Nassau Community College
Facilities Master Plan

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I. Introduction

Mission Statement

Nassau Community College, a constituent member of the State University of New York system, is a comprehensive, full-opportunity institution of higher education. All who can benefit from its resources have the opportunity to expand their knowledge and skills and to pursue the goal of lifelong learning. The College is dedicated to high quality, low-cost education and career preparation to meet the needs and interests of the community it serves. It is committed to academic excellence and the dignity and worth of the individual. To this end, Nassau Community College offers Associate in Arts, Associate in Science, and Associate in Applied Science degrees, certificates and continuing education programs. Its curricula span the liberal arts and sciences, pre-professional and professional areas for the benefit of a diverse population. Nassau Community College places a high priority on small classes, taught by qualified, experienced faculty, to provide an optimal educational environment.

In fulfillment of this Mission, Nassau Community College affirms the following goals:

- To maintain an open admissions policy which ensures the availability of educational programs for traditional and non-traditional students.
- To create educational programs, which respond to and satisfy diverse community needs.
- To provide general education which teaches students to think critically and analytically about a body of knowledge conducive to lifelong learning.
- To maintain developmental programs that upgrade student skills for success in college level courses and to maintain special courses of study, which enhance general education.
- To provide the support services necessary for students to realize their maximum potential.
- To create a wide variety of activities and cultural programs to enrich student and community life.
- To create a multicultural environment which fosters the synthesis of knowledge, aesthetic appreciation and commitment to ethical and social values.
- To encourage faculty development with programs that promote scholarship and creativity and to encourage the adoption of innovative teaching methods and technology to enhance student learning.

- To support and strengthen academic programs that best prepare students for transfer to senior institutions and to provide career programs to prepare students for regional and global employment opportunities.
- To provide administrative leadership, which assures educational quality; furnishes comprehensive student support services; maintains effective budget and facilities management; and stimulates thoughtful planning for the future of the College.
- To enhance the economic and cultural vitality of the County by promoting an educational environment which responds to the changing needs of the community.

Campus History

Nassau Community College was founded in 1959 by the Nassau County Board of Supervisors as part of the State University of New York. The first classes offered during the winter semester of 1960 were held in 34,000 square feet of rented offices in the County Court Houses on nearby Old County Road. Student population at the time totalled just over 600 students.

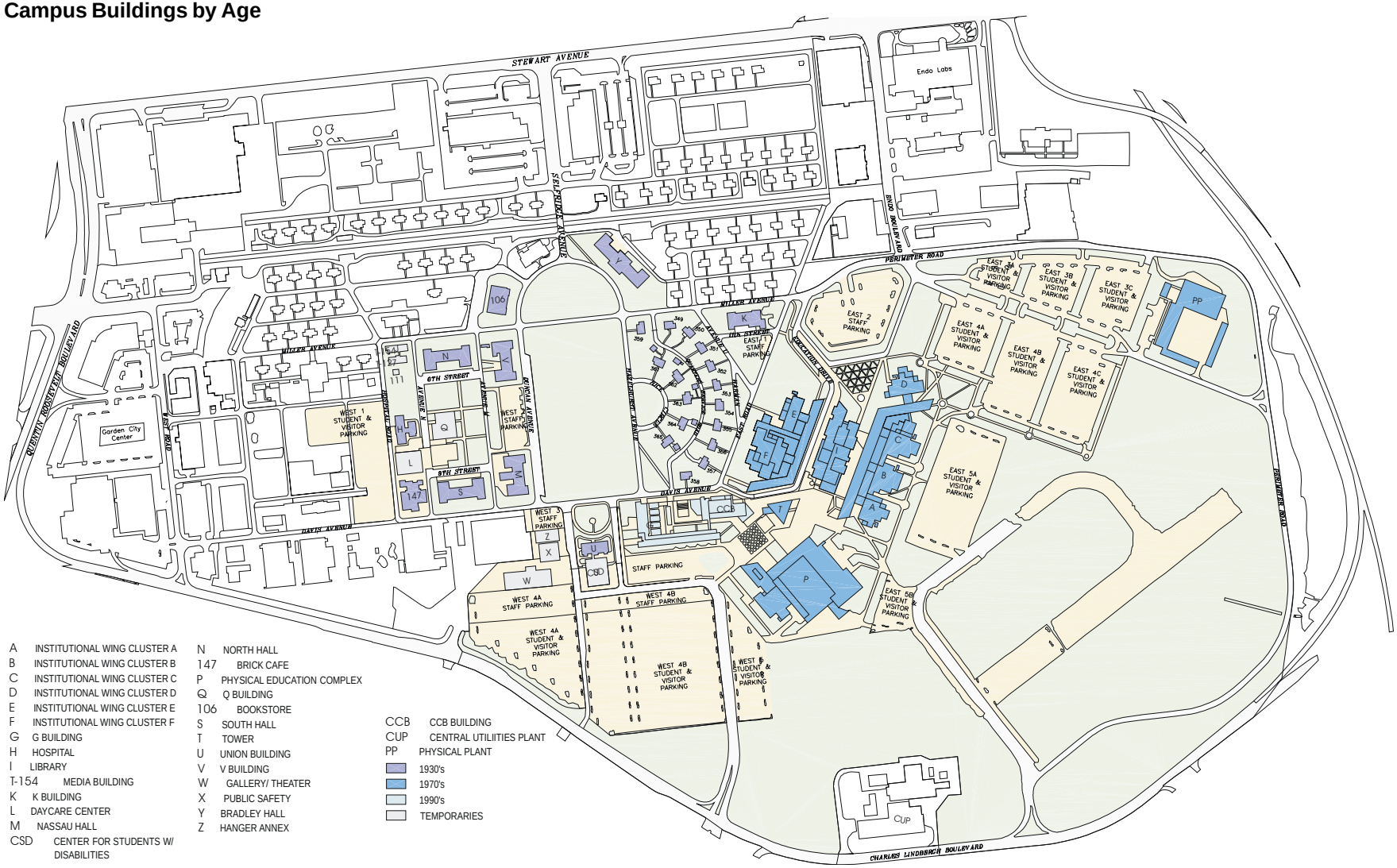
In 1962 the College was given a permanent home including 135 acres and 49 buildings on the former Mitchel Air Force Base. At the time, the College numbered 3,000 students.

As enrollment increased over the next ten years it became clear the College was outgrowing its inherited facilities. The former air force buildings were increasingly in need of repair while falling ever further out of step with changing requirements of modern educational facilities.

In 1968 the Eggers Group began work on the master plan and design of a new Nassau Community College to be located adjacent to the former air force base. By this time, the campus had acquired an additional 90 acres. A modular system of pre-cast concrete construction was chosen for its economy, ease of construction and ability to accommodate modification and change. The new “megastructure” as it was known was sited to the east of the existing campus to minimize any disruption to the already overcrowded college. The new buildings were designed around a student population of 8,000 FTEs and parking for 5,500 cars. Construction began in 1973 and continued through 1978.

By 1978 only two-thirds of the complex as designed was complete. Due to state economic conditions a significant portion of the plan remained unbuilt, including the student center, theater and performance spaces, media center including art labs and two additional instructional cluster buildings. Also left unbuilt were five units of tiered parking on the present sites of west parking lots 4B and 5. Given the circumstances, the College had no other choice but to continue using the great number of 1930’s buildings, the “temporary” metal buildings that were erected in the early 1970’s to meet the surge in enrollment, and three former runways that have been re-used as parking lots.

Fig. I.1
Campus Buildings by Age



A INSTITUTIONAL WING CLUSTER A
B INSTITUTIONAL WING CLUSTER B
C INSTITUTIONAL WING CLUSTER C
D INSTITUTIONAL WING CLUSTER D
E INSTITUTIONAL WING CLUSTER E
F INSTITUTIONAL WING CLUSTER F
G G BUILDING
H HOSPITAL
I LIBRARY
T-154 MEDIA BUILDING
K K BUILDING
L DAYCARE CENTER
M NASSAU HALL
CSD CENTER FOR STUDENTS W/ DISABILITIES

N NORTH HALL
147 BRICK CAFE
P PHYSICAL EDUCATION COMPLEX
Q Q BUILDING
106 BOOKSTORE
S SOUTH HALL
T TOWER
U UNION BUILDING
V V BUILDING
W GALLERY/ THEATER
X PUBLIC SAFETY
Y BRADLEY HALL
Z HANGER ANNEX

CCB CCB BUILDING
CUP CENTRAL UTILIITIES PLANT
PP PHYSICAL PLANT
1930's
1970's
1990's
TEMPORARIES

In 1997 the College opened two new buildings, one dedicated to the Social Sciences and Visual Arts, the other designed to accommodate Student Activities spaces. The College Center Building is home to conference facilities, meeting areas, a multi-purpose room for assemblies and a cafeteria. The neighboring G Building houses general-use classrooms, faculty offices and art studios.

Recent years have seen a rise in student enrollment, at the same time that many buildings on campus such as the temporary metal buildings, have surpassed the ends of their useful lives. The College again stands at a defining point in its history: whether to invest funds in the rehabilitation of these existing structures or to commission new buildings to accommodate these growing needs.

Master Plan Methodology

While master plans inevitably come to be known for their end products: the site plans and facility recommendations they proffer, they are, in fact, shaped more by process: an ongoing exchange between client and design team. At its simplest, this process consists of a reciprocating series of inquiries, proposals and comments that coalesces into a campus vision. More specificallly, there were four principal arenas in which this dialogue occurred:

Campus Conditions Assessment
The campus' physical conditions were assessed in consultation with various NCC faculty and staff. The design team was provided with of drawings from the the campus' plan archive, and made several site visits and conducted interviews with maintenance and operations personnel. Findings from these studies are included here under **Section II: Current Conditions Analysis**.

Institutional Research
The design team's programming consultants worked hand-in-hand with the campus' Office of Institutional Research to determine current and projected enrollment, classroom utilization rates and student demographics. Based on these findings, assessments of available space on campus were developed, using both SUNY models of space allocation, as well as other nationally accepted models of space distribution. These findings are presented later in this report under **Section III: Inventory and Space Assessment**.

One of the most important pieces of information used for this study was the College's physical space inventory, or PSI. This document lists each interior space on campus from broom closets to corridors to classrooms, categorized by space type and tagged to indicate to which department, if any, it has been assigned. As necessary, spaces were re-measured and re-assigned to reflect their current conditions and occupants.

By cross referencing findings from interviews with campus-wide enrollment projections the consultants were able to establish target enrollment projections for each academic department providing a clearer picture of campus trends over the next six years.

Interviews and Meetings

Over a four-week period representatives were interviewed from every academic department, along with senior administration, maintenance and service personnel as well as student representatives. Minutes of these meetings were submitted under separate cover to the College. Based on these interviews, a list of common themes was distilled that was re-circulated back to interviewees for a more uniform polling to establish priorities. Responses to this polling were factored in to the feedback received during interviews and served to corroborate the enrollment analyses and space assessments. Equally important were a series of working meetings, held between November of 2001 and May of 2002 at which various design ideas and assumptions were tested and tempered before faculty, staff and students.

Other

Additional background material came from the following sources:

The Community Colleges of the State of New York Strategic Plan for 2001-2004

The Facts, Faces and Figures of Nassau Community College; NCC; 1999-2000

Nassau Community College ADAAG Compliance Report; Final Draft; Greenman-Pedersen, Inc.; July 2, 2001.

Nassau Hub Study; Long Island Regional Planning Board, et. al.; January 1998.

Master Plan Study: Nassau Community College; The Designers Group, Architects, Engineers, Planners; 1985.

Realigning for Excellence; The State University of New York; final report presentation to the CCBOA; June 21, 2001

Current and Projected Enrollment at Nassau Community College

Fig. I.2
Summary of Current & Projected Enrollment

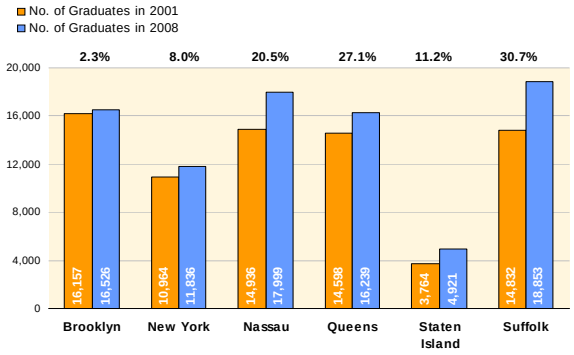
	2001	2008	% Change
Average Annualized FTEs	16,109	18,429	14%
Fall FTEs	14,151	16,277	15%
Headcount	19,712	22,520	14%

The numbers in Fig. I.2 represent current and projected enrollment at Nassau Community College for the years 2001 and 2008. The numbers summarize enrollments for Average Annualized Full-Time Equivalents, Fall FTEs and Headcount.

The Impact of Demographics Relative to Nassau's Enrollment Growth
A primary factor supporting Nassau Community College's projection of a 15% increase in enrollment is the forecast associated with demographics and the relative impact it will have on the College. The tables below illustrate the similarity and consistency of Nassau's views concerning enrollment projections with those of regional figures. The data was secured from Woods & Poole Economics, a company specializing in the basic analysis of census data. It covers the years 2001-2008 and represents projections relative to two population clusters—high school graduates and the 20-24 year-old age group.

1. High School Graduation Rates
The College absorbs more than 80% of its enrollment from Nassau County and an additional 15% principally from Queens and Suffolk Counties. The projected graduation rates for these counties indicate that Nassau Community College will continue to be a strong growth constituent among the State's community college system.

Fig. I.3
Projections in High School Graduation Growth Rates

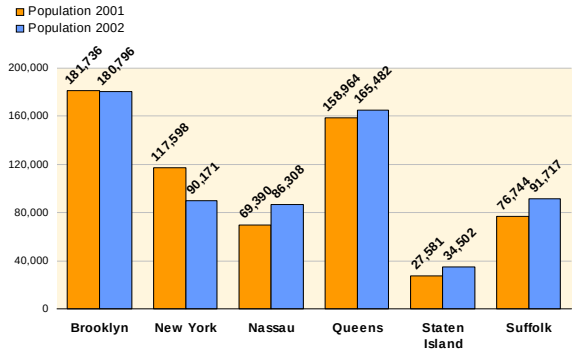


While the overall statewide high school graduation rate will increase by a modest 10%, Brooklyn, New York, Nassau, Queens, Staten Island and Suffolk Counties will collectively average a graduation rate increase of nearly 15% by 2008. This long-term increase in percentage rate represents more than 11,000 additional high school graduates from the five counties identified in Fig. I.3. Most of these additional high school graduates will be from Nassau, Suffolk and Queens.

2. The 20-24 Year-Old Age Group
Nassau Community College, heavily enrolled by liberal arts majors, is one of the youngest in terms of average age community colleges. While there are older, part-time students within the mix, it is

the primary age group of 18-24 year-olds that will drive the overall enrollment growth. As indicated previously, 80% of the College's enrollment is from Nassau County and the projections in Fig. I.4 indicate that Nassau County will have an increase of 24.4% in the 20-24 year-old age group.

Fig. I.4
Projections in Population—Ages 20-24



Master Plan Executive Summary

Introduction and Statement of Intent

As part of the State University of New York capital budgeting process, every campus in the system is required to submit a five-year capital plan usually framed within the context of a long-term master plan. Funding appropriations to each of the campuses are based on these five-year capital plans. In anticipation of this requirement, the College (through DASNY) retained Mitchell/Giurgola Architects with the assistance of Scott Page, Programming Consultant, in the Fall of 2001 to work with Nassau County Community College campus constituencies to develop a master plan which, in this case, defines the goals for five-year and ten-year time periods.

Nassau Community College is a dynamic, vital, effective teaching institution fulfilling a well-defined mission with success, in spite of significant handicaps resulting from a tremendous shortage of space, inadequate and obsolete facilities and a campus with few amenities or qualities to attract the students to an active campus life. Failing utilities infrastructure, water infiltration in buildings, serious mold problems in the buildings that see heaviest use and structures in a general state of disrepair result in significant inefficiencies that compromise institutional objectives and more generally give NCC a negative image. With a growing student population, these physical plant problems have a continually worsening impact on the day-to-day life of the campus. In fact, the campus is the largest-enrolled community college in the SUNY system, with anticipated 15% growth in enrollment by 2008. This 15% growth in enrollment represents approximately 2,126 FTEs—a number that is comparable to total enrollments, as reported, at some of SUNY's smaller community colleges.

The master plan process has drawn upon the observations and technical analyses of the design team, interviews with administration, faculty and students and periodic presentations to the various constituencies to obtain their reactions to the analyses and recommended improvements. The long-term plan that has resulted addresses both immediate needs and long term goals. Immediate needs have been prioritized and projects planned to be implemented in a rational way that will ultimately lead to the realization of the long-term vision of the campus.

The basic premise of the master plan is to reinforce its strengths, eliminate its weaknesses, add infill buildings to overcome the space shortage and gradually demolish those buildings that have outlived their usefulness. The result will be a more compact campus that is easier to navigate; that will promote greater social interaction; that will have a renewed infrastructure of basic utilities and universal, sophisticated data and telecommunications technology. The goal is to give the campus greater presence, stronger ties to the adjacent cultural institutions and a more formative role in community life. Development projects have been defined in increments that are realistic relative to State appropriations and priorities and that will resonate with educational goals statewide.

Overview of Space Need

As part of the Master Plan process, a Preliminary Space Assessment was prepared to document Nassau Community College's total quantitative space need, outlined in the table below. The space deficits and surpluses were determined by applying benchmark guidelines to the campus' existing building inventory. The calculations provide the College with an understanding of how to better utilize its present space, what new square footage is needed and where the College is heading in the short and long terms. In some categories of the preliminary space assessment, SUNY space guidelines were applied. In other categories, the assessment utilizes different national standards or seeks to approximate the guidelines, relative to the different needs of each department, in order to provide proper ancillary and support space necessary to sustain a function. One of the differences between the SUNY Assessment and the Alternate Assessment is in the Health/Phys Ed. category. SUNY's current and future allocation of 75,000 NASF for Health/Physical Education space is based on college level and enrollment. With 111,714 NASF in physical education space existing on the campus, the space may be over the SUNY standard of 75,000, but the Alternate Assessment responds to the fact that the facility is already built and occupied and is not proposing to reallocate any portion of the phys. ed. space to bring it within the SUNY standards.

Nassau has a total of 358,663 in existing instructional space (includes classrooms, computer rooms, labs and academic departments). When divided by the current FTES of 14,151, this results in 25 sf per FTES and represents one of the lowest ratios in the community college system for

Fig. I.5
Space Assessment

		Fall 2001			Fall 2008				
	Overall Summary	**Space Existing**	**Space Need**	**Current Surplus/ (Deficit)**	**Space Need**	**Projected Surplus/ (Deficit)**	**Deduct Temporary Buildings**	**Space Need**	**Net Surplus/ (Deficit)**
1	Classrooms	105,836 sf	140,421 sf	(34,585)sf	146,674 sf	(40,838)sf	4,176 sf	150,850 sf	(45,014)sf
2	Computer Rms	20,111 sf	25,319 sf	(5,208)sf	56,958 sf	(36,847)sf	0 sf	56,958 sf	(36,847)sf
3	Academic Depts	232,649 sf	310,419 sf	(77,770)sf	351,911 sf	(119,262)sf	2,954 sf	354,865 sf	(122,216)sf
	Subtotal Instructional	358,596 sf	476,159 sf	(117,563)sf	555,543 sf	(196,947)sf	7,130 sf	562,673 sf	(204,077)sf
	Student FTEs	14,151 FTEs	14,151 FTEs		16,277 FTEs				
	Net Assignable per FTE	25 sf	34 sf		34 sf				
4	Public Service	12,660 sf	16,066 sf	(3,406)sf	16,296 sf	(3,636)sf	0 sf	16,296 sf	(3,636)sf
5	Library	64,774 sf	84,214 sf	(19,440)sf	94,616 sf	(29,842)sf	0 sf	94,616 sf	(29,842)sf
6	Health/Phys Ed	111,714 sf	111,714 sf	0 sf	111,714 sf	0 sf	0 sf	111,714 sf	0 sf
7	Continuing Education	9,465 sf	14,559 sf	(5,094)sf	15,346 sf	(5,881)sf	0 sf	15,346 sf	(5,881)sf
8	Supplemental Services	10,413 sf	9,604 sf	809 sf	11,490 sf	(1,077)sf	1,895 sf	13,385 sf	(2,972)sf
9	Assembly & Exhibition	25,067 sf	35,614 sf	(10,547)sf	35,614 sf	(10,547)sf	17,160 sf	52,774 sf	(27,707)sf
10	Student/Faculty Services	58,259 sf	85,714 sf	(27,455)sf	103,169 sf	(44,910)sf	10,682 sf	113,851 sf	(55,592)sf
11	Gen'l Administration	62,251 sf	56,930 sf	5,321 sf	61,919 sf	332 sf	7,978 sf	69,897 sf	(7,646)sf
12	Technology Services	25,237 sf	27,087 sf	12,215 sf	29,647 sf	8,833 sf	1,907 sf	31,554 sf	(6,317)sf
13	Campus Services	68,649 sf	66,500 sf	(206)sf	68,683 sf	(2,149)sf	267 sf	68,950 sf	(301)sf
	Inactive Space	33,650 sf	0 sf	33,550 sf	0 sf	0 sf	0 sf	0 sf	0 sf
	Subtotal Non-Instructional	482,139 sf	508,002 sf	(25,863)sf	548,495 sf	(66,356)sf	39,889 sf	588,384 sf	(106,245)sf
	Total	**840,735 sf**	**984,161 sf**	**(143,426)sf**	**1,104,038 sf**	**(263,303)sf**	**47,019 sf**	**1,151,057 sf**	**(310,322)sf**
	Student FTEs	14,151 FTEs	14,151 FTEs		16,277 FTEs			16,277 FTEs	
	Net Assignable per FTE	59 sf	70 sf		68 sf			71 sf	
	SUNY Targets		961,701 sf		1,058,469 sf			1,058,469 sf	
	Student FTES		14,151 FTES		16,277 FTES			16,277 FTES	
	Net Assignable per FTES		68 sf		65 sf			65 sf	

instructional square footage per FTES. Over the long term, absent any expansion in instructional space, this number will be reduced to 22 sf per FTE. A more appropriate benchmark number, and one that is projected for the future, would be 33 sf per FTE.

Perhaps most importantly, the College must increase its stock of classroom space by 40% and its stock of computer laboratory space by 100% in order to meet the upcoming demand. These two types of spaces have the most direct bearing on the College's ability to deliver on its promise of educational opportunity to the local community. Even more space is required by the academic departments in the form of dedicated lab spaces, faculty offices and support spaces, where a future deficit of 112,000 nasf is projected. This space is essential to enable the College to recruit and retain faculty, provide adequate venues for student-faculty interaction and to sustain academic initiatives that will keep the College relevant into the future.

The College’s need for space is magnified by the decrepit condition of many of the buildings on campus, and the fact that many were built as temporary structures up to 40 years ago. As appropriate, spaces that should be vacated and demolished have been deducted in the chart above, to give a more accurate picture of the severity of the space shortfall at the College.

Primary Principals that Support Proposed Projects

In an effort to strategize how best to meet this vast shortfall given the limited resources available, three key criteria were established:

1. ***Age of the Buildings and their Anticipated Renewal.*** The majority of the NCC campus was developed in two phases. In 1962, the College took ownership of the west campus, a former military base dating from the 1930's. This first generation of buildings represents approximately 397,000 gsf or 32% of the campus inventory. With the exception of two build-

ings that were renovated in the late 1960's, none of these original buildings have been renovated since their construction. Many of these buildings have outlived a useful life and should either be demolished or significantly rehabilitated to address programmatic obsolescence as well as health and life safety concerns.

The second phase of development includes buildings that comprise approximately 820,440 gsf and were constructed on the east side of the campus in the 1970's. These facilities, built to accommodate 8,000 FTES, are undersized to support current enrollment (14,151 FTES) and are urgently in need of renovation. In particular, the buildings pose serious health and life safety concerns, principally due to water penetration and the subsequent growth of mold and the resultant poor indoor air quality. As these buildings have never been significantly altered, their interiors also need reconfiguration to support the programs currently housed there.

An additional 59,000 gsf of temporary buildings were constructed to accommodate music, theatre, the daycare center, student advisement, placement and testing, students with disabilities and media-related services. Now over 40 years old and often coming apart at their seams, it is essential that the programs housed in these buildings be relocated to appropriate permanent facilities.

2. ***Academic Initiatives*** With a current academic department space deficit of 34% (and a future deficit of 50%), projects that support existing enrollment and programmatic growth are critically needed. Almost all of the facilities that support academic functions were created in the first and second phases of the campus development and do not adequately meet the current instructional needs of the College.

   The College's Academic Clusters, the primary instructional spaces on campus, are at capacity and cannot accommodate the projected 2008 enrollment growth especially in those programs directly within or supported by the Allied Health Sciences, Physical Sciences and Biology.

Poorly configured space, such as Nursing (located in the old military base), needs to be redesigned to support growth. Programs that are scattered and located in temp buildings, such as the Music and Theater Departments, need to be consolidated to one central location in more appropriate and adequate facilities.

The College lacks classrooms and, without a project that will provide additional classroom space, that deficiency will grow to 39% by 2008. Programs that are classroom intensive, such as English and Reading/BEP, will most suffer from this space shortfall.

New teaching delivery methods and trends in learning will require an increasing amount of instruction take place in computer environments. The long-term assessment for computer rooms shows a need for the College to more than double the amount of square footage currently devoted to computer rooms. The increase applies to programs that will need additional computer rooms to respond to enrollment increases, as well as programs that will be moving towards computer enhanced instructional delivery, such as Mathematics (both algebra and calculus), Compositional English and Business Administration.

3. ***Initiatives to Support Student Life*** Projects that enhance the quality of campus life are a primary focus of the College. Currently, the in-take components of student services (Admissions, Bursar, Financial Aid, Registrar) are in scattered locations rendering the critical functions of these services disorderly and inaccessible. Grouping these enrollment services together along with Advisement, Testing, Disability Services and Educational Counseling will provide a centralized, more convenient process for the students and will reflect a more customer-oriented approach.

   Projects that provide improved or new student amenities are also needed. The space assessment shows a current deficit of 53% in student activity space, including recreation space, informal meeting space, student organization space and food service. The College needs to develop a plan that will create student lounges and recreational areas as well as increase

venues for food service. This is not to propose that a new building be constructed in order to expand these services; rather student recreational, meeting and communal spaces can be incrementally placed within the existing buildings and the proposed new projects.

Key Projects

New Science and Instructional Building
estimated construction cost: $93.696 million
94,600 nasf
178,500 gsf

Project Priority and Intent
The highest priority of the College is to address the current deficiencies in Academic space. The first phase of the Master Plan will focus on maximizing the new construction of a science and classroom building to house Biology, Chemistry, Nursing, a portion of Allied Health Sciences and interdisciplinary classrooms and computer rooms. The primary purpose of this project is to provide critically needed instructional space to meet current enrollment and future programmatic growth. The secondary purpose is to begin a strategy to renovate and retrofit, where necessary, the Academic Cluster buildings. The location of the new science and instructional building, to be sited on the northeast side of the campus adjacent to Cluster E, maintains the College's center of academic gravity and also provides a link between the east campus and the main campus. This new building will:

- Provide new space that supports programmatic growth initiatives among the sciences and nursing;
- Develop a stock of medium sized classrooms (25-40 stations);
- Provide an adequate amount of instructional space to support programs and enrollment benchmarks;

- Provide adequate amenities (such as food service);
- Create communal/gathering spaces for students, faculty and staff;
- Create new space to facilitate subsequent renovations.

Project Scope

The new science and instructional building will provide instructional and academic office space for Biology, Chemistry, Allied Health and Nursing. Additionally, the new facility will begin to meet the pressing need for classrooms. Shared facilities, such as interdisciplinary classrooms and interdisciplinary computer rooms will be provided as well as amenities that include lounges and vending.

Programmatically, this project (which will vacate about 49,446 nasf of space in existing facilities) offers a variety of subsequent phased renovation options that will serve the College well. The vacated space can serve:

- to support expansion and consolidation of programs, such as Reading/BEP, which will then allow for the complete renewal of the V Building;
- to meet growth benchmarks by expanding space for the physical sciences; and
- to support distributed instructional technology, such as smart classrooms, interdisciplinary computer rooms and dedicated computer rooms to accommodate, among other things, a Language Lab and digital art labs.

Implementation Strategy

The College needs to identify which alternative will be undertaken in the use of the vacated Cluster space, as well as the V Building. Given the options identified above and the College's need to renovate its existing buildings, emphasis should be placed on utilizing the Clusters to enable subsequent renovation projects.

Consolidated Student Services Center
estimated construction cost: $16.127 million
27,000 nasf
45,100 gsf

Project Priority and Intent
The reorganization of student services will facilitate a central location for "initial contact" student services associated with Admissions. Currently, these in-take services are physically disconnected and located on various floors within the Administrative Tower. A consolidation of these services outside of the upper levels of the tower with its circulation limitations will strengthen the College's image, orientation and facilities as they relate to welcoming, recruitment and development. By consolidating these services to one central location, the disruptive overcrowding (particularly during peak registration weeks) will be eliminated. This project will:

- Establish a functional organization of uses and programmatic relationships;
- Consolidate student services;
- Address the aesthetic quality of the campus, as well as provide improved amenities for students;
- Eliminate the need for a temporary building.

Project Scope
This project will renovate the existing lower level of the Plaza that currently houses portions of the Bursar and Registrar and construct an additional 12,650 GSF to support the required program and space needs of Admissions, Bursar, Financial Aid and the Registrar. The project will also renovate the first floor of the Tower and the lower level of the Library to accommodate Educational Counseling, Disability Services and Health Services and therefore go beyond providing a one-stop facility. These currently disjointed programs will now be in a position to provide integrated services with a greater degree of interdepartmental coordination.

Programmatically, this project will create an opportunity within the Tower to expand space for the remaining occupants or relocate functions from other buildings to backfill the vacated space.

Implementation Strategy
As funds become available, this project is to be implemented simultaneously with the new Science and Instructional Building. The program currently occupying the space to be renovated will be temporarily relocated for the duration of the construction.

New Performing Arts Building
estimated construction cost: $13.109 million (Phase I)
15,050 nasf
30,100 gsf

Project Priority and Intent
Although a theater and performing arts complex were planned as part of the 1970's building program, funding limitations required this phase of construction be postponed indefinitely. For this reason the College's performing arts programs are currently housed in a disjointed assortment of residual and temporary spaces around campus. The Theater/Dance Department's spaces are spread among six buildings, most of which are temporary structures. These facilities inhibit the growth potential of the programs and limit program offerings. Most of the Music program is currently housed in a temporary building, including the recital hall and rehearsal rooms. The existing recital hall was not designed to function as a performance space. It has no fixed seating and operates with acoustics typical of a temporary metal shed.
This project meets on-going and frequently recurring needs, concerns and goals of the campus and implementation of this project will:

- Provide appropriate and adequate space that supports current programs and programmatic growth initiatives among the performing arts;

- Establish a functional organization of uses and programmatic relationships;
- Provide facilities that support recreational, educational and/or cultural integration with the community;
- Eliminate the need for temporary buildings.

The College has reserved a site adjacent to the new Museums at Mitchel and Cradle of Aviation Museum to ensure that featured high-profile public events will factor prominently in the cultural life of the County. The new facility will sit at the heart of the NCC campus, and provide a critical pivot point between the east and west campuses.

Project Scope

It is proposed that a new Performing Arts Facility be constructed to include a 350-seat theater with related support spaces, a black-box theater for performances and instructional use, instructional spaces such as a drama studio, and a lighting lab, as well as a modest gallery space for temporary exhibitions. Space will also be provided in the new facility for departmental offices and related administrative space.

Implementation Strategy

The new facility has been conceptualized as a two-stage project to allow the new theater and support spaces to be built first and the instructional and departmental spaces to follow. The College will pursue alternate sources of funding for what is likely to be an important County asset.

The Setting

Nassau Community College is located at the heart of Nassau County, midway between the north and south shores in the Village of Garden City (Town of Hempstead). While it enjoys the characteristic open space and attractive typical to suburban campuses, it also sits within easy reach of New York City (25 miles to the east) and therefore reaps the benefits of proximity to a larger metropolitan area.

Although much of Garden City and the towns surrounding it are characterized by long stretches of suburban development, the 225-acre campus is ringed by dense swaths of corporate and retail development. The adjacent location map shows the College's position in the tri-state area. As can be seen, the College is well-positioned to serve dozens of bedroom communities that make up the suburban fabric of western Long Island.

It is easy to get to the College by car: the Long Island Expressway and both the Northern and Southern Parkways run nearby. Linking all three is the Meadowbrook Parkway that runs along the eastern edge of the campus. However, the campus is not well connected by public transit. The nearest connections to the Long Island Rail Road are several miles away in Hempstead (where trains run only to the west) and Mineola. Although there is frequent bus service that links the campus to the surrounding communities, connections are difficult to time successfully and travel times are long considering the distances covered. Fig II.1 on the following page shows the College's relationship to nearby transportation paths.

The College sits at the heart of the Nassau Hub, which has been described as one of the major aggregations of educational, retail, commercial, office and industrial land uses in the United States. The Hub's 2.9 square miles of land include two major educational facilities, two museums, the Nassau Colisseum entertainment complex, and several malls including the Source Mall and Roosevelt Field, the largest mall in New York State. Zoning ordinances have shaped the heart of this Hub into an Edu-Cultural district with a Children's Museum and a Museum of Aviation to the south of the College. Also on neighboring sites are a nature preserve (the Hempstead Plains) and

Fig. II.1
Area Map with Transit Paths

Mitchel Park, a 67-acre multi-purpose athletic facility complex. Further south is Hofstra University's residential campus of 8,500 students.

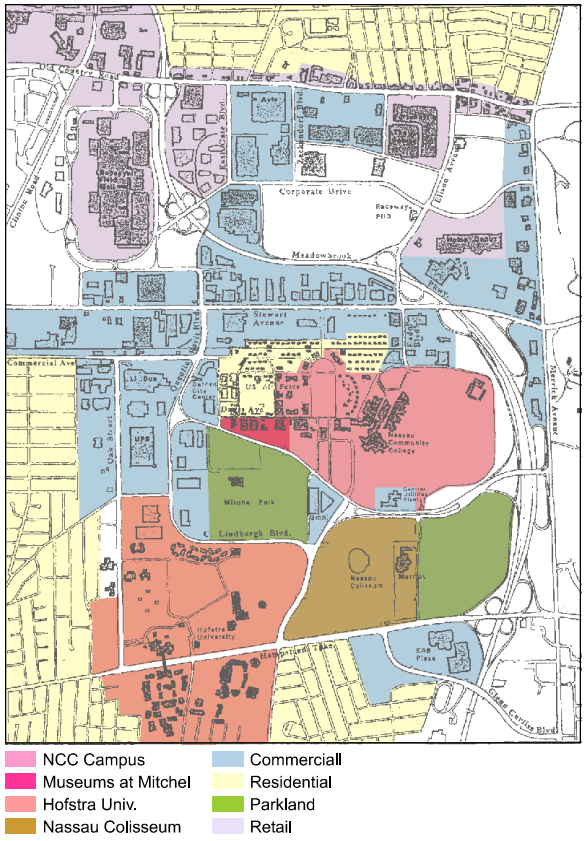


Fig. II.2
The Nassau Hub: Regional Land Use

Codes and Standards

Fig. II.3
Partial List of Pertinent Codes and Standards

- New York State Uniform Fire Prevention and Building Code
- New York State Energy Conservation Construction Code
- New York State Sanitary Code
- National Electric Code
- Occupational Safety and Health Administration Code
- State Laws, Local Ordinances and Utility Company Regulations
- New York State Industrial Code
- Nassau County Department of Public Works Standard Specifications for Construction of Highways and Bridges
- Nassau County Department of Public Works Standard Specifications for Construction of Sanitary Sewers
- Americans with Disabilities Act

Nassau County regulations require that all work done on campus comply with all applicable codes including those outlined in Fig. II.3.

Construction commissioned by Nassau County is not required by law to comply with local zoning ordinances, in this case the Zoning Ordinance of the Town of Hempstead. However, it is the policy of the County's Department of Public Works to require compliance with local zoning ordinances. According to the most recent (1995) edition of the Nassau County Guide for Design Consultants, should any future design consultant consider it necessary to deviate from the requirements of the local zoning ordinance, application must be made and a specific exemption or variance must be received in writing from the Nassau County Department of Public Works.

Zoning
According to the most recent zoning maps on file with the Town of Hempstead, most of the NCC campus is designated an Edu-Cultural District ("E") and is therefore subject to Article XI of the Town of Hempstead Zoning Ordinance (see Fig. II.4). A brief summary of the parameters of Article XI are outlined in Fig. II.5.

A significant amount of the 1930's campus falls outside this Edu-Cultural District boundary, and is currently still zoned as Residential "B", including that land bounded by Avenue M, Hospital Road, and Davis and Miller Avenues as well as that portion north of Davis Avenue (including Bradley and the Bookstore). This designation places serious limitations on the use of this property, including everything from the permitted uses to the allowable heights. At the appropriate time the College should consider seeking a reconsideration of this property to make for a single continuous Edu-Cultural District

Wetlands
No portion of the NCC site shows up on National Wetlands Inventory maps. It should be noted that this does not necessarily mean that no portion of the property is protected by federal wetlands regulations.

Fig. II.4
Current Zoning

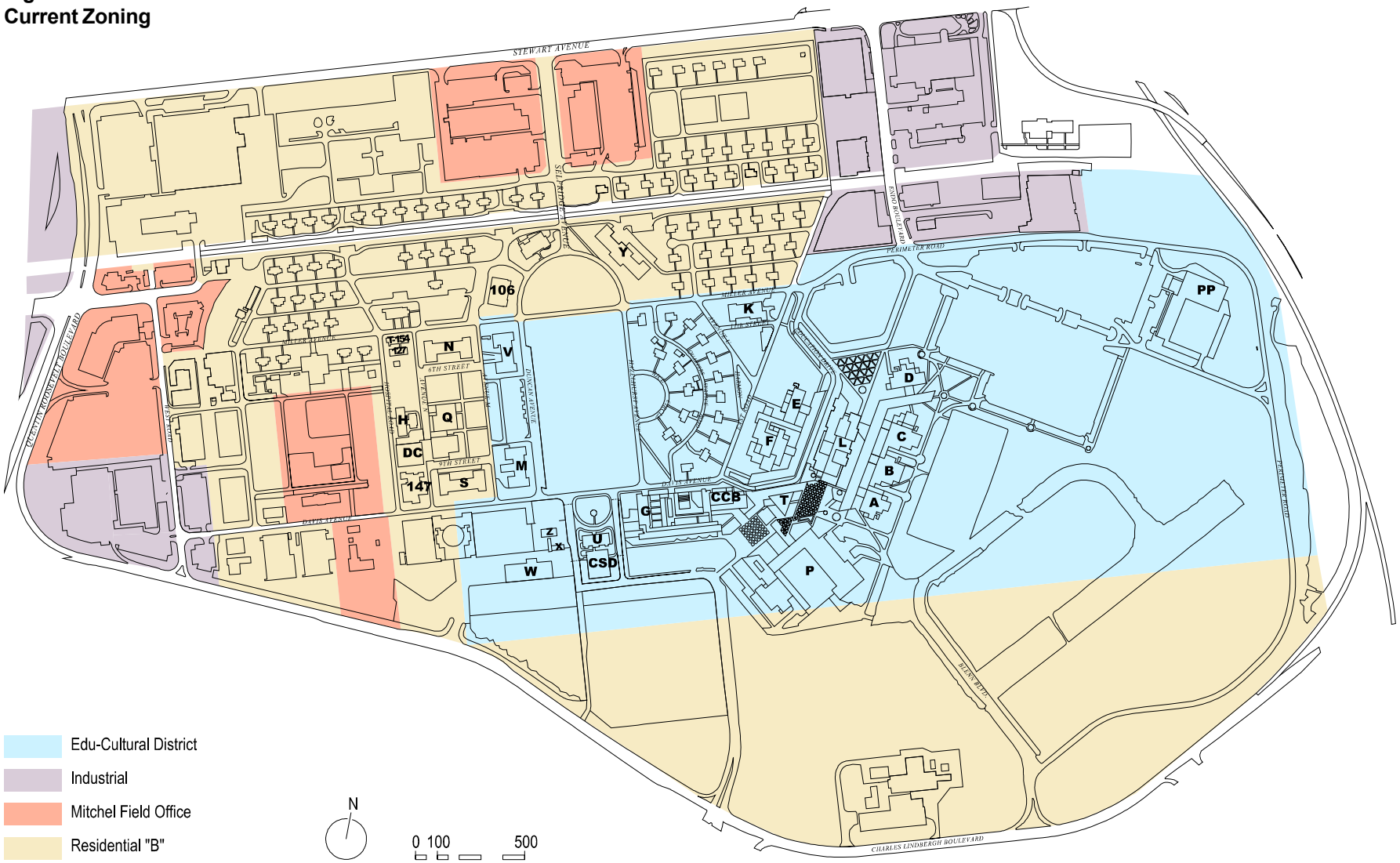


Fig. II.5
Zoning Requirements in an Edu-Cultural (E) District

Height max.	14 stories or 175 feet (additional yard requirements for any building over 35 feet)
Bldg. Area, max.	35% of lot area
Yard Requirements	25 feet on each street face (front yard) 20 feet between adacent lots (rear yard)
Parking	1 per 5 full-time students plus 1 per employee, faculty and staff member
Special Restrictions	1. There shall be provided and properly maintained a planting strip along any contiguous lot line with a residence district as may be required by the Hempstead Town Board. 2. No building shall be located at any point less than 50 feet from any such contiguous residence line.
Signage	All institutional identification signs must be submitted to the Hempstead Town Board for approval Informational signs must bear no advertising and must not exceed five square feet in area The following signs are prohibitted: - erected on the roof of any building or structure - painted on the surfce of a wall or roof of any building or structure - constructed of cloth, oil cloth, paper or any destructable material - outdoor advertising, etc. that promotes a business, etc. - freestanding over 15 feet in height - that emits light away from the lot - in motion - with any flashing lights

At the time the next campus-wide survey is commissioned, but before the next new construction project begins programming, a delineation report should be completed in conformance with current U.S. Army Corps of Engineers Standards (see www.saj.usace.army.mil/permit/documents/87manual.pdf) for submission to the appropriate regulating authorities (at the current time, the Corp's regional office and the New York State Department of Environmental Conservation). Only such a study can determine what, if any, portion of the campus is subject to Federal Wetlands protection.

Code

In March of 2002 New York State formally adopted the new International Building Codes with modifications. While a detailed code analysis is beyond the scope of a master plan and should instead be done on a project-by-project basis, there are elements of the new code that will impact the course of development at NCC, particularly with regard to renovations made to existing buildings and compliance with structural and seismic requirements. Relevant sections of the new code have been annotated for future reference to the right. These regulations will factor into how cost effective it will be to renovate the clusters and the 1930's buildings.Whether or not these older buildings will have to be brought into compliance with the new seismic codes will be determined not by the total costs of the renovations, but on the strucutural impact these renvoations will have on the existing buildings. There are clear advantages, therefore, to additions that are structurally independent or have minimal impact on their host buildings, over making sizable additions of programmable area or mechanical equipment.

Future work will also be subject to New York State Executive Order 111 which sets guidelines for energy efficiency beyond those mandated by State building code. All new buildings must be designed to meet the criteria for a LEED rating and comply with criteria from the Green Building Tax Credit.

Fig. II.6
Annotated Elements of New York State Code

1614.1.1 Additions to existing buildings

If an addition is structurally independent it must conform to current seismic codes. If an additions is not structurally independent then the entire structure must be brought into compliance with seismic force resistance requirements, unless:

1. the addition conforms with the requirements for new structures and
2. the addition does not increase the seismic forces in any structural element of the existing structure by more than 5%, unless the element has the capacity to resist the increased forces (as determined elsewhere in the code).

