@100		200			hot and cold tubs							
	3. Whirlpool-3@ 80		240										
	4. Ice(2)&Sink		100										
	5. Toilet/Changing		100			Unisex							
	6. Circulation-80%		160										
	j. Non Program-80%			870			670						
23	**Athletic Services - Equipment Issue/Control**				3,263			2,700			1934		
	a. Issue Counter			100			100						
	b. Workbench			100		Incl stor cabs	100						
	c. Issue Lockers-200@1			200		Open into corridor	200						
	d. Cubicle Storage-100 @ 1.5			0		Staging	0						
fh	e. Manager- 1@ 120	Woodfork		200			200						
fh	f. Workspace-2@ 80	Brown, Dove		160			160						
	g. Storage Units 120 @10			1200		Sto all equip,stack 2 hi OH Door to	1200						
	h. Staging & Recvg			200		Outside	200						
	i. Laundry			450			0						
	1.Dryers-6@30		180										
	2. Washers46@ 30		120										
	3. Folding/Hanging		100										
	4. Soap/sink		50										
	j. Circulation			653			540						
24	**Coaches/Admin Staff Locker Rooms**				2,000			2,000	for varsity				
	a. Men Staff -35 @ 20			700			700						
	b. Men SDT-1 @ 300			300			300						
	c. Women Staff-35@ 20			700			700						
	d. Women SDT-1 @ 300			300			300						

	25	**Visitor/ Recreation Locker-used for all sports**			2,500	NSF		2,500			967				
		a. Men's Locker-50@5+50@10		750		3 teams	750								
		b. SDT- 10@30+10@20		500			500								
		c. Women's Locker-50@5+50@10		750		3 teams	750								
		d. SDT- 10@30+10@20		500			500								
		g. Officials Lockers (2@250)		500			500								
		h. Visitor's Training- included as training room component; used by visitors													
		Note: rec/visitors lockers may be subdividable													
At Fields	26	**Field Tournament Locker Facilities (Main Stadium)**			2,150			2,150							
		a. Lockers - 4 rooms @ 250 each		1000			1000								
		b. Visitors Shower/Toilet (2 @ 250)		500			500								
		c. Training -		250		2 treatment, 2 taping, first aid, sink	250								
		d. Officials Lockers (2@200)		400			400								
At Fields	27	**Field Tournament Locker Facilities (Softball Field Area)**			2,150			2,150							
		a. Lockers - 4 rooms @ 250 each		1000			1000								
		b. Visitors Shower/Toilet (2 @ 250)		500			500								
		c. Training -		250		2 treatment, 2 taping, first aid, sink	250								
		d. Officials Lockers (2@200)		400			400								
		Sub Total Team Lockers			41,621	NSF		32,952							
										PE	**FH**	**AFC**	**PC**	**Misc.**	
C. PRACTICE FACILITIES						186664			132443	16820	74249	23781	17593		
	Indoor Facilities														
	1	**Strength & Conditioning (Athletics)**			9,256			9,256			7128	1723			
		DOES NOT INCLUDE VARSITY FOOTBALL													
		a. 40 Equip Spaces@ 60- Free Weights		3000		Incl Plyo,Aerobics Areas	3000								
		b. Pin Select 20 @ 60		1200			1200								
		c. 20 Equip Spaces @ 60- Fitness		1200			1200								
		d. Stretching 40 @ 40		1600			1600								
	fh	e. Office - Head Strength	Handerahan	150			150								
	fh	f. Asst Strength Trainer	Green	120			120								
		g. GAs-2@80		160			160								
		h. Toilets-2@ 200	look to share (lockers)	400			400								
		i. Juice Bar	**see Food Serv.**	0			0								
		j. Storage & Repair		500		Incl Sink	500								
		k. Circulation-90%		926			926								
	2	**Natatorium- Olympic Pool with two bulkheads**	FT WIDT		23,575	NSF		23,575				22058			
		a. Pool	75 H FT WIDT	169	12,678	NSF		12,678	NSF						
		b. Pool Deck-sides, one end	12 H FT WIDT	433	5,197	NSF		5,197	NSF						
		c. Pool Deck- Diving	20 H	95	1,900	NSF		1,900	NSF						
		d. Pool Control Room			200	NSF		200	NSF						
		e. Coach Office (deck Level)			150	NSF		150	NSF						
		f. Pool Storage			1,600	NSF		1,600	NSF						
		g. Warming Tub (on deck)			200	NSF		200	NSF						

		h. First Aid					150	NSF			150	NSF									
				FT WIDT																	
		i. Pool Filtration Room	20	H		50	1,500	NSF			1,500	NSF									
	3	**Basketball Practice Court**						27,600	NSF				27,600						17593		
									2400 retract.												
		Size based on 70x120 Court			2 @ 8400		16,800		Bleachers		16,800										
									exist. In Patriot												
		Competition					10,800		Center		10,800										
		NOTE: Patriot Ctr. Conflict - no cross courts																			
2,500 seats	4	**Volleyball /Wrestling Competition Court**						17,125	NSF				17,125			16820					
retractable bleachers		used for volleyball practice																			
									In Field House												
	5	**Batting Cages**			4,ea 12x 75			0	track area				0								
	6	**Wrestling Practice**						6,508					6,508			2877					
		a. Practice Mats-2 @ 2704					5408		Mats 42 X42		5408										
		b. Mat Storage-7 units 5x6					500		Stor near main flr		500										
									adj to practice												
		c. Access/Bleacher					600		mats		600										
	7	**Running Track**						62,100	In Field House				62,100			64244					
									Based on 180x345												
		and Included Court spaces							space												
	8	**Indoor Practice Fields**						40,500	In Field House				40,500								
		-	-	-	-	-	-			-	-										
		Sub Total Practice Facilties						186,664	NSF				186,664								
																PE	FH	AFC	PC	Misc.	
		TOTAL ATHLETIC FACILITIES						**263,701**	**NSF**				**251,590**	**178708**		**19615**	**98040**	**28690**	**32363**		
		=	=	=	=	=	=	===		12111	=	=									

RECREATION								TOTAL EXIST	EXIST	EXIST	EXIST	EXIST	EXIST
									PE	FH	AFC	PC	Misc.
A. STAFF OFFICES						9,160		3594	372	0	3222	0	0
	1.	**Rec. Administration PE BUILDING (McDade)**				1,863	1,733						
		a. Recept (is front desk of building)	TBD	0			0						
	pe	b. Asst AD-IM/Club/Rec	**Murphy**	150			150						
	pe	c. Mgr - Indoor Rec	Banks	120			120						
	pe	d. Coord - Fit/IM/Rec	Huffman	120			120						
	pe	e. Supervisor - IM/Cl/Rec	Bazzano	120			120						
	pe	f. Coord - Rec programmer	TBD	120			120						
	pe	g. Marketing/Sales	TBD	120			120						
	pe	h. Coord - Club Sports	Spousta (crew)	120			120						
		i. Files/ Archives		200			150						
		j. Conf Rm 1 @ 150		150			150						
		k. Work Rm		150			120						
		l. Breakroom		150			120						
		m. Circulation-80%		343			323						
	2.	**Rec. Admin. AQUATIC CENTER (McDade)**				2,163	1,938				3222		
		a. Recept (is front desk of building)		0			0						
	afc	b. Gen Mngr	TBD	150			120						
	afc	c. Front Desk Coord.	Brown	120			120						
	afc	d. Op's Mgr	Eckert	150			120						

afc	e. Coord - Aquatics	Wagner	120			120						
	f. Aquatics Programmer	TBD	120			120						
afc	g. Admin Asst.-2 @ 80	Wyman	160			160						
afc	h. Bldg Engr.	Alderman	120			100						
afc	i. Gen Maint.	Bratichko	120			100						
	j. Files/ Archives		200			150						
	k. Conf Rm 1 @ 200		200			200						
	l. Work Rm		150			120						
	m. Breakroom		150			150						
	n. Circulation-80%		403			358						
3.	**Rec. Admin. NE SECTOR (McDade)**			1,338			1,138					
	a. Recept (is front desk of building)		0			0						
ne	b. Gen Mngr	TBD	150			120						
ne	c. Front Desk Coord.	TBD	120			120						
ne	d. Op's Mgr	TBD	150			120						
ne	g. Admin Asst.-1 @ 80	TBD	80			80						
ne	h. Engr./Maint.	TBD	120			100						
	j. Files/ Archives		100			100						
	k. Conf Rm 1 @ 150		200			150						
	l. Work Rm		150			120						
	n. Circulation-80%		268			228						
4.	**Club Football Coaches (M)**			1,938			1,938		372			
pe	a. Head Coach	Pascale	150			150						
	b. HC Sec/Rec		0			0						
	c. Sec/Reception-1 @ 150		150			150						
	d. Coordinators-2 @ 100		200			200						
	e. Asst Coaches-4 @ 100		400			400						
	f. Staff Conference		0			0						
	g. Staff Meeting-1 @ 200		200			200						
	h. Graduate Assts-2@60		120			120						
	i. Recruiting Coordinator		0			0						
	j. Recruiting Admin		0			0						
	k. Facilities Operations		0			0						
	l. Video Editing		150			150						
	m. Video Office		100			100						
	n. Video Stor		80			80						
	o. Work Room		0			0						
	p. Recruiting Lounge		0			0						
	Team meeting Room		0		share PE classrooms	0						
	q. Catering Kitchen		0			0						
	r. Toilets-1 @ 150		0			0						
	h. Circulation-80%		388			388						
5	**Additional Coaching Offices (Club)**			1,860			1,860					
pe	a. Head Coach-10 @ 100		1000			1000						
pe	b. Asst Coaches-5 @80		400			400						
	g. Meeting Rooms -2 @ 150		300			300						
	a. GA-2 @ 80		160			160						
	-	-	-	-	-	-	-	-				
	Sub Total Staff Offices			9,160	NSF		**8,605**					
									PE	**FH**	**AFC**	**PC**	**Misc.**
B. CLUB TEAM LOCKERS					2780			0	0	0	0	0	
1	**Football Locker**			1780			1780						
	a. Locker Room-60 @ 20		1200			1200							
	b. Shower/Drying-15 @ 20		300			300							

