Avery Point Campus Master Plan

December 2005

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JJR landscape architecture planning urban design civil engineering environmental science

Paulien & Associates, Inc.

University of Connecticut

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Campus Master Plan

Introduction

The University of Connecticut's Avery Point Campus is located south of the town of Groton in southeastern Connecticut at the confluence of the Thames River with the Long Island Sound. As one of the University of Connecticut system's five regional campuses, the Avery Point Campus advances an integrated research and teaching program focused on coastal and maritime studies with a special concentration on the environment around the Long Island Sound.

Spread over 73 acres, the campus was formerly a private estate/summer home that was acquired by the Coast Guard as a training center during World War II. During its three decades of operation, the Coast Guard constructed a number of additional buildings. In 1969, the property was converted to the Southeastern Campus of the University of Connecticut and later renamed the University of Connecticut at Avery Point.

Funding from the UConn 2000 Program resulted in numerous additions and renovations. This included a new Marine Sciences and Technology Building, and a new Oceanology Building, along with renovations to the Branford House, Student Union, Gymnasium, and Academic Building. New landscaping and site improvements projects have also been ongoing.

However, even with these investments, facility conditions for the undergraduate programs continue to deteriorate. Several buildings constituting over half of the campus's existing space inventory are in poor physical condition, needing extensive renovation or replacement.

The 21st Century UConn initiative will provide additional funding for the university to renovate or replace older buildings and to consolidate functions and programs strategically.

Planning Purpose

The purpose of the Avery Point Campus Master Plan is to:

- Conduct a space needs analysis assessing existing space utilization, space/facility needs, and future requirements in accordance with projected enrollment growth.
- Establish recommendations for campus development that address existing facility conditions, future space needs, and context sensitive design.
- Establish a longer term planning framework that will guide campus development beyond the provisions of the 21st Century UConn initiative.

Planning Process

The master planning process was initiated in April 2004. Work sessions and interviews were conducted with campus and university representatives to understand current facility issues and future programmatic needs.

For the space needs analysis, a detailed inventory of available spaces within each of the campus buildings was conducted to assess base year (2003) space needs for current enrollments. A future space needs analysis was developed in response to growth and enrollment projections provided by the university administration for target year 2013.

A key variable in establishing space needs was to determine the extent of demolition of older buildings and the resulting loss in usable spaces. Per the university's initial directions, two scenarios were developed. The first scenario assumed that all buildings would remain, while a second assumed the removal of nine older/obsolete buildings resulting in the loss of 54,963 assignable square feet (ASF). The analysis was presented to the university's administration for review and refinement, and a final space needs model established.

Recommendations from the space needs analysis were reviewed in preparing the preliminary master plan alternatives. Scenarios for building reuse and/or new construction were presented to university representatives in August 2004. The general direction for the master plan is to assume the eventual removal of older/obsolete buildings. Where feasible, it is recommended that uses be consolidated. Additional space, when needed, will be accommodated in a new campus building. Input received from the university and Avery Point Campus administration was incorporated in the development of the final campus master plan recommendations.

Campus Assessment

The following sets of studies and observations were instrumental in defining the Avery Point Campus Master Plan recommendations.

Space Needs Analysis

In summary, the Avery Point Campus is projected to need approximately 125,313 ASF in target year 2013. This represents a 134 percent increase over available space after demolition of the nine older/obsolete buildings. Academic, library, and Student Union space need deficiencies were identified as being the largest.

Space Needs Analysis Summary (with demolition)

	Existing	After Demo.	2013 Needs	Future Add.	Notes
Academic Space (subtotal - ASF)	**43,365**	**11,577**	**52,519**	**40,942**	
Classroom & Service	13,047	1,299	10,784	9,485	
Teaching Laboratories & Service	9,004	2,371	9,410	7,039	
Open Laboratories & Service	1,228	0	1,875	1,875	
Research Space	0	0	9,900	9,900	
Offices & Service	17,832	7,687	16,050	8,363	
Other Departmental Space	2,254	220	4,500	4,280	
Academic Support (subtotal - ASF)	**35,648**	**17,156**	**38,505**	**21,349**	
Library	10,803	0	12,231	12,231	
Assembly/Exhibit (subtotal)	4,435	0	5,600	5,600	
Schlippe Gallery of Art	3,274	3,274	3,274	0	
Branford Meeting Rooms	3,774	3,774	3,774	0	
Physical Plant	13,362	10,108	13,626	3,518	
Auxiliary Space (subtotal - ASF)	**29,477**	**24,794**	**34,289**	**9,495**	
Physical Education/Research	24,794	24,794	24,794	0	
Student Union	4,683	0	9,495	9,495	
Campus-wide total (ASF)	**108,490**	**53,527**	**125,313**	**71,786**	
Campus-wide total (GSF - 1.5x)	**162,735**	**80,291**	**187,970**	**107,679**	

For additional information, refer to Appendix: Space Needs Analysis for the Campus Master Plan.

Physical Campus Analysis

Given that the Avery Point Campus changed ownership multiple times in the past century, the campus is comprised of an odd mixture of building types. Quality and condition of the buildings range from stately historic structures, to obsolete and deteriorating structures (some of which are dangerous and/or beyond repair), to state-of-the-art research facilities.

A qualitative assessment of the campus environment revealed the following key observations:

- The campus's location, historic use, and park-like setting encourage public access.
- Vehicular circulation is confusing. This is exacerbated by a series of one-way roads and inadequate directional signs.
- The waterfront location and stately specimen trees make for an attractive open space setting.
- The Branford House serves as the campus icon.
- The current physical separation of university and non-university activities (related to the waterfront) is desirable.
- Rock outcroppings impact (limit financially) where future development can occur.

Objectives

Physical planning objectives for the Avery Point Campus include:

- Improving facility conditions for the undergraduate programs.
- Enhancing collaboration between general education and research activities.
- Preserving the historical context associated with Branford House.
- Respecting and protecting the campus's unique and sensitive environmental setting.

Planning Recommendations

The following issues will drive campus growth and change:

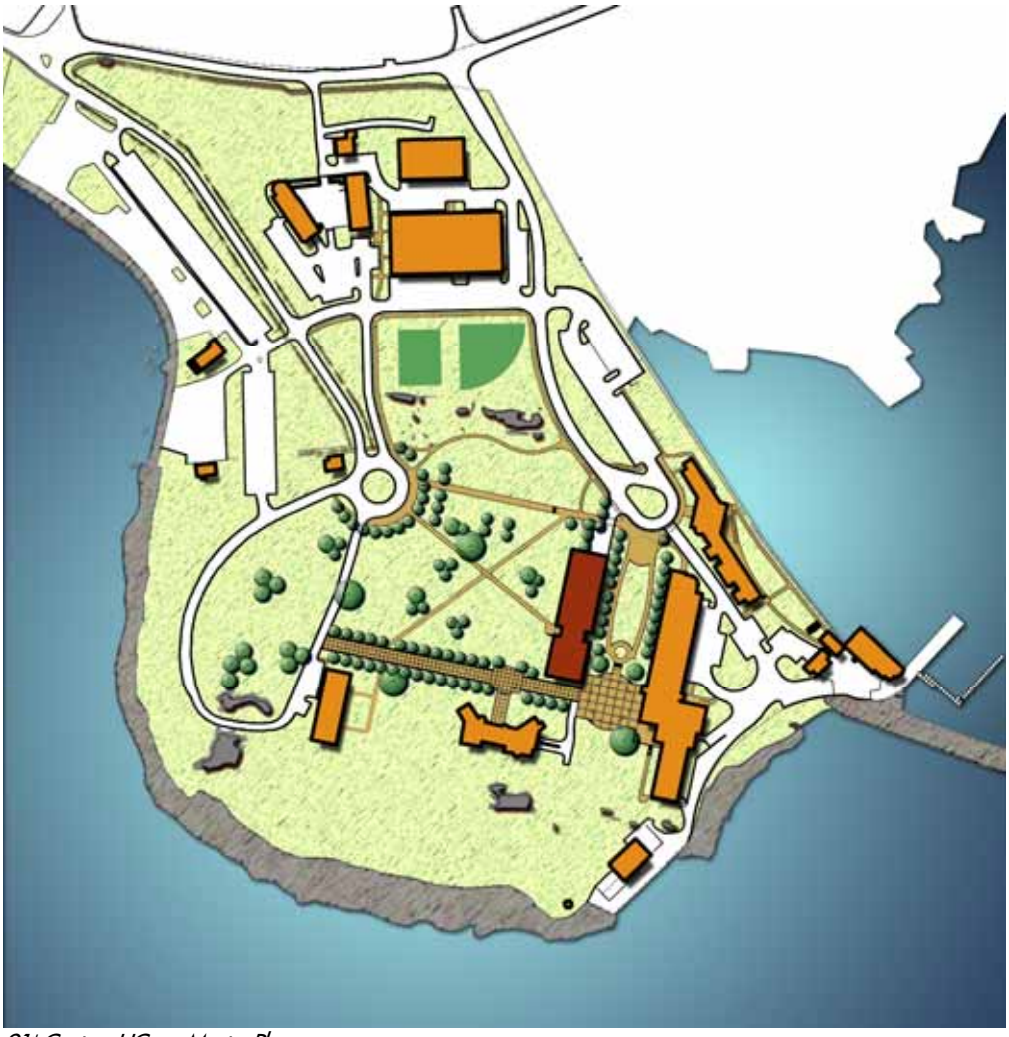
- Enrollment growth fueled by the emergence of new four-year degree programs in unique areas such as coastal and maritime studies.
- Institutional goal for greater integration of research into the undergraduate program.
- Proposal for a robust honors program.
- Emerging need to provide facilities for distance learning and for collaborative learning and research.
- Obsolete or dilapidated condition of the majority of existing older building stock.

Key master plan recommendations as prioritized within the 21st Century UConn initiative are to:

- Seek opportunities to develop a consolidated academic/library/student union building to promote academic interaction. The new building will ideally complement both the Branford House and the Marine Sciences Building. Provide for service access from the East Road that is properly screened.
- Enhance the visual presence of the Branford House to improve visitor orientation and wayfinding.
- Consider using portions of the Branford House for academic activities.
- Develop a phased plan to either renovate or demolish the Coast Guard Research and Development Building, Academic Building and Theater, Academic Annex Building and the Administration Building, the old Project Oceanology Building, Storage Building #37, along with all unnecessary pavement, as appropriate.
- Develop new walkways that establish convenient connections and reflect pedestrian desire lines.
- Extend the character and quality of the Marine Sciences Building entrance plaza to the west, connecting with West Road when such an enhancement is feasible.
- Maintain the vehicular plaza in front of the Branford House and proposed academic building. Retain the existing service access to Branford House.
- Protect existing views of the Long Island Sound, and restrict future building to lands north of the Branford House.
- Protect the existing mature trees (especially the beech trees) and incorporate new landscaping that is contextual and representative of the local landscape vernacular.

Additionally, subject to funds, the university may consider the following campus enhancement projects:

- Establishing a stronger campus entrance identification off Shennecossett Road including directional signs to specific campus facilities.
- Improving the recreational fields south of the Gymnasium.
- Replacing older parking lots that are in poor condition.



21st Century UConn Master Plan

Future Campus Development

Beyond the 21st Century UConn initiative provisions, the master plan establishes a framework for future campus development to allow for the expansion of academic programs, research activity, and possibly incorporating residential buildings if appropriate. Key recommendations are to:

- Strengthen campus organization through the careful placement of new buildings and walkways.
- Simplify on-campus circulation by establishing a new roadway connection from West Road to East Road; avoid existing bedrock to the maximum extent possible to minimize construction costs.
- Realign existing roads to improve overall accessibility to parking.
- Develop a stronger connection between the center of campus and the Gymnasium.

Future Campus Development

Appendix

Space Needs Analysis for the Campus Master Plan
Prepared by Paulien & Associates, Inc.
November 2004
Revised July 2005

University of Connecticut
Avery Point Campus

Space Needs Analysis
for the
Campus Master Plan

November 2004
Revised July 2005

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Under contract to
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Ann Arbor, Michigan

Acknowledgments to:
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University of Connecticut Administration
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Lorraine Aronson, *Vice President and Chief Financial Officer*
Linda Flaherty-Goldsmith, *Vice President and Chief Operating Officer*
John Saddlemire, *Vice President for Student Affairs*
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Jan Heckman, *Director of Avery Point Library*
Anthony Weston, *Director of Facilities*
James O'Donnell, Interim Head of the Marine Sciences Department
And other representatives of the Marine Sciences Department

SPACE NEEDS ANALYSIS
FOR THE CAMPUS MASTER PLAN
UNIVERSITY OF CONNECTICUT
AVERY POINT CAMPUS

Prepared by
Paulien & Associates, Inc.