1614.1.3 Alterations

Structures being altered must be brought into complaince with the new seismic requirements if any of the following occur:

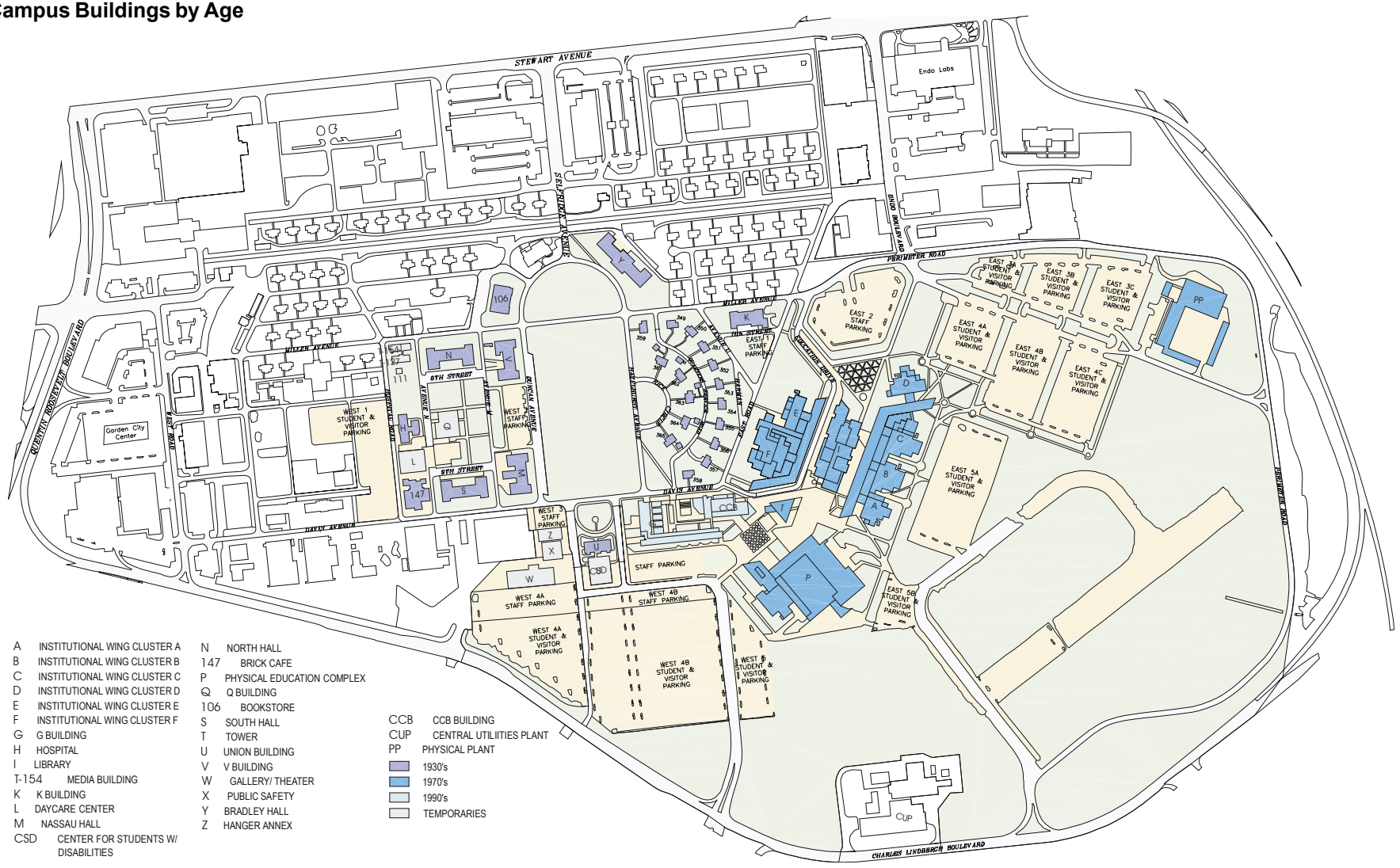
1. the alterations add structural irregularity
2. the alteration increases the seismic forces in any structural element by more than 5%, unless that element is still in compliance with the new seismic requirements
3. The alteration decreases the seismic resistance of any structural element to less than that required of a new structure.
4. The alterations result in the creation of an unsafe condition.

Building Assessments: Introduction

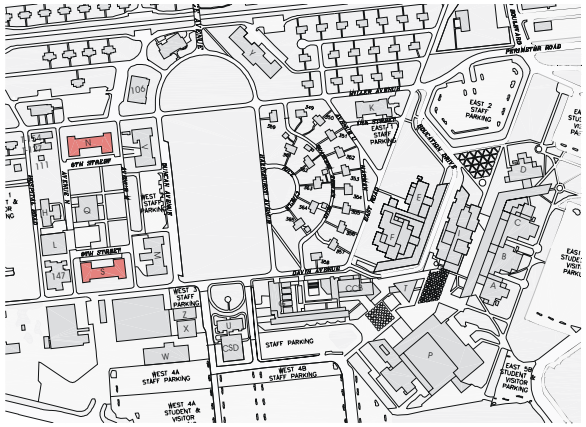
The first part of this campus assessment looks at the physical state of the NCC campus. Threshold assessments of the existing buildings have been carried out, with a goal of determining candidates for reuse and candidates for demolition. Similar or identical buildings have been considered collectively (e.g., the Academic Clusters A-F) to present a more complete picture of current conditions. These threshold assessments are presented in a manner consistent with the incremental way in which the campus developed.

First, reports outline those buildings, most dating from the 1930's, that were originally part of the Mitchel Field Air Base. These include both institutional structures (a former Hospital) as well as residential (single family houses). Next, the report looks at those buildings dating from the 1970's specifically built to house College program. Consideration is also given to the various "temporary" and metal buildings currently found on campus that date from the 1940's to recent times. Given their recent (1997) construction, threshold building assessments have not been conducted for the College Center and G Buildings, as they are certain to figure prominently in the College's future. The subsequent Master Plan Report will address these buildings with a goal of proposing ways that they might best serve the NCC of the future.

Fig. II.7
Campus Buildings by Age



North ("N") and South ("S") Buildings



above: Site Location Plan

below: South Hall as seen from Davis Avenue

North and South buildings are twins, built at approximately the same time in 1936 and both renovated at the same time in 1969. The general plan consists of a double-loaded corridor with classrooms on either side and stair towers at either end. The first floor of the South Building and both floors of the North Building are used for classrooms. The second floor of the South Building is currently used for offices associated with the local Police Academy. The basement of the South Building houses the campus print shop; the basement of the North Building appears to be largely inactive. There are faculty offices on the third floor of North Building that have limited clearance due to the roof slope. A row of structural columns runs down the middle of the narrow attic corridor.

Originally, both buildings had reinforced concrete rear porches. These spaces were enclosed as part of the 1969 renovation to be used for classrooms. The shingle roof was replaced around 1997 and can be expected to last another 25 years. Each building has about 130 double-hung single-glazed aluminum windows installed during the 1969 renovation. These present a considerable maintenance problem, made worse by the presence of lead paint. All exterior doors were replaced with anodized aluminum doors at the same time. The exterior brickwork appears to be in relatively good condition, with minimal efflorescence. However, as with many of the 1930's buildings that have steel lintels, there is evidence of mortar cracking and spalling around the windows, creating opportunities for water infiltration.

Elevators were installed in both buildings as part of the 1969 renovations, rendering the upper floors accessible to students in wheelchairs. Although the buildings are not fully accessible (the inclined ramps at the rears of both buildings are steeper than permitted by ADA and there are some obstructions in the public corridors), most of these limitations can be remedied.

Most of the interiors are well-maintained and in adequate condition considering their age. It appears the same vinyl tile found throughout the clusters was installed throughout both buildings. The 2'x4' acoustic tile ceilings with recessed fluorescent lighting, although industrial and not in

keeping with an academic setting, are similarly well-maintained. The interior classrooms are well-proportioned and sized appropriately to the typical class size. The interior doors were replaced, possibly in the 1950's or 60's, with modern wood doors with glass lites.

Building Systems

Mechanical

All classrooms are furnished with unit ventilators under the windows fed by a two-pipe system. Office spaces located in the attic are air conditioned by air-handling units. A 170-ton electric chiller located at the basement level of North Building and a 160-ton electric chiller located adjacent to South Building supply chilled water to the unit ventilators and attic air handling units for cooling. No. 2 oil-fired boilers located in the basements of each building provide hot water to the same unit ventilators and air-handling units. The South Hall chiller dates from 1968 and is near the end of its useful life; the chiller serving the North Hall was replaced in 1993. The boilers in both buildings date from approximately 1968. The College should anticipate another 15 years use out of each before considering replacement assuming proper maintenance.

Interior corridors and classrooms are vented with exhaust fans in the attic, while rooms facing the building perimeter rely on operable windows for ventilation.

Electrical

North and South buildings are fed from a 4.16 kV 500 kVA transformer. No provision has been made for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

Neither sprinklers nor standpipes have been installed in either building. No sprinklers have been installed despite the fact that the attics are of unprotected wood-frame construction. Heat detectors have been provided in the attic and storage areas. The fire alarm system was installed circa 1966.

above: south facade, North Building

below: first floor corridor, North Building

above: second floor corridor, North Building
below: typical classroom, North Building

Opportunities and Constraints

Given the significant investments the College has already made in the North and South buildings and the valuable classroom and office space these buildings provide, the College should plan on keeping these buildings in the campus inventory for the indefinite future. With minor modifications they can be made fully accessible to students in wheelchairs. Although their present cooling systems present a maintenance burden, the classrooms in these buildings are considered to be among the more comfortable on campus given the operable windows and relative quantity of space. Their brick facades and small wooden porticos contribute significantly to the campus environment, their enclosed rear facades show none of the deteriorating concrete of the other 1930's buildings.

Given the quality of classroom space in these buildings relative to the other spaces on campus, the College would be well advised to negotiate a space transfer with the Police Academy on the second floor of South Building. That area is currently being used for office space and not for training classes, and so may be better housed in other space on campus. If such a space transfer can be negotiated, the College will be halfway toward having the entire S Building free for refurbishment, to include new windows and doors, repointing the brick facade and connecting the two-pipe system to the Central Utility Plant's service lines.

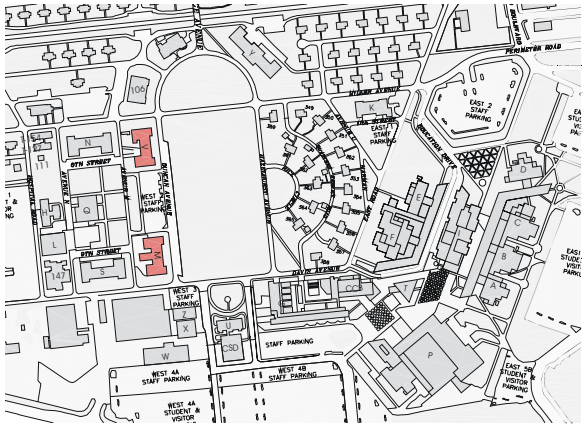
M (Nassau) and V Buildings

M (Nassau) and V Buildings were built at approximately the same time in 1929 and are only slightly different in plan. Each has two full stories currently used for classrooms, with full basements and partial third floors. The attic in M (Nassau) is occupied; the attic in V is inactive. V Building is currently occupied almost entirely by the Nursing department. M (Nassau) Building accommodates a variety of academic offices and classrooms, as well as the Department of Student Affairs.

Both buildings face the Quad and are considered to have great "curb" appeal for the College owing to their traditional brick facades with white detailing and columns flanking their principal entrances. Inside, both have interior double-loaded corridors with shallow classrooms facing the quad and deep classrooms to the west. Many classrooms are too deep to comfortably teach a class of 24 to 30 students. These buildings also have a rear corridor with windows opening to the west that serves classroom wings on the north and south.

Originally, both buildings had reinforced concrete rear porches. These spaces were infilled in 1969 and faced with metal siding. Their shingle roofs were last replaced in the late 1990's and can be expected to last another 25 years. At some time prior to 1957 a two-story wood-frame addition was constructed at the rear of M (Nassau) Building.

Each building has about 120 double-hung single-glazed windows, all original. All windows have wood frames and sashes with divided lites and wood mullions. These present a significant maintenance challenge. They are currently in need of refurbishment. New anodized aluminum exterior doors were installed around 1969. The exterior brickwork appears to be in relatively good condition, with minimal efflorescence. As with most of the 1930's buildings that have steel lintels, there is evidence of mortar cracking and spalling above the windows, leaving opportunities for water infiltration. There is also a significant amount of spalling of the exposed reinforced concrete structural frame of the rear porch, in many instances revealing stretches of corroded reinforcing bar beneath.



above: Site Locator Plan

below: V Building as seen from Davis Avenue

above: rear of V Building

below: detail of east facade of M (Nassau) Building

Both these buildings have serious accessibility issues. Neither has an elevator, limiting their use by people in wheelchairs to the first floor. When such students enroll in classes that are scheduled for the second floor, rooms must be swapped to relocate these classes to the ground level. Both buildings have raised front porches that have not been modified to include ADA-compliant ramps. Students in wheelchairs are precluded from using these buildings' primary entrances, both a matter of dignity and convenience for those coming from the east campus.

Inside the buildings, the second floor corridors (formerly part of the rear porches) are lower than their adjacent spaces. While this would have been useful when these porches were open to the elements to prevent rainwater from entering the buildings, today they present serious tripping hazards. While some disabled students might make it to the second floor (e.g., the visually impaired) these frequent changes in grade would not be negotiable.

Both buildings have single interior stairways on axis with the central entries that serve all floors. This stair is not enclosed for smoke separation. There are two additional outdoor fire escapes that serve the second and third floors at the north and south ends of both buildings.

Most of the interiors are well maintained and in good shape considering their age. It appears vinyl tile and base were installed possibly around the time of the buildings' conversion to academic use. The corridors retain their original plaster ceilings and are now outfitted with linear fluorescent lights. Generally, all interior doors are solid core wood doors with glass lites set in metal frames, although some of the original wood panel doors remain at service closets.

Building Systems

Mechanical

In Building V heating is provided by oil-fired hot water boilers feeding perimeter cast-iron radiators. The boilers are circa 1930 and can be said to be at the end of their useful lives. Cooling is

provided from many window air conditioning units and split-type air conditioning units. The interior corridors are not ventilated. Toilets are vented mechanically to the roof.

M Building has a 30-ton chiller in the attic with a cooling tower that dates from 1957. There is also an air-handling unit in the attic that only serves the attic spaces. There are three boilers: one that produces hot water, one that produces steam (both c. 1930) and one that services only the rear addition (c. 1950).

Electrical

Buildings V and M are fed from the 4.16 kV distribution through oil-filled transformers, 4.16 kV-208/120V. V Building is fed from "V" vault; M Building from "Z" vault. No provision has been made for emergency power, although battery powered exit lights have been installed throughout both buildings.

Plumbing/Fire Protection

Neither sprinklers nor standpipes have been installed in either building. The building fire alarm system is obsolete and must be replaced.

Opportunities and Constraints

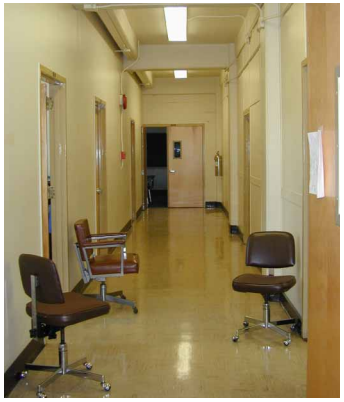
M (Nassau) and V Buildings present the College with an unpleasant choice: whether it is worthwhile to invest a significant amount of money to fix these buildings' many problems or relocate the program currently housed there to temporary structures and free this land for redevelopment. An answer is suggested by looking at the size of structure that would be required to fulfill this task: it would take about four temporaries the size of the Center for Students with Disabilities Building. Practically, locating these buildings would be difficult, short of taking space away from the parking lots or the Quad. More significantly, it would bring the total amount of space on campus in temporary buildings to over 100,000 nsf, covering more ground than the Clusters, the Library, the Tower and Plaza combined and radically altering the campus character for the worse.

above: detail of rear of V Building showing spalling concrete and coroded reinforcing bar

below: rear corridor of V Building

above: open stair of V Building

below: second floor corridor in V Building



Short of having another building ready to receive the program now housed here, the V and M Buildings will likely remain in place for the foreseeable future. Rehabilitation will therefore be required to address their most serious life safety and accessibility deficiencies. If designed as a structurally independent addition, it would be possible to add an elevator tower without undertaking a seismic retrofit of the existing buildings. Although not well suited for use as classroom buildings, V and M Buildings could be reconfigured to house faculty offices and administrative support spaces. The neo-Georgian design of the buildings add character to the west campus, providing a collegiate backdrop to the quad and are aesthetically preferable to the many temporary buildings currently in use.

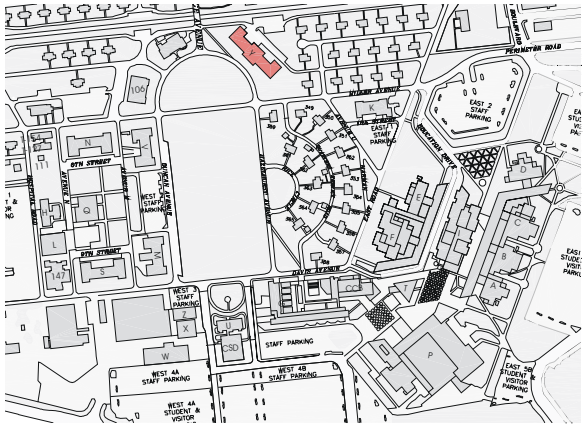
At the appropriate time a feasibility analysis should be undertaken to evaluate the role these buildings may play in any future redevelopment project. For example, consideration may be made for a new building between the two, linked to both and providing needed enclosed fire stairs and elevators. In order of priority, however, addressing the needs of V and M buildings ranks lower than finding appropriate facilities for the program currently housed in the campus' many temporary strucutres.

Bradley Hall

Bradley Hall was built in 1926 as the bachelor officers' quarters for the old Air Force base. It has two full stories currently used for classrooms and offices for the English department, as well as a full basement. The attic is not occupied. The plan consists of a double-loaded corridor with two sets of open stairs in the center and open stairs at both the north and south ends of the main corridor. The building boasts large outdoor loggias on both the north and south sides.

The exterior brickwork appears to be in relatively good condition, with efflorescence principally under the loggias. The slate tile roof was last replaced in 1995 and can be expected to last another 25 years. There are about 80 double-hung windows, all original, with wood frames, sashes and mullions. These present a significant maintenance challenge, made worse by the presence of lead paint. As with several of the other 1930's buildings, there is an ongoing problem of spalling around the reinforced concrete frame and underside of the concrete slabs revealing corroded reinforcing bars beneath. The building retains its original wood exterior doors.

Most of the interiors are well maintained and in fair shape considering their age. The vinyl tile has been replaced in kind at some points, but otherwise the original finishes and doors remain largely intact. Industrial four-foot long linear fluorescent lighting fixtures have been installed throughout. For the most part, the building retains its original configuration of suites each including a sitting room, bedroom with fireplace, and bathroom. Notable interior features include the fireplace surrounds, french doors (now painted over) separating the sitting rooms from the bedrooms, and tilework in the bathrooms. The building has no elevator. Given the grade change between the entry lobby and first floor classrooms the building is all but unusable by the people in wheelchairs.



above: Site Locator Plan

below: Bradley Hall

Building Systems

Mechanical

Classrooms are cooled by window air conditioning units. Two boilers (c. 1930) in the basement deliver hot water to perimeter cast-iron radiators. These boilers have exceeded their useful lives and should be considered for replacement.

west loggia, Bradley Hall

detail of facade showing current condition of windows

The corridors have not been provided with ventilation. While the larger, public toilets have been provided with mechanical ventilation to the roof, the remainder of the small toilets rely on exterior windows for ventilation.

Electrical

Bradley Hall is fed from the 4.16 kV loop through a 500 kVA transformer. No provision has been made for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

Neither sprinklers nor standpipes have been installed. There are no sprinklers in the attic, despite the fact that the roof is supported by an exposed wood-frame truss. The fire alarm system in the building is a pull station type that is obsolete and should be replaced.

Opportunities and Constraints

The most serious issues currently facing Bradley Hall relate to accessibility and life safety. The building is not up to modern standards with respect to sprinklering or smoke control. It would also be very difficult to make the building fully accessible, requiring the addition of an elevator as well as a number of interior ramps and wheelchair lifts. Given the distances these ramps will require to maintain accessible slopes, it is likely several interior doors will have to be removed and the spaces they serve consolidated. One could imagine enclosing the large loggias on the second floor, but only after giving full consideration to the placement and installation of an elevator to reach it.

Although generous accommodations for their current occupants, the interior residential suites are ill-suited for modern academic offices or classrooms and would require a significant amount of work to be converted to modern offices. While individual toilet rooms off faculty offices are comfortable, they represent a needed maintenance burden for staff. Although there are a number of detail flourishes that make the classrooms attractive, the fact is they are ill-suited to receive




Bradley Hall details, left to right: transitional stairs limit accessibility; typical office; second floor corridor; typical classroom

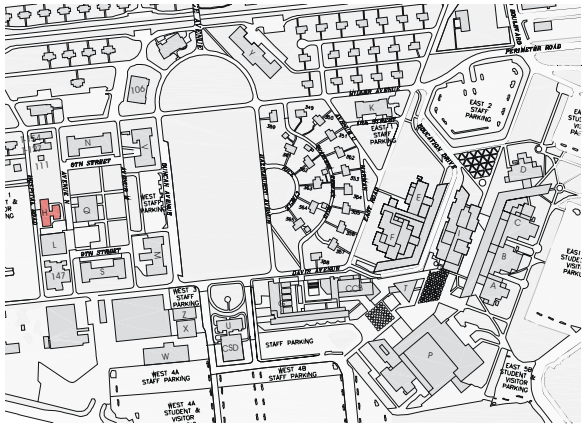
contemporary equipment or finishes such as whiteboards, projection screens or built-in cabinetry. Additionally, the column spacing of the concrete framing makes any conceived reconfiguration problematic.

Given the serious shortfall of classroom and office space on campus it is unlikely Bradley Hall will be replaced in the near future. Nonetheless, the building should not factor in to the College's extended plan given the severe remodelling that would have to occur to render the building useful in the long-term.

The master planning team recognizes that Bradley, like many of the 1930's buildings, significantly contributes to the collegiate feel of the Nassau campus and that there is great affection on campus for buildings of this vintage. As with any consideration of the adaptive reuse of historic structures on college campuses, there are a number of important factors to consider. First and foremost is the architectural and historic value. Before the useful lives of these buildings is truly over the College may consider commissioning a historic structures report to fully investigate whether the old campus is indeed worthy of historic preservation. The second factor to be considered is whether the College can maintain a historic core of high-maintenance buildings given the limited operating and capital funds available. Without a significant private endowment NCC is not currently in a position to maintain legacy buildings at a higher cost than wholesale replacement.

These facts are not meant to imply that campus charm must be sacrificed in the name of campus efficiency. Rather, it underscores the importance of factoring quality design that captures the sense of human scale and collegiate feel in any equation for a functional and economical replacement.

H (Hospital) Building



above: Site Locator Plan

below:H Building as seen from Hospital Road

H Building was built in 1936 as the hospital for the old air force base. Although centrally located on the old base site, it sits on the current edge of the NCC campus. With its well-proportioned facade it appears the most significant building on Hospital road, visually dominating the neighboring Greenhouse.

The building has two full stories above grade and a full basement. The building currently houses the Department of Communications and the College Radio Station. The building has about 90 single-glazed, double-hung windows set in wood frames (all original). Although the front entry doors were replaced, possibly in the 1950's, with anodized aluminum doors and an air lock, at the rear the original wood doors remain in place. Although the sills appear in generally good condition, the lintels show evidence of cracking and reveal several opportunities for water infiltration. Campus facilities staff has also noted a general problem of water penetration and resultant problems of humidity in the basements of the 1930's buildings. The wood framing around the windows shows considerable wear and presents a formidable maintenance challenge exacerbated by the presence of lead paint. There is also evidence of a significant amount of spalling to individual bricks. The roof was last replaced about 1995 and should last another 25 years.

Much of the original interior finishes remain, including plaster walls and ceilings, wood doors with original hardware and overhead transparent glass transoms, and a central (open) stair. The vinyl flooring throughout, although dated, remains in fair condition. The industrial fluorescent lighting with exposed conduit may be energy efficient, but sets a dreary tone throughout the interior. There are three sets of open interior stairs, one at the center of the building, one in the rear annex, and one in the north wing of the building. There is also a traction elevator (Otis, c. 1930), between the main body of the building and the annex.

Building Systems

Mechanical

Classrooms are cooled by window air conditioning units. Two oil-fired circa 1930 boilers in the basement deliver hot water to perimeter cast-iron radiators. These boilers have exceeded their useful lives. The corridors have not been provided with ventilation, while the toilets are vented by gravity to the roof.

Electrical

The H Building is fed 208/120 volt power from the 4.16 kV loop. No provision has been made for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

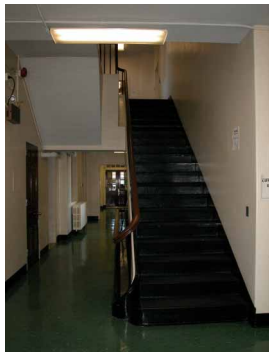
Neither sprinklers nor standpipes have been installed. There are no sprinklers in the attic, despite the fact that the roof is supported by an exposed wood-frame truss. The fire alarm system is an obsolete pull station type that should be replaced. Heat detectors have been installed.

Opportunities and Constraints

In many respects the H Building makes a positive contribution to the Nassau campus. It's stately neoclassical design harmonizes well with the companion brick buildings nearby and contributes to the campus setting. It is one of the few buildings that date from the original air force base outfitted with an elevator that serves all floors, and that has all rooms on a given floor at the same even level. Given that the roof was recently replaced and that cast-iron boilers of this vintage can remain in service for well over 80 years, the College could continue using the building to house classrooms and offices through 2030.

above: H Building, rear

below: facade detail, H Building showing spalling brick and loose mortar at lintels




H Building details, clockwise from top left: central stair; original wood panel doors; first floor corridor; basement radio station studio

That said, there are a number of important life safety and accessibility considerations that will have to be accommodated. The rear of the building is only marginally accessible to the disabled, although a wheelchair ramp could be added at the front. More importantly, without sprinklers (including in the attic) or partitions for smoke control in egress corridors and stairs, the building will remain out of compliance with current life safety codes. As with many of the other contemporaneous campus buildings, a feasibility analysis will have to be performed at the time of reuse to weigh the costs of retrofitting the building against the costs of new construction.

Aside from the life safety and accessibility concerns, there are a number of architectural improvements the College may elect that will increase the quality of the H Building's remaining years. First among these should be remediation of the gaps, cracks and other points of water infiltration in the brick facade. At the same time, the College will need to invest in repair work to the window woodwork. Uses that are incompatible with the building's character and available spaces should be relocated, including the Radio Station in the basement. Unfortunately, given the problems of moisture and humidity in the basements of the 1930's buildings, the H basement may only be usable as storage space serving the offices above.

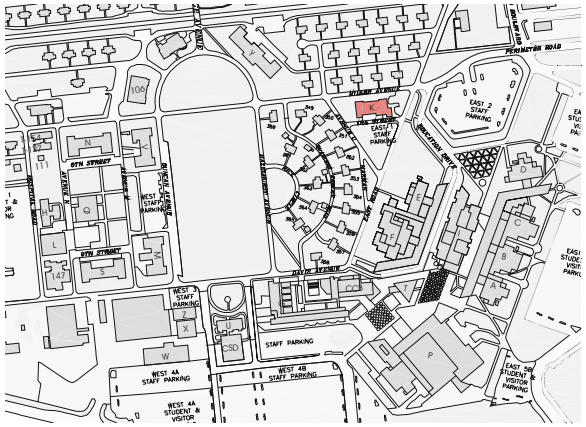
Although not a perfect solution, such an approach will leave the College with approximately 25 years of use of 12,000 net assignable square footage well-suited to classroom and office support space. At the appropriate time, the cost of the required improvements will have to be weighed against the cost and quality of new construction.

K Building

K Building was built in 1929 as the officers' dining hall for the old Air Force base. All occupiable spaces are on the first floor, which is used by the Department of Hotel and Restaurant Management. Prominently sited along Miller Avenue, it at one time boasted a swimming pool and outdoor patio off its south side.

The exterior brickwork appears to be in relatively good condition, with minimal efflorescence. The wood trim around the front bay windows and side arched openings seems similarly well cared for. The shingle roof was recently replaced and should last for another 25 years. For the most part, all exterior windows are original, although the entrances have been renovated with anodized aluminum doors.

Although the interior spaces are well maintained they have been renovated in so piecemeal a way they now encompass a cacophony of materials and equipment. Spot renovations to patch the building into shape to serve divergent uses have left portable blackboards and vinyl room dividers alongside brass chandeliers and walls sconces. The wood floor of the ballroom suffers the traffic of classroom chairs and other ad hoc furniture while classrooms meet in banquet rooms. Despite the many incremental modifications to accommodate each use the building essentially retains the same layout as when it was built.



above: Site Locator Plan

below:K Building, from Miller Avenue

Building Systems

Mechanical

Classrooms are cooled by a combination of window air conditioning units, rooftop water cooled air conditioning units (serving the ballroom), and various heat pumps. A cooling tower has been provided at the roof to provide condenser water to the air conditioning units. An oil fired boiler (c. 1993) in the basement delivers hot water to perimeter cast-iron radiators. The corridors have not been provided with ventilation, while toilets are vented mechanically to the roof.

above: K Building, K Building, rear from East Road

below: Ballroom

Electrical

The K Building is fed from vault 555 by three 175 kVA transformers, drawing power from the 4.16 kV line and delivering it at 208/120 volts. No provision has been made for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

No standpipe system has been installed. The building was provided with a sprinkler system in 1984 that is fed off the available domestic water pressure. Heat detectors have been installed.

Opportunities and Constraints

The K Building is one of the more attractive of the 1930's buildings and houses some of the most popular reception spaces on campus. It sits comfortably on its large lot, and its scale is in keeping with the residential houses across the street. The front rooms, with their bay windows, make for elegant classrooms. More importantly, the commercial kitchen represents a considerable investment and a significant campus asset. Most of the building's spaces are generally compliant with ADA and those areas that do not comply could be remedied at minimal cost.

That said, the master plan should give serious consideration to whether this site would better serve other uses. The opportunity exists, by removing K Building, to assemble a sizable piece of campus property extending to the southeast along Education Drive back to E Cluster. This site would be prominently situated at the present and any future north entrance to campus. Given its size, the site would support construction of a scale comparable to the CCB and G Buildings while being conveniently located to a number of existing parking lots. Any new construction on this site could easily tie into the circulation paths and building systems of the neighboring cluster buildings, while possibly providing an opportunity to house equipment that would, in turn, facilitate the renovation of those 1970's buildings.

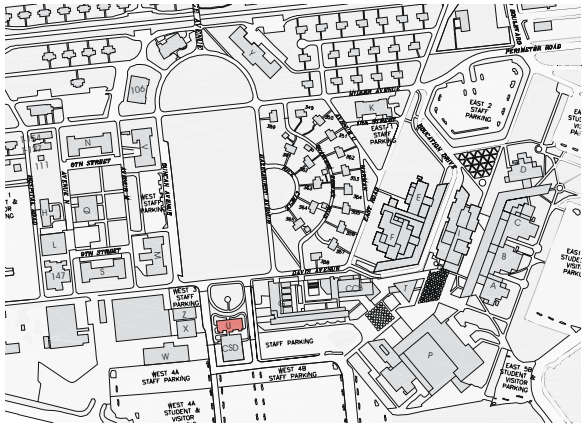
Aside from the merits inherent in such a consolidated site, this report must also point out both the relative inefficiency and the condition of the existing K Building. To begin with, we must consider what it means for a college campus to support a policy of "single-use" buildings. Such a policy makes sense for large universities that might house an entire division (e.g., law or business) in a single structure. Given the smaller departments at NCC that are prone to periodic fluctuations in enrollment, such a policy will more likely result in frequent space crunches and overages. Given the community college's mission of remaining flexible and responsive to the changing needs of their local communities, such a policy of one department:one building is not supportable.

Furthermore, with the exception of the kitchen facilities, the K Building is grossly unsuited for its primary use: instructional space. The various rooms of the officer's dining hall were not designed to support classrooms, seminar rooms, or departmental offices and would require a significant reconfiguration to do so. Furthermore, the Ballroom is a space that can do no function well: it is of too little use to warrant keeping as a full-time Ballroom and too large to serve as a traditional classroom. Most of the Ballroom's heretofore unique functions can now be better accommodated by the multi-purpose room in the College Center Building.

above: Banquet Room/Classroom

below: Kitchen

Union Building



above: Site Locator Plan

below:Student Union Building from the Quad

The Union Building was built in 1929 and occupies perhaps the most prominent site on the old campus, situated at the south end of the Quad. There are game rooms located on the first floor, offices for student clubs and activities on the second floor and counselors' offices and service spaces in the basement. A rear addition was built in 1970; that metal structure is discussed later in this report.

The exterior brickwork appears to be in relatively good condition, with minimal efflorescence. The shingle roof is currently being replaced (2002). There are about 64 double-hung single-glazed windows, all original, with wood sashes, frames and mullions. These present a considerable maintenance challenge, exacerbated by the possible presence of lead paint. There are exterior fire stairs on the south face of the building. At the moment, however, the only means of egress is via a single open narrow stair west of the main building entry. All doors opening to the exterior were replaced with anodized aluminum doors with glass lites.

The first floor was recently renovated for use as game rooms. Although new light fixtures were installed to create a diversity of light sources, the tile floors and acoustical tile ceilings with 2'x4' fluorescent fixtures set an institutional tone not in keeping with the building's dignified facade. Interior columns are spaced approximately 16 feet apart. There is no elevator, although a ramp has recently been added to the west facade to provide access to the first floor.

There are several attractive interior spaces, including two conference/lounge areas that are formed by the projecting bay on the south facade. With their six south-facing windows these spaces are flooded with natural light. Rooms on the north side of the building have panoramic views across the Quad.

Building Systems

Mechanical

Meeting rooms and offices are cooled by window air conditioning units. Two new (2002) boilers in the basement deliver hot water to perimeter cast-iron radiators. The corridors have not been provided with ventilation, while toilets are vented mechanically and by gravity to the roof.

Electrical

The Union Building is fed by a secondary feed from "Z" vault. No provision has been made for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

Neither sprinklers nor standpipes have been installed. Pull stations have been provided.

above: Student Union Building, rear

Opportunities and Constraints

Given the amount of money that has been spent to improve the Union Building, its attractive facades and prominent siting on campus, an argument could be made for retaining it as part of the long-term campus vision. There are a number of serious shortcomings, however, that also make the building a candidate for demolition.

First and foremost is the disconnect between the amount of space available in the building relative to the prominent site it occupies. The campus BCI indicates there is about 36% fewer assignable square feet in the Union than in the Brick Cafe. Any building that serves as a campus focal point should "do more" spatially, such as the recently constructed CCB or G Buildings.

At almost every level of design the building is ill-suited to the functions it performs. Spread out over three floors with no elevator, the individual floors (each approximately 7,500 net assignable

below: first floor pool room

square feet) are only marginally useful. This condition is exacerbated by the 16-foot column spacing that seriously impedes both subdividing the floors and opening them up to single uses. The building can best accommodate about 45 offices, each 200 square feet; not an appropriate facility for the most central building on campus.

These inadequacies of design can also be found at a smaller scale. As is evidenced whenever groups of students enter or exit, the main entrance door is too small to handle the passing traffic The awkward stair and balcony in front of this door constrict traffic and create tripping hazards. The entry's most serious deficiencies relate to accessibility and life safety. Although the first floor spaces have been rendered accessible by a new ramp, such a prominent building that is to be used by the entire student population should be fully accessible through its principal entrance. More seriously, without an elevator, disabled students cannot reach the clubs and activity spaces on the second floor.

There are scenarios under which retention of the U Building might make sense. First, by attaching a sizable three-story addition at the rear, complete with an elevator, the College can retain the existing building, essentially as a facade. There would be a number of costs associated with such a retrofit in order to bring the "old wing" in line with current codes, not to mention a considerable added cost factor to the "new wing" given the added complexity of construction. One could also consider retaining the U Building if it were part of a larger ensemble, such as the collection of brick buildings west of Duncan Avenue, or if it related better to its siting or landscaping. In fact, neither is true of U Building which sits alone, dwarfed by comparison with the adjacent Quad.

The Student Union site should be a strong candidate for redevelopment at greater density. Given its location, the site presents the opportunity for a signature campus building that can serve as a point of reference for the College in the community. With that gravity of purpose, however, goes a responsibility: that whatever replaces the Union Building be of a caliber of design and quality of construction worthy of its siting.

Other Air Force Buildings

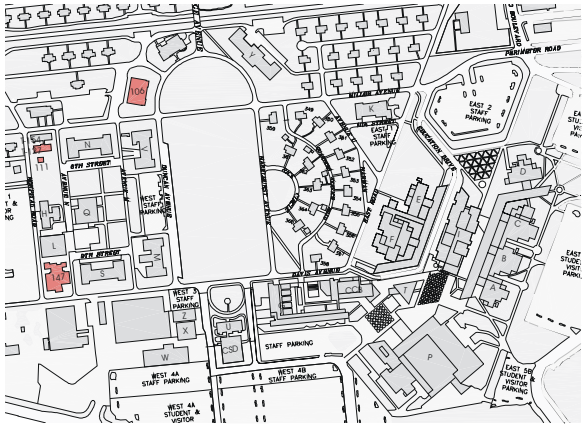
There are four additional one-story brick buildings that were part of the Mitchel Field Base. These are:

- the Brick Café (Building 147)
- the College Bookstore (Building 106)
- the TV Studio (Building 127)
- Mortuary Science (Building 111)

The Brick Café is located at the southwest corner of the campus. Its aluminum frame windows are in good condition. Campus personnel report the flat roof is of wood frame construction. Until recently, it served as the campus' principal cafeteria and still retains its kitchen and support spaces. Much of the remaining interior volume is large, open space (the former dining area). The building is currently inactive and used primarily for storage.

The College Bookstore is situated at the northwest portion of the campus, north of Miller Avenue. The shingles and underlay of its reportedly metal truss roof are currently being replaced (2002). In general, the facade is in fair condition, although the wood trim and glazing is in need of maintenance and some repair. Although only one story in height the building has some decorative flourishes, including projecting bays at each end, arched windows and brick quoining. The original copper cornices are intact, as are the original wood-frame windows. The interior is given over to an entry vestibule, the bookstore and related support spaces.

The TV Studio (Building 127) and Mortuary Science Building (111) are located at the northwest corner of campus. Building 111 used to serve as the morgue for the old air force base. It currently houses an office and a lab.



above: Site Locator Plan

below: The Brick Café (Building 147)

front (above) and rear (below) of College Bookstore (Building 106)

Building Systems

Mechanical

Each of these miscellaneous buildings have their own systems of mechanical ventilation. The Brick Cafe building is air conditioned by two 10-ton air-cooled split air conditioning units. Heating is provided by a 600 MBH gas-fired boiler that supplies hot water to perimeter fin tube radiators. The Bookstore Building is air conditioned by window units. Heating is provided by a fin tube boiler circa 1930, which is currently at the end of its useful life. Building 111 has an electric heater for warmth and a window air conditioner for cooling.

Electrical

Each of these buildings are fed 208/120 volt power from the 4.16kV loop. No provision has been made in any of them for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

Neither sprinklers nor standpipes have been installed in any of these buildings.

Opportunities and Constraints

These miscellaneous former air force buildings present a mixed bag of options for the future campus. At one end of the spectrum is the Brick Café, which represents a significant asset to the campus inventory. Although vacant, it would make more sense to retain the building given its current physical condition, to accommodate other program on campus that would in turn free up prime real estate for redevelopment to higher use. The large commercial kitchen on site is a considerable asset that may be of value to a future tenant. Consideration should also be given to locating support or service functions, such as the print shop, to this site to remedy any current dysfunction.

Similarly, given the investments recently made in the Bookstore, its single floor of accessible space and its location at the campus edge, it would be sensible to retain this building indefinitely. While the College may consider whether the bookstore function should be relocated to a more central site, the existing building contributes to a positive campus image, is generally compliant with ADA, has just received a considerable investment and is otherwise in acceptable condition.

The same arguments cannot be made for what are essentially shacks: Buildings 127 and 111. Neither projects an image worthy of the College. The former is grossly inadequate for the high-technology functions that want to be housed there. It is hard to imagine any programmatic element on campus for which this small, isolated building might be suited. Similarly, the primary purpose for retaining Building 111 is not any inherent quality of construction, but rather the inability to find suitable and fully accessible quarters for the Mortuary Science Department, currently housed in Campus House 357. Removing both these buildings, along with temporary building T-154 will free up a large parcel on campus that can be put to much better use.

above: TV Studio (Building 127)
below: Mortuary Science Building (111)

Campus Houses

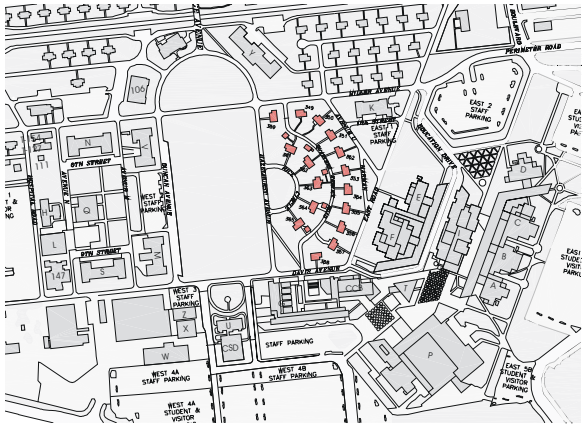
There are currently 16 single family houses on campus that had formerly served as officer's housing for Mitchel Air Force Base. Currently, four retain their residential use: Building 363 is home to the University President, while the other three are occupied by members of the University administration.

When used for offices each house accommodates about seven people. The residential kitchens have been converted to office pantries complete with full-size refrigerator, microwave, sink and cabinetry but without a stove or oven. Typically, office equipment such as large-size xerox machines and printers are located in these former kitchens, drawing on the increased amperage available in these locations.

Each house has about fifty windows. Most are new, double-hung windows with aluminum frames and sashes. Altogether, these 800 windows present significant maintenance issues, between maintaining operable residential hardware in an institutional setting and the requisite painting. Each house also has two entry doors (front and rear) which cannot provide air locks.

In general, both the exteriors and interiors of the houses appear in good condition. A cursory tour revealed no spalling or cracking brick and only little efflorescence. Lintels and sills also seemed to be in good condition, as do windows and doors. Each house has a simple peaked roof, with slate shingles. All roofs were replaced in the past few years and can be expected to last another 25. Ice hooks and heat tape have been installed to prevent and limit damage from ice dams on sloping roofs.

Every house has three bathrooms, which have been upgraded for use by the handicapped but do not meet current ADA standards. Although each has been equipped with grab bars these bathrooms lack the required five foot turning diameter and in some instances the required push/pull distances on either side of doors. The bathrooms are, however, in good condition. The College is planning to add ramps at each house in 2003.



above: Site Locator Plan

below: view of the Houses from the Adminstration Tower

front (above) and rear (below) views of typical House

There are front and rear stairs at all houses rendering access by people in wheelchairs almost impossible. Inside, floor levels are contiguous throughout, although no house has been outfitted with wheelchair lifts to provide access to the second floors. Throughout the houses there are a number of residential features that are not compliant with ADA, such as handrails, stairs and thresholds.

The only permitted occupiable spaces in each house are the first and second floors, which are full-height spaces. Occupants are not permitted to use the attic or basement spaces, even for storage. Attics are accessed through hatchways located in the second floor stairwell. Each house has a one-car garage located at the basement level, accessed from the rear of the building by a steep ramp (exceeds ADA permitted slopes).

Interior spaces are in keeping with the residential character of the buildings. Interior details include panel doors with wood trim, fireplaces with mantels, and crown molding. In sharp contrast, all spaces are lit by four-foot industrial fluorescent fixtures, as likely due to electrical limitations as energy conservation. The bedrooms make generous offices for single occupants, although in many instances there are two or more people in a single room.

Building Systems

Mechanical

The houses are cooled from various window air conditioning units. Heating is provided by gas-fired HW 250 MBH boiler. The boilers supply hot water to perimeter cast iron radiators. Most boilers date from the early 1930's and have been converted fro coal to oil with new burners. Seven of these boilers have been replaced in the past few years. Although the remaining boilers are still in service, they can be considered to have reached the end of their useful lives and will likely need replacement in the next few years. The operable fireplaces have been infilled to prevent their use, although the decorative mantles remain in place.

Fresh air is provided through the operable windows. Bathrooms are mechanically vented to the roof.

Electrical

Houses receive a secondary feed from vault "V". Seven houses are supplied from each transformer. Each house has been provided with 100 amps of electrical service. None of the houses has emergency power available, although battery powered exit lights have been installed.