	c. Toilet-6 WC,6 U, 10 Lav	280			280							
	d. Player Lounge-30 @ 20	0			0							
	e. Steam-6 @12	0			0							
	f. Sauna-10 @10	0			0							
	g. Electrolyte Area	0			0							
			in dedicated rec									
2	**Coach Locker, Football**		0 staff lockers		0							
	a. Locker-10 @ 20	0			0							
	b. Shower/Drying-4 @ 20	0			0							
	c. Toilet-2WC,1 U,3 Lav	0			0							
			in C - rec and staff lockers									
3	**Women's Club Sport Lockers**		0 below		0							
			in C - rec and staff lockers									
4	**Men's Club Sport Lockers**		0 below		0							
5	**Women's Field Hockey Lockers**		0		0							
	a. Locker Rm-30@ 10 sf	0			0							
	b. Shower/Drying 6 @ 20	0			0							
	c. Toilet-2WC,1 U, 2 Lav	0			0							
	h. Circulation-80%	0			0							
6	**Men's Lacrosse Lockers**		0		0							
	a. Locker Rm-30@ 20 sf	0			0							
	b. Shower/Drying 8 @ 20	0			0							
	c. Toilet-2WC,1 U, 2 Lav	0			0							
	h. Circulation-80%	0			0							
7	**Men's Crew Lockers - at Occoquan**		0		0							
	a. Locker Rm-30@ 20 sf	0			0							
	b. Shower/Drying 8 @ 20	0			0							
	c. Toilet-2WC,1 U, 2 Lav	0			0							
	h. Circulation-80%	0			0							
8	**Rugby Lockers**		0		0							
	a. Locker Rm-30@ 20 sf	0			0							
	b. Shower/Drying 8 @ 20	0			0							
	c. Toilet-2WC,1 U, 2 Lav	0			0							
	h. Circulation-80%	0			0							
9	**Trap and Skeet Lockers**		0		0							
	a. Locker Rm-12@ 20 sf	0			0							
	b. Shower/Drying 8 @ 20	0			0							
	c. Toilet-2WC,1 U, 2 Lav	0			0							
	h. Circulation-80%	0			0							
10	**Training Room**		1,000		1,000							
	-											
	Sub Total Club Team Lockers		2,780 NSF		**2,780**							
								PE	**FH**	**AFC**	**PC**	**Misc.**
C. RECREATION AND STAFF LOCKERS				12400			11674	4422	2509	4743	0	
1	**Recreation/Visit Club Team Locker- for all sports**		12,400 NSF		12,400			4422	2509	4743		
	a. Men's Locker-500@5+200@10	4500			4500							
	b. SDT- 30@30+40@20	1700			1700							
	c. Women's Locker-500@5+200@10	4500			4500							
	d. SDT- 30@30+40@20	1700			1700							
	g. Officials Lockers (2@250)	500			500							
	h. Visitor's Training- included as training room component; used by visitors											
2	**Dedicated Staff Locker Rooms**		0		0							
	a. Men Staff-2 -30 @ 20											
	b. Men SDT-2 @ 300											

	c. Women Staff-2-30@ 20														
	d. Women SDT-2 @ 200														
	-	-	-	-	-	-	-	-	-	-					
	Sub Total Rec/Visiting Team Facilities					12,400	NSF		**12,400**						
											PE	FH	AFC	PC	Misc.
D. PRACTICE FACILITIES								129220		47989	14800	5294	27895	0	
	INDOOR														
	1	**Recreation Fitness Areas**				29,889			29,222				7247		
		SEE 2 - DANCE AEROBICS BELOW FOR ADD. REQ'D													
		a. Pin Select 80 @ 60			4800				4800						
		b. Cardio 175 @ 60			10500				10500						
		c. Free Weight 80 @ 60			4800				4800						
		d. Spinning 40 @ 40			1600				1600						
		e. Stretching 40 @ 40			1600				1600						
		f. Control Desk			400				400						
		g. Offices	8	AT	150 1200				600						
		h. Storage/Repair			2000				2000						
		j. Circulation-90%			2989				2922						
	2	**Dance/Aerobics area / Multi-purpose Rm**				12,300	NSF		12,300				6324		
	3	**Classroom**				5,000	NSF		5,000				4280		
	4	**Racketball Courts**	12	@	800	9,600	NSF		800 9,600			5294	1773		
	5	**Squash Courts**	2	@	720	1,440	NSF		720 1,440						
	6	**Climbing Wall**	1	@	720	720	NSF		720 720						
								in clg over hoops							
	7	**Indoor Rope Course**						area?							
	8	**Rec Pool**	1	@	8271	8,271	NSF		8271 8,271				8271		
	9	**Rec Hoop Courts**	8	@	6500	52,000	NSF		6500 39,000		14800				
		includes mult. use (volleyball, badminton, etc.)													
	10	**Jogging track**	1	@	10000	10,000	NSF		10000 10,000						
	-	-	-	-	-	-	-	-	-	-					
	Sub Total Practice Facilities					**129,220**	NSF		**115,553**						
											PE	FH	AFC	PC	Misc.

E. RHT - CEHD Dep't of Recreation, Health and Tourism					4,288			63257	19594	7803	35860	0	0
PE Building	**1.**	**Administration**		3,325			3,325						
		a. Recept	150			150							
		b. Offices - 3 @120	360			360							
		i. Files/ Archives	150			150							
		j. Conf Rm 1 @ 150	200			200							
		k. Work Rm/Lab	200			200							
		k. Classroom - 2@1000	2000	Share		2000							
		m. Circulation-80%	265			265							
Field House	**2**	**Training Room Requirements**		963	Near Practice Fac		963						
		a. Offices - 2@120	240			240							
		g. Library	150			150							
		g. Workroom	150			150							
		h. Storage	150			150							
		l. Exam-1 @ 80	80			80							
		j. Non Program-80%	193			193							
		-	-	-		-							
		Sub Total RHT Facilities		**4,288**	NSF		**4,288**						
F. Outdoor Recreation Program					1000								
	1	Life Time Sports (see Outdoor Facilities below)											
	2	Rope Course (see Outdoor Facilities below)											
NE Sector	**3**	Rental Storage	1000			1000							
		TOTAL RECREATION FACILITIES		**158,847**	**NSF**		**143,626**	**63257**	**19594**	**7803**	**35860**	**0**	
		=	=	===	15222	=	=						

III. ACADEMIC (ATHLETICS)								**TOTAL EXIST**	**EXIST PE**	**EXIST FH**	**EXIST AFC**	**EXIST PC**	**EXIST Misc.**
sports psych	**1**	**Academic Center**			8800	NSF			7382	0	0	0	
		a. Reception		150			150						
fh		b. Assoc AD	Wilson	150			150						
		c. Asst Dir-3@ 100		300			300						
fh		Bruno (coord res.), White, Reese											
		d. GAs-4 @ 60		240			240						
		e. Work Rm		150			150						
		f. Tutorial Rms-10,8x8		0			0						
		g. Tutorial Rms-5,8x10		400			400						
		h. Tutorial Rms-1,10x20		200			200						
		i. Quiet Study-30 carrels@20		700	Incl 500 Circulation		700						
		j. Computer-30 stations@ 25		850	Incl 100 printers		850						
		k. Classrooms-1 @ 2000 + 1@500		2500			500						
		l. Library		250			0						
		m. Lounge/Lobby		1000	Vending		800						
		n. Academic Hall of Fame		in lounge			in lounge						
		o. Tutorial Meeting Area		150			0						
		e. Circulation-80%		1760			1110						
		-	-	-			-						

Subtotal Academic Support						8,800	NSF			5,550								
												PE	FH	AFC	PC	Misc.		
TOTAL ACADEMIC FACILITIES						**8,800**	**NSF**			**5,550**		**7382**	**0**	**0**	**0**			
=	=	=	=	=	=	===		3250	=	=								
IV. SPECTATOR FACILITIES						**RECOMMENDED TOTALS**				**RECOMMENDED TOTALS**	**TOTAL EXIST**	**EXIST PE**	**EXIST FH**	**EXIST AFC**	**EXIST PC**	**EXIST Misc.**		
A. SEATING	10500	SEATS	10,000 PC, 500 Aquatic Center PE seating retractable FF&E over performance /practice area			97,300	NSF			97,300	63232	retractable	retractable	2994	60238	0		
SF allocation allows chair seats,aisles, vomitories where required as follows:												*5200*	*3069*					
Aquatic Center																		
Pool Seating	500	SEATS	AT	5	SF	2,500				2500								
Patriot Center																		
Public Seating	9800	SEATS	AT	6	SF	58,800				58800								
Suite Seats	0	SEATS	AT	7	SF	0				0								
Handicapped Seats w/ Companion	200	SEATS	AT	20	SF	4,000				4000								
Main Stadium																		
Structured	3000					10,000				10000								
Bleacher	1500					5,000				5000								
Baseball																		
Structured	1000					7,000				7000								
Bleacher	500					2,500				2500								
Softball																		
Structured	0					0				0								
Bleacher	500					2,000				2000								
Robinson Field																		
Structured	0					0				0								
Bleacher	1500					5,500				5500								
B. CONCOURSE	10000	SEATS	AT	3	SF		30,000	NSF		SF	35187	retractable	retractable	in seating	35187	0		
Circulation to Seats	10000	SEATS	AT	2	SF	20,000				SF	0							
	10000	SEATS	AT	1	SF	10,000				SF	0							
Circulation space to access seating, concessions, toilets, entries ,HC seating																		
NOTE: Some of this area may be used for Lobby																		

