

THE NEW CENTURY AT ELON UNIVERSITY

CAMPUS PLAN FOR THE SECOND DECADE

2010-2020



FACILITIES MASTER PLAN COMMITTEE

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REPORT ORGANIZATION

- Section A: **Introduction**
describes the background, goals, objectives and planning process
- Section B: **Executive Summary**
summarizes the general planning strategies of the Master Plan
- Section C: **Priorities**
develops a planning matrix which prioritizes the projects that address the general planning strategies
- Section D: **Master Plan**
presents in graphic format an overall master plan for the college site and an existing campus plan and an aerial map relating the campus to the proposed bypass

Specific Topics (Section E through P)-

- Section E: Residential Life
- Section F: Journalism and Mass Communications Department
- Section G: Education Department
- Section H: Recreation
- Section I: Arts & Sciences
- Section J: Technology
- Section K: Support Facilities
- Section L: Future Convocation Center
- Section M: Athletics
- Section O: Relationships of Elon University to the Town
- Section P: Related Issues addressing parking, landscaping and general site improvements
- Appendix Q: Classroom and Class Lab Utilization Study
- Appendix R: Elon Buildings Listing

SECTION A: INTRODUCTION

BACKGROUND

The last master plan update by Spillman Farmer Architects was in 2000. Some of the goals and recommendations from that plan were the following:

- Improve the relationship to the downtown area; develop further academic village 1
- develop the academic village 2 with a new business school, housing and dining
- locate a future convocation center; create significant entries to the campus
- maintain sophomore housing
- maintain an intimate campus feel
- seek to acquire strategic property
- enhance the commitment to campus green space
- provide contextual architectural aesthetic
- new athletics programs to be considered

During the past 10 years, the university's facilities have grown consistently from approximately 1.3 m gross square feet to 1.9m gross square feet. Enrollment has increased from 4000 full-time students to 5709 in the fall semester of 2010, with corresponding increases in facilities and staff. Residential housing now provides beds for 2874 students, and older residences have been upgraded. From 1999, the campus acreage has increased from 502 acres to 608 acres.

The purpose of The New Century at Elon, Campus Plan for the Second Decade is to address the new strategic objectives of the university.

STRATEGIC GOALS AND OBJECTIVES

The Elon strategic plan adopted by Elon University's board of trustees includes several Elon commitment themes. These themes include:

- An unprecedented University commitment to diversity and global engagement
- Supporting a world-class faculty and staff
- Attaining the highest levels of achievement across the academic programs
- Launching strategic and innovative pathways in undergraduate and graduate education
- Stewarding Elon's commitment to remain a best-value university
- Developing innovative alumni programs to advance and support the Elon graduate
- Establishing a national tournament tradition of athletics along with the highest academic standards for Phoenix athletics
- Significantly enhancing Elon's campus with premier new academic and residential facilities and a commitment to protecting our environment

As indicated by this last theme, this campus master plan addresses the needs, quality and scope of these facility improvements and expansion. The strategic plan includes:

- a \$250 million construction plan that will dramatically expand residences
- building an additional 1600 beds to allow more students to live on campus in innovative housing communities
- building a 5,000-seat convocation center
- building a 1,500-seat auditorium
- expanding academic facilities for science and communications
- building a multi-faith center
- promoting retail development in the Town of Elon
- implementing a host of environmental sustainability initiatives.

Other on-going planning goals that are considered in this master plan are:

- Elon will continue to grow slowly, but not at the expense of academic quality.
- The campus will maintain an intimate feel; students and learning will remain at the center of all the university does.
- Elon will always seek to acquire strategically located property.
- The university and the town will develop a common approach for vehicle and pedestrian traffic, signage, landscaping and community aesthetics.
- The university will further enhance the commitment to campus green space, expand upon the pedestrian nature of the campus and locate parking to the periphery as is possible.
- Provide a scale and design on future facilities that blend with the campus architectural aesthetic.

PROCESS

A primary objective was to involve the entire campus community in the planning process. The campus planning team spent 2 days on 3 separate instances on campus during the fall of 2009. A conference room in one of the pavilions in Academic Village 1 became a base of operations for all-day charettes where conceptual plans, alternatives and comment sheets for specific proposals were kept on display. A 3D campus model was also displayed for better graphic communication of campus development concepts. An open forum was conducted for the campus community in the digital theatre of the Koury Business Center. This was videotaped and planners and administration fielded a variety of questions. Students, faculty, and staff were encouraged to meet with the planners at any time, and special meetings were held with students and special interest groups. During each campus week, a progress meeting was held with the Facilities Master Plan Committee. Separate progress reports were made to the faculty, the administrative staff, and the Board of Trustees.

Dot diagram exercises were utilized to solicit stakeholders' perceptions of the positive and negative qualities of the campus. Their comments were then recorded and reviewed with the planning committee. Two of these dot diagrams are shown. The red dots represent negative opinions of the campus, facilities, site, etc. and the green dots represent positive opinions of the campus. Stakeholders from across the community were engaged in this exercise. Of note is the convergence of opinion on several aspects of the campus: e.g., the stakeholders did not like the North Area residential housing or the Koury Athletics Center, but really liked the stadium, the fountain at Alamance, the Koury Business School and Colonades Dining Hall, and the Academic Village with the Lindner Building. The dot diagrams graphically depict the general views of the stakeholders and provide a point of departure for discussion about why they felt the way they did about varying aspects of the campus.

When general consensus of the planning board was achieved, a projects planning matrix was developed to assist in prioritizing and sequencing elements of the plan and design concepts were refined. The draft report was presented to the Facilities Master Plan Committee in January 2009 and to the Board of Trustees in March 2010. Since then, new issues have arisen such as Physical Therapy & Physician's Assistant programs, and have been incorporated into the Master Plan.

This Campus Plan is intended to be a working document, presented in loose-leaf format, so that the plan can be expanded and modified as conditions change.



negatives & positives dot diagram from student leaders' forum



negatives & positives dot diagram from campus open forum

EXECUTIVE SUMMARY

The New Century at Elon University, Campus Plan for the Second Decade is a vision for a maturing campus that will build upon the success of the last decade and meet the new strategic goals of the college as outlined under Goals and Objectives. During the on-campus study, the campus community clearly indicated that physical improvements to the campus should address these general attributes:

- Ensure the centrality of the liberal arts curriculum
- Integrate technology throughout the entire undergraduate program
- Promote interactive, collaborative learning
- Connect knowledge attainment with the entire student life experience
- Continue to enhance a spacious and beautiful landscaped setting
- Maintain the pedestrian nature of the campus
- Preserve and renew existing historic buildings and build new complementary architecture
- Develop a meaningful physical relationship to the Town of Elon

This section summarizes the general planning strategies that evolved during the planning process and are basic to the Campus Plan. Each subject is detailed under the corresponding section in the report.

E: RESIDENTIAL LIFE

- a) Expand housing at the Koury Business Center and Colonnades area by 300 beds
- b) Expand Greek housing at the Loy Center by 64 beds.
- c) Replace the Story and Harper Center (North Area) with new housing for 600 beds; a new signature anchor building on the lake for student services with a Great Hall community space. Provide general purpose classrooms and faculty offices integrated into the new complex.
- d) Continue refurbishing of older residence halls.
- e) Create more "informal interactive" spaces on campus. Consider an addition to Danieley Commons.
- f) Improve the Lodge property for student activities.
- g) Develop replacement and new housing at Danieley Center.
- h) Add housing at Fire Fields.
- i) Expand housing east of the tennis courts
- j) Add parking to accommodate new housing and to offset lost parking from the campus interior.

F: JOURNALISM AND MASS COMMUNICATIONS

- a) Consider renovating and adding to the existing JMC /McEwen building or provide a new state-of-the-art facility elsewhere on campus

G: EDUCATION DEPARTMENT

- a) Review alternatives for providing a technology-rich academic facility for the Education Department: extensively renovate Mooney or move to a vacated JMC/McEwen building and renovate as is appropriate.

H: RECREATION

- a) Add lighting to recreation fields.
- b) Identify potential sites for new recreation fields for softball & soccer.
- c) Create jogging trail around Danieley Center
- d) Expand aquatic facilities.

- I. ARTS & SCIENCES
 - a) Study the location for a new large capacity auditorium
 - b) Consider an addition to the Center for the Arts (CFA) to meet the expanded needs of music, art and dance.
 - c) Consider a theatre addition to CFA or the Francis Center for theatre support.
 - d) Relocate PT from McMichael Science Building to make space for undergraduate science programs
- J. TECHNOLOGY
 - a) Study the consolidation of IT functions into one facility
 - b) Continue to provide state of the art technology for existing and new facilities
- K. SUPPORT FACILITIES
 - a) Study the academic village site for a new Multi Faith Center
 - b) Study expansion of admissions with renovations and/or new construction.
 - c) Add 1,000 parking spaces to accommodate new housing and to offset lost parking from the campus interior.
 - d) Build a 1,500-seat auditorium
- L. FUTURE CONVOCATION CENTER
 - a) Potential uses of a 5,000 seat convocation center:
 1. Convocation and campus-wide events
 2. Graduation
 3. Basketball and sports tournaments
 4. Ice rink (provides extra length for floor events)
 5. Large scale concerts
 6. Community events
 - b) The center could be used for athletic offices and the dance program.
 - c) Share parking with stadium.
- M. ATHLETICS
 - a) Build a new softball stadium and associated parking on the west side of Williamson Avenue
 - b) Move athletic staff from the Koury Athletic Center to the Stadium Alumni Field House, which creates space for undergraduate faculty offices and classrooms.
- O. RELATIONSHIP OF ELON UNIVERSITY TO THE TOWN
 - a) Develop a cooperative plan for downtown improvements to include a pedestrian mall, town circle, uniform lighting and site developments that enhance the four block core area. Encourage development of shops, restaurants and service facilities that cater to student needs.
 - b) Closely monitor housing development to be attractive to off-campus living for students, graduate students and faculty

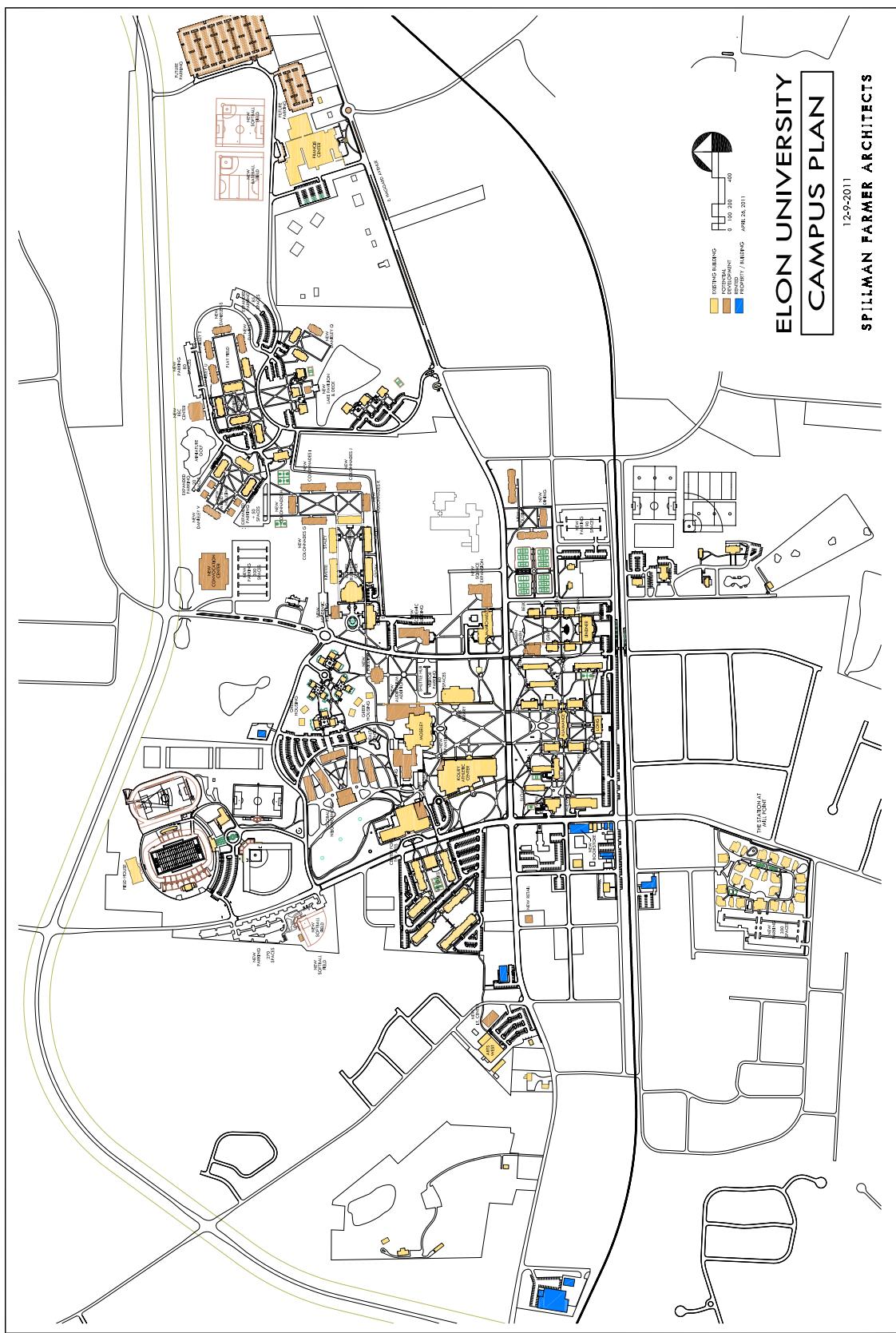
PRIORITIES

SEQUENTIAL TEN-YEAR PHASING FOR SPECIFIC CAPITAL PROJECTS

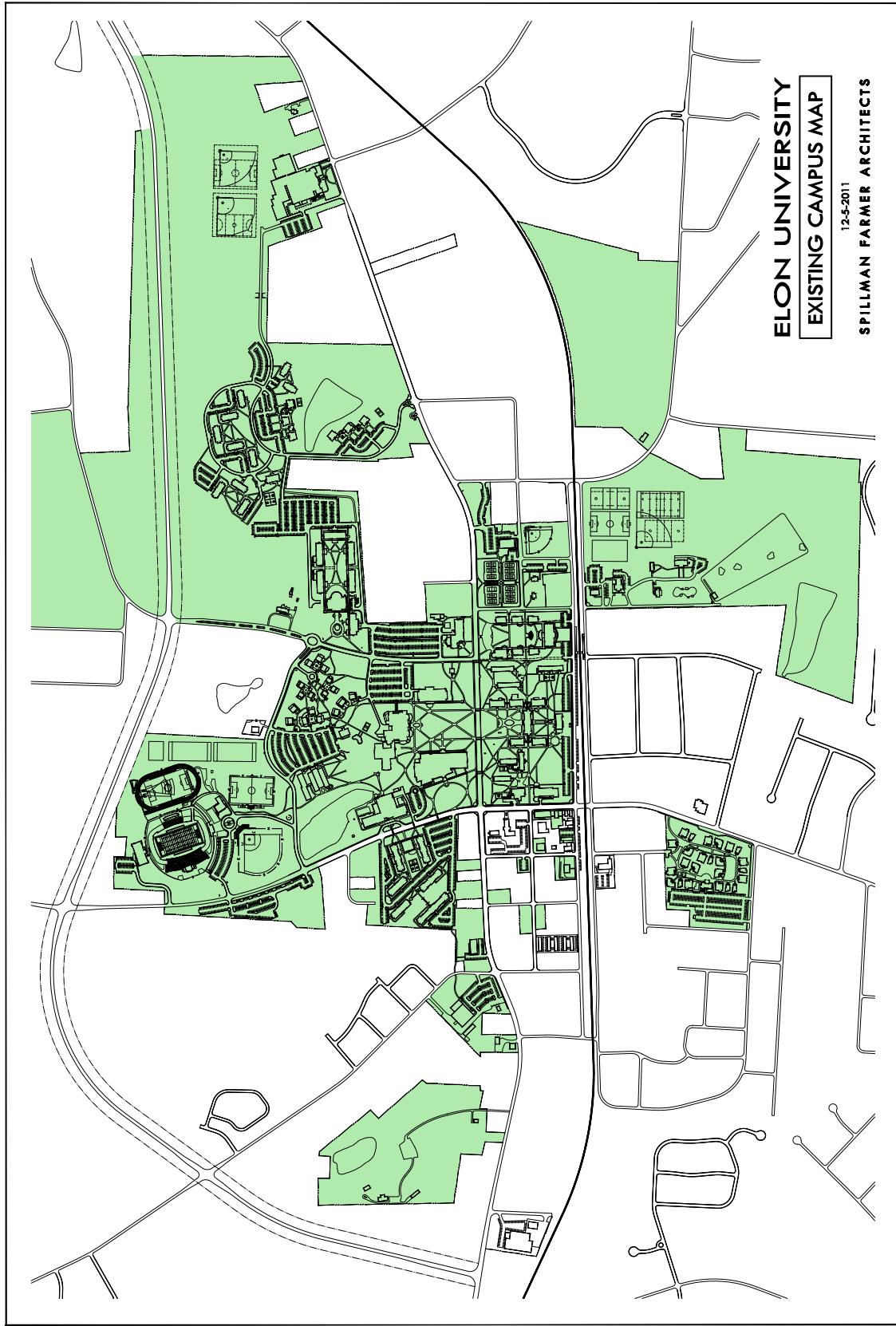
	PHASE ONE	PHASE TWO	PHASE THREE	PHASE FOUR	PHASE FIVE
RESIDENTIAL LIFE					
1. The Station Housing at Mill Point	Construct new buildings				
2. Global Dining Hall	Build new dining hall attached to Moseley				
3. Global Neighborhood Housing	Construct the Global Neighborhood				
4. Danielly Center	Start the development of infrastructure for additional housing and recreation	Build new housing	Build new recreation/fitness center	Build new housing and lake pavilion	Build new housing
5. New housing east of tennis Complex	Start first phase construction	Start second phase construction		Build phase one of new complex	Build phase two of complex, including dining services
6. Colonnades F, G, H & I					Construction phase one: two buildings
ACADEMICS					
1. Communications	Plan and build new Center for Journalism and Communications				
2. Education		Renovate McEwen			
3. College of Health Sciences	Renovate 1st floor Francis Center for PT and PA programs	Renovate 1st floor McMichael for undergraduate			
4. Center for Arts	Feasibility study for expansion		Build new addition		
5. Theater/Dance		Renovate Francis Center for rehearsal, black box and dance			
ATHLETICS					
1. New convocation center	Plan for new convocation center	Build new convocation center			
2. Softball Stadium	build new stadium				
3. Relocate Athletic Staff	build new field house at stadium				
RECREATION					
1. Light recreation fields		install lights			
2. Jogging trail	build trail				
3. Aquatics Center			Expand aquatics center		
TECHNOLOGY					
3. IT Department	Renovate area of Francis Center for data/computer center and all IT Staff				
SUPPORT FACILITIES					
1. Multi Faith Center	Build in Academic Village site				
2. New auditorium	Develop feasibility study- location	Build new auditorium			
3. Admissions Center	Feasibility study- location	Build new admissions center			
4. Parking	Build lots east of Francis Center			Build new parking southeast of Tennis Center	
COLLEGE/TOWN					
	Study opportunities for partnering with the Town	Build additional mixed-use retail and office in town	Cooperate with mixed-use housing development in the Town		

SECTION D:

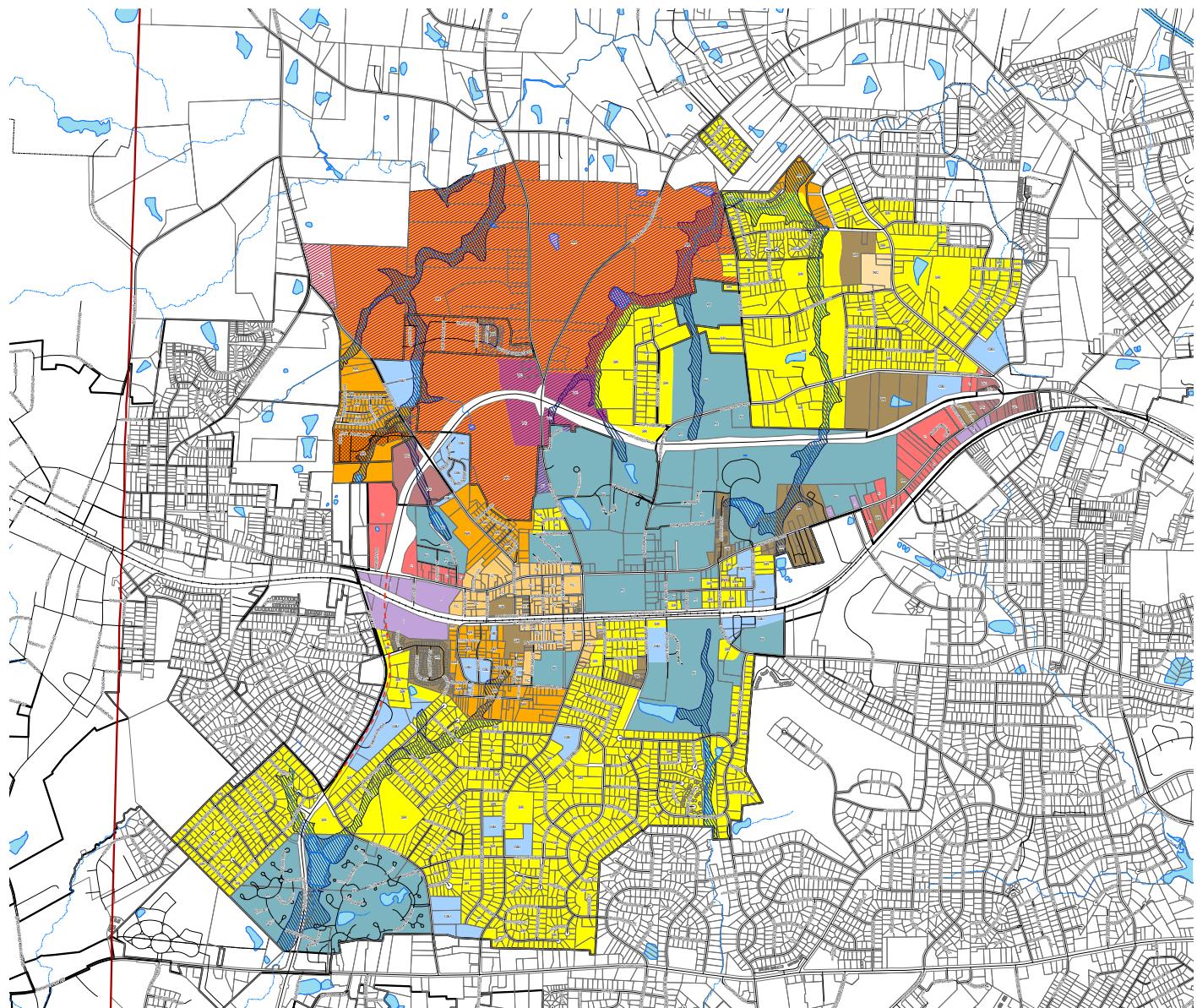
MASTER PLAN



LAND OWNERSHIP MAP



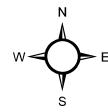
TOWN OF ELON LAND DEVELOPMENT ORDINANCE MAP



TOWN OF ELON
Land Development
Ordinance Map



The map was developed by the Burlington Regional GIS Partnership. The map is intended for use by the Town of Elon and its citizens. It is not to be used for any other purpose. The map is not to be used for any other purpose. The map is not to be used for any other purpose.