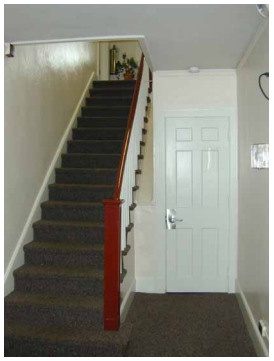
Plumbing/Fire Protection

The houses maintain their original installation of residential plumbing, including 3/4" hot and cold water supply lines and 2-inch waste lines. In general, these systems remain in fair to poor working order. Most fixtures have been replaced in recent years.

Neither sprinklers nor standpipes have been installed in any of the houses. Stand-alone battery-powered smoke detectors have been installed on each floor in stairwells.

Opportunities and Constraints

For a number of reasons, despite their drawbacks, the houses were considered by interviewees to be among the most desirable locations on campus for office space. It was repeatedly noted that the residential scale produced a less stressful working environment, and that this calming effect was welcome during tense workplace discussions or negotiations. Occupants also appreciated the double-hung windows, which allow control over indoor air temperature and instill confidence about indoor air quality. Lastly, it was noted that the houses provide a good balance between being centrally located to most campus buildings while remaining sufficiently removed to give occupants a sense of autonomy.



details of House interior, clockwise from top left: reception area; central stair; kitchen/office/service room

The limited amperage available in each house significantly limits the ability to install institutional equipment, such as copy machines, computers and printers. The College is also limited in its choice of window air conditioners to small 5,000 BTU units, capable of cooling about 250 square feet each.

Although quaint, the houses are not at all suited to the office functions they currently serve. The nonresidential components have a combined building footprint of about 20,000 square feet, yet occupy 253,400 square feet of land. Their combined usable area is comparable to that found in the second and third floors of the library, or the entirety of the College Center Building.

These are important comparisons for three reasons. Firstly, they convey the magnitude of construction that must happen before these houses can be considered for demolition. Secondly, they suggest that consolidation of similar programmatic elements may realize an efficiency of means through shared conference and support services. Lastly, they posit that after relocation these programmatic elements should remain central to the campus and be better integrated into its functioning.

While seeking to relocate office and administrative functions in appropriate buildings the master plan may ultimately find good use for some of the houses. As was noted in several interviews, the landscaping and low-rise scale of this part of campus set a pleasant tone that might not be well-served by the wholesale demolition of these buildings. Given that several are currently occupied, one plan might include their continued use for faculty or senior administrative housing. Others may be suitable for high-visibility public functions, such as a Welcome Center/Visitor's Center.

As will be discussed in greater detail, the master plan recommends the following improvements be made to the Campus Houses:

- replacement of pad-mounted transformers
- new telecom and electrical conduit be laid between the houses to permit upgrade to 200amp service.

Academic Cluster Buildings A through F

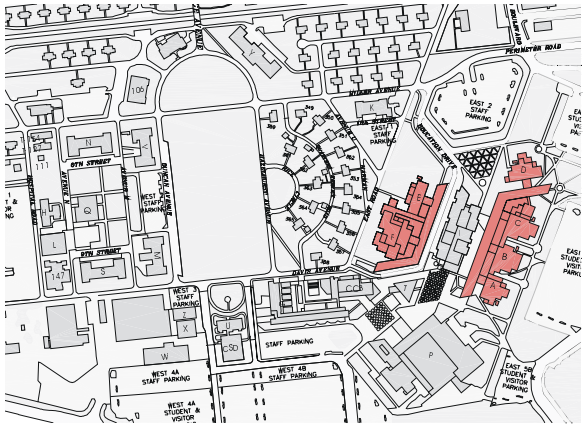
Six cluster buildings were built as part of the 1973 building program. Each floor consists of about eight to twelve classrooms facing the exterior, with lecture halls, lobbies and circulation kept toward the interior. These Clusters are linked to each other and the adjacent library by a series of interior and exterior walkway spines that are flanked by rows of departmental and faculty offices. The buildings are punctuated by a series of internal courtyards that provide welcome relief to the unrelenting concrete structure. The Clusters boast a great quantity of outdoor gathering spaces that are well-maintained although, given their locations and exposure to weather, often of limited use.

The six clusters have the following principal occupants:

Cluster A: Accounting, Business and Office Technology
Cluster B: Mathematics and Computers
Cluster C: Chemistry and Physical Sciences
Cluster D: Physics, Computers and Engineering Technology
Cluster E: Allied Health Science
Cluster F: Biology, components of Continuing Education and ESL

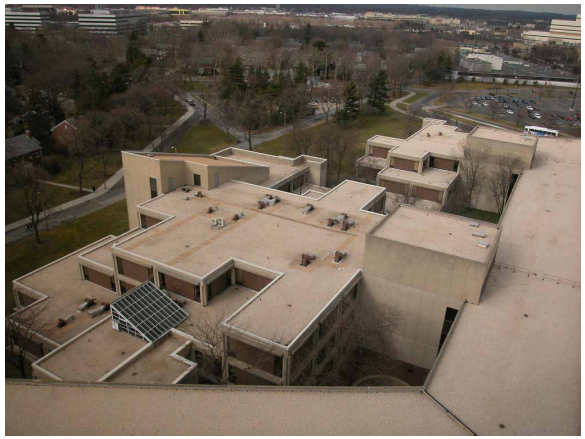
The precast concrete exterior surfaces of the clusters appear to be in relatively good condition, with minimal efflorescence and staining of the concrete from structural connections. The original Trocal roofs were replaced over the past few years with new four-ply built-up roofs with gravel ballast. This has significantly reduced incidents of water infiltration and the resultant moisture problems. The current system of roof drains is prone to blockage by leaves as are the many air intake louvers beneath the windows. The numerous small roofs at varying levels require more roof drains than would otherwise be necessary, which are often located on roof segments with no easy access for servicing or cleaning.

The interior corridors measure about ten feet across in the classroom clusters and about six feet across in the office spines. There are no lounge or pause spaces in the Clusters. Given the busy classroom schedule there are often groups of students gathered in hallways waiting for classes to



above: Site Locator Plan

below: Entry to D Cluster from East 4A Parking



above: Aerial view over Clusters E and F

below: Courtyard between Clusters C and D

start, which can be a source of distraction to classes in progress. The circulation spaces have proven adequate given the traffic that use them. The 20x25 foot column grid is tight, but generally accommodates a variety of classroom sizes. The present classrooms typically seat 24 students, an appropriate number given average NCC class size. Classrooms in the clusters are generally in line with SUNY guidelines for classroom area. However, the present classrooms are too small to be retrofit as computer labs of 24 workstations. Most faculty offices measure about 110 sf, also in keeping with SUNY guidelines. There are two double height lecture halls in the clusters, each capable of seating about 70 students.

Clusters B, C, E and F each have a hydraulic elevator that serves all floors except the mechanical penthouses. The elevators are reported to be in satisfactory condition. However, as their manufacturer has gone out of business, obtaining replacement parts has become increasingly difficult.

The clusters are clad with a panel system of single-glazed windows and 1” sandwich-panel infills. These panels are held in their concrete frames by rubber gaskets. Although this system remains in fair condition, the custom-designed gaskets are no longer available for purchase. Often, when glass panels must be replaced, entire wall panels have to be removed and remounted. None of the windows are operable. There have been numerous complaints about the quality of indoor air.

Most of the interior finishes are original, and in fair condition considering their age. There is a significant quantity of vinyl asbestos floor tile throughout the clusters, held in place with asbestos-containing mastic. In some areas this has been replaced with vinyl composition tile.

Almost all the corridors retain their original spline ceiling panel system of 2’x 4’ cellulose panels. In many instances ceilings have been damaged and have had to be replaced as the original chilled water piping run above was uninsulated, and the resulting condensation caused staining and other humidity related problems to the ceiling tile. These replacements have proven particularly difficult as the panel system itself has been discontinued and new pieces must be ordered in large quantities at considerable expense. The difficulty in removing panels from the spline ceiling system has

inhibited access to the systems piping run above. Although the original housings for the corridor lamps remain, the components have been replaced to accommodate lamping with compact fluorescent bulbs. Within the classrooms, acoustic panels hang from the exposed structure of the ceiling, integrated with pendant fluorescent lighting fixtures.

The original wood doors with glass lites and painted metal frames remain intact. Most walls are made of a panelized gypsum wall board system although there is limited use of ground-face masonry units in the lobbies. The drab palette of browns and beiges only adds to the dated feel of the worn interior finishes. No provision was made in the original design for incidental hallway furniture, including fire extinguishers, trash bins or built-in furnishings. As a result, these pieces currently intrude visually and physically into pass spaces and further detract from the overall appearance of public spaces. Only exterior lounge areas have been provided, although there are points where corridors give onto large interior public areas. These spaces have not, however, been outfitted with any furnishings that might make them "pause" spaces.

The clusters are generally compliant with the letter if not the spirit of ADA. Although there is no elevator in Clusters A or D, these spaces can be accessed through neighboring Clusters B and C. Most instances of noncompliance can be found in the bathrooms where mounting heights and clearances are problematic.

above: courtyard between Clusters B and C

below: lobby, Cluster B

Building Systems

Mechanical

High-temperature hot water (HTHW) and chilled water (CW) are delivered to the clusters from the Central Utilities Plant (CUP) operated by the Nassau District Energy Corporation (a.k.a. Tri-Gen), located to the south on the north side of Charles Lindbergh Boulevard. It is not known if the plant has additional capacity or if the pipes are large enough to accommodate additional flow.

clockwise from top left: office spine corridor; Cluster B lecture hall; Cluster B classrooms

Corridors and interior spaces including the lobbies are fed by a central air-ducted system. Rooms facing the exterior including the classrooms and offices are served by unit ventilators with air temperature regulated by a two-pipe system. These unit ventilators may be in need of refurbishment or replacement, and their louvers are certainly in need of cleaning. There are no birdscreens to limit material collecting inside the intake louvers. The unit ventilators are the only source of fresh air to the classrooms. The unit ventilators for these classrooms provide 100% outside air (5 cfm/person) which conforms to the New York State code. Some of the classrooms have been provided with additional outside air from the central system. Offices have been provided with fan coil units providing minimum outside air to meet code. Unit ventilators and fan coils are provided with a two-pipe system. The system is switched between chilled water and hot water seasonally.

Electrical

Cluster Buildings A, B, C and D receive electricity from 13.2 kV-480/277v, 2000 kVA double-ended substation "B". Buildings E and F are powered from 1500 kVA double-ended substation "F".

The Cluster buildings are not furnished with emergency power. Exit lights are provided with emergency battery backup.

Plumbing/Fire Protection

No sprinklers have been installed in any of the Clusters. However, standpipes have been provided and are fed off street pressure. There are heat detectors in the corridors and lobbies.

Opportunities and Constraints

Given the significant quantity of square footage they occupy, it is unlikely the Clusters will be demolished and replaced any time in the near future. Their modular design, however will provide many opportunities for redevelopment and reuse, and many of the problems currently associated





above: exterior and interior details

with these buildings can be addressed. The 25-foot column spacing is conducive to the sizes of classes typically held at NCC and the floor-to-floor heights permit the installation of modern HVAC equipment and ducting. Although the modular design would allow rooms or floors to be added in beehive fashion, it is unlikely such new spaces could be added in accordance with current seismic and building codes without significant analysis and possibly overhaul to the existing structure. It would, however, likely be possible to add outdoor mechanical equipment to the roofs of these buildings, or to build new occupiable areas adjacent to the clusters, provided the appropriate seismic separation is made.

One of the more pleasant aspects of the Clusters is their landscaping. They are separated from each other by attractive outdoor courtyards and surrounded by green lawns and decorative planting that is very well maintained. After 30 years much of this planting is now mature. It would be unfortunate if any addition or modification of these buildings were to erase any of the few elements of delight to be found there.

Most complaints heard of the Clusters relate to the poor indoor air quality. Uncontrolled water infiltration and inadequate exchange of outside air have led to increased interior humidity. Although some causes of this humidity have been addressed, including the insulation of all chilled water piping and the replacement of all roof surfaces, others remain to be addressed. These include the lack of operable windows and addressing problems of moisture penetration around window and wall panel seals among others. The installation of operable, double glazed windows set in metal frames with proper thermal breaks will help ease these problems, while providing occupants a degree of control over both indoor air temperature and freshness. Although the outside supplied air meets current New York State code, there is an opportunity to provide additional air for various spaces by dropping the acoustic tile ceiling in the corridor and utilizing the gained ceiling space for horizontal duct runs.

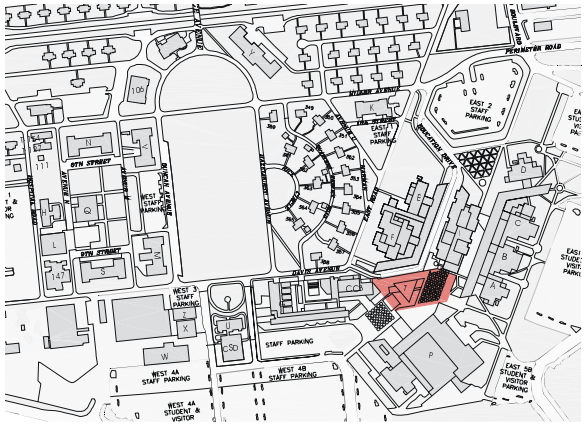
Administration Tower and Plaza

The Administration Tower and adjacent plaza were built with the Library, Clusters and Phys Ed Building as part of the 1973-1977 building program. High-traffic functions have been placed in the lobby and lower level including the Bursar, Registrar and Health Services. Unfortunately, available space cannot accommodate all the functions required for student services, some of which have been displaced up into the Tower. Less-trafficked administrative functions are housed in the upper floors of the Tower. There are conference and reception rooms on the tenth and eleventh floors. The tower is perhaps the most visible element of the campus from any of the surrounding highways and a clear point of reference for students on campus.

The exterior surfaces of the Tower appear to be in relatively good condition, with minimal efflorescence and staining of the concrete from structural connections. The original Trocal roof was replaced in the past few years with a new four-ply built-up roof with gravel ballast. The Tower is clad with a panel system of single-glazed windows and one-inch thick sandwich-panel infills. These panels are held in their concrete frames by rubber gaskets. Although this system remains in fair condition, the custom-designed gaskets are no longer available for purchase. Often, when glass panels must be replaced, entire wall panels have to be removed and remounted. None of the windows are operable.

The upper floors of the Tower are arranged with the elevators and service spaces in a triangular core, surrounded by a similar triangular corridor just over five feet wide. The outside ring of space is available for office use. The lower floor extends beneath the plaza to the west with approximately 10,000 sf of open floor area. The area is currently divided into work areas of varying sizes.

The Tower has three cable elevators that service all floors. The elevators currently need new controls but were otherwise overhauled in 1994. There are two sets of fire stairs at the northeast and northwest corners of the building. The lack of adequate signage combined with the nontraditional floor layout and the paucity of architectural cues make navigating the Tower difficult, and only compounds the confusion created by the undersized elevators.



above: Site Locator Plan

below: Plaza from entry drive

above: Tower from entry drive

Most of the interior finishes are original and, after almost thirty years, in need of upgrade. Ceilings in the upper floors are generally 2'x2' acoustic ceiling panels with an integrated system of recessed fluorescent lights and air diffusers. Many of the original wood doors with glass lites and painted metal frames remain intact. Interior partitions are of drywall at the periphery and block at the core. Corridor floors are faced in vinyl tile while office floors are carpeted. The drab palette of browns and beiges adds to the worn, dated feeling of the interior finishes.

Most of the interior spaces of the Tower and lower level plaza comply with ADA. Most points of noncompliance can be found in the bathrooms and relate to mounting heights and turnaround clearances.

There is a significant quantity of spalling observable on the structural concrete members of the plaza, while in several areas swaths of masonry pavers have been pushed loose. There are a number of apparent points of water infiltration where masonry pavers meet concrete paving. In addition, large portions of the concrete paving surface appear to be failing and there is a significant amount of streaking and leeching from the structural precast connections. A comprehensive program of survey and repair should be initiated that seeks to identify and resolve these problems of the plaza.

Building Systems

Mechanical

High-temperature hot water (HTHW) and chilled water (CW) are delivered to the Tower from the Central Utilities Plant (CUP) operated by the Nassau District Energy Corporation (a.k.a. Tri-Gen), located to the south on the north side of Charles Lindbergh Boulevard.

Central air systems supply the interior offices and corridors with conditioned air. Fan coil units provide heating and cooling at exterior office spaces. Unit ventilators and fan coil units are fed

from a two-pipe system, that is switched seasonally between chilled water and hot water. Unit ventilators and fan coil units operate at minium outside air as allowed by the New York State code.

Electrical

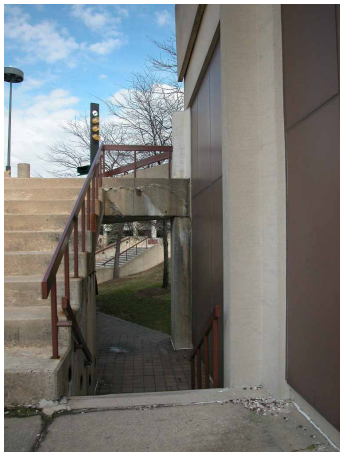
The Tower receives electricity from the "Office Tower" double-ended Substation, 1500 kVA, 13.2 kV at 480/277 volts and is also equipped with an emergency diesel generator, which runs on No. 2 oil. The Tower has provision for emergency power, fire alarms, exit lights, and emergency lighting. Exit lights are provided with battery backup.

Plumbing/Fire Protection

The Tower has been provided with sprinklers and a fire standpipe system, each supplied by a dedicated pump.

above: Plaza, lower level with fountain

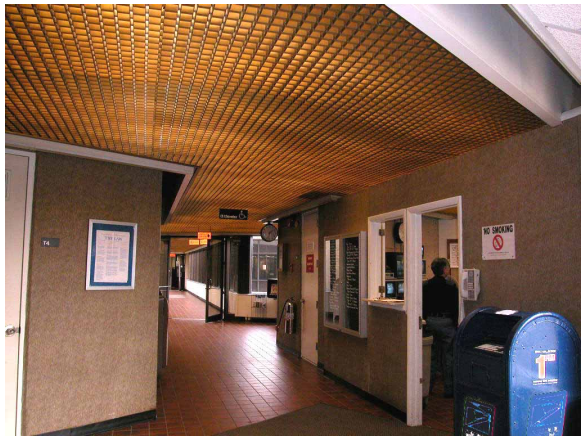
below: detail of Plaza showing degraded condition of concrete



Opportunities and Constraints

As with the rest of the 1970's building program, the College will likely occupy the Tower and Plaza spaces for many years to come. Given its prominent location and size, the Tower both visually and symbolically dominates the campus. Although the triangular floor plan results in unusable wedge-shaped corners, especially at the south corner, there are few ways to remedy this problem short of an expensive (and unrealistic) tower addition. These corners may be the best spot architecturally to run any new ductwork or piping, putting a currently unusable area to some use.

Going forward, the challenge for the master plan immediately and the College more generally, will be to find ways to put this building to its highest and best use. As can be seen from Table III.1, the Tower is the most inefficient building in the Campus Inventory, as measured by its net-to-gross ratio. Furthermore, the Tower's small floor plate cannot efficiently be subdivided into the kinds of administrative office spaces that are currently housed there. Consideration should be given to



above: Tower, Lower Level

below: Plaza, Lower Level

single-use open floor plans and single occupant offices (e.g., faculty offices). Furthermore, provision must be made for a modern system of heating, ventilation and air conditioning.

In the adjacent lower level plaza, the student service functions have already outgrown their present facilities. Given the future surges expected in college enrollment and the desire to resolve adjacency requirements, the current space is severely insufficient. Although future plans may consider enclosing some of the adjacent covered walkway space to effectively enlarge these office volumes, consideration should also be given to relocating these functions elsewhere and redeveloping this area for other use. It may be determined that these outdoor areas can be redeveloped as a positive campus amenity, but only if their current subterranean coldness can be remedied. At the same time, a study should be done of the considerable streaking and efflorescence that can be seen from the precast connections in order to evaluate whether further structural repair is necessary.

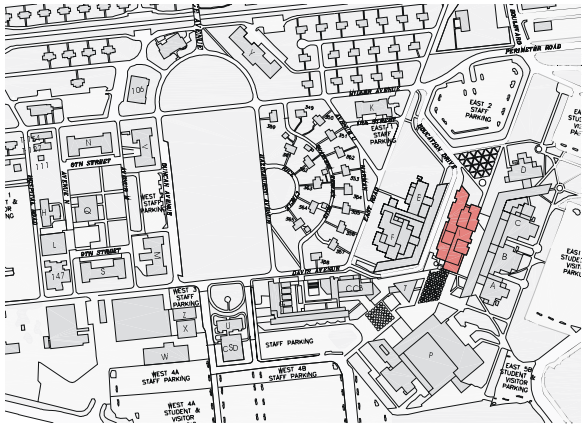
The A. Holly Patterson Library

The Library was built with the Clusters and Administration Tower as part of the 1973 building program. Its south facade faces the south entry plaza and the north facade serves as backdrop to the entry plaza off east parking lot 2. The building sits between Clusters E and F to the northwest and A-D to the south east. There is a large split-level outdoor reading area off the northeast end that can only be accessed through alarmed doors and, therefore, currently goes unused. It has reception, reference and reading rooms on the first floor, instructional space, reading areas and stacks on the second and third floors, and service and office functions in the basement. Two of the three basement seminar rooms were recently converted to computer labs.

The exterior precast and cast-in-place concrete surfaces of the Library appear to be in relatively good condition, with minimal efflorescence and staining of the concrete from structural connections. The Library is clad with a panel system of single-glazed windows and 1" sandwich-panel infills. These panels are held in their concrete frames by rubber gaskets. Although this system remains in fair condition, the custom-designed gaskets are no longer available for purchase. Often, when glass panels must be replaced, entire wall panels have to be removed and remounted. None of the windows are operable. The original Trocal roof was replaced in recent years with a new four-ply built-up roof with gravel ballast. The current system of roof drains is prone to blockage by leaves.

The Library has two hydraulic elevators that are used both by patrons and staff. The elevators are reportedly in fair condition. However, as their manufacturer has gone out of business, obtaining replacement parts has become increasingly difficult.

There are two sets of enclosed stairs at the north end and middle of the building that connect all floors. Toilets and other core functions, as well as minimal office space, are located along a central spine, effectively dividing the library volume in two. This central spine, enclosed by split-faced block, limits options for reconfiguring the interior space while forcing relatively noisy functions to be adjacent to much quieter reading/study spaces. As can be seen on all floors, the



above: Site Locator Plan

below: Library entrance as seen from Entry Plaza




above from left: outdoor reading terrace; outdoor study plaza; "main street" of circulation; first floor reading room

great volumes of undifferentiated spaces are difficult to subdivide into the hierarchy of spaces required by the library program.

Most of the interior finishes are original, and in fair condition considering their age. The ceiling structure of long-span "T" beams has been left exposed. Running perpendicular to these beams are stretches of linear fluorescent lights. The resultant unrelenting grid of five-foot coffers overhead makes for an oppressively institutional feel throughout the building. The uniformity of the lighting only heightens the dreary atmosphere that pervades the building.

The original wood doors with glass lites and painted metal frames remain intact. The drab palette of browns and beiges set against the greys of exposed concrete and block adds to the worn, dated feeling of the interior finishes. It would appear much of the original furniture, including group study tables, chairs and carrels remains intact.

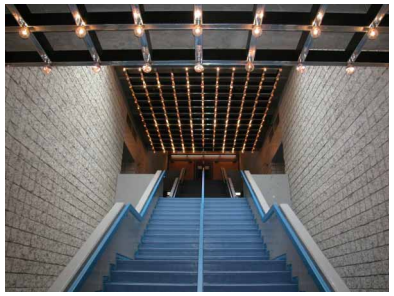
Building Systems

Mechanical

High-temperature hot water (HTHW) and chilled water (CW) are delivered to the library from the Central Utilities Plant (CUP) operated by the Nassau District Energy Corporation (a.k.a. Tri-Gen), located to the south on the north side of Charles Lindbergh Boulevard. It is not known if the plant has additional capacity or if the pipes are large enough to accommodate additional flow.

Central air systems supply the interior with conditioned air from side wall registers located around the central core. About 85 unit ventilators provide cool air at the perimeter of the building and a series of fan coil units serve rooms close to the interior core. The Library is supplied with conditioned air by three air handling units located at the roof penthouse. Unit ventilators and fan coil units are fed from a two-pipe system that is switched between chilled water and hot water seasonally.



above from left: lower level computer room; reference area; second floor elevator lobby; central staircase

Electrical

The library receives electricity from the "Library" double-ended Substation, 1000 kVA 13.2 at 480/277 volts. The Library does not have emergency power. Exit lights are on emergency battery backup.

Plumbing/Fire Protection

Sprinklers were installed as part of a retrofit carried out in 1995. No system of standpipes has been provided.

Opportunities and Constraints

Like the Physical Education Complex and the Academic Clusters, the Library represents too great a percentage of the campus space inventory and is of too recent construction to consider wholesale demolition or replacement. That said, the building's large, column-free fields of space and 13'-3" floor-to-floor height render it usable for a variety of functions.

There is little room for the library to add much-needed space, hemmed in on both sides by service drives and the academic clusters. It might, however, be possible to reclaim some space to the northeast by enclosing the currently unusable outdoor reading areas. Inefficiencies in space utilization were also noted suggesting the possibility of interior renovation to improve efficiency and quality of life. Such a renovation might also serve to facilitate campus circulation, that must currently circumnavigate the Library.

For the purposes of future planning it will be useful to keep in mind that the Library building contains the greatest collection of undifferentiated space on campus. Therefore, any consideration of its redevelopment should remain open to reinterpretation and reuse. While the current arrangement of the central core is disruptive to the Library program, it may be acceptable or even useful for large-scale functions, such as those that provide student services or a technology center.

above: second floor classroom

below: third floor study area

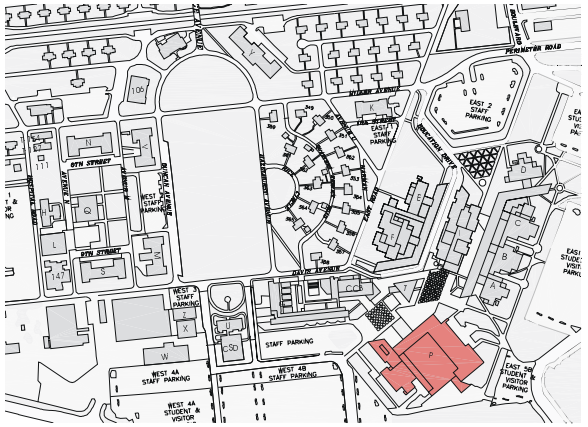
The Library is such an important focal point of the east campus, both visually and spatially, that any reconsideration of its spaces should seek to better integrate the building with the larger campus. Circulation paths that are currently interrupted by the building, such as those leading west from east parking lot 5A could, in fact, energize the space making it a more vital part of campus life. Any treatment of the north or south ends, especially any possible enclosure, represents an opportunity to put a “new face” on what is in some regard the campus front door.

Physical Education Complex

The two-story Phys. Ed. Complex was built with the Library, Clusters and Administrative Tower as part of the 1973 building program. It is located southwest of the Administration Tower and is perhaps the most visible building when entering the campus from the south. The lower level of the building is given over to the various athletic spaces, including a gymnasium, field house pool and squash courts around a "core" of weight, wrestling, dance and locker rooms. Faculty and administrative offices are located on the upper floor and are grouped around an open courtyard. The building is bisected by an exterior corridor that extends from the Tower plaza to East Parking Lot 5B. The gym, pool and gymnastics room are all to the north of this corridor; the remaining phys. ed. spaces are to the south.

The exterior precast and cast-in-place reinforced concrete surfaces appear to be in relatively good condition, with minimal efflorescence. There is, however, a considerable amount of staining of the concrete from structural connections at the lower level. This condition should be investigated in greater detail as part of a comprehensive campus-wide survey of facilities or, at the very least, a survey of the current conditions of concrete members, connections and surfaces in the 1970's buildings. For the most part, the original paving in place along the outdoor corridor is also in acceptable condition, except at the edges where it transitions to the concrete plaza. It appears that water infiltration at these points has caused the tile to crack and push loose. This condition has likely been worsened by wear caused by skateboarders. The original Trocal roof was replaced in 1999 with a new four-ply built-up roof with gravel ballast. There are few breaks in the masonry skin. Where these occur, infill is of 1" sandwich panels held in place by custom rubber gaskets.

Most of the interior finishes that are original remain in fair condition. Walls are of ground face masonry units in lobbies and entry areas and painted concrete masonry units elsewhere. There is limited use of the same gypsum wall board panel system found in the clusters. Ceilings in large-scale spaces are exposed structure while in corridors and smaller scale spaces the former spline ceiling system has been replaced with a 2'x2' and 2'x4' suspended ceiling using standard acoustic tile panels. Lighting varies from downlight cans at lobbies and entrances to 4' recessed fluorescent



above: Site Locator Plan

below: view of Phys. Ed. Complex from southeast

view of plaza between Phys. Ed. Complex and A Cluster

above right:: upper level details:
from left: vestibule; interior courtyard; main corridor

fixtures in corridors to metal halide fixtures in practice spaces. Corridor floors are faced in vinyl tile while office floors are carpeted. The urethane flooring in the gymnasium was installed in 1987-88; that in the field house dates from 1990-91. The drab palette of browns and beiges adds to the worn, dated feeling of the interior finishes.

Building Systems

Mechanical

High-temperature hot water (HTHW) and chilled water (CW) are delivered to the Gym from the Central Utilities Plant (CUP) operated by the Nassau District Energy Corporation (a.k.a. Tri-Gen), located to the south on the north side of Charles Lindbergh Boulevard.

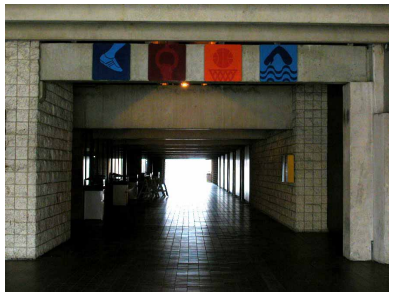
Classrooms, the Main Gymnasium and Gymnastic spaces are air conditioned by a central air system and the Administrative Offices are air conditioned by fan coil units located at the building perimeter. The entire building receives fresh air from the central air system louvers located in roof penthouses. The Field House has been provided with a ventilation system only. Unit ventilators and fan coil units are fed from a two-pipe system that is switched between chilled water and hot water seasonally.

Electrical

The Complex receives electricity from the “GYM” double-ended substation, 1500 kVA, 13.2-480/277V. No provision has been made for emergency power generally although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection

There are neither sprinklers nor standpipes in the Phys. Ed. Complex, although heat and smoke detectors have been installed.




through the building, from left: exterior corridor; gymnasium; squash courts; southeast exit

Opportunities and Constraints

Although built around a model of physical education that is now thirty years old, the gym complex largely meets the needs of the current student population and can be expected to continue to do so for the indefinite future. While there have been shifts in the popularity of various sports (i.e., racquetball over squash), many of the latest trends can be accommodated within the existing building. Although there is a need to upgrade the building's air conditioning and ventilation systems, the floor-to-floor heights and circulation system within the building should allow for such a renovation. For the most part, the materials chosen for interior finishes are durable and, given the great care with which they are maintained, can last for many more years.

The building is well-sited, with close proximity to the parking lots and occupies a highly-visible campus location. It is also adjacent to large tracts of open campus land, well-suited to athletic fields but not sufficiently central to serve as sites of new construction. The building is also close enough to the classroom and office space of the academic clusters that if such additional spaces cannot be accommodated within the complex, they might be located in "A" cluster.

That said, there is currently little connection between the complex and the academic buildings to the north or the parking lots to the south. The existing plazas between the Gym and Cluster A are discontinuous, and separated by a significant change in elevation. A similar drop in grade exists between the gym and the parking fields. Consideration should be given to how best to bridge these gaps and better integrate the building into the larger campus.

Special attention should also be given to the southeast face of the building. Although currently a "blank face", the raw materials are there to make this the dignified and appropriate "side door" it deserves to be. Such a redevelopment would present the opportunity to begin to segregate functions within the building, to allow simultaneous use by public and campus groups without overlap.

The James M. Fuller Physical Plant

above: Site Locator Plan

below: Physical Plant exterior from southwest

The Physical Plant Building was built in 1973 as part of the large-scale redevelopment of the campus. It is located at the far western edge of the site along Perimeter Road. The exterior is of metal sandwich panels with single glazed inoperable windows above. The square plan includes offices along the south side, garage and warehouse space along the east and north sides respectively, and shop space on the west side.

The more public areas of the interior is in fair condition considering the age of the facility. The corridor walls of the office wing are of painted concrete masonry units, the ceiling is of industrial 2'x4' acoustical ceiling tiles and the floor is of vinyl tile.

The support areas, however, have never been upgraded and remain geared to a model of campus services current in 1978. Perhaps most critical, there are a number of functions that cannot be performed here due to noncompliance with current environmental and health and safety regulations. The locker rooms and toilets are desperately in need of renovation. Of particular concern, there are no locker room facilities for women, creating an unequal workplace condition.

Building Systems

Mechanical

The building is heated and air conditioned by perimeter heat pumps with backup electric heat for the exterior offices and two rooftop air-cooled packaged air conditioning units with gas heating for the garage and shops. One rooftop unit is 27 years old and is nearing the end of its useful life. The other rooftop package unit is fairly new. The perimeter heat pumps are a combination of new and older units.

Electrical
The Physical Plant is powered from a single 500 kVA transformer, 13.2-480/277V through a 600 amp manual transfer switch. No provision has been made for emergency power, although battery powered exit lights have been installed throughout.

Plumbing/Fire Protection
Sprinklers have been installed in the warehouse and shops areas and is fed off the available domestic water at street pressure. Smoke detectors have also been installed in the shops.


above: Garages of Physical Plant courtyard

Opportunities and Constraints

For the most part the Campus Plant Building has the potential to meet the required needs of its users. Although its location leaves employees who work there somewhat cut off from the mainstream of campus functions, it is an ideal location for the large scale deliveries and amount of vehicular traffic this building must accommodate. Given its current layout and the great quantity of space around the building it would be relatively easy to add to the building horizontally if more space were necessary. Consideration would have to be made for how any new construction would impact the neighboring Hempstead Plans or Meadow Brook Recharge Basin.

The master plan should consider if it would be worthwhile to expand the facility to accommodate any functions currently located on the main campus. These would include functions that require a great amount of contiguous space that may or may not desire vehicular access while not requiring adjacency to any other departments on campus. In recent years the building has served to accommodate the storage needs of some Departments on campus. This practice should be evaluated and, if it is decided to retain these functions within the physical plant, appropriate facilities should be created to house them.

Just as there are elements of campus program that might be relocated permanently to the Physical Plant building, there may be support elements that should be housed either in new construction or an existing campus building. Having some amount of office, storage and shop space closer to the campus center would allow maintenance personnel to respond sooner and more efficiently to pressing needs.

"Temporary" and Metal Buildings

There are a number of "temporary" metal buildings on campus which have, over the years, become permanent fixtures at NCC. These include:

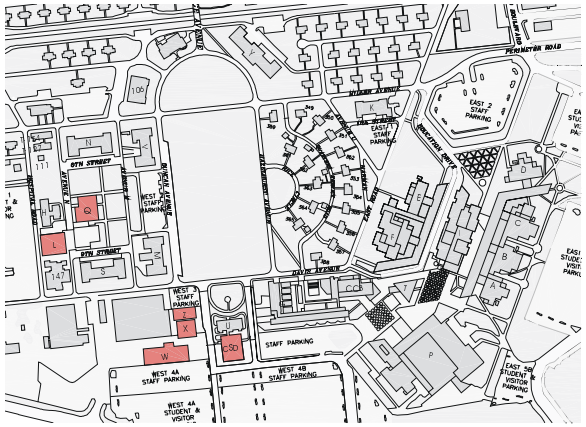
- ***Q Building*** built around 1970 and is currently used by the Music Department. It has one large performance/rehearsal room and five smaller rehearsal rooms/classrooms. There are also three individual lesson rooms and storage space for the Department's instruments. The exterior of the building is maintained in reasonably good shape, although there are several points of damage to the metal skin, some that seem to have compromised the building's weather seal. The interior finishes: painted concrete block, vinyl tile and acoustic tile ceiling, are in fair condition considering the buildings age.

- the ***Day Care Building*** (Greenhouse) which houses the campus' daycare center, used to serve as a cafeteria for the old air force base. Renovations over the years have transformed the interior, which now houses two indoor play areas and five classrooms, one for each infant group cared for. The building is well-cared for, and a considerable amount of money has been invested to turn the building into a welcoming space for infants and toddlers.

- ***W Building*** that houses the College's principal gallery and performance spaces. There are two spaces for exhibitions in the west half of the building, one larger than the other. In the east half, there are two theaters: the 200-seat Mainstage Theater and the 100-seat Little Theater.

- The ***College Union addition*** that was built about 1970, originally to house student lounge space. It is currently filled with offices and support space for Academic Advisement and Testing, as well as the Center for Students with Disabilities.

- the ***Public Safety Building*** with additions, between W and U Buildings which occupies a central and highly visible site on campus. Unfortunately the accommodations are barely better than a rudimentary construction trailer.



above: Site Locator Plan

below: Q Building

above: the Day Care Building (Greenhouse)

below: W Building from the southeast

- ***Building T-154***, which had been a barracks for the old army base;
- ***Z Building*** (the Hangar Annex) that currently houses Music Department program; and
- the ***Carpentry Shop***, north of the Public Safety Building.

Most of these buildings are clad in corrugated metal sandwich panels with minimally sloping roofs. Among the larger buildings, infill consists of fiberglass insulation hung inside supporting bags. The buildings sit on slabs poured on grade and have minimal openings. For the most part, doors and windows are of anodized aluminum and are in fair condition. They are all single-story buildings.

Inside, their undifferentiated volumes have been divided up to suit the needs of their occupants, some, like the Greenhouse, at greater expense than others, but always in keeping with the "temporary" nature of these buildings.

Mechanical

Each building has its own system of heating, cooling and ventilation. Q Building is air conditioned by two 1-1/2 ton and one 24-ton air-cooled ducted air conditioning units. Heating is provided by a gas-fired boiler. The Day Care Building is heated and cooled by four ten-ton heat pumps and a 660 MBH gas-fired boiler (circa 1967) that supplies hot water to perimeter fin-tube radiators as well as cabinet and unit heaters. W Building is air conditioned by a combination of three 7-1/2 ton split ducted air conditioning units (circa 1976) and two ten-ton ducted split air conditioning units (also circa 1970). The building is heated by a 1,000 MBH oil-fired boiler (circa 1970) that supplies hot water to 15 unit ventilators and perimeter fin-tube radiators. Fuel oil for the boiler is stored in a double walled above-ground tank. The Public Safety Building is air conditioned by a five-ton air cooled split air conditioning unit (circa 1996). Window air conditioning units have also been provided for the trailer addition. Heating is provided from an oil-fired warm air furnace (circa 1996). The Audio Visual and Media Building (T-154 and T-127) are cooled by window air conditioning units. Heating is provided by a warm air furnace (c. 1999).

Electrical

All temporary buildings draw power from the 4.16 kVA loop. The Q Building gets its power from a pad-mounted transformer tapped of the "H" vault. A 400 kVA pad-mounted transformer feeds the Day Care Facility. Both the W Building (600 amps) and the Public Safety Building (200 amps) draw service from the "Z" vault. The Audio/Visual Building (T-154) draws power from the Navy Vault No. 4.

Plumbing/Fire Protection

Only a few of the temporary metal buildings are outfitted with sprinklers. These include Day Care Building (only in certain spaces) and the W Building. Similarly, only the Q Building has been outfitted with fire alarm pull stations and heat detectors. The W Building has both smoke and heat detectors.

Opportunities and Constraints

For the most part, all of these temporary buildings have outlived their useful lives. In some instances, such as T-154 and the Public Safety building, the conditions inside the buildings are so dysfunctional as to seriously impede the activities that must take place inside them that are vital to the operations of the campus. There are other instances, such as the facilities for Theater and Dance, that severely impact the quality of the programs that can be offered and, by extension, reduce the role those departments can play in the life of the larger campus. Ultimately, the entire College is the poorer, missing out on the full range of what these programs could otherwise deliver.

That said, there are certain facilities, such as the Q Building, that are certainly no worse than many of the spaces to be found throughout the 1930's buildings. Given that these metal buildings are generally ADAAG compliant and are, in many instances, in no worse condition with regard to building systems than their neighboring brick buildings, it would seem entirely plausible to make use of some of them at least as long as many of the legacy air force buildings. Furthermore, in at least one instance, that of Campus Day Care, occupants expressed general satisfaction with the quality of their space and a reluctance to leave for other quarters on campus.

above: Student Union addition from the southwest

below: the Public Safety Building from the southeast

above: Building T-154 (Audio/Visual) from the northwest

below: the Carpentry Shop in front of Z Building

Aside from their physical conditions, these buildings must also be considered for the way in which they detract from an overall positive campus image. One important refrain heard in interviews was the need for the NCC campus to speak to the goals of its students. By any measure, the ramshackle, anonymous nature of these structures undermines any seriousness of academic purpose. Any long-term master plan must therefore foresee the eventual transition of all academic program from these temporary buildings and into appropriate facilities. There may be valid alternative uses, such as service or support spaces or other interim solutions, but the instructional space on campus should project an image consistent with the College's mission of making a first-rate education available to all.

Campus Parking

As a commuter campus, parking is one of the most important quality of life issues for both students and faculty. There are lots distributed across the campus, but the vast majority of unrestricted spaces for student use can be found on the south and east sides of campus. There is minimal unrestricted parking to serve the west side of the campus: about 335 spaces in west lot 1. In all, there are about 5,360 spaces available on campus.

Perhaps the most serious issue regarding parking relates to the inability of the south field to handle the number of students who want to park there. The result is a dangerous condition of students cruising the lot for open spaces with innumerable points of pedestrian/vehicular conflicts. There are a number of reasons the south field fills before any other:

- most NCC students arrive from the south side of Long Island
- the south field is most central to all buildings on campus
- there are the least number of traffic lights separating that field from the highway
- the south field is closest to the most highly-trafficked buildings on campus: CCB and G
- most off-campus signage directs people to these lots

This situation is exacerbated by the fact that there is no easy way to drive from one lot to another.

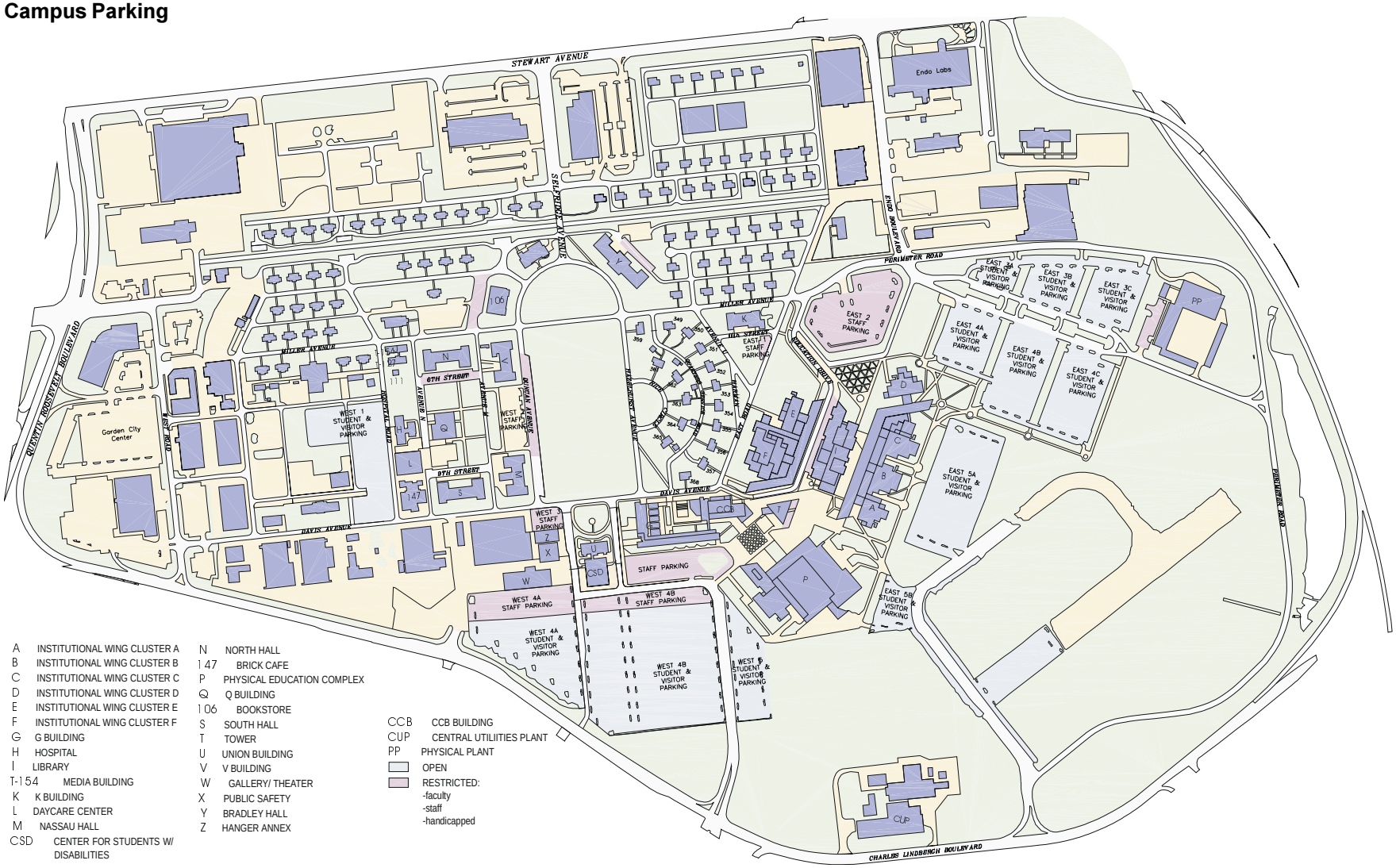
Most unrestricted parking is strung along the east side of campus. Some lots, such as east lot 3 and east lot 4, are attractively landscaped with good separation between pedestrian and vehicular traffic. Others, such as lots 5A and 5B, while offering a great number of spaces are poorly integrated into the larger campus. Although the spaces along the access drives to these lots do provide much-needed parking, in their current arrangement they are very dangerous, forcing students to back out into oncoming traffic.

