EXECUTIVE SUMMARY

INTRODUCTION

The Bronx Community College (BCC) was established in 1957 and classes began in 1959. Classes were taught in various buildings throughout the Bronx until DASNY acquired the current 55.5 acre University Heights campus from New York University in 1973, becoming the permanent home of BCC. The College inherited a campus with buildings designed by such renowned architects as Stanford White and Marcel Breuer. Currently, the Bronx Community College is one of twenty three institutions overseen by the City University of New York (CUNY).

The space needs of the University Heights campus of NYU were significantly different from the current needs of Bronx Community College, though little has been altered to accommodate the change of tenants. Former dormitory buildings have been converted into faculty offices and non-code compliant classrooms. Former classroom buildings have been converted into administrative offices. The historic Gould Memorial Library is hardly used due to modern building code violations that have not been resolved. The campus is largely in the state that NYU left it thirty years ago, requiring extensive renovation and upgrades for the college to move forward.
The culture of the College is described as a “student-centered” and “engaged” institutional environment where the faculty is dedicated to personal interaction pedagogy with students. It is felt that technology could not and should not take the place of contact time with faculty, therefore BCC does not intend to have web-based/distance learning programs in the foreseeable future. BCC students tend to be “non-traditional students with traditional values” and often view the campus as a safe haven that allows them a time and a place to focus on their studies and to create opportunities to change their lives.

The lack of appropriate space has not hindered BCC’s desire and dedication toward creating a positive learning environment; however, the provision of appropriate space to meet the College’s specific needs and strategic goals could open many avenues to the success of both the students and faculty. A Space Planning Master Plan is needed to tabulate and analyze the specific needs of every department, create standards to correctly distribute available space, and locate departments, to create collegial relationships in more suitable spaces. The Space Planning Master Plan is based on BCC’s growth projections for 2014, and is in alignment with the strategic goals and priorities of the College as understood at this point in time.

Robert A.M. Stern Architects was commissioned by CUNY to develop a Space Planning Master Plan for Bronx Community College in conjunction with the design of the new North Instructional Building, the first significant new building to be added to the campus in more than thirty years. The North Instructional Building will include a library with an information commons and classrooms. RAMSA has worked with CUNY and BCC to develop goals, standards, and strategies to implement the master plan changes recommended in this document. The recommendations should be re-evaluated in the future, prior to implementation, to verify that they still align with the strategic planning and space needs of the College.

The Executive Committee and Steering Committee members were instrumental in the development of the Space Planning Master Plan. Through bi-weekly meetings RAMSA was able to better understand the culture of BCC and jointly generate ideas to meet the specific needs of the College. The development of the Space Planning Master Plan was a nine month long process that included campus-wide distribution of questionnaires, on-campus interviews, and several tours of the buildings on campus. Once the department sizes and final locations were established and confirmed, phasing strategies were developed and tested against goals, priorities, and evaluation criteria developed with the Steering Committee. See Section VI of this document for the approved list of Goals, Priorities, and Evaluation Criteria. Finally, cost estimates were prepared for the complete renovation or demolition of every building on campus.

**DEPARTMENTAL SPACE REQUESTS**

To better understand the spatial needs of each department, representatives from RAMSA, CUNY, and BCC interviewed the chair of each academic department. Key senior administrators were also interviewed to understand the overarching strategic priorities and goals of the College. (See minutes in Appendix I.) Drivers (driving forces) were identified for the space planning strategies based on the comments received. These drivers include locating appropriate functions in appropriate buildings, recognizing the “best and highest” use of each building, acknowledging affinities between programs, as well as repairing the architectural infrastructure and deferred-maintenance issues. It should be noted that this study does not address utility infrastructure except to allocate appropriate space in existing buildings to be used for future equipment upgrades.
CUNY Space Guidelines from 1972 were reviewed and modified with CUNY to meet the current needs of the BCC campus and to be in line with other recent CUNY projects. Standardized sizes were developed for faculty and staff space as well as for departmental space. The developed standards were applied to projected future growth, allowing each department to be located in a building large enough to accommodate it for years to come. Assumptions for space allocation have been clearly noted. See Assumptions for Space Allocation in Section IV of this document.