0 350 700 1,400 2,100 2,800 feet
1 inch = 700 feet

Land Use Types

RR - Rural Residential	TC - Town Center
SR - Suburban Residential	C - Commercial
NR - Neighborhood Residential	I - Industrial
UR - Urban Residential	O&I - Office & Institutional
NC - Neighborhood Center	PI - Public Institutional
VC - Village Center	

Overlay Planning Districts

SP - Stream Protections	County Boundary
TND - Traditional Neighborhood Development	Municipal Boundary
MHN - Manufactured Home Neighborhood	ETJ Boundary
	Tax Parcels (unofficial)
	Streets
	Proposed Streets
	Rivers, Creeks
	Lakes, Ponds

SECTIONS E-N:

SPECIFIC TOPICS

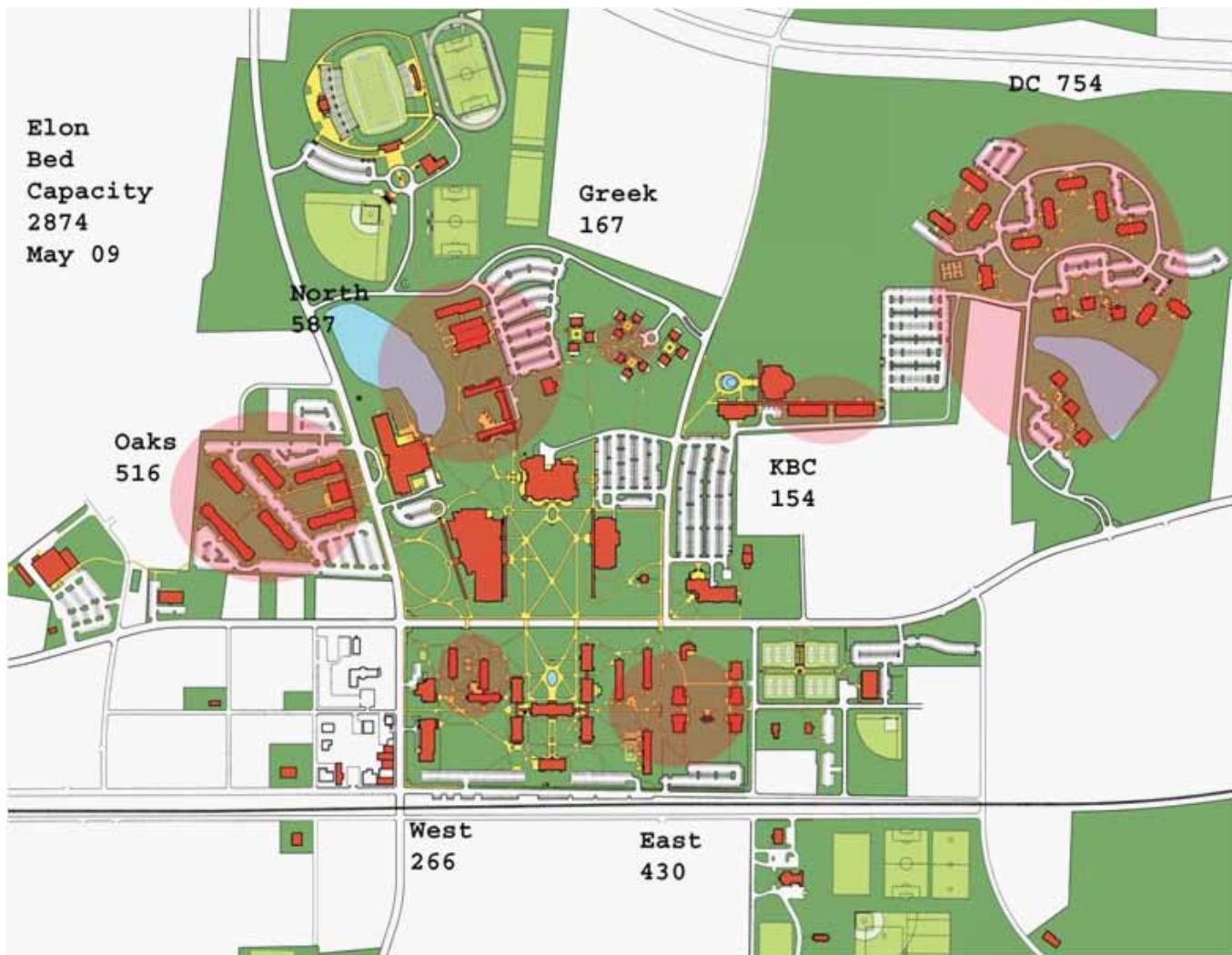
SECTION E:

RESIDENTIAL LIFE

HOUSING FACTS AND FIGURES:

1. 58 percent of Elon undergraduates live on campus, including 1,290 first-year students, 1,090 sophomores, 320 juniors and 180 seniors
2. On-campus housing capacity (in 2011) is 2,881 Beds, 900 of which are single rooms and 1,981 of which are doubles
3. There are 770 apartments on campus
4. Elon has 16 learning communities across campus, ranging from Service Learning to Business to Spanish House to Sustainable Living
5. Three faculty-in-residence live in learning communities on campus

The map below shows the locations of existing bedroom concentrations on campus. As indicated, the majority of the housing is still centered around Elon's main campus.



HOUSING PLANNING PRINCIPLES:

The planners recommend the mix and the dispersion of residential housing throughout the campus. This feature is very supportive of the concept of integrating living and learning. It is suggested that apartment units for young faculty be created in each housing area and that, as new housing is created, space be recaptured in older units for seminar space, study space, social space, bike storage, and informal space to promote interaction among students. It also feasible to develop portions of older residences for special interest groups such as language houses or international houses containing faculty offices.

Neighborhoods made up of groups of residential houses will include interactive gathering spaces and will contain intellectual communities to create a stronger sense of community among students.



Each neighborhood will also include destinations which may include classrooms for lectures and gatherings as well as social venues like late-night coffee shops where students can interact, think, gather, socialize and study. These destinations will help create the feel of a neighborhood that provides an intimate home base for students and enhances student, faculty and staff interaction. Neighborhoods could also include student services, unifying traditions, signature events, and outdoor gathering spaces.

Each residential house will create a cohesive cohort that is made up of smaller floors and sub-groups such as learning communities with groups connected an intellectual interest. Many houses will have affiliated faculty and staff, peer mentors, classrooms, unique house legacies and traditions, and common social and academic spaces.

Elon's neighborhoods will include:

Historic Neighborhoods (formerly East and West areas)
Colonnades
Global Neighborhood (formerly North area)
Danieley Neighborhood
Loy Center
Oaks Apartments
Senior class housing

This initiative is not only a housing or brick and mortar plan. Rather, the focus is reconnecting the residential and larger campus experiences and thereby transforming the intellectual climate of the campus

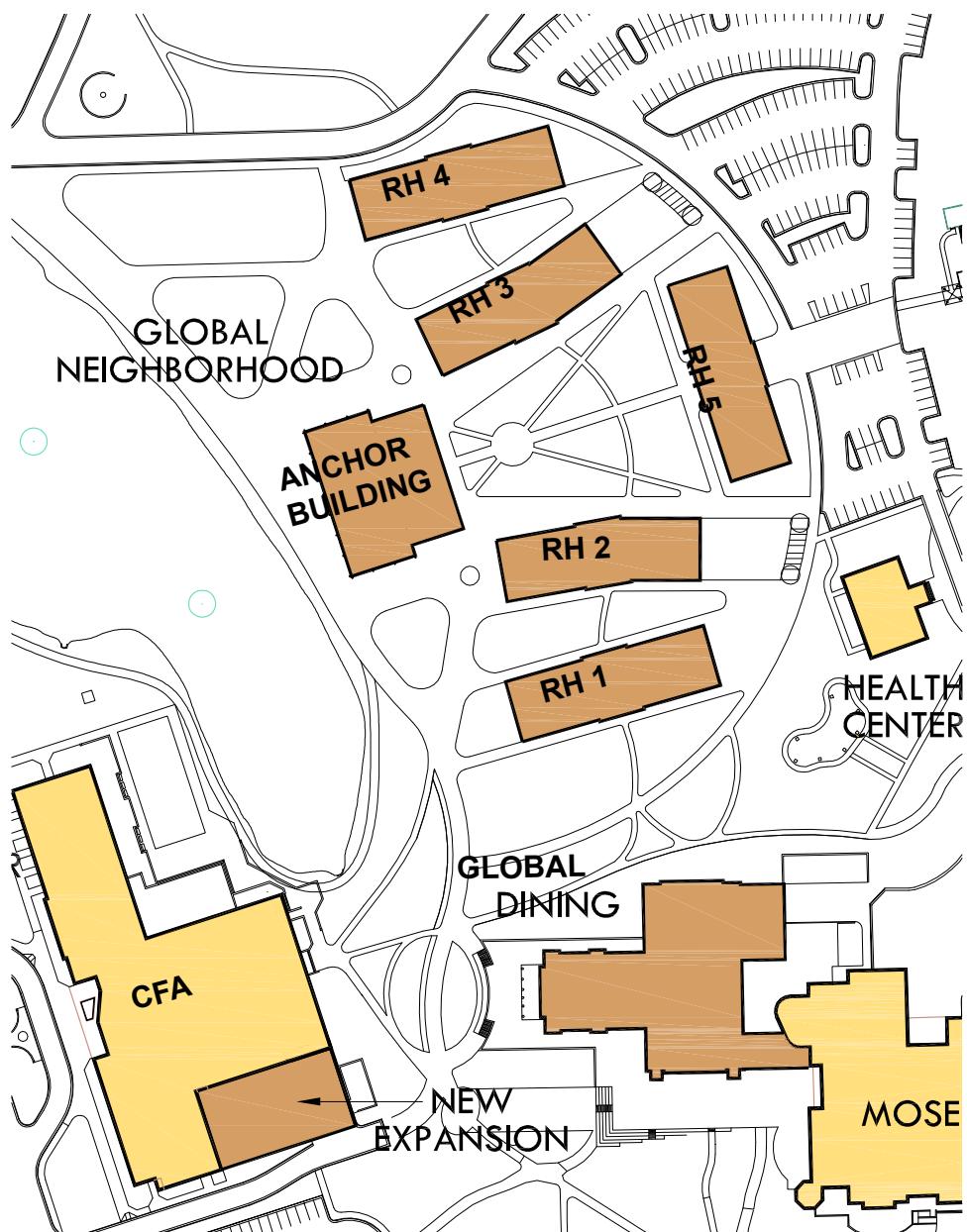
Students' residential experiences cannot exist in a silo at the fringe of the campus experience, isolated from the university mission, academics or the overall development of students. Therefore the plan is built on the following interwoven structures:

1. Pathway: a predictable four-year pathway through the residential experience, that groups students by, and focuses on, specific class year development and needs and serves 75 percent of students.
2. Neighborhoods: intellectual neighborhoods that orient and ground students intellectually and socially, including groups of residential "houses", affiliated faculty and staff, peer mentors, classrooms, common social and academic spaces, dining, services, and unifying traditions. Supporting these neighborhoods will require building new social and academic common spaces and destinations that also support the increasing campus diversity and reduce density in current residential facilities.
3. Bridges: intentionally linking the residential experience with faculty through courses taught in residential neighborhoods, faculty-in-residence within first-year and sophomore housing, faculty affiliates leading discussions/programs with neighborhoods and floors, partnerships with academic units and targeted support services (including the Isabella Canon International Center, Academic Advising, Career Services, and others), and layered mentoring connecting residential students to upper division student mentors (TAs, tutors, mentors).
4. Integration: The residential campus must be integrated both physically and programmatically. Neighborhoods must be connected visually, as opposed to alienated at the fringe of campus. Outdoor spaces should be greened, parking lots should be moved, and outdoor gathering spaces should be added to build community. Additionally, the program must support, complement and align with existing academic programs and a commitment by the entire Elon community will be required.

THE NORTH AREA:

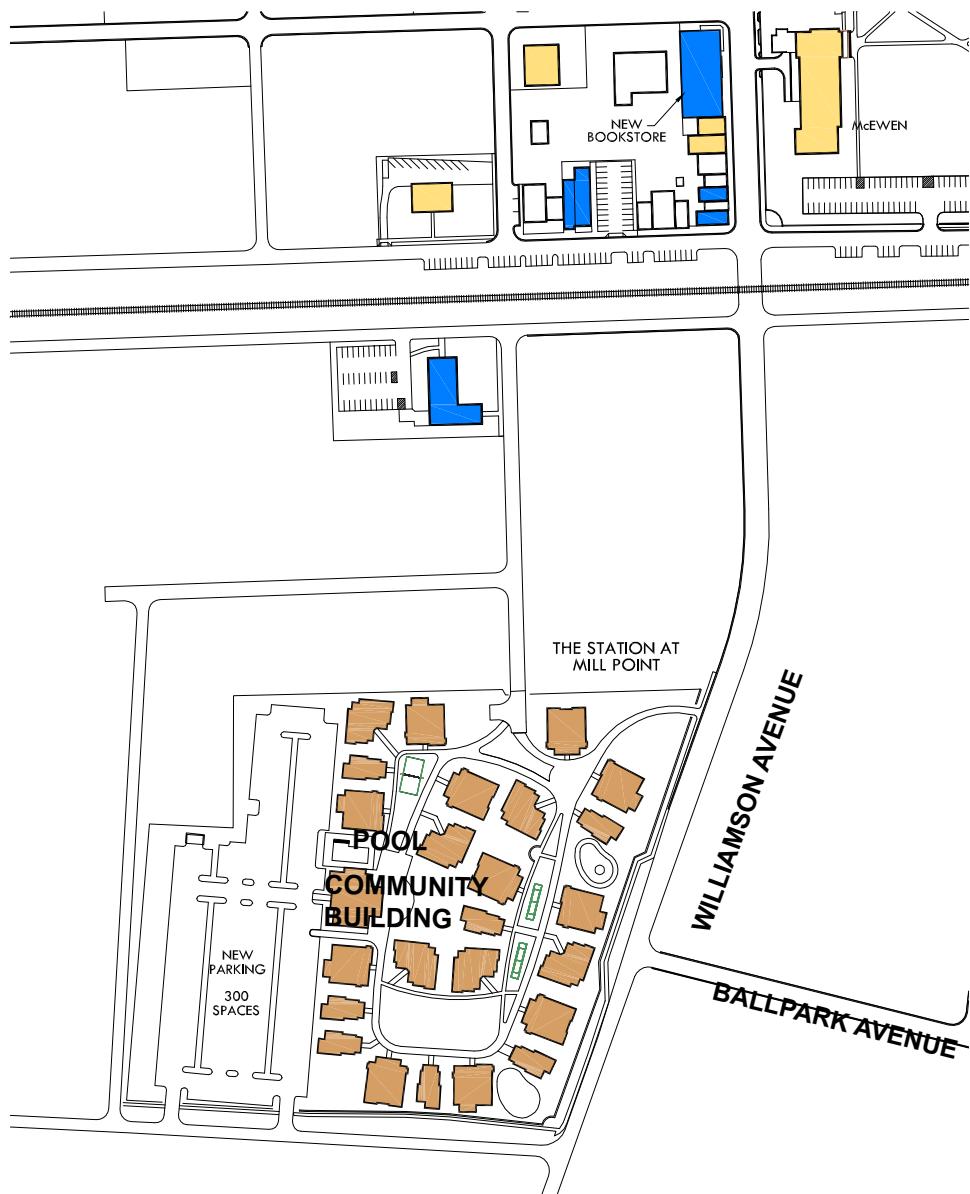
The current North area residential housing (Story and Harper Centers) is not of the quality to attract and retain students. This area should be replaced with a Global Neighborhood consisting of 5 three and four story residence halls with a total of 600 beds, an anchor building for the Isabella Cannon Center for International Studies, faculty offices, multi-purpose rooms, student hangout space and a media room. A Great Hall is also planned for this anchor building to accommodate a variety of special functions as well as daily events.

To serve the dining needs of students in the north area of campus, a new dining hall is envisioned as an addition onto the Moseley Center.



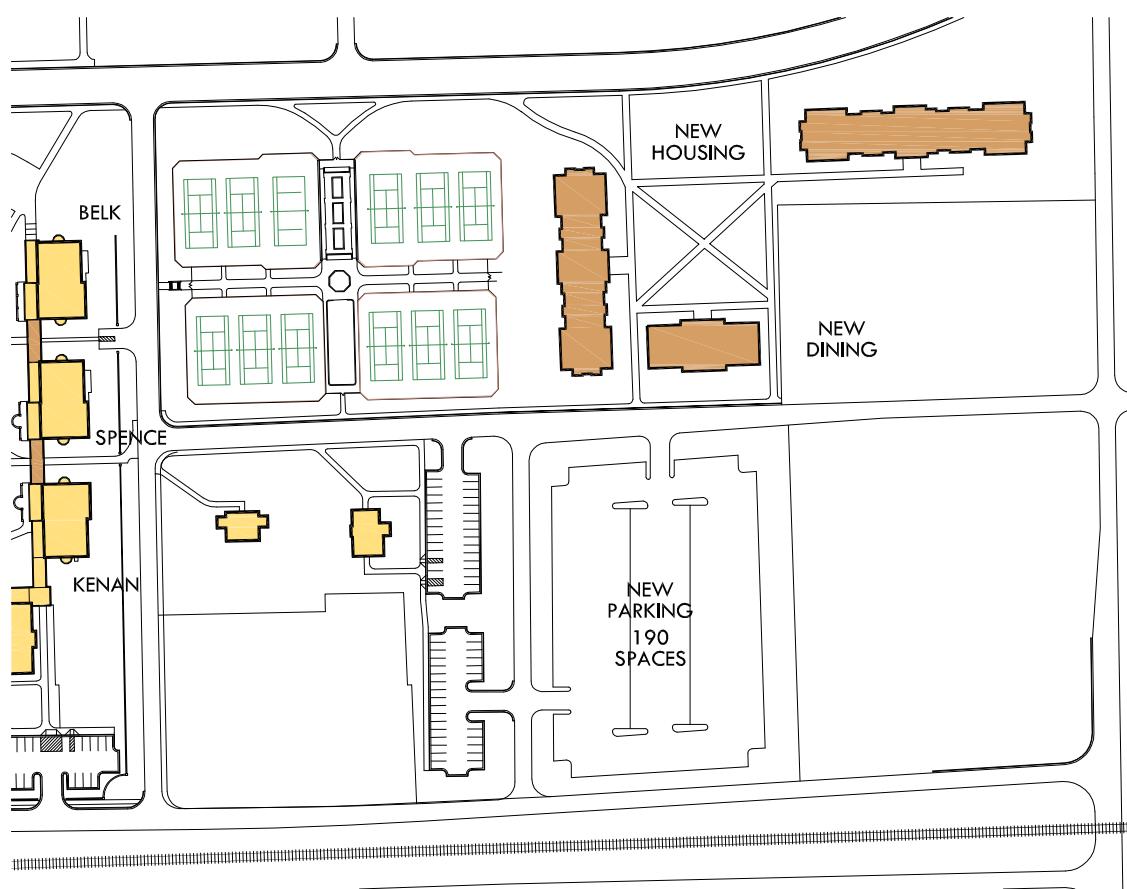
THE STATION AT MILL POINT:

The Station at Mill Point is a unique residential village being planned for the property known as Fire Fields to the south of campus along Williamson Avenue. This will provide for attractive and high quality apartment and townhome style housing with 324 beds and an Amenity Building with Pool near the campus and in the Town of Elon.



TENNIS HOUSING AREA:

New housing is proposed near the Tennis Courts that will provide 400 beds and a new dining hall.

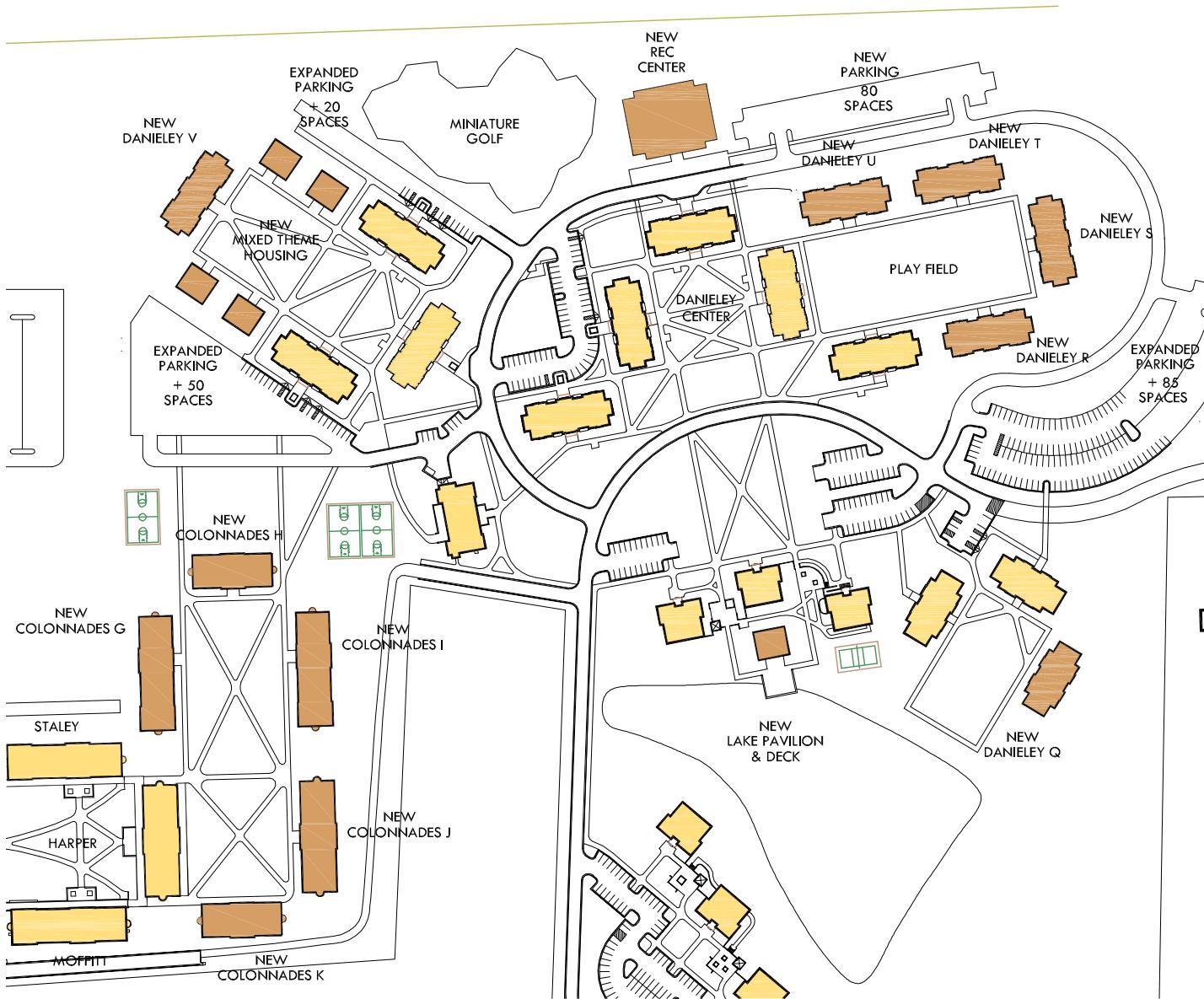


DANIELEY CENTER:

It is recommended that new residences totaling 754 beds be added to the Danieley Center Area. The master plan indicates potential site locations.