There are a number of smaller, restricted parking lots around campus. Although some of these are required by ADA to provide handicapped students with convenient spaces adjacent to buildings, others serve administrators and faculty. In general, this parking can be absorbed into the general landscape of the campus, as is the case with the lot behind the Bookstore. There are two locations, however, where this convenience parking significantly detracts from the campus image.

above: West Parking Lots 4A and 4B

below: Parking behind Bookstore

Fig. II.8
Campus Parking



above: West Parking Lot 2

below: Parking at the base of the Administration Tower

First and foremost is west lot 2, a prominent site between V and M (Nassau) Buildings that faces the quad. This highly visible location, although convenient, sets a negative tone that counters the special qualities valued in the historic campus buildings.

A similar condition can be found adjacent to and underneath the administration tower and plaza. This zone could be a considerable asset, given its adjacency to highly-visited buildings. Although the 1970's buildings are generally considered cold and imposing on campus, one of the few points of relief to be found are in their generous outdoor spaces. Restricting convenience parking in this area to handicapped students could significantly improve what is currently an unsightly condition.

Lastly, there are some instances where it can be said that parking may be too close to buildings. This is the case around those buildings with unit ventilators that take in significant amounts of outside air through their perimeter louvers, such as W Building. In these cases there have been complaints of car exhaust fumes accumulating inside the classrooms.

Vehicular Circulation

above: a pleasant allée of trees lines Miller Avenue looking east from the Quad
below: the vehicular traffic of Education Drive is effectively segregated from campus pedestrian traffic

Off-Campus

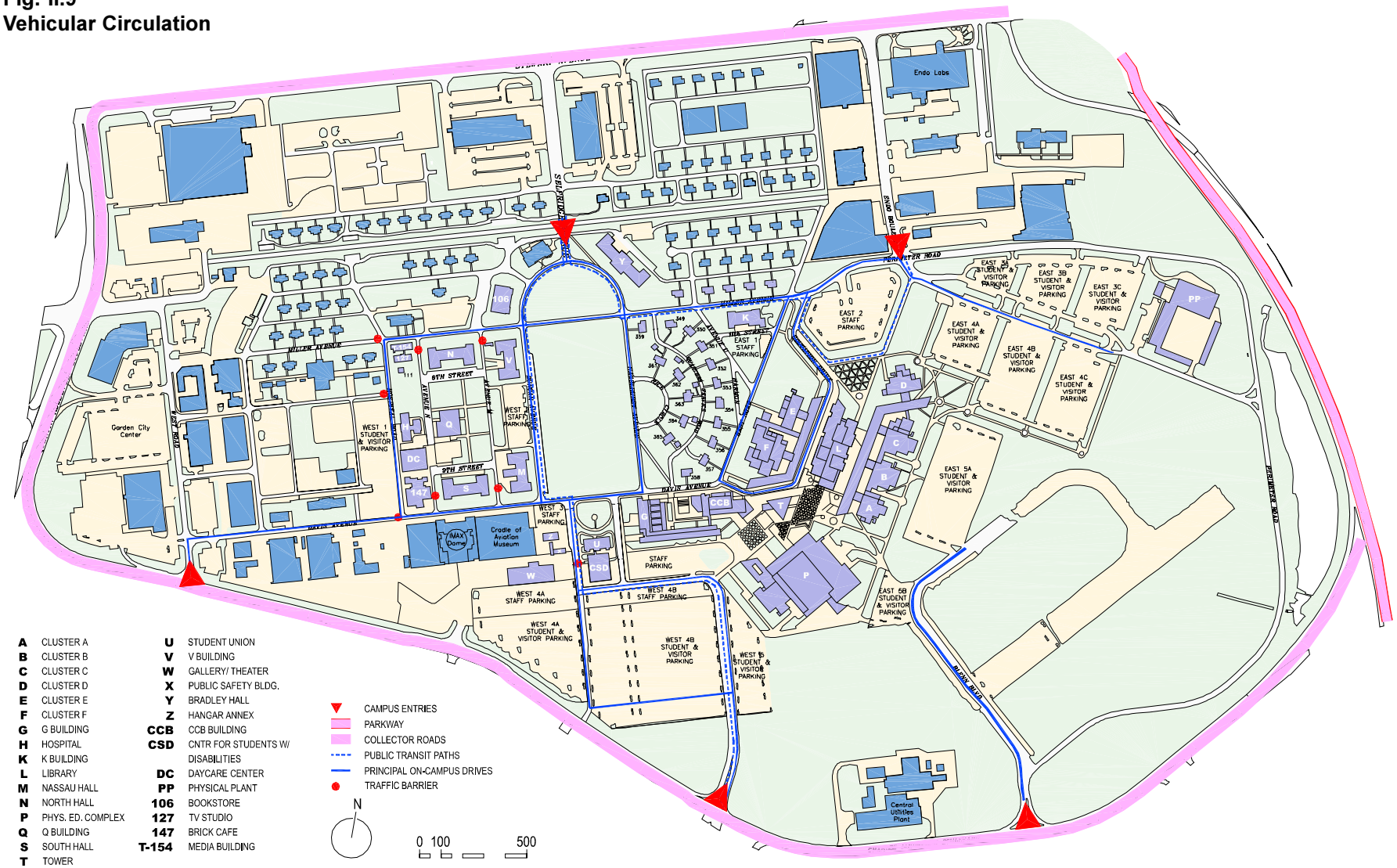
The campus is located between the Northern and Southern State Parkways just west of the Meadowbrook Parkway. It can also be reached from the Long Island Expressway, although this highway is somewhat further away. These parkways give onto a series of collector roads that ring the campus. To the north is Stewart Avenue, a main commercial strip that links towns from Mineola through Plainview, and to the south is Charles Lindbergh Boulevard, that bisects the former Mitchel Field and is a primary means of accessing the campus after exiting the Meadowbrook Parkway. Quentin Roosevelt Boulevard runs to the west and brings traffic from Charles Lindbergh Boulevard to Stewart Avenue. This ring of roads around the campus greatly facilitates getting cars on and off campus.

Although the campus is well connected to Long Island's system of highways it is not well situated with regard to public transportation. As was highlighted in the ***Nassau Hub Study*** (January, 1998), the nearest rail links include the Long Island Rail Road's main line about two miles to the north, and the Hempstead Line about the same distance to the west. While there are MTA buses that link the campus to these train stations and other nearby bus terminals, commuting time increases significantly due to the need to make one or more connections. That said, there are a great many NCC students for whom public transit is the only option. There are several MTA standard-issue bus shelters on campus made of anodized aluminum framing and plexiglass infill panels although the number of waiting students typically exceeds these shelters' capacities.

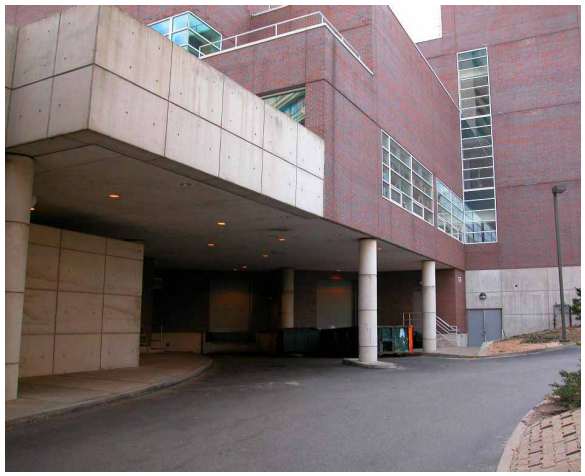
On-Campus

There is no campus-wide system of vehicular circulation. Each of the four entrances to the College leads to an area that is effectively closed to any other portion. To access the northeast quadrant from the southeast students must exit back out to the system of ring roads and drive around the campus to a different entrance. This is a significant inconvenience to students and

Fig. II.9
Vehicular Circulation



A	CLUSTER A	**U**	STUDENT UNION
B	CLUSTER B	**V**	V BUILDING
C	CLUSTER C	**W**	GALLERY/ THEATER
D	CLUSTER D	**X**	PUBLIC SAFETY BLDG.
E	CLUSTER E	**Y**	BRADLEY HALL
F	CLUSTER F	**Z**	HANGAR ANNEX
G	G BUILDING	**CCB**	CCB BUILDING
H	HOSPITAL	**CSD**	CNTR FOR STUDENTS W/ DISABILITIES
K	K BUILDING		
L	LIBRARY	**DC**	DAYCARE CENTER
M	NASSAU HALL	**PP**	PHYSICAL PLANT
N	NORTH HALL	**106**	BOOKSTORE
P	PHYS. ED. COMPLEX	**127**	TV STUDIO
Q	Q BUILDING	**147**	BRICK CAFE
S	SOUTH HALL	**T-154**	MEDIA BUILDING
T	TOWER		



above: loading docks are integrated into the designs of recent campus buildings

below: a drop-off lane has been installed but is currently blocked by barricades

faculty as well as a safety issue, given the volume of traffic in the vicinity. The prime inhibitors of north-south circulation on campus are the traffic gates west of the Student Union. There is no connection between east parking lots 5A/5B and west parking lots 4A/4B. Separated by only a few dozen feet, there is also no connection between east lot 5A and east lot 4B. While serving the intended purpose of limiting through-traffic, this condition inconveniences both faculty and staff. In particular, this is a serious issue for disabled students who require adjacent parking but have to drive between buildings.

Despite the number of campus entry points, there are a number of locations where getting on or off campus is problematic. On the west side of campus the residential-scale roads lead inconclusively through the adjacent neighborhoods to West Road and Quentin Roosevent Boulevard. Traffic barriers have recently been installed to prevent this traffic, but clear signage for leaving the campus is not yet in place. Similarly, north of Miller Avenue, there are a number of small feeder roads that filter traffic through the residential area to the north, none of which lead directly to Stewart Avenue.

There are also several points of pedestrian-vehicular conflict (see ***Pedestrian Circulation***). On the west side of the campus pedestrians and vehicles must compete for the use of the residential-scaled roads. This is a particular problem along Duncan Avenue where the sidewalks are too narrow for the quantity of pedestrians. There are several problematic crosswalks, including the intersection of Duncan and Miller Avenues, as well as where Davis Avenue meets Hazelhurst Avenue. Around the 1970's buildings service traffic has effectively been segregated from pedestrian traffic.

One positive feature of the present campus layout is the relative ease campus maintenance personnel have in accessing the service entries of campus buildings. Almost all the post-1975 buildings can be accessed from the suppressed service drive. Loading docks and dumpsters have been integrated into their design to minimize any negative impact on the campus. On the west half

of campus a service courtyard has been created from the fragments of Avenues M and N and 6th and 9th Streets. This ease of access is important given that almost each building has its own 5–10 yard dumpster, which is emptied early in the morning by a contracted municipal service.

In addition to the student/faculty and service traffic there is also a good deal of visitor and drop-off traffic. At the present time the only provision for such vehicles is on the north side of campus at the Endo Boulevard entrance, where there is a dedicated drop-off lane. Although a drop-off turnaround has been installed off parking lot 4B, it has been blocked by sawhorses. Students are not deterred by the many “no drop off” signs, stopping to let off passengers despite the hazards this creates.

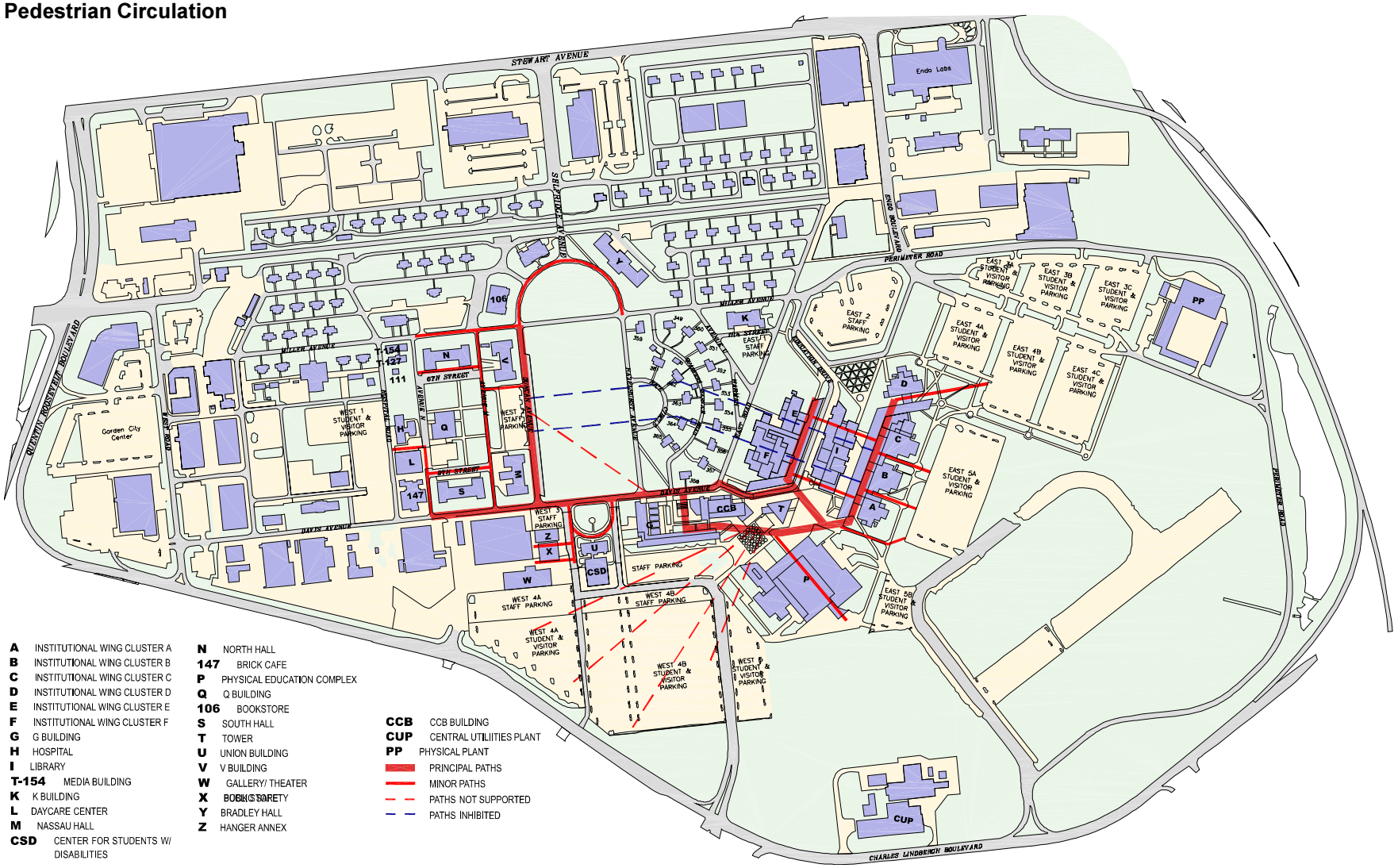
Pedestrian Circulation

There are several lines of pedestrian flow at NCC that are alternately supported or inhibited by the available pathways. Some of the major paths can be observed at the start and end of the class day. These include the north-south axis of Duncan Avenue, the covered walkways of the Clusters and the east-west axis of Davis Avenue in front of the CCB and G Buildings. All these pathways are supported by existing paving. There are also a great number of minor pedestrian paths as noted on the adjacent diagram that roughly follow the streets of the old air force base.

There are a number of equally important lines of movement that are currently not supported. These include the diagonal traffic that extends from the CCB and G Building northwest to the old air force buildings, and the many lines of pedestrian flow from the west parking lots 4A and 4B to the Tower Plaza, which must currently wend their way across the competing lines of vehicular flow, at considerable risk to pedestrians.

There are several instances on campus where the available paths, in fact, impede pedestrians from getting where they need to go. Among these are the paths that bring students from east parking lots 3, 4 and 5 across campus to the west. These discontinuous routes must run around the library, over the vehicular drives then through E and F Clusters, where they currently dead-end in fire-alarmed doors. Even if there were exits along the west side of E and F Clusters, students would still have to walk south to Davis Avenue to avoid cutting through the landscaped yards of the single-family houses.

Fig. II.10e
Pedestrian Circulation



A INSTITUTIONAL WING CLUSTER A
B INSTITUTIONAL WING CLUSTER B
C INSTITUTIONAL WING CLUSTER C
D INSTITUTIONAL WING CLUSTER D
E INSTITUTIONAL WING CLUSTER E
F INSTITUTIONAL WING CLUSTER F
G G BUILDING
H HOSPITAL
I LIBRARY
T-154 MEDIA BUILDING
K K BUILDING
L DAYCARE CENTER
M NASSAU HALL
CSD CENTER FOR STUDENTS W/ DISABILITIES

N NORTH HALL
147 BRICK CAFE
P PHYSICAL EDUCATION COMPLEX
Q Q BUILDING
106 BOOKSTORE
S SOUTH HALL
T TOWER
U UNION BUILDING
V V BUILDING
W GALLERY/ THEATER
X BOOKSTORE
Y BRADLEY HALL
Z HANGER ANNEX

CCB CCB BUILDING
CUP CENTRAL UTILIITIES PLANT
PP PHYSICAL PLANT
PRINCIPAL PATHS
MINOR PATHS
PATHS NOT SUPPORTED
PATHS INHIBITED

Site Utilities

above: Utility manholes between Cluster Buildings

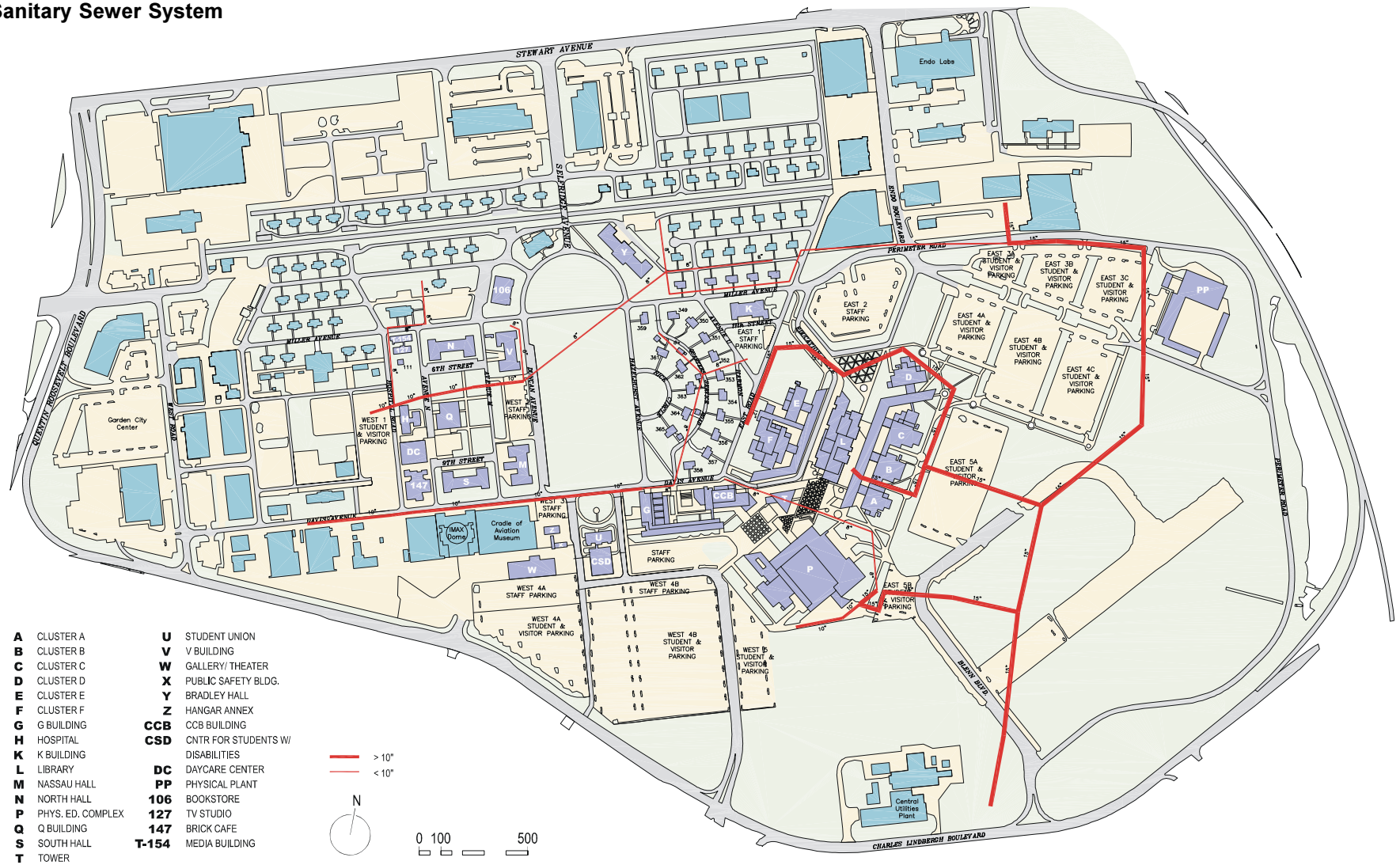
Sanitary Sewer System

There are two collection systems for sanitary sewers on the campus, both of which discharge to the Cedar Creek Wastewater Treatment Plant. The dividing line appears to be East Road. To the west of East Road, the 1930's buildings connect to a sewer 8 to 12 inches in size running west along Davis Avenue then south along Lindbergh Boulevard. To the east of East Road, the 1970's and 1980's buildings are connected to newer sewer collection laterals which run east to a collector main of 16 to 24 inches in size. This collector main runs south from the physical plant building to Lindbergh Boulevard just east of the Central Utilities Plant.

Many of the sanitary lines in the 1930's system are relatively old and constructed of 2-foot long sections of vitrified clay pipe with mortared joints. Over the years the joints have weakened, tree roots have gained access and exfiltration may be a concern. The capacity of these mains may have been compromised by roots and misalignment. A thorough jet wash cleaning and videotape record of the condition of these sewers may be indicated.

The newer sewers of the 1970's and 199e0's would be expected to be in better condition than the 1930's lines. However, a cleaning and videotape record of these sewers may also be warranted to locate any potential broken pipe or misaligned joints. There appears to be adequate capacity in both of the sanitary sewer systems for expansion at the campus into the foreseeable future.

Fig. II.11
Sanitary Sewer System



above: Meadow Brook Recharge Basin

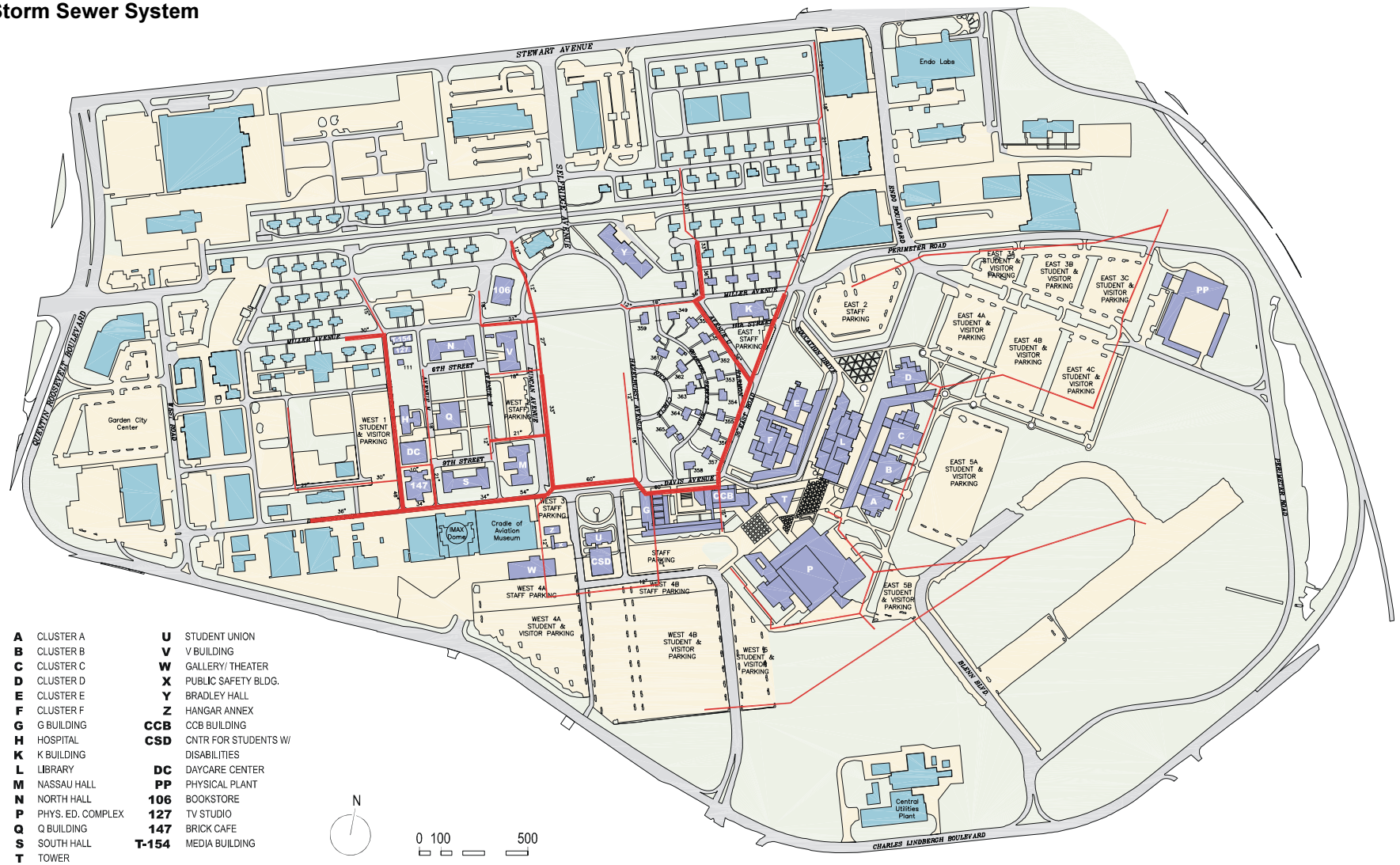
Storm Sewer System

The storm drainage system for the campus consists of catch basins, manholes and drainage pipes that drain to the Meadow Brook Recharge Basin located adjacent to the Meadow Brook Parkway at the eastern perimeter of the campus. The size of the drainage pipes from the 1930's portion of the campus range from 66 inches at Davis Avenue and East Road to 72 inches at the outfall into Meadow Brook Recharge Basin. This 72 inch drainage outfall discharges into the Hempstead Plain Wildlife Preserve, from which flow passes through culverts under the Perimeter Road to reach the Meadow Brook Basin. Another drainage line extends northerly along the 1970's Cluster buildings, crosses the North Parking Lot, connects to a lateral running east along Perimeter Road and discharges to the Meadow Brook Basin just north of the Physical Plant buildings.

In the original 1930's portion of the campus, various blind drywells were installed to facilitate recharge to the existing groundwater aquifers that serve as Long Island's primary water supply. Because access to these drywells is denied by covering fill, their ability to function cannot be determined. However, it is likely that, over the years, they have silted up and are effectively non-functional.

The Meadow Brook Recharge Basin was renovated in the early 1990's, with additional storage capacity and outlet control improvements. Based on the campus pipe sizes and the improvements at the Meadow Brook Basin, there appears to be adequate capacity in the storm water drainage system for expansion at the campus into the foreseeable future.

Fig. II.12
Storm Sewer System



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Natural Gas Distribution System

The campus has two separate natural gas supply systems. The 1930's buildings are supplied by a low pressure main. The following older buildings are supplied by this main: H Building, North Hall, V Building, M (Nassau) Hall, South Hall, the Brick Cafe (Building 147), the Greenhouse (Daycare Center), Q (Music) Building, and all 16 Campus Houses around Quarters Service Road. This system is maintained by the utility company, which repairs leaks. However, the mains are owned by the campus, and replacement would be their responsibility. Where pressure is too low in the main to meet requirements of building systems, a special booster pump device is required.

The 1970's and 1980's buildings are supplied by a high-pressure main system. This system supplies the Physical Plant building (with its attendant shops, garage and warehouses), the Cluster D (which feeds Clusters C, E, and F), the College Center Building (CCB), G Building, and the Student Union building. The Administrative Tower, Library, Physical Education, and Clusters A and B do not have gas service. During the construction of the Cradle of Aviation Museum, a high-pressure gas main was installed at the intersection of Davis Avenue at Hospital Road. This may be a convenient location for extending high-pressure service to the older buildings. There appears to be adequate capacity in the high-pressure natural gas supply system for expansion at the campus into the foreseeable future.

Heating And Cooling Systems

The 1930's buildings typically each have individual boilers and window air conditioners. These are powered by the low-pressure natural gas mains or the 5 kV electrical feeders. In both cases, these systems are becoming more and more unreliable.

The 1970's and 1990's buildings are served by high temperature hot water and chilled water feeder pipes from the Central Utilities Plant at Charles Lindbergh Boulevard. The system generally has been operating reliably and the mains have some capacity for expansion. The Air Museum was provided with a separate service main from Lindbergh Boulevard. In front of South Hall, this main has provided pipe stubs for hot and chilled water for future expansion. There appears to be adequate capacity in the hot and chilled water supply system for expansion at the campus into the foreseeable future.

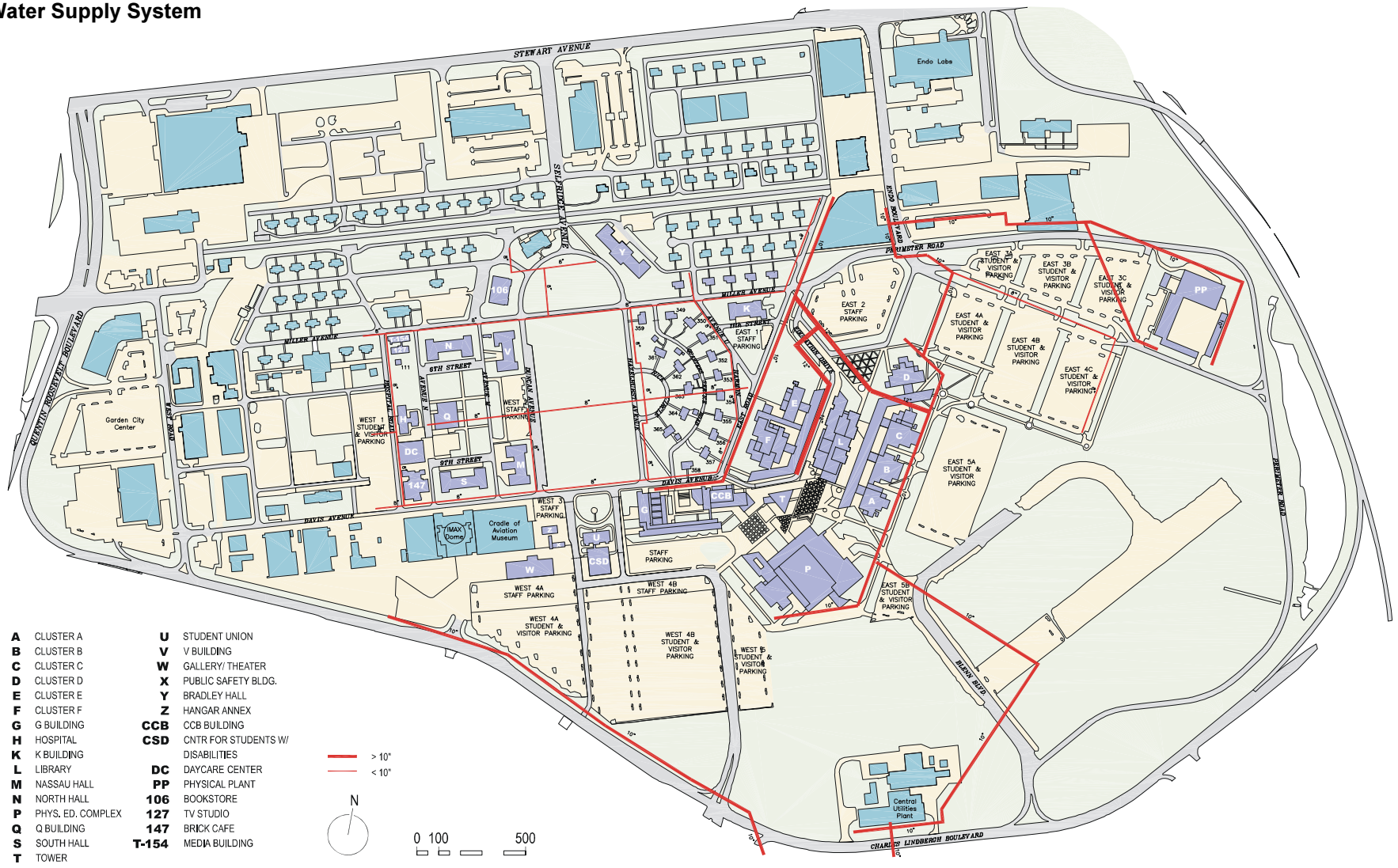
above: Fire hydrant at Miller Ave. and Hazelhurst Ave.

Water Supply System

The campus is supplied with water for domestic and fire use from two separate systems. The main supply system, which is normally open, comes from the north. This is a metered 16-inch main supplied by the Roosevelt Field Water District. On the south is another metered 16-inch main, that is normally closed, provided by the Uniondale Water District. The mains and hydrants throughout the campus are maintained by the Nassau County Department of Public Works to the curb valve. The campus is responsible for the service from the curb valve to the building.

The system has not experienced any significant functional problems or limitations. During the night, the static pressure is typically 85 psi, and during the day typically 65 psi. During summer months with irrigation and air conditioning demands, the system pressure has experienced operational spikes, but nothing serious. There appears to be adequate capacity in the water supply system for expansion at the campus into the foreseeable future.

Fig. II.13
Water Supply System



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F	CLUSTER F	**Z**	HANGAR ANNEX
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K	K BUILDING		DISABILITIES
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Q	Q BUILDING	**147**	BRICK CAFE
S	SOUTH HALL	**T-154**	MEDIA BUILDING
T	TOWER		

above: 1930's Signal Manhole at Davis Avenue and Quarters Service Road

Telecommunication Systems

The existing telecommunication systems conduits and duct banks were installed in different stages. In the 1930's, the U.S. Army installed most of the existing utilities to serve the original housing and administrative buildings of the Mitchel Field Air Base. The communications system consisted of underground ducts and manholes, which generally paralleled the original electrical duct system. When the cluster buildings were constructed in 1970's and 1980's, additional ducts were added for telephone, communications, fire alarm, and closed circuit television (CCTV). The campus has a TV studio to broadcast cable programs as part of the "Distance Learning" program.

In the newer construction around the cluster buildings, the telecommunication duct banks and manholes are adjacent and parallel to the medium voltage (13.8 kV) duct banks and manholes. In general, the duct banks consist of four conduits, two for telecommunication and fire alarm and two spare conduits.

Nassau County Community College owns the communications duct banks and the manholes. Verizon provides the telephone service and owns the cables. There are multi-pairs copper telephone cables, fiber optic cables, and coaxial cables. The telephones in the buildings are "Well Tel", which are dial tone type. The phones are owned by the campus and are connected through copper telephone pairs.

The Fire Alarm System is controlled from the Office Tower, and is connected to other buildings through fiber optic cable. At the Campus Houses around Quarters Service Road, fiber optic cables are hung overhead between buildings. From the telephone control box at each building, copper wire carries the internal communication system.

Based on interview information, the following buildings do not have fiber optic cable service and are connected with copper telephone pairs cables: Bradley, K Building, the Bookstore, Building 111, Building T-154, H Building, South Hall Theater, Building 147 (the Brick Cafe), and the Carpenter Shop.

The campus is about to embark on an upgrade to the entire telecommunications system. This will consist mostly of new head ends in each building that will be fed by the exisitng fiber optic system.

above: Manholes and overhead cables at Building 357

above: 5 kV Transformer Station on Quarters Service Road

below: 13.8 kV Transformer and Switchgear at Building G

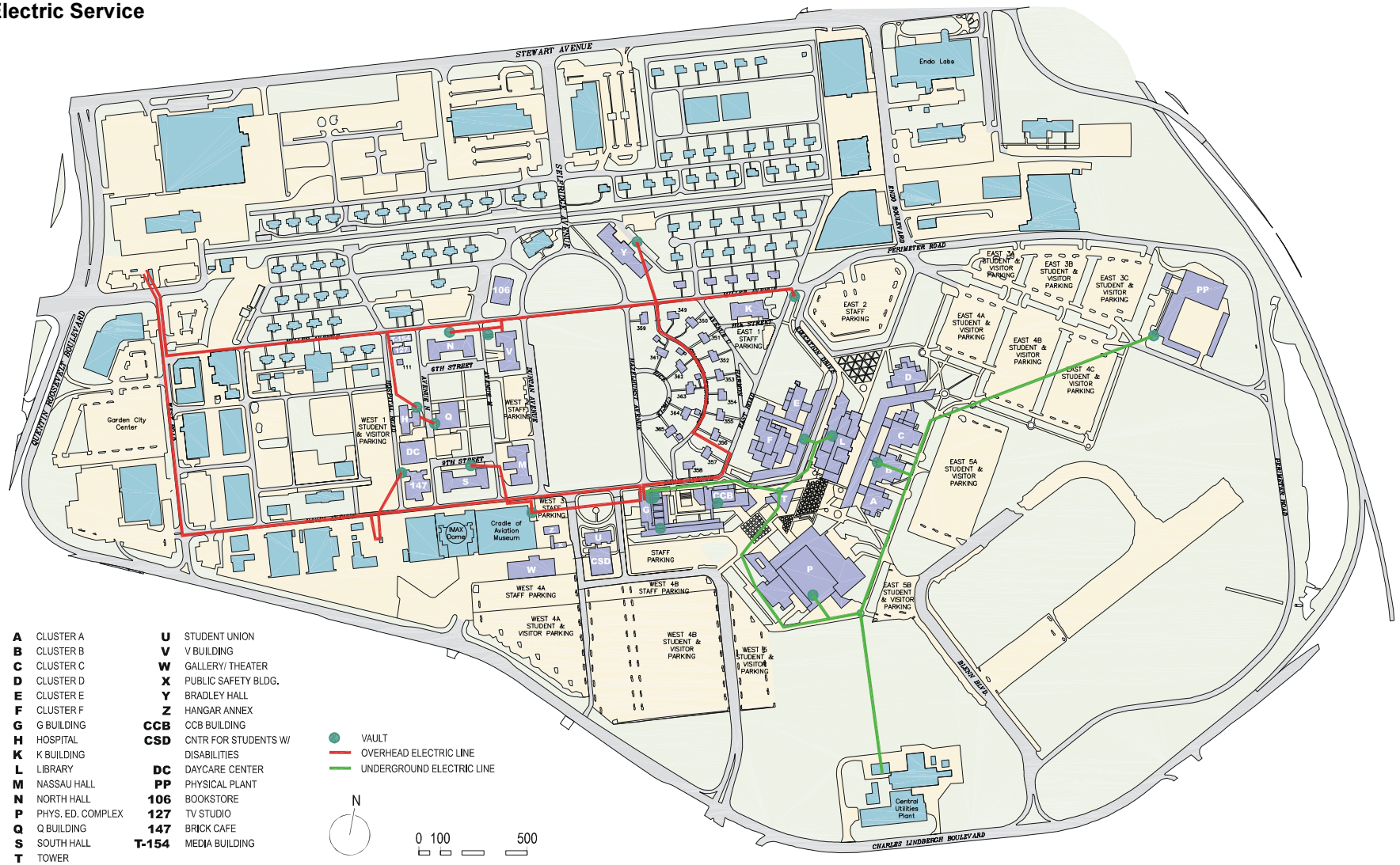
Electric Service

The Nassau County Community College is provided with electric service from the Long Island Power Authority (LIPA). The Nassau County Department of Public Works is responsible for operation and maintenance of four main medium voltage feeders, two 5 kV feeders and two 13.8 kV feeders.

The two 5 kV feeders originate at a metered switchgear station located on Commercial Avenue near West Road. These two feeders are 5 kV class, lead covered, oiled paper insulated cables. They run in underground conduit, one alongside Miller Avenue and the other alongside Davis Avenue. These two feeders were installed in 1930's and have a limited current-carrying capacity, and the feeder substation has experienced significant operational problems. Therefore, the 5 kV service is not currently being used and functions as a backup service only. Instead, the 5 kV feeders are served from a single 2500 kVA transformer and switchgear substation on concrete pads at the west side of Building "G". At this transformer, the 13.8 kV service from 2 feeders is transformed from 13.8 kV to 4160 V and distributed through manually operated switchgear to the 5 kV feeder cables. However, there is only one transformer, so if this is down the 5 kV feeders and all the buildings that they serve would be subject to the unreliable service from the 5 kV metered substation.

These 5 kV feeders supply substations, located throughout the 1930's portion of the campus, from which individual buildings are served. This 5 kV system generally feeds those campus buildings located between Hospital Road and East Road. However, other non-campus buildings are also fed from these feeders. Billing is pro-rated based on loads estimated from building areas. The 5 kV power for the housing on both sides of the Quarters Service Road is provided from to an existing transformer vault located in a small brick structure behind building 363. From this vault, power is supplied through a single phase, three wire, 208 volt cable to a manhole from which each building is individually supplied.

Fig. II.14
Electric Service



above: South Parking Lot Flood Lighting

below: Walkway Lighting Stanchion

The 13.8 kV feeders originate at a metered switchgear station in the Central Utility Plant located on Charles Lindbergh Boulevard at the south boundary of the campus. Power is fed through two 15 kV class feeder cables, each having three 500 kcmil conductors. The feeders are installed in duct banks with strategically placed manholes. This system directly supplies power to double ended substations in Clusters B, F, Library, Administrative Tower, CCB and Physical Education, and to a single transformer substation in the Physical Plant Building. A pad-mounted transformer located in the center of the North Parking Lot serves for lot lighting. Each of these substations transform the power from 13.8 kV to 480/277 volts. Within the buildings, 480/120-208 volt dry-type transformers are provided for internal distribution.

In the portion of the campus developed in 1980's, the street lighting is mainly provided with 25-foot high aluminum lampposts equipped with cobra-head luminaires, similar to standard lampposts and luminaires in most communities. Some of the walkways are provided with luminaires mounted on 15-feet high precast masonry stanchions. The North Parking Lot is provided with high mast poles equipped with multiple luminaires. The old taxiway pavement that is used as a parking area near the entrance from Charles Lindbergh Boulevard is provided with floodlights mounted on wooden poles.

There are two emergency generators on the campus to handle priority loads during a crisis. One is in the Tower building, which handles fire alarms, emergency lights, fire sprinkler and standpipe pumps and one elevator. The other is located in the CCB building to serve fire pumps.

That the campus is served by two separate systems of electrical distribution which cannot easily be switched one to the other presents several problems of operation and maintenance, especially during periods of high electrical demand. To assure a consistently reliable operating system, additional redundancy would be preferred. This could be achieved, as a minimum interim measure, by providing a backup transformer at building "G". More realistically, a value engineering analysis appears to be warranted to determine, in light of future campus requirements, whether the entire 5 kV feeder system effectively has reached the end of its useful life and should be replaced with a new 13.8 kV feeder system.