November 2004
Appended July 2005

SPACE NEEDS ANALYSIS
FOR THE CAMPUS MASTER PLAN
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Prepared by
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November 2004
Appended July 2005

1.0 KEY FINDINGS AT A GLANCE

- The utilization of classrooms in the Academic Building at the base term, Fall 2003, was 28 weekly room hours at 55% student station occupancy. Use was consistent throughout the day and evening but highest at 2:00 PM, with additional spikes at 9:00 AM and 11:00 AM. The credit utilization of the three classrooms in the Marine Sciences and Technology Center at the base term, Fall 2003, was eight weekly room hours at 65% student station occupancy. Use was focused most heavily from 11:00 AM to 1:00 PM.

- Teaching labs in the Academic Building averaged 16 hours per week at 71% student station occupancy when the rooms were scheduled. The teaching labs in the Marine Sciences Building averaged seven scheduled class hours per week at 43% student station occupancy when the rooms were scheduled.

- The student full-time equivalent (FTE) target year number used for the Avery Point campus was 805, which translates to 1,055 headcount students. This included 750 undergraduate FTE and 55 graduate FTE.

- The Marine Sciences Department is located in the newly constructed (March 2001) Marine Sciences Building. Based on careful planning, the building has been appropriately sized to accommodate current programming as well as space for sufficient growth through the master planning period. With the exception of classroom and teaching labs, these spaces were excluded from the study.

- The analysis takes into account the planned demolition of numerous buildings on campus. The demolition plan is included in the report.

- The base year guideline generated a total need for 101,134 assignable square feet (ASF) of space, a 7,356 ASF or 7% surplus over existing space on campus.

- There is a total projected need for 125,313 ASF of academic space, academic support and auxiliary space at the target year, creating a 16,823 ASF deficit over current space of 108,490 ASF before any demolition. If buildings scheduled for demolition in phases one through five are razed, a 71,786 ASF deficit is generated.

- The total guideline space generated at the target year was 156 ASF per full-time equivalent student. The current ratio for this campus at the base year is 191 ASF per FTE student, not including outside agency and inactive space. The table summarizes the space needs analysis.

Avery Point Campus

Space Needs Analysis - With and w/o Demolition (Phases 1 through 5)

	Fall 2003 Base Year *Student FTE = 567*				Fall 2013 Target Year Demolition Excluded *Student FTE = 805*				Fall 2013 Target Year - Demolition Phases 1 through 5 *Student FTE = 805*			
SPACE CATEGORY	**Existing ASF**	**Guideline ASF**	**Surplus/ (Deficit)**	**Percent Surplus/ (Deficit)**	**Existing ASF**	**Guideline ASF**	**Surplus/ (Deficit)**	**Percent Surplus/ (Deficit)**	**Existing ASF**	**Guideline ASF**	**Surplus/ (Deficit)**	**Percent Surplus/ (Deficit)**
Academic Space												
Classroom & Service	13,047	7,596	5,451	42%	13,047	10,784	2,263	17%	1,299	10,784	(9,485)	(730%)
Teaching Laboratories & Service	9,004	9,410	(406)	(5%)	9,004	9,410	(406)	(5%)	2,371	9,410	(7,039)	(297%)
Open Laboratories & Service	1,228	1,335	(107)	(9%)	1,228	1,875	(647)	(53%)	0	1,875	(1,875)	n/a
Research Space	0	1,500	(1,500)	n/a	0	9,900	(9,900)	n/a	0	9,900	(9,900)	n/a
Offices & Service	17,832	11,250	6,582	37%	17,832	16,050	1,782	10%	7,687	16,050	(8,363)	(109%)
Other Departmental Space	2,254	3,204	(950)	(42%)	2,254	4,500	(2,246)	(100%)	220	4,500	(4,280)	(1,945%)
Academic Space Subtotal	*43,365*	*34,295*	*9,070*	*21%*	*43,365*	*52,519*	*(9,154)*	*(21%)*	*11,577*	*52,519*	*(40,942)*	*(354%)*
Academic Support Space												
Library	10,803	9,487	1,316	12%	10,803	12,231	(1,428)	(13%)	0	12,231	(12,231)	n/a
Assembly & Exhibit	4,435	5,600	(1,165)	(26%)	4,435	5,600	(1,165)	(26%)	0	5,600	(5,600)	n/a
Schlippe Gallery of Art	3,274	3,274	0	0%	3,274	3,274	0	0%	3,274	3,274	0	0%
Branford Meeting Rooms	3,774	3,774	0	0%	3,774	3,774	0	0%	3,774	3,774	0	0%
Physical Plant	13,362	12,657	705	5%	13,362	13,626	(264)	(2%)	10,108	13,626	(3,518)	(35%)
Academic Support Space Subtotal	*35,648*	*34,791*	*857*	*2%*	*35,648*	*38,505*	*(2,857)*	*(8%)*	*17,156*	*38,505*	*(21,349)*	*(124%)*
Auxiliary Space												
Physical Education/Recreation	24,794	24,794	0	0%	24,794	24,794	0	0%	24,794	24,794	0	0%
Student Union	4,683	7,254	(2,571)	(55%)	4,683	9,495	(4,812)	(103%)	0	9,495	(9,495)	n/a
Auxiliary Space Subtotal	*29,477*	*32,048*	*(2,571)*	*(9%)*	*29,477*	*34,289*	*(4,812)*	(16%)	*24,794*	*34,289*	*(9,495)*	*(38%)*
INSTITUTION TOTAL	**108,490**	**101,134**	**7,356**	**7%**	**108,490**	**125,313**	**(16,823)**	**(16%)**	**53,527**	**125,313**	**(71,786)**	**(134%)**
Outside Agencies	5,839				5,839				3,293			
Small Business Development Center	2,710				0				0			
Inactive	10,105				10,105				5,055			

ASF = Assignable Square Feet

2.0 INTRODUCTION

Paulien & Associates, Inc. of Denver, Colorado was part of the JJR led master planning team hired in February 2003 to conduct several studies for the University of Connecticut in Storrs. In the summer of 2003, the Greater Hartford and Torrington regional campuses were added to the master plan project. These reports, as completed by Paulien & Associates, Inc., were published under separate titles and dates. The study for the Avery Point Campus was added in the spring of 2004.

This study examines the space needs for the University of Connecticut's Avery Point Campus, in Groton, Connecticut, including the Marine Sciences Department. Avery Point has been designated the University's marine science seacoast campus.

The Avery Point Campus, at its present location on Long Island Sound since 1969, contains 23 buildings on 73 acres. Originally named the Southeastern Campus of the University of Connecticut, the site was a former estate that the Coast Guard had acquired as a training center during World War II. The estate contained several buildings, most of which have been retained and renovated by the University of Connecticut. The Morton Plant Estate included a mansion (Branford House), gate house, paddock, boat station, and greenhouses. The Coast

Guard constructed a number of additional buildings for its use on the site. These included a library, office building, dining hall, gymnasium and infirmary. Over the years, some of the buildings have been remodeled for other purposes, others have been demolished, and some portions are vacant and in a badly deteriorated condition.

3.0 PROCESS

Paulien & Associates was provided with enrollment, course, and staffing data from Fall 2003 by various administrative and academic personnel at the University of Connecticut's Avery Point Campus. A facilities inventory existed only for newer buildings on the Avery Point Campus. A room-by-room inventory was developed by Avery Point administration for four older buildings, while the consultant pulled relevant data from building floor plans and the 1992 master plan inventory to create a facilities database. The consultant believes that this database is an accurate representation of the spaces on campus and utilized the facilities inventory for the space needs analysis.

On–site work sessions and interviews were conducted on April 21, 2004 with the Associate Vice Chancellor, the Executive Director of Campus Operations, the Executive Director of Academic Services, the Director of Facilities, the campus Librarian, and representation from the Marine Sciences Department. Senior staff for JJR, the master planning consultants, was also present. The Senior Vice Provost for Academic Affairs joined the meeting via speaker phone from the Storrs campus. The Director of Architectural and Engineering Services also joined the meeting mid-morning. These work sessions included discussions of enrollment assumptions and growth as well as verification of existing course, staffing and enrollment data. During the consultant's afternoon time on site, a detailed tour was provided to individual campus buildings to gain familiarity with the spaces and grounds.

On August 12, 2004, the consultant was on campus to review the draft report and solicit feedback on the document. Representatives from the Avery Point campus and Marine Sciences Department were present as well as the Interim Vice Provost for Academic Affairs and Director of Architectural and Engineering Services from the Storrs campus. Also present was a senior staff member from JJR. During this meeting it was decided that enrollment assumptions obtained during the initial work session did not adequately reflect potential growth. In addition, several new initiatives (Honors Program, collaborative learning, service learning, and distance learning) were reviewed, each requiring space. This report reflects these changes as well as changes requested by the Marine Sciences Department.

4.0 UTILIZATION OF EXISTING CLASSROOMS & TEACHING LABORATORIES

4.1 ACADEMIC BUILDING

As part of the planning process, Paulien & Associates conducted an analysis of the utilization of classrooms and teaching laboratories for Fall 2003. Classrooms and teaching labs are located in the Academic Building and the Marine Sciences and Technology Center. Each of these facilities will be reviewed separately.

The classroom utilization for the Academic Building, which includes all undergraduate courses, showed an average of 28 hours per week with 55% of the seats filled when classes were

scheduled. No utilization was shown for Room 101. The consultant assumed 30 hours per week at 65% occupancy as a planning goal for the Avery Point Campus. With this goal, six of the 13 classrooms in the analysis were above the 30 hours per week goal while five of the 13 classrooms were at or above the 65% student station occupancy goal.

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Classroom Utilization Analysis by Department

Room Id	Room Use Code	Assignable Sq. Ft.	No. of Stations	Assignable Sq. Ft. Per Station	Average Enroll-ment	Weekly Student Contact Hours	Weekly Room Hours	Hours in Use Student Station Occupancy %
Academic Building								
ACD 101	110	716	35	20	0	0	0	0%
ACD 103	110	732	35	21	31	369	12	88%
ACD 107	110	1,171	45	26	8	96	12	18%
ACD 206	110	737	35	21	26	1,176	46	73%
ACD 207	110	757	35	22	16	600	39	44%
ACD 208	110	737	35	21	23	773	37	60%
ACD 211	110	1,078	64	17	28	1,217	58	33%
ACD 301	110	810	35	23	16	641	40	46%
ACD 303	110	810	35	23	27	583	22	76%
ACD 304	110	618	26	24	17	603	35	66%
ACD 306	110	630	26	24	17	439	26	65%
ACD 308	110	1,969	180	11	55	462	9	29%
ACD 309	110	618	20	31	11	314	27	58%
Department Average		*876*	*47*	*22*	*21*		*28*	*55%*
Department Total ASF		*11,383*						
No. of Rooms		*13*						

The 13 classrooms within the Academic Building portray a unique picture. Average classroom use was evenly distributed throughout the day with use strongest between the hours of 9:00 AM and 2:00 PM, where, on average, 57% of the classrooms were in use. Average use tapers off slightly during the evening hours between 5:00 PM and 9:00 PM. There was no scheduled use on Fridays after the Noon hour. The results are portrayed in the following tables.