COLONNADES HOUSING:

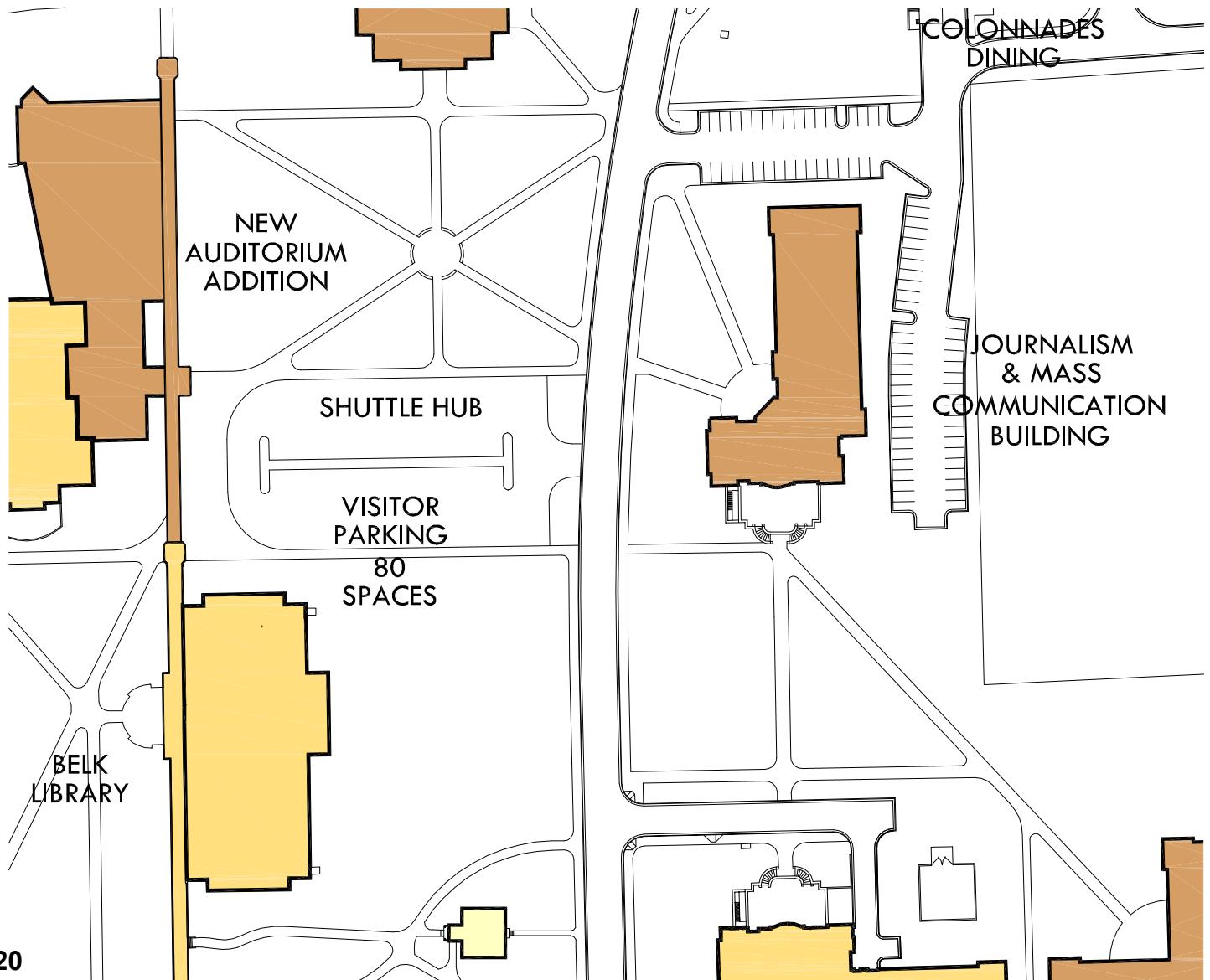
It is recommended that new residences be added to the Colonnades Housing complex. The master plan indicates potential site locations.



SECTION F:

JOURNALISM AND MASS COMMUNICATIONS DEPARTMENT

This program has been one of the most popular on campus. It has outgrown the use of its current facility and, in order to serve the students better, it needs to be in a new larger building. The program requires approximately 82,000 gsf and includes student radio station, TV studios, editing suites, classrooms, office suits, and other support spaces. The location is indicated on the master plan.



SECTION G:

EDUCATION DEPARTMENT

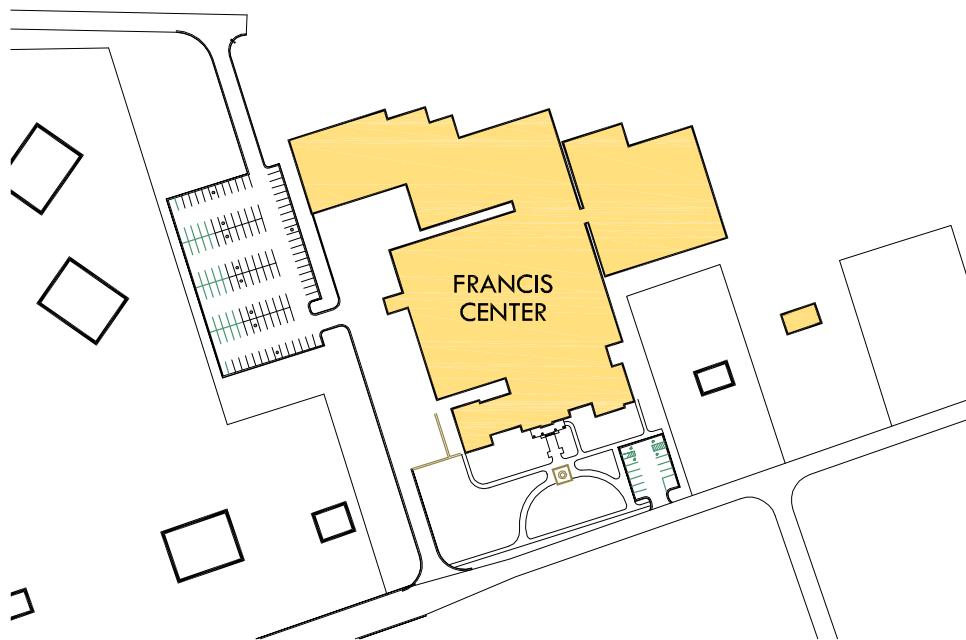
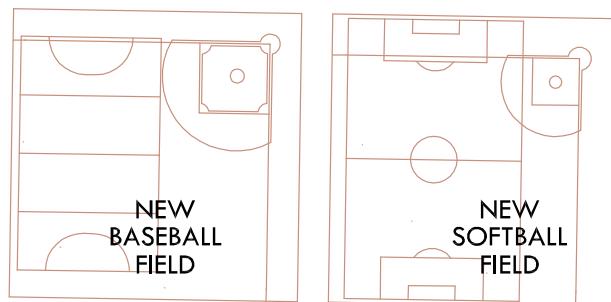
The current location of the Education Department in Mooney is not conducive to the space needs in terms of quantity and quality for this program. The plan suggests that one possible means to address the department's space needs is to relocate it to the McEwen Journalism and Mass Communication Building. More spaces must be created for flexible teaching, group study, large-scale instruction, resource support, and offices.

SECTION H:

RECREATION

CLUB SPORTS FIELDS:

New club sports fields are to be located north of the Francis Center for soccer, field hockey, baseball, and softball. These are for club sports and can secondarily be utilized for recreational use. Lights must be installed at the baseball field in order to extend the field's time of use.

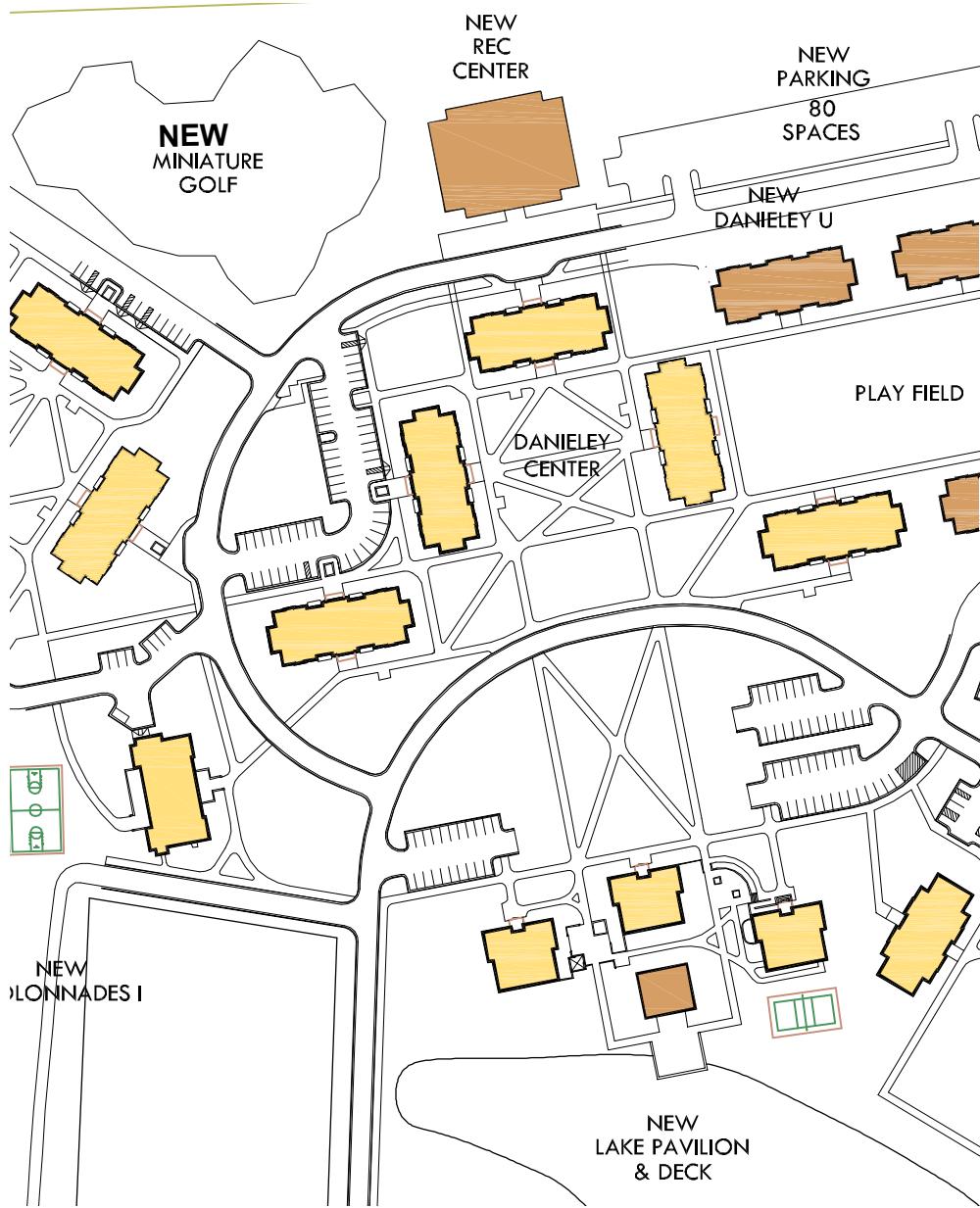


RECREATION CENTER:

As the Danieley Center Recreation Center expands with more housing, a recreation facility for wellness and fitness is planned to service the recreational needs of the students in this area of campus.

A new Miniature Golf course should be created to the west of the Danieley Center Recreation Center to create an atmosphere of fun on the central campus.

Further, the creation of a Lake Pavilion and Deck draws students to the center of campus while providing a venue for student-centered events on the Lake.

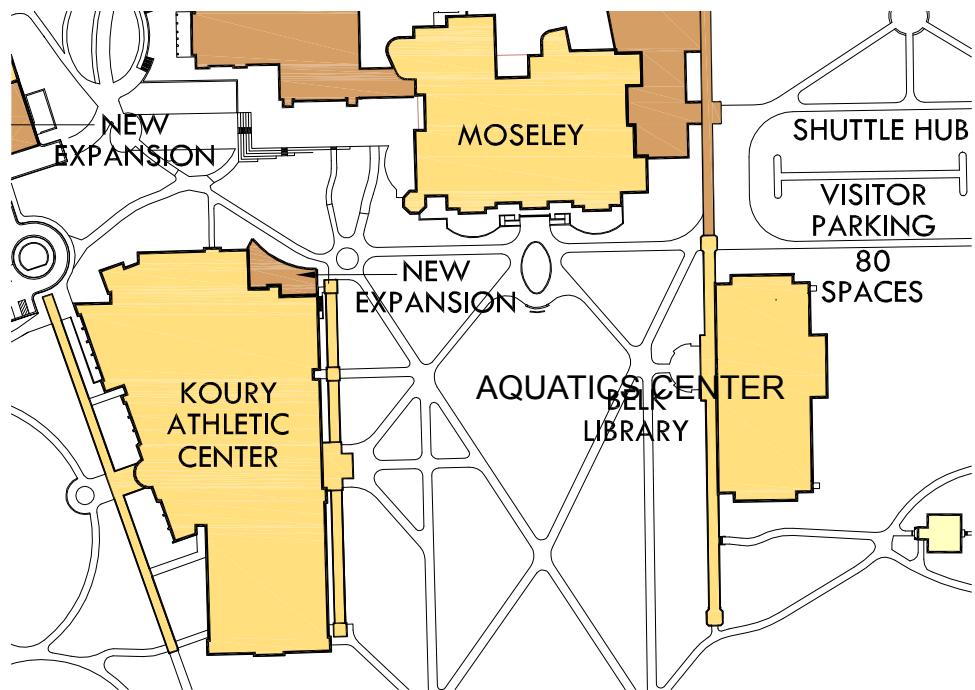


THE LODGE:

The Lodge property represents a unique opportunity to create a more vital student space for everything from the “blow-off” party to the quiet retreat. Every campus should have such a space where students can vary the uses from class to class. The Lodge building should remain rustic in character, but it should be modestly renovated for student use with appropriate furnishings. It is conceivable that the property could be connected to the tram / bikeway system with the cooperation of one intervening property owner.

AQUATIC FACILITY:

The campus plan indicates a potential site for an 8 lane 40 yard stretch-competition pool and spa on the north end of Koury Center. This would allow for expanded intra-mural, recreational and varsity team opportunities.



SECTION I:

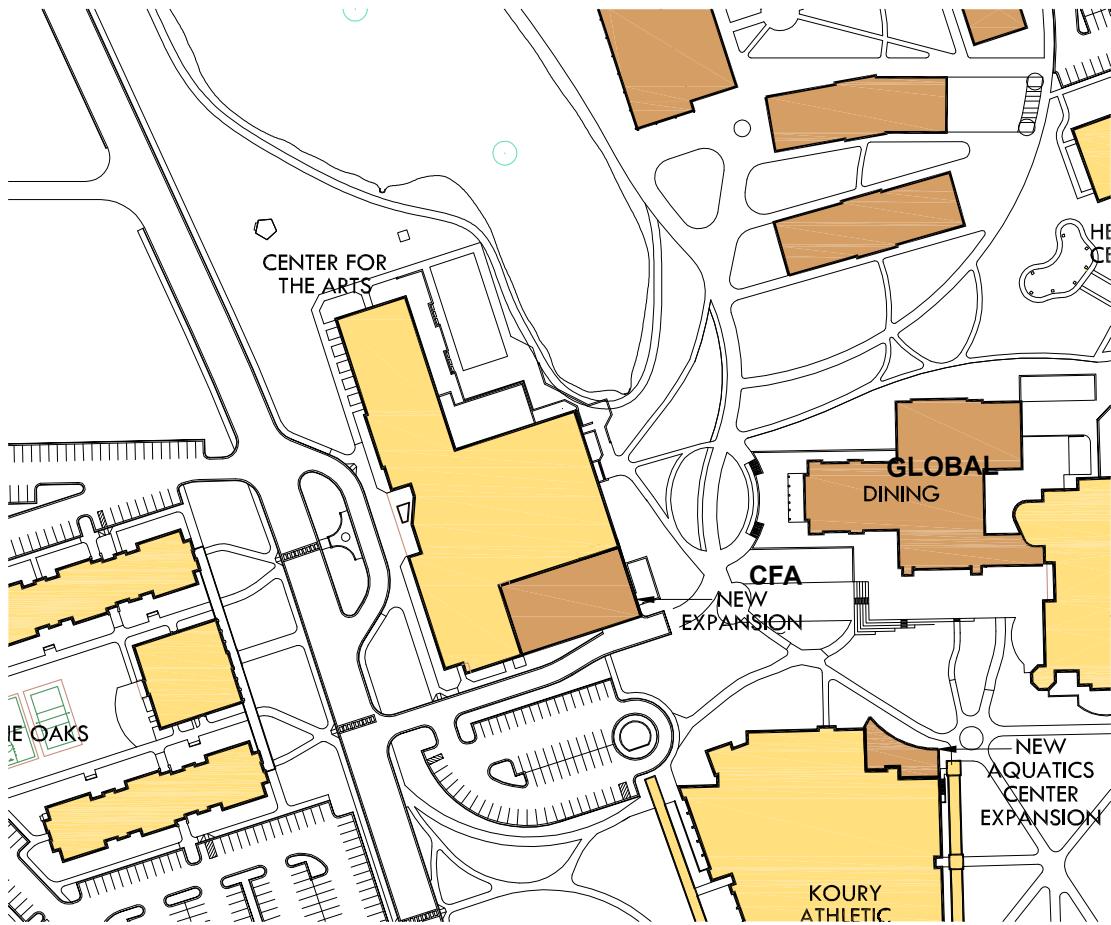
ARTS & SCIENCES

CENTER FOR THE ARTS

More space is needed by the programs for theatre and the arts. An addition on the Center for the Arts can be provided to accommodate for the space needs of the programs within the Fine Arts Department as well and alleviate some of the aesthetic concerns of the building. The current exterior does not blend well with the preferred architectural language on the campus and any future improvement and additions need to take this into consideration.

The Center for the Arts was constructed in 1987 when the student population was 3000. It is a functional building that was successful in serving the basic programs in theatre, music and art at that time. The current popularity of these programs with a considerably larger student body has placed great strains on existing space. It is desirable to keep these fine arts functions together, and there is not an adjacent site available for new construction. Theatre lacks adequate backstage support space, and the plan indicates a potential location for an addition.

The addition could help meet current programmatic needs. With modest expansion on the east side of the first floor, new space could be provided as indicated in the conceptual plan. The addition would also offer the opportunity to contextually relate this building to the rest of the campus. The Center for the Arts was built prior to the 1990 campus plan which first proposed a unified campus with related architecture.



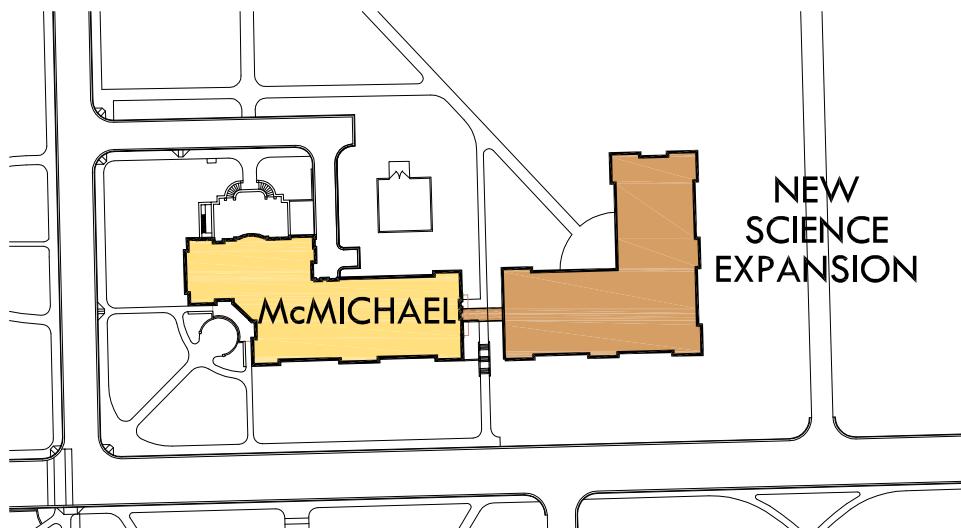
FRANCIS CENTER/DANCE RENOVATION:

A black box theater for academic instruction and performances could be located in the Francis Center to provide much needed space for the dramatic arts (theater, dance, and music).



MCMICHAEL SCIENCE CENTER

A site is reserved next to McMichael for an addition to house an expanded science program. This building could also house the greenhouse with laboratory space and office space for the Center for Environmental Studies rather than build a separate building. Because of vibration requirements, this is probably a better location than Koury Athletic Center for a domed astronomy platform capable of handling community groups. This expansion would allow needed space in McMichael for "smart" classrooms.