Outdoor Space

There are four general types of outdoor recreational space at NCC:

- large-scale open greenswards, open for active or passive recreation
- small-scale formal lawns, with restricted access
- paved courtyards for passive recreation
- paved transitional plazas for passive recreation and pedestrian flow

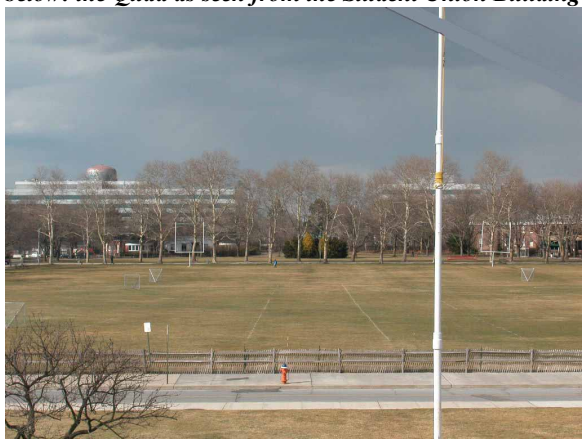
Open Greenwsards

There are three principal greenswards on campus. The Hempstead Plans are east of parking lot 5A and are almost all that remain of the Long Island Plains. These treeless fields at one time covered tens of thousands of acres on Long Island. Due in part to their open character and rich topsoil, they have largely succumb over the years to development, first as farmland and later as suburban residential neighborhoods. As a consequence, today less than 100 acres remain. The portion found on NCC's campus is administered by the Nature Conservancy and is home to federally endangered plants. The site is of particular use to the College's department of Biology, that uses this area for field study.

Adjacent to the Hempstead Plans are the current NCC athletic fields. At the present time they are used primarily for golf practice, as the majority of outdoor athletic facilities at NCC take place across Charles Lindbergh Boulevard at Mitchel Field. Athletic practice also takes place at the third and most prominent large green area on campus, the Academic Quadrangle, located at the heart of the campus. The Quad is at once formal and informal: able to be used for campus functions yet at the same time for soccer practice. Opinion is divided on campus with some believing access to this yard should be limited to passive recreation including concerts and campus functions. There are several groups on campus, however, who maintain that using this space for active recreation contributes to the sense of vitality of the NCC campus.

above: the Hempstead Plains

below: the Quad as seen from the Student Union Building



top left: courtyard adjacent to E Cluster
top right: south entry plaza
below: courtyard between CCB and G Buildings

Formal Lawns

There are presently two “formal lawns” at NCC: green spaces that act as forecourts to other buildings but not designed to receive pedestrian cross traffic. The most pleasant of these is the landscaped hemicycle enclosed by Rice Circle in front of the campus houses. Always well-tended and planted with a variety of decorative flowers and shrubs, this lawn makes an appropriate buffer between the large scale of the Quad and the more intimate scale of the campus houses and their surrounding lawns. The more prominent of these lawns can be found in front of the Student Union Building. Currently featuring little more than a flagpole, this lawn also serves the important role of transitioning from the grand scale of the Quad to the more diminuitive scale of the Student Union.

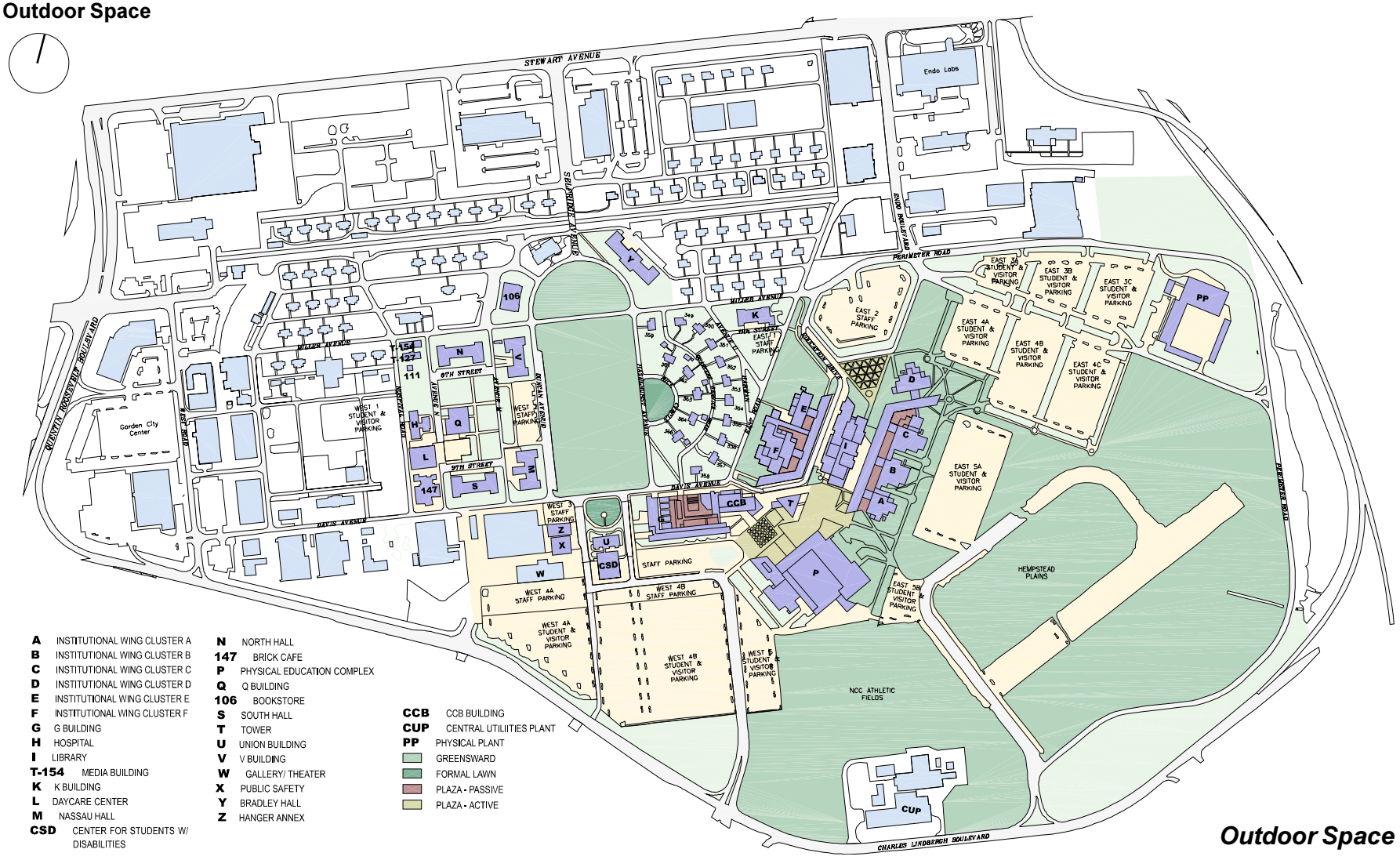
Paved Courtyards

The west portion of campus boasts a number of pleasant and well-maintained outdoor courtyards. Several of these punctuate the 1970’s building complex; a welcome relief to that megastructure’s concrete mass. Each has a formal conversation area set amid ground cover and may have been originally conceived as outdoor seminar areas. Another such plaza was built as part of the 1997 CCB/G building program. Located adjacent to the campus cafeteria, this space has the potential to serve as the campus “family room”.

Pedestrian Plazas

The west campus is also punctuated by a number of paved pedestrian plazas, in most cases ringed with seating. These relatively active zones mark significant points of arrival or transition and contribute significantly to the overall campus image. Perhaps the most pleasant of these is south of east parking lot 2, crisscrossed by shade trees set in a triangular grid. Similar in design, the south entry plaza south of the College Center Building welcomes visitors and students with a bosquet.

Fig. II.15
Outdoor Space



Summary: Master Plan Action Items

1930's Buildings

North and South Halls

- ● remedy ADA deficiencies including new ramps at front and rear entrances
- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone
- ○ extend HTHW and CW piping from current stub-outs north of the Cradle of Aviation
  - boilers will reach the ends of their useful lives within approximately 15 years
  - the chiller serving South Hall has outlived its useful life

M (Nassau) and V Buildings

- ● remedy ADA deficiencies starting with new ramps at front entrances
- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone
- ○ commission a study to evaluate the conditions of both buildings' facades, and consider options for repointing brickwork and repairing spalling structural concrete
- ○ extend HTHW and CW piping from current stub-outs north of the Cradle of Aviation
  - boilers and the chiller in M (Nassau) are at the ends of their useful lives
  - many spaces rely on window air-conditioning units

Bradley Hall

- ● repair spalling concrete at loggias
- ● remedy ADA deficiencies starting with wheelchair lifts at first floor
- ○ extend HTHW and CW piping either from current stub-outs north of the Cradle of Aviation or from Cluster Buildings
  - boilers have exceeded their useful lives
  - Bradley currently relies entirely on window air-conditioners

● *projects to be initiated in years one through six*
○ *projects to be initiated in years two through ten*

H (Hospital) Building

- ● remedy ADA deficiencies, beginning with new ramp at front entrance
- ● a study should be commissioned to evaluate the conditions of both buildings' facades, and consider options for repointing brickwork and water infiltration
- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone
- ○ extend HTHW and CW piping from current stub-outs north of the Cradle of Aviation
  - ▪ boilers have exceeded their useful lives

K Building

- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone

Student Union Building

- ● remedy ADA deficiencies, beginning with making front entrance accessible
- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone

Campus Houses

- ● upgrade electrical system so each house is capable of supporting 200 amps service through underground electrical conduit; install new underground telecom conduit at the same time (see "Campus Infrastructure")
- ● replace pad-mounted transformers serving this area of campus
- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone

● *projects to be initiated in years one through six*

○ *projects to be initiated in years two through ten*

1970's Buildings

Generally

- ● integrate electronic systems such as security and fire alarms into the campus data/telecom backbone
- ● install appropriate switchgear to allow the campus to be powered either by the LIPA grid or the Central Utilities Plant
- ●○ continue remedying ADA deficiencies, including reconfiguring bathrooms, replacing door and door hardware
- ○ perform an in-depth structural assessment looking for cracks in structural concrete to allow these to be monitored over time

Cluster Buildings A through F

- ● given the possibility of linking new construction to existing buildings, a study should be done of the existing foundations to evaluate underpinning that might be necessary to allow for adjacent construction
- ○ replace existing mechanical systems with either a contemporary VAV system or a combination system including new unit ventilators; exact replacement system to be determined during schematic design phase of renovation
- ○ replace current cladding system of double-glazed operable windows with brick or metal sandwich panel infill

Administration Tower and Plaza

- ● given the possibility of linking new construction to existing buildings, a study should be done of the existing foundations to evaluate underpinning that might be necessary to allow for adjacent construction
- ● repair spalling concrete underneath plaza and at outdoor seating area
- ○ replace elevator controls
- ○ replace current cladding system of double-glazed operable windows with brick or metal sandwich panel infill

● *projects to be initiated in years one through six*
○ *projects to be initiated in years two through ten*

"Temporary" and Metal Buildings

- ○ relocate performances out of the W Building and into appropriate performance space
- ○ relocate the Center for Students with Disabilities into appropriate permanent space
- ○ relocate art gallery from temporary building to permanent space
- ○ provide for new departmental space for the Music Department

● *projects to be initiated in years one through six*
○ *projects to be initiated in years two through ten*

Campus Infrastructure

- ● install connecting road between south parking lots, east parking lots 5A and 5B and east parking lots 3 and 4
- ● remove parking spaces immediately adjacent to air intake louvers, such as at W Building
- ● carry out jet wash cleaning of sanitary and storm sewer lines, including videotape recording of their subsurface conditions
- ● install underground telecom and electrical conduits serving the Campus Houses and the 1930's buildings of the West Campus
- ● to assure a reliable electrical service, install switchgear that will allow the entire campus to be powered from either the 5kV or 13.8kV feeder systems
- ○ install underground trenching and piping to deliver CW and HTHW from the stub-outs located north of the Cradle of Aviation to service the 1930's buildings of the West Campus

● *projects to be initiated in years one through six*
○ *projects to be initiated in years two through ten*

Introduction

The space assessment presents an overview of space and facility challenges which currently exist at Nassau Community College. These challenges were discussed and prioritized within the campus community and helped guide decision-making for project selection for the College's next five-year Capital Plan (2003-2008).

Program Development

The efficient use of capital funds in response to the College's mission, program direction, student growth projections and the facility age profile are the primary concerns and form the fundamental criteria in effective space planning. The numbers generated in the space assessment reveal the magnitude of space that is required to support program types and initiatives.

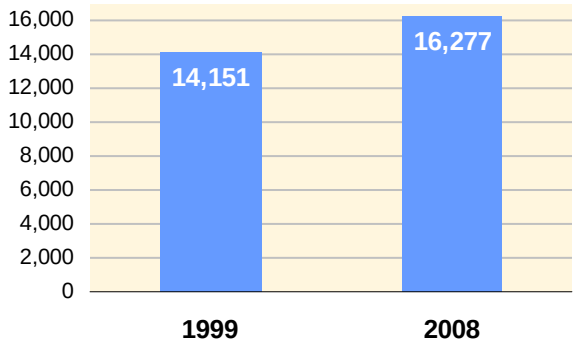
Identification and development of the College's space program was formatted and structured around information provided by the following sources:

- Interview process;
- Physical space inventory;
- Weekly Student Contact Hours/Faculty Counts/Support Space;
- Current and projected full-time equivalent students (FTEs);
- SUNY space guidelines and other national standards.

1. Interview Process

Development of the College's programmatic concepts began with a series of detailed discussions and group interviews conducted by the consultants. The consulting team met with several academic and nonacademic user groups, including the President, senior staff administrators, faculty chairs, support and auxiliary departments and other representatives to solicit ideas and recommendations regarding current physical plant conditions and future programmatic goals. During the course of the interviews, a number of topics were presented to encourage the groups to uncover and discuss specific needs or intended changes in programs that could affect future space requirements. Among these topics were campus mission and image, student/faculty services and amenities, special programs, programmatic initiatives, building maintenance and upkeep, technology, library services, athletics, teaching environments and site/land use.

Fig. III.1
Historical and Projected FTEs



2. Physical Space Inventory

The Physical Space Inventory, as maintained by the College, shows a total of 1,236,890 net square feet of building area (includes all assignable space plus nonassignable circulation and mechanical space). The numbers generated from the inventory are grouped together by function, and are meant for use in determining the amount of space required by a campus to support its mission and particular kinds of programs. It is important to note that throughout the Master Plan process, the College's inventory has been (and still is) undergoing revisions and updating.

3. Weekly Student Contact Hours/Faculty Counts/Secondary Components

Weekly student contact hours (generated by the College's Fall 2001 course schedule), faculty counts and secondary components (such as ancillary, staff and support space statistics) were provided by the College and were utilized in determining and calculating space need, both existing and future need.

4. Current and Projected FTEs

In accordance with the future 2003-2008 Capital Plan, the space analysis projects a need to 2008. The FTEs for 2001 were provided by the College's Office of Institutional Research and the projected FTEs for 2008 were provided by the programmers. The projections are categorized by department and discipline and reflect a mixture of growth consistent with the overall initiatives as expressed by the College.

Using fall 2001 as the base year, the enrollment shows an increase in student FTE growth from 14,151 in 2001 to 16,277 in fall 2008. This projection represents a 15% increase in FTEs over the long-term.

5. Space Guidelines

SUNY space guidelines provide a top/down allocation of space by college level. Applying top/down guidelines, however, do not always fit well and can be problematic, depending on factors

related to the structure of community colleges and issues relevant to each particular campus. Some of the general areas of divergence are:

- classroom space, because of the small section sizes of a community college, require a larger allocation of space per station than allocated by SUNY;
- computer labs, increasingly are utilized in the delivery of mathematics, English and other core courses, were never envisioned by the SUNY Guidelines;
- library space has been under continually re-evaluation this last decade has result in an American Library Association standard that is substantially less than the allocation provided by SUNY.

Even with these adjustments, the SUNY model remains fairly accurate in identifying the total aggregate space required by a community college. Refinements to the model are required primarily to allow for planning subtleties, which rather than being confined to the total space need must disaggregate the campus into smaller elements. Therefore, for the purposes of the Master Plan, an Alternate Assessment was prepared in order to provide, where necessary, adjustments to the College's total space need.

Unique characteristics also have an impact on the types of facilities that a College provides to its own students and, in the case of NCC, to the community it also serves. Unique factors that were considered when evaluating the space needs of NCC include:

- its standing as the largest community college in the State and one of the largest single-campus community colleges in the United States; a multi-ethnic and diverse student body;
- the high priority it places on small classes to provide an optimal educational environment;
- a broad range of educational and student support services; its community linkage and offerings of community-based programs.

The Alternate Assessment is presented on page 120 in a series of summary tables, broken down by major space category. Space shortages or overages are uncovered through numerical assessments, which determine, by applying a benchmark guideline, how much space should be allocated for a particular space type or function. These calculations provide the College with an understanding and a direction of how to better utilize its present space, what new square footage is needed and where the College is heading in the short and long terms. In some categories of the Alternate Assessment, SUNY space guidelines were applied. In other categories, the space evaluation utilizes other national standards or seeks to approximate the guidelines. In these cases, the campus must rely on the ability of the programming consultant to understand and apply the different needs of each department and to provide proper ancillary and support space necessary to sustain a function.

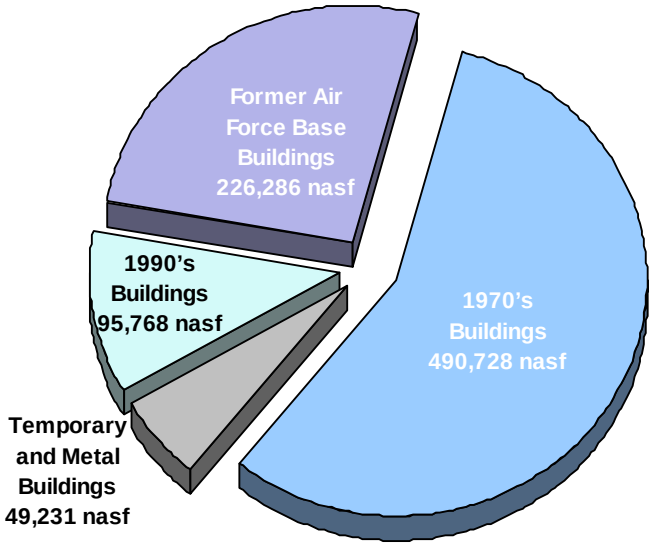


Table III.2: Campus Inventory as Outlined in the BCI	Net Assignable Square Feet	Net Square Footage	Gross Square Footage	NASF/ Gross Ratio
Former Air Force Base Buildings	**226,286**			
North Hall	24,544	43,765	44,515	55%
South Hall	25,786	42,351	44,654	58%
M (Nassau) Building	31,581	40,377	46,191	68%
V Building	21,451	35,740	46,191	46%
Bradley Hall	18,308	23,627	23,627	77%
H Building	11,267	18,726	21,217	53%
K Building (Hotel Mgmt.)	6,745	10,991	13,244	51%
Union Building (permanent portion)	6,746	16,412	18,053	37%
Brick Cafeteria (Bldg 147)	10,636	12,191	19,849	54%
Bookstore (Bldg 106)	8,878	9,773	10,646	83%
TV Studio (Bldg 127)	1,871	1,871	2,806	67%
Mortuary Science (Bldg 111)	557	557	625	89%
Houses: Residential	14,596	17,700	18,504	79%
Houses: Faculty and Staff Offices	43,320	53,100	55,512	78%
1970's Buildings	**490,728**			
Cluster A	29,122	43,670	51,600	56%
Cluster B	29,936	48,001	58,050	52%
Cluster C	34,469	50,554	60,200	57%
Cluster D	30,329	38,775	45,150	67%
Cluster E	24,518	37,849	45,000	54%
Cluster F	63,593	90,237	105,000	61%
Administrative Tower	38,127	67,305	97,000	39%
Library	76,125	104,749	115,000	66%
Physical Education	120,105	142,139	193,540	62%
Physical Plant	44,404	46,490	49,900	89%
Temporary and Metal Buildings	**49,231**			
Q Building (Music)	8,084	10,038	11,076	73%
Student Union (temporary portion)	10,033	10,710	11,781	85%
Day Care Center (Greenhouse)	10,550	11,408	12,720	83%
W Building (Theater and Gallery)	13,038	15,628	16,786	78%
Security Office	798	798	944	85%
Media (T-154)	2,087	2,303	2,688	78%
Z Building (Hangar Annex-Music)	2,404	5,128	9,800	25%
Theater Carpentry Shop	2,237	2,324	2,450	91%
1990's Buildings	**95,768**			
College Center Building (CCB)	37,998	69,637	85,000	45%
G Building	57,770	96,700	120,000	48%
Total	**862,013**	1,221,624	1,459,319	
Total as noted in Campus Physical Space Inventory	**838,732**	1,229,257		

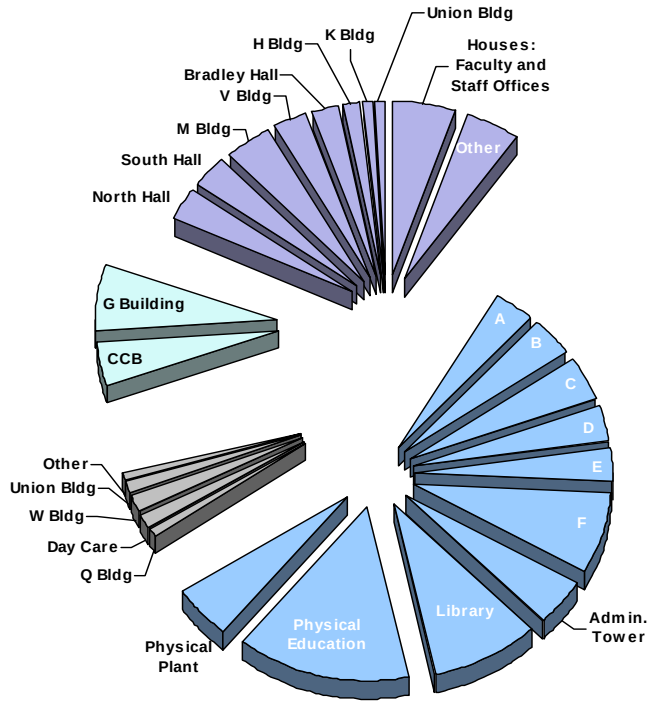
Note: Due to recent revisions, the net assignable and net square footages as listed in the Campus Physical Space Inventory differ from that in the SUNY BCI.

Existing Space: the Campus BCI and PSI

Table III.2 to the left lists all buildings in the NCC campus inventory according to the age categories set out in Section II of this report. Information tabulated includes the following:

- ***net assignable square footage (NASF)*** the total area of all spaces in a building occupied by program. This area does not include stairs, corridors or mechanincal spaces.
- ***net square footage (NSF)***, the total area of all program spaces within a building, plus the corridors, stairs and mechanical spaces.
- ***gross square footage (GSF)***, the total area of all floors of a building measured from outside face to outside face.
- ***NASF/Gross Ratio***, the number derived by dividing the space available in a building for program by the total gross area. This number can be used to measure a building's efficiency, or how well it fulfills an intended purpose.

The fragments to the right begin to look at the available NASFs graphically to show the relationships between the various buildings on campus.



SUNY Assessment of Overall Need

Table III.3 represents the SUNY overall assessment for existing and future space need. The table is broken down into the relevant SUNY space categories: classrooms/lecture, class lab, individual study lab, research, departmental offices, general and special use, health and physical education, electronic data processing, instructional resources, organized activity, public service, assembly and exhibition, library, student/faculty activity, student health services, general administration, central services, and building services.

Table III.3: SUNY Overall Assessment

	Existing Fall 2001	Need Fall 2001	Current Surplus/ (Deficit)	Need Fall 2008	Projected Surplus/ (Deficit)	Minus Temps	Need Fall 2008 Minus Temps	Projected Surplus/ (Deficit) Minus Temps
Summary								
Classrooms/Lecture	105,836 sf	103,260 sf	2,576 sf	117,070 sf	(11,234) sf	4,176 sf	121,246 sf	(15,410) sf
Class Lab	143,507 sf	160,371 sf	(16,864) sf	171,200 sf	(27,693) sf	0 sf	171,200 sf	(27,693) sf
Individual Study Lab	4,573 sf	7,224 sf	(2,651) sf	8,599 sf	(4,026) sf	0 sf	8,599 sf	(4,026) sf
Research	0 sf	0 sf	0 sf	0 sf	0 sf	0 sf	0 sf	0 sf
Departmental Office	104,690 sf	135,248 sf	(30,558) sf	149,071 sf	(44,381) sf	2,954 sf	152,025 sf	(47,335) sf
General & Special Use	3,120 sf	34,177 sf	(31,057) sf	37,647 sf	(34,527) sf	0 sf	37,647 sf	(34,527) sf
Subtotal Instructional Spa	**361,726 sf**	**440,280 sf**	**(78,554) sf**	**483,587 sf**	**(121,861) sf**	**7,130 sf**	**490,717 sf**	**(128,991) sf**
Public Service	12,660 sf	12,660 sf	0 sf	12,660 sf	0 sf	0 sf	12,660 sf	0 sf
Library	64,774 sf	104,630 sf	(39,856) sf	120,184 sf	(55,410) sf	0 sf	120,184 sf	(55,410) sf
Health & Physical Educatic	111,714 sf	75,000 sf	36,714 sf	75,000 sf	36,714 sf	0 sf	75,000 sf	36,714 sf
Electronic Data Processin(	14,226 sf	6,780 sf	7,446 sf	6,780 sf	7,446 sf	0 sf	6,780 sf	7,446 sf
Instructional Resources	11,011 sf	14,178 sf	(3,167) sf	14,178 sf	(3,167) sf	1,907 sf	16,085 sf	(5,074) sf
Organized Activity	0 sf	0 sf	0 sf	0 sf	0 sf	0 sf	0 sf	0 sf
Assembly & Exhibition	25,067 sf	19,150 sf	5,917 sf	19,150 sf	5,917 sf	17,160 sf	36,310 sf	(11,243) sf
Student/Faculty Activity	56,958 sf	148,586 sf	(91,628) sf	170,909 sf	(113,951) sf	10,682 sf	181,591 sf	(124,633) sf
Student Health Services	1,301 sf	4,500 sf	(3,199) sf	4,500 sf	(3,199) sf	0 sf	4,500 sf	(3,199) sf
General Administration	78,998 sf	84,906 sf	(5,908) sf	97,662 sf	(18,664) sf	9,873 sf	107,535 sf	(28,537) sf
Central Services	50,837 sf	23,154 sf	27,683 sf	23,154 sf	27,683 sf	267 sf	23,421 sf	27,416 sf
Building Services	17,812 sf	28,015 sf	(10,203) sf	30,833 sf	(13,021) sf	0 sf	30,833 sf	(13,021) sf
Inactive Space	33,650 sf	0 sf	33,650 sf	0 sf	0 sf	0 sf	0 sf	0 sf
Subtotal Support Space	**479,008 sf**	**521,558 sf**	**(42,550) sf**	**575,009 sf**	**(96,001) sf**	**39,889 sf**	**614,898 sf**	**(135,890) sf**
Total Space	**840,734 sf**	**961,838 sf**	**(121,104) sf**	**1,058,596 sf**	**(217,862) sf**	**47,019 sf**	**1,105,615 sf**	**(264,881) sf**
	14,151 FTEs	14,151 FTEs		16,277 FTEs			16,277 FTEs	
NASF per Student FTE	59 sf	68 sf		65 sf			68 sf	

Alternate Assessment of Space

Like the SUNY Assessment table, the first table of the Alternate Assessment summarizes all the major space categories and represents the overall need of the College. The subsequent columns represent the major categories individually.

- Space Existing as of Fall 2001 is the College's inventory, which contains a total amount of 840,735 net assignable square feet ("NASF"). This total, when divided by 14,151 FTEs, yields 59 NASF per FTE.

- Space Need for Fall 2001 represents the calculated totals that show the quantity of space required to support the current student, faculty and staff population. The calculated total of 984,161 NASF, when divided by 14,151 represents 70 NASF per FTE.

- The (Deficit/Surplus) columns represent (1) the difference between Space Existing Fall 2001 and Space Need 2001 and (2) the difference between Space Existing Fall 2001 and Space Need Fall 2008.

- Space Need Fall 2008, represents long-term need. The total of 1,104,038 NASF, when divided by 16,277, yields 68 NASF per FTE.

- One of the goals of the College is to eliminate temporary buildings. The last three columns of the Summary Table calculate the future need by backing out the square footage contained in temporary buildings (47,019 NASF). Elimination of these buildings will increase the College's future deficit from 263,303 NASF to 310,322 NASF.

Comparing the SUNY Overall Assessment future space need total of 1,105,615 NASF to the Alternative Overall Assessment future space need total of 1,151,057 NASF, a large portion of the difference in totals lies within the Health/Physical Education and Assembly & Exhibition categories. SUNY's current and future allocation of 75,000 NASF for Health/Physical Education space

Fig. III.4: Alternate Overall Assessment

	Existing Fall 2001	Need Fall 2001	Current Surplus/ (Deficit)	Need Fall 2008	Projected Surplus/ (Deficit)	Minus Temps	Need Fall 2008 Minus Temps	Projected Surplus/ (Deficit) Minus Temps
Summary								
Classrooms	105,836 sf	140,421 sf	(34,585) sf	146,674 sf	(40,838) sf	4,176 sf	150,850 sf	(45,014) sf
Computer Rooms	20,111 sf	25,319 sf	(5,208) sf	56,958 sf	(36,847) sf	0 sf	56,958 sf	(36,847) sf
Academic Departments	232,649 sf	310,419 sf	(77,770) sf	351,911 sf	(119,262) sf	2,954 sf	354,865 sf	(122,216) sf
Subtotal Instructional Space	**358,596 sf**	**476,159 sf**	**(117,563) sf**	**555,543 sf**	**(196,947) sf**	**7,130 sf**	562,673 sf	**(204,077) sf**
			0 sf					
Public Service	12,660 sf	16,066 sf	(3,406) sf	16,296 sf	(3,636) sf	0 sf	16,296 sf	(3,636) sf
Library	64,774 sf	84,214 sf	(19,440) sf	94,616 sf	(29,842) sf	0 sf	94,616 sf	(29,842) sf
Physical Education	111,714 sf	111,714 sf	0 sf	111,714 sf	0 sf	0 sf	111,714 sf	0 sf
Continuing Ed. & Community Svc.	9,465 sf	14,559 sf	(5,094) sf	15,346 sf	(5,881) sf	0 sf	15,346 sf	(5,881) sf
Supplemental Services	10,413 sf	9,604 sf	809 sf	11,490 sf	(1,077) sf	1,895 sf	13,385 sf	(2,972) sf
Assembly & Exhibition	25,067 sf	36,014 sf	(10,947) sf	36,014 sf	(10,947) sf	17,160 sf	53,174 sf	(28,107) sf
Student Faculty Services	58,259 sf	85,714 sf	(27,455) sf	103,169 sf	(44,910) sf	10,682 sf	113,851 sf	(55,592) sf
General Administration	62,251 sf	56,930 sf	5,321 sf	61,919 sf	332 sf	7,978 sf	69,897 sf	(7,646) sf
Technology Services	25,237 sf	27,087 sf	(1,850) sf	29,647 sf	(4,410) sf	1,907 sf	31,554 sf	(6,317) sf
Campus Services	68,649 sf	66,500 sf	2,150 sf	68,683 sf	(34) sf	267 sf	68,950 sf	(301) sf
Inactive Space	33,650 sf	0 sf	33,650 sf	0 sf		0 sf	0 sf	0 sf
Subtotal Support Space	**482,139 sf**	**508,402 sf**	(26,263) sf	**548,895 sf**	**(66,756) sf**	**39,889 sf**	**588,784 sf**	**(140,295) sf**
Total Space	**840,735 sf**	**984,561 sf**	**(143,826) sf**	**1,104,438 sf**	**(263,703) sf**	**47,019 sf**	**1,151,457 sf**	**(344,372) sf**
Student FTES	14,151 FTEs	14,151 FTEs		16,277 FTEs			16,277 FTEs	
Net Assignable per FTES	59 sf	70 sf		68 sf			71 sf	
SUNY Targets		961,701 sf		1,058,469 sf				
Student FTES		14,151 FTEs		16,277 FTEs				
Net Assignable per FTEs		68 sf		65 sf				

is based on college level and enrollment. With 111,714 NASF in physical education space existing on the campus, the space may be over the SUNY standard of 75,000, but the Alternate Assessment responds to the fact that the facility is already built and occupied and is not proposing a reallocation of any portion of the Phys. Ed. space to bring it within the SUNY standards. For Assembly & Exhibition space, with 25,067 NASF of existing space, the College is modestly outside the SUNY guideline of 19,150 (again, based on College level and population). The Alternate Assessment's allocation for future space is significantly higher than 19,150 because allocations in the Alternate Assessment include increases to the theater and recital hall to support the Performing Arts.

The variations between the existing and assessed NASF per FTEs illustrate the typical nature of assessment for any community college, as well as a four-year institution. All colleges have economies of scale. As the enrollment grows, the incremental operating costs and needed capital diminishes. This holds true whether comparing different institutions of varying enrollment or assessing at one College based on different enrollment projections. The end result is that even as enrollment increases, Nassau Community College will be able to accomplish more with fewer resources per student.

Summary of Classrooms and Computer Rooms

This category includes credit-bearing interdisciplinary teaching space in the form of: (1) classrooms/seminar rooms and classroom support, (2) lecture halls and lecture hall support and (3) instructional computer rooms.

Classrooms
The evaluation of student contact hours forms the principal element in evaluating NCC's instructional needs and is based on a simple formula:

Total Contact Hours x Average Station Size / Station Usage Goal.

Total Contact Hours*:* The total existing contact hours in classroom instruction is 180,760. The anticipated 2008 contact hour total is 188,809.

Average Station Size: SUNY assumes 16 NASF per station size per student. For a College like Nassau, however, where a high priority is placed on small classes, this would not be an accurate representation of classroom size. The Alternate Assessment, therefore, provides 22 NASF per station per student, which is in anticipation of more technology being integrated into the classroom facilities at the college. It also reflects a more appropriate station size to accommodate the College's average section sizes.

Station Usage Goal: The Alternate Assessment utilizes the SUNY classroom station usage goal, which is 28.32 contact hours per station per week. This number is the result of a calculation, which was originally based on 30 hours per week room schedule at 80% occupancy (30 x .80 = 24). The State Department of Budget modified the original standard of 24 contact hours per station by increasing it to the current 28.32 contact hours per station with the assumption that classrooms could be used in the evening and well as during the day.

180,760 contact hours x 22 NASF per station = 3,976,720
3,976,720/28.32 = 140,421 NASF current need in classroom space

Fig. III.5
Classroom Space: Projected Need

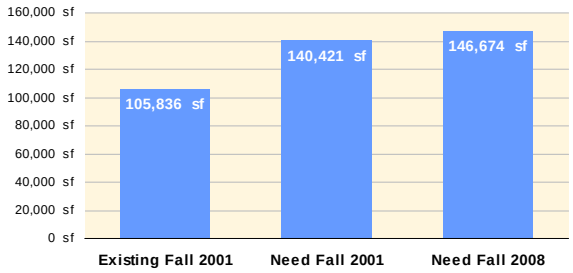
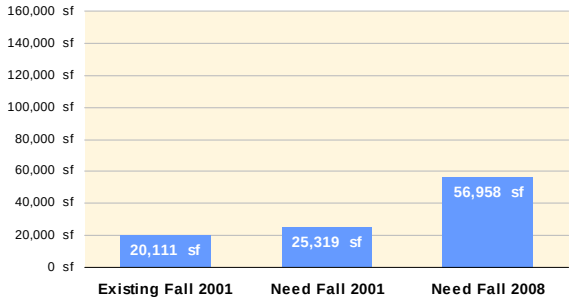


Fig. III.6
Computer Lab Space: Projected Need



The Alternate Assessment shows a current deficit in classroom space of 34%. This deficit will increase to 40% by 2008. The College is faced not only with a critical need to increase its classroom stock, but also to make improvements on its existing classroom space relative to technology.

Computer Rooms

The category includes all instructional computer rooms. The methodology used to calculate the College's computer lab needs is similar to that of the classroom space (total contact hours x average station size/station usage goal), but the factors used in the calculation vary slightly.

Total Contact Hours: The total existing contact hours in computer labs is 15,098. The anticipated 2008 contact hour total is 33,965.

Average Station Size: Obviously the station requirements for computer labs are larger than for general-purpose classrooms. The Alternate Assessment provides 38 NASF per station per student for computer labs.

Station Usage Goal: The Alternate Assessment utilizes the SUNY station lab usage goal, which is 22.66 contact hours per station per week. This number was based on scheduling a lab 24 hours per week at 80% occupancy (24 x .80 = 19.2). As with the classroom space usage, the 19.2 usage goal was revised upward to 22.66 by the Department of Budget.

15,098 contact hours x 36 NASF per station = 573,724
573,724/22.66 = 25,319 NASF current need in computer labs

With a total of 20,111 NASF in existing computer labs, the College currently has a 21% deficit in computer labs which will increase by 65% over the long term. New teaching delivery methods and trends in learning will continue to support the need for instruction to take place in computer environments.

The significant increase in the evaluation for computer rooms applies to programs that will need additional computer space to respond to enrollment increases, as well as programs that will be moving towards computer-enhanced instructional delivery, such as Mathematics (both algebra and calculus), Compositional English, Business Administration and even the Social Sciences. Suffolk Community College, for example, recently utilized the 1999 summer to retrain its faculty to deliver 85% of its Accounting courses in a computing environment.

Fig. III.7: Alternate Assessment Summary of Classrooms and Computer Rooms

Classrooms & Computer Rms.	Existing Fall 2001	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Classroom Space	105,836 sf	140,421 sf	(34,585) sf	146,674 sf	(40,838) sf
Total Weekly Student Contact Hours	180,760 sf	180,760 sf		188,809 sf	
Stations Required	3,737	4,958		5,179	
Student FTEs	14,151	14,151		16,277	
Square Feet per Student FTEs	7 sf	10 sf		9 sf	
Computer Lab Space	20,111 sf	25,319 sf	(5,208) sf	56,958 sf	(36,847) sf
Total Weekly Student Contact Hours	15,098 sf	15,098 sf		33,965 sf	
Stations Required	888	1,117		2,514	
Student FTEs	14,151	14,151		16,278	
Square Feet per Student FTEs	1 sf	2 sf		3 sf	
Total Classroom and Computer Lab Space	**125,947 sf**	**165,740 sf**	**(39,793) sf**	**203,632 sf**	**(77,685) sf**

Classroom Use and Utilization

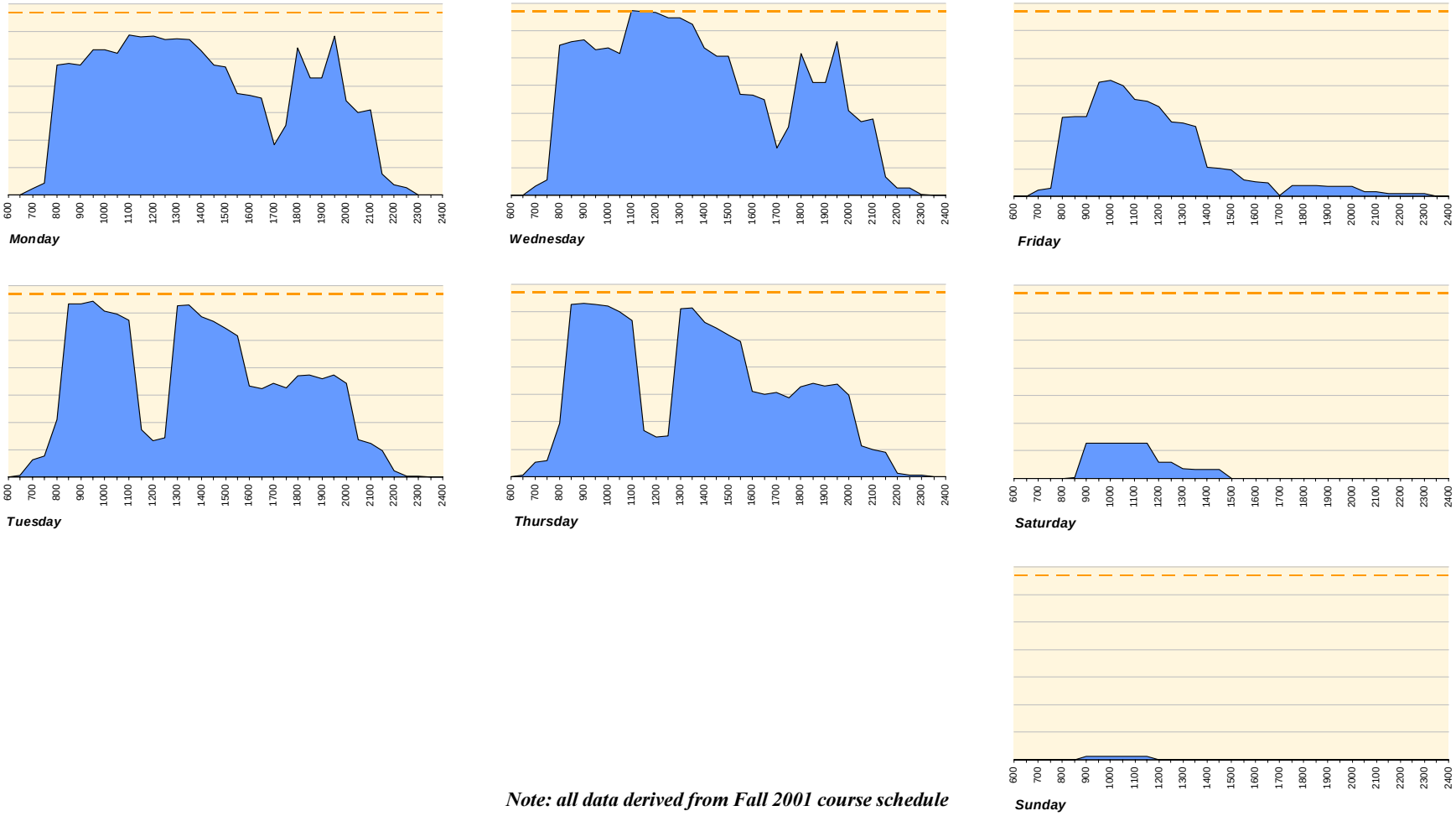
Given the tremendous need evidenced for instructional space, the time frame with which that wave of need will arrive on campus, and the length of time required before any new space will be constructed, it is essential the College seek to maximize use of its existing stock of classrooms and lecture spaces. The diagrams in Fig. III.8 to the right imply a number of suggestions that should be explored during the master plan process. In each, the dashed bar indicates a the maximum usage experienced at any one time including classrooms, laboratories and seminar rooms. For obvious reasons, this peak load cannot be maintained across the course schedule. However, compared one against the other some important conclusions can be drawn about when this instructional space is most used across any given week and they begin to suggest alternate ways to get more use out of the existing campus inventory.

First and foremost is the possibility of drawing students to classes offered on Friday, Saturday or Sunday. Given the peak load experienced Monday and Wednesday mornings, the College would benefit from every student switched from a Monday-Wednesday schedule to Monday-Friday or zWednesday-Friday. Class sections that otherwise might be dropped for under-enrollment might be retained if they relieve some of this Monday-Wednesday surge. Consideration should also be given to programs organized around Friday, Saturday and Sunday classes, that would also allow students to take on part-time jobs during prime weekday hours.

Secondly, given the time it may take to build a new classroom building, the College may set up an interdisciplinary scheduling infrastructure that can coordinate departmental space sharing. While interviewees stressed the importance of each Department being fully in control of their own space, this was largely due to the difficulty of coordinating schedules and of maintenance.

A list of priorities should be compiled, so stakeholders can have control over what may be difficult choices. For example, the charts demonstrate the commitment made to Club Hour as a free time for students to explore their interests. The College will have the best chance of maintaining such important policies by maximizing utilization of the campus' existing building stock.