From all interviews and tours of the campus, improved classroom space stands out as the most acute need. The faculty reported that there is a measurable trend toward interactive group work in teaching, despite overcrowded conditions in existing classrooms. Most classrooms are too small for typical class sizes of 30 to 40 students and lighting, acoustics, light control, and ventilation pose real challenges in aging buildings.

Other space requests include a strong desire for several types of student space. The most significant space needs for students are study space and social gathering space. Study space includes private/quiet spaces as well as group study space. The desired group study space ranges from as small as a group of 3 or 4 to as large as groups of 10; group study spaces should also include tutoring spaces with computers. There is very little space on campus dedicated to informal gathering areas for students outside of the Roscoe Brown Student Center.

There is a very strong interest by the administration to enhance facilities for student services by forming a “Comprehensive Student Services” center for enrolling and continuing students by co-locating Admissions, Registration, the Bursar, and Financial Aid. This will be coupled with improved Counseling, Tutoring, and Academic Advisory space to further assist the students. To improve recruitment services BCC would like to create a “Welcome Center” for prospective students. Senior administration is also interested in providing additional testing space for Admissions, Remediation, and CUNY Proficiency assessment.

A space list was developed and refined for each department based on the collected space request data. This list was reviewed and “filtered” (vetted) with the Steering Committee to compile a final space list which was used as the basis of the Space Planning Master Plan along with an assessment of instructional space needs.

INSTRUCTIONAL SPACE

As noted above, improvement of classroom space is the highest priority for faculty, students, and senior administration. Improvement includes larger classrooms, improved acoustics, better lighting, appropriate ventilation and air conditioning, light control, and better audio visual teaching aids. Most classrooms are too small for typical class sizes of 30 to 40 students. This has not kept faculty from teaching with an interactive group work pedagogy which typically requires more space than a standard lecture format.

An extensive analysis of class size and utilization was performed using data derived from the BCC registrar, both to inform the mix of classrooms in the new North Instructional Building and to guide future campus renovations and development as the Library moves into the NIB. As the Library vacates its present space it will set in motion a domino lineup of backfill renovations including improved classroom space. Data shows that the majority of classrooms on the Bronx Community College campus can accommodate between 21
and 25 students, based on the New York City Building Code space allocation of 20 NASF/student. The majority of credit-bearing classes taught on campus in the Spring 2006 semester enrolled between 26 and 30 students, in other words, students had to be squeezed into many of the classrooms.

Class Size Analysis

Presently, credit-bearing classes at BCC generally do not surpass 40 students. Most classes range between 21 and 40 students, with more seminar size classes than large lecture classes. The most common class size ranges between 26 and 30 students.

Classroom Utilization Analysis

There are currently 133 rooms identified as classrooms on the campus (excluding dedicated labs). Of the 133, only 92 are used by BCC for “credit” and “non-credit” bearing classes and tracked by both CUNY and the BCC Registrar’s Office. Continuing Education classes are primarily scheduled in the same classrooms that general academic classes are scheduled.

Of the 92 classrooms used by BCC, 22 surpass the 80% utilization rate at least one day per week. Fourteen of these overscheduled classrooms are located in Colston Hall, though its classrooms are known as the worst on campus.

The average class size for BCC credit bearing classes is less than 30, though most classes still take place in undersized classrooms (by New York City Building Code standards: min. 20 sf/student). The few large classrooms that are available are not heavily utilized nor do they often house larger than average classes. Administration at BCC would like to offer larger classes than the present 21 to 30 range.