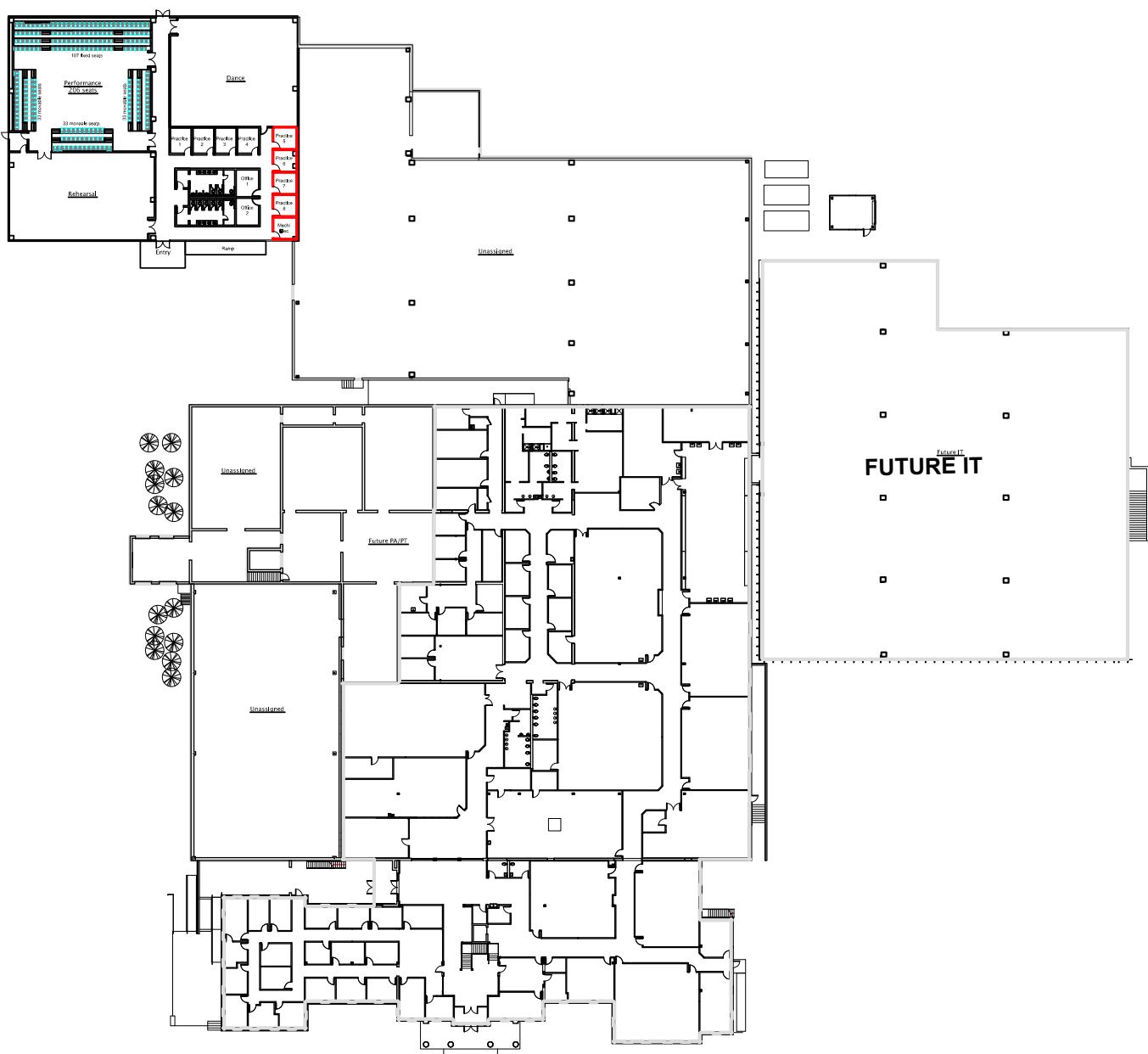


SECTION J:

TECHNOLOGY

It is recommended that the IT Staff and servers should be consolidated into a single facility at the Francis Center.

1. Presently, the IT Staff offices are spread throughout many buildings on campus. Relocating IT Staff to a single facility will enhance IT Staff efficiency and vacate office space that is better suited to academic offices.
2. Currently, computer servers are in multiple locations which have issues with facility reliability. Relocating them to a more secure site with dedicated redundant power and HVAC is needed.



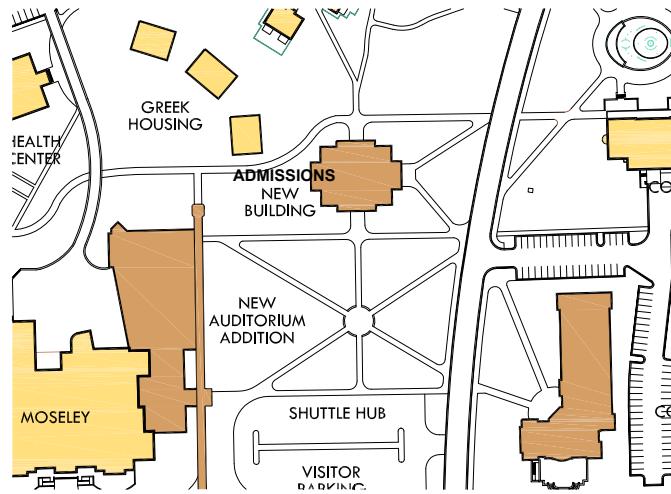
SUPPORT FACILITIES

ADMISSIONS

Group admissions presentations are conducted on the first floor of Moseley which has a conveniently located (adjacent) visitors' parking lot. Admissions' reception and individual counseling are conducted in quality space on the first floor of Powell. Admissions' operations are very crowded. Consider consolidating Admissions into one new facility. This will free up space in Moseley for student activities and Powell for Administrative needs.

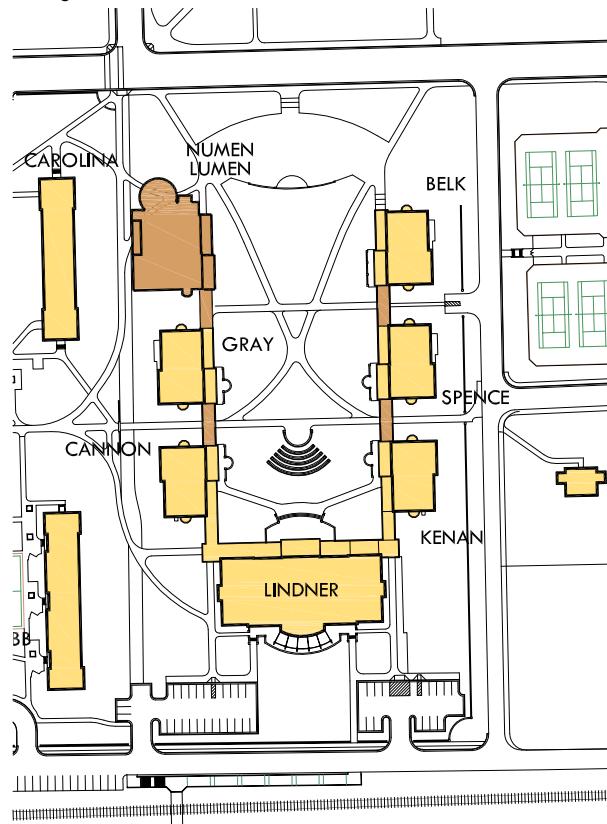
AUDITORIUM

A 1,500-seat auditorium will be built as an addition to the Moseley Center.



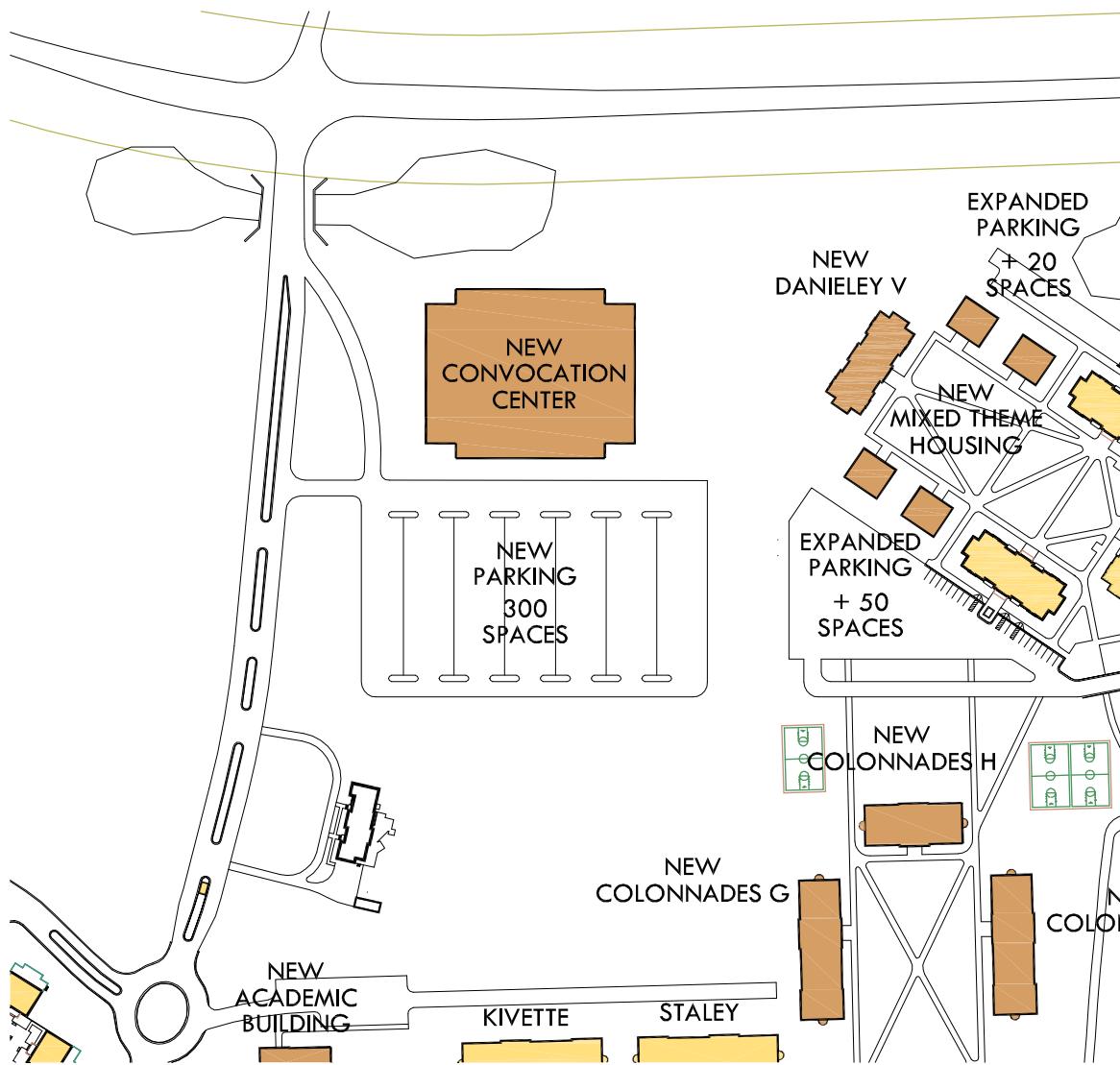
MULTI-FAITH CENTER

Add a 15,000sf Multi-Faith Center at Academic Village as the sixth and final pavilion in the Academic Village.



FUTURE CONVOCATION CENTER

The student body now numbers 5709. By the year 2020, with modest growth of fewer than 100 students a year, the student population could possibly exceed 6300 students. At some point, this will place a great strain on convocation / athletic / recreation facilities. Also, there is no large assembly space on campus. The campus plan envisions a convocation center of 5,000 fixed seats which would serve a multitude of purposes including convocations and campus wide events, graduation, large scale concerts, community events, expositions, competition sports, ice rink, athletic offices and, possibly, the dance program. The ideal location would be close to the stadium to share parking. The campus plan indicates the location and approximate size of the described facility.



SECTION M:

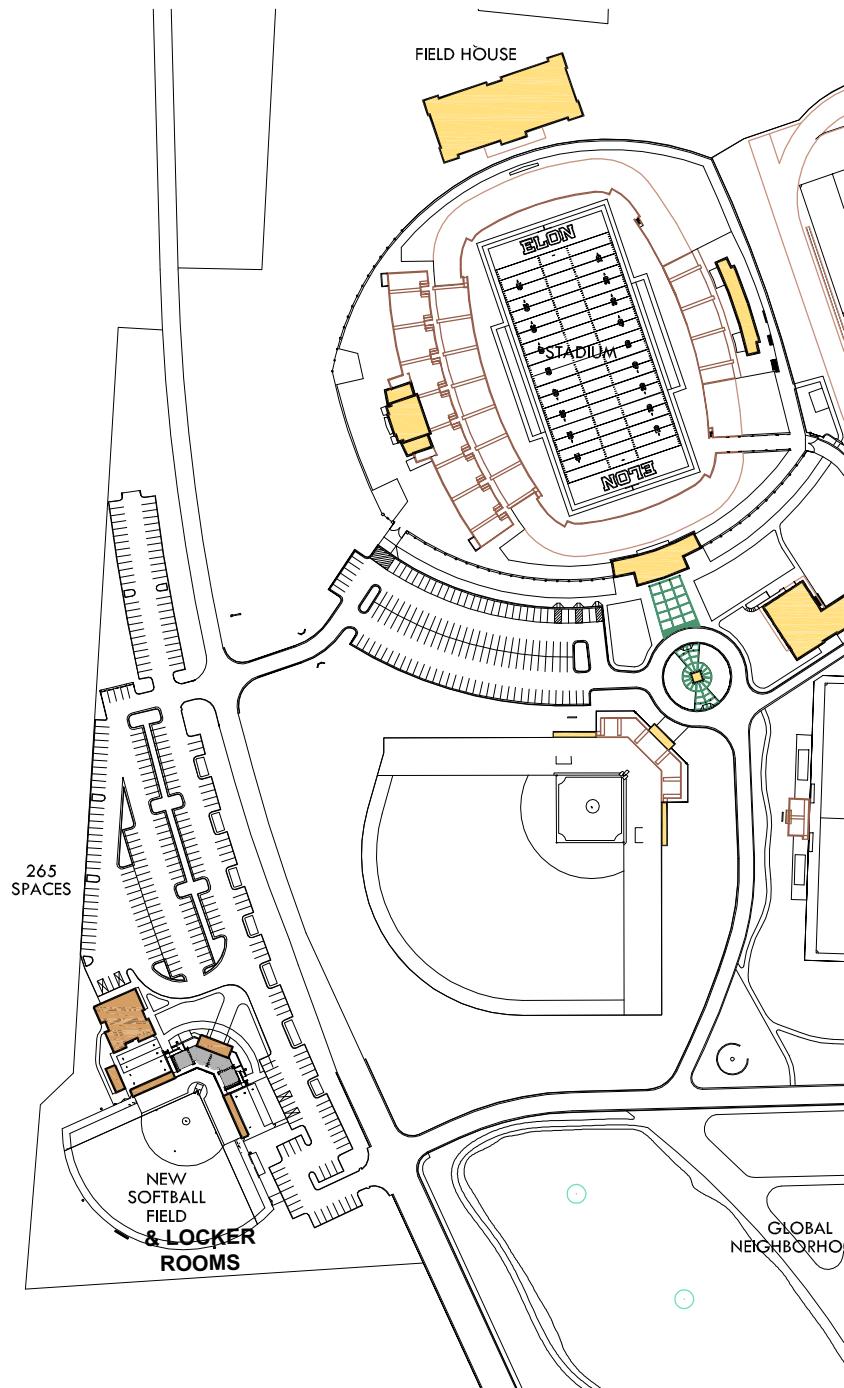
ATHLETICS

KOURY ATHLETIC CENTER

Study the expansion and renovation for the Koury Center Gym to provide expanded seating and varsity locker rooms.

SOFTBALL

A new softball stadium with parking should be located along Williamson Avenue. The facility will include press box, locker rooms, and 313 seats.



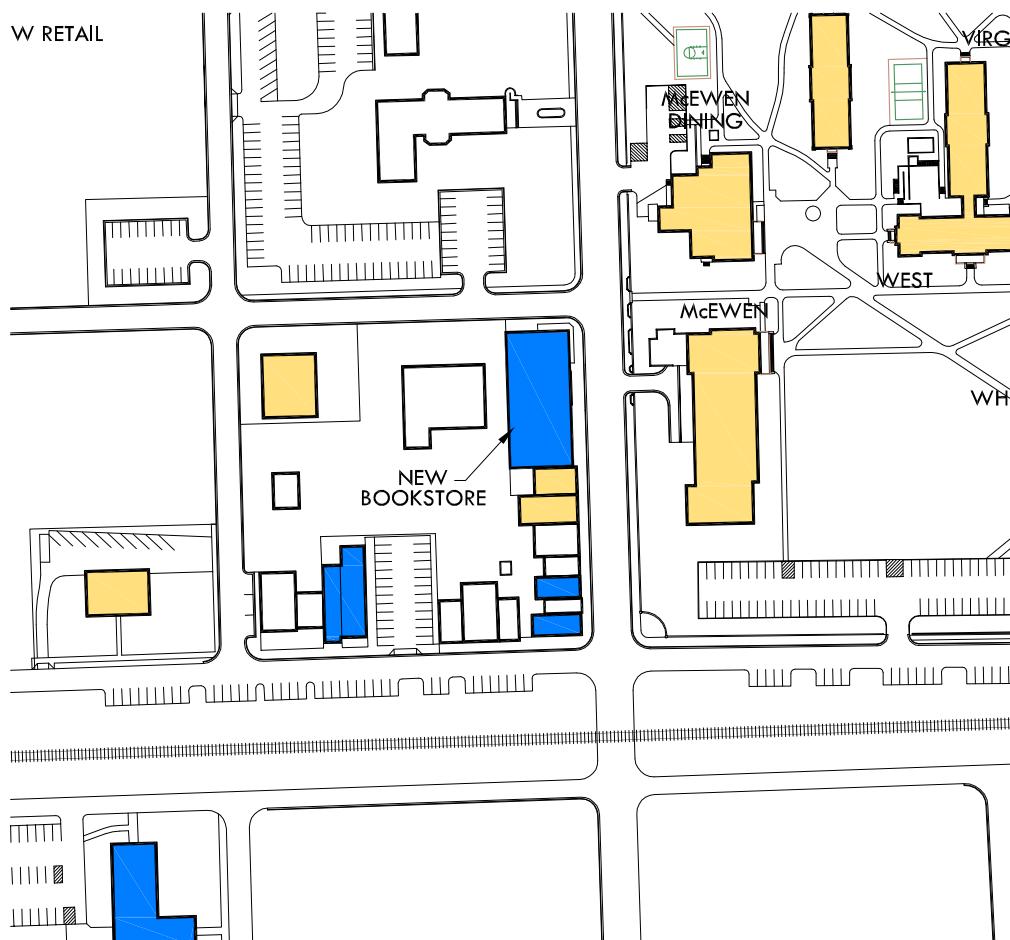
SECTION O:

RELATIONSHIP OF ELON TO THE TOWN

Elon University has 5700 students and 360 faculty and staff. The Town of Elon has over 7,600 inhabitants. Both entities are in development mode; both are impacted positively by the highway bypass; and both are desirous of a viable “downtown” that caters to students and residents alike. The major growth for both will take place north of the railroad which will tend to segregate land to the south when hi-speed rail service is introduced with attendant closings of rail crossings and installation of barrier construction. Members of the campus community are active in town affairs. The university's Senior Vice President for Business and Finance and the Town Manager meet monthly. The university needs infrastructure development, zoning assistance and new campus entrances on Haggard Avenue. This is an opportunistic time to implement joint programs for the benefit of both.

DOWNTOWN DEVELOPMENT

Miami University in Oxford, Ohio, Rowan University in Glassboro, NJ and Oberlin College in Oberlin, Ohio, are just three of many institutions which have worked together to create viable and vital commercial districts adjacent to the campus. Students would love to see amenities in the town such as a drug store, music store, hair salon, bookstore, ethnic restaurants, and alternative entertainment spots. Recently, the construction of a three story book store/mixed use building on Williamson is indicative of the type of cooperative retail development that can benefit the university and the Town of Elon.



TOWN-COLLEGE ENTRANCES

The new bypass intersects Haggard Avenue to the west right next to the Town of Elon town line and to the east just beyond the town line. It would be appropriate to build brick entrance structures at both town lines to designate mutually Elon University and The Town of Elon. With appropriate landscaping, lighting and street development, very pleasing entrances to both entities could be created. Property owners along Haggard Avenue could be encouraged to participate, and adverse views could be partially screened in the public right of way.

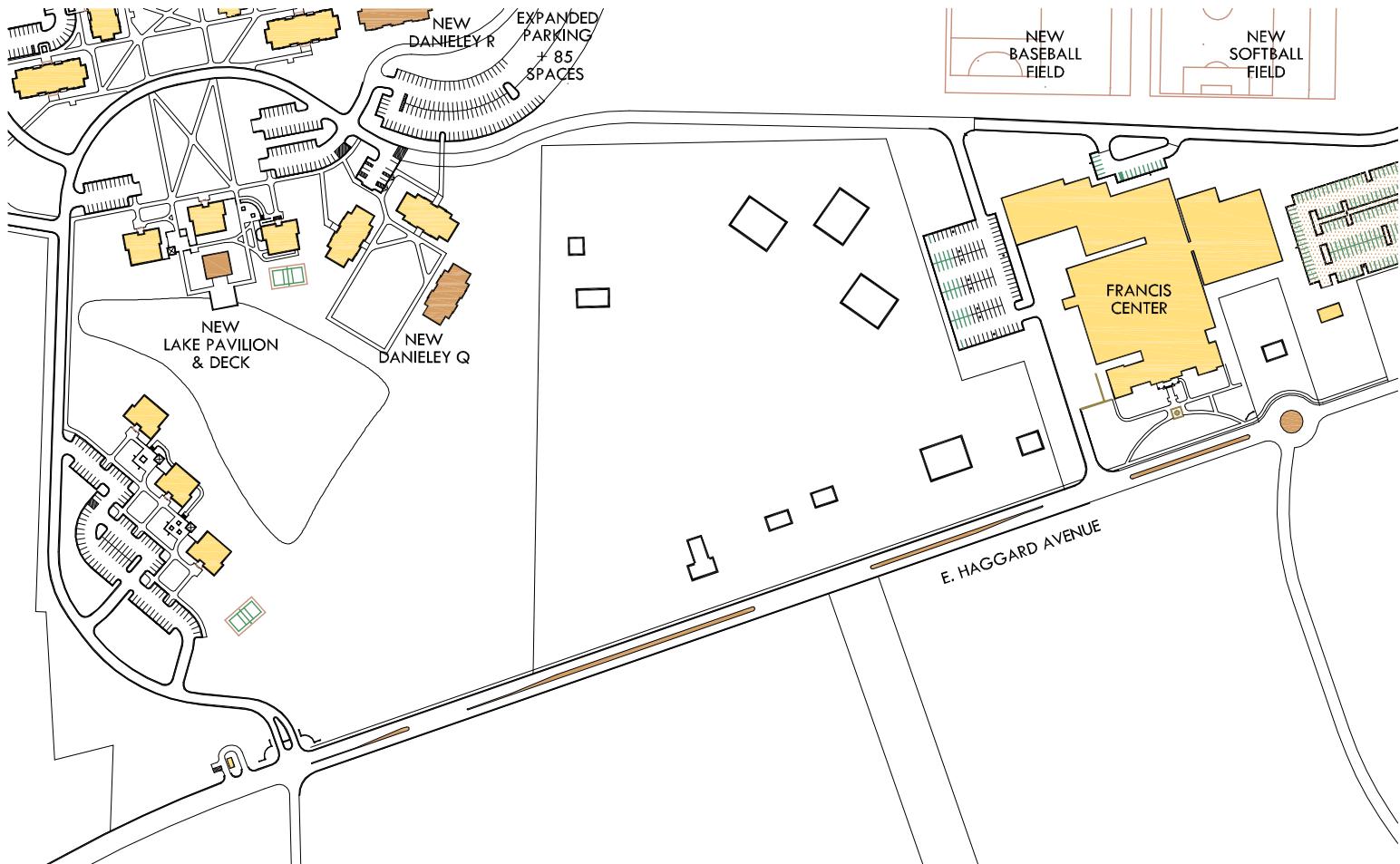
OTHER OPPORTUNITIES

Develop a cohesive plan for in-town student apartments.