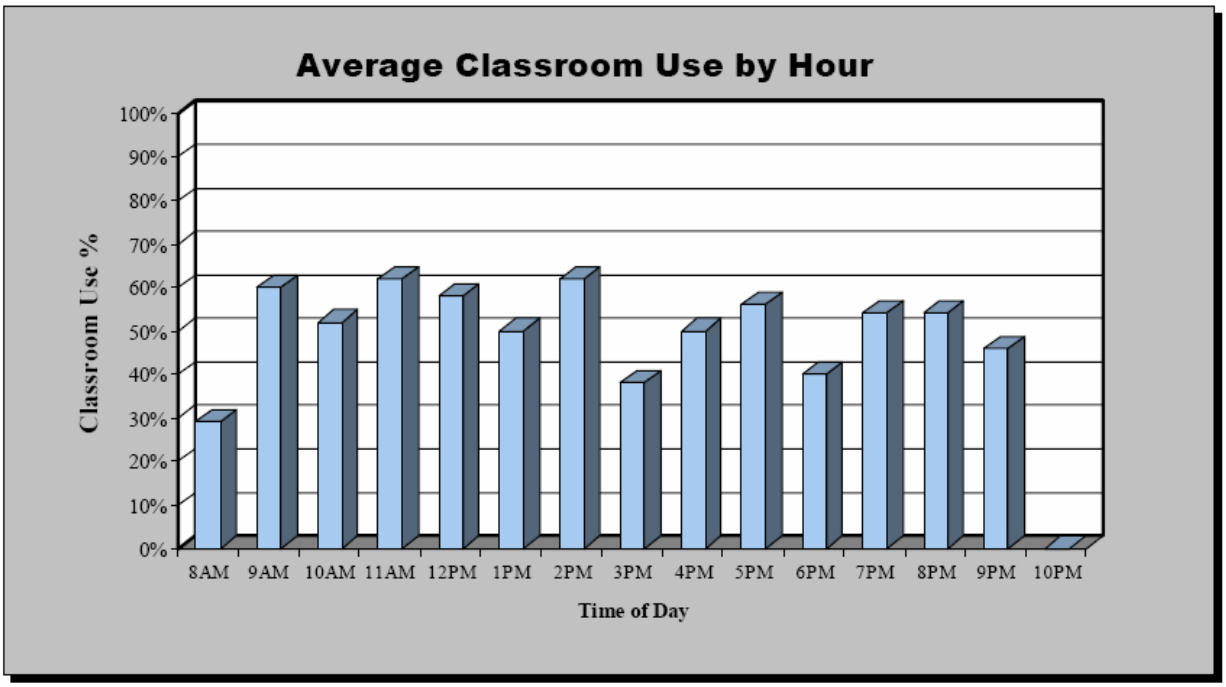
ACADEMIC BUILDING

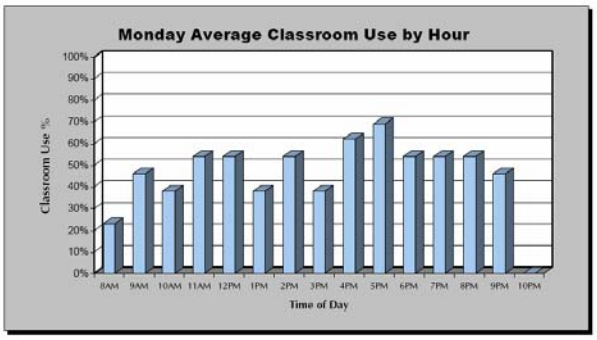
Scheduled Classroom Use by Day and Hour by Department

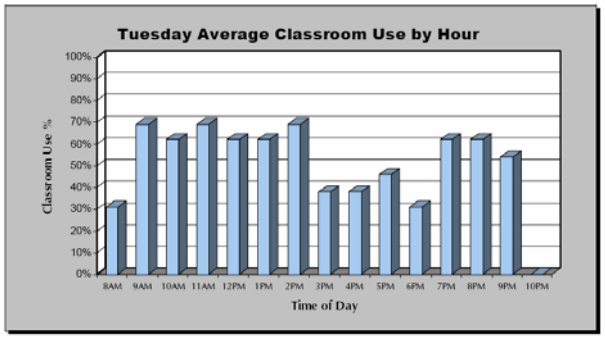
Time of Day	*Monday*		*Tuesday*		*Wednesday*		*Thursday*		*Friday*		*Saturday*		*Sunday*		*Average**	
	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use
7:00 AM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
8:00 AM	3	23%	4	31%	4	31%	4	31%	2	15%	0	0%	0	0%	4	29%
9:00 AM	6	46%	9	69%	7	54%	9	69%	5	38%	1	8%	0	0%	8	60%
10:00 AM	5	38%	8	62%	6	46%	8	62%	4	31%	1	8%	0	0%	7	52%
11:00 AM	7	54%	9	69%	7	54%	9	69%	3	23%	1	8%	0	0%	8	62%
12:00 PM	7	54%	8	62%	7	54%	8	62%	2	15%	1	8%	0	0%	8	58%
1:00 PM	5	38%	8	62%	5	38%	8	62%	0	0%	1	8%	0	0%	7	50%
2:00 PM	7	54%	9	69%	7	54%	9	69%	0	0%	1	8%	0	0%	8	62%
3:00 PM	5	38%	5	38%	5	38%	5	38%	0	0%	1	8%	0	0%	5	38%
4:00 PM	8	62%	5	38%	8	62%	5	38%	0	0%	1	8%	0	0%	7	50%
5:00 PM	9	69%	6	46%	8	62%	6	46%	0	0%	0	0%	0	0%	7	56%
6:00 PM	7	54%	4	31%	6	46%	4	31%	0	0%	0	0%	0	0%	5	40%
7:00 PM	7	54%	8	62%	8	62%	5	38%	0	0%	0	0%	0	0%	7	54%
8:00 PM	7	54%	8	62%	8	62%	5	38%	0	0%	0	0%	0	0%	7	54%
9:00 PM	6	46%	7	54%	7	54%	4	31%	0	0%	0	0%	0	0%	6	46%
10:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

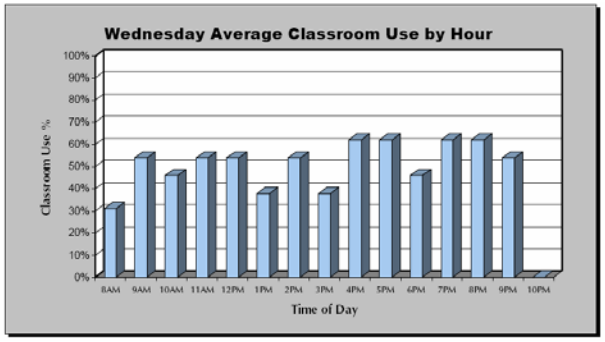
Note: Based on total classrooms of 13

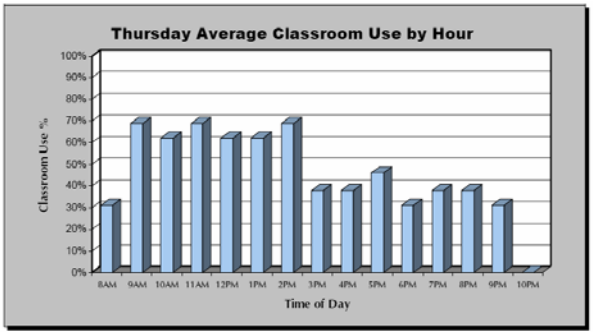
*Average based on Monday thru Thursday use.

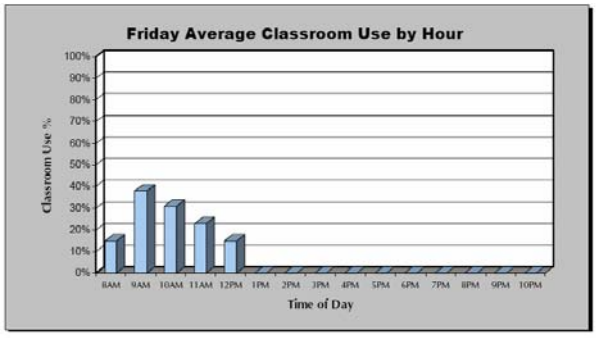












Academic Building Teaching Laboratories

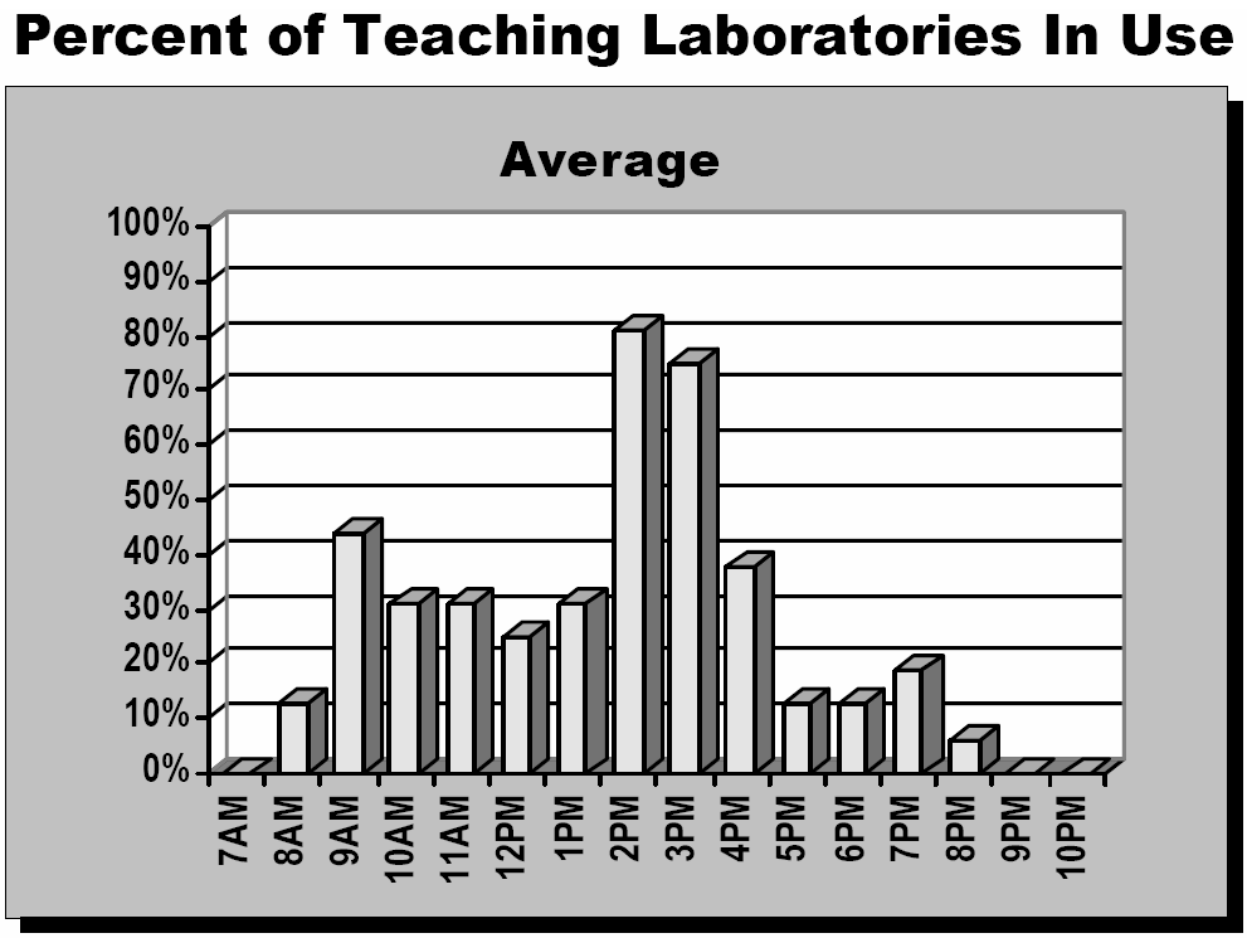
The Academic Building contains four teaching laboratories which averaged 16 hours of scheduled use at 71% student station occupancy. An average of 20 hours at 75% is the lowest widely used planning goal and a standard that has been employed in Paulien & Associates studies for the Hartford and Torrington regional campuses. Room 205, a physics lab, generated eight weekly room hours, well below the 20 hours per week goal but had the greatest number of seats filled at 82%. Room 201, a biology lab and room 314, a computer lab, were used 19 and 20 hours of scheduled use per week respectively. However, only the biology lab showed student station occupancy above the goal. The Chemistry lab (room 204) met the average weekly room hours but had higher student station occupancy.