The percentage of classrooms available in this range and in general is not proportional to the percentage of class sizes taught. Classrooms seating up to 25 students and over 41 students far surpass the present need for rooms of that size, while the classrooms in the middle range, for classes with 26 to 40 students, are markedly deficient, especially for the 26 to 30 class size which presently appears to be favored by the college.

The analysis suggests that additional classrooms seating up to 40 students will address the deficiency of appropriate classrooms. Present classrooms are furnished with tablet arm chairs which do not lend themselves to group work. Larger sized classrooms are needed that can accommodate larger class sizes with light weight strip table and chair setups that are easily moved. This type of layout will require more than the NYC building code minimum of 20sf per student, and will more likely be in the range of 26.3sf per student. (See Appendix II, Section IX for classroom layouts.) The classrooms created in implementing the plan will become more proportional to the class size taught, allowing more efficient class scheduling. Although the present classroom utilization data would indicate that classes for 21-30 students are the most common at BCC, the College has advised that the classrooms in the NIB will be 36-seat and 48-seat classrooms in accordance with strategic goals for BCC growth.
Percentage of Existing Classrooms Available vs. Actual Class Size

Existing Classroom Capacity vs. Proposed Classroom Capacity
THE SPACE PLANNING MASTER PLAN

One of the primary goals of the Space Planning Master Plan is to evaluate program space needs and assign programs to spaces and buildings that are most appropriate for their function. Agreed-upon space standards and projections for future growth and development of each department have been applied to all programs. Departments have also been consolidated and grouped to encourage development of collegial relationships between programs with known affinities. This creates a more efficient campus with entire departments co-located in one building rather than dispersed throughout campus. New opportunities will be created between programs that encourage inter-departmental growth and exchange of ideas. In most cases there is some additional space in each building to allow for re-design as will be required in each building renovation. Classroom buildings have been concentrated around the historic quadrangle, the “heart” of campus. Administration has been consolidated in Gould Residence Hall, conveniently placed for students at the pedestrian entrance to campus, in an appropriately historic building. A complete summary of programs by building appears on the next page.
PROPOSED PROGRAM DISTRIBUTION BY BUILDING

Altschul House
CUNY Language Immersion Program

Alumni Gymnasium
Physical Education

Auto Technology Garage
Automotive Technology Program
Project HIRE

Begrisch Hall
General Academic

Bliss Hall
Art and Music Dept.

Butler Hall
College Discovery
College Now
COPE

Child Development Center
Child Development Center

Colston Hall
Education and Reading Dept.
English Dept.
Communication Arts & Sciences Dept.
Health Professions
History Dept.
Mathematics and Computer Science Dept.
Modern Languages Dept.
Social Sciences Dept.
Computer Services

Community Hall
Academic Computing
Student Life
Multi-purpose Shared Space
Student Space

Energy Plant
Physical Plant Services

Gould Memorial Library
Auditorium
Rotunda
Art Gallery
General Academic

Gould Residence Hall
Dean of Academic Affairs
Dean of Administration and Finance
Development Office
Facilities and Campus Planning
Dean of Institutional Development
Institutional Research
Office of the President
South American Research Institute
Student Development

Guggenheim Hall
Center for Sustainable Energy
General Academic

Havemeyer Hall
General Academic

Havemeyer Hall Annex
Safety and Security
Computer Services

Language Hall
General Academic

Loew Hall
Continuing and Professional Studies
Academic Affairs Programs
Administrative Services
Butler Hall Grant Programs
Counseling and Student Life
Health Services
Upward Bound

Loew Annex
To be Demolished

MacCracken Hall
Swing Space

Meister Hall
Admissions and Recruitment
Bursar
Financial Aid
Registrar
Welcome Center
Biology and Medical Technology Dept.
Chemistry and Chemical Technology Dept.
Media Tech Program
Nursing and Allied Health Sciences Dept.
Academic Computing
Academic Computing-Administrative
Schwendler Auditorium

New Hall
Mail Services
Computer Services
DASNY Office
Physical Plant Services
Receiving and Property Management
Reprographics and Print Shops