Encourage faculty to buy houses close to the campus.

Work together to clean up substandard housing.

Cooperate in the development of a nine hole golf course?



RELATED ISSUES

LANDSCAPING AND GENERAL SITE IMPROVEMENTS

Campus landscaping is superb. The campus has color, texture, variety and a good selection of plant materials. The efforts of the last 10 years are beginning to mature, and the newer trees are reaching appropriate scale to the buildings. This image will only improve with time. The campus is maintained close to perfection. It is said that a prospective student decides in the first 15 minutes on campus whether or not to keep the school on her "list." The initial impression of Elon University in the year 2010 as compared to 2000 is amazing. It is testament to the principle that the space around buildings is just as important as the buildings themselves in defining "campus."

Within this context great opportunity exists to now develop the campus for increased student and faculty use of the campus:

Continue to create serendipitous meeting places throughout campus for informal gatherings. There ought to be bench plazas and sitting walls at all main building entrances. The fountain at Alamance is a good example.

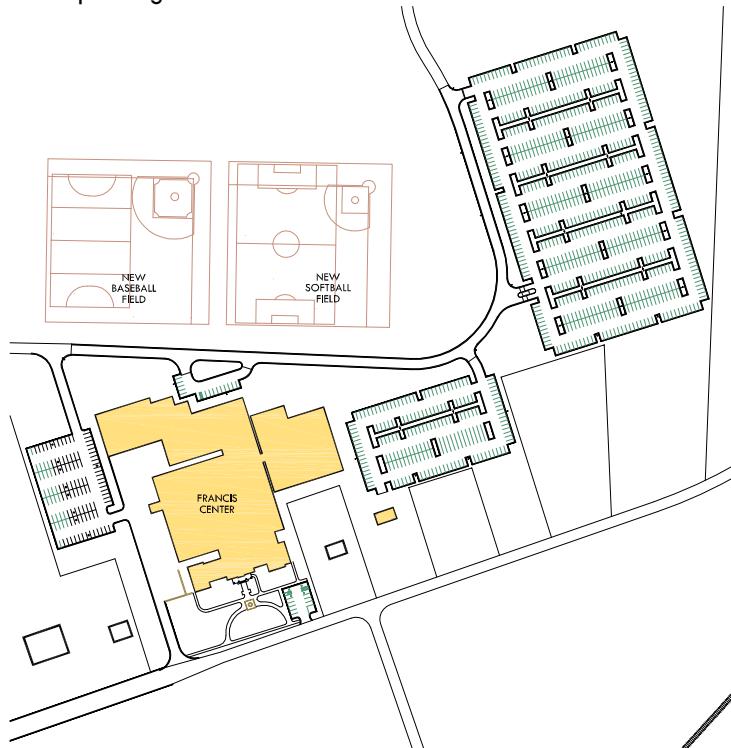
Create outdoor activity spaces at each residence hall.

Maintain the pedestrian nature of the campus, expand walkways, trails and facilities to accommodate bicycles. Continue to expand the tram/BioBus system based on demand.

PARKING

Elon University has been responsive to parking needs while trying to minimize unnecessary automobile use to cross the campus. The existing BioBus system is an excellent system, and this report recommends expansion as appropriate. Restricting freshman parking to Danieley Center or other remote lots has two benefits: it means fewer campus spaces are required, but, more importantly, students get accustomed to non-automobile transportation. As enrollment grows, expansion of this restriction to sophomores is a good idea.

Add a 1,000-car parking lot to the east of The Francis Center.



CLASSROOM AND CLASS LAB UTILIZATION STUDY

A classroom utilization study for the main campus as well as the Law School in Greensboro is needed. In 2011, this study was conducted by Comprehensive Facility Planners. The Physical Therapy and Physician's Assistant departments were excluded from this study as they were moving from McMichael to the Francis Center. The study is attached.



CLASSROOM AND CLASS LAB UTILIZATION STUDY

FINAL REPORT ♦ OCTOBER 2011

Comprehensive Facilities Planning, Inc. ♦ 84 North Stanwood Road ♦ Columbus, Ohio 43209 ♦ www.cfp-planners.com

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Classroom and Class Lab Utilization Study

Executive Summary

This report analyzes the Fall 2010 utilization of the classrooms and laboratories for Elon University. For Fall term 2010, the main campus had 75 classrooms, 4 seminar rooms and 49 laboratories used for regularly scheduled instruction. In addition, one auditorium was used for several classes.

Classrooms

- During the day (8 am to 5 pm) the 75 classrooms and 4 seminar rooms were used on average 31.5 hours per week, 70% of the 45 available hours, and 64.1% of the seats were occupied when the rooms were in use.
 - The 31.5 hours per week the classrooms were scheduled falls in the mid-range of expected use. According to published space guidelines a use of between 30 and 33 hours per week is considered a reasonable goal.
 - However, there are selected areas of available times and several rooms that could accommodate additional sections. Available hours are primarily at the beginning and end of the day. Underutilized rooms in KOBC, MOON, AVRP, AVPS, MCM1, and ALAM may be partially due to a less convenient location.
 - The station occupancy of 64.1% is also within the range of expected use. According to published space guidelines, station occupancy between 60% and 67% is considered a reasonable expectation.
 - The campus has capacity to expand the evening instruction.

Classroom Enrollment Capacity

The classroom enrollment capacity provides an estimate of the FTE students the current classroom seats could support based on the assumed utilization rates. For this calculation, an average use of 33 hours per week with 65% station occupancy was assumed. The University should verify that these assumptions are acceptable and achievable over the long term.

With the relocation of Physical Therapy from McMichael, the PT classrooms and labs could be available after December 2011 to meet future campus-wide instructional needs. If the three class labs are converted to classrooms and the current classrooms are available, the University could add about 296 seats to the existing classroom supply bringing the total available seats to 3,031.

If the utilization is increased from 31.5 weekly room hours (WRH) to 33 WRH and the Station Occupancy is increased from 64% to 65% and the estimated 296 seats from the PT rooms are added to the current 2,735 seats, the classrooms could accommodate about 5,800 FTE (plus or minus 50), an increase of just over 800 FTE from the Fall 2010 FTE of 4,970.

Laboratories

On average the 49 laboratories were used 21.4 hours per week during the day with 70.4% of the stations occupied. This is near space utilization recommendations of about 22 hours with 80% of the stations occupied. However, utilization expectations generally vary by discipline. For laboratories that require no special setup for classes such as computer labs, WRH use guidelines are similar to that of classrooms (30+ hours per week). For laboratories requiring equipment set up such as natural science or technical labs, 22 hours per week are more appropriate. In some cases it is expected that the students will need to use the lab for projects or other “non scheduled” activities (e.g., art, nursing). In these cases the weekly room hour goal for scheduled activity is reduced to 18 hours or 15 hours per week. Since most laboratories are designed for a specific type of instruction requiring specialized equipment and furnishings, labs that are underutilized cannot easily be used to meet the teaching need in unrelated disciplines unless the room is redesigned or modified to accommodate multiple uses.

Several labs were used well beyond the expected hours. They include:

- Computer Labs, MCE1-205, MCE1-207, MCE1-209, and ALAM-201 (30 Expected Hours)
- The Dance Studios, ARTS-111, ARTS-112, ARTS-117 (30 Expected Hours)
- CUPID Lab, CARL-321 (30 Expected Hours)
- Intro CIS Lab, DUKE-303 (30 Expected Hours)
- Intro Physics, MCMI-203, MCMI-207 (22 Expected Hours)
- General Chemistry, MCMI-304 (18 Expected Hours)
- Political Science, AVPS-110 (22 Expected Hours)
- Several of the Fine and Performing Arts Labs, HG13-116, HG13-124, HG13-104, HG13-120 and ARTS-104, ARTS-161, ARTS-164 (18 Expected Hours)

If the labs are scheduled at the recommended Weekly Room Hours for each type of lab (see Table 11) with 80% of the stations occupied then the labs could support an FTE enrollment increase of about 20% which is consistent with the potential increase that the classrooms could support. However, since labs tend to be specialized, available space in one lab may not be able to be used by an unrelated discipline. Table 11 shows which labs could support additional sections or enrollments.

School of Law

The School of Law utilizes five general purpose classrooms, two seminar rooms, and one computer lab located in the library along with several clinic rooms. The clinic rooms and the computer lab are generally used as “open” labs. It is assumed that they are not used for regularly scheduled credit instruction and are excluded from the analysis.

- On average the five general purpose classrooms were used 25.5 hours per week which is 56.7% of the 45 hours available for the week. An average of 30 hours of scheduled use for the general purpose classrooms should be an achievable goal.
- The average class meeting size was about 40 students resulting in average station occupancy of about 50%. Most guidelines suggest a station occupancy goal of 60% or more.
- The two seminar rooms, 205 and 211, were scheduled a total of 12 hours and are excluded from the capacity analysis since they would not be a limiting factor for future enrollment growth.

Classroom Enrollment Capacity

The classroom enrollment capacity provides an estimate of the number of students the current classroom seats could support based on assumed utilization rates. Since the classroom seats are a critical factor in this calculation it is important that the room capacities are accurately reported.

Of equal importance in the capacity calculation are the assumed utilization rates. For this calculation, a Weekly Room Hour rate of 30 with 60% station occupancy is used. The School should verify that these assumptions are acceptable and achievable.

If the classroom utilization is increased from 25.5 hours per week to 30 hours per week and the class sizes are increased from about 40 students to 48 students (station occupancy of 60%), the School could grow by about 40% from 344 students enrolled in 2010 to about 480 students. Increasing the class section size only would accommodate a growth of about 20% while increasing the number of sections only, would accommodate an enrollment growth of 15% at current section sizes.

Overview

This report analyzes the utilization of the classrooms and laboratories for the main campus in Elon, North Carolina. An analysis of the School of Law classrooms located in Greensboro, North Carolina is presented in the Appendix. The basic data used in the analysis was provided by the University's Registrar's Office (Fall Term 2010 class schedule and credit hours) and Spillman Farmer Architects (classroom and class lab square footage).

The credit hours were converted to FTE by dividing the undergraduate credit hours by 15 and the graduate credit hours by 12. This produced a total of 4,970 FTE students.

Definition of Terms

Classroom and laboratory utilization is generally expressed in two measures: Weekly Room Hours (WRH) and Station Occupancy percent (section size/room capacity). Other factors impacting classroom and laboratory space need are Weekly Student Contact Hours (WSCH) and Station Size.

- Weekly Room Hours (WRH) are the number of hours a room is used for scheduled credit classes during a typical week. Class change time is added to the actual minutes a class meets. For example, if a class meets 50 minutes three days a week and there is a 10 minute change time, then the classroom is used 3 hours during the week. The average WRH for classrooms is the total WRH divided by the number of rooms. General utilization guidelines (see next section) for classrooms recommend that classrooms be used about 67% to 73% of the available hours. Utilization guidelines for laboratories are typically lower than classrooms and depend on other factors such as set-up time, the need for open lab time and time for project work.
- Weekly Student Contact Hours (WSCH) is the WRH times the number of students enrolled during the official reporting period. For example, a class meeting 3 hours per week with an enrollment of 30 students generates 90 WSCH.
- Station Occupancy percent (SO%) is the percent of seats occupied when the room is in scheduled use. For classrooms, the recommended station occupancy should be between 60 and 67% but for smaller capacity rooms, the station occupancy should generally be higher. For laboratories 70 to 80% is the expectation.
- Station sizes vary with the furniture and equipment in the room. For classrooms a range of 15 to 20 square feet on average is appropriate but the trend is toward larger station sizes to provide more teaching flexibility. A lecture room with fixed seats might average 13 square feet per station, while a seminar room with tables and chairs might be closer to 25 square feet per station. For laboratories the station size varies by discipline and equipment housed.

Utilization Guidelines

When reviewing the utilization results in this report it is helpful to compare them to published guidelines. Several States have adopted space guidelines for classrooms, labs and other types of spaces. Since more than 90% of Elon's instruction occurs during the day – 8 am to 5 pm (45 hours per week), it is appropriate to "benchmark" Elon with states that have published guidelines for daytime classroom utilization. Table 15, in the Appendix, identifies the classroom and lab utilization for 13 states with daytime guidelines.

For Classrooms:

- The Expected Weekly Room Hour average for the 13 states is 30.8 hours or 68.4% of the available 45 hours. The range is 30 to 33 hours (67% to 73% of the 45 available hours).
- The station occupancy average is 64% with a range from 60% to 67%.
- The average station size is 17.2 square feet with a range from 15 to 20 square feet.

Another guideline source is a publication titled "Space Planning for Institutions of Higher Education", authored by The Council of Educational Facility Planners International (CEFP). Their recommendation for campuses with a daytime student FTE between 3,000 and 10,000 is a Weekly Room Hour (WRH) of 30 with a Station Occupancy (SO) of 67% and a station size of 20 square feet for a 45 hour week.

For laboratories:

- The Expected Weekly Room Hour average for the 12 of the 13 states that have laboratory guidelines is about 21 hours; the range is 20 to 23 hours.
- The station occupancy average is 78% with range from 70% to 80%.

CEFP's guidelines for campuses with a daytime student FTE between 3,000 and 10,000 recommends a Weekly Room Hour (WRH) of 20 and a Station Occupancy (SO) of 80% for a 45 hour week. Station size varies by discipline.

While the above guidelines provide an average utilization the consultants have found that, depending on the type, class laboratories can be used at a greater rate than 20-23 hour average cited in the above guidelines. However, if longer set up times are needed or unscheduled use is required for project work, they can be scheduled at a lower weekly room hour rate. For long range planning and analysis, the consultants suggest the following general guidelines:

- For laboratories that require no special setup for classes, such as computer labs, the Weekly Room Hour use guidelines should be similar to that of classrooms (30 or more hours per week).
- For laboratories that require equipment set up such as the physical and natural sciences or technical labs, 22 hours per week is recommended.
- For laboratories that require students to use the lab for projects or other non scheduled activities, such as art, the Weekly Room Hour goal for scheduled activity should be reduced to 18 hours, or in some cases to 15 hours per week.

Establishing reasonable, achievable utilization guidelines are essential for long range classroom and laboratory planning. The utilization rates need to reflect the nature and culture of the campus, teaching patterns, the official class day and class week, academic quality and other factors that may be unique to Elon University.

Summary of Instructional Facilities

The following table summarizes the instructional facilities on the main campus.

Table 1: Summary of Instructional Facilities

Room Type	Description	Num of Rooms	Assignable Square Feet	Number of Seats	Average Room Square Feet	Average Num of Stations	Avg. Station Size
110	Classroom	75	52,632	2,675	701.8	35.7	19.7
130	Seminar Room	4	1,612	60	403.0	15.0	26.9
210	Class Laboratory	40	43,244	1,004	1,081.1	25.1	43.1
240	Computer Laboratory	9	8,161	231	906.8	25.7	35.3
610	Auditorium (ARTS 150)	1	1,925	125	1,925.0	125.0	15.4

- The campus has a second Auditorium (ARTS 130) that has no scheduled credit classes for Fall term 2010 and is therefore excluded from this analysis.
- Including the 75 general purpose classroom, the 4 seminar rooms and the Auditorium (ARTS 150) the campus has 80 rooms for general classroom instruction.
- There are a total of 49 laboratory or computer lab facilities with scheduled credit instruction.
- Other instructional facilities such as the writing lab, the language lab, and the TV studio are not scheduled with regular credit instruction and are excluded from this analysis.
- The average station sizes are in line with CEFPI guidelines.

Classroom Analysis

The classroom analysis includes the 4 seminar rooms, the auditorium (Arts 150) and the 75 classrooms.

Time by Day

Figure 1 and Table 2 illustrate how the classrooms were scheduled during a typical week for the Fall 2010 term. The chart shows intensity of use through the day for the classrooms, not the number of classrooms in use for that hour. Weekly Room Hours (WRH) (vertical scale) is the total number of room hours scheduled for 80 rooms.

Figure 1: Time by Day Distribution - Classrooms

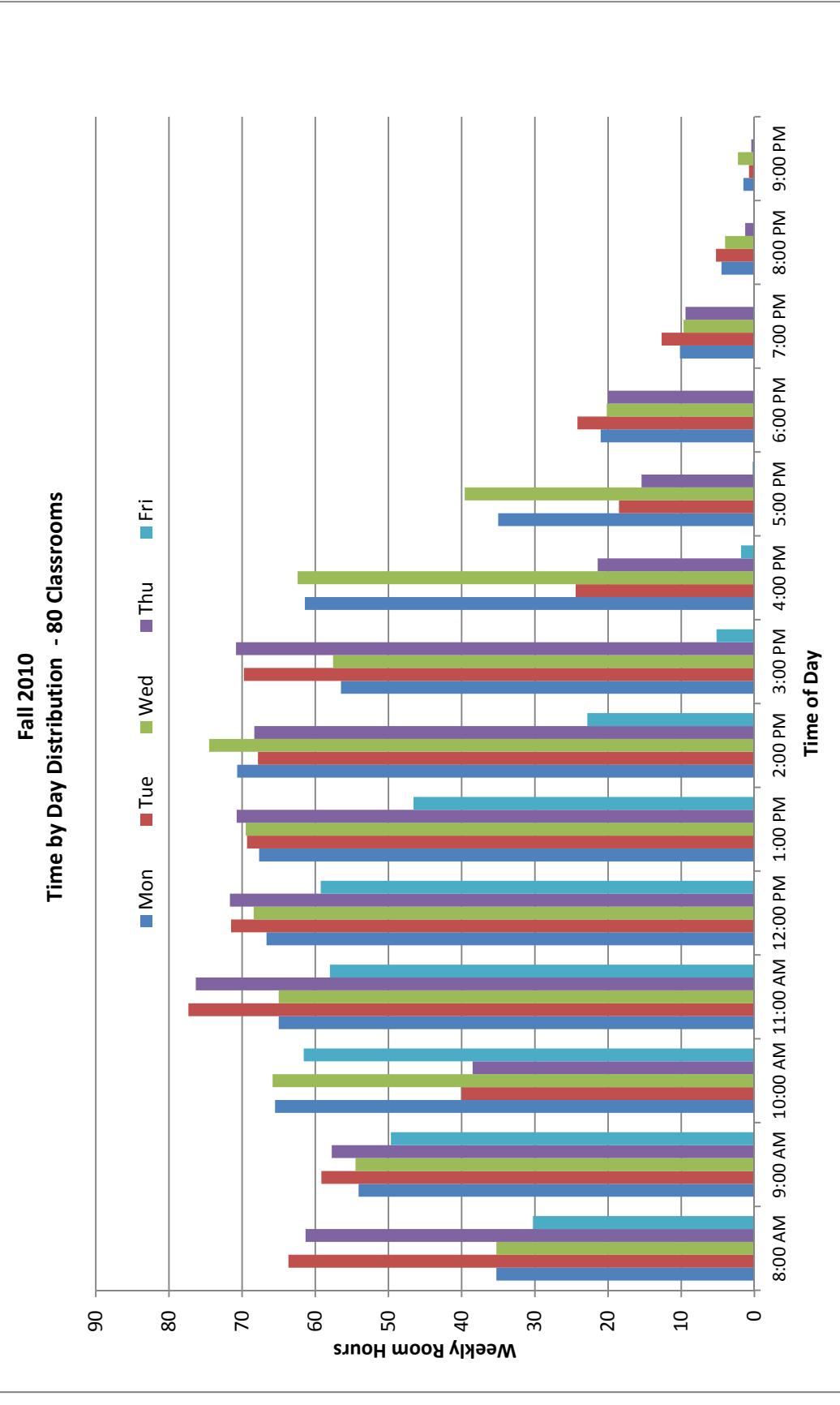


Table 2: Weekly Room Hours by Time by Day for Classrooms

Time	Mon	Tue	Wed	Thu	Fri	Totals	%
8:00	35.25	63.67	35.25	61.33	30.25	225.8	8.2%
9:00	54.08	59.17	54.5	57.75	49.67	275.2	9.9%
10:00	65.5	40	65.83	38.5	61.58	271.4	9.8%
11:00	65	77.33	65	76.33	58	341.7	12.3%
12:00	66.67	71.5	68.42	71.67	59.25	337.5	12.2%
1:00	67.67	69.33	69.5	70.75	46.58	323.8	11.7%
2:00	70.67	67.83	74.5	68.33	22.83	304.2	11.0%
3:00	56.5	69.75	57.58	70.83	5.17	259.8	9.4%
4:00	61.42	24.42	62.42	21.42	1.83	171.5	6.2%
5:00	35	18.5	39.58	15.42	0.25	108.8	3.9%
6:00	21	24.17	20.17	20	0	85.3	3.1%
7:00	10.17	12.67	9.67	9.42	0	41.9	1.5%
8:00	4.5	5.25	4	1.25	0	15.0	0.5%
9:00	1.5	0.75	2.25	0.42	0	4.9	0.2%
Totals	614.9	604.3	628.7	583.4	335.4	2,766.8	
%	22.2%	21.8%	22.7%	21.1%	12.1%		

Observations:

- Peak use occurs on Tuesday and Thursday during the 11 am hour.
- The distribution of classes from 8 am to 3 pm is very good.
- While Friday use drops off intentionally after 2 pm, it is close to a utilization guideline expectation of 15% of the total day.
- Evening use (6 pm to 9 pm) is low.