UNIVERSITY OF CONNECTICUT • AVERY POINT

Teaching Laboratory Utilization Analysis by Department

Room Id	Room Use Code	Assignable Sq. Ft.	No. of Stations	Assignable Sq. Ft. Per Station	Average Enroll-ment	Weekly Student Contact Hours	Weekly Room Hours	Hours in Use Student Station Occupancy %
Academic Building								
ACD 201	210	1,234	20	62	16	292	19	77%
ACD 204	210	995	20	50	16	250	16	78%
ACD 205	210	757	20	38	16	131	8	82%
ACD 314	210	781	23	34	14	255	20	55%
Department Average		*942*	*21*	*46*	*15*		*16*	*71%*
Department Total ASF		*3,767*						
No. of Rooms		*4*						

In reviewing the four labs by average time of day, the heaviest usage occurs between the hours of 2:00 PM and 4:00 PM, when approximately 80% of the teaching labs were in use. The findings from the graph suggest that additional courses could be scheduled during the mid-morning and early evening hours. One lab is used both Friday and Saturday mornings between the hours of 9:00 AM and Noon.



Scheduled Teaching Laboratory Use by Day and Hour

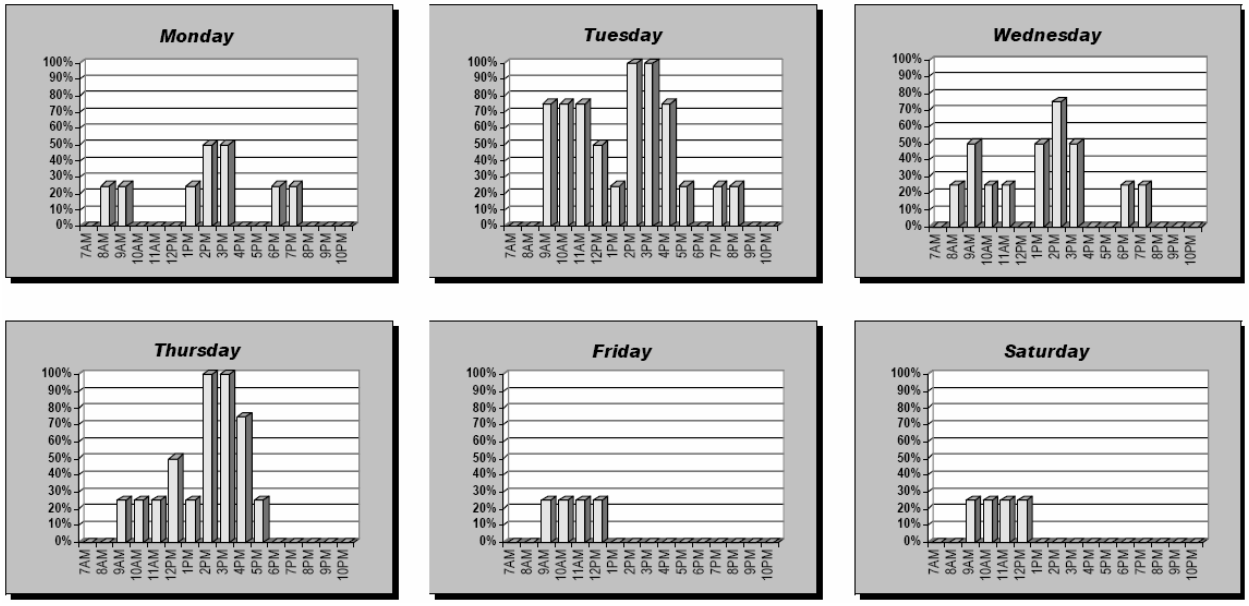
University of Connecticut • Avery Point

Time of Day	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Average*	
	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use
7:00 AM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
8:00 AM	1	25%	0	0%	1	25%	0	0%	0	0%	0	0%	0	0%	1	13%
9:00 AM	1	25%	3	75%	2	50%	1	25%	1	25%	1	25%	0	0%	2	44%
10:00 AM	0	0%	3	75%	1	25%	1	25%	1	25%	1	25%	0	0%	1	31%
11:00 AM	0	0%	3	75%	1	25%	1	25%	1	25%	1	25%	0	0%	1	31%
12:00 PM	0	0%	2	50%	0	0%	2	50%	1	25%	1	25%	0	0%	1	25%
1:00 PM	1	25%	1	25%	2	50%	1	25%	0	0%	0	0%	0	0%	1	31%
2:00 PM	2	50%	4	100%	3	75%	4	100%	0	0%	0	0%	0	0%	3	81%
3:00 PM	2	50%	4	100%	2	50%	4	100%	0	0%	0	0%	0	0%	3	75%
4:00 PM	0	0%	3	75%	0	0%	3	75%	0	0%	0	0%	0	0%	2	38%
5:00 PM	0	0%	1	25%	0	0%	1	25%	0	0%	0	0%	0	0%	1	13%
6:00 PM	1	25%	0	0%	1	25%	0	0%	0	0%	0	0%	0	0%	1	13%
7:00 PM	1	25%	1	25%	1	25%	0	0%	0	0%	0	0%	0	0%	1	19%
8:00 PM	0	0%	1	25%	0	0%	0	0%	0	0%	0	0%	0	0%	0	6%
9:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
10:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

Note: Based on total laboratories of 4

* Based upon the consultant's experience, Friday is typically underutilized, therefore the average is calculated on Monday thru Thursday use.

Percent of Teaching Laboratories In Use



4.2 MARINE SCIENCES BUILDING

The classroom utilization for the Marine Sciences building, which includes mostly Marine Sciences graduate courses and selected undergraduate courses, showed an average of eight hours per week with 65% of the seats filled when classes were scheduled. Again, the consultant used 30 hours per week at 65% occupancy as a planning goal for the Avery Point Campus. The three classrooms located in this building were all far below the stated 30 hours per week goal. There are several possible reasons for the low number of weekly room hours. First, the graduate student population consists of 33 headcount students. Such a small number of students assure that class sections will be limited. Second, many of the Marine Sciences courses are only offered at the main campus in Storrs, lessening the demand for classrooms at the Avery Point Campus. Third, graduate students are required to take a prescribed set of core courses. To complete their degree, students take a variety of "Special Topic" courses. Often enrollment in these courses is capped at a number well below what the classroom will hold.

On average, classrooms in the Marine Sciences and Technology Center met the goal of 65% student station occupancy. In some instances, the larger average enrollments can be attributed to offering the undergraduate and graduate sections of a course in the same classroom. The results are presented in the following table.

Room Id	Room Use Code	Assignable Sq. Ft.	No. of Stations	Assignable Sq. Ft. Per Station	Average Enroll-ment	Weekly Student Contact Hours	Weekly Room Hours	Hours in Use Student Station Occupancy %
Marine Sciences and Technology Center								
MAR 122	110	413	20	21	6	31	5	31%
MAR 123	110	477	20	24	18	165	9	92%
MAR 124	110	409	20	20	11	118	10	59%
Department Average		*433*	*20*	*22*	*12*		*8*	*65%*
Department Total ASF		*1,299*						
No. of Rooms		*3*						

For the Marine Sciences Building, utilization by time of day showed the heaviest use at 11:00 AM where an average of 75% of the three classrooms were in use during the week. This was followed by the Noon hour when slightly less than 60% of the classrooms were in use. In reviewing the following table, there was no scheduled use after 3:00 PM each day of the week, on Thursday mornings before 11:00 AM, or all day Friday.

The consultant has learned that classrooms in the Marine Sciences and Technology Center are being used for non-credit Sea Grant and NURC educational workshops and symposia, which were not in the credit course file. However, there appears to be substantial additional capacity in the three classrooms located in the Center.

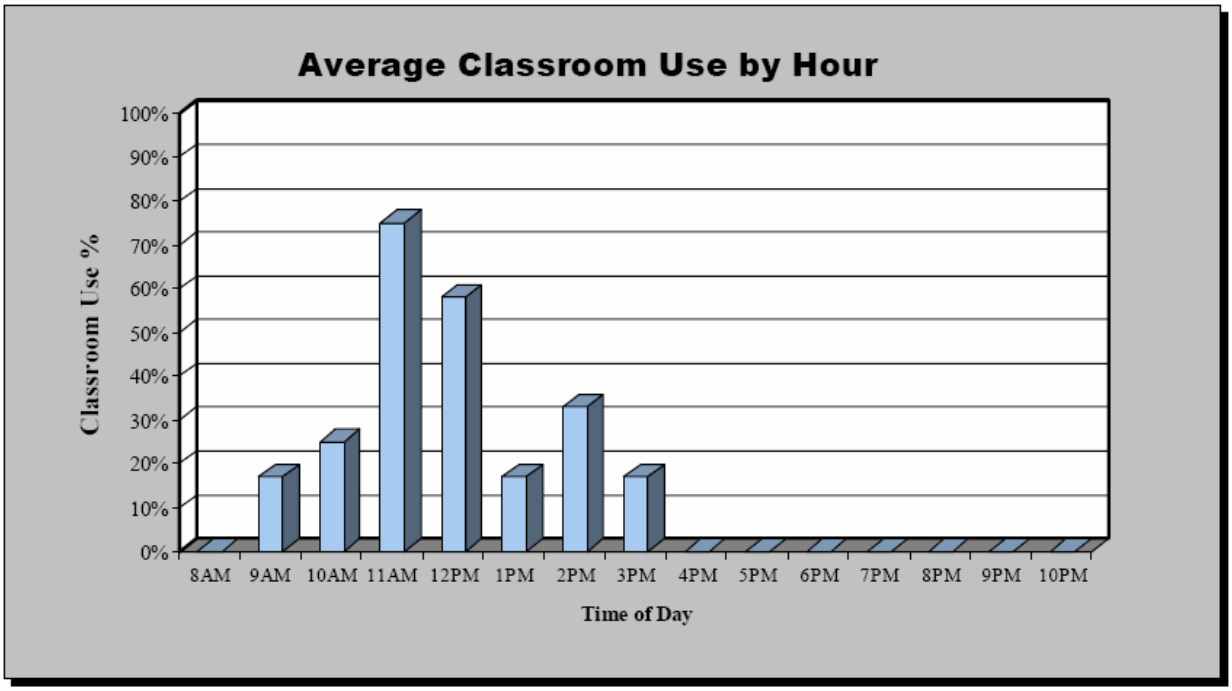
MARINE SCIENCES AND TECHNOLOGY CENTER

Scheduled Classroom Use by Day and Hour by Department

Time of Day	*Monday*		*Tuesday*		*Wednesday*		*Thursday*		*Friday*		*Saturday*		*Sunday*		*Average**	
	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use
8:00 AM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9:00 AM	1	33%	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%	1	17%
10:00 AM	2	67%	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%	1	25%
11:00 AM	3	100%	2	67%	2	67%	2	67%	0	0%	0	0%	0	0%	2	75%
12:00 PM	2	67%	2	67%	1	33%	2	67%	0	0%	0	0%	0	0%	2	58%
1:00 PM	1	33%	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%	1	17%
2:00 PM	2	67%	0	0%	2	67%	0	0%	0	0%	0	0%	0	0%	1	33%
3:00 PM	1	33%	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%	1	17%
4:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
6:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
8:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
10:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

Note: Based on total classrooms of 3

*Average based on Monday thru Thursday use.



Teaching Laboratories in the Marine Sciences Building

The two laboratories in the Marine Sciences Building averaged seven hours of scheduled use at 43% student station occupancy. Both labs are used to study the biological systems of marine life. Again, an average of 20 hours at 75% is the planning goal used for the Avery Point Campus study. The analysis is illustrated in the table.

Room Id	Room Use Code	Assignable Sq. Ft.	No. of Stations	Assignable Sq. Ft. Per Station	Average Enroll-ment	Weekly Student Contact Hours	Weekly Room Hours	Hours in Use Student Station Occupancy %
Marine Sciences and Technology Center								
MAR 105	210	1,035	20	52	8	68	8	43%
MAR 107	210	1,045	20	52	9	51	6	43%
Department Average		*1,040*	*20*	*52*	*8*		*7*	*43%*
Department Total ASF		*2,080*						
No. of Rooms		*2*						

A review of scheduled labs by time of day notes that, on average, the two teaching labs are primarily scheduled between the hours of 2:00 PM and 5:00 PM. Further analysis by day of the week notes that both labs were in use on Monday and Wednesday afternoons but showed no use on Tuesdays and Thursdays. One lab was used Friday between the hours of 9:00 AM and Noon. The tables and graphs illustrate the findings.