Fig. III.8: Classroom Use by Weekday



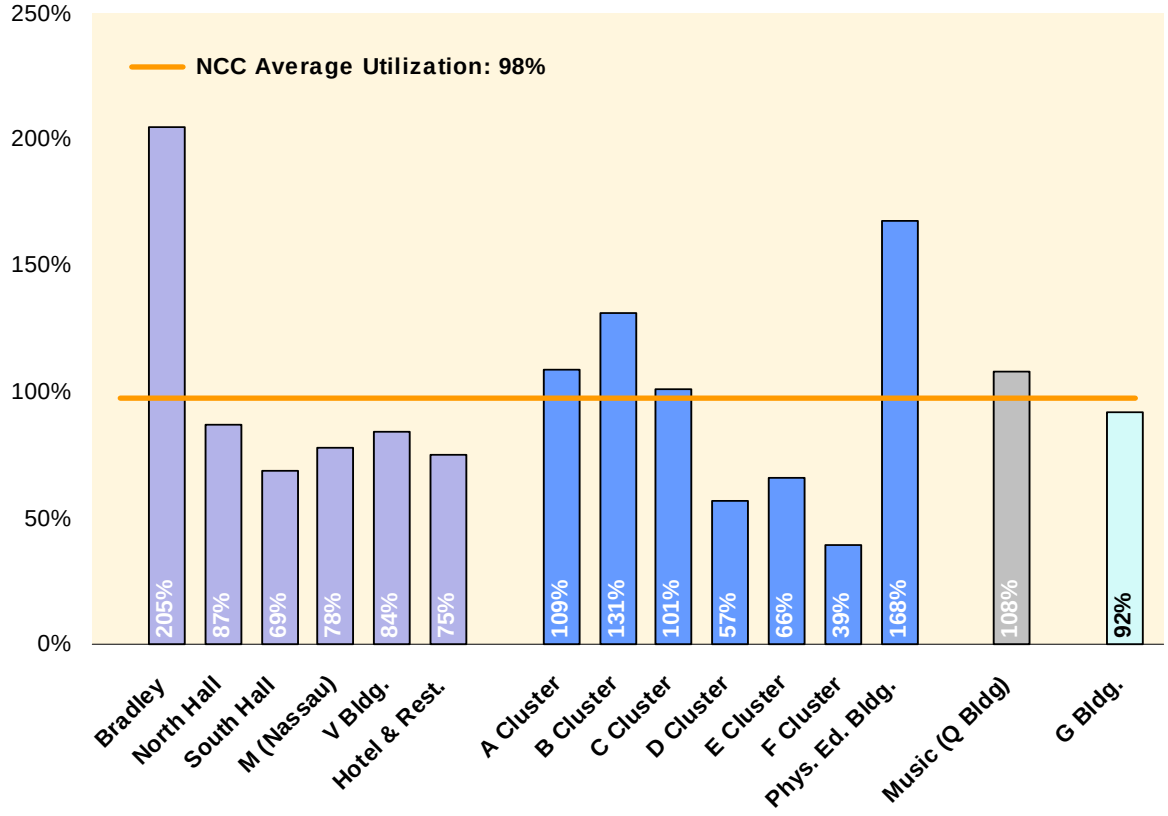
Note: all data derived from Fall 2001 course schedule

Figure III.9 to the right indicates classroom utilization as measured against SUNY standards. As has been mentioned earlier (p. 121) the SUNY classroom station utilization goal is based on a classroom utilization rate of 80%. Nassau far exceeds this with a higher than 98% utilization averaged across all classrooms. More importantly, we see that certain buildings, particuarly Clusters A through C, peak out at over 100%. The clearest message this diagram sends is that there a great need for additional instructional space on campus. There are several more subtle signals as well.

Isolated buildings, such as Bradley Hall, the Music (Q) Building and the Phys. Ed. Building tend to have higher rates than average, largely in an effort to keep instructional space together near faculty offices. This underscores the fact that building a single new dedicated instructional building will not necessarily solve this problem of classroom utilization. While a great number of new classrooms and seminar rooms must be brought online, it will also be important to find ways to foster closer relationships between these buildings and their neighbors, for example between Bradley and K Buildings or between the Gym and the adjacent Clusters. An important long-term goal must include knitting the currently disparate buildings together, for functional as well as aesthetic reasons.

A closer look at the base data for this utilization reveals that the NCC average utilization would be even higher, were it not for two reasons. First, most classrooms at NCC are oversized given the actual classes that meet there. There area an average of about 37 stations per classroom (including lecture halls) while actual class size averages closer to 17 students, or just under 46% occupancy. Applying the standard for such occupancy rates of about 80%, each class at NCC should accommodate closer to 25 students, on average. The other factor affecting utilization rates is that there are several conference rooms and other departmental support spaces have been drafted into service as classrooms and seminar rooms. While these rooms may only be used once or twice a week, they nonetheless now show up as classrooms; the resultant single digit utilization rates skew the overall utilization rate.

Fig. III.9
Classroom Utilization by Building



Summary of Individual Academic Departments

For the instructional departments, space allocation is based on dedicated space, faculty counts and growth rates, support staff and support space. For those disciplines that have lab components, there is a provision for lab space. This provision is based on each department's relative growth rate and the amount of contact hours that will be occurring in labs. For those disciplines that do not have lab contact hours, there is no provision for laboratory space. Based on higher education inventory guidelines, intradepartmental circulation is also net assignable.

Also identified in the evaluation is the current full-time faculty, along with teaching adjuncts. Faculty count is utilized for generating faculty office space. The existing faculty offices at the College vary in size and number of stations. In order to provide consistency in projected office size, the evaluation uses the suggested SUNY guideline size of 120 NASF per faculty office (with 180 NASF for Department Chairs).

The assessment for current and future space need among the academic departments shows fluctuating amounts of deficits—some significant—that respond to the need for additional faculty office space, as well as instructional space for those programs that are projected to grow and will require additional lab space.

Table III.10: Alternate Assessment Summary of Academic Departments

Academic Departments	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Accounting & Business Admin.	3,925 sf	7,020 sf	(3,095) sf	7,660 sf	(3,735) sf
African-American Studies	1,442 sf	860 sf	582 sf	900 sf	542 sf
Allied Health Sciences	19,053 sf	30,534 sf	(11,481) sf	33,394 sf	(14,341) sf
Art	20,055 sf	24,052 sf	(3,997) sf	28,336 sf	(8,281) sf
Biology	30,685 sf	32,158 sf	(1,473) sf	36,598 sf	(5,913) sf
Chemistry	13,491 sf	12,085 sf	1,406 sf	13,015 sf	476 sf
Communications	4,207 sf	9,695 sf	(5,488) sf	10,095 sf	(5,888) sf
Criminal Justice	1,430 sf	3,710 sf	(2,280) sf	3,950 sf	(2,520) sf
Dean of Instruction	0 sf	280 sf	(280) sf	320 sf	(320) sf
Economics	1,874 sf	3,164 sf	(1,290) sf	3,404 sf	(1,530) sf
Engineering , Physics & Tech.	22,766 sf	16,484 sf	6,282 sf	18,128 sf	4,638 sf
English	17,138 sf	22,339 sf	(5,201) sf	24,739 sf	(7,601) sf
Foreign Languages	3,480 sf	4,772 sf	(1,292) sf	5,012 sf	(1,532) sf
Health & Physical Education	3,989 sf	5,410 sf	(1,421) sf	5,930 sf	(1,941) sf
History & Political Science	2,839 sf	3,430 sf	(591) sf	3,790 sf	(951) sf
Hotel & Restaurant Technology	3,987 sf	8,494 sf	(4,507) sf	8,654 sf	(4,667) sf
Legal Studies	1,385 sf	1,940 sf	(555) sf	1,980 sf	(595) sf
Library (considered elsewhere)					
Marketing & Retailing	9,263 sf	10,288 sf	(1,025) sf	16,345 sf	(7,082) sf
Math, Statistics & Comp. Prog.	12,031 sf	21,694 sf	(9,663) sf	24,174 sf	(12,143) sf
Mortuary Science	2,510 sf	3,533 sf	(1,023) sf	3,693 sf	(1,183) sf
Music	5,238 sf	10,915 sf	(5,677) sf	11,875 sf	(6,637) sf
Nursing	5,270 sf	11,742 sf	(6,472) sf	13,786 sf	(8,516) sf
Office Technologies	3,705 sf	4,220 sf	(515) sf	4,340 sf	(635) sf
Philosophy	1,396 sf	1,360 sf	36 sf	1,520 sf	(124) sf
Physical Sciences	13,769 sf	17,360 sf	(3,591) sf	19,320 sf	(5,551) sf
Psychology	2,788 sf	6,860 sf	(4,072) sf	7,460 sf	(4,672) sf
Reading	12,556 sf	19,039 sf	(6,483) sf	21,599 sf	(9,043) sf
Sociology	3,551 sf	2,960 sf	591 sf	3,280 sf	271 sf
Student Personnel Services (considered elsewhere)					
Theatre & Dance	2,314 sf	7,510 sf	(5,196) sf	11,615 sf	(9,301) sf
Total	**226,137 sf**	**303,907 sf**	**(77,770) sf**	**344,912 sf**	**(118,775) sf**

* Numbers for existing space relating to particular departments are preliminary and need to be confirmed.

Remaining Categories in the Alternate Assessment

The remaining categories are summarized below. The space allocated for each of the functions was based on existing space and how much space and staff is needed to support each particular program. The allocations fall within the suggested guidelines for staff (240, 180, 160, 120 and 80 NASF, depending on staff level).

Summary of Public Service

Many colleges host a variety of programs that are grant sponsored and supported by local municipalities, the State or the Federal Government. Sometimes these programs have an internal focus, providing necessary services to the college's students. Other times they have an external focus, supporting the community in which the college is located. The space needs for public service are primarily offices and include functions that do not provide continuing education.

The Alternate Assessment recognizes and responds to these functions and allocates a future total of 16,296 NASF, should the College wish to provide a modest improvement in the quantity of space that is currently available for its public service programs.

Table III.11: Alternate Assessment Summary of Public Service

Public Service	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
ATM Machine	169 sf	169 sf	0 sf	169 sf	0 sf
Gear Up/Liberty Partnership	1,306 sf	874 sf	432 sf	1,058 sf	248 sf
NYPIRG	400 sf	414 sf	(14) sf	414 sf	(14) sf
Police Academy	10,785 sf	11,565 sf	(780) sf	11,565 sf	(780) sf
Subtotal	12,660 sf	13,022 sf	(362) sf	13,037 sf	(546) sf
Contingency 25% (Undefined Growth)		3,256 sf		3,259 sf	
Total	**12,660 sf**	**16,278 sf**	**(3,618) sf**	**16,296 sf**	**(3,636) sf**
SUNY Space Allocation		12,660 sf		12,660 sf	

* Numbers for existing space are preliminary and need to be confirmed.

Summary of the Library

Library space includes: (1) reading and study rooms, study stations, study booths and similar rooms that are intended for general study purposes; (2) stack space; (3) processing rooms; (4) administrative space; and (5) study support, such as archival rooms.

The Library space assessment for NCC is consistent with ALA Standards and is based on providing adequate support spaces (for staff); housing the collection (by utilizing a per volume allocation); and seating (based on a seating count relative to total FTEs). The SUNY evaluation, in comparison to the ALA methodology, assesses more space for reading and study rooms.

The assessment shows a future need of 29,842 NASF for additional space and focuses primarily on seating arrangements and space to support learning resources. Different types of seating arrangements include individual study carrels, group seating for quiet reading space, computer workstations and microform reader stations.

Table III.12:. Alternate Assessment Summary of the Library

Library	Existing Fall 2001	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Library	64,774 sf	84,214 sf	(19,440) sf	94,616 sf	(29,842) sf
Total	**64,774 sf**	**84,214 sf**	**(19,440) sf**	**94,616 sf**	**(29,842) sf**
Student FTE		14,151 FTEs		16,277 FTEs	
SUNY Space Allocation		104,630 sf		120,184 sf	

* Breakdown of existing seat totals needs to be confirmed.

Summary of Physical Education

The assessment for physical education space is based only on existing indoor facilities. Space assessments and proposed projects that relate to outdoor athletic areas, should the College wish to pursue them, will be evaluated separately and are not part of this assessment.

The College's inventory shows a total of 111,714 NASF in existing physical education space. A more detailed evaluation of major facilities, support space and offices will require further identification and verification of existing space.

Fig. III.13: Alternate Assessment Summary of Health/Physical Education

Health/Physical Education	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Offices					
Major Facilities	105,020 sf	104,740 sf	280 sf	104,740 sf	280 sf
Support	6,694 sf	6,658 sf	36 sf	6,658 sf	36 sf
Total	**111,714 sf**	**111,398 sf**	**316 sf**	**111,398 sf**	**316 sf**
Student FTE		14,151 FTEs		16,277 FTEs	
SUNY Space Allocation		75,000 sf		75,000 sf	

* Numbers for existing space are preliminary and need to be confirmed.

Summary of Continuing Education and Community Service

This category includes office and instructional space to support the programs that comprise the Continuing Education Department. For current and future space, the evaluation allocates a contingency of 25% to support the Continuing Education and Community Service programs.

Fig. III.14: Alternate Assessment Summary of Continuing Education & Community Service

Continuing Education & Community Service	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
College of the Air	2,429 sf	2,516 sf	(87) sf	2,686 sf	(257) sf
Continuing Ed. Ofc. of the Dean	2,133 sf	2,093 sf	40 sf	2,093 sf	40 sf
Corporate Credit Program	1,231 sf	771 sf	461 sf	771 sf	461 sf
Drinking Drivers Program	162 sf	633 sf	(471) sf	633 sf	(471) sf
ELI	3,130 sf	5,083 sf	(1,953) sf	5,543 sf	(2,413) sf
Office of Special Programs	380 sf	552 sf	(172) sf	552 sf	(172) sf
Subtotal	9,465 sf	11,647 sf	(2,182) sf	12,277 sf	(2,812) sf
Contingency 25%		2,912 sf		3,069 sf	
Total	**9,465 sf**	**14,559 sf**	**(5,094) sf**	**15,346 sf**	**(5,881) sf**

* Numbers for existing space are preliminary and need to be confirmed.

Summary of Supplemental Student Services

Included in this category are special programs that are student-based. These include the counseling components of student personnel services, such the Adult Resource Center, Career Counseling, Center for Students with Disabilities, Educational Counseling, International Education and Travel, Job Placement, Psychological Counseling, Transfer Office and the Women's Center.

Fig. III.15: Alternate Assessment Summary of Supplemental Student Services

Supplemental Student Services	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Adult Resource Center	1,779 sf	1,001 sf	778 sf	1,047 sf	732 sf
Career Counseling	1,310 sf	1,277 sf	33 sf	1,323 sf	(13) sf
Center for Students with Disabilities	2,087 sf	1,196 sf	891 sf	2,300 sf	(213) sf
Educational Counseling	1,232 sf	1,196 sf	36 sf	1,334 sf	(102) sf
International Education and Travel	180 sf	280 sf	(100) sf	280 sf	(100) sf
Job Placement	724 sf	1,573 sf	(849) sf	1,803 sf	(1,079) sf
Psychological Counseling	903 sf	1,093 sf	(190) sf	1,093 sf	(190) sf
Transfer Office	1,009 sf	1,047 sf	(38) sf	1,369 sf	(360) sf
Women's Center	1,189 sf	943 sf	246 sf	943 sf	246 sf
Total	**10,413 sf**	**9,606 sf**	**807 sf**	**11,492 sf**	**(1,079) sf**
Student FTEs		14,151 FTEs		16,277 FTEs	
Square Feet per Student FTEs		0.7 sf		0.7 sf	

* Existing space totals for all departments need to be confirmed.

Summary of Assembly & Exhibition

Assembly & Exhibition space includes theatres, auditoriums, concert halls, arenas and gathering rooms for general use by the College and/or the public. Seating areas, stages, and ancillary services are included in this category. Assembly facilities may also serve instructional purposes to a minor or incidental extent. Exhibition space includes galleries, museums, seating and support spaces that serve as an extension to the exhibition space.

The evaluation allocates modest increases to the art gallery and main theatre, and an increase for a recital hall and theater.

Fig.III.16: Alternate Assessment Summary of Assembly & Exhibition

Assembly & Exhibition	Existing Fall 2001	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Art Galllery	3,004 sf	3,868 sf	(864) sf	3,868 sf	(864) sf
Ballroom (Music Bldg.)	4,047 sf	7,350 sf	(3,303) sf	7,350 sf	(3,303) sf
CCB Conference Rooms	1,068 sf	1,068 sf	0 sf	1,068 sf	0 sf
Center Room (K Bldg.)	531 sf	351 sf	180 sf	351 sf	180 sf
Little Theatre	1,600 sf	1,600 sf	0 sf	1,600 sf	0 sf
Main Theatre	8,509 sf	15,405 sf	(6,896) sf	15,405 sf	(6,896) sf
Multi-Purpose Room	4,410 sf	4,074 sf	336 sf	4,074 sf	336 sf
Public Conference Rms (Tower)	1,898 sf	1,898 sf	0 sf	1,898 sf	0 sf
Total	**25,067 sf**	**35,614 sf**	**(10,547) sf**	**35,614 sf**	**(10,547) sf**
Student FTE		14,151 FTEs		16,277 FTEs	
SUNY Space Allocation		19,150 sf		19,150 sf	

Student/Faculty Services

SUNY bases its space allocation for student services on a guideline factor of 10.5 NASF per FTEs. However, depending on the particular needs of an institution, the calculations can vary and are based on current college activities and the space that is needed to adequately support those functions. Guidelines for student activities are nonspecific and the distribution of space is left up to the College. Thus, the College can use its discretion and place value judgments when planning these types of spaces because they represent space that an institution wants to provide rather than space that an institution has to provide.

Student/faculty services covers a broad range of functions. Amenities considered in this category include dining and ancillary food facilities; student lounges, recreation or game rooms; meeting rooms, health services (infirmary and health services administration); student organizations and clubs; merchandising space (bookstore, etc.) child care centers and appropriate staff and support space for an activities or student programs office.

The Alternate Assessment shows a current deficit of 27,455 NASF and a future deficit of 44,910 NASF. The bulk of the deficit is nested in food service and student/faculty lounge space and is in response to the current lack of student amenities and a projected growth in enrollment both of which will have an impact on functions such as dining facilities and student/faculty gathering areas.

Fig. III.17: Alternate Assessment Summary of Student/Faculty Services

Student/Activity Services	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Bookstore	8,692 sf	8,692 sf	0 sf	8,692 sf	0 sf
Child Care Center	10,412 sf	11,363 sf	(951) sf	12,207 sf	(1,795) sf
Clubs & Organizations	4,851 sf	7,075 sf	(2,224) sf	8,138 sf	(3,287) sf
Faculty/Student Association	2,794 sf	2,794 sf	0 sf	2,794 sf	0 sf
Food Service	14,801 sf	17,828 sf	(3,027) sf	26,940 sf	(12,139) sf
Health Services	1,301 sf	2,047 sf	(746) sf	2,231 sf	(930) sf
Meeting Space	1,997 sf	2,000 sf	(3) sf	4,000 sf	(2,003) sf
Office of Student Activities	5,613 sf	5,613 sf	0 sf	5,613 sf	0 sf
Student & Faculty Lounge Spa	7,798 sf	28,302 sf	(20,504) sf	32,554 sf	(24,756) sf
Total	**58,259 sf**	**85,714 sf**	**(27,455) sf**	**103,169 sf**	**(44,910) sf**
Student FTE		14,151 FTEs		16,212 FTEs	
SUNY Space Allocation		148,586 sf		170,909 sf	

* Numbers for existing space are preliminary and need to be confirmed.

General Administration

General Administration includes spaces dedicated to professional staff, such as the President, Vice Presidents, Deans and Executive Administrators, and operational functions such as Admissions, Bursar, Financial Aid, Registrar, Institutional Research, College Relations, Personnel, Budget, Procurement and all technical and clerical staff (as well as ancillary space) to support the administrative functions.

The assessment shows fluctuating amounts of modest surpluses and a few deficits within the administrative offices and recommends an aggregated future total of 61,922 NASF.

Fig. III.18. Alternate Assessment Summary of General Administration

General Administration	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Academic Advisement	3,662 sf	2,915 sf	747 sf	3,434 sf	228 sf
Academic Affairs	884 sf	874 sf	10 sf	874 sf	10 sf
Accounts Payable	2,362 sf	1,994 sf	368 sf	2,797 sf	(435) sf
Admissions	3,519 sf	3,379 sf	140 sf	3,623 sf	(104) sf
Affirmative Action	655 sf	702 sf	(47) sf	840 sf	(185) sf
Budget	1,647 sf	2,093 sf	(446) sf	2,760 sf	(1,113) sf
Bursar	3,933 sf	3,489 sf	444 sf	3,782 sf	151 sf
College Administration Archive	5,481 sf	5,481 sf	0 sf	5,481 sf	0 sf
College Relations	2,043 sf	1,645 sf	398 sf	1,553 sf	490 sf
College Services	3,708 sf	3,708 sf	0 sf	3,708 sf	0 sf
CSEA Office	220 sf	220 sf	0 sf	220 sf	0 sf
Dean of Instruction	3,221 sf	2,657 sf	565 sf	2,657 sf	565 sf
External and Legal Affairs	738 sf	897 sf	(159) sf	1,196 sf	(458) sf
Facilities Management	1,953 sf	1,300 sf	653 sf	1,231 sf	722 sf
Financial Aid	2,499 sf	2,596 sf	(97) sf	2,879 sf	(380) sf
Institutional Grants	216 sf	506 sf	(290) sf	437 sf	(221) sf
Institutional Research	1,953 sf	1,921 sf	33 sf	2,381 sf	(428) sf
Multicultural Resource Center	416 sf	840 sf	(424) sf	840 sf	(424) sf
Payroll	790 sf	921 sf	(131) sf	1,201 sf	(411) sf
Personnel/Labor Relations	2,709 sf	2,749 sf	(40) sf	2,933 sf	(224) sf
Placement & Testing	4,316 sf	3,547 sf	769 sf	3,946 sf	370 sf
President's Office	2,792 sf	2,553 sf	239 sf	2,553 sf	239 sf
Procurement	3,707 sf	3,013 sf	694 sf	3,519 sf	188 sf
Registrar	4,907 sf	3,988 sf	919 sf	4,272 sf	635 sf
VP Admin./Operations	770 sf	621 sf	149 sf	621 sf	149 sf
VP Finance	1,131 sf	621 sf	510 sf	621 sf	510 sf
VP Student Services	2,018 sf	1,702 sf	316 sf	1,564 sf	454 sf
Total	**62,250 sf**	**56,931 sf**	**5,319 sf**	**61,922 sf**	**328 sf**
Student FTE		14,151 FTEs		16,277 FTEs	
SUNY Space Allocation		84,906 sf		97,662 sf	

* Numbers for existing space are preliminary and need to be confirmed, particularly for departments that may be affected by Plan C.

Technology Services

Technology Services includes those spaces dedicated to: (a) instructional resources (such as graphics/photo labs, A/V equipment and materials, TV/radio distribution, shop, storage, instructional development offices and workrooms and associated administrative space) and (b) electronic data processing (such as computing network spaces, equipment and production systems, user services and administrative support). Ancillary space allocations were also provided to support present day functions.

The space evaluation for this category was based on looking at the inventory to determine staffing and service space and comparing what the College has to what it needs and will need in the future in order to support the functions. An allowance was given to increase the WEB CT faculty development initiative. For the other components of this category, the assessment recommends a 5% contingency for undefined growth (relating to staff and service space).

Fig. III.19: Alternate Assessment Summary of Technology Services

Technology Services	Existing Fall 2001*	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Academic Computing Center	4,434 sf	6,136 sf	(1,702) sf	7,893 sf	(3,459) sf
Administrative Technical Svcs	692 sf	802 sf	(110) sf	802 sf	(110) sf
Audio Visual	4,345 sf	4,030 sf	315 sf	3,430 sf	915 sf
Management Information Syst	9,100 sf	7,634 sf	1,466 sf	8,074 sf	1,026 sf
Radio Station	2,421 sf	2,440 sf	(19) sf	2,440 sf	(19) sf
TV Studio	2,865 sf	3,490 sf	(625) sf	3,490 sf	(625) sf
Web CT	1,380 sf	1,265 sf	115 sf	2,106 sf	(726) sf
Subtotal	25,237 sf	25,797 sf	(560) sf	28,235 sf	(2,998) sf
5% Contingency		1,290 sf		1,412 sf	
Total	**25,237 sf**	**27,087 sf**	**(1,850) sf**	**29,647 sf**	**(4,410) sf**
Student FTE		14,151 FTEs		16,277 FTEs	
SUNY Space Allocation		20,958 sf		20,958 sf	

* Numbers for existing space are preliminary and need to be confirmed.

Campus Services

Spaces in this category refer to functions dedicated to facilities and building services, office services, material control, warehouse, duplicating, information services and safety and security. These departments collectively engage a staff of over 50 employees, and ancillary space is allotted for all functions that support the activities of each of the departments (such as maintenance shops and garages, equipment storage, building storage, lockers, print shops, mailroom, and receiving dock). Building services within this category include primary housekeeping space as well as a distribution of houskeeping (janitor closets and storage) across campus. The evaluation shows a need for additional space dedicated to these areas.

Fig. III.20: Alternate Assessment Summary of Campus Services

Campus Services	Existing Fall 2001	Need Fall 2001	Current Surplus/(Deficit)	Need Fall 2008	Projected Surplus/(Deficit)
Summary					
Facilities Administration	1,770 sf	1,776 sf	(6) sf	1,776 sf	(6) sf
Grounds Maintenance	8,900 sf	9,840 sf	(940) sf	9,840 sf	(940) sf
Health and Safety	944 sf	836 sf	108 sf	836 sf	108 sf
Housekeeping	1,863 sf	3,290 sf	(1,427) sf	3,410 sf	(1,547) sf
Information Services	208 sf	610 sf	(402) sf	610 sf	(402) sf
Mail Services	800 sf	1,010 sf	(210) sf	1,010 sf	(210) sf
Maintenance & Operations	13,758 sf	12,568 sf	1,190 sf	12,808 sf	950 sf
Material Control, Receiving & Warehouse	20,550 sf	17,020 sf	3,530 sf	17,020 sf	3,530 sf
Printing and Publications	7,673 sf	6,030 sf	1,643 sf	6,030 sf	1,643 sf
Pubilc Safety	1,641 sf	2,320 sf	(679) sf	2,320 sf	(679) sf
Subtotal	**58,107 sf**	**55,300 sf**	**2,807 sf**	**55,660 sf**	**2,447 sf**
Distribution of Housekeeping Across Campus	10,542 sf	11,200 sf	(658) sf	13,023 sf	(2,481) sf
Total	**68,649 sf**	**66,500 sf**	**2,149 sf**	**68,683 sf**	**(34) sf**
Student FTEs		14,151 FTEs		16,277 FTEs	
SUNY Space Allocation		51,169 sf		53,987 sf	

Introduction

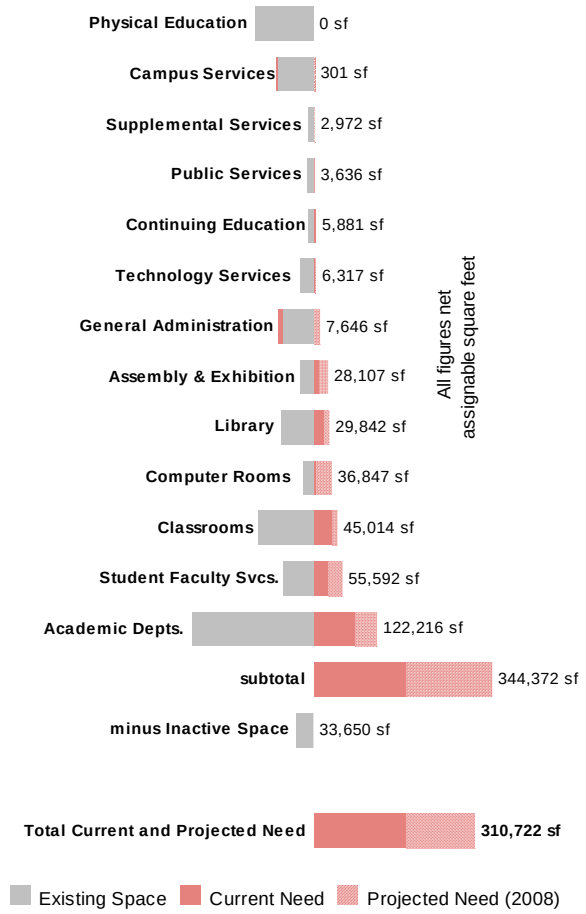
As can be seen from the discussion of the campus assesment, NCC is severely underbuilt given both current and projected enrollment. The total projected deficit for Fall 2008 totals over 310,000 net assignable square feet, representing an almost 37% increase over the existing campus total. This deficit only accounts for the need to build new facilities not present on the campus as well as those that exist now but must be replaced due to obsolescence. It also accounts for the need to replace existing temporary buildings with permanent facilities.

The impact of this deficit is heightened by the condition of the remaining facilities. As was outlined in Section II of this report, most buildings are severely in need of rehabilitation. In many, the conditions have worsened beyond merely impacting the programs offered and, in fact, restrict the College from pursuing important new academic initiatives. Budget restraints have forced the College into a policy of deferred maintenance which will only worsen an already bad situation.

The majority of the space deficit is in instructional space. While there is a serious need on campus for classrooms and computer rooms, the greatest share of this need for instructional space is in the academic departments which accounts for 60% of the instructional space deficit, and almost 40% of the total campus deficit. This represents a need for laboratories, studios, offices, and other spaces that directly support the individual departments.

To a great extent, this deficit is already present on campus: several departments are now experiencing serious space shortages, in some cases needing more than twice the amount of space as they currently occupy. Fig. IV.2 on the following page shows the projected 2008 space deficits in order of magnitude. One obvious need centers around such programs as Allied Health Services and Nursing. There are also tremendous deficits in English, Reading and Mathematics, all programs with significant remedial components. Much of the remainder of the deficit comes from those programs with large support components (e.g., laboratories or studios), such as Art, Theater and Dance, and the Sciences. In the latter case, there may be opportunities for recouping and redistributing space given the overages noted for Chemistry and Engineering, Physics and Technology.

Fig. IV.1
Summary, Alternate Assessment of Space

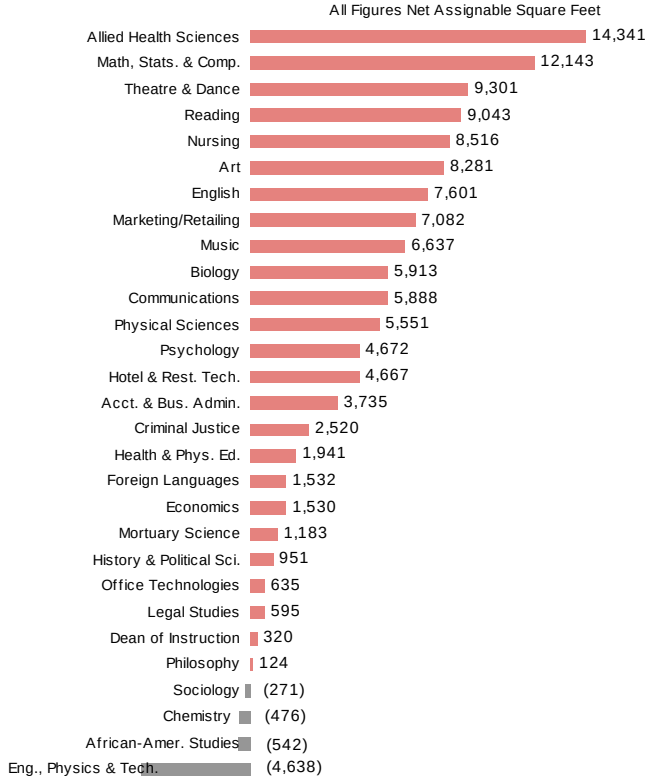


Aside from the great need for instructional space, the data in Fig. IV.1 also indicate a need for Assembly and Exhibition Space. This additional space is intended to replace the mostly temporary structures that currently house the Music and Theater and Dance programs. These metal buildings are wholly inadequate to accommodate the program housed there. Furthermore, such temporary construction presents serious life safety hazards considering the materials that are used for set production and the large number of patrons that must exit through temporary risers.

Beyond these two principal areas, the remainder of the College's space needs can be grouped into two categories. The first relates to the delivery of services to students, and includes student/ faculty services, supplemental services, and general administration. The second can be characterized as media and information sciences and includes library, media and technology components. Although not of the magnitude of the Instructional or Assembly components, the space deficits shown are significant. More importantly, these components are so linked to all students' use of the campus that they seriously impact the functioning of almost all campus constituencies. In both instances, opportunities exist to solve functional problems found within these components at the same time their space needs are being addressed. For example, adopting a "one-stop-shopping" approach to the delivery of student services may both accommodate the needs of the various program elements while at the same time providing students easier access to these services. Similarly, by considering the Library, media and technology components collectively, it may be possible to provide room for expansion while realizing an economy of means and a greater functional efficiency. By the same token,

There are also a number of program elements that, although not necessarily in need of additional space, should be examined to see how enhancing the quality of those spaces could improve their function. Candidates for this spatial "fine-tuning" include Physical Education as well as Campus Services, whose facilities remain essentially unchanged since 1978.

Fig IV.2
Fall 2008 Projected Surplus/(Deficit)



Programmatic Priorities

CAMPUS IMAGE & IDENTITY
- Establish a new primary entrance to the campus.
- Provide facilities that will support recreational, educational & cultural integration with the community.
- Pursue projects that will satisfy strategic and long-term institutional goals.

INSTRUCTIONAL SPACE
- Provide an adequate amount of classroom space.
- Develop a stock of medium sized classrooms (25-40 stations).
- Reconfigure instructional space to reflect modern pedagogy.
- Upgrade existing classrooms to include technology.

SITE AND LAND USE
- Address health safety/security/ADA issues.
- Develop a plan that will improve road and traffic circulation.
- Provide projects that will resolve parking issues.

TECHNOLOGY
- Develop underground infrastructure to support data communications networking.
- Provide adequate facilities that will accommodate technology-based educational programs

HEALTH, PHYSICAL EDUCATION, SPORTS & RECREATION
- Upgrade indoor athletic/recreational areas.
- Create outdoor athletic/recreational areas.

STUDENT NEEDS
- Provide adequate amenities such as dining and food services.
- Consolidate student services.
- Create gathering and communal spaces.
- Pursue projects that promote educational environments relating to group and individual study areas.

FACULTY AND STAFF NEEDS
- Pursue projects that support faculty development.
- Provide adjuncts with adequate office space.
- Create stronger department identity within interior spaces.

FACILITY REUSE AND ADAPTABILITY
- Resolve health/safety and ADA issues relating to interior spaces.
- Continue with projects that require the next increment of funding to complete.
- Establish a functional organization of uses and programmatic relationships.
- Prepare existing facilities for programmatic change and enrollment benchmarks.

Given the breadth of need on campus, and to assist in the distillation of a prioritized list of projects, the list of critical themes to the left was distributed to all interviewees. Based on feedback from interviews, polling, and discussions with steering committee members, the following goals and objectives were established:

Instructional Space

Classrooms

A high priority should be placed on creating an adequate amount of classroom space. In particular, this new space should be brought online as soon as possible, given the anticipated surge in enrollment projected by 2008. These new classrooms should be built to accommodate 25-40 stations, although a sizable number of smaller seminar rooms (15-25 stations) should also be built that can accommodate the smaller classes typical at NCC. These new classrooms should be outfitted with "smart" technology including the ability to make multimedia presentations and perform high-speed downloads.

Academic Departments

Aside from general purpose classrooms, the other component of instructional space is area allocated to specific academic departments, including dedicated support areas and laboratories. Given the high costs of new construction, the competing needs of the various academic departments will have to be sorted to determine which needs can be accommodated in renovated space and which should be housed in new construction. First priority should be given to areas that present urgent health and life safety concerns to occupants, whether due to the kinds of materials handled there or the physical conditions of the spaces (i.e., the problems of indoor air quality in the clusters related to moisture penetration). Priority should then go to those programs that are central to the College's basic mission of providing an excellent foundation eduation to all who apply with consideration given to those departments currently housed in temporary construction. Lastly, attention should be given to new academic initiatives intended to grow existing departments.

Student Needs

Given the large volume of students that come through campus and the anticipated growth rates over the next five years, it is important for the College to streamline and otherwise improve the functioning of its various support components. Given the limited resources available the best option for NCC will be to consolidate services that are currently scattered across campus in inadequate facilities. Creating a single point of access for the bulk of student services, or "one-stop-shopping" will make it easier for staff to deliver and students to avail themselves of needed services. First priority should be given to those areas that directly support enrollment and academic advisement, while secondary consideration should be given to other counseling and advising services.

There is also a need to improve the level of student amenities to enhance the campus experience. While the renovation of the Library may be a longer-term goal, in the shorter term spaces should be created that support students who seek a monitored and controlled environment in which to study. Expanded dining opportunities will also enhance students' stay on campus, allowing them to better accommodate hectic class and work schedules.

Assembly and Exhibition Spaces

As has been noted, fully one-third of NCC's expansion program of the 1970's was never funded. As a result, the campus was left short on most types of assembly and exhibition spaces, which is reflected in the current space assessment. While the recent construction of the CCB and G Buildings have begun to service these needs, the fact remains: the largest community college in New York State has no permanent facilities for its departments of Music or Theater and Dance. Of all the space types needed, these high-profile elements are among the most likely to attract public interest and outside funding.

Inevitably, the College will have to address the dilemma of how best to direct limited resources to programs with so few students relative to the larger campus, particularly those departments that offer courses required of all or most of the student body. Conversely, the argument must be made

that if the College is to continue to offer courses in these fields, there must be adequate permanent facilities in which they can be taught.

Site and Land Use

A rational plan for land use should be developed that can effectively embrace all 225 acres. This should include clarifying which portions of campus will be set aside for green space while fostering ways to overocme the current bifurcated nature of the campus. There is a great need to better define the campus perimeter, a need that will grow as attendance increases at the Cradle of Aviation and Children's Museums. A high priority should be placed on improving parking conditions generaly, and more specifically making the south parking lot safer, easier to navigate and more attractive. The many positive features of the existing campus, including a vast central open green space, examples of attractive architecture and lush landscaping should be maintain and expanded upon. Wherever possible, current points of pedestrian-vehicular conflict should be minimized or eliminated.

Strategies for Redevelopment

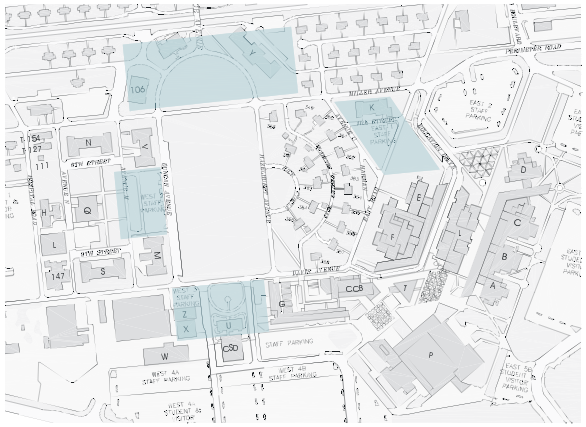


Fig. IV.3
Possible Sites for New Construction

In the same way we can classify and prioritze the College's programmatic needs, we can similarly organize the campus' building needs. To begin with, it will help to conceptualize four kinds of responses to the campus space needs. The first involves new construction brought online to meet an immediate need. The second includes those buildings that are essentially in good physical shape but in need of reprogramming to optimize their use. The third category includes the majority of buildings on campus: those that need significant rehabilitation because of obsolescence of their building systems or life safety concerns. The last category consists of those buildings that cannot effectively be rehabilitated and that are so costly to maintain the College should make new new investment in them. Given the uncertainty of future funding, these categories must remain fluid; candidates in one may also qualify for another.

Possible Sites of New Construction

The severe space shortages on campus will require that the first step of the master plan will be new construction. Diagram IV.1 illustrates four possible sites, each with advantages and disadvantages. One guiding principal in site selection is that any new construction not encroach on the existing Quad. As the campus is facing so severe a space shortfall, it is equally important that new construction pose a minimal impact on the existing building inventory. The greatest advantage to Site A is it provides the largest amount of open area with the least disruption to College program. It is conveniently located to both existing parking and the current campus center of programmatic gravity: the Academic Clusters. Site B is similarly well suited for new construction, with a more public presence gien its proximity to the Cradle of Aviation. This site, however, results in more disruption given the displacement of the Student Union program. Although currently vacant, construction on Site C will cause significant disruption to an already overburdened campus. Site D, while large and prominent will only spread the campus building inventory over a wider area.

Candidates for Rehabilitation

There are a number of buildings on campus that are structurally sound but in need of significant overhaul to remain in use. Some of these, for example, Clusters C, E and F are so plagued by

problems of indoor air quality that their life safety concerns can best be remedied by removing many of the existing building systems and exterior enclosures and replacing them with new. Similarly, areas may be so obsolete and decrepit, such as the Biology and Chemistry labs in these same Clusters, that all interior furnishings and casework will have to be removed and replaced wholesale. Other buildings, such as V and M (Nassau) will require such disruptive upgrades to be brought up to life safety and ADA standards, that the buildings will likely have to be at least partially closed for the duration of their renovations. In some instances the cost of renovating these buildings may, in the long term, prove more expensive than replacement. The fact is, however, that the College faces such a severe space shortfall it will have few options other than retaining these buildings and remedying their outstanding problems.

Candidates for Reprogramming

Inevitably, on any college campus, there are buildings that are generally in acceptable physical condition but programmatically out of tune with their occupants. In addition to some spatial fine tuning, including some interior reconfiguration, these buildings may also be in need of some minor maintenance work, such as brick repointing or roof repair. As these buildings were often built prior to adoption of national ADA guidelines, they may also need some minor work to come into full compliance. Lastly, financial realities may require that systemic overhaul of certain buildings be postponed, in which case these buildings become candidates for reprogramming rather than rehabilitation. For example, while it may desirable to add air conditioning throughout the gymnasium, current SUNY guidelines do not support extensive work of this nature. It would be possible, however, to make programmatic changes to the interior that provides for the changing nature of sports today (i.e., handball over squash). Diagram IV.3 outlines those buildings on the NCC campus that would be candidates for reprogramming.

Candidates for Divestiture

Several buildings at NCC are so programmatically deficient and structurally limited that no new investment should be made in their rehabilitation. In some cases, they consume a quantity of

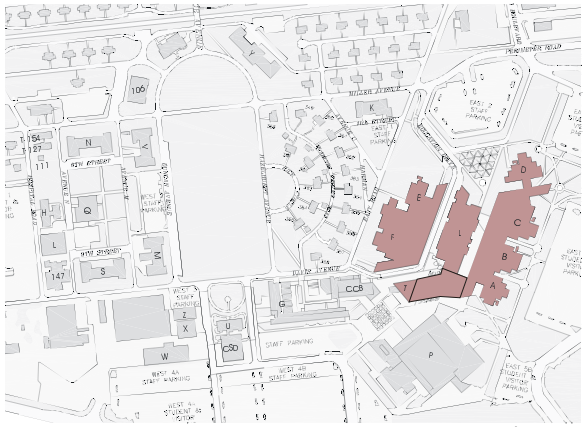


Fig. IV.4
Candidates for Rehabilitation

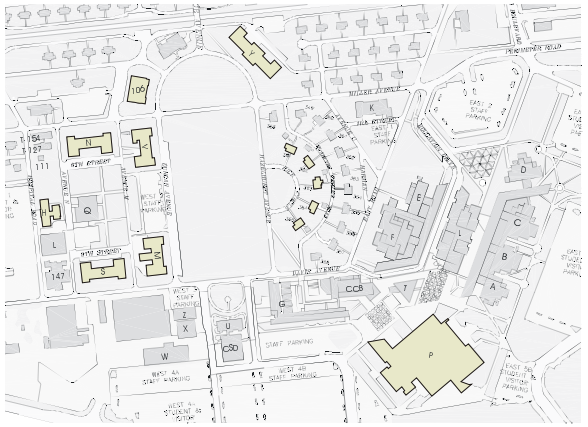


Fig. IV.5
Candidates for Reprogramming

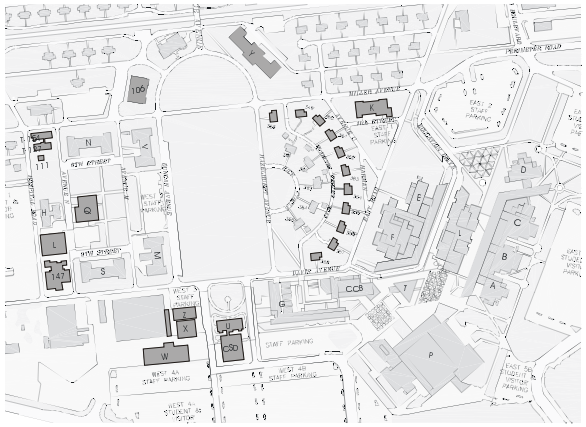


Diagram IV.6
Candidates for Divestiture

campus operations and maintenance resources that far outweighs any benefit they bring to campus. This is particularly the case with the many “temporary” metal buildings that were built, some as early as the 1960’s, that by now have far outlived their use. In most cases, demolition can be justified based on the high costs of maintenance, the low amount of space they add to the College inventory and the relative costs to replace these facilities. For the most part, programs that are wholly inappropriate to their spaces are housed there. The minimally insulated metal buildings make for terrible performance and rehearsal spaces. Furthermore, the temporary nature of their construction presents numerous health and life safety concerns related to the materials and equipment used for stage production and lighting as well as the demands of egress in case of emergency. In other instances, such as the campus houses, buildings are filled with program that is incompatible with their natures: locating administrative offices in single family houses results in space inefficiencies and higher maintenance and operations costs. Obviously, a careful balance has to be struck between efficiency and maintaining the campus character. While few will mourn the loss of the many temporary metal buildings on campus, removing some or all of the campus houses will significantly change the heart of the campus. While consideration should be given to relocating inappropriate program out of these houses, creative strategies for adaptive reuse can be devised if funding permits that retains these buildings for continued use.