Classroom Utilization Summary

Since more than 90% of the instruction occurs during the day (8 am to 5 pm) the following utilization summary data is presented for day time use only. Spring term course demand is less than Fall term, therefore it is excluded from the summary.

The following table summarizes basic daytime (8 am to 5 pm Monday thru Friday) utilization data for the classrooms, seminar rooms and auditorium for Fall term 2010.

Table 3: Classroom Utilization Summary - Daytime - Fall 2010

	Count of Rooms	Avg. Stations Per Room	Total WRH	Avg. WRH	% Available Hours (45)	WSCH	Avg. Class Meeting Size	Occupancy %	Station Enrollments	Total Section Enrollments	Number of Sections
General Classrooms	75	35.7	2,442.6	32.6	72.4%	54,644	22.4	62.7%	16,143	683	
Seminar Rooms	4	15	47.8	12.0	26.6%	623	13.0	86.9%	291	23	
Auditorium	1	125	19.8	19.8	44.0%	278	14.0	11.2%	146	7	
Totals	80	35.8	2,510.2	31.4	69.7%	55,545	22.1	61.8%	146	7	

Observations:

- The 80 rooms were used on average 31.4 hours per week, 69.7% of the 45 available hours.
- The general purpose classrooms were used on average 32.6 hours per week, 72.4% of the 45 available hours.
 - This is near the upper range of 73% for the 13 states with daytime classroom guidelines.
 - The Station Occupancy of 61.8% for the 80 rooms is in the range for the 13 states with daytime classroom guidelines.
- The Station Occupancy for the general purpose classrooms was 62.7%.
- The Seminar Rooms are well below the average utilization guidelines for the 13 states with daytime classroom guidelines.
- Note that the Auditorium is used more like a seminar room with an average section size of 14 students or 11.2% of the seats occupied.
- There are only 3 sections in total for the whole campus with over 70 students. Therefore, for the Capacity Analysis later in this report the auditorium seats are excluded from that calculation. Excluding the auditorium changes the overall utilization as follows:
 - VRH = 31.5
 - Station Occupancy = 64.1%

Recommended Utilization Goals

Establishing reasonable utilization goals is an import part of sound classroom planning. Since the general purpose classrooms are already used above the upper limit of the CEFPI guidelines and most of the state guidelines, there would be no reason to reduce the utilization expectations. **For this analysis it is assumed that a utilization rate near the current general purpose classroom rate is reasonable at 33 hours per week between 8 am and 5 pm.** However, this is an issue the campus should address. The utilization rates need to reflect the nature and culture of the campus, teaching patterns, the official class day and class week, academic quality and other factors that may be unique to Elon University.

Excluding the auditorium, the current Station Occupancy rate of about 64% is in the mid range of guideline suggestions. For planning purposes, it is suggested that this be rounded to the 65%.

Weekly Room Hours per Classroom - Fall 2010 - (Highest to Lowest)

The following chart displays the number of hours per week (WRH) each classroom was used during a typical week Fall 2010. The blue bar represents the hours used during the day between 8 am and 5 pm. The Red bar represents the hours scheduled during the evening. The green horizontal line, WRH Daytime Goal (33 hours), represents a reasonable goal based on current scheduling practices.

Figure 2 displays the 44 classrooms that were used more than 33 hours per week, while Figure 3 shows the 36 rooms that were used less than 33 hour in Fall term 2010.

Figure 2: 44 Classrooms used MORE than 33 hours per week 8 am to 5 pm daily

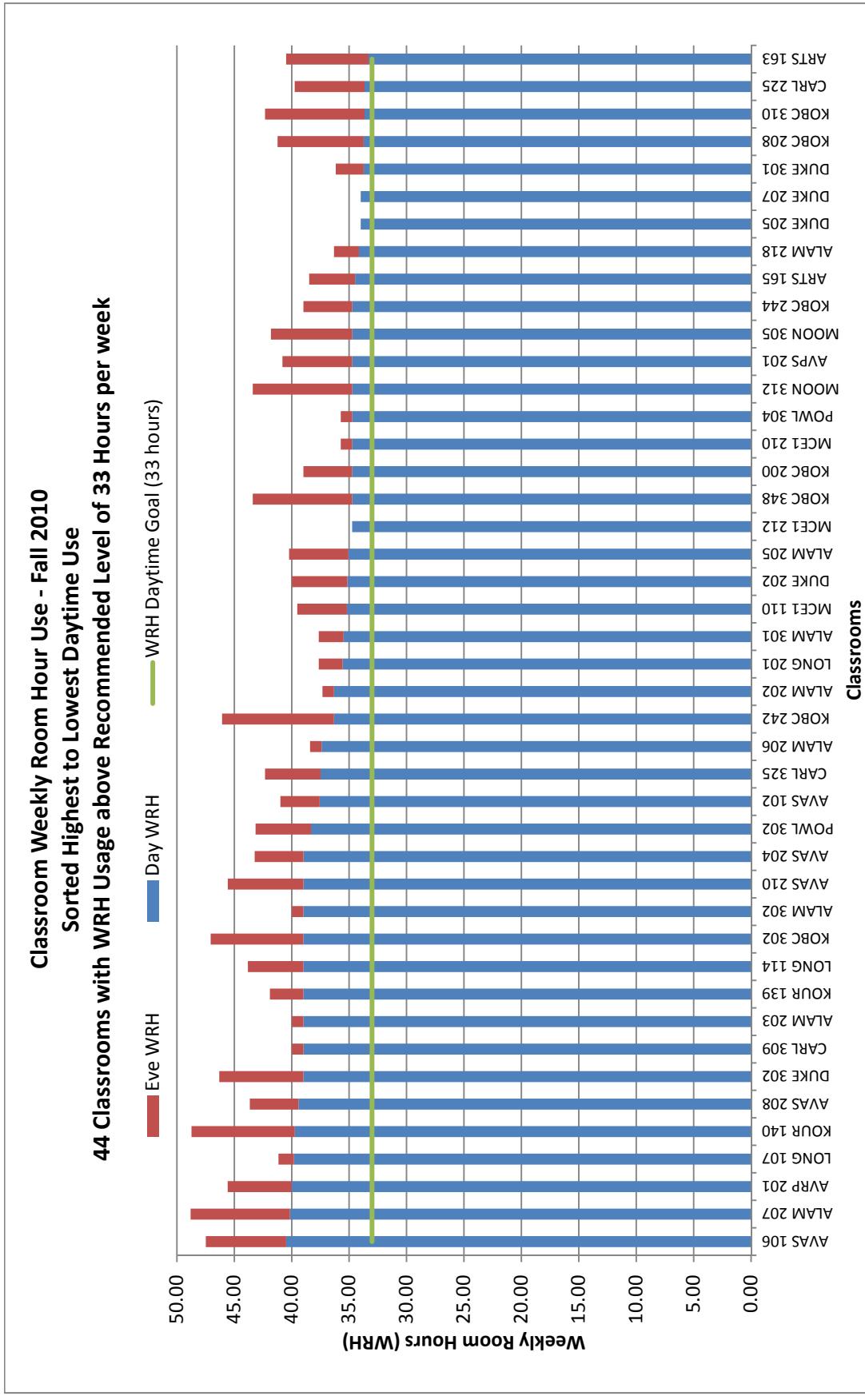
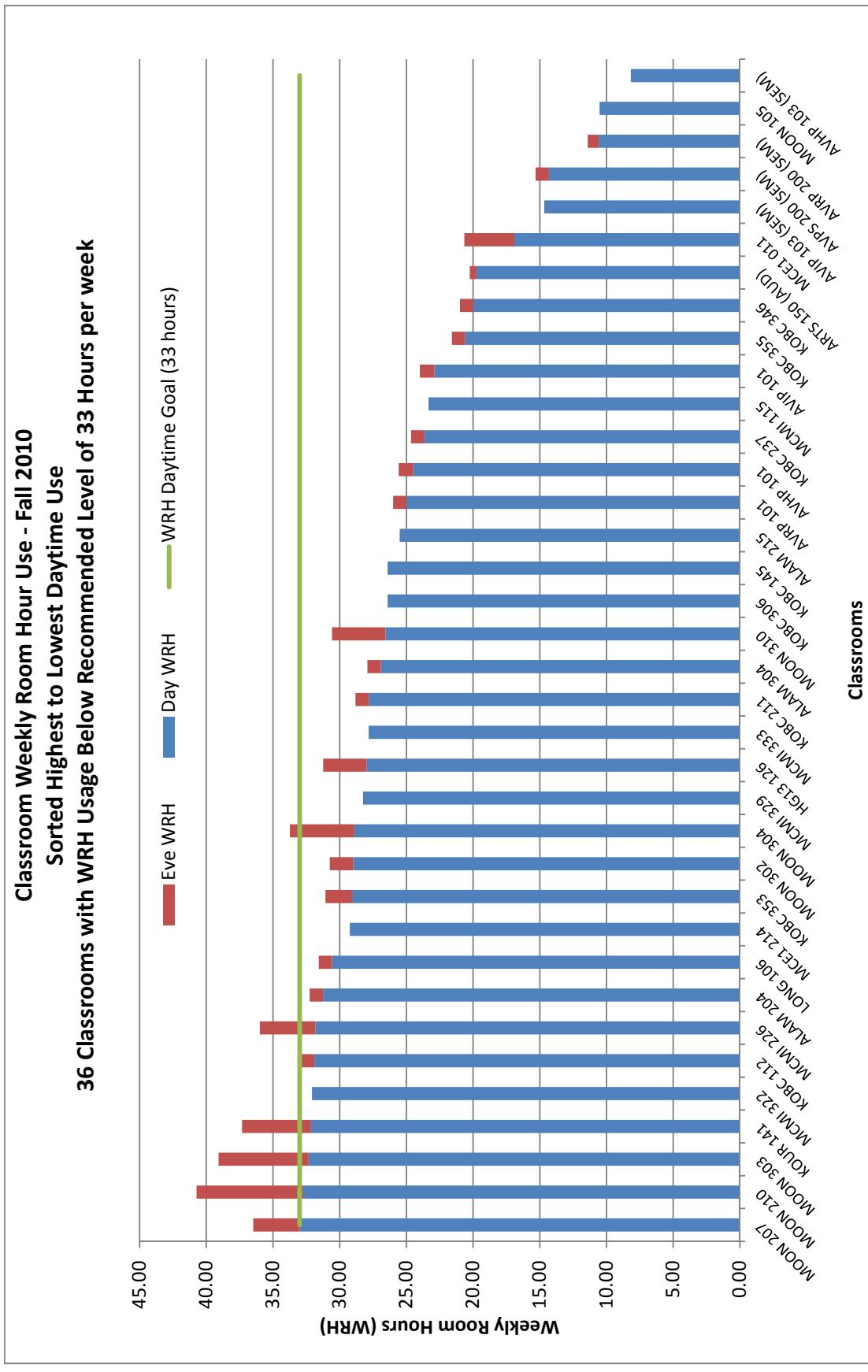


Figure 3: 36 Classrooms used LESS than 33 hours per week 8 am to 5 pm daily



Needs by Size Range

Table 4 compares the daytime Weekly Room Hour (WRH) Demand by section size range to available rooms by seating capacity size range. Definitions of the column headings are listed below:

- The **Current Rooms** column provides a count of rooms by seat capacity for each of the 9 size ranges identified.
- The **Weekly Room Hour Demand** column totals the number of daytime hours of class sections with enrollments (adjusted for 20% attrition from scheduling to the official enrollment reporting period) for each size range.
- A **Contingency** of 5% is applied to the WRH demand.
- The **Demand on Rooms** column shows how many rooms would be required if the rooms were scheduled at 33 hours per week from 8 am to 5 pm daily.
- Because it is impractical to exactly match the demand to the exact size room, some demand for smaller rooms will "cascade" into larger rooms. The **Cascade** column shows the % of cascaded used in the model for this analysis.
- The **Modified Demand on Rooms** column shows the number of rooms required after applying the cascading assumptions.
- The **Best Fit Rooms** column shows the ideal number of rooms by size range to fit the current section size profile.
- The **Difference** column is the Best Fit Rooms – Current Rooms

Table 4: Classroom Needs by Size Range

Size Range	Current Rooms	WRH Demand	Contingency	Demand on Rooms	Cascade	Modified Demand on Rooms	Best Fit Rooms	Difference
1-15	4	431	5%	13.7	40%	8.2	8	4
16-24	3	700	5%	22.3	30%	21.1	21	18
25-29	8	367	5%	11.7	30%	14.9	15	7
30-35	36	460	5%	14.6	20%	15.2	15	+21
36-39	13	303	5%	9.6	20%	10.6	11	+2
40-48	10	179	5%	5.7	20%	6.5	6	+4
49-63	2	59	5%	1.9	20%	2.6	3	1
64-72	3	8	5%	0.3	20%	0.6	0	+3
72+	1	5	5%	0.2	0%	0.2	1	0
Total	80	2,511		79.9		79.9	80	0

Observations:

- The table shows that there is a shortage of small rooms (under 30 seat capacity) while there is surplus of rooms of greater seat capacity.
 - In practice it all balances out in the end with the smaller sections being scheduled in rooms larger than necessary.
 - If additional rooms are added in the future smaller rooms would be acceptable. However, adding rooms larger than the minimum required can provide section size growth flexibility in the future to accommodate enrollment increases and to provide the University with more flexibility.

Physical Therapy

Since Physical Therapy is moving from McMichael their classrooms and labs could become available after December 2011 to meet future instructional needs. Physical Therapy will release three labs, MCMI 002, 008, 006 and three classrooms MCMI 102, 104 and 115. The three labs and rooms 102 and 104 were excluded from the utilization study since they had no reported scheduled use in the class file for fall 2010. However MCMI 115 was schedule for Biology and Chemistry classes for Fall term 2010 and was included in the utilization analysis. If the three labs are converted to classrooms and the other two rooms (102 and 104) remain as classrooms, then the campus could add about 296 seats to the classroom supply.

Table 5: Former Physical Therapy Rooms

	ASF	Estimated Capacity	Avg. Station
MCMI 002	1,344	67	20.1
MCMI 006	1,337	67	20.0
MCMI 008	965	48	20.1
MCMI 102	886	60	14.8
MCMI 104	1,053	54	19.5
Total	5,585	296	

- Note: MCMI 115 is excluded from this table since it is currently being scheduled for non PT courses.

Conclusions

- Classroom utilization of 31.4 weekly room hours during the daytime is above the CEFPI guidelines. However, as the Time by Day chart and the Classroom Week Room Hour Use charts show there are pockets of available times and some rooms that could accommodate additional sections. Underutilized rooms in KOBC, MOON, AVRPS, MCMI, and ALAM may be due to a less convenient location or missing scheduled data. Available hours are primarily at the beginning and end of the day.
 - The campus has capacity to expand evening instruction.

- Excluding the auditorium, the average station occupancy of about 64% is at the mid rang of guideline recommendations. Therefore, there is little opportunity to grow section enrollments to accommodate future enrollment increases.

Classroom Enrollment Capacity

The classroom enrollment capacity provides an estimate of the FTE students the current classroom seats could support based on assumed utilization rates. Since schedulable classroom seats are a critical factor in this calculation it is important that the room capacities are accurate. While the auditorium was included in the base utilization data presented earlier in this report, those seats are removed from this calculation since it is unlikely they would ever be used at an average rate of 65% station occupancy (average section size of 81 students – there were only 3 sections of greater than 70 for fall 2010). Removing the auditorium seats leaves 2,735 classroom and seminar room seats.

Of equal importance in capacity calculation are the assumed utilization rates. For this calculation a Weekly Room Hour rate of 33 with 65% station occupancy is assumed. As stated earlier in this report the campus should verify that these assumptions are acceptable and achievable over the long run.

If the classroom utilization is increased to 33 hours at 65% station occupancy, then the enrollment could grow by about 6% or 300 FTE from 4970 to about 5,270 FTE:

- Increasing the WRH to 33 hours without changing the section sizes would accommodate a growth of about 230 FTE students.
- Increasing the section sizes (to 65% station occupancy) without changing the WRH would also accommodate a growth of about 70 FTE students.

Adding the PT rooms (296 seats) and scheduling them at 33 hours per week at 65% station occupancy would accommodate a growth of 500 to 550 FTE students.

If the utilization is increased from 31.5 WRH to 33 WRH and the Station Occupancy is increased from 64% to 65% and the estimated 296 seats from the PT rooms are added to the current 2,735 seats, the classrooms could accommodate about 5,800 FTE (plus or minus 50), an increase of just over 800 FTE from the Fall 2010 FTE of 4,970.

Class Laboratory Analysis

Overview

A primary difference between instructional laboratories and the general purpose classrooms is the assumption of the number of hours per week (WRH) that the labs should be scheduled. For laboratories that require no special setup for classes such as computer labs, WRH use guidelines are similar to that of classrooms (30 hours per week). However for laboratories that require equipment set up such as some science or technical labs, 22 hours per week is more appropriate. In some cases it is expected that the students will need to use the lab for projects or other “non scheduled” activities (e.g. art, nursing). In these cases the weekly room hour goal for scheduled activity is reduced to 18 hours or for some labs, 15 hours per week.

Since most laboratories are designed for a specific type of instruction requiring specialized equipment and furnishings, labs that are underutilized cannot easily be used to meet the teaching need in unrelated disciplines unless the room is redesigned or modified to accommodate more than one type of use.

Laboratory Summary

The following table summarizes basic data for the 49 laboratories that were used for scheduled classes for Fall 2010.

Table 6: Lab Summary

Number of Labs	49
Total Stations	1,235
Square Feet	51,405
Average Station Size	41.6
Average Stations per Lab	25.2
Average Square Feet per Lab	1,049

Table 7: Lab Utilization Summary

	All Day	Daytime	Guideline
Utilization Rate per Lab	8am - 10 pm	8 am - 5 pm	Daytime
Average WRH	23.0	21.4	22.0
Station Occupancy Rate	70.60%	70.40%	80%

- The daytime utilization of the 49 labs on average is near the CEFPI guideline recommendation.

Detailed Utilization

Experience has shown that some types of laboratories can be used at a greater rate than 20-23 hour average cited in the laboratory guidelines while some requiring open lab time are scheduled at a lower rate. For long range planning and analysis the following general guidelines are proposed:

- For laboratories that require no special setup for classes such as computer labs WRH use guidelines are similar to that of classrooms (30 hours per week).
- For laboratories that require equipment set up such as some science or technical labs, 22 hours per week is more appropriate.
- In some cases it is expected that the students will need to use the lab for projects or other “non scheduled” activities e.g. art. In these cases the weekly room hour goal for scheduled activity is reduce to 18 hours or in some cases to 15 hours per week.

Tables 8, 9, and 10 identify the class laboratories by recommended Weekly Room Hour use. The class laboratories identified in Table 8 require no special setup for classes and therefore could be scheduled at a rate similar to the classrooms – 30 or more hours per week.

Table 8: Labs with Expected Use of 30 or More Hours per Week

Bldg	Room	Dept	Comment	ASF	Capacity	Fall 2010 Day WRH	Expected Day Time WRH
ALAM	201	CPLAB	ENG PC LAB	655	20	34.73	30
ALAM	315	CPLAB	IBM LAB	1111	30	27.16	30
ARTS	111	PARTS	DANCE-TAP	1303	16	38.98	30
ARTS	112	PARTS	DANCE 2	1442	16	38.98	30
ARTS	117	PARTS	DANCE 1-LG	1780	20	38.98	30
AVAS	202	CPLAB	Computer Lab	988	36	14.66	30
CARL	321	ENG	CUPID LAB	618	20	34.73	30
DUKE	303	CIS	INTRO LAB	1120	30	32.32	30
KOBC	201	BUS	Lab ACC 201,332,331	796	35	22.82	30
KOBC	313	BUS	CPTR Lab CIS 211	739	36	36.15	30
KOBC	354	BUS	CPTR Lab ECO 203	865	40	22.82	30
MCE1	108	CPLAB	Mac Lab	1078	25	30.90	30
MCE1	205	COM	CPTR Lab	751	20	35.15	30
MCE1	207	COM	CPTR Lab	744	20	34.73	30
MCE1	209	COM	CPTR Lab	739	20	34.73	30
MCMI	320	BIO	CRTR Lab	513	20	14.83	30
MOON	201	CPLAB	PC Lab	1078	30	22.40	30
MOON	202	CPLAB	MAC Lab	1017	30	11.49	30

The class laboratories identified in Table 9 require set up time, therefore an expected WRH of 22 hours is more appropriate.

Table 9: Labs with Expected Use of 22 Hours per Week

Bldg	Room	Dept	Comment	ASF	Capacity	Fall 2010 Day WRH	Expected Day Time WRH
ARTS	240	PARTS	RECORDING STUDIO	434	15	9.08	22
AVPS	110	POLIS	LAB POLLING CENTER	1302	30	23.82	22
DUKE	304	CIS	NETWORK LAB	433	20	3.83	22
LONG	113	PSY	PSY Lab	689	20	11.33	22
MCMI	103	BIO	Zoo/Bot Lab	1302	28	16.34	22
MCMI	107	BIO	Ecology Lab	973	28	19.75	22
MCMI	110	BIO	Bio Majors Lab	1367	28	6.50	22
MCMI	114	BIO	Bio Lab	1431	28	22.51	22
MCMI	203	PHY	Phy Intro Lab	1162	20	40.85	22
MCMI	206	PHY	Phy Adv Lab	660	20	6.17	22
MCMI	207	PHY	Phy Intro lab	1134	30	34.73	22
MCMI	217	BIO	Microbio Lab	1249	18	19.50	22
MCMI	218	BIO	Physiology Lab	1250	18	9.75	22
POWL	306	BIO	Sci Lab	650	24	12.83	22
POWL	311	BIO	BIO 101	768	24	18.34	22

The class laboratories identified in Table 10 are often used for projects or other "non scheduled" activities that require large blocks of "open" lab time. An expected WRH of 18 or 15 hours is more appropriate.