C. EXECUTIVE CONCOURSE		500	AT		0 SF			0 NSF	SF			0	0	0	0	0		0
D. PRIVATE SUITES	**0**							0 NSF				0	0	0	0	in Athl abv		0
Note: In Athletics above - Patriot Club Meeting Room																		
Living Area	14 FT WIDTH	AT	15 FT		210 NSF				0 NSF									
Total Area(Liv+toi)	0 Suites at		14 by	23	322	0 NSF			0	0								
Suite Circulation	0 Suites		14 by	6	84	0 NSF			0	0								
E. PRIV. SUITE BALCONY(S)		0	AT		0 SF			0 NSF	SF			0	0	0	0	0		0
F. CONCESSIONS								8,650 NSF			8650	7712	0	0	157	7555		0
		10000 SEATS	AT		50 PER	LF		4,000	4000									
		200 LIN FT	AT		20 FT	DEPTH									vending			
\	1 POS/250 Persons	5 LIN FT /POS																
Based on the referenced number of spectators per linear foot of counter with the specified capacity. Stand depth of 20 feet based on 8 feet for public sales area and 12 feet for support space, open to the concourse																		
Main Stadium																		
Concession						800			800									
Baseball																		
Concession						800			800									
Scoreboard Cafe						1,000			1000									
Softball																		
Concession						500			500									
Robinson Field																		
Concession						750			750									
Volleyball/Wrestling																		
Concession						800			800									
G. FOOD COURT STANDS	1 LIN FT. PER	10000	AT		62 POS	0		0 NSF	POS	#DIV/0!		0	0	0	0	0		0
PNTS. OF SALE	0	5 LNF/POS	W/		3 POS/STND				POS/STND									
TOTAL STANDS	0	600 SF EACH		EQUALS														
Can be Included in Concessions above if desired																		
H. FOOD COURT SEATING	**1 PER**	1 PATRONS	AT		10000 =	10,000		0 NSF	=	#DIV/0!		0	0	0	0	0		0
# OF SEATS REQ'D	10000	0 SF/PERSON		EQUALS														
QUEING AREA REQ'D	0 TOTAL STANDS	AT (20x10)			200 SF EQUALS				SF EQUALS									
Can be Included in Concessions above if desired																		

I. TOILETS						21,255	NSF			9919	in support	in support	in support	9919	0
Patriot Ctr	10000	SEATS	AT	0	PER	FIXTURE		PER	FIXTURE						
Men's fixtures	5000	PATRONS	AT	100	=			=							
Men's fixture alloc.	50	FIX.	AT	50	SF	2,500		SF	0						
Women's fixtures	5000	PATRONS	AT	60	=			=							
Women's fixture alloc.	83	FIX.	AT	50	SF	4,167		SF	0						
Based on 50/50 male/female split and the															
referenced number of spectators per toilet															
fixture. Space allocation per fixture															
includes WC or urinal, lavatory portion,															
chases, circulation and sight baffles.															
PE Building - 2400															
Men's fixtures	1200	PATRONS	AT	100	=			=							
Men's fixture alloc.	12	FIX.	AT	50	SF	600		SF	0						
Women's fixtures	1200	PATRONS	AT	60	=			=							
Women's fixture alloc.	20	FIX.	AT	50	SF	1,000		SF	0						
Field House - 500															
Men's fixtures	250	PATRONS	AT	100	=			=							
Men's fixture alloc.	3	FIX.	AT	50	SF	125		SF	0						
Women's fixtures	250	PATRONS	AT	60	=			=							
Women's fixture alloc.	4	FIX.	AT	50	SF	208		SF	0						
Aquatic Center - 500															
Men's fixtures	250	PATRONS	AT	100	=			=							
Men's fixture alloc.	3	FIX.	AT	50	SF	125		SF	0						
Women's fixtures	250	PATRONS	AT	60	=			=							
Women's fixture alloc.	4	FIX.	AT	50	SF	208		SF	0						
Field Facilities - 10000 total - (4500 Statdium, 1500 Robinson, 1000 Baseball, 500 Softball, 1000 Field 3)															
Men's fixtures	5000	PATRONS	AT	70	=			=							
Men's fixture alloc.	71	FIX.	AT	50	SF	3,571		SF	0						
Women's fixtures	5000	PATRONS	AT	40	=			=							
Women's fixture alloc.	125	FIX.	AT	50	SF	6,250		SF	0						
Northeast Sector						400			400						
Volleyball / Wrestling															
Building						1,500			1,500						
Indoor Practice Facility - Field															
House						600			600						
J. NOVELTY STANDS	10000	SEATS	AT	250	PER	LIN FT	640	NSF	PER	LIN FT	0	0	0	0	0	0
	40	LIN FT	AT	16	FT	DEPTH			FT	DEPTH						
Based on the referenced number of spec-															
tators per linear foot of novelty sales counter.															
Stand depth similar to concessions,but with															
support space 8 feet deep for total															
stand depth of 16 feet															
K. TEAM STORE	2	STORE	AT	20	X	50	1000	NSF	X	50	0	0	0	0	0	0

500 @ PC and 500 at Athletic Hall of Fame																	
L. OTHER SPECIALTY SHOPS	0	STORES	AT	30	X	40	0	NSF	X	40	0	0	0	0	0	0	
M. EVENT TICKET WDOS	10000	SEATS	AT	1000	PER	WINDOW	1,000	NSF	PER	WINDOW	517	0	0	0	517	0	
Patriot Center	10	WINDOWS	AT	100	SF	EACH			SF	EACH							
Based on the suggested number of spec-																	
tators with the SF allocation to include space for cash handling and a security room of 200 SF opening to the concourse.																	
Windows will be 5 feet wide, ganged. Group as one group of 8, one of 4 windows.																	
Field House							350	NSF									
for field sports as well	2	WINDOWS	AT	100	SF	EACH			SF	EACH							
Director-Tickets & Promo		Meyer		150	SF				SF								
N. VENDORS CONCESSIONS	10000	SEATS	AT	300	PER	LIN FT	600	NSF	PER	LIN FT	0	0	0	0	0	0	
	30	LIN FT	AT	20	FT	DEPTH			FT	DEPTH							
Based on the referenced number of spectators																	
per linear foot of vendor's concession stand.																	
Stand depth of 20 feet based on 5 feet vendor circulation to counter; 15 feet sales																	
and support space.																	
Enclosed.																	
(Includes Club Seat support vendors/waiters)																	
											Total Exist	**PE**	**FH**	**AFC**	**PC**	**Misc.**	
TOTAL SPECTATOR FACILITIES						**164,795**		**NSF**		**164,795**	**116567**	**0**	**0**	**3151**	**113416**		
=		=	=	=		=	=	===	=	=							
V. SUPPORT FACILITIES											**TOTAL EXIST**	**PE**	**FH**	**AFC**	**PC**	**Misc.**	
A. OPERATIONS							8,900	NSF				0	0	645	45700		
Patriot Center																	
1.	Press/ Green Room-use mtg Rm.					1,000	NSF			1,000							
2.	PR Storage					250	NSF			250							
3.	Show / Production Storage					2,500	NSF			2,500							
4.	Tour / Promotions Office					500	NSF			500							
5.	Box Office- all sports					2,750	NSF			2,750							
	a. Ticket Mgr			0					0								
	b. Asst Mgr			0					0								
	c. Finan Asst			0					0								

	d. Computer Op	0			0								
	e. Computer Equip	100			100								
	f. Vault/Safe	100			100								
	g. Files	100			100								
	h. Telemkt/Workrm	0			0								
	i. Box Office-4 @75	300			300								
	j. Lobby/Ticketing	1600			1600								
	k. Ticket Windows	700			700								
	l. Non-Program Area @80%	550			550								
6.	Management Office		1,500 NSF			1,500							
	Center Management												
7.	Offices-see athletics and rec offices for personnel		0 NSF			0							
8.	Toilets (2 @ 200)		400			400				645			
	Sub Total Operations		8,900 NSF			8,900							
								PE	FH	AFC	PC	Misc.	
B. SERVICE				45,310 NSF			10231	3770	1729	4732	in A abv		
Patriot Center			16,600 NSF			16,600							
1.	Dock Security	150 NSF			150 NSF								
2.	Bus / Truck Parking	5,000 NSF			5,000 NSF								
3.	Storage / Staging	5,000 NSF			5,000 NSF								
4.	Operations Office (4 @ 150)	600 NSF			600 NSF								
				Concourse									
5.	Janitor(throughout)	800 NSF			800 NSF								
6.	Maintenance/Storage	2,500 NSF			2,500 NSF								
7.	Trash(Trans outdoors to dumpster)	500 NSF			500 NSF								
				Concourse									
8.	First Aid- one per concourse	450 NSF			450 NSF								
				Concourse									
9.	Customer Service	150 NSF			150 NSF								
10.	Shop	200 NSF			200 NSF								
11.	Stock	200 NSF			200 NSF								
12.	Maintenance Office (2 @ 150)	300 NSF			300 NSF								
13.	Security Functions	500 NSF			500 NSF								
14	Toilets	250 NSF			250 NSF								
Field House			7,460 NSF			7,460			1729				
1.	Dock Security	0 NSF			0 NSF								
2.	Bus / Truck Parking	1,000 NSF			1,000 NSF								
3.	Storage / Staging	2,000 NSF			2,000 NSF								
4.	Operations Office (4 @ 150) - see athletics above	0 NSF			0 NSF								
5.	Janitor(throughout)	400 NSF			400 NSF								
6.	Maintenance/Storage	3,000 NSF			3,000 NSF								
7.	Trash(Trans outdoors to dumpster)	200 NSF			200 NSF								
8.	First Aid- one per concourse	0 NSF			0 NSF								
9.	Customer Service	0 NSF			0 NSF								
10.	Shop	200 NSF			200 NSF								
11.	Stock	0 NSF			0 NSF								
12.	Maintenance Office (3 @ 120)	360 NSF			360 NSF								
13.	Security Functions	0 NSF			0 NSF								
14	SDT	300 NSF			300 NSF								
Aquatic Center			4,750 NSF			4,750				4732			
1.	Dock Security	0 NSF			0 NSF								
2.	Bus / Truck Parking	500 NSF			500 NSF								
3.	Storage / Staging	1,000 NSF			1,000 NSF								