Scheduled Teaching Laboratory Use by Day and Hour

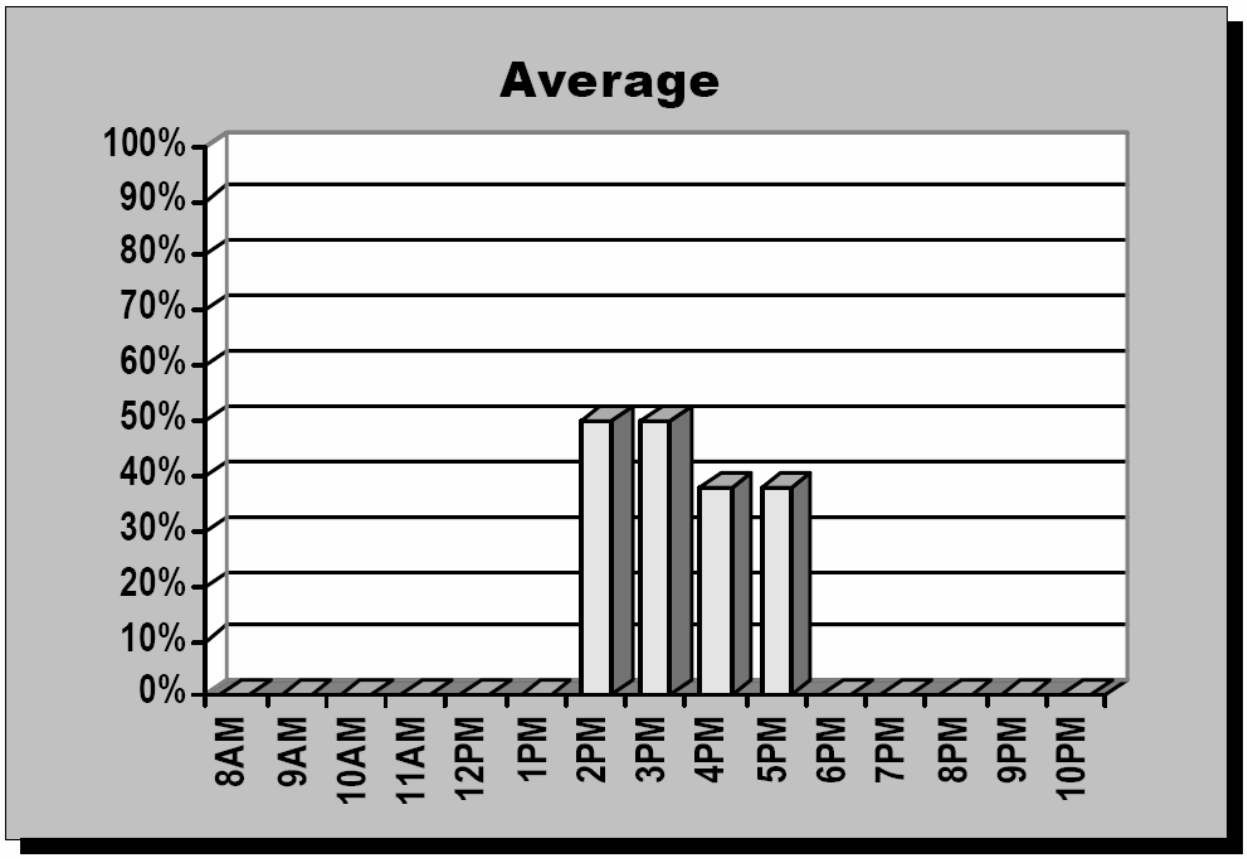
University of Connecticut • Avery Point

Time of Day	*Monday*		*Tuesday*		*Wednesday*		*Thursday*		*Friday*		*Saturday*		*Sunday*		*Average**	
	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use	Rooms in Use	% In Use
8:00 AM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9:00 AM	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%
10:00 AM	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%
11:00 AM	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%
12:00 PM	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%
1:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2:00 PM	2	100%	0	0%	2	100%	0	0%	0	0%	0	0%	0	0%	1	50%
3:00 PM	2	100%	0	0%	2	100%	0	0%	0	0%	0	0%	0	0%	1	50%
4:00 PM	1	50%	0	0%	2	100%	0	0%	0	0%	0	0%	0	0%	1	38%
5:00 PM	1	50%	0	0%	2	100%	0	0%	0	0%	0	0%	0	0%	1	38%
6:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
8:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
10:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

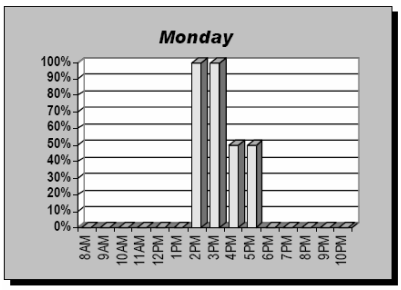
Note: Based on total laboratories of 2

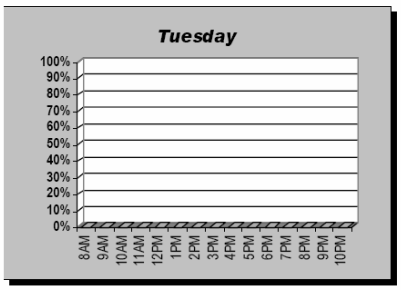
* Based upon the consultant's experience, Friday is typically underutilized, therefore the average is calculated on Monday thru Thursday use.

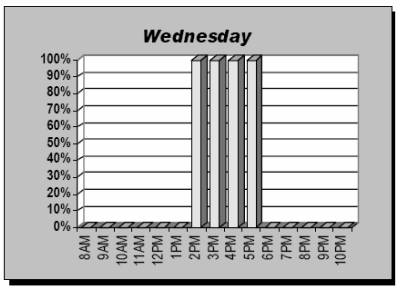
Percent of Teaching Laboratories In Use

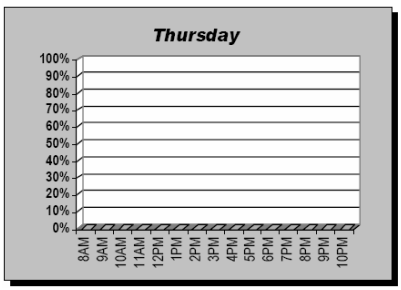


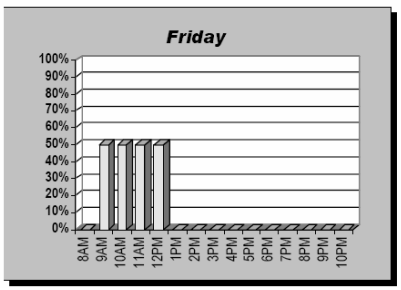
Percent of Teaching Laboratories In Use

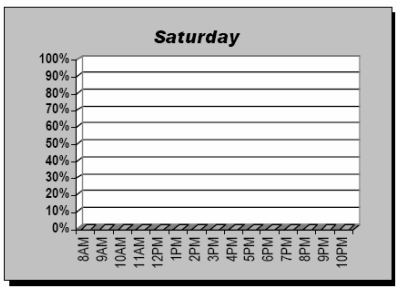












5.0 FUTURE ENROLLMENT & STAFFING ASSUMPTIONS

The Avery Point Campus has complete coursework for bachelor degree programs in Coastal Studies, Maritime Studies and now American Studies. In addition, a general studies degree enables adults and non-traditional students to choose programs related to their career or students can take beginning courses in almost all UConn majors and/or a general education program designed for transfer to the main campus in Storrs.

The consultant was originally provided with enrollment projection data by the University of Connecticut in April 2004. In August 2004, University administration revised enrollment assumptions for the Avery Point campus. This report reflects the new data. Enrollment growth for the Avery Point undergraduate programs is projected at 750 FTE or 1,000 headcount students at the target year. The consultants projected Fall 2013 student headcount of 1,000 based on a 0.75 FTE/HC ratio. This is a slight increase over the base year ratio which was justified on the basis that the campus will recruit more traditional students in the future.

The Marine Sciences Department currently provides masters and doctoral degrees in Marine Sciences and supports the undergraduate degree in Coastal Studies. The consultants were provided data from University of Connecticut Marine Sciences Department noting that the graduate student headcount of 33 (33 FTE) for Fall 2003, will increase to 55 headcount (55 FTE) students by the end of the planning period. The consultant was informed that all graduate students attend full-time.

The following table exhibits base year and target year enrollment assumptions:

University of Connecticut - Avery Point Campus
Student FTE and Headcount Assumptions for Fall 2003 through Fall 2013

Program	Total Headcount Enrollment Fall 03	Total FTE - Fall 2003	Ratio FTE/HC	Fall 2013 Headcount Assumption	Target YearRatio FTE/HC	Fall 2013 FTE Assumption
Undergraduate Programs	773	534	0.69	1,000	0.75	750
Graduate Programs	33	33	1.00	55	1.00	55
Total	806	567		1,055		805

Staffing data was obtained from the Avery Point Campus Operating Profile for 2002-03. FTE staffing levels for the undergraduate programs will increase 41% over the planning period as noted in the following Enrollment & Staffing Table. Full and part-time faculty growth assumptions were based on the change in student FTE growth. The consultants assumed faculty growth based on maintaining the current faculty to student ratio with no change in the full-time to part-time faculty percentages. In most cases, staff growth was projected at approximately 50% of the student growth percentage. As listed in the table, each part-time faculty represents .33 FTE while graduate assistants represent one headcount per 0.25 FTE. Space for each of these categories is included in the Office Space Guideline Application.

Staff FTE and Headcount Assumptions - Fall 2003 through Fall 2013

Avery Point Undergraduate Programs	Employee Title	Employee FTE 2003	Employee FTE Assumptions 2013
	Full-time faculty	16	22
	Part-time faculty	23	32
	Classified	25	35
	Professional (UCPEA)	12	17
	Administrative	2	3
	Graduate Assistants	1	3
	FTE Total	**79**	**112**
	Headcount Total	**128**	**186**
Marine Sciences Department			
	Faculty	16	26
	Technical	14	n/a
	Post-Doctorates	3	n/a
	Administrative Staff	4	n/a
	TA/GRA's	7	n/a
	FTE Total	**43.8**	**26**
	Headcount Total	**65**	**26**

Note: Each part-time faculty equals .33 FTE while each graduate assistantship equals .25 FTE

In the Marine Sciences Department, the 16 faculty will increase to 26 at the target year based on existing ratios of full time faculty to student FTE. This information was used in the space needs analysis of library space. Staffing assumptions were not needed for other titles since office space for these titles is contained within the Marine Sciences Building and not included in this study.

6.0 RESEARCH ASSUMPTIONS

In FY 2002, the Marine Sciences Department generated $1.99 million in external funding awards. Since the analysis of research space for the Marine Sciences Department is not included in this report, target year research award assumptions were not obtained.

Additional information on the research needs for departments outside of Marine Sciences is located under the research guideline analysis.

7.0 FACILITIES ASSUMPTIONS

As a result of the history of the campus and the condition of the buildings, this section describes in detail a list of buildings that are included or excluded from the facilities inventory and the analysis. The space needs analysis, as presented in the next section, provides two scenarios, based on the campus demolition plan. The table reviews the status of each building and describes how the space was treated in the facilities inventory.

Status of Avery Point Campus Facilities

Status	Bldg No.	Campus Building	Active	Outside Agency	Inactive Space	Excluded From Inventory	Comments
Active Buildings							
	4363	Marine Sciences	X				
	4360	Rankin Lab	X				
	4328	Marine Operations (Dive Locker)	X				
	4326	Branford House	X				
	4357	Gymnasium	X				
	4336	Community Boathouse (White Bldg.)		X			Community use
	4362	Oceanology Building		X			Project "O"
	4353	Boat Building (Project "O")		X			Project "O"
	4361	Central Utility Plant				X	Not included in the Inventory
	4306	Physical Plant Shops	X				3,658 ASF of inactive space in upper level
	4307	Physical Plant Offices/Storage	X				1,397 ASF of inactive space in upper level
	4302	Grounds Shop	X				
	4318	Police Station	X				
	4330	Lighthouse				X	
Phase 1 Demolition							
	4321	Old Student Union/Old Cafeteria/Connector			X		2,098 ASF of inactive space
	4337	Ski Slope Building - Storage for MSD				X	Abandoned
	4358	Academic Annex	X				Current Student Union space
	4329	Project Oceanology Storage & Pump House				X	Abandoned
Phase 2 Demolition							
	4323	Coast Guard R&D Bldg.				X	
Phase 3 Demolition							
	4319	UConn Community Service/Admin Building	X				2,952 ASFof inactive space
Phase 4 Demolition							
	4322	Academic Building - Academics	X				
	4322	Academic Building - Theater	X				
Phase 5 Demolition							
	4325	Library	X				
Inactive Buildings (Not on Demo List)							
	4308	Old Heating Plant				X	

The U.S. Coast Guard R&D Building is leased to this entity until 2006. After it is vacated, the building will be unoccupied until it is demolished.