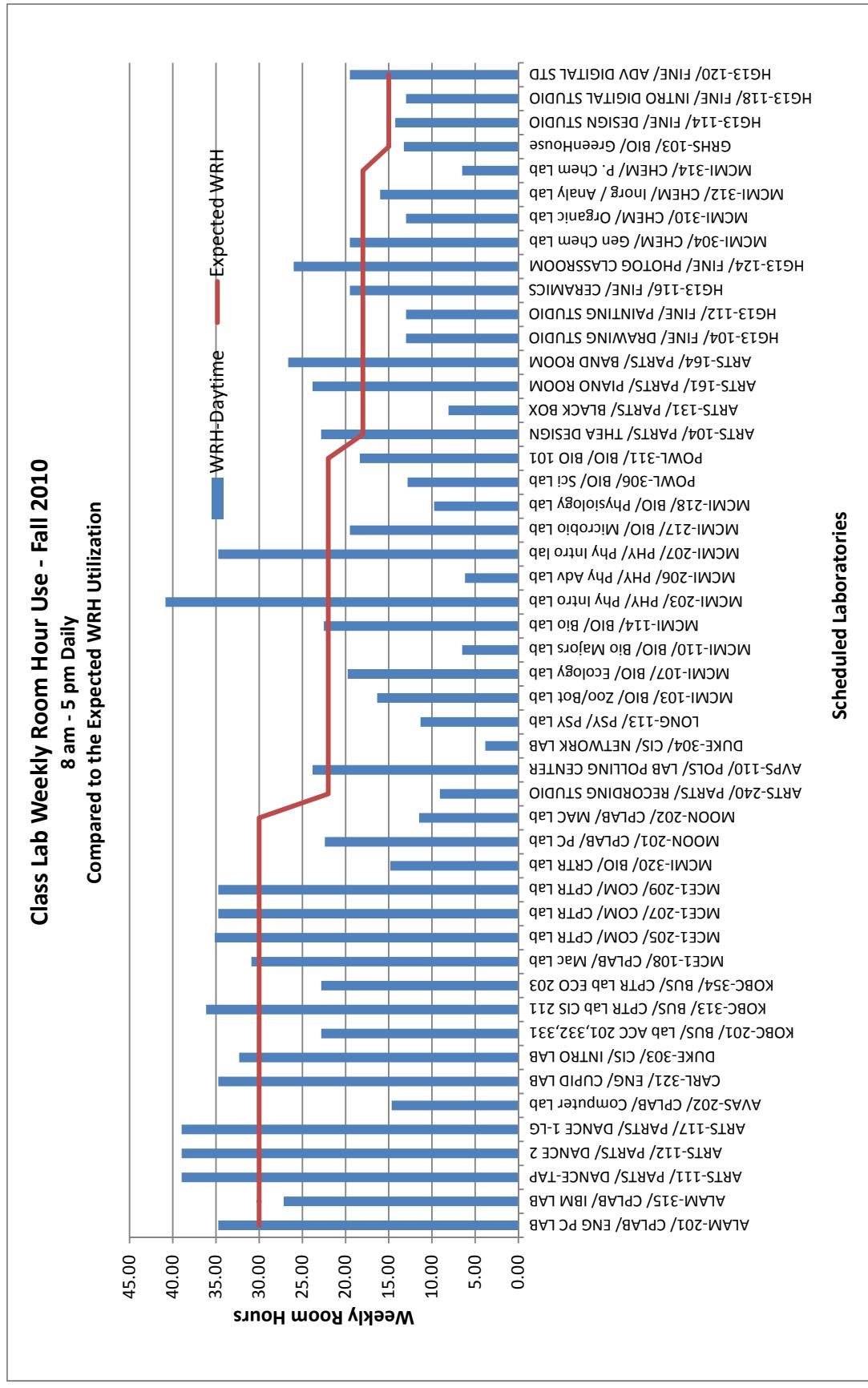
Table 10: Labs with Expected Use of 15 or 18 Hours per Week

Bldg	Room	Dept	Comment	ASF	Capacity	Fall 2010 Day WRH	Expected Day Time WRH
ARTS	104	PARTS	THEA DESIGN	740	16	22.83	18
ARTS	131	PARTS	BLACK BOX	1945	14	8.08	18
ARTS	161	PARTS	PIANO ROOM	602	18	23.82	18
ARTS	164	PARTS	BAND ROOM	2382	100	26.65	18
HG13	104	FINE	DRAWING STUDIO	1398	22	13.00	18
HG13	112	FINE	PAINTING STUDIO	896	15	13.00	18
HG13	116	FINE	CERAMICS	1908	18	19.50	18

Bldg	Room	Dept	Comment	ASF	Capacity	Fall 2010 Day WRH	Expected Day Time WRH
HG13	124	FINE	PHOTOG CLASSROOM	398	15	26.00	18
MCM1	304	CHEM	Gen Chem Lab	1332	28	19.50	18
MCM1	310	CHEM	Organic Lab	1388	28	13.00	18
MCM1	312	CHEM	Inorg / Analy Lab	1203	28	16.00	18
MCM1	314	CHEM	P. Chem Lab	757	29	6.50	18
GRHS	103	BIO	Greenhouse	1204	24	13.25	15
HG13	114	FINE	DESIGN STUDIO	1274	25	14.25	15
HG13	118	FINE	INTRO DIGITAL STUDIO	912	20	13.00	15
HG13	120	FINE	ADV DIGITAL STD	925	20	19.50	15

Figure 4 presents a graphical overview of the number of Daytime hours each lab was scheduled for Fall 2010 (the blue vertical bars) compared to the expected number of hours that type of lab should be used (the red horizontal line).

Figure 4: Fall 2010 Class Lab use Compared to Expected Hours



Departmental Summaries

Table 11 summarizes the basic data for each department and lab.

Column definitions:

- Department, Building, Room and Lab Type - from a report from the Office of the Registrar.
- Square Feet - calculated from floor plans.
- Stations -(room capacity) from the Office of the Registrar report
- Average Section Sizes – Total section enrollment divided by the count of sections – all obtained from the Fall 2010 class file.
- Potential Enrollment Increases - Number of additional students to bring the average section size to 80% of the number of stations. If the average section size exceeds the 80% threshold this field is blank.
- Daytime WRH – the number of hours the lab was scheduled for Fall 2010 between 8 am and 5 pm.
- Recommended WRH – The Guideline Recommend for the number of hours the lab should be scheduled. Varies by lab type.
- Additional Potential Hours – The difference between Recommended WRH and the Daytime WRH. This field is blank for room that currently exceeds the recommendation.
- Can Add Sections – This field is marked for those labs that could add potential hours.
- Can Increase Current Section Sizes – This field is marked for those labs that can add more students per section.

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Table 11: Lab Utilization by Department

Department	Building	Room	Lab Type	Average Section Size	Section Count	Addtional Enrollments to Current Sections	Daytime WRH	Recommended WRH	Addtional Potential Hours	Can Add Sections	Can Increase Current Section Sizes
BIO	GRHS	103	Greenhouse	1,204	24	16.00	4	13	13.3	15	1.75
BIO	MCM1	103	Zoo/Bot Lab	1,302	28	19.25	4	13	16.3	22	5.66
BIO	MCM1	107	Ecology Lab	973	28	18.67	6	22	19.8	22	2.25
BIO	MCM1	110	Bio Majors Lab	1,367	28	20.50	2	4	6.5	22	15.50
BIO	MCM1	114	Bio Lab	1,431	28	15.43	7	49	22.5	22	x
BIO	MCM1	217	Microbio Lab	1,249	18	16.67	6	19.5	22	2.50	x
BIO	MCM1	218	Physiology Lab	1,250	18	18.00	3	9.8	22	12.25	x
BIO	MCM1	320	CRTR Lab	513	20	14.75	4	5	14.8	30	15.17
BIO	POWL	306	Sci Lab	650	24	20.80	5	12.8	22	9.17	x
BIO	POWL	311	BIO 101	768	24	24.60	5	18.3	22	3.66	x
BIO Total				10,707	240	18.47	46	15.4	22.1	67.91	
BUS	KOBC		Lab ACC 201,332,331	796	35	29.00	6	22.8	30	7.18	x
BUS	KOBC		CPTR Lab CIS 211	739	36	24.11	9	42	36.2	30	x
BUS	KOBC		CPTR Lab ECO 203	865	40	24.67	6	44	22.8	30	7.18
BUS Total				2,400	111	25.93	21	27.26	30.00	14.36	
CHEM	MCM1		Gen Chem Lab	1,332	28	20.00	6	14	19.5	18	x
CHEM	MCM1		Organic Lab	1,388	28	16.50	4	24	13.0	18	5.00
CHEM	MCM1	BIO	Inorg / Analy Lab	1,203	28	13.50	4	36	16.0	18	2.00
CHEM	MCM1	BIO	P. Chem Lab	757	29	8.00	2	30	6.5	18	11.50
CHEM Total	BIO			4,680	113	14.50	16	13.75	18.00	18.50	
CIS	DUKE	303	INTRO LAB	1,120	30	14.75	8	74	32.3	30	13.50
CIS	DUKE	304	NETWORK LAB	433	20	10.00	1	6	3.8	22	18.17
CIS Total				1,553	50	12.38	9	18.07	26.00	31.67	
COM	MCE1	205	CPTR Lab	751	20	16.33	9	35.2	30		

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Department	Building	Room	Lab Type	Square Feet	Average Section Size	Section Count	Additional Enrollments to Current Sections	Daytime WRH	Recommended WRH	Additional Potential Hours	Can Add Sections	Can Increase Current Section Sizes
COM	MCE1	207	CPTR Lab	744	20	15.44	9	34.7	30	0.00	x	
COM	MCE1	209	CPTR Lab	739	20	16.56	9	34.7	30	0.00	x	
COM Total				2,234	60	16.11	27	34.87	30.00	0.00		
CPLAB	ALAM	201	ENG PC LAB	655	20	20.67	9	34.7	30	0.00		
CPLAB	ALAM	315	IBM LAB	1,111	30	26.00	7	27.2	30	2.84	x	
CPLAB	AVAS	202	Computer Lab	988	36	20.50	4	33	14.7	30	15.34	x
CPLAB	MCE1	108	Mac Lab	1,078	25	14.75	8	42	30.9	30	x	x
CPLAB	MOON	201	PC Lab	1,078	30	15.67	6	50	22.4	30	7.60	x
CPLAB	MOON	202	MAC Lab	1,017	30	17.67	3	19	11.5	30	18.51	x
CPLAB Total				5,927	171	19.21	37	23.56	30.00	44.29		
ENG	CARL	321	CUPID LAB	618	20	18.44	9	34.7	30	0.00		
ENG Total				618	20	18.44	9	34.7	30	0.00		
FINE	HG13	104	DRAWING STUDIO	1,398	22	16.50	2	2	13.0	18	5.00	x
FINE	HG13	112	PAINTING STUDIO	896	15	16.50	2	13.0	18	5.00	x	
FINE	HG13	114	DESIGN STUDIO	1,274	25	12.75	4	29	14.3	15	0.75	x
FINE	HG13	116	CERAMICS	1,908	18	12.33	3	6	19.5	18	x	
FINE	HG13	118	INTRO DIGITAL STUDIO	912	20	16.00	2	13.0	15	2.00	x	
FINE	HG13	120	ADV DIGITAL STD	925	20	14.33	3	5	19.5	15	x	
FINE	HG13	124	PHOTOG CLASSROOM	398	15	12.25	4	26.0	18			
FINE Total				7,711	135	14.38	20	16.89	16.71	12.75		
PARTS	ARTS	104	THEA DESIGN	740	16	10.29	7	18	22.8	18	x	
PARTS	ARTS	111	DANCE-TAP	1,303	16	13.50	10	14	39.0	30		
PARTS	ARTS	112	DANCE 2	1,442	16	11.40	10	14	39.0	30	x	
PARTS	ARTS	117	DANCE 1-LG	1,780	20	16.80	10	14	39.0	30		
PARTS	ARTS	131	BLACK BOX	1,945	14	13.00	2	8.1	18	9.92	x	
PARTS	ARTS	161	PIANO ROOM	602	18	9.33	9	46	23.8	18	x	
PARTS	ARTS	164	BAND ROOM	2,382	100	31.14	7	342	26.6	18	x	

Department	Building	Room	Lab Type	Square Feet	Average Section Size	Section Count	Additional Enrollments to Current Sections	Daytime WRH	Additional Potential Hours	Can Add Sections	Can Increase Current Section Sizes
PARTS	ARTS	240	RECORDING STUDIO	434	15	10.33	3	5	9.1	22	12.92
PARTS Total				10,628	215	14.47	58	25.93	23.00	22.84	x
PHY	MCM1	203	Phy Intro Lab	1,162	20	22.38	13	40.8	22		
PHY	MCM1	206	Phy Adv Lab	660	20	6.00	2	20	6.2	22	x
PHY	MCM1	207	Phy Intro Lab	1,134	30	27.44	9	34.7	22	x	x
PHY Total				2,956	70	18.61	24	27.25	22.00	15.83	
POLS	AVPS	110	LAB POLLING CENTER	1,302	30	16.17	6	47	23.8	22	x
POLS Total				1,302	30	16.17	6	23.8	22	0.00	
PSY	LONG	113	PSY Lab	689	20	14.33	3	5	11.3	22	10.67
PSY Total				689	20	14.33	3	11.3	22	10.67	
Grand Total				51,405	1235	16.94	276	21.74	23.84	256.99	

Observations

Several labs are used well beyond the expected hours. They include:

- Computer Labs, MCE1-205, MCE1-207, MCE1-209, and ALAM-201 (30 Expected Hours)
- The Dance Studios, ARTS-111, ARTS-112, ARTS-117 (30 Expected Hours)
- CUPID Lab, CARL-321 (30 Expected Hours)
- Intro CIS Lab, DUKE-303 (30 Expected Hours)
- Intro Physics, MCMI-203, MCMI-207 (22 Expected Hours)
- General Chemistry, MCMI-304 (18 Expected Hours)
- Political Science, AVPS-110 (22 Expected Hours)
- Several of the Fine and Performing Arts Labs, HG13-116, HG13-124, HG13-104, HG13-120 and ARTS-104, ARTS-161, ARTS-164 (18 Expected Hours)

If the labs are scheduled at the recommended Weekly Room Hours for each type of lab (see Table 11) with 80% of the stations occupied then the labs could support an FTE enrollment increase of about 20% which is consistent with the potential increase that the classrooms could support. However, since labs tend to be specialized, available space in one lab may not be able to be used by an unrelated discipline. Table 11 shows which labs could support additional sections or enrollments.

APPENDIX

School of Law

The utilization analysis includes the classrooms for the School of Law located in Greensboro, North Carolina. The Fall term 2010 schedule data was provided by the Law School and individual classroom square footage was provided by Spillman Farmer Architects. The School's web site identified a total of 132 incoming students and a grand total of 344 students for Fall term 2010.

Summary of Instructional Facilities

The School of Law utilizes five general purpose classrooms, two seminar rooms, and one computer lab located in the library along with several clinic rooms. The clinic rooms and the computer lab are generally used as "open" labs. It is assumed that they are not used for regularly scheduled credit instruction, and are therefore excluded from the analysis of scheduled use. Table 12 summarizes the current supply for the 5 classrooms and 2 seminar rooms.

Table 12: Current Supply

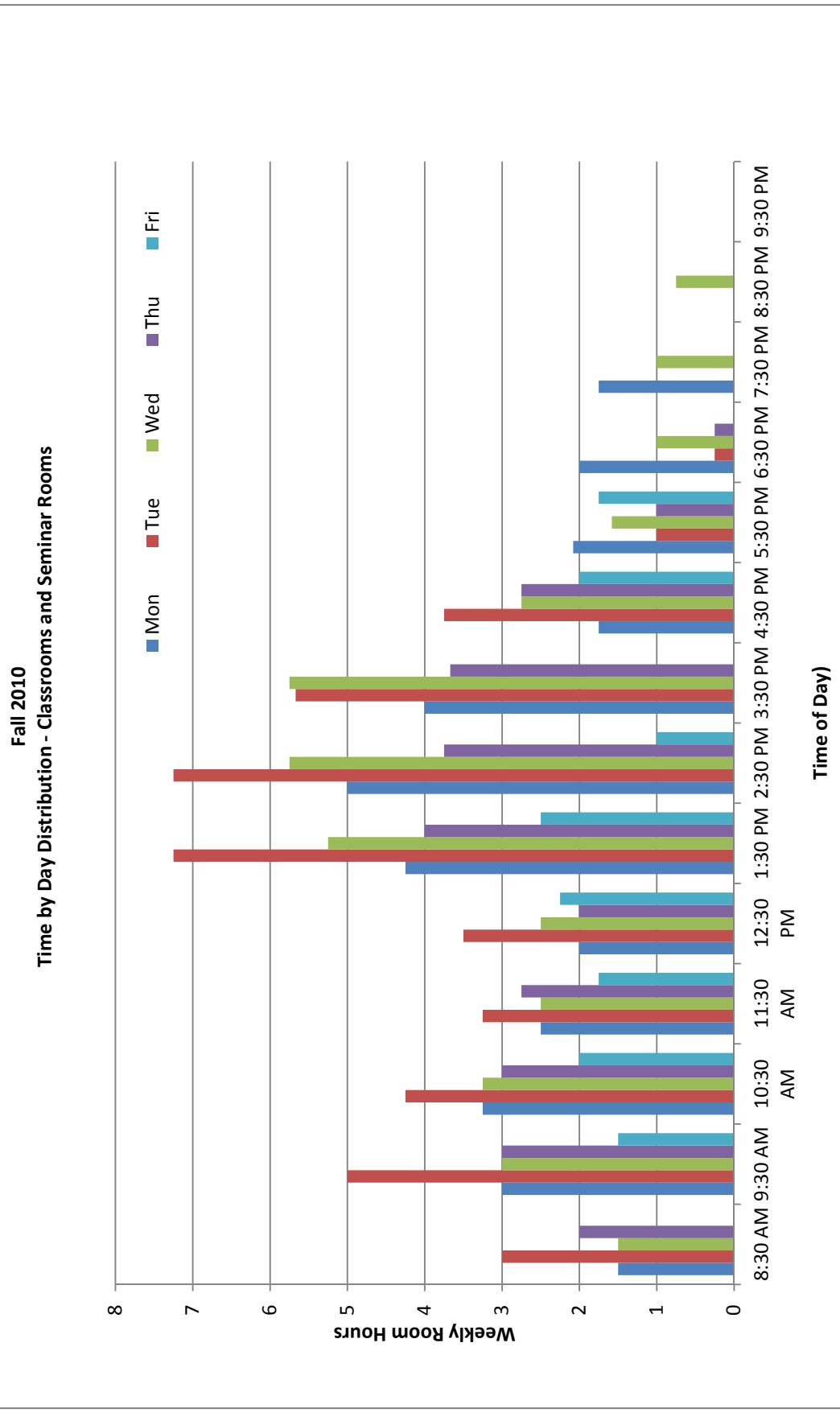
Room Type	Num of Rooms	Assignable Square Feet	Number of Seats	Average Room Square Feet	Average Number of Stations	Average Station Size
Classrooms	5	8,106	401	1,621.2	80.2	20.2
Seminar Rooms	2	1,046	35	523.0	17.5	29.9
Totals	7	9,152	436	1,307.4	62.3	21.0

Classroom Analysis

Time by Day

Figure 5 and Table 13 illustrate how the seven rooms were scheduled by hour of the day during a typical week for the Fall 2010 term. The chart identifies the intensity of use through the day for the rooms, but does not depict the number of classrooms in use for that hour. Weekly Room Hours (WRH) (vertical scale) is the total number of room hours scheduled for classroom and seminar rooms. Peak use occurs on Tuesday at 1:30 and 2:30 PM with all rooms in use. There is little scheduled activity at 8:30 AM and after 6:30 PM

Figure 5: Classroom Time by Day Distribution



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Table 13: Classroom Time by Day

Time	Mon	Tue	Wed	Thu	Fri	Totals	%
8:30 AM	1.5	3	1.5	2	0	8	5.1%
9:30 AM	3	5	3	3	1.5	15.5	9.9%
10:30 AM	3.25	4.25	3.25	3	2	15.75	10.0%
11:30 AM	2.5	3.25	2.5	2.75	1.75	12.75	8.1%
12:30 PM	2	3.5	2.5	2	2.25	12.25	7.8%
1:30 PM	4.25	7.25	5.25	4	2.5	23.25	14.8%
2:30 PM	5	7.25	5.75	3.75	1	22.75	14.5%
3:30 PM	4	5.67	5.75	3.67	0	19.09	12.2%
4:30 PM	1.75	3.75	2.75	2.75	2	13	8.3%
5:30 PM	2.08	1	1.58	1	1.75	7.41	4.7%
6:30 PM	2	0.25	1	0.25	0	3.5	2.2%
7:30 PM	1.75	0	1	0	0	2.75	1.8%
8:30 PM	0	0	0.75	0	0	0.75	0.5%
9:30 PM	0	0	0	0	0	0	0.0%
Totals	33.08	44.17	36.58	28.17	14.75	156.75	
% of Total	21.1%	28.2%	23.3%	18.0%	9.4%		

Detailed Room Utilization

Table 14 summarizes how the five classrooms were used for Fall 2010 during the normal class day: 8:30 AM to 5:30 AM.

Table 14: Classroom Utilization

Room Num	ASF	Seats	Weekly Room Hours	% Available Hours (45)	Weekly Student Contact Hours	Average Class Meeting Size	Station Occupancy%	Section Enrollment	Section Count
105	1,240	60	26.17	58.2%	780	29.81	49.7%	257,	10
107	999	35	24.67	54.8%	428	17.35	49.5%	175,	10
204	1,570	79	26.83	59.6%	1,220	45.47	57.5%	365,	9
206	1,916	99	23.75	52.8%	1,012	42.61	43.0%	290,	7

Room Num	ASF	Seats	Weekly Room Hours	% Available Hours (45)	Weekly Student Contact Hours	Average Class Meeting Size	Station Occupancy%	Section Enrollment	Section Count
207	2,381	128	26.25	58.3%	1,660	63.24	49.4%	503,	8
Totals	8,106	401	127.67		5,100			1,590	44
Average		80.2	25.5	56.7%		39.95	49.8%		

- On average the five rooms were used 25.5 hours per week which is 56.7% of the 45 hours available for the week. An average of 30 hours of scheduled use for the general purpose classrooms should be an achievable goal.
- The average class meeting size was about 40 students resulting in average station occupancy of almost 50%. Most guidelines suggest a station occupancy goal of 60% or more.
- The two seminar rooms, 205 and 211, were scheduled a total of 12 hours and are excluded from the capacity analysis since they would not be a limiting factor for future enrollment growth.

Classroom Enrollment Capacity

The classroom enrollment capacity provides an estimate of the number of students the current classroom seats could support based on assumed utilization rates. Since the classroom seats are a critical factor in this calculation it is important that the room capacities are accurate.

Of equal importance in the capacity calculation are the assumed utilization rates. For this calculation, a Weekly Room Hour rate of 30 with 60% station occupancy is used. The School should verify that these assumptions are acceptable and achievable.

If the classroom utilization is increased from 25.5 hours per week to 30 hours per week and the class sizes are increased from about 40 students to 48 students (station occupancy of 60%), the School could grow by about 40% from 344 students enrolled in 2010 to about 480 students. Increasing the class section size would only accommodate a growth of about 20% while increasing the number of sections would only accommodate an enrollment growth of 15% at current section sizes.