4.	Operations Office (4 @ 150) - see athletics above	0 NSF		0 NSF							
5.	Janitor(throughout)	200 NSF		200 NSF							
6.	Maintenance/Storage	2,000 NSF		2,000 NSF							
7.	Trash(Trans outdoors to dumpster)	200 NSF		200 NSF							
8.	First Aid- one per concourse	150 NSF		150 NSF							
9.	Customer Service	0 NSF		0 NSF							
10.	Shop	200 NSF		200 NSF							
11.	Stock	200 NSF		200 NSF							
12.	Maintenance Office (2 @ 150)	150 NSF		150 NSF							
13.	Security Functions	0 NSF		0 NSF							
14	Toilets	150 NSF		150 NSF							
PE Building			5,500 NSF		5,500						
1.	Dock Security	0 NSF		0 NSF							
2.	Bus / Truck Parking	1,000 NSF		1,000 NSF							
3.	Storage / Staging	1,000 NSF		1,000 NSF			2352				
	dedicated Trap & Skeet	100 NSF		100 NSF							
4.	Operations Office (4 @ 150) - see athletics above	0 NSF		0 NSF							
5.	Janitor(throughout)	400 NSF		400 NSF							
6.	Maintenance/Storage	2,000 NSF		2,000 NSF							
7.	Trash(Trans outdoors to dumpster)	200 NSF		200 NSF							
8.	First Aid- one per concourse	150 NSF		150 NSF							
9.	Customer Service	0 NSF		0 NSF							
10.	Shop	200 NSF		200 NSF							
11.	Stock	0 NSF		0 NSF							
12.	Maintenance Office (1 @ 150)	150 NSF		150 NSF							
13.	Security Functions	150 NSF		150 NSF							
14	Toilets	150 NSF		150 NSF			1418				
Fields			11,000 NSF		11,000						
NE Sector			2,000 NSF		2,000						
	Sub Total Service		45,310 NSF		45,310		**PE**	**FH**	**AFC**	**PC**	**Misc.**

C. MEDIA/TEAMS (On Sidelines)					4195 NSF			0	0	0	0	in A abv		
Patriot Center				1,895			1,895							
1.	TV Film Platform	200 NSF			on conc	200 NSF								
2.	Radio Booths(on Floor)	120 NSF				120 NSF								
3.	Scoreboard Control Room	250 NSF				250 NSF								
4.	PA Room(incl Sound Equip-in Seats)	200 NSF			in scorebd	200 NSF								
5.	Work Press on Floor-50x12.5	625 NSF			on sideline	625 NSF								
6	Teams, Scorers on Floor-50x10	500 NSF			on sideline	500 NSF								
Field House			0 NSF				0							
Phys Ed Building			0 NSF				0							
Aquatic Center			500 NSF				500							
Fields (Press Box)			1,800 NSF				1,800							
	Stadium	600 NSF				600 NSF								
	Baseball	400 NSF				400 NSF								
	Softball	400 NSF				400 NSF								
	Synthetic	400 NSF				400 NSF								
	Sub Total Media (Sidelines)		4,195 NSF				4,195							
									PE	FH	AFC	PC	Misc.	
D. MEDIA (Back of House)					3620 NSF			0	0	0	0	in A abv		
Patriot Center			2,420 NSF				2,420							
1.	Media Workroom.	500 NSF				500 NSF								
2.	Media Lounge	500 NSF				500 NSF								
3.	Video Monitor	250 NSF				250 NSF								
4.	Darkrooms	200 NSF				200 NSF								
5.	TV Distribution	160 NSF				160 NSF								
6.	Broadcast Cable Room	160 NSF				160 NSF								
7.	Audio Equipment	200 NSF				200 NSF								
8.	Microwave	150 NSF				150 NSF								
9.	AV Riser(distributed throughout)	100 NSF				100 NSF								
	Toilets	200 NSF				200 NSF								
Field House - media workroom			200 NSF				200							
Phys Ed Building			200 NSF				200							
Aquatic Center			200 NSF				200							
Fields			600 NSF				600							
	Stadium	200 NSF				200 NSF								
	Baseball	200 NSF				200 NSF								
	Softball	200 NSF				200 NSF								
	Synthetic	shared w/ softball NSF				shared w/ softball NSF								
	Sub Total Media (BOH)		3,620 NSF				3,620							
									PE	FH	AFC	PC	Misc.	

E. FOOD SERVICE						8250 NSF						0	0	0	in A abv		
	Patriot Center				2,250 NSF				2,250								
	1	Box Level Catering			0 NSF				0 NSF								
	2	Private Club			0 NSF				0 NSF								
		a. Meeting Area 500@12	0														
		b. Catering Kitchen	0														
		c. Coats	0														
		d. Storage	0														
	3	Commissary/Kitchen			2,000 NSF				2,000 NSF								
	4	Food Service Cash Hndlg			250 NSF				250 NSF								
	Aquatics				1,000 NSF				1,000								
	5	Juice Bar - Aquatics (recreation area)			500 NSF				500 NSF								
		Lounge Seating @ Juice Bar-25 @ 12			500 NSF				500 NSF								
	Field House				1,500 NSF				1,500								
	6	Cafe - Academic Lounge (athletics/Hall of Fame area)			500 NSF				500 NSF								
		Lounge Seating @ Juice Bar-25 @ 12			500 NSF				500 NSF								
	7	Fieldhouse Deli (indoor)			500 NSF				500 NSF								
	PE Building				1,000 NSF				1,000								
	8	Juice Bar - PE Building(recreation area)			500 NSF				500 NSF								
		Lounge Seating @ Juice Bar-25 @ 12			500 NSF				500 NSF								
	NE Sector				1,000 NSF				1,000								
	9	Juice Bar - PE Building(recreation area)			500 NSF				500 NSF								
		Lounge Seating @ Juice Bar-25 @ 12			500 NSF				500 NSF								
	Fields				1,500 NSF				1,500								
	10	Soccer/Lacrosse Field Concession			500 NSF				500 NSF								
	11	Baseball Concession			500 NSF				500 NSF								
	12	Softballball Concession (SHARED W/ Field 3)			500 NSF				500 NSF								
		Sub Total Concessions			8,250 NSF				8,250								
												PE	FH	AFC	PC	Misc.	
F. SYSTEM FACILITIES						0 NSF						2093	3096	6455	in A abv		
	A.	Engineering	in Circ below		0 NSF				0			2093	3096	6455			
	B.	Catwalks	exist. to rem. In PC		0 NSF				0								
	C.	Follow Spot Platforms	exist. to rem. In PC		0 NSF				0								
		Sub Total System Facilties			0 NSF				0								
												PE	FH	AFC	PC	Misc.	
		TOTAL SUPPORT FACILITIES			**70,275 NSF**				**70,275**	**69764**		**5863**	**6369**	**11832**	**45700**		
SUBTOTAL-NET PROGRAM AREA						**666,418** NSF			**635,835**	**435678**		**52454**	**112212**	**79533**	**191479**		
						435,678			435,678								
						230,740			200,157								
VI. CIRCULATION										**TOTAL EXIST**		**EXIST**	**EXIST**	**EXIST**	**EXIST**	**EXIST**	
												PE	FH	AFC	PC	Misc.	
NON PROGRAM AREA-85% EFFICIENCY						**117,603** SF			**112,206**	**41940**		**8,149**	**9,880**	**12285**	**11626**		

Non program area includes wall thicknesses, chases, mechanical, electrical, telephone spaces overhangs, and circulation between spaces.						41,940 75,663		41,940 70,266					
TOTAL GROSS BUILDING AREA **These area totals represent the recommended space allocations for the programs discussed (column 5); the approximate gross area of the minimum program as discussed (column 1); the approximate gross area of the PE Building as it now exists (column 2) and the approximate gross area of the Field House as it now exists (column 3) Aquatics, (column 4) Patriot Center**						**784,021** GSF 477618 306,403		**748,041** 477618 270,423	**477618**	**60,603**	**122,092**	**91818**	**203105**
OUTDOOR FACILITIES - Fields													
	1	**Golf Hitting/Practice**				0 NSF							0
	2	**Performance Fields**				284,560 NSF							
		a. Main Stadium - Soccer, Lax			72960								72960
		b. Baseball		121247	140000								140000
		c. Robinson - Football, Lax, Soccer			71600								71600
	3	**Practice Fields**		recommended	**exist**	545,000 NSF							
		a. Soccer	@' 2 70200	140400	160000								160000
		b. Field 1 - Lax		70200	85000								85000
		c. Field 2 - Softball		46961	45000								45000
lights		d. Field 3 - Synthetic		70200	85000								85000
lights		e. Field 4 - Rugby		70200	85000								85000
		f. Field 5 - Lax		70200	85000								85000
		g. Storage and Support - see support above				0 NSF							
	4	**400M Outdoor Running Track**				107,040 NSF							107040
	5	**Baseball Practice**				18,000 NSF							18,000
	6	**Softball Practice**				0 NSF							
	7	**Tennis Courts (6V)**	12@		5000	60,000 NSF							39000
	8	**IM/Rec Fields**	3@		70200	210,600 NSF	- add 1 @ PE Building						
	9	**Rec Basketball**	4@		6500	26,000 NSF							13000
	10	**Rec Volleyball**	2@		4000	8,000 NSF							
	11	**Rec Dasher**	1@		17000	0 NSF							0
	12	**Skate Park**	1@		10000	0 NSF							0
	13	**Life Skills-Challenge/Rope Course**				30,000 NSF							
	14	**Rec Pool**	1@		5000	5,000 NSF							
		Sub Total Outdoor Practice Facilities				**1294200** NSF							**1006600**

EwingCole's engineers met with key members of the physical plant to gain a basic understanding of the campus infrastructure, current capacities and future plant development projects. The meeting was followed by walk-throughs of the following buildings:

- PE Building
- Field House
- Patriot Center

The aquatic center was not toured because the development potential has been maximized based upon site location and current and future projects. A future outdoor pool will be provided for recreation after the current expansion is complete. EwingCole understands that the current expansion will contain the future infrastructure required to support the future outdoor pool project.