8.0 SPACE NEEDS ANALYSIS ASSUMPTIONS

In order to apply the various guidelines and run the space needs analysis, several assumptions were made in this report. The more general assumptions are listed in this section. Those more specific to a space category are listed in the *Space Needs and Guideline Application* section of this report.

The application of the guideline is based upon student full-time equivalents (FTE). No differentiation between graduate and undergraduate student headcount or FTE was made in the analysis.

The enrollment projection, plus current and projected staffing were provided and reviewed by both the Avery Point Campus administration and representatives of the University of Connecticut central administration. These numbers were provided in April 2004, and revised in August 2004, and are considered appropriate for this planning study.

9.0 CAMPUS ORGANIZATION AND EXCLUSIONS

There are two governance structures on the Avery Point Campus. The first component includes programs offered under the Avery Point undergraduate governance structure, consisting of courses and degrees leading to the bachelor's degrees. The second component is the Marine Sciences Department, consisting of graduate courses and programs leading to the master's and the doctoral degree. Undergraduate students can minor in marine biology and oceanography through the Department of Marine Sciences. The department and center head reports to the Dean of the College of Arts and Sciences at the Storrs campus. Despite the two structures, both programs are integrated within the campus and work cooperatively together by sharing facilities, faculty and campus resources.

In terms of space needs, this analysis treats the academic space categories of Classroom & Service and Teaching Laboratories & Service as one entity. This methodology is justified as the Marine Sciences department provides physical and faculty resources to the Coastal Studies degree and other undergraduate programs.

The Marine Sciences Department is located in the newly constructed (March 2001) Marine Sciences Building. Based on careful planning, the building has been appropriately sized to accommodate current programming as well as space for sufficient growth through the master planning period. As a result, the categories of Open Laboratories & Service, Research Space, Offices & Service, and Other departmental Space, as located in the Marine Sciences building, were assumed to be sufficient to meet the department's future needs and are not included in this study.

In addition, entities housed within the Marine Sciences Building; Sea Grant, the National Undersea Research Center (NURC), the Long Island Sound Resource Center and the Long Island Sound Foundation are excluded from the analysis.

Academic Support Spaces (Library, Physical Plant) as well as Auxiliary Space (Student Union and Physical Education/Recreation) include spaces that will be shared by both undergraduate and graduate student populations. The space needs analysis for these components includes a determination of the amount of current and future physical space needed for the campus.

10.0 AVERY POINT CAMPUS SPACE NEEDS ANALYSIS

The space needs analysis calculated the Avery Point campus to have an overall need for 101,134 ASF of space, a surplus of 7,356 ASF when comparing base year guidelines with actual space. At target year enrollment and staffing levels, excluding demolition, the same guidelines generated a need for 125,313 ASF of space, a deficit of 16,823 by the 2013 Fall semester. If demolition of phases one through five is factored into the space needs analysis, a 71,786 ASF deficit results. The space needs analysis for the Avery Point programs is summarized in the table below, which displays space as assigned to current programs, primarily in the Branford House, Academic Building, UConn Community/ Administration Building and classroom and teaching labs in the Marine Sciences Building.

The library, gymnasium and student union were considered campuswide spaces that are used by undergraduate and graduate students. The physical plant and police station were

also viewed as campuswide resources. As such, the guideline reflects total enrollments on campus.

Avery Point Campus

Space Needs Analysis - With and w/o Demolition (Phases 1 through 5)

	Fall 2003 Base Year *Student FTE = 567*				Fall 2013 Target Year Demolition Excluded *Student FTE = 805*				Fall 2013 Target Year - Demolition Phases 1 through 5 *Student FTE = 805*			
SPACE CATEGORY	**Existing ASF**	**Guideline ASF**	**Surplus/ (Deficit)**	**Percent Surplus/ (Deficit)**	**Existing ASF**	**Guideline ASF**	**Surplus/ (Deficit)**	**Percent Surplus/ (Deficit)**	**Existing ASF**	**Guideline ASF**	**Surplus/ (Deficit)**	**Percent Surplus/ (Deficit)**
Academic Space												
Classroom & Service	13,047	7,596	5,451	42%	13,047	10,784	2,263	17%	1,299	10,784	(9,485)	(730%)
Teaching Laboratories & Service	9,004	9,410	(406)	(5%)	9,004	9,410	(406)	(5%)	2,371	9,410	(7,039)	(297%)
Open Laboratories & Service	1,228	1,335	(107)	(9%)	1,228	1,875	(647)	(53%)	0	1,875	(1,875)	n/a
Research Space	0	1,500	(1,500)	n/a	0	9,900	(9,900)	n/a	0	9,900	(9,900)	n/a
Offices & Service	17,832	11,250	6,582	37%	17,832	16,050	1,782	10%	7,687	16,050	(8,363)	(109%)
Other Departmental Space	2,254	3,204	(950)	(42%)	2,254	4,500	(2,246)	(100%)	220	4,500	(4,280)	(1,945%)
Academic Space Subtotal	*43,365*	*34,295*	*9,070*	*21%*	*43,365*	*52,519*	*(9,154)*	*(21%)*	*11,577*	*52,519*	*(40,942)*	*(354%)*
Academic Support Space												
Library	10,803	9,487	1,316	12%	10,803	12,231	(1,428)	(13%)	0	12,231	(12,231)	n/a
Assembly & Exhibit	4,435	5,600	(1,165)	(26%)	4,435	5,600	(1,165)	(26%)	0	5,600	(5,600)	n/a
Schlippe Gallery of Art	3,274	3,274	0	0%	3,274	3,274	0	0%	3,274	3,274	0	0%
Branford Meeting Rooms	3,774	3,774	0	0%	3,774	3,774	0	0%	3,774	3,774	0	0%
Physical Plant	13,362	12,657	705	5%	13,362	13,626	(264)	(2%)	10,108	13,626	(3,518)	(35%)
Academic Support Space Subtotal	*35,648*	*34,791*	*857*	*2%*	*35,648*	*38,505*	*(2,857)*	*(8%)*	*17,156*	*38,505*	*(21,349)*	*(124%)*
Auxiliary Space												
Physical Education/Recreation	24,794	24,794	0	0%	24,794	24,794	0	0%	24,794	24,794	0	0%
Student Union	4,683	7,254	(2,571)	(55%)	4,683	9,495	(4,812)	(103%)	0	9,495	(9,495)	n/a
Auxiliary Space Subtotal	*29,477*	*32,048*	*(2,571)*	*(9%)*	*29,477*	*34,289*	*(4,812)*	(16%)	*24,794*	*34,289*	*(9,495)*	*(38%)*
INSTITUTION TOTAL	**108,490**	**101,134**	**7,356**	**7%**	**108,490**	**125,313**	**(16,823)**	**(16%)**	**53,527**	**125,313**	**(71,786)**	**(134%)**
Outside Agencies	5,839				5,839				3,293			
Small Business Development Center	2,710				0				0			
Inactive	10,105				10,105				5,055			

ASF = Assignable Square Feet

In the Academic Support Space category at the target year and with the demolition of phases one through five, the largest space needs were generated in the Library category (12,231 ASF) and the Assembly & Exhibit category (5,600 ASF).

The Auxiliary Space category generated a 9,495 ASF deficit in the target year after demolition as space for student union would need to be relocated or reconstructed due to demolition. The 24,794 ASF of space is located in the gymnasium and will meet the needs of the campus throughout the planning period.

In summary, phases one through five of the demolition list will reduce the campus space by 54,963 ASF. Spaces that will need to be replaced based on the guidelines, including the library, were calculated at 71,786 ASF and are detailed in the following table.

Avery Point Campus

Space Needs Based on Demolition (Phases 1 through 5)

SPACE CATEGORY	ASF
Academic Space	
Classroom & Service	(9,485)
Teaching Laboratories & Service	(7,039)
Open Laboratories & Service	(1,875)
Research Space	(9,900)
Offices & Service	(8,363)
Other Departmental Space	(4,280)
Academic Space Subtotal	*(40,942)*
Academic Support Space	
Library	(12,231)
Assembly & Exhibit	(5,600)
Physical Plant space	(3,518)
Academic Support Space Subtotal	*(21,349)*
Auxiliary Space	
Student Union	(9,495)
Auxiliary Space Subtotal	*(9,495)*
Institutional Total	**(71,786)**

ASF = Assignable Square Feet

11.0 SPACE NEEDS AND GUIDELINE APPLICATION

This section summarizes the current and projected space needs by functional space category. The Fall 2003 course file, along with the facility inventory file, which was complied from various sources by the consultants, and Fall 2003 staffing and enrollment data were assembled for use in projecting base and target year space needs. When appropriate, the consultants used standards established by the Council of Educational Facilities Planners, International (CEFPI) and supplemented with space standards used in previous work of Paulien & Associates, Inc. The specifics for each space type are discussed in the following sections.

11.1 CLASSROOM GUIDELINE APPLICATION AND SPACE NEEDS

Classrooms are defined as any room generally used for scheduled instruction requiring no special equipment and referred to as general purpose classroom, seminar room, or lecture hall. Classroom service space directly supports one or more classrooms as an extension of the classroom activities, providing media space, preparation areas, or storage. The classroom station size is considered as including the classroom service area space. However, additional service space can be justified on a program or classroom basis.

A classroom utilization goal of 30 hours of use per week at 65% student station occupancy for lecture courses was used. A guideline of 20 ASF was used as the average classroom station size. Classroom space requirements were determined by a formula which takes the target utilization of 30 hours per week, multiplies it by the average student occupancy target of 65%, and divides the result into the 20 ASF per student station. This calculation produces a guideline of 1.03 ASF per weekly student contact hour (WSCH) for classrooms.

The example below illustrates how the guideline is used to calculate guideline square footage for classrooms.

Classroom Guideline Application Example

Step 1 Space per Student Station (20 ASF)

Weekly room use target (30 hours) x Average student station occupancy (65%) = 19.5
= (1.03) Assignable square feet per weekly student contact hour

Step 2

Enrollment (20) x Weekly room hours (3) = Weekly student contact hours (60)

Step 3

Weekly student contact hours (60) x ASF/WSCH (1.03) = Guideline square footage (61.8)

The guideline was generated based on weekly student credit hours of undergraduate and graduate courses, as scheduled in the Academic Building and the Marine Sciences Building. Guideline application for the Avery Point programs classroom space for the base year shows a surplus of 5,451 ASF of classroom space over existing space. For the target year the space analysis indicates surplus of 2,263 ASF in classroom and service space if the Academic Building is excluded from the demolition list. Since a large portion of the classroom and service space is contained within the Academic Building, demolition of this structure would require 9,485 ASF, as indicated in the space needs analysis table under the Fall 2013 Target Year – Demolition Phases 1 through 5 heading.

11.2 TEACHING LABORATORY GUIDELINE APPLICATION AND SPACE NEEDS

Teaching Laboratories are defined as rooms used primarily by regularly scheduled classes that require special purpose equipment to serve the needs of particular disciplines for group instruction, participation, observation, experimentation, or practice. Station sizes in teaching laboratories vary by discipline. The CEFPI space per student station guideline has approximately 50 different subject areas for which it provides teaching laboratory modules. In all cases, these are expressed as a range. The consultants used the figure within the range deemed most appropriate. Unlike the classroom guideline calculation, there are not enough scheduled laboratory weekly contact hours to justify complete laboratories for some disciplines. The consultants produced guideline needs by using the desired number of students to be taught in the various labs and multiplied by the recommended guideline. The consultants assumed that the types of labs needed through the planning period would not change.

Given utilization expectations, the biology, chemistry and computer labs all had weekly room hours at or slightly below the target utilization of 20 hours per week. The guideline space per station in each discipline includes service space for laboratories and takes into account the need for enough space for new paradigms in teaching methodology requiring collaborative learning environments such as mediated laboratories. The guideline amount of space per student station used for each discipline for the Avery Point programs is listed in the table below.