Long-Term Campus Vision

The site plan on the following page (fig. V.1) shows the existing campus overlaid with a diagram of the existing lines of flow and principal access points. In general, campus activity follows an east-west axis, although much of the current campus design fights this tendency: the campus houses and the library all conflict with this orientation. There is a strong north-south axis implied by the current quad and the relationship between the entrance off Stewart Avenue and the Student Union building. This axis is never supported, however, by any of the pedestrian or vehicular paths. On the contrary, the quad lawn is so vast as to constitute a barrier around which students walk. The principal nodes that act as counterpoints to these lines of flux are the north and south entry plazas. As was frequently noted during interviews, the north entrance to campus is quite attractive, with a clearly defined entrance sequence and mature planting. Unfortunately, the south entry, like the south parking lot, lacks a similar elegance.

The site plan on page 155 (fig. V.2) shows the proposed long-term vision for the NCC campus. Generally speaking, the campus has been re-conceptualized along an east-west axis to better integrate the 1970's east campus with the 1930's west campus. A large open quad remains the central organizing element, but has been given a human scale by being composed as a series of greenswards, each with a more intimate relationship to its surrounding buildings. This central quad will serve as a common reference point to which students constantly return and will become, like the Tower, an identifying feature of the campus to the surrounding community. Unlike the current quad it will not hinder access between buildings, but rather knit the campus together. Similarly, the Campus Houses have been incorporated into this green space so that they no longer serve as barrier between east and west, but rather an integrated part of this central green.

The new construction that forms the basis for this reorganization begins in the eastern half of the site to draw on the existing parking and greater concentration of activities to be found there. Space is then vacated and renovated across campus, from east to west, with new parking added along the north edge as land becomes available. New "College only" functions such as the daycare service and laboratories are sited along the north edge while more public functions such

Fig. V.1: Site Diagram

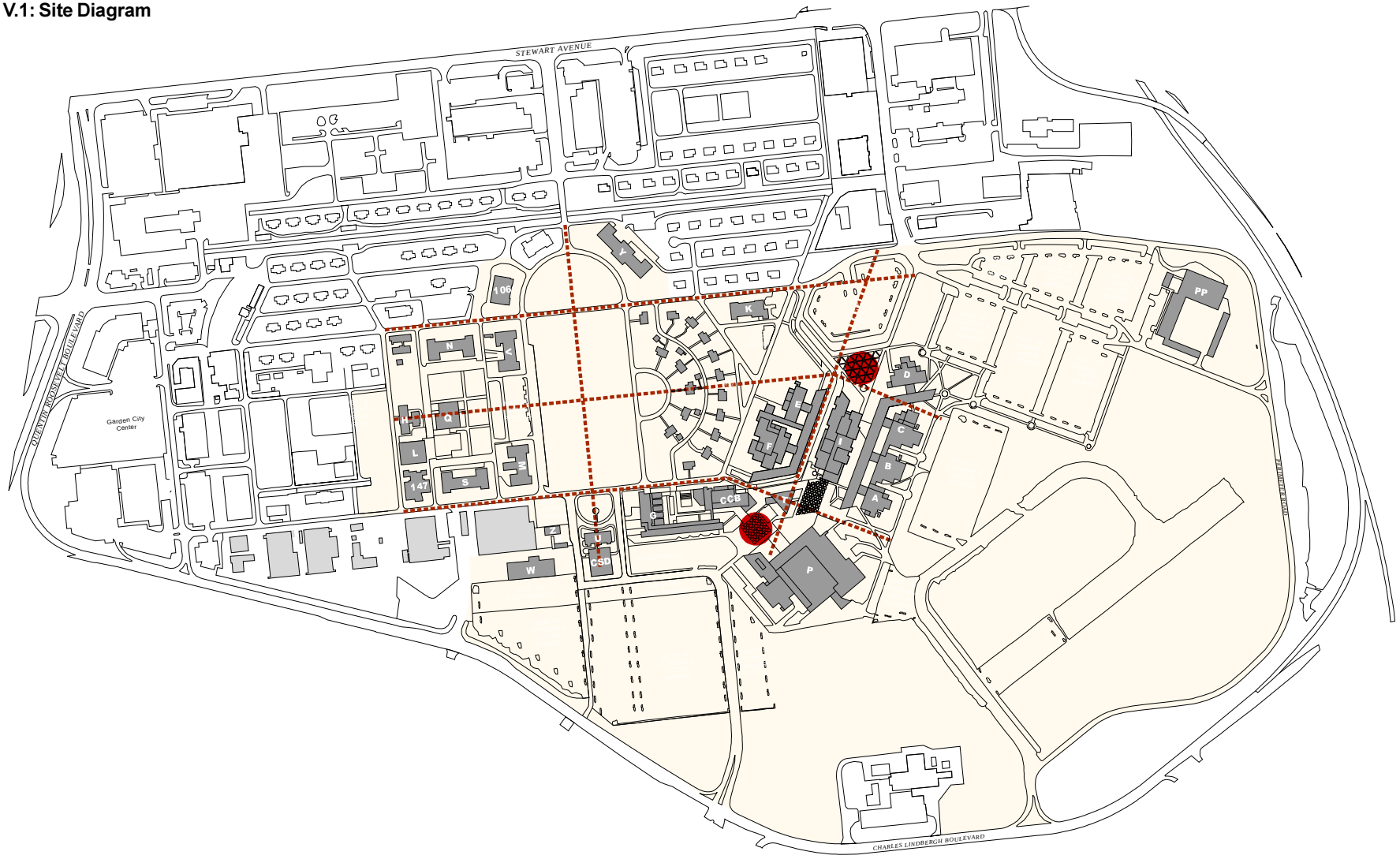
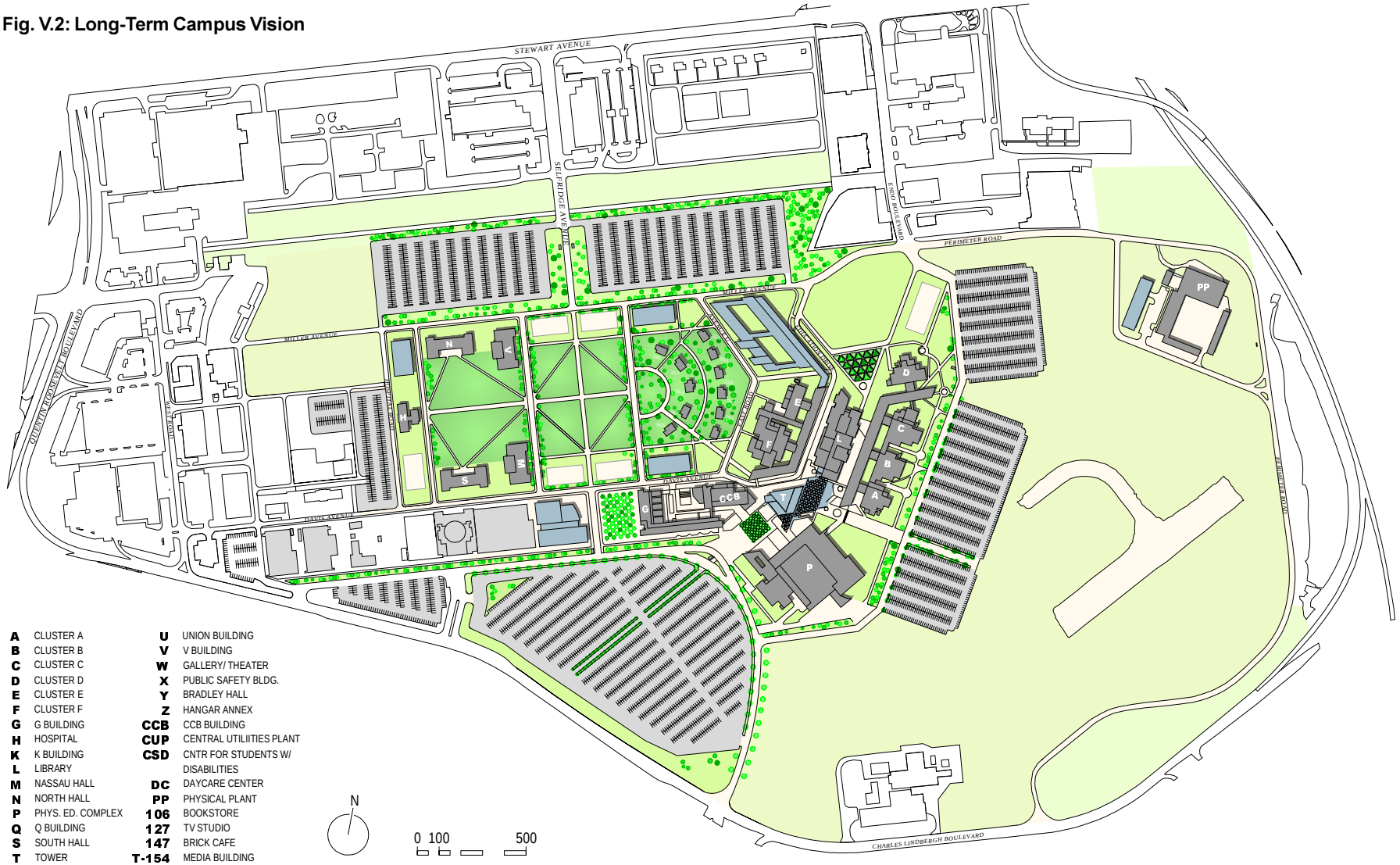


Fig. V.2: Long-Term Campus Vision



A	CLUSTER A	**U**	UNION BUILDING
B	CLUSTER B	**V**	V BUILDING
C	CLUSTER C	**W**	GALLERY/ THEATER
D	CLUSTER D	**X**	PUBLIC SAFETY BLDG.
E	CLUSTER E	**Y**	BRADLEY HALL
F	CLUSTER F	**Z**	HANGAR ANNEX
G	G BUILDING	**CCB**	CCB BUILDING
H	HOSPITAL	**CUP**	CENTRAL UTILIITIES PLANT
K	K BUILDING	**CSD**	CNTR FOR STUDENTS W/ DISABILITIES
L	LIBRARY		
M	NASSAU HALL	**DC**	DAYCARE CENTER
N	NORTH HALL	**PP**	PHYSICAL PLANT
P	PHYS. ED. COMPLEX	**106**	BOOKSTORE
Q	Q BUILDING	**127**	TV STUDIO
S	SOUTH HALL	**147**	BRICK CAFE
T	TOWER	**T-154**	MEDIA BUILDING

as performance spaces and art galleries are envisioned for the southern edge to enter into a dialogue with the new Cradle of Aviation and Children's Museum.

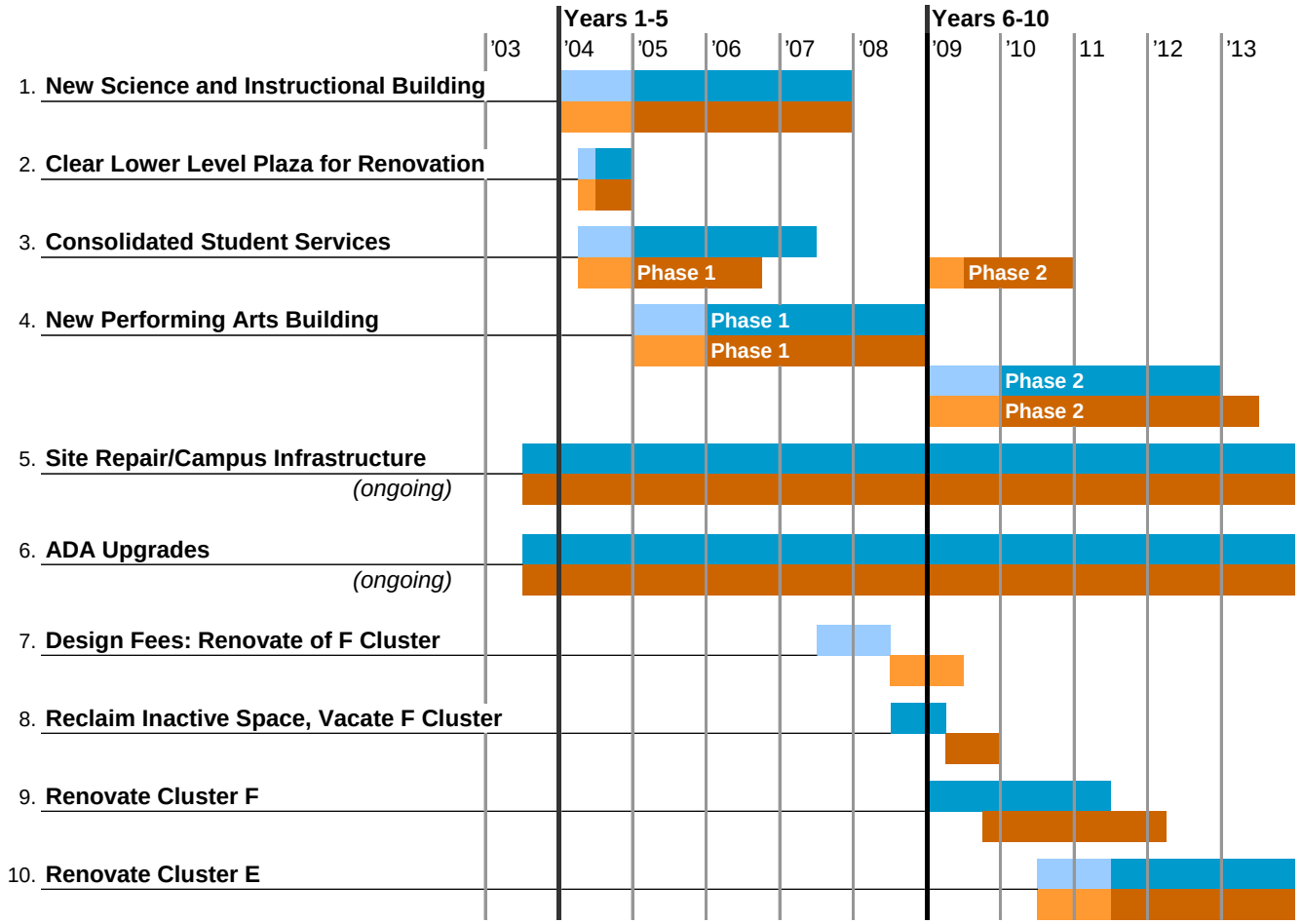
Campus entries have been improved to make for a more cohesive arrival sequence, with parking lots that are at once more convenient, larger, safer and more attractive. Linked together into a perimeter ring, most vehicular traffic has now been segregated from the internal pedestrian traffic. Entry plazas mediate between these outer and inner rings, providing dignified points of arrival.

Perhaps most importantly, the plan is both complete and yet open: it provides a framework for future development while appearing a completed whole. There are ample sites for future expansion and opportunities for variation in building styles and sizes.

Over the next section this Master Plan describes how this long-term vision can become a reality over the short and intermediate terms. To begin with we will see a number of specific projects that address the goals and objectives outlined in Section III. Most importantly, these projects take as their primary goal to remedy the severe space shortfall evident on campus. For this reason, the first step must be a large amount of new construction. Only once a sizable amount of new space has been created on campus can the College seriously begin a process of renovation and renewal of its existing facilities which, as we have seen in Section II are very much in need of significant overhaul. At the same time, the Plan posits an ongoing process of maintenance and care that includes spot renovations and improvents that will extend the useful lives of the existing facilities.

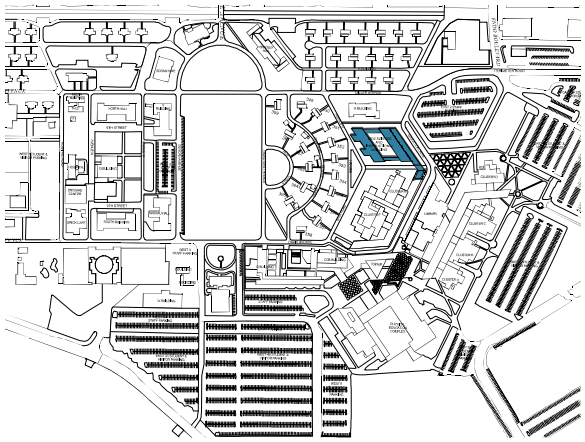
Given an uncertain economic climate and the need to recognize funding exigencies that pressure the campus, the steps outlined have been conceptualized at two scales. The first, called "functional", represents a functional minumum and includes what the College needs to meet its goals. The second, called "survival", will allow the College to continue to serve the County but at a significantly reduced capacity. This reduced vision is not presented as a desirable alternate, but rather, as possibly the only alternate if adequate funding cannot be secured.

Fig. V.3: Schedule of Proposed Projects



New Science and Instructional Building

Fig. V.4: Site Plan



estimated construction cost: $93.696 million
94,600 nasf
178,500 gsf

Project Priority and Intent

The highest priority of the College is to address the current deficiencies in Academic space. The first phase of the Master Plan will focus on maximizing the new construction of a science and classroom building to house Biology, Chemistry, Nursing, a portion of Allied Health Sciences and interdisciplinary classrooms and computer rooms. The primary purpose of this project is to provide critically needed instructional space to meet current enrollment and future programmatic growth. The secondary purpose is to begin a strategy to renovate and retrofit, where necessary, the Academic Cluster buildings. The location of the new science and instructional building, to be sited on the northeast side of the campus adjacent to Cluster E, maintains the College's center of academic gravity and also provides a link between the east campus and the main campus. This new building will:

- Provide new space that supports programmatic growth initiatives among the sciences and nursing;
- Develop a stock of medium sized classrooms (25-40 stations);
- Provide an adequate amount of instructional space to support programs and enrollment benchmarks;
- Provide adequate amenities (such as food service);
- Create communal/gathering spaces for students, faculty and staff;
- Create new space to facilitate subsequent renovations.

Project Scope

The new science and instructional building will provide instructional and academic office space for Biology, Chemistry, Allied Health and Nursing. Additionally, the new facility will begin to meet the pressing need for classrooms. Shared facilities, such as interdisciplinary classrooms and interdisciplinary computer rooms will be provided as well as amenities that include lounges and vending.

Fig. V.5: View from North Entry eastward

Programmatically, this project (which will vacate about 49,446 nasf of space in existing facilities) offers a variety of subsequent phased renovation options that will serve the College well. The vacated space can serve:

- to support expansion and consolidation of programs, such as Reading/BEP, which will then allow for the complete renewal of the V Building;
- to meet growth benchmarks by expanding space for the physical sciences; and
- to support distributed instructional technology, such as smart classrooms, interdisciplinary computer rooms and dedicated computer rooms to accommodate, among other things, a Language Lab and digital art labs.

Implementation Strategy

Making new construction the first step in this process will minimize the amount of preparatory work necessary. For the most part, campus functioning will not be significantly impacted as the site has full access from the northeast. Given the need to make compromises in program and occupants the College will have to commission a programming study prior to commencement of design.

This building can likely draw services from the existin gfeeds currently serving the Academic Clusters. There should be capacity in the existing HTHW and CW lines, although this capacity is probably available on the south east side of the Phys. Ed. building. At the appropriate time, a study will have to be done that weighs the costs of installing new trenching to bring this service around to the new science building or outfit this building with its own chillers and the requisite larger mechanical rooms. Both electrical and gas service are available nearby, as are sanitary and storm sewer lines.

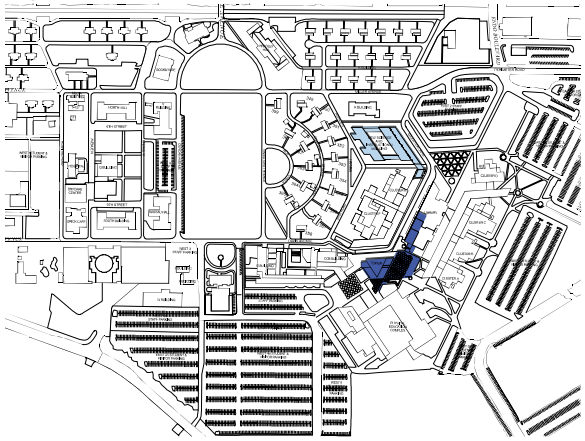
Once the new building is built, the College will have to determine how best to redevelop the space vacated in the Clusters and V. Building. Emphasis should be placed on utilizing the Clusters to enable subsequent renovation projects.

Fig. V.6: Overview of New Science and Instructional Building

	Functional	Survival	
Department			
Classroom Space	20,500 sf	20,500 sf	Will provide about 37 interdisciplinary classrooms, each for 24-students (550sf).
Computer Lab Space	7,200 sf	7,200 sf	Provides for the computer lab needs of the sciences, with additional interdisciplinary computer lab space
Subtotal	**27,700 sf**	**27,700 sf**	
Allied Health Sciences	8,700 sf	0 sf	Option 1 meets the expansion needs of this department. Option 2 requires expansion be accommodated within the Clusters
Biology	34,658 sf	26,152 sf	Allocations for faculty space have been adjusted to reduce program.
Chemistry	11,475 sf	9,095 sf	
Nursing	10,055 sf	8,843 sf	
Lounge Space & Vending	2,000 sf	2,000 sf	
Total Net Assignable	**94,588 sf**	**73,790 sf**	
Net:Gross Ratio	53%	53%	
Resulting Gross Square Feet	**178,468 sf**	**139,225 sf**	
Construction Cost @ $375/gsf	$66,925,472	$52,209,552	
Contingency @ 10%	$6,692,547	$5,220,955	
Administrative Costs @ 10%	$6,692,547	$5,220,955	
FF&E Costs @ 20%	$13,385,094	$6,000,000	Under Option 2, equipment costs have been shifted to departmental operating budgets.
Project Costs	**$93,695,660**	**$68,651,462**	

Consolidated Student Services Center

Fig. V.7: Site Locator Plan: Student Services



estimated construction cost: $16.127 million
27,000 nasf
45,100 gsf

Project Priority and Intent

The reorganization of student services will facilitate a central location for "initial contact" student services associated with Admissions. Currently, these in-take services are physically disconnected, and located on various floors within the Administrative Tower. A consolidation of these services outside of the upper levels of the tower with its circulation limitations will strengthen the College's image, orientation and facilities as they relate to welcoming, recruitment and development. Furthermore, the disruptive overcrowding, particularly during peak registration weeks, will be eliminated. This project will:

- Establish a functional organization of uses and programmatic relationships;
- Consolidate student services;
- Address the aesthetic quality of the campus, as well as provide improved amenities for students;
- Eliminate the need for a temporary building.

Project Scope

This project will renovate the existing lower level of the Plaza that currently houses portions of the Bursar and Registrar and construct an additional 12,650 GSF to support the required program and space needs of Admissions, Bursar, Financial Aid and the Registrar. The project will also renovate the first floor of the Tower and the lower level of the Library to accommodate Educational Counseling, Disability Services and Health Services and therefore go beyond providing a one-stop facility. These currently disjointed programs will be in a position to provide integrated services with a greater degree of interdepartmental coordination.

Programmatically, this project will create an opportunity within the Tower to expand space for the remaining occupants or relocate functions from other buildings to backfill the vacated space.

Implementation Strategy

As funds become available, this project is to be implemented simultaneously with the new Science

Fig. V.8: View of New Student Services Plaza

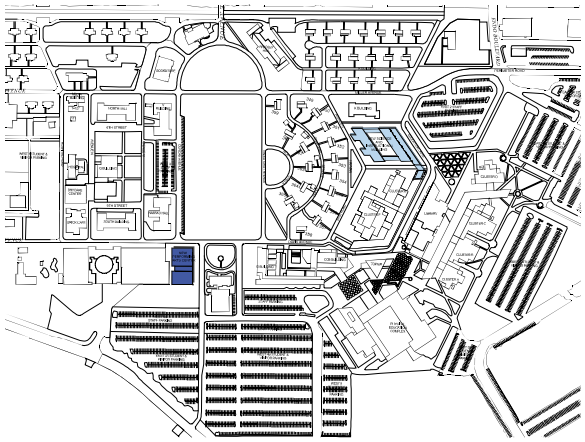
and Instructional Building. The program currently occupying the space to be renovated will be temporarily relocated during construction. In Fig. V.9 the project is presented in both single and two-phase alternates. There will likely be a modest cost savings by executing this work in two distinct phases, largely because fewer temporary trailers will have to be employed. However, such a plan is not advisable, given the severe disruption this would cause to the most active hub on campus. Both students and faculty would be much better served if this project could be completed at a single stretch.

Fig. V.9
Overview of Consolidated Student Services Building

Department	Functional	Survival Phase I	Survival Phase II	Explanation of Reductions
Academic Advisement	3,257 sf		3,257 sf	
Admissions	3,316 sf	3,316 sf		
Bursar	3,489 sf	3,489 sf		
Center for Students with Disabilities	2,300 sf			Not included in "Survival"
Educational Counseling	1,219 sf		1,219 sf	
Financial Aid	2,702 sf	2,702 sf		
Health Services	1,863 sf		230 sf	"Survival" provides for only the immunization component
Placement & Testing	3,946 sf		3,946 sf	
Registrar	3,953 sf	3,953 sf		
Shared Facs. (Lounge & Conf. Rm. Space)	1,000 sf	500 sf	500 sf	
Total Net Assignable Square Feet	**27,045 sf**	**13,960 sf**	**9,152 sf**	
Net:Gross Ratio	60%	60%	60%	
Resulting Gross Square Feet Required	**45,075 sf**	**23,267 sf**	**15,253 sf**	
Existing GSF to be Renovated	17,562 sf	7,757 sf	9,400 sf	
Gross Square Feet to be Built-Out	14,888 sf	7,110 sf	5,853 sf	
Gross Square Feet to be Built New	12,625 sf	8,400 sf		
Renovation Costs (@ $200/sf)	$3,512,373	$1,551,400	$1,880,000	
Shell Costs (@ $225/sf)	$3,349,800	$1,599,750	$1,316,925	
New Construction Costs (@ $310/sf)	$3,913,750	$2,604,000		
Contingency (10%)	$1,077,592	$575,515	$319,693	
Administrative Costs (10%)	$1,077,592	$575,515	$319,693	
FF&E Costs (10%)	$1,077,592	$575,515	$319,693	
Subtotal	**$14,053,775**	**$7,504,962**	**$4,156,003**	
Relocation Costs	$662,980	$602,250		
Cost of Trailers	$1,410,000		$195,150	
Total Project Costs	**$16,126,755**	**$12,458,365**		

New Performing Arts Building

Fig. V.10: Site Locator: Performing Arts Building



(Phase I) estimated construction cost: $13.109 million
15,050 nasf
30,100 gsf

Project Priority and Intent

Although a theater and performing arts complex were planned as part of the 1970's building program, funding limitations required this phase of construction be postponed indefinitely. For this reason the College's performing arts programs are currently housed in a disjointed assortment of residual and temporary spaces around campus. The Theater/Dance Department's spaces are spread among six buildings, most of which are temporary structures. These facilities inhibit the growth potential of the programs and limit program offerings. Most of the Music program is currently housed in a temporary building, including the recital hall and rehearsal rooms. The existing recital hall was not designed to function as a performance space. It has no fixed seating and relies on deployable Wenger shells to overcome the terrible acoustics of this metal building.

This project meets on-going and frequently recurring needs, concerns and goals of the campus and implementation of this project will:

- Provide appropriate and adequate space that supports current programs and programmatic growth initiatives among the performing arts;
- Establish a functional organization of uses and programmatic relationships;
- Provide facilities that support recreational, educational and/or cultural integration with the community;
- Eliminate the need for temporary buildings.

The College has reserved a highly visible site adjacent to the new Museums at Mitchel and Cradle of Aviation Museum to ensure that featured high-profile public events will factor prominently in the cultural life of the County. The new facility will sit at the heart of the NCC campus, and provide a critical pivot point between the east and west campuses. Located at the south end of the quad, the Performing Arts Center will facilitate using this great lawn for outdoor conerts and performances

Fig. V.11
Overview of New Performing Arts Building

	Functional			Survival		
	Phase I	**Phase II**	**Total**	**Phase I**	**Phase II**	**Total**
Department						
Art Gallery	0 sf	3,868 sf	3,868 sf	0 sf	3,868 sf	3,868 sf
Music (Dept. Space)	2,400 sf	0 sf	2,400 sf	0 sf	2,400 sf	2,400 sf
Recital Hall	0 sf	7,350 sf	7,350 sf	0 sf	7,350 sf	7,350 sf
Theater & Dance (Dept. Space)	3,570 sf	5,510 sf	9,080 sf	0 sf	9,080 sf	9,080 sf
Main Theater	9,080 sf	2,500 sf	11,580 sf	9,080 sf	2,500 sf	11,580 sf
Total Net Assignable	**15,050 sf**	**19,228 sf**	**34,278 sf**	**9,080 sf**	**25,198 sf**	**34,278 sf**
Net:Gross Factor	50%	50%		50%	50%	
Resulting Gross Square Feet	**30,100 sf**	**38,456 sf**	**68,556 sf**	**18,160 sf**	**50,396 sf**	**68,556 sf**
Construction Cost ($325/per sf)	$9,782,500	$12,498,200	$22,280,700	$5,902,000	$16,378,700	$22,280,700
Contingency (10%)	$978,250	$1,249,820	$2,228,070	$590,200	$1,637,870	$2,228,070
Administrative Costs (12%)	$1,173,900	$1,499,784	$2,673,684	$708,240	$1,965,444	$2,673,684
FF&E Costs (12%)	$1,173,900	$1,499,784	$2,673,684	$708,240	$1,965,444	$2,673,684
Project Costs	**$13,108,550**	**$16,747,588**	**$29,856,138**	**$7,908,680**	**$21,947,458**	**$29,856,138**
	Main Theater only (minus shops), Instructional Space (except Black Box)	Gallery, Recital, Shops, Faculty Offices & Black Box		Main Theater only (minus shops)	Art Gallery, Recital, Shops, Faculty & Instructional Space	

Project Scope

It is proposed that a new Performing Arts Facility be constructed to include a 350-seat theater with related support spaces, a black-box theater for performances and instructional use, instructional spaces such as a drama studio, and a lighting lab, as well as a modest gallery space for temporary exhibitions. Space will also be provided in the new facility for departmental offices and related administrative space.

Implementation Strategy

The new facility has been conceptualized as a two-stage project to allow the new theater and support spaces to be built first and the instructional and departmental spaces to follow. The College will pursue alternate sources of funding for what is likely to be an important County asset.

Site Repair and Campus Infrastructure

Years One through Five

There are a number of improvements to the campus infrastructure that should be made over the first five years to allow the campus to function more efficiently while reducing the negative effects of a policy of deferred maintenance.

New backup transformers should be provided to replace those currently adjacent to the G Building that will allow for easy switchover between the power coming from the 13.8 kV lines and the 4160 V system to the northwest of the campus. Such a system of redundancy will allow the campus to be powered from either source in the event of power interruption.

Given the likelihood that the Campus Houses will remain in service as office and support space, they will need to be adequately connected to the larger campus data/telecom system. The overhead fiber optic cable currently serving these buildings should be re-routed underground through trenches. While these trenches are open, upgraded power feeds should be run to upgrade the available amperage from 100 amps to 200 amps per house.

New data/telecom conduit should also be laid to link Bradley Hall back to the campus information grid. Whenever new trenching is laid for either data or electrical, provision for conduit work for the other service service should be laid at the same time. The College's department of information technology will evaluate the evolving landscape of wireless technologies to assess their suitability to specific applications

Infrastructure improvements should also be made to provide emergency power on campus. Buildings to be so powered include the gymnasium, which has been designated by Nassau County as a potential long-term shelter in case of emergency, and the portions of the Library that house the campus server. While it may prove worthwhile in the long term to operate such a generator continuously and shed excess load back to the LIPA grid, a feasibility study should be done at the appropriate time to determine the cost effectiveness of providing local, spot emergency generators, or a single larger generator that can power one of the 13.8 kV feeders. Any emergency

Fig. V.12
Infrastructure Costs

	Functional	Survival
First Five Years		
1. New transformers next to G Bldg	$850,000	$850,000
2. Replace Campus Houses transform	$150,000	
3. New telecom and electrical conduit laid:		
a. Between Campus Houses	$97,500	$97,500
b. to Bradley Hall	$75,000	$75,000
4. Provision for emergency power		
Alt 1 Bi-fuel generator capable of electrifying one 13.8 kV feeder	1,400,000	
Alt 2 Localized oil generators		$400,000
subtotal, years 1-5	**$2,572,500**	**$1,422,500**
Second Five Years		
5. New telecom and electrical conduit laid. New distribution system for 1930's buildings: HTHW, CW, data and electric. Two new transformers to 1930's buildings	4,912,500	4,912,500
6. Two replacement pad-mounted tran	(see above)	$150,000
subtotal, years 6-10	**$4,912,500**	**$5,062,500**
Total Project Costs	**$7,485,000**	**$6,485,000**

note: all figures include soft costs, as appropriate

power generated for life safety reasons will have to have its source of fuel stored on site. Consideration should be given to a variety of fuel sources, ranging from pure diesel (likely the least expensive) to a bi-fuel system, typically running on 5% diesel and 95% natural gas but capable of being switched in case of emergency to 100% diesel.

Lastly, an allowance should be made within the NCC budget for health and safety expenditures the College will incur over the next five years. As this money is eligible for State matching funds, it is important these expenses be allocated and tracked. Among other projects, the College should investigate migrating all security and fire alarm signals over to the recently installed data backbone.

Although a sizable amount of new construction is proposed for the next five years, it is likely the existing service lines feeding the clusters (electrical, HTHW, CW and gas) will be able to accommodate the added load.

Years Six through Ten

In the longer term, the College will have to make service upgrades throughout the 1930's buildings of the West Campus. Rather than replicate the current inefficient system of localized chillers and boilers, the College would be better served by a local loop or branch system of high-temperature hot water and chilled water service throughout the west campus. The stubouts located just north of the Cradle of Aviation can likely handle this additional load while the existing feeds serving the Clusters cannot. Drawing services from the CUP rather than localized chillers whill have the added benefit of freeing electrical capacity that can be sued for the high-tech, power demanding equipment sure to be installed.

Given funding limitations there is a possibility the new transformers serving the Campus Houses may not be installed during the first five years. If this is the case this project should be a high priority for years six through ten.

It should be noted that the cost estimate numbers cited do not include the cost of running natural gas lines to those 1930's buildings that currently lack it. Although this may be a desirable long-term goal, at this time there is no immediately identifyable need to justify the added expense.

Analyses, Surveys and Studies

Years One through Five

With several new construction projects on the horizon, the College will have to commission a proper inventory. At a minimum, this study should result in CAD plans for all buildings on campus, and a full analysis of all spaces properly coded by SUNY space type. Such an inventory is essential to future programming and space planning efforts. If CAD plans are prepared using the appropriate software (such as Archibus), the College will be the beneficiary of an automated maintenance and operations asset that can be used when requisitioning all campus improvements.

Beyond the campus inventory, there is a serious need for a full campus site utilities survey to include:

- metes & bounds
- vegetation including calipers of trees
- all existing buildings including outbuildings and utility sheds
- utilities including manhole locations and inverts

The survey should also contain sufficient borings or test pits to determine the presence of footings and foundations left on site from demolished military buildings.

As was noted in the Campus Assessment, provision should be made for a video survey and jet cleaning of the campus sanitary and storm sewer lines. Only after such studies are completed can it be determined how functional these historic service lines remain and the extent of the work that must be undertaken to render them servicable for the future.

Fig. V.13
Analyses, Surveys and Studies

	Functional	Survival
First Five Years		
1. Campus Inventory		
2. Prepare CAD plans for all buildings (149,319 gsf). Prepare existing space profile based on survey of current use.	$96,000	$96,000
3. Videotape analysis and jet cleaning survey of sanitary/storm sewer lines	72,000	$72,000
4. Electric Generation Study	$20,000	
5. Campus Survey taken from existing documentation and field surveying	$145,000	$145,000
subtotal, years 1-5	**$333,000**	**$313,000**
Second Five Years		
1. Existing conditions surveys of specific buildings	52,000	42,000
subtotal, years 6-10	**$52,000**	**$42,000**
Total Project Costs	**$385,000**	**$355,000**

note: all figures include soft costs, as appropriate

Lastly, the College may want to commission a study to determine the economic viability of operating an emergency generator continuously that can shed load back to the local power grid. Such a study would have to factor in a number of important considerations, beyond the start-up costs of the equipment and added costs of construction. These include the staff time to operate and maintain such a generator, and the relative energy costs that could be charged.

Years Six through Ten

Barring any unanticipated sources of funding, the 1930's buildings of the west campus are likely to remain in the campus inventory for the indefinite future. For this reason, more thorough existing conditions analyses should be undertaken as a prelude to façade repair and repointing, roof replacement, and the addition of elevators and stair towers.

Site Repair/Campus Infrastructure

Years One through Five

The highest priority during the first five years should be placed on installing connector roads that link the southwest and northeast parking lots. If possible, this connector should be suppressed so it can run adjacent to the gym, which will allow service vehicles better access to this building while not creating a point of pedestrian vehicular conflict with students crossing south to use the practice fields.

At the same time, parking should be expanded to link east parking lots 5A and 5B into a single larger and more functional lot that serves the most densely utilized portion of campus: Clusters A B and C. Minor modifications to the north end of east lot 5A would link this lot to the larger east lots 3 and 4, tying together over 85% of the parking spaces on campus.

This consolidation should also be an opportunity to render the parking lots safer and easier to navigate. At the very least, parking should be eliminated from entrance drives, such as that along Blenn Boulevard, which must currently back up into oncoming traffic. The College would be well

Fig. V.14
Site Repair

	Functional	Survival
First Five Years		
Connector Roads between south and north parking lots	1,080,625	1,080,625
subtotal, years 1-5	**$1,080,625**	**$1,080,625**
Second Five Years		
Demolish housing on existing military property; replace with parking		
a. Site acquisition value	9,000,000	9,000,000
b. Demolish two-story homes	1,406,250	1,406,250
c. Build parking lot (572,500 sf)	7,156,250	7,156,250
d. Allowance for landscaping (140,	1,053,750	1,053,750
subtotal, years 6-10	**$18,616,250**	**$18,616,250**
Total Project Costs	**$19,696,875**	**$19,696,875**

note: all figures include soft costs, as appropriate

served to consider eliminating this Blenn entrance entirely, permitting only one student/faculty entrance on the south side, near the Omni Center. Cut off from immediate access to the parking lots, the Blenn Boulevard entrance could then become a dedicated service entrance, linked to Perimeter Road and the Physical Plant Building.

Modest provision should also be made for tree pits or a stretch of covered walk through the south lot that can guide pedestrians through the lot to the campus entry. Funnelling pedestrian traffic in this way across clearly marked safety crosswalks will limit the points of pedestrian-vehicular conflict that currently occur as pedestrians randomly walk out into perpendicular oncoming traffic. These dedicated walking zones would be opportune places to mount emergency call boxes, video monitors and enhanced site lighting, providing an added level of safety. The College should also consider re-orienting these parking aisles to align the direction of pedestrian movement, further reducing the points of pedestrian-vehicular conflict.

Years Six through Ten

In the event the College is the recipient of the military housing north of Miller Avenue, the existing buildings should be demolished and new parking built with appropriate retention ponds to accommodate the added water runoff. A landscaped buffer strip should be located across the northern edge that effectively separates the campus from the commercial development to the north. Similarly, the lots themselves should be dotted with islands of planting so they are not characterized by the overwhelming scale of a strip-mall parking lot. For safety's sake, parking aisles should be run north-south so vehicles travel in the same direction as pedestrians making their way to campus, despite the reductions in parking spaces this will require.

Once this new, large north lot has been created, the College should consider taking the current east lot 2 (currently dedicated to staff parking) offline and converting that area to green space: either an informal practice field like the current Quad, or a more formal green space. Either setting will provide a more suitable "front door" for the campus than the current parking lot.

Fig. V.15
Summary: Campus Infrastructure

	Functional	Survival
First Five Years		
1. New transformers to provide redundancy in 13.8 kVA lines	$850,000	$850,000
2. Two replacement pad-mounted transformers for Campus Houses	$150,000	
3. New telecom and electrical conduit laid:		
a. Between Campus Houses (975 linear feet)	$97,500	$97,500
b. to Bradley Hall (600 linear feet)	$75,000	$75,000
4. Provision for emergency power		
Alt 1 Dual-fuel generator capable of electrifying one 13.8 kV feeder	1,400,000	
Alt 2 Localized oil generators		$400,000
5. Analyses, Surveys, Studies		
a. Campus Inventory Prepare CAD plans for all buildings (149,319 gsf). Prepare existing space profile based on survey of current use.	$96,000	$96,000
b. Videotape analysis and jet cleaning survey of sanitary/storm sewer lines	72,000	$72,000
c. Electric Generation Study	$20,000	
d. Campus Survey taken from existing documentation and field surveying	$145,000	$145,000
6. Connector Roads between south and north parking lots	1,080,625	1,080,625
7. Allowance for Health & Life Safety upgrades	5,000,000	6,000,000
subtotal, years 1-5	**$8,986,125**	**$8,816,125**
Second Five Years		
8. New telecom and electrical conduit laid: New distribution system for 1930's buildings: HTHW, CW, data and electric Includes two new transformers to service 1930's buildings	4,912,500	4,912,500
9. Two replacement pad-mounted transformers for Campus Houses	(see above)	$150,000
10. Analyses, Surveys and Studies		
a. Existing conditions survey of West Campus 14 buildings: four temporaries and eleven 1930's	52,000	42,000
11. Demolish housing on existing military property; replace with parking		
a. Site acquisition value	9,000,000	9,000,000
b. Demolish two-story homes	1,406,250	1,406,250
c. Build parking lot (572,500 sf)	7,156,250	7,156,250
d. Allowance for landscaping (140,500 sf)	1,053,750	1,053,750
12. Allowance for Health & Life Safety upgrades	6,000,000	7,500,000
subtotal, years 6-10	**$29,580,750**	**$31,220,750**
Total Project Costs	**$38,566,875**	**$40,036,875**

note: all figures include soft costs, as appropriate

ADA Upgrades

Years One through Five

A comprehensive study of ADA compliance is underway to determine areas on campus that need immediate attention. Until this report is issued, the College should carry an allowance for improvements over the next five years that adds wheelchair accessible ramps and rails to the front entrances of a number of high-traffic classroom buildings, including most of those 1930's buildings found in the west campus. Perhaps more important is rendering fully accessible those buildings that are partially accessible, such as the Academic Clusters. While students in wheelchairs can generally get from floor to floor there, marble saddles at bathrooms, narrow doorways and heavy door hardware make navigating these buildings difficult. A modest allowance should be set aside for remedying these deficiencies, along with restructuring bathrooms to permit adequate turning radii and proper handicapped-accessible fixtures.

Years Six through Ten

In the longer term, planning should begin on constructing new elevator towers serving the V and M (Nassau) Buildings, similar to those added to North and South Halls. If appropriately enclosed fire stairs are added at the same time, and these accessibility renovations are carried out in conjunction with the building systems improvements outlined earlier, the College could plan on keeping these buildings in the campus inventory indefinitely. Furthermore, a sizable amount of additional space could be reclaimed in each, particularly on the third floor of V Building.