Nichols Hall
University Heights High School
General Academic

North Instructional Building
Library and Learning Resource Center
General Academic
Student Space
Evening Office
Security Office

Patterson Garage
Physical Plant Services

Patterson Hall
To be Demolished

Philosophy Hall
General Academic

Polowczyk Hall
Academic Advisement
Career Services
Disability Services
Enrollment Management
General Tutoring Center
Testing and Research
Transfer Center
Physics and Technology Dept.
General Academic

Roscoe Brown Student Center
Bookstore
Food and Dining Services
Playhouse
Student Activities
Student Government
Counseling and Student Life

Roscoe Brown Student Center Annex
General Academic

Sage Hall
Business and Information Sciences Dept.
General Academic

Snow House
Accounting-Administrative
Business Office
Human Resources
Payroll
Purchasing

South Hall
Center for Teaching Excellence

Systems Science
To be Demolished
Section II  Executive Summary

ORDER OF MAGNITUDE COST ESTIMATES

Funding of the “backfill” renovations and moves required to implement the Space Planning Master Plan requires an understanding of order-of-magnitude costs: a general idea (as opposed to an exhaustive facilities audit) of today’s construction costs to accomplish these initiatives in relative comparison to one another and for potential funding. Issues to be addressed in each campus building, include a range of scope: from making all buildings ADA accessible; to improved classroom environments (including appropriate lighting, cosmetic renovations, and state-of-the-art AV/IT upgrades with ceiling mounted projectors); to offices (including carpeting); to code and life safety issues; to HVAC, electrical, and plumbing upgrades (to support the above renovation and addressing deficiencies in campus bathroom facilities which are for the most part inadequate in size/fixture count and/or inaccessible); along with basic and sometimes detailed deferred maintenance associated with maintaining and restoring the campus’s significant, yet aging, buildings.

<table>
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<tr>
<th>BUILDING</th>
<th>$/SF (Gross Bldg Area)</th>
<th>RENOVATED AREA SF</th>
<th>GROSS BLDG.AREA SF</th>
<th>TOTAL COST</th>
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TOTAL COST - ALL BUILDINGS $ 259,821,119,091,192,146 $ 309,748,077

- THE ABOVE ARE ORDER OF MAGNITUDE COST ESTIMATES, NOT DETAILED COST ESTIMATES.
- ALL ESTIMATES ARE BASED ON CURRENT DAY 1/ 2007 COSTS.
- SOFT COSTS INCLUDING A/E AND FF&E ARE NOT INCLUDED.
- ($/SF IS BASED ON GROSS BUILDING AREA)
- ALL BUILDINGS (EXCEPT NICHOLS HALL) WILL BE COMPLETELY RENOVATED.
* SEE PAGES 178-179 FOR COST ESTIMATES OF ALTERNATE OPTIONS!
It should also be noted that CUNY is presently in the planning stage of a campus-wide utility infrastructure upgrade project (separate from this project) which, when implemented will support the level of renovation described in Space Planning Master Plan. The infrastructure project will influence the sequencing and phasing of the numerous projects identified in the phasing strategies as some buildings or clusters of buildings may be in more dire need to be addressed as systems reach the end of their life spans. The utility upgrade presently includes high tension electrical service, chilled water distribution, high pressure steam distribution, IT and security cabling, and emergency power. Water must be made potable on campus. In addition it is considered appropriate for buildings of this age for all renovation estimates to carry an allowance for hazardous materials testing and potential abatement.

The architects and structural and MEP engineers have applied expertise in their respective disciplines to outline a reasonable scope of work for each building’s renovation for the purpose of preparing order of magnitude cost estimates by the team’s cost estimating consultant. All order of magnitude cost estimates include hard costs only for each building renovation and are in 2007 dollars with no escalation applied. The relative costs associated with renovating each building or portions thereof were an important tool for CUNY/ BCC and RAMSA in fine tuning the ultimate sequencing of phasing options evaluated to accomplish the vision of the Space Planning Master Plan and will aid in financial planning, at least for short term projects.