Avery Point Campus

Teaching Laboratory Space Analysis

			Fall 2003 Base Year					Fall 2013 Target Year				
	ASF per Student Station	No. of Student Stations	Guide line	Guideline ASF	Existing ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)	Guide line	Guideline ASF	Existing ASF	Surplus/ (Deficit)	Percent Surplus/ (Deficit)
Academic Units												
Biology Lab	65	24	1	1,560	2,150	590	27%	1	1,560	2,150	590	27%
Chemistry Lab	75	24	1	1,800	1,330	(470)	(35%)	1	1,800	1,330	(470)	(35%)
Computer Lab	35	30	1	1,050	781	(269)	(34%)	1	1,050	781	(269)	(34%)
Marine Lab 105	60	20	1	1,200	1,180	(20)	(2%)	1	1,200	1,180	(20)	(2%)
Marine Lab 107	60	20	1	1,200	1,191	(9)	(1%)	1	1,200	1,191	(9)	(1%)
Physics Lab	75	24	1	1,800	1,572	(228)	(15%)	1	1,800	1,572	(228)	(15%)
Dive Locker- Service Space				800	800	0	0%		800	800	0	0%
TOTAL			**6**	**9,410**	**9,004**	**(406)**	**(5%)**	**6**	**9,410**	**9,004**	**(406)**	**(5%)**

ASF = Assignable Square Feet

Again, the consultant based the laboratory analysis on scheduled credit courses offered during the Fall 2003 semester for both undergraduate and graduate programs in the Academic Building and the Marine Sciences Building. Target year analysis was based on projections of additional enrollments based on growth to 2013. Teaching lab use by other entities (i.e., NURC) was not factored into the recommendation.

Guideline application for the Avery Point Campus teaching laboratory space for base year shows a need for 9,410 ASF of space, a deficit of 5% or 406 ASF. As enrollments increase toward the target year, teaching laboratory space needs analysis show the size of the current labs will be able to handle enrollment growth. At the target year, a guideline of 9,410 ASF is generated, or a 406 ASF deficit prior to demotion of the Academic Building.

Since most of the current 9,004 ASF of existing laboratory spaces are contained within the Academic Building, demolition would create a need for 7,039 ASF of teaching laboratory and service space.

11.3 OPEN LABORATORY GUIDELINE APPLICATION AND SPACE NEEDS

The category of open laboratory space consists of rooms that are open for student use and are not used on a regularly scheduled basis. These rooms provide equipment to serve the needs of particular disciplines for group instruction in informally or irregularly scheduled classes. Alternatively, these rooms are used for individual student experimentation, observation, or practice in a particular field of study. The size of these laboratories is based on equipment size and/or on the station size and student count desired and should be determined on an individual basis.

The types of rooms usually included in this category are computer laboratories, language laboratories, music practice rooms, and tutoring and testing facilities. Open laboratories in the Marine Sciences Building were excluded from the analysis. Guideline ASF was generated based on undergraduate FTE enrollments since these student are the predominant users of the open labs.

In recent benchmarking and consulting work with several statewide systems, the consultant found between five and ten square feet per full-time equivalent student allocated for space in this category. The consultants believe that a reasonable guideline for the Avery Point programs open laboratory space is 2.5 square feet per student FTE. This is a number less than the benchmark range and slightly higher than the 2.3 ASF of space currently dedicated to this category.

Base year open laboratory space needs analysis shows a small deficit of 107 ASF. At the target year, the open laboratory category generated a need for 1,875 ASF, a 647 ASF deficit if the Academic Building is excluded from the demolition list. All of the open labs included in this analysis are in the Academic Building. Demolition of this structure would require the full guideline of 1,875 ASF in open laboratory and service space.

11.4 RESEARCH LABORATORY GUIDELINE APPLICATION AND SPACE NEEDS

Research is a growing part of the academic mission of the University of Connecticut and is reflected in the goals of the Avery Point campus. Another important initiative is allowing undergraduates and faculty to work together on research endeavors. During the writing of this report faculty in the humanities and the social and physical sciences did not have dedicated research space. Construction of 1,500 ASF of temporary research laboratory space was in progress but not completed during the base year. As new faculty are hired, there will be an expectation for increased research productivity, most of which will occur on the Avery Point Campus. Avery Point administration for undergraduate programs expressed a need for research space for both humanities and physical science faculty.

Determining research space needs is a complex issue. The consultants have utilized methods based on individual researchers, research teams and research dollars. The guideline used for the Avery Point campus was based on the Higher Education Facilities Planning and Management Manuals, as published by the Western Interstate Commission for Higher Education (WICHE). This guideline uses the number of faculty and graduate students involved in research as the most appropriate indicator of research space. Research spaces vary significantly among academic programs and disciplines. A general criterion for research space is noted in the tables below.

The ASF guideline for faculty includes up to four graduate students working with each faculty member. With the University of Connecticut's focus on research productivity, the consultants assumed that all full time faculty would be expected to engage in some type of research endeavor.

The research guideline, as applied by the consultants, which best illustrates the type of research programs expected at the target year, are Groups 1 and 3, as noted in the table. For

this analysis, five faculty were placed into Group 1 while 17 faculty were placed into Group 3. This number is justified based on anticipated number of full time faculty at the target year.

Planning Criteria for Reseach Space

Academic Program	ASF per Faculty Member	ASF per Extra Grad Student
Group 1	**900-1,300**	**200-250**
Agriculture and Natural Resources		
Engineering		
Biological Sciences		
Physical Sciences		
Group 2	**600-900**	**150-200**
Architecture		
Fine Arts		
Psychology		
Communications		
Group 3	**150-200**	**20-25**
Education		
Business		
Computer Sciences		
Foreign Languages		
Letters		
Library Science		
Mathematics		
Public Affairs		
Law		
Theology		

The consultants allowed 1,300 ASF per full-time faculty in Group 1 and 200 ASF per full time faculty in Group 3. Given the limited number of graduate students on the campus, the consultants did not apply the graduate student guideline as noted in the table. Again, the 1,300 and 200 ASF guidelines assumed up to four graduate, or in this case, undergraduate assistants per faculty.

The analysis resulted in a calculation of need for 9,900 ASF of space in the target year. Again, this analysis does not take into consideration the 1,500 ASF of research space being planned in temporary facilities.

11.5 OFFICE AND SERVICE GUIDELINE APPLICATION AND SPACE NEEDS

For this analysis, offices used to conduct administrative or academic activities are categorized as office and service space. Office space guidelines are based on CEFPI standards. The CEFPI guideline determines office space needs based on major categories of staff and application of space amounts for office service and conference space needs. Avery Point campus administration provided staffing information at base year for each category of staff. These were reviewed by members of the University of Connecticut central administration and approved for use in this study. This analysis excludes office space and staff housed in the Marine Sciences Department.

Full and part-time faculty target growth was based on the change in student FTE growth. The consultants assumed faculty growth based on maintaining the current faculty to student ratio with no change in the full-time to part-time faculty percentages. In most cases, staff growth was projected at approximately 50% of the student growth percentage. The consultants then applied appropriate guidelines to each major category. The amount of office space allotted to each position is based on the status and duties of the employee as noted in the Office Space Guideline Application Table.

At base year, the guideline analysis for the Avery Point undergraduate programs showed a surplus of 6,582 ASF in the Office & Service space category. Excluding structures on the demolition list at the target year, an 16,050 ASF need was generated in this category.

The Avery Point undergraduate programs currently have 54 offices comprising 16,587 ASF, providing an average office size of 307 ASF, this does not include 1,245 ASF in conference room and office service space. Hence, one reason for the large surplus is the average size of administrative and academic offices, as compared to the guideline. A large need at target year will be for "open office" areas where part-time faculty can meet with students and access email and voicemail systems. The consultants assumed that adjunct faculty would be housed four to

an office. An alternative could be an Adjunct Resource Center where computers, meeting space, mail, copying and supplies are available on an as needed basis. Such an approach could house the target adjunct population in slightly less space but it suggests having a student worker available to staff the Center during key class times.

The guideline is portrayed in the following table. The offices for the Small Business Development Center, with 2,710 ASF, are not part of the undergraduate program and were excluded in the existing space calculations. In addition, there has been no provision for office space for this entity in the target year, as it is expected that it will relocate into the community. It is listed with other excluded agencies at the bottom of the campuswide table.

Avery Point Campus

Office Space Guideline Application

STAFFING TYPE	Office Guideline ASF per Headcount	Fall 2003 Base Year Head-count	Fall 2003 Base Year Total Guideline ASF	Fall 2003 Base Year Existing ASF	Fall 2013 Target Year Head-count	Fall 2013 Target Year Total Guideline ASF	Fall 2013 Target Year Existing ASF
Associate Vice Chancellor	200	1	200		1	200	
Administrative	180	1	180		2	360	
University Faculty	140	16	2,240		22	3,080	
Adjunct Faculty	35	69	2,415		97	3,395	
Professional (UCPEA)	120	12	1,440		17	2,040	
Classified	110	19	2,090		26	2,860	
Graduate Assistants	60	4	240		12	720	
Maintenance Services	0	6	0		9	0	
Total Office Space			**8,805**	**16,587**		**12,655**	**16,587**
Total Service Space			*1,815*	*923*		*2,525*	*923*
Total Conference Room Space			*630*	*322*		*870*	*322*
TOTAL		**128**	**11,250**	**17,832**	**186**	**16,050**	**17,832**
Surplus/(Deficit)			***6,582***			***1,782***	

ASF= Assignable Square Feet (Does Not Include Library Personnel)

If buildings scheduled for demolition were removed from the analysis, there would be a need for an additional 8,363 ASF. The calculation is provided in the following table.

Category	ASF
Guideline at Target Year	16,050
Office Space in Active Buildings	
Branford House	6,600
Police Station	1,087
Subtotal	7,687
Buildings on Demolition List	
Academic Building	6,033
Uconn Admin/Community Bldg.	6,822
Subtotal	12,855
Total Need	**8,363**

Since the average office size is substantially larger than the guideline recommendation, the guideline need in ASF may not be sufficient to house the number of faculty and staff headcount required at the target year. As a result, a more programmatic approach is recommended to review the need for office space on a building-by-building basis as part of the programming for the replacement facilities.

11.6 OTHER DEPARTMENT SPACE NEEDS

The space classified as other department space includes all other space assigned to an academic department that has not been included in the other classifications of classrooms, teaching laboratories, open laboratories, or offices. These areas consist of a variety of spaces. They can include departmental study rooms, greenhouses, animal facilities, media production spaces, and lounges. Due to the diversity of these spaces and the different ways various campuses might classify these spaces, these spaces are not specifically addressed by the published guidelines. In recent benchmarking studies the consultant found other department space to be a wide range between one and 25 square feet per full-time equivalent student.

Existing space excludes other departmental space in the Marine Sciences Building. Since a large majority of these spaces will be used for undergraduate programs, the guideline reflects the base and target year FTE enrollments from this population.

The consultants believe that a reasonable guideline for this component of the campus is six square feet per student FTE in this category. This guideline reflects adequate space for new initiatives such as the Honors Program, collaborative learning, and support space for student internships and service learning components. Campus personnel have also expressed interest in constructing a television/production studio for distance education delivery.

Other department space for the undergraduate programs includes lounges in the Branford House and lounges and departmental storage space in the UConn Administration /Community Building for a total of 2,254 ASF. The base year guideline application shows a space deficit of 950 ASF. At the target year a 2,246 ASF need was generated prior to any demolition. Upon demolition of the UConn Admin/Community Building, a deficit is generated of 4,280 ASF.

11.7 LIBRARY GUIDELINE APPLICATION AND SPACE NEEDS

Like other University of Connecticut regional libraries in Hartford and Torrington, the Avery Point Library is dependent of the Homer Babbidge Library in Storrs for specialized serials and on-line materials. While the library has begun collecting more marine science and maritime related volumes, the library is not expected to dramatically increase the size of the collection. Historical analysis indicated that volume growth is approximately 2.5 percent per year.

Most of the guideline systems for library space utilize one set of factors for collections, another for readers, and a third for service space. This approach was used by the consultants.

The library analysis is based on collections data reported by the librarian at the Homer Babbidge Library in Storrs and shared with the consultants. The guideline applied assumes that 0.10 ASF per volume is used for the collection space within the Avery Point Library, located within the Library Building.

Until recently the reader space calculations have generally been based on seating for 25% of the student body for residential campuses. Published sources suggest that if a college or university has less than 50% housed on site, it would be calculated at one for every five students

or 20%. The consultant chose to apply the 20% factor to all student headcount and five percent to the total full-time equivalent faculty.