EC's engineers evaluated current conditions and compared their findings to information and plans available. These findings have been summarized into the following narrative reports for each engineering discipline.

2.2.1.1 Existing Fieldhouse

Foundations/Ground Floor Level

The foundations for the existing Fieldhouse consist of reinforced concrete spread footings at column locations and continuous reinforced concrete wall footings at CMU bearing walls and exterior CMU walls. The allowable soil bearing capacity, as noted on the existing drawings, is 3000 pounds per square foot. Foundation walls are constructed of reinforced concrete masonry units. Perimeter foundations appear to have been placed at a bearing elevation of at least 2'-6" below grade for frost protection. The ground floor construction is a 4-inch thick slab on grade with a concrete strength of 3000 pounds per square inch.

Superstructure

The mezzanine level is framed with structural steel beams and steel joists supported by structural steel columns and CMU bearing walls. The floor construction of the mezzanine level is a concrete slab of varying thickness, on metal deck. The top of the mezzanine slab is 9 to 11 feet above the top of the ground level slab.

The main portion of the structure consists of a pre-engineered structural steel rigid frame, which clear spans to tapered columns. Steel rafter beams then frame to these rigid gable frames. The lower roofs at the perimeter portions of the building are framed with steel columns, CMU bearing walls, steel roof beams, and joists.

2.2.1.2 Existing PE Building

Foundations/Ground Floor Level

The foundations for the existing PE Building consist of reinforced concrete spread footings at column locations. Exterior foundation elements include continuous reinforced concrete wall footings that support cast in place concrete foundation, basement, and retaining walls and concrete grade beams that span between column footings. The allowable soil bearing capacity, as noted on the existing drawings, is 3000 pounds per square foot. Perimeter foundations appear to have been placed at a bearing elevation of at least 2'-6" below grade for frost protection. The ground floor construction is slab on grade of varying thickness, with a concrete strength of 3000 pounds per square inch.

2.1.2.2 Superstructure

The elevated floor at the cage level, adjacent to the gymnasium, is supported by precast-prestressed hollow core concrete plank. These planks bear on cast in place concrete walls and/or steel framing. The roof of this area is constructed of precast-prestressed double-T sections that span between CMU bearing walls.

The main roofs of the cage and of the gymnasium are constructed of steel long span joists supported by steel columns and girders.

2.2.1.3 Renovation and Expansion Issues and Goals

Given the age of the existing PE Building and the existing Fieldhouse, these buildings may not comply with seismic and/or wind requirements in IBC 2000, the current governing building code. These requirements must be satisfied if significant alterations or additions are made to the existing buildings and/or if the buildings' occupancy classifications change. Therefore, careful consideration should be made to the approach of the new construction. Expansion joints must be carefully placed to allow as much of the new construction to act independently from the existing structures. Select demolition of existing one story spaces may also be prudent to allow for the most economical construction of the new spaces.

The new expansion should also be designed to minimize additional snow build up on the existing buildings, which may warrant reinforcement of some existing structural members. Placement of mechanical units, new openings, and removals of existing facades will also need to be addressed. It is obvious from the scope of the additions and renovations that modifications and potential reinforcing of the existing structure cannot be completely avoided, however, new openings and modifications should also be carefully planned to minimize these impacts wherever possible.

It is premature to discuss the specific framing types proposed for all the new construction until the design has progressed. However, it is likely that most of the new construction will be framed with conventional steel framing. Some of the areas such as the basketball courts and volleyball courts will likely use a combination of long span joists and trusses to achieve the longer spans. The lateral systems will be designed specifically for each isolated section of the structure between expansion joints. It may be economical to use a combination of X-braced frames for the larger independent structures such as the basketball courts and volleyball courts and moment frames for the one and two story adjacent spaces to allow for flexibility.

Below are the estimated heating and cooling loads as well as the preliminary design options to serve the different additions and renovations.

2.2.2.1 PE Building (60,000 S.F. Existing)

The existing PE Building is served by two (2), 1965 & 1966 vintage, 6,294 MBH (Gross Input) Kewanee Boiler Corp., natural gas fired hot water boilers, which distribute 180^0F water to the building. The approximate output of the boilers is 5,000 MBH each. The majority of the building does not have cooling, although the multipurpose rooms, as well as some adjacent spaces, are served by a Direct Expansion (DX) packaged air-handling unit.

Renovations

The projected load to add cooling to the approximate 31,600 S.F. court area is 300 Tons with an additional 100 Tons to serve the approximate 25,000 S.F. of office space, locker rooms and miscellaneous support areas. The existing heating loads for these areas should remain unchanged.

Additions (68,000 S.F.)

The projected cooling load for the 27,000 S.F. Basketball and Volleyball courts, as well as the Jogging track is 280 Tons, and an additional 235 Tons to serve the 41,000 S.F. of offices, classrooms, locker rooms and miscellaneous areas. The projected heating load for the entire addition is 1,400 MBH.

It is anticipated that connecting the building to the central plant loop will NOT be feasible at the time the additions and renovations are being constructed. The projected 915 Tons of additional cooling capacity should be provided via a water-cooled centrifugal chiller(s). Another alternative would be multiple split system or packaged DX units, or an air-cooled chiller(s). These alternatives will be less energy efficient then water-cooled chillers.

The existing Heating Load, assuming no diversity, is 4942 MBH. One of the existing, 5000 MBH boilers can accommodate this load, with the remaining boiler being used for redundancy. Assuming complete boiler redundancy is a design requirement, the additional projected heating load (1,400 MBH) could be served by an additional boiler, or gas fired furnace sections in the rooftop air-handling units. It should also be noted that the boilers have exceeded their anticipated life expectancy. Replacement of the boilers with ones of greater capacity, in a more desirable location would be prudent at this time.

2.2.2.2 Fieldhouse (122,000 S.F. Existing)

The existing Field House is served by two (2), 10,042 MBH, CNB Trifuel, hot water boilers. The boilers are currently firing on natural gas. The track area of the building does not have cooling. The offices classrooms and majority of other rooms are served by multiple Direct Expansion (DX) split system air handling units.

Renovations (61,000 S.F.)

The projected load to add cooling to the existing 61,000 Square foot track area is 550 Tons. The heating load for the space should remain unchanged. Adding a cooling coil to the existing heating & ventilating unit (HV-4) would not be feasible due to space limitations. The alternatives include a duct mounted cooling coil(s) added to the existing ductwork, a supplemental cooling unit(s), or a combination of both. Preliminary calculations indicate a need for 50,000 to 60,000 total CFM's of cooling will be required to properly cool the space. The existing HV-4 is supplying 35,000 CFM's. It should also be noted that that existing AHU Room #3, which house Units HV-2, 4, 5A, and 5B provides limited access for unit maintenance. The anticipated life expectancy for an AHU is 20 to 25 years. These units are approaching the end of their service life, and replacement in the near future should be anticipated.

Additions

The projected cooling load for the 48,000 S.F. of office, education and support spaces is 275 Tons, with an additional 320 Tons to serve the 17,000 S.F. (2,500 Seat) Seating Venue. The projected heating load for the addition is 2,200 MBH.

The projected 1,145 Tons of additional cooling capacity should be provided via a water-cooled centrifugal chiller(s). Another alternative would be multiple split system or packaged DX units, or air cooled chillers. These alternatives will be less energy efficient then the water-cooled chillers.

The existing Heating Load, assuming no diversity, is 2250 MBH. One of the existing boilers can accommodate this load, with the remaining boiler being used for redundancy. Based on the information provided, the existing boiler plant can accommodate the existing and the anticipated future load (2,200 MBH), while still having a redundant boiler. It should also be noted that the boilers are approaching the end of their anticipated service life. Replacement of the boilers, in a more desirable location should be considered.

A master plan alternate includes a stand alone 60,000 S.F. (5,000 Seat) Venue, adjacent to the Field House. The projected cooling load for this building would be 750 Tons with a projected heating load of 6,300 MBH.

2.2.2.3 Patriot Center (181,000 S.F. Existing)

The existing Patriot Center heating and cooling service is via the central plant heating and cooling loop. The building has a 4" Hot Water Supply & Return service and an 8" (Approximate) Chilled Water Supply & Return service. The 350^0 F Hot water is passed through a heat exchanger, which then distributes 160^0 F water to the building.

Additions (17,000 S.F.)

The projected cooling load for the 17,000 S.F. Basketball Practice Court is 180 Tons. The projected heating load for the area is 450 MBH.

Further evaluation will be required to determine spare capacity remaining in the existing hot water and chilled water mains entering the building. Assuming there is no spare capacity, heating and cooling of the new addition will be provided via new connections to the central plant loop.

2.2.3.1 Applicable Codes

- 2000 International Building Code
- 2000 International Fire Code
- NFPA codes as referenced in the IBC and IFC

2.2.3.2 Fieldhouse PE Building Common

Building Code/Construction

From existing construction documentation on the Fieldhouse and the PE Center both facilities were considered as construction Type 2C (noncombustible unprotected) single story buildings, with mezzanines, of occupancy Group A-3 under The Virginia Uniform Statewide Building Code. The comparable construction type and occupancy classification under the 2000 edition of the International Building Code (IBC) are IIB and A-4 respectively. Similar to the provisions of the Virginia State Code, Section 507.2 of the IBC allows a one-story Group A-4 to be of unlimited area when 1) The building is provided with an automatic sprinkler system throughout; and 2) Is surrounded and adjoined by public ways or yards not less than 60 feet.

An exception allows the sprinklers to be omitted from the areas occupied for indoor participant sports for Group A-4 occupancies provided that 1) Exit doors directly to the outside are provided for occupants of the participant sports areas; and 2) The building is equipped with a fire alarm system with manual fire alarm boxes.

