

UMB0501 ST1

Campus Master Plan for

University of Massachusetts Boston

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COMMONWEALTH OF MASSACHUSETTS
DIVISION OF CAPITAL ASSET MANAGEMENT
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ARCHITECTURE &
URBAN DESIGN

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** Included in the Appendix as a summary and appears in its entirety in its respective report. DCAM has copies of all documents listed in the Appendix.

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The list here recognizes key individuals and organizations that participated in the planning process. Any omission or errors are unintentional.

All drawings, diagrams and photographs contained in this document are by Chan Krieger Sieniewicz, unless otherwise noted.

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EXECUTIVE SUMMARY

This Campus Master Plan was prepared for the University of Massachusetts Boston (UMass Boston), under the direction of the Massachusetts Division of Capital Asset Management (DCAM).

Background

The University of Massachusetts Boston campus was originally constructed in the 1970s. The campus buildings were designed to sit on top of, and be interconnected by, a plaza that covered a two-level substructure elevated twenty-five feet above the surrounding landscape. The substructure extended to each corner of the campus, including under each academic building and was designed and primarily used for parking. The facades of this two-level garage alternate from having fully solid brick walls or unprotected openings for ventilation.

Years of exposure to road salt and the elements has caused widespread corrosion damage to the two substructure levels. Mechanical, electrical, plumbing and architectural features have deteriorated as well. Over the years, deteriorated areas have been patched and repaired, including the installation of shoring supports under structural elements or utility pipes where the deterioration was particularly acute.

In 2005, concerns about the structural integrity of the campus buildings whose structure is integral with the deteriorating substructure levels, prompted the University of Massachusetts Boston (UMass Boston) to request the assistance

of the Division of Capital Asset Management (DCAM) to commission the firm, Simpson Gumpertz and Heger Inc. (SGH), to conduct a "Study for Structural Repair of Plaza and Upper and Lower Levels at UMass Boston Harbor Campus" (Massachusetts State Project No. UMB0502). This study proposed a comprehensive conceptual long-term repair solution with an estimated cost of construction of \$136,000,000 and a total project cost of \$160,000,000.

At the same time, UMass Boston also faced several issues that affected its facilities, including: deferred maintenance of many of its buildings; growth of academic programs; research endeavors drawing more external financial support; and a need to accommodate increasing enrollment. In 2006, key leaders of DCAM and UMass Boston made a decision to focus efforts on developing a Campus Master Plan to address UMass Boston's growth and to determine the best use of its physical resources. This led UMass Boston and DCAM to conclude that, rather than repair the substructure for parking, it would be more cost effective and beneficial to demolish portions of the substructure not under academic buildings and to replace the parking with new free-standing garages. An interim structural stabilization project was undertaken in lieu of the \$160,000,000 conceptual long-term repair solution to provide a 7- to 10-year solution.

The interim structural stabilization project would address the immediate

pressing structural issues while enabling DCAM and UMass Boston to undertake a comprehensive master planning process for a long-term solution for the campus. In connection with the interim structural stabilization project, the Substructure was closed in 2006.

Early Questions to Ponder

Amongst the planning and design challenges for this campus master plan to consider are: How to seize the opportunity to redefine and reconfigure the campus to improve it? Where to attain new connections to its surroundings, neighbors, and services? What is the best strategy to address obvious space shortage and provide connections to new facilities and landscapes? And how best to advance the campus into the 21st century as a competitive institution of higher education?

Scope of Study

As part of the campus master planning effort, technical studies by the campus planning team included: documenting existing conditions and programs, such as: amount, quality, and use of space; evaluating building systems, such as: heating, cooling, plumbing, electricity, fire protection, and utilities; conducting traffic and parking studies; surveying property, buildings, open spaces, topographical features, and property boundaries; and coordinating with other independent consultants studying the campus.

25-Year Campus Master Plan



25-Year Campus Master Plan of building parcels and open space network for UMass Boston

Summary of Issues

Some of the findings include:

- Enrollment has grown from 6,000 students in 1974 to 15,000 in 2009
- No new academic buildings have been built since 1974
- An evaluation by Rickes Associates estimates that there is shortage of approximately 600,000 gross square feet of academic space to accommodate current enrollment
- Many facilities do not meet current codes
- The entire utility and telecommunications backbone of the campus is threaded through the ceiling of the Substructure and must be replaced before the Substructure can be demolished
- The repair or adaptive reuse of some of the major existing academic buildings would exceed their replacement value by an estimate of up to 150%
- Because all existing buildings are fully occupied, no existing buildings may be demolished before new buildings are built

The Planning Process

The campus master planning process was developed to be as inclusive as possible. Overall project management was directed by the Commonwealth of Massachusetts Division of Capital Asset Management (DCAM), which owns and manages the land and non-revenue producing facilities on the UMass Boston campus. The University of Massachusetts Building Authority (UMBA) provided expertise and consultation for revenue-producing facilities, such as student residences, resident dining facilities, and parking structures. Liaison with the UMass Boston campus was conducted through a master plan steering committee (MPSC) with representatives from a thorough cross-section of administrators, faculty, staff, and students.