Fig. V.16
ADA Upgrades

	Total
Years 1-5	
1. Add wheelchair-accessible ramps and rails to the front doors of eight buildings	$400,000
2. Allowance to upgrade bathrooms and hallway doors in clusters a. removal of marble saddles b. replacement of fixtures and partitions to allow sufficient turning radii c. replacement of interior doors	$150,000
Subtotal, Construction Costs	$550,000
Contingency (@ 10%)	$55,000
Administrative Costs (@ 10%)	$55,000
FF+E (@ 10%)	$55,000
Project Costs	$715,000
Years 6-10	
1. Add hydraulic elevators and stair towers at V and M (Nassau) Buildings	$1,200,000
2. Allowance to upgrade bathrooms and hallway doors in clusters a. removal of marble saddles b. replacement of fixtures and partitions to allow sufficient turning radii c. replacement of interior doors	$150,000
Subtotal, Construction Costs	$1,350,000
Contingency (@ 10%)	$135,000
Administrative Costs (@ 10%)	$135,000
FF+E (@ 10%)	$135,000
Project Costs	$1,755,000
Total Project Costs	$2,470,000

note: all figures include soft costs, as appropriate

Renovation of Clusters E and F

Project Priority and Intent

Clusters E and F will largely stand vacant once program is moved from to the new science and instructional facility these buildings. The College can then begin a much needed cycle of renovation through the Academic Clusters. There are several benefits to beginning with Cluster F:

- it has perhaps the worst problems of indoor air quality;
- the largest cluster in terms of net area, it will yield more renovated space, facilitating future renovation of other Clusters;
- it is located at the geographic center of the campus, allowing for programmatic adjacencies with many academic departments, but also the Library, Administrative Tower and College Center Building;
- it has a diversity of interior spaces: large lecture halls, classrooms and faculty offices.

Project Scope

With over 105,000 gross square feet the renovation of this building will be a sizable project, and may happen at three possible scales:

1. Remove the exterior envelope, including the single-glazed windows and unit ventilators. Remove all interior finishes and partitions. Install life safety systems (sprinklers, fire alarms, etc.) to comply with current codes. Install a modern variable air volume mechanical system to service all spaces. Install new operable double-glazed windows throughout.
2. As an alternate, the College could remove the skin and interior finishes and partitions as outlined above, but leave the chilled and high-temperature hot water piping in place. Instead of a VAV mechanical system, replacement unit ventilators would provide a significant cost savings. Operable windows would be installed in a new panelized wall system to ensure fresh air to each classroom.
3. The third and least expensive option in the short term would be to make spot repairs to the existing systems, but not perform the kind of gut renovation described in Options 1 and 2. In this scenario, the unit ventiltors would be replaced in kind, but the building skin would remain as is. Interior spaces would be reconfigured to meet new needs, but interior partitions and finishes would not be replaced throughout. The building would be brought current with applicable life safety codes.

While Option 1 is obviously preferable, its cost may extend beyond the College's reach. Conversely, while Option 3 implies the lowest project cost, it could prove more costly in the long term as the College will end up with a repaired rather than fully renovated building. It is likely to be the least comfortable for its occupants who, without operable windows, will have minimal control over indoor air freshness.

Implementation Strategy

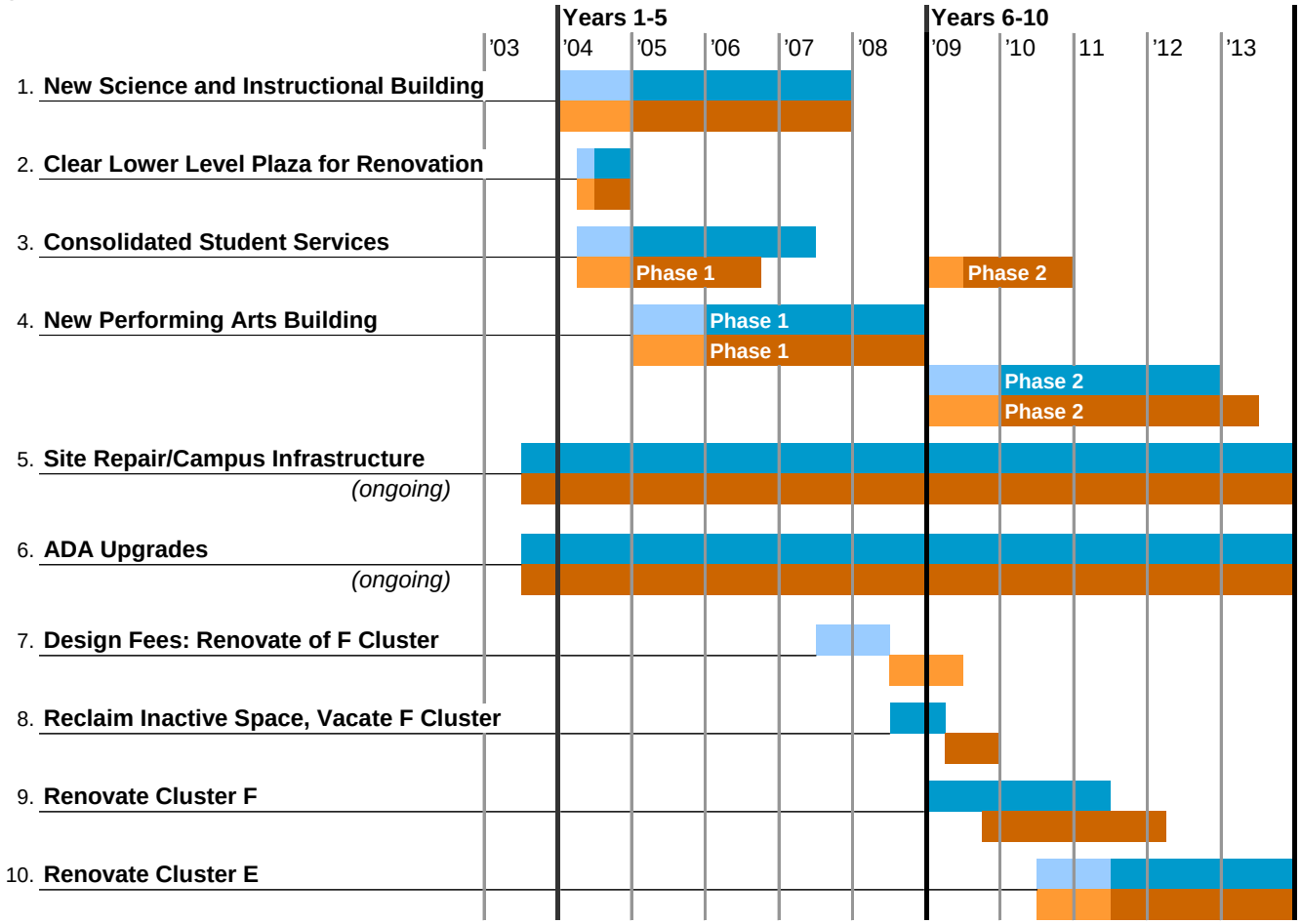
There are two critical projects that must happen before this work can begin. Foremost is that the new science and instructional facility be built at or close to the stated "functional" goals. Only then will sufficient space be freed in Clusters E and F to allow for their renewal. Secondly, residual program remaining in F Cluster (Continuing Education, ESL, et. al.) will have to be relocated. There are a variety of options that should be considered for backfilling Clusters E and F after they are renovated. As it will be more cost effective to pack these renovated buildings with technology infrastructure, rather than inserting it into the 1930's buildings, as a general theme, Clusters E and F should be seen as technology-rich buildings. To further satisfy the need for instructional space, a sizable portion of the building should be set aside for interdisciplinary computer labs and general use "smart classrooms". There can also be provision for spaces that meet the technology needs of various departments such as digital art labs, Web CT training rooms and an A/V workshop. The large number of offices inthe E and F Annex can be used to consolidate Reading and BEP back into the Clusters while the classroom wing of E can serve the needs of Reading/BEP labs as well as additional general use classrooms. Once this sequence is complete the College will be in a position to address V and M Buildings.

The project timeline can be shortened, however, if renovation design fees are set aside in years one through five. A design in-hand will have the added benefit of providing a firm cost estimate for the subsequent SUNY capital request and allow construction work to begin as soon as that money is released.

Fig V.17: Renovation Costs of Clusters E and F

	Functional	Survival
First Five Years		
1. Design fees to renovate F Cluster	1,978,346	OMIT
subtotal, years 1-5	**$1,978,346**	
Second Five Years		
2. Convert inactive space in V to classrooms	620,520	156,000
3. Vacate remainder of F Cluster	642,390	840,000
4. Renovate F Cluster		
a. at scale of Option 1	30,911,654	
b. at scale of Option 2		27,600,000
5. Renovate E Cluster	12,870,000	10,800,000
subtotal, years 6-10	**$45,044,564**	**$39,396,000**
Total Project Costs	**$47,022,910**	**$39,396,000**

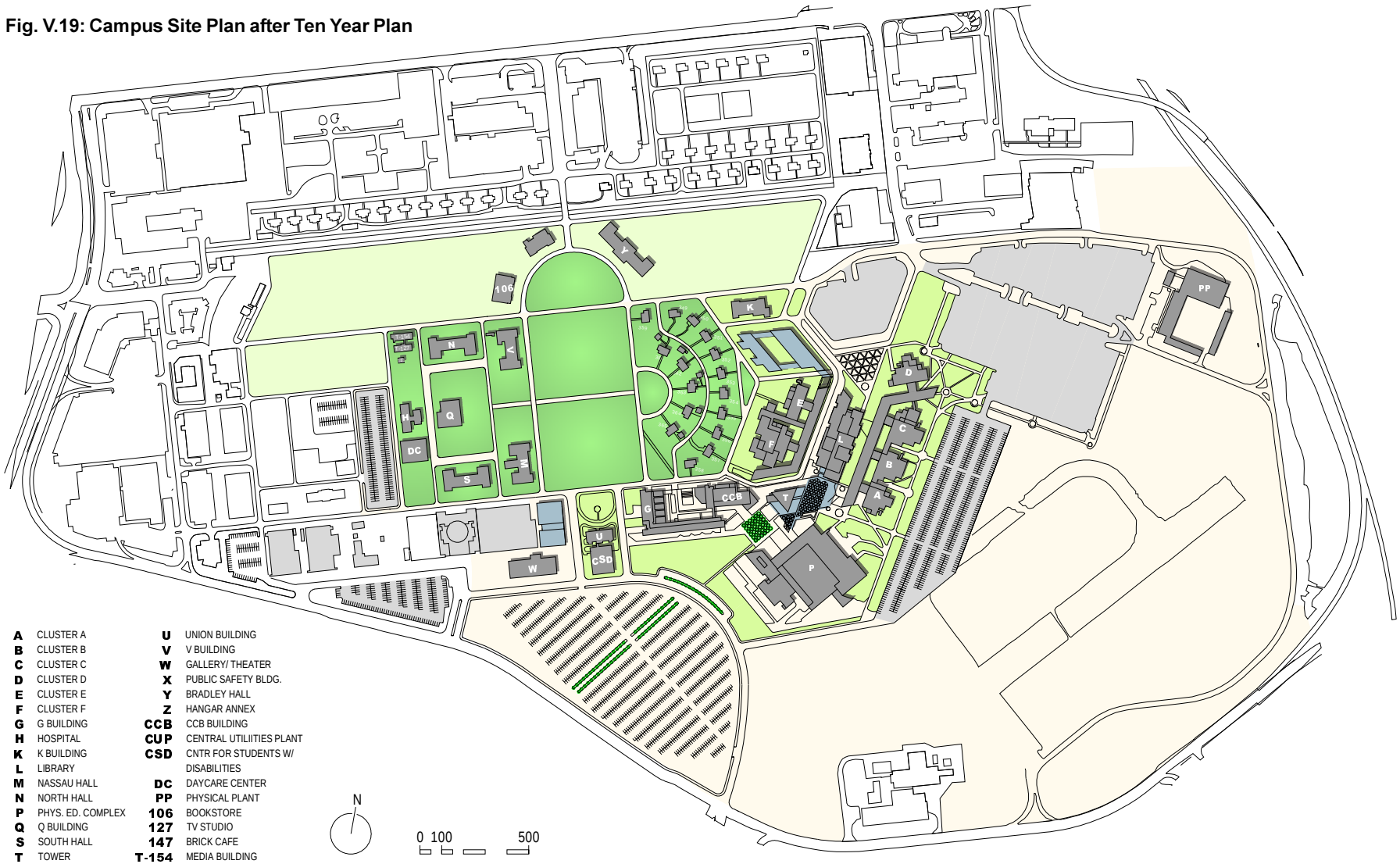
Fig. V.18: Ten-Year Timetable



	Project Costs (all figures $ millions) Functional	Survival
1. New Science and Instructional Building	93.696	68.651
2. Clear Lower Level Plaza for Renovation	2.073	0.602
3. Consolidated Student Services	14.054	7.505
		4.156
4. New Performing Arts Building	13.109	7.909
	16.748	21.947
5. Site Repair/Campus Infrastructure (ongoing)	38.567	40.037
6. ADA Upgrades (ongoing)	2.470	2.470
7. Design Fees: Renovate of F Cluster	1.978	N/A
8. Reclaim Inactive Space, Vacate F Cluster	1.263	0.996
9. Renovate Cluster F	30.912	27.600
10. Renovate Cluster E	12.870	10.800
TOTAL 10 YEAR COSTS	**227.738**	**192.674**

Note: lighter shades indicate periods of design; darker shades indicate periods of construction

Fig. V.19: Campus Site Plan after Ten Year Plan

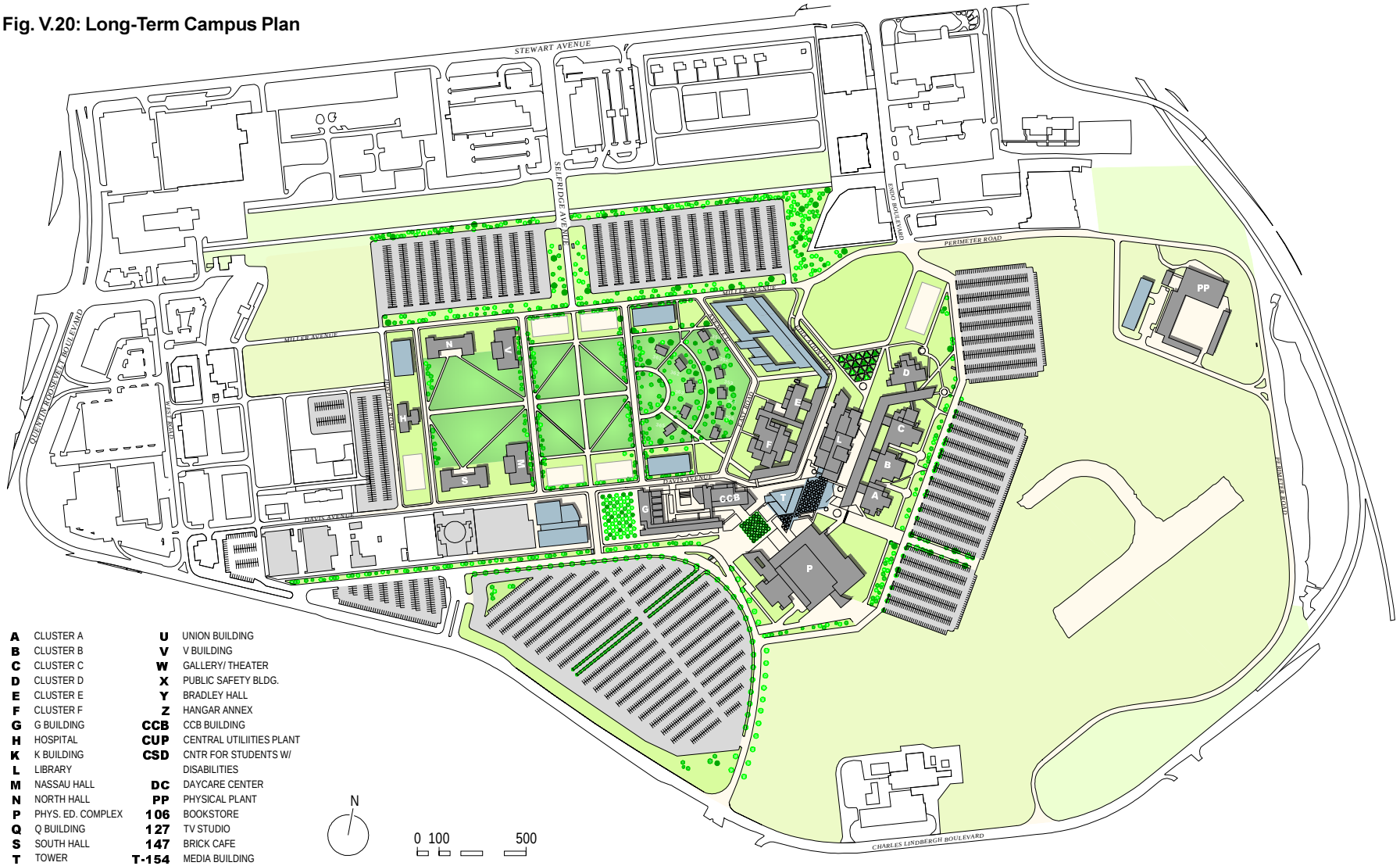


Intermediate and Long-Term Campus Visions

The matrix on page 178 shows the various recommendations together, compiled into a possible schedule with estimates provided at “functional” and “survival” scales. By the end of the first five years the College will have added about 120,000 net assignable square feet to its inventory. While this represents just over 40% of the projected space deficit, the programs identified will concentrate these limited resources where they are most needed. Equally important, they will facilitate future projects that will keep the College’s existing inventory relevant and useful.

The plan to the right shows how this intermediate plan might lead to a new long-term vision for hte campus. The quad had been reconfigured, from a space that currently divides the campus east from west, into a a space around which the entire campus comes together. Space has been reserved for new construction with additional sites reserved for longer-term expansion. Temporary structures have been removed, selected buildings from the 1930’s have been retained and restored and adequate parking lots have been distributed around the new campus.

Fig. V.20: Long-Term Campus Plan



A	CLUSTER A	**U**	UNION BUILDING
B	CLUSTER B	**V**	V BUILDING
C	CLUSTER C	**W**	GALLERY/ THEATER
D	CLUSTER D	**X**	PUBLIC SAFETY BLDG.
E	CLUSTER E	**Y**	BRADLEY HALL
F	CLUSTER F	**Z**	HANGAR ANNEX
G	G BUILDING	**CCB**	CCB BUILDING
H	HOSPITAL	**CUP**	CENTRAL UTILIITIES PLANT
K	K BUILDING	**CSD**	CNTR FOR STUDENTS W/ DISABILITIES
L	LIBRARY		
M	NASSAU HALL	**DC**	DAYCARE CENTER
N	NORTH HALL	**PP**	PHYSICAL PLANT
P	PHYS. ED. COMPLEX	**106**	BOOKSTORE
Q	Q BUILDING	**127**	TV STUDIO
S	SOUTH HALL	**147**	BRICK CAFE
T	TOWER	**T-154**	MEDIA BUILDING

Framework for Future Development

Having assessed and tabulated the total campus need and outlined the various projects that the College will need to undertake over the next decade to meet those needs, we must also enumerate a set of design guidelines to serve as a framework for that development. There are three principal components to such a framework:

Circulation the pedestrian and vehicular pathways that bind the campus together and link it to the surrounding community. These often overlooked spaces are particularly critical at an overwhelmingly commuter campus such as NCC.

Support Spaces the "soft spaces" such as computer rooms, gathering spaces and service spaces that generally do not demand a dedicated project but must be evenly distributed across campus to ensure efficient function

Landscape Guidelines the treatment of surfaces and finishes that determine the character of different parts of a campus, allowing for a variety of experiences while maintaining a sense the campus as a cohesive whole.

Circulation

Pathways
Generally speaking, the campus should be considered as a series of hierarchically arranged pathways, including both vehicular and pedestrian circulation.

At the outermost ring should be the off-campus system of access that includes Lindbergh, Stewart and Q. Roosevelt Boulevards. Within that ring, the College would be well-served to plan for a system serving students and faculty: a ring of roads and a "parking belt" of nodes of dispersed parking. Integrating parking with vehicular circulation in this way will prove much more convenient, bringing students and faculty closer to buildings while allowing for a choice of lots.

Although the current number of parking spaces is adequate given the current campus size, their consolidation into two large lots renders many spaces practically useless. While installation of covered walks will render more spaces usable, spaces that are currently more than 500' from the nearest building should be considered candidates for elimination. New lots should be evenly distributed around the campus perimeter. For this reason, the College is encouraged to pursue acquisition of the military housing lots to the north. This acquisition will have the added benefit of allowing for a landscaped buffer between the College and the commercial property along Stewart Avenue.

A system of service access must naturally overlap this public system of vehicular circulation. In addition to the campus ring road, these paths will include the primarily north-south pathways of Duncan and Hazelhurst Avenues, East Road (Avenue U) and Education Drive. Lockable bollards should be installed to separate service drives from student access drives. Large-scale service vehicles (garbage, campus mail, etc.) should be restricted to designated times, preferably early in the morning, to minimize disruption. If spaced appropriately, these bollards can permit passage of electric carts or other low-impact delivery/trash collection vehicles.

Although some through-traffic must be permitted through campus, the goal should be to keep such traffic to a minimum. Aside from campus service vehicles it would be desirable and convenient to

allow buses to continue using Duncan Avenue. It would be advisable to install an operable gate at the intersection of Duncan and Miller Avenues. Given the expense and unsightliness of these gates it would be best to keep their number to a minimum.

There are a number of vehicles that should be restricted from campus, including commercial through traffic. By closing off the central campus to all but service vehicles, routing perimeter traffic through parking lots, and then slowing that traffic down using speed bumps, through traffic can be strongly discouraged from entering the NCC campus.

Pedestrian Circulation

Parallel to the system of vehicular circulation should be a stratified system of pedestrian circulation. At the campus perimeter, busy roadways should be flanked by sidewalks with separating strips of plantings. Designated walkways should be established in parking lots to direct and orient people to the principal campus entrances. These axial pathways can be highlighted by plantings, an upgrade in materials, and possibly covered walks. Elsewhere, intermediate landscaped islands can mitigate the overwhelming scale of what will be necessarily large parking lots. Parking aisles should be oriented toward destination points.

Providing specific crossing points with safety-bar marked crosswalks and speed bumps will make it easier and safer for pedestrians to cross the broad lots.

Within the campus ring, the master plan posits a system of major and minor axes to direct and facilitate pedestrian flow. Given the bifurcated nature of the current campus, the intent is to strengthen the existing east-west axes as shown in Fig. IV.4. Foremost among these is the new central spine, which will act as a point of orientation that links the entire campus, as well as the attractive north entrance. Aside from facilitating getting from one part of the campus, these axes will convey a sense of formality and dignity that will contribute significantly to the campus experience. These major axes should be treated consistently (see Landscape Guidelines) to create a unified look to the campus. These major axes can be criss-crossed by a network of “convenience”

Fig. A.1
Table of Existing Parking

		Student	Faculty/ Staff	Handi- capped	Special Permit	Other*	Service**	TOTAL	
1	South Parking Field	1,677	140	20	3	14	7	1,861	
2	Gym Service Road				3		7	10	
3	G Lot		122	10	10			142	
4	Library Road East			7	1			8	
5	South Parking Field #2		52	3				55	
6	Duncan Ave.		62					62	
7	Lot # 5		76	11	1			88	
8	Hospital Road				3			3	
9	Building 111		3					3	
10	H Lot	290	27	8	7			332	*currently used but not belonging to the College*
11	behind College Bookstore	7		2	1	20		30	
12	T-154						4	4	
13	behind Bradley Hall	2	19	3	1			25	
14	K Lot		10	1				11	
15	11th Street			1	2			3	
16	Education Drive			10	5			15	
17	under Plaza			2	8			10	
18	North Parking Field #1	526						526	
19	Miller Avenue Extension	96						96	
20	North Parking Field #2	865		19				884	
21	North Parking Field #3		289	12				301	
22	Physical Plant		36	2			45	83	
23	Blenn Blvd	120						120	
24	Lot #4	417		5				422	
25	Lot #4a	96		1				97	
26	Lot #4b	170						170	
27	9th Street and Bldg. 147						2	2	
		4,266	836	117	45	34	65	**5,363**	

* Other includes motorcycle spaces and short-term parking

** Service includes police, security, ambulance spaces, as well as those for construction and maintenance

sidewalk paths; ancillary pathways will serve to reduce the overwhelming scale of the current space while more effectively knitting the campus together.

Parking Strategies

With so many students and faculty arriving daily by car, parking is a significant concern at NCC. Fig. A.1 details the current distribution of parking across campus. According to these numbers, the campus has a sufficient number of spaces as required by local zoning ordinance (see page 26). However, this does not factor in the average distance of each space from the campus entry or the final destination, nor does it take account of the inefficiency of having several smaller disjointed parking lots.

Beyond calling for linking the existing parking lots into a loop system and making them easier to navigate, the master plan also calls for the creation of a significant amount of new parking. As detailed in Figs. A.2 and A.3, the College can potentially add more than 800 new spaces of surface parking over the next ten years and beyond. While multi-tiered parking has not been considered in these analyses because of the significant expense, the College may eventually opt to charge for parking privileges and contract out the construction and management of such a garage.

At the same time, the master plan calls for the consolidation of parking into lots of a critical size, and the removal of scattered spot parking across campus. To this end, only parking serving the handicapped or service personnel should be allowed in front of buildings (e.g., along Duncan Avenue). The traffic congestion created by vehicles searching for the closest spots in these isolated lots far exceeds the convenience conveyed to so few people.

Fig. A.2
Intermediate Plan Parking

	Area (sf)	No. of Spaces
Existing Lots to Remain		
North Field #1		526
North Field #2		884
North Field #3		301
Physical Plant		83
Library Road East		8
H Lot		322
Education Drive		15
Reconfigured		
South Lot	710,000	2,290
East Lot 2	228,000	750
East Lot 3	110,000	366
Total No. of Spaces		**5,545**

Fig. A.3
Long-Term Plan Parking

	Area (sf)	No. of Spaces
Existing Lots to Remain		
Physical Plant		83
Library Road East		8
Education Drive		15
Reconfigured		
North Lot 1	280,000	848
North Lot 2	315,000	955
East Lot 1	190,000	576
East Lot 2	228,000	750
East Lot 3	110,000	366
South Lot	808,000	2,606
Total No. of Spaces		**6,207**

Intersection Improvements
There are several current points of pedestrian vehicular conflict the plan seeks to resolve:

1. ***the four-way stops at both ends of the hemicycle***
   The clean formal geometries of this portion of the site are not conducive to through traffic. This is perhaps most evident in the evenings, when day faculty and students are leaving around 5:00pm. This situation is exacerbated by the presence of an added number of taxis and buses picking up students at inopportune locations.

   The new plan proposes an equally formal and rigorous plan, but one that segregates pedestrian from vehicular traffic. By allowing bus traffic through campus to continue making pick-ups along Duncan Avenue, but routing car and taxi traffic back behind Hospital Road, those using public transit will retain the current convenience while minimizing the potential for accidents.

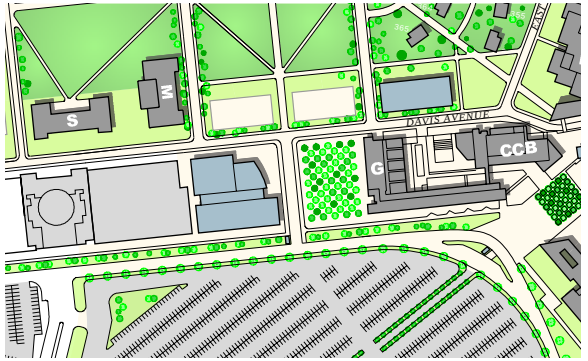
2. ***the area to the north of the CCB at the intersection of Davis Avenue and East Road***
   This node is currently the best and almost only option for students making their way between the east and west campus. Although the amount of vehicular traffic at this point has been significantly reduced, students are still forced to wall through the roadways, establishing a behavior that does not differentiate between the sidewalk and the street. Students therefore continue in the street along Davis and even north along Duncan, in direct conflict with oncoming traffic.

   The new plan posits a new pedestrian only east-west axis that, with the proper connections to the Clusters and the New Science Building, will make for an attractive and easier way of getting across campus. In the meantime, reworking Davis and Miller Avenues to widen their sidewalks and narrow their drives (see ***Landscape Guidelines***) will bring these pathways in line with their current usage.

3. ***The roadways around the Student Union Building, including Davis Avenue, the two through drives and the north drive of the parking lot.***
Isolated as it is on all four sides by active streets, the Student Union is poorly placed for so active a function. Traffic in this area is further complicated by the opportunities for through traffic, including buses that load and discharge passengers nearby. The Public Safety building only adds to the traffic in the vicinity, both due to patrol cars as well as visitors requesting parking passes.

Under the new plan, this area becomes the site of the new performing arts center. With its public face turned toward the parking lot and the Cradle of Aviation, and the campus side turned toward Davis Avenue, there should be minimal conflicts between pedestrians and vehicles. The large campus forecourt between this new building and the G building will further serve to separate pedestrians from traffic, while the ample bus drop offs will remove this function as well.

Fig. A.4
Detail of Arts Plaza



Support Spaces

Student Lounge and Study Spaces
The campus currently faces a sizable deficit in student/faculty service space. A significant amount of this deficit represents a lack of student lounge and study spaces. It would be highly desirable if the College created a number of these spaces in any new project.

The College currently boasts a number of attractive outdoor lounge spaces including the landscaped courtyards in the Academic Clusters and the stepped seating areas between the CCB and G Buildings. While such spaces are a significant campus asset and those that exist should not be compromised, they are of limited use given the local climate and the fact that most classes are offered between September and May. Furthermore, these outdoor gathering spaces may be sources of noise complaints if the Cluster buildings are eventually retrofit with operable windows.

With the exception of the CCB and G Buildings, there is a shortage of indoor lounge spaces on campus, most acute in the clusters given their high level of use. Given the tight scheduling of classes, students typically congregate in the hallways waiting for classes to start and the resultant noise is often disruptive to adjacent classes.

The creation of dedicated study lounges could facilitate the eventual refurbishment of the library, providing important alternative venues for studying while segments of that building undergo renovation. These spaces must be built as offshoots of other monitored spaces, however, to prevent vandalism and vagrancy.

Given the College's commitment to club hour, these spaces can also serve to provide opportunities for student groups to meet. They can serve as flexible conference rooms/meeting rooms for office spaces that do not require such dedicated support space.

Food Service

The College should also make provision for distributed food service and vending around the campus. This will relieve some of the peak-load pressure off the existing food court while making it much easier for students to get something to eat before or after class. This will prove particularly useful for evening and part-time students as well as students with off-campus jobs who have restricted schedules and lack the time for a sit-down meal. Rather than drawing market share away from the existing facilities, pushcart vending of prepared foods will likely increase campus sales by tapping in to currently unserved segments of the student population. If distributed appropriately, such venues might begin to keep students on-campus, dissuading them from opting for other local venues, such as the nearby malls. Given the College's superb landscaping, opportunities may exist for an outdoor café area that, in fact, draws workers from neighboring commercial areas.

While both these types of soft spaces are often considered nonessential given that they do not directly contribute to adjacent academic program, they are, in fact, vital to the larger campus functioning. Buildings that can “stand on their own” complete with a modest amount of student support spaces will better serve the College's active, part-time student body. They will also render the campus easier to maintain and control, as nonessential and low-use buildings can be closed down in the evenings and weekends. For these reasons, an allowance should be made in all new construction and renovation projects for a modest amount of such program.

Open Green Space

The last type of support space to be considered is the greensward, or large stretch of lawn and green space on campus. Foremost among these spaces is the current Quad. While it does represent a significant campus asset in its current form, there are a number of improvements that could be made that would serve to humanize its vast and overwhelming scale.

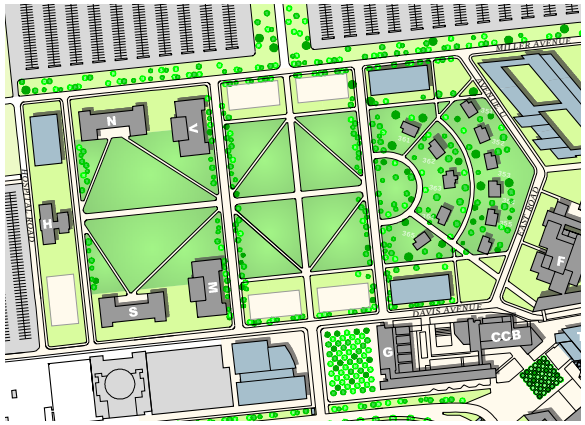
Although formally attractive, the superfluous hemicycle at the north end bears little relationship to the larger campus. Furthermore, given that traffic must navigate around this lawn resulting in a

series of four-way stops, finding alternate uses for this piece of land would also make for a safer campus.

Further reductions could be made to the Quad's overall size by considering its extreme north and south ends as possible sites of new construction. Although no specific projects have been recommended within the ten-year scope of this plan, sites have been demarcated as part of the longer-term vision that will provide prominent central locations for buildings to satisfy future needs.

These reductions in the Quad's north south axis can be made up for by fostering connections between this space and the quadrangle created by the west campus' 1930's buildings as well as the landscaped areas around the Campus Houses. With the completion of the new Performing Arts Facility, the Q Building can be demolished and the resultant space bounded by N, S, V, M and H buildings can be redeveloped as green space, either contiguous with the current quad or as an informal counterpoint.

Fig. A.5
Detail of Reconfigured Central Quadrangle



As can be seen in Fig. A.5, crossing the resultant space with a series of major and minor axes will serve pedestrians while giving a more humane scale to this large space. In this scenario, the Quad is considered as the heart of the redeveloped campus; a space to which students consistently return: a point of access as well as orientation. Although these paths will render the space unusable for practice fields, given the noise they generate along with the equipment and maintenance they require, such functions are better relocated elsewhere. In fact, such functions might serve to enliven portions of the campus that are currently inactive and underutilized, such as the areas north of D Cluster. If east parking lot 2 is eliminated in favor of a green space, this too might be a spot of more active recreation.

Landscape Guidelines

Introduction

One of the most attractive features of the NCC campus is the extensive amount of carefully tended lawns and mature plantings. The campus landscaping closely parallels the architecture in its clear division into distinct periods: that portion laid out during the 1930's, that developed during the expansion of the 1970's, those small pieces improved during construction of the CCB and G Buildings, and those incremental improvements that have been made in response to changing conditions at varying times over the years. It is this last category, of incremental and often haphazard landscaping that should be of greatest concern going forward.

As has been noted earlier, the College should arrange for a comprehensive survey to include all campus site utilities and underground runs to aid in the eventual implementation of the master plan.

Although the development of a comprehensive and coordinated landscape design is beyond the scope of this master plan, it is important to lay out a schematic framework for what such a design should include. To this end, the master planning team has compiled the following set of guidelines, which includes a list of the often-overlooked but essential design points on campus, and recommendations for how these might be considered to realize a consistent and attractive look on campus.

As a general theme that the campus should be divided into "zones" each with a distinct flavor. Landscape treatment should be consistent by zone, but not necessarily consistent across campus. These zones should include:

- 1930's west campus
- Campus Houses
- 1970's academic clusters
- 1990's CCB & G Complex
- the campus perimeter, including parking lots and entries

Site Lighting

There are two zones of campus that can be said to have considered site lighting: the 1970's Academic Clusters and the 1990's CCB and G Complex. The former has been outfitted with a hierarchy of simple modern fixtures consistent with the design of the buildings. Broad plazas and parking areas are illuminated by tall (~75') posts with clusters of metal halide lamps. Most noticeable, however, are the approximately 12' high posts set at regular intervals, each with eight incandescent clear bulbs (some have been replaced with "twist" compact fluorescents) set within yellow or orange tinted cylindrical lenses, four on each side. It should be noted that although these lamps have the unfortunate aesthetics of low-sodium lamps, casting a sickly pall over their surroundings, as incandescents they are relatively energy inefficient. Their yellow tint may have been intended to offset the glare they throw directly into the faces of pedestrians. Given overall campus priorities it is unlikely their lenses will be retrofit in the near future.

By contrast, the taller (~20') lumieres around the CCB and G buildings allow for a softer, more even distribution of light, which therefore requires fewer fixtures. Classically styled (similar to Bega's 9954), similar fixtures are commercially available from a number of manufacturers, allowing for competitive bidding and easy replacement/additions. There is a complementary system of low bollards for perimeter lighting and step lighting for wayfinding.

Site lighting around the 1930's and temporary buildings consists mostly of an odd assortment of utility and security lighting, with wide use of 1950's "cobra head" street lamps. In many instances, lighting is mounted on building facades, and directed out onto walkways or streets, resulting in glare that effectively decreases visibility. There are some areas that lack site lighting entirely, such as the south and east sides of the W Building (Art Gallery) and Avenues M and N. Although these areas can, to some degree, rely on neighboring lighting for some illumination, they are currently underlit for the traffic they see.

Given the likelihood the 1930's buildings of the west campus will remain in the College's inventory indefinitely, it would be advisable to develop a set of lighting guidelines so that as existing fixtures

fail they can be replaced with lumieres consistent with the neo-Georgian architectural context. The lone historic fixture in front of K Building might serve as a guide for future development. Generally speaking, three classes of lighting should be installed: street lighting at about 30 feet for passing vehicular traffic, path lighting at about 15 feet for pedestrian traffic, and walkway/accent lighting to facilitate wayfinding. Lighting should be aimed toward the surface to be lit, not into the faces of pedestrians. The College may choose to add the appropriate conduits and controls for such lighting when the data, telecom and electrical services to the west campus are improved.

Finish Treatments

Building Facades

The anticipated renovation of the Academic Clusters will present the possibility of façade replacement and renewal. New infill panels will provide numerous opportunities for increased energy efficiency and occupant comfort while addressing present health and safety concerns. Depending on their weight, it may be possible to install a panelized system with brick or tile set below sliding windows that is both economical and durable. Such a system could work aesthetically with the unavoidable structural presence of the concrete clusters while opening a dialogue with the older brick buildings that are likely to remain.

For similar reasons, new construction should be of brick, similar in tone and variety as the 1930's buildings in order to strike the best balance between economy, long-term performance and aesthetics. Operable windows, with white painted metal trim will also tie new construction back to the other buildings on campus.

ADA Compliance

There are a number of required pieces of site furniture in connection with compliance with current accessibility standards, including handrails, guardrails, and ramps. It is important this environment

be consistent across campus so the disabled community has only one set of signs and signals with which to become accustomed. The College would benefit from the development of a set of standards that advises on the treatment for each of these elements, in a way that contributes to the overall image of the school. These standards should begin with the set of general finish guidelines but should include treatment of the following:

- standards for color differentials for signage for people with limited but partial vision
- standard profiles for signage that incorporates Braille text
- a standard vocabulary of tactile surface treatments to indicate transitions, including grade changes

Paving

Principal Axes

Principal axes that cross the campus should therefore be finished in elegant, durable materials appropriate to the image the College seeks to project. Brick, or cast composite paving materials such as concrete or asphaltic blocks with granite cobblestone or cast curb trims would be appropriate for these high-profile walks. In either case, paving along these routes should be durable enough to support the weight of on-campus vehicular traffic, including fire trucks, bucket trucks to prune trees or change street lamps, and trucks with plows that may be used for snow removal.

Service accessories including manholes and drainage grates should be coordinated with other site furniture (benches, lamp standards, etc.). Depending on the routing of campus services, these primary pedestrian corridors may require manholes for accessing chilled and high-temperature hot water lines.

Secondary Pedestrian Corridors

These concrete sidewalks should require no special edging or other treatment. Design guidelines may consider how these paths cross primary pedestrian corridors, at which points a change in materials may be appropriate.

Campus Entries
Given the proximity of the new Cradle of Aviation Museum and the prospect of a new Performing Arts Center, there will likely be an increased amount of pedestrian visitors on campus. Attention should be paid to how paving can establish thresholds that separate public open areas from more private student reserves.

Edging
The College would greatly benefit from a low border edging at key pathways to channel pedestrian circulation. This is particularly the case around the current Quad, where cross traffic causes serious damage to the grass planting resulting in dusty dirt patches. Low fencing consisting of posts spaced 6'-10' apart with chain stretched between would limit general cross-traffic while permitting students to climb over to sit out on the lawn. These chains should sit no higher than 27" off the ground level to comply with ADA restrictions on barriers to paths of travel. This system of low fencing should either be painted black or green to retreat visually.

Site Furniture
The campus would benefit from a consistent vocabulary of site furniture that would tie the campus together. These pieces should be manufactured of quality materials, preferably pre-engineered purchased warranteed items designed for years of student use and exposure to the elements but requiring minimal maintenance. If maintenance of painted wood members proves impossible, the College should consider installing slats made of recycled plastic in a resin matrix. The west campus should receive first consideration, given the paucity of site furniture at this end of the College.

While consistency should be the guide, uniformity need not be the rule. Although more historical fixtures would be appropriate around the 1930's buildings, they would likely look out of place set within the Academic Clusters. What is important is that the vocabulary of elements be consistent to include the following:

Garbage/recycling receptacles

There are generally two kinds of outdoor garbage receptacles used on campus: a cast pebble panel over metal structure and a green and white break metal formed variant. A number of metal cans exist on the market today that would present a more dignified look on campus while holding up to harsh use in the long term. Given the various materials recycled by the Town of Hempstead, the College may consider distributing recycling bins around campus for newspaper or cans and bottles. In either case, such receptacles will "retreat" visually if painted black and have a minimum of surface detail. This visual clarity is particularly important if the College positions garbage bins in the middle of open plazas, such as the south entry plaza.

Pay Phones

There are currently very few pay phones outdoors on campus, and those that one can find are awkwardly sited. The College may consider allowing isolated pay phones be located adjacent to bus shelters for students to call for car pick-ups and developing a standard recognizable privacy “hood” that allows these fixtures to visually retreat that works with a distinct NCC bus shelter design. Connecting lines should be run underground to limit visual clutter.

Emergency Call Boxes

Although there are some emergency call boxes on campus, they are few and far between. To function effectively, they should be uniform in appearance and stand out visually from their surroundings. Ideally, they will allow two-way communication with the Public Safety office and include the possibility of an emergency signal light or siren. Priority should be given to locating new boxes in the more remote areas of campus, including the far west end along Hospital Road, and the parking lots where the level ground and long stretches of parking inhibits limits visual surveillance.

Screening for Garbage and Outdoor Storage

No matter how carefully planned a system of garbage collection the College implements, some sort of trash dumpster screening will inevitably be necessary. Although each location will be

unique, materials should always relate to the adjacent building. Materials should also be durable, resistant and of a level of quality that belies their intended use. These screenings should also be constructed to block views of outdoor storage, such as the salt pile. Such screens would prove most useful around the 1930's campus, whose buildings require street access for garbage collection. If the electrical service to this part of campus is upgraded, the transformer vaults might be rebuilt to form "service buildings" that consolidate these support functions.

Bus Shelter

Although not NCC's responsibility, the College may consider the design and installation of custom bus shelters in front of the Bookstore or west of the Student Union building that can accommodate the number of students that commute by County buses. There are often many more students than can be accommodated by the current aluminum frame shelters. Such shelters provide yet another opportunity to set a tone for a campus front door, and could incorporate campus/neighborhood maps, welcome signage and information on where to go on campus for information.

Traffic and Perimeter Control Elements

Bollards

The master plan has proposed that only Buildings and Grounds crew be allowed to drive on campus, and even then at limited times of the day. Enforcement of this policy would be greatly facilitated by the installation of removable bollards at several key locations. There are a number of commercially available candidates for both fixed and removable bollards.

Speed bumps, parking curbs, bumper corners

The College should select an integrated system of parking control devices to include speed bumps, parking curbs and bumper corners to enhance the look and function of the parking lots. There are a number of commercially available systems, generally made of recycled rubber, that can be stocked and installed as needed. Because the color is integral to the rubber, these purchased items

will not fade or degrade as do the current asphalt bumps and curbs. Although there are currently some speed bumps on campus, they are spaced too infrequently to enforce compliance with the Campus speed limit especially along parking lot access drives.

Guard booths

Although not currently deployed across campus, the College should consider installing guard booths at key nodes and access points. These should include CATV displays monitoring unguarded access points. Booths should be protected from the weather but allow 360° visual surveillance. Furnishings should include a stool that positions the security officer high enough to see even when seated. Equipment should include two-way radio communication with central campus security as well as the other guard stations on campus, a voice phone line connected to the campus system, and voice connections to the appropriate emergency response lines (police, fire, etc.). Air conditioning should be discretely incorporated into the design. There are a number of pre-engineered products on the market that can serve this purpose.

Video monitors

A frequent request of faculty and students was for an increased security presence on campus. Although there are currently some monitors installed on campus, there should be a campus-wide system of monitors that are relayed back to a central monitoring station, where their feeds should be recorded and stored for a specified amount of time before being taped over. Given the highly permeable nature of the campus perimeter, and the open, linked nature of much of the clusters, such monitors are sorely needed to supplement the campus patrols made by uniformed personnel. These monitors should also be integrated into any new dedicated pedestrian paths planned through the parking lots to render these isolated areas safer.

Remote cameras should be evaluated for aesthetics as well as functionality. There are a number softball-sized wide angle cameras available that allow surveillance without being visually intrusive. Conversely, cameras should be sufficiently visible so their presence is known and so as to act as an effective deterrent