2.2.3.3 Fieldhouse

Fire Alarm

The Fieldhouse is provided with a Pyrotronics System 3 addressable automatic and manual fire alarm system. Initiating devices consist of single action manual pull stations located throughout the facility. Notification devices consist of horn/strobes located in throughout the facility and duct detectors. An alarm notification is transmitted to the campus security department through a Silent Knight auto-dialer system. Duct detectors are not provided in all of the AHU systems in the facility.

Fire Suppression

The Fieldhouse is provided with an automatic wet-pipe sprinkler system that provides protection for the portions of the facility that surround the central track area protection does not extend into the central track area. The system consists of a 6-inch alarm check valve and associated trim located in the electrical area on the eastern side of the facility, system piping, and sprinklers. All system control valves are provided with tamper switches. No hydraulic design information was posted or available for the system.

Recommendations

The new addition will be provided with a fire alarm system designed and installed in accordance with NFPA 72 requirements, initiation and notification devices will be located to comply with applicable ADA requirements. Due to the age of the existing fire alarm system it is recommended that the existing fire alarm panel be replaced with a state-of-the-art addressable panel and the initiation and notification devices should be replaced to match the devices installed in the addition. Additional devices will be required in the existing structure to meet ADA requirements.

Due to the floor area of the existing and planned addition to the facility the existing automatic wet-pipe sprinkler system cannot be extended into the addition. A new automatic wet-pipe designed and installed in accordance with the requirements of NFPA 13 will be provided for the addition. It is recommended that new concealed sprinklers be installed in any areas of the existing facility that are provided with new ceilings during the renovation.

2.2.3.4 PE Building

Fire Alarm

The PE Building is provided with a Simplex non-addressable automatic and manual fire alarm system. Initiating devices consist of single action manual pull stations located throughout the facility. Notification devices consist of audible bells located in strategic areas of the facility and fixed temperature heat detectors in specific rooms of the facility. An alarm notification is transmitted to the campus security department through a Silent Knight auto-dialer system. The system is connected to several electric releases for fire doors.

Fire Suppression

The PE Building is not currently protected by an automatic suppression system. No hydraulic information for the facility was available.

Recommendations

The new addition will be provided with a fire alarm system designed and installed in accordance with NFPA 72 requirements, initiation and notification devices will be located to comply with applicable ADA requirements. Due to the age of the existing fire alarm system it is recommended that the existing fire alarm panel be replaced with a state-of-the-art addressable panel and notification devices should be replaced to match the devices installed in the addition. Due to the lack of notification devices the existing bells should be removed and new devices installed in accordance with NFPA 72 and ADA requirements.

The addition and existing facility should be provided with an automatic wet-pipe system in accordance with the requirements of the IBC. Due to the combined size of the existing facility and planned addition a minimum of two sprinkler risers would be required to protect the facility. The systems would in designed and installed in accordance with NFPA 13.

2.2.4.1 Applicable Codes and Standards

Conform to the applicable requirements of the following standards, codes and regulations most current edition or publication, unless stated otherwise:

- National Electrical Code NFPA 70 (NEC), 2002 edition
- International Building Code, 2000 edition
- National Electrical Safety Code, ANSI C2
- National Electrical Manufacturer's Association (NEMA)
- Underwriter's Laboratories (UL)
- National Fire Protection Association (NFPA)
- Illumination Engineers Society (IES)
- Virginia Electric Power Company (VEPCO) Requirements

2.2.4.2 Executive Summary

The proposed scope of this master plan incorporates major renovations to the existing Fieldhouse (FH) and Physical Education (PE) buildings, addition of an outdoor pool to the existing Aquatic Center, addition of a two court basketball practice facility to the existing Patriot Center and numerous sport lighting additions and upgrades to several of the existing sports fields. It is the intent of this document to briefly describe the existing building and field conditions, and the proposed modernization and upgrades to these facilities in order to incorporate the proposed master plan recommendations.

A brief summary of the renovations and upgrades is below for quick reference:

Aquatic Center

- Maintain existing electrical distribution system and expand to incorporate new outdoor pool pumping and filtration equipment, lighting and miscellaneous support equipment. Present scope of renovations incorporates provisions for this addition.

5.2.2 Fieldhouse

- Demolish existing VEPCO secondary service, rated for 1200 amperes at 480/277-volt service.

- Demolish existing service entrance switchboard and associated panelboards, transformers, etc. due to age and proposed scope of renovations.
- Demolish existing diesel-driven emergency generator rated for 20 kW at 240/120-volt, single-phase and associated distribution equipment due to age and available capacity.
- Provide a new VEPCO secondary service and new pad mount transformer to the renovated Fieldhouse and administrative expansions.
- For the Fieldhouse, provide new service entrance rated switchboard rated for 3000 amperes at 480/277-volt due to incorporation of air conditioning and the proposed administration and seating expansions.
- Provide new electrical distribution throughout building to support renovations and expansion.
- Provide new emergency generator and associated emergency power distribution system to serve life-safety loads throughout new and renovated areas.
- Maintain and extend existing telecommunications services as required.
- For the stand-alone, 20,000 square-foot, 2,400 seat indoor venue, provide a new service entrance rated switchboard rated for 600 amperes at 480/277-volt.
- Illumination levels in the 20,000 square-foot venue will be based on IES category Class II – “College – under 5,000 spectators” achieving 75 footcandles.

Physical Education (PE) Building

- Demolish existing VEPCO secondary service, rated for 1200 amperes at 480/277-volt service and associated “emergency” power feeder from pad-mount transformer.
- Demolish existing service entrance switchboard and associated panelboards, transformers, etc. due to age and proposed scope of renovations.
- Maintain and extend existing telecommunications raceway to new location.
- Provide new VEPCO secondary service and new pad mount transformer to new main electrical room.

- Provide new service entrance rated switchboard, rated for 2500 amperes at 480/277-volt.
- Provide new electrical distribution throughout building to support renovations and expansion.
- Provide new emergency generator and associated emergency power distribution system to serve life-safety loads throughout new and renovated areas.
- Illumination levels in new basketball and track expansions will be based on Class III – "Recreational Use" achieving 50 footcandles.

Patriot Center – Practice Facility Expansion

- Provide electrical feeder(s) from existing switchboard in Patriot Center to serve the 17,000 square-foot basketball practice facility expansion. The projected demand load requirements for the expansion are approximately 250 amperes at 480/277 volt.
- Illumination levels in new basketball practice expansion will be based on Class II – "Varsity Practice Use" achieving 75 footcandles.

Outdoor Field Renovations and Upgrades

- Field P12 – Recreational Field - Provide new field illumination suitable for intramural soccer/football/field hockey lighting based on IES Class III – "Recreational Use" achieving 30 footcandles.
- Field P13 – Robinson Field – Demolish existing sports luminaires and associated poles and provide new field illumination suitable for soccer/football sports club and varsity lighting based on IES Class I – "College – 5,000 to 10,000 spectators" achieving 75 footcandles.
- Field P16 – Competition Tennis Courts - Provide new field illumination suitable for varsity tennis competition lighting based on IES Class II – "Sports Club – under 5,000 spectators" achieving 75 footcandles.
- Field P17 – Main Track/Field Facility – Demolish existing sports luminaires and associated poles and provide new field illumination suitable for competition track/field, soccer/football lighting based on IES Class I – "College – over 5,000 spectators" achieving 75 footcandles.

- Field P18 – Baseball Stadium - Provide new field illumination suitable for college baseball lighting based on IES Class II – "College – under 5,000 spectators" achieving 100 footcandles in the in-field and 70 footcandles in the outfield.
- Field P19 - Recreational Outdoor Field #1 - Provide new field illumination suitable for intramural soccer/football practice lighting based on IES Class III – "Recreational Use" achieving 30 footcandles.
- Field P22 - Recreational Outdoor Field #5 - Provide new field illumination suitable for intramural soccer/football practice lighting based on IES Class III – "Recreational Use" achieving 30 footcandles.

2.2.4.3 Analysis of Existing Conditions and Impact of Proposed Expansions and Renovations

The buildings covered under the scope of this report include the Aquatic Center, Fieldhouse, Physical Education (PE) Building and the Patriot Center.

Under the scope of this master plan, the impact of the proposed renovations to the existing building electrical distribution and telecommunications systems will be discussed herein. Refer to the architectural, fire-protection and mechanical portions of this report for a detailed description of the modifications to these aspects of the buildings.

Aquatic Center

Analysis of Existing Conditions

The existing Aquatic Center is presently served with 480/277 volt, three-phase secondary utilization voltage via an existing exterior pad-mount transformer provided by VEPCO. The secondary service conductors from the utility pad-mount transformer terminate into an existing switchboard, which distributes power to the mechanical, lighting and power systems located throughout the facility.

The building is presently under renovation and per the university, the renovations are incorporating expansion space in the electrical distribution system to serve the future exterior pool and associated amenities.

Proposed Expansions and Renovations

The proposed expansions to the existing Aquatic Center under the scope of this mater plan are limited to the incorporation of a new outdoor pool and associated support spaces. Per the Owner, the Aquatic Center is presently undergoing renovations and expansion capacity is incorporated into the present project for the future outdoor pool.

Therefore, power to the pool pumping systems, lighting and associated branch circuit support systems will originate from the existing center's electrical distribution system.

Similarly, new telecommunication system devices to support the outdoor pool area will originate from the existing center's telecommunication systems.

Fieldhouse

Analysis of Existing Conditions

The existing Fieldhouse is served with secondary, utilization voltage from an existing VEPCO pad-mount transformer located on the south side of the building, adjacent to Ox Road, Route 123. The secondary, 480/277-volt, three-phase service conductors terminate into an existing 1200-ampere, 480/277-volt switchboard located in the first floor main electrical room. The existing switchboard is manufactured by the Square D Company, Power-R-Style model and is approximately 20 years old. The secondary distribution of this switchboard consists of six (6) fusible disconnect switches serving two (2) motor control centers, two (2) distribution panels, dryer unit and panel HT (electric heat mat). The switchboard does not have a main circuit breaker and, per the NEC Article 230.71, cannot be expanded due to existing six (6) disconnect switches. The secondary utility meter and current transformers are mounted adjacent to this switchboard, in the main electrical room.