PHASING PLAN OPTIONS

RAMSA has developed two phasing options for the implementation of the space planning master plan and related building renovations. (See Phasing Options 1 and 2 discussed in detail in Section VI of this document.) Both options incorporate the expressed goals of CUNY and BCC including and highlighting the improvement of classroom space, additional student space, standardized office space, activation of the historic quadrangle with student activity, creating beneficial adjacencies for departments, and providing accessibility to all buildings. Both phasing strategies maintain an adequate tally of general classrooms and attempt to minimize swing space and moving departments more than once, providing an economical “domino effect” throughout the implementation process. The primary difference between the phasing plans is which building will be the first large gut-renovation following the completion of the North Instructional Building: Colston Hall or Gould Residence Hall. Both options have pros and cons that must be carefully weighed before a decision can be made at the time of implementation.

The phasing strategies were presented and reviewed against evaluation criteria with the Steering Committee. RAMSA has considered potential political sensitivity at the college regarding the priority of projects and has attempted in the proposed sequencing of projects to fairly distribute the renovations to benefit all campus constituents in turn over time.

Classroom space at each step in the phasing sequences remains at a level such that Bronx Community College can remain functional. Currently there are 133 classrooms available on campus, though only 92 are actively scheduled for classes. The team has determined that 98 classrooms will be required for future needs scheduling; RAMSA has maintained a minimum of 103 classrooms throughout both phasing options. The phasing sequence “front-loads” projects that produce improved classrooms to provide more appropriate classroom space, and also to phase in the teaching of larger classes in larger classrooms.
Both phasing options are divided into short term, intermediate, and long term projects as shown below. The short term projects are currently funded or should be actively seeking funding. These projects are triggered by programs that are leaving the campus and vacating space or are required to be executed before the next large project can begin. Intermediate projects are triggered by spaces that will become vacant at the completion of the short term projects thereby continuing the domino effect with further campus renovations. Long term projects are independent “stand alone” projects that do not create any further domino effect for the campus planning renovations.

Though the phasing strategies are presented in a linear manner for clarity, in reality projects may not occur in the exact order presented. Short term projects should be the first projects considered and should generally be completed before intermediate projects are begun in order to have certain key prerequisites in place such as classroom space or swing space. The intermediate projects have flexibility in their order and may be rearranged fairly easily if priorities change. The quantity of classrooms available will determine the necessary order of projects once the first few steps are undertaken.

**Recommended Phasing Plan** (Applies to both Option 1 and Option 2)
Due to the sheer quantity of necessary upgrades on campus, a few projects should ideally occur simultaneously. This will set many different paths in motion, allowing CUNY and BCC to prioritize projects based on available funding and shifting priorities. The utility infrastructure upgrade could also influence the order of building renovations campus-wide. The phasing plan attempts to acknowledge the logic, priorities, and efficiencies which may be required of the infrastructure upgrade project.

Though spaces may remain vacant before full renovations occur, it is not recommended to temporarily locate any program unless it is clearly identified as “swing space”. All space identified as swing space should accommodate the existing size of a department rather than the recommended optimum final size. This will discourage long-term installations of programs in temporary swing space. As renovations occur and departments are “right-sized”, finding swing space will become more difficult as less space will be available. For this reason it may be necessary down the line to allow some vacated spaces to be used as temporary swing space while renovation projects are in the queue.
CONCLUSION

The Space Planning Master Plan provides a plan for the thoughtful redistribution of all departments at Bronx Community College. It also acts as a tool for CUNY to substantiate funding requests in a logical order. The phasing options are flexible to accommodate future shifts in strategic goals and funding sources as well as the influence of the utility infrastructure upgrade. Each step of the phasing plan will bring BCC closer to its primary goal of creating a collegial environment worthy of its students and reflecting the inspired dedication of faculty and administration.