State Classroom and Lab Utilization Guidelines

Table 15 summarizes the expected Weekly Room Rate and Station Occupancy rate for classrooms and labs for States that have daytime guidelines.

Table 15: State Utilization Guidelines

	Class Rooms			Labs	
	Expected WRH	SO%	Station ASF	Expected WRH	SO%
Arizona	30	60%	18	23	80%
Colorado	30	67%	15	20	80%
Connecticut	30	60%	18	20	
Georgia	32	65%	16	23	80%
Louisiana	30	65%			
Maryland	30	65%	17.5		
New Jersey	30	67%	20	20	70%
New Mexico	32	65%	16	23	80%
Oklahoma	30	63%	15	23	80%
Oregon	33	60%	16	22	80%
South Dakota	30	65%	18	20	70%
Tennessee	30	67%		21	80%
Wyoming	33	60%	20	20	75%
Average	30.8	64%	17.2	20.5 - 21.25	78%

Detailed Main Campus Classroom Utilization

Table 16 provides the detailed utilization data for the 75 classrooms, 4 seminar rooms, and 1 Auditorium for Fall 2010.

Table 16 Classroom Utilization

Classrooms	Bldg	Room	ASF	Capacity	Daytime WRH	50%	WSCH	Sections	Section Enrollment	Avg. Section	Evening Hours
ALAM	202	655	33	36.32	47.8%	572.00	10	155	15.5	1.0	
ALAM	203	669	33	38.98	89.2%	1144.00	10	296	29.6	1.0	
ALAM	204	633	33	31.25	75.7%	780.00	10	234	23.4	1.0	
ALAM	205	633	33	35.06	84.1%	970.00	10	273	27.3	5.2	
ALAM	206	602	33	37.40	78.8%	970.00	10	263	26.3	1.0	
ALAM	207	877	27	40.15	70.8%	767.00	11	204	18.5	8.7	
ALAM	215	651	33	25.50	37.3%	314.00	5	67	13.4	0.0	
ALAM	218	624	34	34.15	76.6%	887.00	9	233	25.9	2.2	
ALAM	301	651	33	35.48	50.9%	595.00	10	167	16.7	2.2	
ALAM	302	715	33	38.98	69.5%	892.00	10	227	22.7	1.0	
ALAM	304	489	16	26.92	70.5%	304.00	10	122	12.2	1.0	
ARTS	163	616	25	33.31	53.2%	444.00	13	194	14.9	7.2	
ARTS	165	590	25	34.48	48.7%	420.00	11	130	11.8	4.0	
AVAS	102	1,323	72	37.57	39.7%	1075.00	10	283	28.3	3.4	
AVAS	106	690	32	40.48	65.8%	854.00	12	225	18.8	7.0	
AVAS	204	1,014	48	38.98	54.6%	1023.00	10	266	26.6	4.3	
AVAS	208	1,171	72	39.40	41.7%	1183.00	10	298	29.8	4.3	
AVAS	210	795	36	38.98	84.2%	1182.00	10	306	30.6	6.6	
AVHP	101	513	25	24.49	52.9%	324.00	7	94	13.4	1.1	
AVIP	101	513	25	22.90	63.4%	363.00	6	94	15.7	1.1	
AVPS	201	700	35	34.73	68.8%	836.00	9	216	24.0	6.1	
AVRP	101	700	33	24.99	34.7%	286.00	9	100	11.1	1.0	
AVRP	201	700	33	40.00	79.9%	1053.00	12	293	24.4	5.6	
CARL	225	557	25	33.66	72.8%	612.00	10	174	17.4	6.1	
CARL	309	557	33	38.98	69.5%	892.00	10	227	22.7	1.0	
CARL	325	548	30	37.49	61.3%	691.00	11	197	17.9	4.8	
DUKE	202	601	40	35.15	63.6%	894.00	9	231	25.7	4.8	
DUKE	205	604	33	33.99	83.3%	933.00	9	242	26.9	0.0	

Elon University
Classroom and Class Lab Utilization Study

Bldg	Room	ASF	Capacity	Daytime WRH	50%	WSCH	Sections	Section Enrollment	Avg. Section	Evening Hours
DUKE	207	486	32	33.99	54.3%	591.00	9	157	17.4	0.0
DUKE	301	602	40	33.74	65.2%	879.00	10	252	25.2	2.4
DUKE	302	601	40	38.98	64.1%	999.00	10	256	25.6	7.3
HG13	126	812	33	27.99	49.6%	457.00	9	133	14.8	3.3
KOBC	112	710	40	31.90	44.2%	563.00	9	158	17.6	1.0
KOBC	145	842	30	26.41	54.6%	433.00	8	136	17.0	0.0
KOBC	200	811	33	34.73	86.4%	988.00	9	256	28.4	4.3
KOBC	208	992	38	33.73	61.7%	793.00	9	205	22.8	7.5
KOBC	211	824	35	27.82	71.9%	700.00	8	193	24.1	1.0
KOBC	237	794	36	23.65	67.0%	571.00	7	170	24.3	1.0
KOBC	242	1,244	40	36.32	66.7%	969.00	10	266	26.6	9.8
KOBC	244	766	36	34.73	75.9%	950.00	9	246	27.3	4.3
KOBC	302	793	23	38.98	84.4%	757.00	10	194	19.4	8.1
KOBC	306	785	33	26.41	71.1%	619.00	8	184	23.0	0.0
KOBC	310	992	38	33.66	71.8%	921.00	9	234	26.0	8.7
KOBC	346	1,244	60	19.99	45.8%	549.00	6	161	26.8	1.0
KOBC	348	766	36	34.73	68.6%	858.00	9	224	24.9	8.7
KOBC	353	836	44	29.07	40.4%	517.00	8	132	16.5	2.0
KOBC	355	842	33	20.59	64.7%	439.00	8	153	19.1	1.0
KOUR	139	545	35	38.98	77.5%	1058.00	10	270	27.0	2.9
KOUR	140	494	35	39.73	67.4%	938.00	11	250	22.7	9.0
KOUR	141	532	35	32.15	61.5%	693.00	9	196	21.8	5.2
LONG	106	825	36	30.57	75.0%	826.00	9	227	25.2	1.0
LONG	107	714	36	39.81	76.2%	1093.00	11	293	26.6	1.3
LONG	114	687	35	38.98	85.4%	1166.00	10	299	29.9	4.8
LONG	201	723	26	35.56	65.3%	605.00	10	172	17.2	2.1
MCF1	011	965	70	16.91	33.9%	401.00	5	111	22.2	3.8
MCE1	110	555	36	35.19	66.3%	839.00	13	268	20.6	4.3
MCE1	210	539	36	34.73	70.3%	880.00	9	222	24.7	1.0
MCE1	212	547	36	34.74	54.4%	681.00	10	186	18.6	0.0
MCE1	214	547	36	29.24	59.8%	630.00	8	168	21.0	0.0
MCM1	115	1,025	63	23.34	49.6%	730.00	6	188	31.3	0.0
MCM1	226	787	39	31.82	56.9%	706.00	9	198	22.0	4.2
MCM1	322	631	40	32.08	54.6%	701.00	9	192	21.3	0.0

Elon University
Classroom and Class Lab Utilization Study

Bldg	Room	ASF	Capacity	Daytime WRH	50%	WSCH	Sections	Section Enrollment	Avg. Section	Evening Hours	
MCMI	329	719	29	28.25	48.5%	397.00	7	98	14.0	0.0	
MCMI	333	625	41	27.83	71.6%	817.00	8	225	28.1	0.0	
MOON	105	451	20	10.52	75.0%	156.00	8	116	14.5	0.0	
MOON	207	472	35	32.98	47.0%	542.00	9	155	17.2	3.5	
MOON	210	570	30	32.73	46.8%	460.00	7	107	15.3	8.0	
MOON	302	725	40	28.99	44.9%	520.00	8	131	16.4	1.8	
MOON	303	525	30	32.33	39.3%	382.00	7	89	12.7	6.7	
MOON	304	473	30	28.90	45.4%	394.00	6	80	13.3	4.8	
MOON	305	490	35	34.73	68.7%	835.00	9	220	24.4	7.1	
MOON	310	436	30	26.57	58.8%	469.00	9	152	16.9	4.0	
MOON	312	560	35	34.73	102.3%	1244.00	9	315	35.0	8.7	
POWL	302	603	33	38.32	71.2%	898.00	10	235	23.5	4.8	
POWL	304	734	30	34.73	73.5%	767.00	9	196	21.8	1.0	
Seminar											
AVHP	103	429	15	8.18	93.6%	117.00	6	84	14.0	0.0	
AVIP	103	429	15	14.67	132.1%	292.00	7	122	17.4	0.0	
AVPS	200	379	15	14.32	60.1%	128.00	4	36	9.0	1.0	
AVRP	200	375	15	10.59	54.1%	86.00	6	49	8.2	0.8	
Auditorium											
ARTS	150	1,925	125	19.75	11.3%	278.00	7	146	20.9	0.5	
Totals	Rooms	80	56,169	2,860	2,510	61.9%	55,542	713	15,317	21.5	255.9
				Avg WRH	31.4						

ELON BUILDINGS LIST

BY FUNCTION (NOVEMBER 18, 2011)

#	<u>Building</u>	<u>Address</u>	<u>Construction Year</u>	<u>Acquisition Year</u>	<u>Gross Area owned</u>	<u>Gross Area rented</u>	<u>Year Rented</u>
ACADEMIC							
226	Academic Village 3 Gray Pavilion	303 East Lebanon	2004	2004	9,632		
228	Academic Village 4 Belk Pavilion	370 N. Antioch Ave.	2007	2007	9,632		
227	Academic Village 5 Spence Pavilion	360 N. Antioch Ave.	2007	2007	9,632		
105	Alamance	107 E. Haggard Ave	1923	1923	36,240		
129	Belk Library	308 N. O'Kelly Ave.	2000	2000	75,000		
121	Black Box Theatre (Old Purchasing)	104 N. Williamson Ave	1920			2,700	1990
106	Carlton	105 E. Haggard Ave.	1925	1925	22,428		
116	Center for the Arts - Dance Wing	207 N Williamson Ave	1987	1987	13,674		
117	Center for the Arts - Music Wing	207 N Williamson Ave	1987	1987	30,415		
118	Center for the Arts - Theater Wing	207 N Williamson Ave	1987	1987	26,370		
102	Duke	109 E. Haggard Ave.	1927	1927	23,134		
816	Elon West Arts	406 W. Haggard Ave	1970	1970	22,548		
140	Gerald L. Francis Center	762 E. Haggard Ave.	1960	2010	140,923		
131	Greenhouse	314 East Haggard	2002	2002	3,433		
135	Koury Business Center	401 N. O'Kelley Ave.	2006	2006	60,120		
229	Lindner	310 E. Lebanon	2009	2009	35,590		
104	Long	108 E. Lebanon Ave	1966	1966	15,400		
108	McEwen JMC	129 N. Williamson Ave	1968	1968	38,329		
128	McMichael Science Center	314 E. Haggard Ave	1998	1998	81,155		
103	Mooney	110 E. Lebanon Ave	1923	1926	24,215		
101	Powell	111 E. Haggard Ave.	1970	1970	27,101		
223	Powell House (Sociology)	405 E. College Ave	1924	1924	3,832		
925	School of Law	201 N. Greene St. (Gboro)	1964	2006	68,274		
926	School of Law Annex	211 N. Greene St. (Gboro)	1955	2006	16,470		
927	School of Law Clinic	210 W. Friendly (Gboro)		2009	3,420		
107	Whitley	106 E. Lebanon Ave	1924	1924	13,652		
	Academic Total				810,619	2,700	
ATHLETICS							
721	Alumni Fieldhouse	2009 Zac Walker Place	2010	2010	34,565		
706	East Gym	500 E. College	1952	1978	15,152		
701	Koury Center - Alumni Gym	104 E. Haggard Ave	1949	1949	25,480		
701	Koury Center - Fitness	104 E. Haggard Ave	1994	1994	58,894		
701	Koury Center - Jordan Gym/Beck Pool	104 E. Haggard Ave	1969	1969	25,526		
701	Koury Center - Weight room	104 E. Haggard Ave	2002	2002	12,600		
704	Koury Fieldhouse - Team Area	10 Bank of America Dr	1980	1980	8,030		
704	Koury Fieldhouse - Training	10 Bank of America Dr	2000	2000	3,380		
708	Powell Tennis Center	401 E. Haggard Ave	1988	1988	564		
702	Rhodes Stadium	543 N. Williamson Ave	2001	2001	22,900		
705	Walter C. Latham Baseball Park	544 N. Williamson Ave	2001	2001	1,959		
535	Worsley Golf Training	378 S. Antioch	2009	2009	1,520		
	Athletics Total				210,570	0	
DINING							
604	Acorn Coffee Shop	116 N. Williamson Ave	1920	1997	2,096		
110	Town Table Restaurant (Elon Portion)	114 N. Williamson Ave	1920	1920	2,310		
606	Colonnades Dining Hall	100 Dalton McMichael Drive	2007	2007	23,566		
605	Daniel Commons	700 E. Haggard Ave	1999	1999	7,360		
602	Harden Dining Hall -Harper Center	105 Phoenix Dr	1969	1969	24,030		
601	McEwen Dining Hall	131 N. Williamson Ave.	1956	1956	17,200		
	Dining Total				76,562	0	
HOUSING							
224	Academic Village 1 Kenan Pavilion	320 N. Antioch	2002	2002	8,858		
225	Academic Village 2 Cannon Pavilion	302 E. Lebanon	2002	2002	8,858		
203	Barney - HBB	120 E. Lebanon Ave	1966	1966	8,841		
202	Bramnock - HBB	120 E. Lebanon Ave	1966	1966	9,402		
204	Carolina	115 E. Haggard Ave.	1956	1956	25,104		
220	Chandler-Story Center	113 Phoenix Dr	1982	1982	20,405		
219	Colclough-Story Center	111 Phoenix Dr	1982	1982	16,098		
465	Colonnades Residence Hall A	106 Dalton McMichael Drive	2007	2007	34,170		
466	Colonnades Residence Hall B	110 Dalton McMichael Drive	2007	2007	34,170		
467	Colonnades Residence Hall C	525 E. Phoenix Drive	2011	2011	34,170		
468	Colonnades Residence Hall D	625 E. Phoenix Drive	2011	2011	34,170		
469	Colonnades Residence Hall E	696 E. Phoenix Drive	2011	2011	34,170		
405	Danieley Center Apt A	700 E. Haggard Ave	1989	1989	6,640		
406	Danieley Center Apt B	700 E. Haggard Ave	1989	1989	7,140		
407	Danieley Center Apt C	700 E. Haggard Ave	1989	1989	6,640		
408	Danieley Center Apt D	700 E. Haggard Ave	1989	1989	6,640		
409	Danieley Center Apt E	700 E. Haggard Ave	1989	1989	7,140		
410	Danieley Center Apt F	700 E. Haggard Ave	1989	1989	6,640		
424	Danieley Center Flat G	700 E. Haggard Ave	1999	1999	16,090		
425	Danieley Center Flat H	700 E. Haggard Ave	1999	1999	16,090		

#	Building	Address	Construction	Acquisition	Gross	Gross	Year
			Year	Year	Area owned	Area rented	Rented
426	Danieley Center Flat I	700 E. Haggard Ave	1999	1999	16,090		
427	Danieley Center Flat J	700 E. Haggard Ave	1999	1999	16,090		
428	Danieley Center Flat K	700 E. Haggard Ave	1999	1999	16,090		
439	Danieley Center Flat L	700 E. Haggard Ave	2001	2001	16,090		
440	Danieley Center Flat M	700 E. Haggard Ave	2001	2001	16,090		
441	Danieley Center Flat N	700 E. Haggard Ave	2002	2002	16,090		
442	Danieley Center Single Bed O	700 E. Haggard Ave	2002	2002	12,900		
443	Danieley Center Single Bed P	700 E. Haggard Ave	2002	2002	12,900		
201	Hook - HBB	210 E. Lebanon Ave	1966	1966	9,249		
301	Loy Center A	108 Loy Court East	1997	1997	3,674		
302	Loy Center B	107 Loy Court East	1997	1997	3,674		
303	Loy Center C	106 Loy Court East	1997	1997	3,674		
304	Loy Center D	105 Loy Court East	1988	1988	3,422		
305	Loy Center E	104 Loy Court East	1988	1988	3,532		
306	Loy Center F	103 Loy Court East	1988	1988	3,532		
307	Loy Center G	102 Loy Court East	1988	1988	3,532		
308	Loy Center H	101 Loy Court East	1988	1988	3,412		
309	Loy Center I	100 Loy Court East	1988	1988	3,532		
310	Loy Center J	205 Phoenix Dr	1997	1997	1,837		
311	Loy Center K	203 Phoenix Dr	1997	1997	1,837		
312	Loy Center L	209 Phoenix Dr	1997	1997	3,674		
313	Loy Center M	207 Phoenix Dr	1997	1997	3,674		
314	Loy Center N	3223 Bill Loy Dr	2011	2011	4,713		
315	Loy Center O	3217 Bill Loy Dr	2011	2011	2,610		
316	Loy Center P	3211 Bill Loy Dr	2011	2011	2,610		
317	Loy Center Q	3185 Bill Loy Dr	2011	2011	4,713		
318	Loy Center R	3773 Bill Loy Dr	2011	2011	4,713		
319	Loy Center S	3821 Bill Loy Dr	2011	2011	4,713		
916	Loy House	567 N. O'Kelly Ave	1957	1997	3,131		
218	Maynard-Story Center	109 Phoenix Dr	1982	1982	20,637		
216	Moffitt - Harper Center	107 Phoenix Dr	1968	1968	15,903		
456	Oaks Housing Building A	1000 Elon Acorn Drive	2006	2006	31,905		
457	Oaks Housing Building B	1002 Elon Acorn Drive	2006	2006	27,216		
458	Oaks Housing Building C	1006 Elon Acorn Drive	2006	2006	27,216		
459	Oaks Housing Building D	1001 Elon Acorn Drive	2006	2006	46,896		
460	Oaks Housing Building E	1004 Elon Acorn Drive	2007	2007	31,905		
461	Oaks Housing Building F	2001 Elon Commons Drive	2007	2007	31,905		
208	Sloan	101 E. Haggard Ave.	1960	1960	19,149		
205	Smith	113 E. Haggard Ave.	1957	1957	25,104		
217	Staley -Harper Center	103 Phoenix Dr	1968	1968	33,175		
525	Trollinger House (The Abby)	201 W. Trollinger	1950			5,850	2006
207	Virginia	103 E. Haggard Ave.	1956	1956	20,703		
206	West	102 E. Lebanon Ave	1903	1903	20,523		
		Housing Total			895,471	5,850	
	INSTITUTIONAL SUPPORT						
819	Business Services (HR, Acctg, Purchasing)	314 W. Haggard	2002		7,000	2002	
124	Holland House	699 Holt Chapel Lane	1963	1963	4,000		
836	Haggard Ave Gatehouse	630 E. haggard Ave	2009	2009	155		
445	Information Technology (College Manor)	202 W. Lebanon Ave.	1964	2007	6,686		
532	Johnston Hall	123 S. Antioch	1926	2003	12,230		
136	McCoy Commons (Oaks- Security)	216 N. Williamson Ave.	2007	2007	17,288		
821	NC Campus Compact House	515 E. College	1948			1,612	2006
835	O'Kelly Avenue Gatehouse	600 N. O'Kelly Ave.	2008	2008	155		
820	PC Support & Campus Computer Shop	114 W. Lebanon Ave	1993			1,536	2004
402	Print Shop, Library Offsite Storage, & Music	406 W. Haggard Ave.	1970	1970	6,500		
823	Wellness (State Farm Building)	412 W. Haggard	1989	2006	1,120		
431	Truitt Center for Religious and Spiritual Life	401 E. College Ave.	1969	2000	3,215		
533	Truitt Hall (University Relations)	103 S. Antioch	1975	2003	3,496		
		Institutional Support Total			54,845	10,148	
	OTHER HOUSING						
412	Brannock House	4 Poplar	1975	1994	3,000		
430	Seven Lakes House	115 Pinewood Court	1975	1994	3,000		
		Other Housing Total			6,000	0	
	PHYSICAL PLANT						
810	Ballfield Irrigation Pump Hse.	544 N. Williamson	1987	1987	800		
803	Center for the Arts - Telephone Switch Building	207 N. Williamson	1987	1987	400		
831	Colonnades Pump House AB	106 Dalton McMichael Drive	2007	2007	600		
817	Elon West Equipment Storage	406 W. Haggard Ave.	2001	2001	1,700		
915	Gibsonville Warehouse	Gibsonville, Lindley Lab	1940			16,500	1989
818	Landscape Field Equipment Storage	100 Phoenix Drive	2002	2002	2,400		
824	Dickson Building (Automotive Shop)	803 W. Haggard Ave.	2006	2006	4,500		

<u>#</u>	<u>Building</u>	<u>Address</u>	<u>Construction Year</u>	<u>Acquisition Year</u>	<u>Gross Area owned</u>	<u>Gross Area Rented</u>	<u>Year rented</u>
822	Dickson Physical Plant	803 W. Haggard Ave.	1983			33,436	2006
841	Lipuma Shop 1	418 W. Haggard Ave.	2003	2009	1,500		
842	Lipuma Shop 2	416 W. Haggard Ave.	1997	2009	2,400		
815	Well Gazebo Lake Mary Nell	207 N. Williamson	1987	1987	100		
		Phy Plant Total			14,400	49,936	
	STAFF HOUSING						
416	Isley House	810 E. Haggard	1950	1998	3,500		
802	Lodge Apartment	400 Moonelon Drive	1955	1983	2,020		
503	Maynard House	2423 Pineway Drive	1980	1990	7,278		
403	Veazey House	206 Moonelon Drive	1956	1995	1,411		
		Staff Housing Total			14,209	0	
	STUDENT SUPPORT						
534	Harden Hall (Sports Club)	305 S. Antioch	1971	2003	7,370		
530	Holt Chapel	207 S. Antioch	1956	2003	4,588		
828	Lighthouse Tavern	131 W. College Ave.	1949	2008	3,900		
801	Lodge	400 Moonelon Drive	1955	1983	3,360		
812	Lodge Shelter	400 Moonelon Drive	1955	1983	1,620		
127	Moseley Center	100 Campus Drive	1994	1994	74,314		
109	Priestley Building	100 N. Williamson Ave	1891			2,750	1985
130	R.N. Ellington Health & Counseling Center	201 Phoenix Dr	2001	2001	5,000		
119	Rich House (Financial Planning)	306 N. O'Kelly Ave.	1940	1963	2,668		
		Student Support Total			102,820	2,750	
		GRAND TOTAL			2,185,496	71,384	