As previously mentioned, the main switchboard distributes 480/277-volt power to two (2) distribution panels. Distribution panel "HPA" is located in the main electrical room adjacent to the main switchboard and serves appliance and lighting loads located throughout the southern half of the building on both the first and second floors. Distribution panel "HPB" is located on the north side of the building, in the second floor electrical room. Similarly, distribution panel "HPB" serves both appliance and lighting loads located along the north side of the building. These panels appear to have been installed under the original building construction project and are approximately 20 years old.

Motor control center MCC-1 is located in the storage room adjacent to the main electrical room and serves ventilation fans, pumps, miscellaneous condensing units and air handlers located on the south side of the building. This motor control center is manufactured by the Square D Company, Model 4, and is rated for 600-amperes at 480-volts, three-phase. There appear to be 4 spaces available in the existing motor control center for future expansion. This unit appears to have been provided under the base building project.

Motor control center MCC-2 is located in the first floor mechanical room on the north side of the building and serves the two boiler units, associated pumps, ventilation and exhaust fans, and other mechanical equipment. Similar to MCC-1, this motor control center is also manufactured by the Square D Company and has the same electrical characteristics as MCC-1. There does not appear to be any available spare starters or space to handle future equipment.

A dedicated 100-ampere feeder originating in the main electrical room presently serves the existing exterior field press box, scoreboard and irrigation system. An existing electrical handhole was identified between the Fieldhouse and the bleachers for this feeder.

Emergency/standby power for the Fieldhouse is derived from a diesel-driven prime mover located in a non-walk-in weatherproof enclosure located adjacent to the main electrical room. The generator is manufactured by Kohler, is rated for 20 kW/ 25 kVA at a distribution voltage of 240/120-volt, single-phase and serves a dedicated life-safety automatic transfer switch located in the main electrical room. The transfer switch is rated for 104 amperes at 240/120-volt, single-phase and serves a dedicated emergency power panel. Emergency loads served by this panel are primarily egress and exit luminaires.

Illumination within the main track area is accomplished via the use of pendant mounted high intensity discharge (HID) luminaires mounted on a 30-foot grid spacing and use 400-watt metal-halide lamps. Per the Owner, the illumination level achieved throughout the floor area is approximately 60 footcandles.

Fluorescent luminaires provide lighting throughout the administrative, locker and associated support offices.

Lighting controls for the main track area is accomplished via the use of lighting contactors and remote switches. Lighting within the administrative and support spaces utilize local switching.

Telecommunication services appear to originate from the utility underground ductbank system and are extended into the Fieldhouse from a manhole located between the building and the outdoor track. Presently, the Owner is completing the installation of new underground ductbanks underneath Ox Road (Route 123) to connect the main campus and the Fieldhouse.

The existing mechanical systems for the building provide heating and ventilation only. Air conditioning for the administrative offices is accomplished via the use of dedicated split-systems. In most cases, the air handler is located above the ceiling and the condenser is located on grade, adjacent to the building.

Illumination for the adjacent outdoor track and sport field is derived from a series of standard sports luminaires mounted to steel poles located along the perimeter of the track. Electrical service for the field lighting originates in a dedicated pad-mount VEPCO transformer located adjacent to the existing field maintenance shop. This pad-mounted transformer serves dedicated electrical distribution equipment, which in turn, serves the field lighting.

Emergency/egress illumination for the bleachers and public areas originates in a dedicated diesel-driven prime mover located adjacent to the VEPCO transformer. The emergency generator has an integral automatic transfer switch and electrical panel, which distributes emergency power to aisle lighting throughout public areas. In addition, the emergency generator serves

dedicated 1000-watt quartz luminaires mounted beneath the sports lighters to provide minimal illumination throughout the in field.

Proposed Expansions and Renovations

Expansion and renovations to the existing Fieldhouse include renovation of the existing administrative and support areas surrounding the running track. Also, the scope of these renovations includes providing air conditioning to the entire facility.

Based on the preliminary HVAC system requirements, the existing building electrical service is insufficient to handle the mechanical system requirements. In addition, the proposed expansion of the existing building by approximately 42,000 square-feet will require additional power, which does not appear to be available from the existing electrical service.

Therefore, based on the proposed facility expansions and renovations, a new secondary utility service from VEPCO is recommended to serve the renovated facility. This new service is proposed to be rated for 3000 amperes at a distribution voltage of 480/277-volts and will serve the new mechanical systems, lighting and appliance loads located throughout the facility. The new secondary service is proposed to feed a service-entrance rated switchboard to be located in a new main electrical room within the building expansion. In addition, the new switchboard may re-feed the existing building distribution equipment, however, this depends upon the final scope of the proposed renovations.

Due to the expansion of the existing facility, the existing emergency generator will be insufficient to handle the growth of the life-safety loads for the building. Thus, it is proposed that a new diesel-driven emergency generator located in a non-walk-in enclosure be provided for the renovated building. It is proposed that the new generator serve a new emergency distribution system that may consist of a new automatic transfer switch, distribution panel and branch circuit panels. The typical loads that will be served by this system are anticipated to be emergency/egress lighting, the fire alarm system and other life-safety type loads.

Telecommunication services are presently derived from the existing utility manhole system. Per the Owner, the campus telecommunication infrastructure ductbank system will be expanded underneath Ox Road (Rt. 123) towards the west end of the campus. Therefore, it is proposed that a new underground ductbank system be provided for expansion of the campus telecommunication system into the renovated Fieldhouse.

Under the scope of these proposed renovations, the existing field lighting system will be upgraded to meet the latest standards for field illumination as determined by the Illumination Engineers Society (IES) for NCAA track and field events. The renovated field will require an illumination level suitable for competition track/field, and soccer/football lighting based on IES Class I – “College – over 5,000 spectators” achieving an average maintained lighting level of 75 footcandles on the field and track. In order to accomplish this level of illumination, it is recommended that high intensity discharge (HID) luminaires

specifically designed for sports lighting be mounted to new poles strategically located around the perimeter of the track. These luminaires will use 1500-watt metal halide lamps and be group mounted on the new poles.

The proposed renovation to the existing field lighting may require the replacement of the existing VEPCO service with a larger service as required. More information will be necessary to determine the impact of the lighting renovation on the existing utility service.

Power to the proposed amenities expansions, which may include food services, restroom facilities and support spaces, may originate from either the Fieldhouse or field lighting electrical distribution systems.

Under the master plan, a new stand-alone, 30,000 square-foot, 2,400 seat indoor venue is proposed to be located adjacent to the existing Fieldhouse. Based on the air conditioning, electrical and lighting requirements for this facility, it is recommended that a dedicated secondary utility service be provided for this building. A new VEPCO pad-mount transformer is proposed to be located adjacent to the new building and serve a service-entrance rated switchboard located in a main electrical room on the first floor of the new venue. This switchboard is proposed to be rated for 1600 amperes at 480/277-volt, three phase and serve air conditioning, heating, plumbing, lighting and appliance loads located throughout the venue.

Illumination criteria for this facility requires lighting levels suitable for competition volleyball and wrestling, IES category Class II – "College – under 5,000 spectators" achieving an average illumination level of 75 footcandles. Illumination within the new venue will be accomplished via the use of pendant mounted, high intensity discharge (HID) high-bay luminaires utilizing 1,000-watt metal-halide lamps.

Physical Education Building

Analysis of Existing Conditions

Similar to the Fieldhouse, the Physical Education building is served with secondary utility power from a dedicated, pad-mount transformer located on the landscaped area adjacent to the main electrical/mechanical room. The secondary feeder conductors use a series of underground conduits and terminate into an existing Similar to the Fieldhouse; the Physical Education building is served with secondary utility power from a dedicated, pad-mount transformer located on the landscaped area adjacent to the main electrical/mechanical room. The secondary feeder conductors use a series of underground conduits and terminate into an existing service entrance rated switchboard located in the corner of the electrical/mechanical room.

The main switchboard is rated for 1200 amperes at a distribution voltage of 480/277-volts, three-phase and serves numerous motor control centers, distribution panels and lighting panels located throughout the building. The switchboard has a 1200-

ampere main circuit breaker and one (1) space for a future feeder device. However, the switchboard is approximately 20 years old and nearing the end of its serviceable life.

Existing temporary trailers are located adjacent to the main building and house classrooms and administrative support spaces. Electrical service for these trailers is derived from a dedicated VEPCO pad mount transformer located opposite the Physical Education building service.

Emergency power for the building originates in a second "main circuit breaker" located in the main service entrance switchboard. The 100-ampere, three-pole circuit breaker is "tapped" ahead of the main circuit breaker and provides utility power to the building's fire alarm system and a dedicated panel "EM" located in the support spaces adjacent to the main basketball gym. This panel provides "emergency" power to strategically located luminaires in the main basketball gym and to several emergency battery pack units located throughout the building.

Illumination within the main basketball gym is accomplished with strategically located high intensity discharge (HID) luminaires utilizing 400-watt metal halide lamps. Control of these luminaires is accomplished via the use of dedicated lighting contactors.

Illumination in the general sports gym utilizes similar luminaires, however, the spacing of these luminaires appears to be greater than the layout in the basketball gym, suggesting a lower level of illumination.

Lighting within the administrative, locker and support spaces utilize standard fluorescent luminaires with either acrylic or parabolic lenses. In addition, many of these luminaires utilize standard T-12 fluorescent lamps and, most likely, magnetic ballasts.

Most of the existing building is equipped with mechanical systems that provide heating and ventilation only. With the exception of the second floor administrative and meeting rooms, most of the building does not have air conditioning available.