The consultant believes the 25 square feet per reader station recommended by CEFPI is not adequate because of increasing use of electronic library carrels. The 25 ASF per reader station was used for regular study stations but 35 ASF per station was used for electronic study stations. For the Avery Point Library, 40% of the stations were considered as electronic seats for this analysis. This is due the large number of students who will use electronic stations to access on-line material via the Homer Babbidge Library in Storrs.

UNIVERSITY OF CONNECTICUT • Avery Point Campus

Library Guideline Application

							Fall 2003 Base Year	Fall 2013 Target Year
VOLUME GENERATION	**Current Items**	**Conversion Factor**	**Fall 2003 Volumes**	**Volume Growth**	**Fall 2013 Volumes**			
Books/Serials (Volumes)	32,547	1.00	32,547	25%	40,684			
Manuscripts & Archives	0	1.00	0	0%	0			
Unbound Serials (Display)	0	0.50	0	0%	0			
Microforms	11,339	80.00	142	25%	177			
Audio/Visual Materials	210	5.00	42	25%	53			
						TOTAL VOLUMES	**32,731**	**40,913**
		No. of Volumes						
COLLECTION SPACE	**0 - 150,000**	**150,001 - 300,000**	**300,001 - 600,000**	**600,001 - 4,500,000**	**4,500,001 and above**			
ASF per Volume	*0.100*	*0.090*	*0.080*	*0.070*	*0.035*			
Fall 2003 Collection Space	3,273	0	0	0	0			
Fall 2013 Collection Space	4,091	0	0	0	0			
						TOTAL COLLECTION SPACE	3,273	4,091
STUDY SPACE	**Percent of Headcount**	**Fall 2003 HC**	**Fall 2003 Stations**	**Fall 2013 HC**	**Fall 2013 Stations**			
Students	20%	806	161	1,055	211			
FT Faculty FTE	5%	32	2	48	3			
		Total Study Stations	**163**		**214**			
Regular Study Stations	*60% @ 25 ASF/Station*		2,450		3,200			
Electronic Study Stations	*40% @ 35 ASF/Station*		2,275		3,010			
						TOTAL STUDY SPACE	4,725	6,210
						TOTAL COLLECTION & STUDY SPACE	**7,998**	**10,301**
						Service Space *(12.5% of Total Collection and Study Space)*	1,000	1,288
						Lounge Space *(3 ASF per Study Station)*	489	642
						TOTAL LIBRARY SPACE	**9,487**	**12,231**

CEFPI suggests 25% of the total collection and reader station space for service and staff space. The consultant used a 12.5% figure for the Avery Point Library based on more recent analysis by the Association of College and Research Libraries. Lounge space is allotted at three assignable square feet per study station. The Library Guideline Application is outlined in the following table.

Overall, the library space needs analysis at the base year shows a guideline of 9,487 ASF of space. Subtracting 10,803 ASF of actual space creates a small surplus of 1,316 ASF in the base year. At the target year, the guideline produces a library with 12,231 ASF of total space, producing a deficit of 1,428 ASF.

After touring the current Library building, the consultants believe that the ASF generated by the space guideline at the target year is credible. In a work session with the campus librarian, a need for more journal space, an archival room, as well as space for more computer terminals was suggested. The 12,231 ASF does not include specialized spaces for distance education and collaborative learning. The ASF for these spaces was generated under the "Other Academic Space" and "Offices & Service" space categories. It was assumed that one of the classrooms could be located within or adjacent to the library and equipped with distance learning technology. Locating these initiatives within the Library would increase the size of the facility beyond the 12,231 ASF in the target year.

At this time it has not been determined whether the library building will be razed or used for other purposes. The ideal location, as expressed by the campus librarian, is a location adjacent to open computer labs, in the heart of the academic learning environment.

11.8 ASSEMBLY & EXHIBIT GUIDELINE APPLICATION AND SPACE NEEDS

The assembly and exhibit space is defined as any room designed and equipped for the assembly of large numbers of people. This includes theaters, auditoriums, meeting rooms, arenas, and chapels. Currently, the Avery Point Campus has a 310 seat theater in the academic building. Due to the age and structural integrity of the facility, it is no longer in use, except for an occasional class.

Exhibit spaces are used for exhibition of materials, works of art, or artifacts intended for general use by students and the public, spaces, usually included under this category, are listed under the Alexey Von Schlippe Gallery of Art in the Branford House building.

For this category of space CEFPI has four options. Option "A," deemed most appropriate by the consultants, uses 5,600 ASF as a minimum core requirement. This option is most appropriate for a small college or university of up to 2,000 students.

The assembly and exhibit space in this planning scenario includes space for a performing arts facility of approximately 4,000 ASF. This facility includes up to a 400 seat theatre with stage and wings at approximately 1,200 ASF. In addition, the consultant factored in a control room and storage of an additional 200 ASF.

Application of guidelines at the base and target year (excluding demolition) shows a deficit of 1,165 ASF in the assembly and exhibit category. If the Academic Building were demolished, the guideline space of 5,600 ASF would be needed.

11.9 THE ALEXEY VON SCHLIPPE GALLERY OF ART

The Alexey Von Schlippe Gallery of Art is a University and community art gallery featuring the works of regional, national and international artists. The gallery has hosted over 100 art exhibition and related events since its inception in 1992. The gallery, located in the Branford house, contains 3,274 ASF of exhibition, office and artist work space. The program is expected to continue throughout the master planning timeframe. Since this is a public gallery and not an exhibit space for an art department, it has been listed separately in this study.

11.10 BRANFORD HOUSE MEETINGS ROOMS

When the Branford House mansion was renovated, the Great Room, East, West and Oak Rooms were restored to their original condition. These elaborate rooms, comprising 3,774 ASF, are located on the first floor of the Branford House and are rented on weekends for private and community functions. Current plans calls for continuing to rent the facility out for private events on weekends over the next three years. However, based on current projections, the University predicts that it will be unable to project a net positive income in the third year that will be sufficient to warrant the continuation of the program. As a result, the consultant was asked to examine alternative uses for four rooms.

The consultant toured the Branford House after work sessions in April 2004. A floor plan detailing the physical layout of the meeting rooms was also obtained from Avery Point administration.

With the exception of the oak room, the configuration, acoustics, and multiple entrances to the other rooms do not readily lend themselves for permanent classrooms without additional renovation. The space needs analysis indicates that there are enough classrooms to meet the needs of the undergraduate programs, even as enrollments increase.

It is suggested that the Great Room be designated a meeting room space for University and community functions. Once phased demolition is complete, large meeting type spaces will be contained to the Branford House. It is not uncommon for a university to have such a meeting room for various functions. Since the current theater is inactive for large groups, the 1,404 ASF area could be used for student orientations or campuswide meetings.

The East and West Rooms, with 867 ASF and 903 ASF of space respectively, are adjacent to the Great Room and could be used as breakout rooms for independent study sections, Honors Programs, or classes that meet by arrangement. The consultant noticed that there were more than 30 seminar type classes offered during the Fall 2003 semester. Many of these classes enrolled from three to ten students (Seminar in Academic Writing, University Learning Skills, and Elementary Concepts of Statistics) while others courses were offered on more of an independent study bases with arranged times and meeting locations. Both rooms would be ideal for these types of classes, freeing more traditional classroom space for regularly scheduled courses.

The Oak Room, with 600 ASF and an egress to the outside, could serve as a small classroom or laptop computer laboratory using wireless technology. Since electrical and network connectivity for these computers is limited in the Oak Room, the consultant advises against PC desktop computers.

11.11 PHYSICAL PLANT GUIDELINE APPLICATION AND SPACE NEEDS

Most guidelines suggest a percentage of from seven to eight percent of all square footage on campus, with the exception of existing physical plant space, be used to drive master plan needs in this category. The consultants have found in most cases that this percentage generates greater amounts of space then typically exists on campus. Many physical plant departments are increasing the outsourcing of many typical shop functions and using just-in-time purchasing methods to decrease warehousing needs.

From previous studies the consultants have found that the average percentage actually devoted to physical plant space is approximately four to six percent. At Avery Point, the existing Physical Plant space is eight percent. Removal of the old academic buildings should provide some efficiencies. Therefore, the consultants have applied seven percent of all square footage on campus, including spaces dedicated to the Marine Sciences Department, to drive the base and target year needs for space in this category at the Avery Point Campus. This percentage is based on the age of campus structures and the size of the surrounding grounds.

Included in the analysis is the ASF for the Project "O" facility. The physical plant is responsible for landscaping, snow removal and maintaining the HVAC, electrical, plumbing, fire alarm & sprinkler, elevator, and other systems of the Project Oceanology building. At base year, guideline analysis shows a surplus of 705 ASF. At the target year, the guideline produced a need for 13,626 ASF or a 264 ASF deficit. Existing space is reduced to 10,108 ASF in the target year as space within the Community/Administration is demolished, leaving an unfilled need for 3,518 ASF of space.

Some of the physical plant spaces are in disrepair. Second floor spaces of the physical plant office building and physical plant shops are inactive due age of the facilities and structural issues. These areas were listed as inactive in the facilities inventory and are not included in the analysis. If repaired, another 5,055 ASF of space could be available for other uses. Physical plant is also assigned 3,254 ASF of space in the UConn Community/Administration Building which is mainly central storage.

11.12 STUDENT UNION GUIDELINE APPLICATION AND SPACE NEEDS

The current Student Union is in the Academic Annex building. It contains a television lounge and recreation game room area. Food service is available in the cafeteria located in the Project Oceanology building. The bookstore or UConn Co-Op, with 1,561 ASF, is located in Academic Building and included under this space category.

The CEFPI recommends a formula of nine square feet per student FTE and the Association of College Unions International (ACUI) recommends a formula of 10 square feet per student for generating student union space. These guidelines for space application provide

space for the various functions and the room use code designations that are typically found in a comprehensive student union including bookstore, food service, lounge, meeting space, student government/club space, and other student service type space categories. This formula has been applied by the consultant using nine assignable square feet per student headcount for student union space at the Avery Point Campus. While the consultant assumed that food service will continue to be available in the Project Oceanology cafeteria, a more substantial food service area with space for student gatherings will be part of a new student union.

At the base year the application of space guidelines shows a deficit of 2,571 ASF. At the target year, the guideline produced a need for 4,812 ASF. Both of the buildings currently housing student union functions are scheduled for demolition. As a result, there would be a need to relocate the student union or incorporate the function in a new facility with approximately 9,495 ASF of space.

11.13 PHYSICAL EDUCATION/ RECREATION

Avery Point hosts three intercollegiate sports: Men's Baseball, Women's Softball, and Men's Basketball. Basketball is played in the Avery Point gym while baseball and softball games are played at Washington Park in Groton. The 24,794 ASF athletic and sports facility contains a gym with spectator seating, pool, fitness room, and lockers. The University has playing fields /open areas across the street from the gymnasium. The facility was acquired from the Coast Guard and recently renovated.

In calculating the need for indoor Recreation space, CEFPI recommends a core of space be dedicated to recreational/physical education regardless of the size of a campus. The core requirement of 20,000 ASF with a campus of 1,000 student headcount is typically used as the guideline.

The consultant expects that the current facility will serve the needs of the campus through the master planning timeframe. Hence, the guideline applied is the actual space in the gymnasium.

11.14 RESIDENCE LIFE

The Avery Point Campus has no student housing and does not anticipate construction of student housing during the 10 year facilities planning timeframe.

12.0 LIMITATIONS OF ANALYSIS

The consultant utilized campus data provided by the University of Connecticut – Avery Point Campus for staffing, courses, and facilities information. Fall 2003 data were used for the base year. Target year enrollment and staffing data were provided by the UConn central administration with input from undergraduate programs and Marine Sciences Department administration.

Space needs analysis for the purpose of master planning is a process through which estimates are made of space amounts likely to be needed by various units of an institution at current and projected enrollment, staffing, and activity levels. Based on the enrollment

assumptions and data provided by UConn representatives, findings at the campus level can be considered to be reliable estimates of space needs. While the application of normative guidelines is a good general indicator of relative need, the guideline findings are not a substitute for facilities programming. Refinement of space needs can be done at the program level. Programming will most accurately determine specific needs and building fit. Further, this study analyzed space needs but did not evaluate the quality of existing space.

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