Telecommunication services for the building originate from the campus underground ductbank system and are extended via three (3) 4-inch underground conduits to the electrical/mechanical room. Two (2) of these conduits are extended overhead through this room and continue onto an existing termination location within the building. One of the conduits has telecommunication services, which appear to consist of both fiber optic and multi-pair copper cables. The other conduit is spare and equipped with a pullcord for future use.

Robinson Field is located adjacent to the Physical Education building and is used as a practice and game facility for club football and intramural sports. Electric service to the field for power to support lighting, scoreboard and the up-link communications module are derived from the PE building. A dedicated, exterior panelboard rated for 400 amperes at

208/120 volt, is located adjacent to the field and is mounted in a NEMA 3R weatherproof enclosure. Field lighting is controlled via a locally mounted mechanical time clock and lighting contactor.

Per the Owner, the existing sports lighters were "salvaged" from a local prison and are in poor condition. These luminaires are presently mounted on wood poles, which are deteriorating and are no longer in their original, aimed position. In addition, the Owner stated that the luminaire supports are failing and, on several occasions, luminaires have fallen from their supports.

Proposed Expansions and Renovations

Expansion and renovations to the existing PE building include renovation of the existing administrative and support areas, locker rooms and gymnasiums. Also, the scope of these renovations include two (2) new indoor recreational basketball/volleyball courts, jogging track, weight and fitness center and racquetball courts. In addition, the scope of the renovations incorporates air conditioning to the existing and new portions of the facility.

Based on the preliminary HVAC system requirements, the existing building electrical service is insufficient to handle the mechanical system requirements. In addition, the proposed expansion of the existing building by approximately 68,000 square-feet will require additional power, which does not appear to be available from the existing secondary utility electrical service.

Therefore, based on the proposed facility expansions and renovations, a new secondary utility service from VEPCO is recommended to serve the renovated building. This new service is proposed to be rated for 2500 amperes at a distribution voltage of 480/277-volts and will serve the new mechanical systems and lighting and appliance loads located throughout the facility. The new secondary service is proposed to feed a service-entrance rated switchboard, which may be located in a new main electrical room within the building expansion. In addition, the new switchboard will serve new distribution equipment to support the renovated areas within the building.

Due to the expansion of the existing facility, it is recommended that the life-safety and other essential building loads be served with emergency power from a dedicated emergency generator. Therefore, it is proposed that a new diesel-driven emergency generator located in a non-walk-in enclosure be provided for the renovated building. This generator may serve a new emergency distribution system that may consist of a new automatic transfer switch, distribution panel and branch circuit panels. The typical loads that will be served by this system are anticipated to be emergency/egress lighting, the fire alarm system and other life-safety type loads.

Illumination within the new basketball and track expansions will be accomplished via the use of pendant mounted, high intensity discharge (HID) high-bay luminaires utilizing 1,000-watt metal-halide lamps. The illumination levels will be based on

IES Category Class III – "Recreational Use" achieving an average maintained level of 50 footcandles throughout the court areas.

Telecommunication services are presently derived from the existing campus telecommunication ductbank and manhole system. The existing conduits terminate in the electrical/mechanical room and are extended into the second floor office area of the building. These conduits were recently installed and appear to have sufficient space for future system cabling. Thus, it is recommended that these conduits remain and be modified as required to support the proposed building expansion/renovation.

Under the scope of these proposed renovations, existing Robinson's field, field P13, lighting system will be upgraded to meet the latest standards for field illumination as determined by the Illumination Engineers Society (IES) for NCAA track and field events. The renovated field will require an illumination level suitable for soccer/football sports club and varsity lighting based on IES Class I – "College –5,000 to 10,000 spectators" achieving an average maintained lighting level of 75 footcandles on the field. In order to accomplish this level of illumination, it is recommended that high intensity discharge (HID) luminaires specifically designed for sports lighting be mounted to new poles strategically located around the perimeter of the field. These luminaires will use 1500-watt metal halide lamps and be group mounted on the new poles.

The proposed renovation to the existing field lighting will require the replacement of the existing weatherproof 400 ampere, 208/120-volt distribution panel with a larger service as required. It is proposed that the new field lighting be served from the PE building electrical distribution system via a new pad mount distribution center consisting of a 480/277-volt distribution panel, step-down transformer and 208/120-volt appliance panel all mounted within a NEMA 3R, weatherproof enclosure. This distribution center will also serve the existing scoreboard, press box and communications transmitter. However, more information will be necessary to determine the impact of the field lighting renovation on the revised building service.

Patriot Center

Analysis of Existing Conditions

The existing Patriot Center is the main basketball and sports venue for the campus. The existing electrical distribution system for the facility originates from the campus utility primary loop system and terminates in a dedicated utility pad-mount transformer located adjacent to the building's loading dock. The secondary conductors terminate into a service entrance rated switchboard located in the main electrical room. This switchboard is rated for 2000 amperes at 480/277-volts, three-phase and distributes power throughout the facility. Based on the survey information, this switchboard appears to have numerous available spare/space feeder buckets for future electrical loads.

Emergency power for the center originates in a non-walk-in type, diesel-driven emergency generator located adjacent to the VEPCO pad-mount transformer. This generator serves a dedicated automatic transfer switch, which, in turn, serves the center's life-safety loads.

Telecommunication services for the center were not observed during the walk-through.

Proposed Expansions and Renovations

The proposed 17,000 square-foot addition to the Patriot Center will incorporate a two (2) new practice basketball courts suitable for varsity practice and will require "varsity practice" level illumination and air conditioning. Based on the existing electrical demand load information, it appears that the existing 2000-ampere, 480/277-volt secondary utility service will be capable of serving this expansion. Therefore, it is proposed that new electrical feeders originate in the existing Patriot Center switchboard and terminate in new distribution equipment located in the building expansion. These panels will serve the proposed lighting, HVAC and power systems as required to serve the building program.

Emergency power for the existing Patriot Center originates in an outdoor diesel-driven emergency generator. Based on discussions with the Owner, it appears that this generator has sufficient capacity to serve the life-safety loads in the proposed building expansion. Thus, it is proposed that a new emergency power feeder, originating in the Patriot Center emergency distribution equipment, be terminated into a new emergency power panel located in the expansion. This panel will serve emergency/egress lighting, the fire alarm system expansion and other life-safety loads.

Illumination levels for the new basketball expansion will be based on the Illumination Engineers Society (IES) for a Class I – "Varsity Practice Use" facility achieving an average maintained horizontal illumination level of 100± footcandles. In order to accomplish this level of illumination, it is recommended that high intensity discharge (HID) luminaires specifically designed for sports lighting be strategically pendant mounted below the structure above. These luminaires may be surface mount, high-bay type fixtures utilizing 1000-watt metal-halide sources achieving the recommended lighting level.

<u>Field Renovations and Upgrades</u>

New recreational field P12 is proposed to be located adjacent to the PE building and will be used for intramural soccer/football/field hockey. Therefore, the illumination level for the field will be based on IES Class III – "Recreational Use" achieving an average maintained horizontal illumination level of 30 footcandles on the field. In order to accomplish this level of illumination, it is recommended that high intensity discharge (HID) luminaires specifically designed for sports lighting be mounted to new poles strategically located around the perimeter of the field. These luminaires will use 1500-watt metal halide lamps and be group mounted on the new poles surrounding the field. It is proposed that a new secondary utility service from VEPCO be provided to serve the new field lighting. In addition to the utility pad-mount transformer, a new

distribution panel and lighting controls are proposed to serve and control the new field lighting. These devices may be installed within a weatherproof enclosure and installed adjacent to the field.

New varsity competition tennis courts, field P16, is proposed to be located adjacent to the Fieldhouse. The lighting category for these types of tennis courts is based on IES Class II – "Sports Club – under 5,000 spectators" achieving an average maintained illumination level of 75 footcandles. It is recommended that sports lighting luminaires utilizing 1,000-watt metal-halide lamp sources be group mounted on 50-foot poles, strategically located around and within the tennis courts. In order to provide power to these remotely located courts, it is proposed that a new secondary utility service from VEPCO be provided to serve the new court lighting. It is recommended that similar outdoor rated lighting control and power distribution equipment be provided for the court lighting system.

The existing varsity baseball field, field P18, will be reconfigured under the scope of the proposed renovations. Thus, new field illumination suitable for varsity baseball lighting will be provided based on IES category Class II – "College – under 5,000 spectators". The resultant average maintained illumination levels will achieve 100 footcandles in the in field and 70 footcandles in the outfield. In order to accomplish these levels of illumination, it is recommended that high intensity discharge (HID) luminaires specifically designed for sports lighting be mounted to new poles strategically located around the perimeter of the field. These luminaires will use 1500-watt metal halide lamps and be group mounted on the new poles. It is proposed that a new secondary utility service from VEPCO be provided to serve the new field lighting. In addition to the utility pad-mount transformer, a new distribution panel and lighting controls are proposed to serve and control the new field lighting, as well as provide power to the proposed concessions and restroom facilitates. These devices may be installed within a weatherproof enclosure and installed adjacent to the field.

New remote recreational fields, fields P19 and P22, are proposed to be located west of the Fieldhouse and will be used for intramural soccer and football. Therefore, the illumination level for the field will be based on IES Class III – "Recreational Use" achieving an average maintained horizontal illumination level of 30 footcandles on the field. In order to accomplish this level of illumination, it is recommended that high intensity discharge (HID) luminaires specifically designed for sports lighting be mounted to new poles strategically located around the perimeter of the each of these fields. These luminaires will use 1500-watt metal halide lamps and be group mounted on the new poles surrounding the field. It is proposed new secondary utility services from VEPCO be provided to serve the new field lighting at each field. In addition to the utility pad-mount transformer, a new distribution panel and lighting controls are proposed to serve and control the new field lighting. These devices may be installed within a weatherproof enclosure and installed adjacent to each field.

Lighting controls for the recreational and varsity fields may consist of either simple lighting contactor and time clock configurations or remotely controlled, wireless systems. The level of complexity and controllability requires further discussion with the University.