The master planning process included over 160 interviews, meetings, workshops, presentations and public meetings. Matching specific campus needs and campus goals to analyses and conceptual solutions helped to reach consensus towards a preferred planning strategy. Periodic project reviews and presentations were made to a cross-section of the senior university leadership, including the Chancellor and the UMass Board of Trustees.

Major Review Committees

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Master Plan Vision¹

The Master Plan will develop a physical blueprint for UMass Boston that optimally reflects and supports strategic priorities and goals. The physical environment will be renewed and rebuilt to meet the needs of students, faculty, and staff as they contribute to the University's leadership in public higher education and research in the twenty-first century while pursuing its urban mission. The re-centering and reorganizing of campus space will result in a more vibrant and engaging University life. State of the art facilities will inspire and connect our students, faculty, and staff with the University's local, national and global communities and serve to bolster ties with our surrounding neighbors.

Master Plan Guiding Principles:

1. http://www.umb.edu/administration_finance/masterplan/index.html

Pursuit of Urban Mission

From its founding in 1964, UMass Boston was defined as a University with an “urban mission” whose teaching, research and service programs will serve the public and promote community engagement. For the Master Plan, particular attention will be paid to the site location and design of facilities in support of academic priorities that seek to advance UMass Boston’s urban mission. In addition, collaborative strategies will be considered that cultivate partnerships with the community and integrate campus plans with those of the larger community.

Student Life

In recognition of the need to improve student life at UMass Boston, the Master Plan will focus on re-conceptualizing space to meet the specific needs of both commuting and resident students (i.e. accessibility of information, social and cultural events, dining, rest and comfort, intercollegiate athletics, recreation, physical fitness & wellness) and determine how it can support the enhancement of the student experience at UMass Boston.

Green/Sustainable Facilities and Environmental Priority

The University’s strong commitment to environmental protection and sustainability will be integral to the Master Plan. Sustainable site development, energy efficient building design and materials, renewable energy sources and technologies, use of recyclable and locally available materials, and increased reliance on clean transportation alternatives will be prioritized in this process.

Durability & Flexibility of Space

Given the environmental conditions of the campus, durability of facilities is an important design standard for future buildings. Moreover, the need to maximize the versatility of space and technological resources must be considered in the design of academic buildings that will enable space to be re-configured over time without major structural modifications, while providing an inviting teaching and learning environment for students and faculty, and the necessary infrastructure for existing and future technology.

Integration of Space Functions

New and renovated academic facilities should house a mix of academic programs so as to help support interdisciplinary instruction and research at UMass Boston. Under this concept, non-academic and co-curricular activities regarding student life and other social activities would also reside in academic facilities as one method of helping to meet student needs and concerns.

Use of Ground Level Space

In an effort to help enliven campus life and provide an asset to the larger community, campus buildings should accommodate non-academic functions such as retail, recreation, physical fitness & wellness, and public safety.

Incorporation with the Natural Surroundings

The future campus design and orientation should take full advantage of the natural beauty of Columbia Point and sensibly integrate the physical plant with the waterfront.

Integration with the Surrounding Community

Through the rebuilding of the campus, options exist to strengthen in a respectful manner the University’s physical connection with its neighbors, including the JFK Library and Commonwealth of Massachusetts Archives, and enhance its place in the neighborhood as an accessible public area.

Transportation and Parking

Through campus design, comprehensive solutions to accessibility to the campus should be addressed including the facilitation of multi-modal transportation alternatives (i.e. bus, subway, automobiles, bikeways, boat, and pathways) and construction and location of above ground parking structures that respect pedestrian connections, adjoining land uses, and the natural surroundings, and enhances connections with the surrounding community. The University will coordinate with other state and municipal agencies on future transportation plans for Columbia Point.

Future Growth and Development

The Master Plan will make available future building sites that provide a range of future land use activities to support the academic mission of UMass Boston and allows for growth and development that positively impacts adjacent land use, campus accessibility, and the natural surroundings.”

Summary of Urban Design Principles

Following an extensive planning process review with UMass Boston and DCAM leadership, a 25-Year Campus Master Plan was extrapolated from many options considered, reviewed, discussed, and approved. The plan provides some flexibility for each parcel to adapt to changes over time guided by primary urban design concepts that establish the fundamental structure upon which the plan is built, including:

- 1 **“Main Street”** — a north-south *pedestrian promenade* that links the Campus Center to the reconfigured north campus gateway where Mt. Vernon Street intersects the realigned University Drive North at a new campus gateway to the campus at the foot of the historic Calf Pasture Pumping Station.
- 2 **Bianculli Boulevard Corridor to Central Quad** — a complement to Main Street that serves as the east-west secondary main street that originates from the intersection of Morrissey Boulevard and Bianculli Boulevard, and enters the new Central Quad in the heart of the campus. At the intersection of the two streets is UMass Boston’s new **Central Quad** — the primary public forum traditionally found in the middle of a city.
- 3 **Primary Campus Landscape & Circulation Network** — the paramount landscape that extends from a new signature **West Campus Gateway** at the intersection of Bianculli Boulevard and University Drive South/ University Drive West, through the Central Quad, and terminating at the east harbor waterfront common.
- 4 **Building Site O** — a new academic building site to bracket and help frame the Central Quad, interrupting



25-Year Campus Master Plan

the visual axis from the Bianculli View Corridor, and guiding pedestrian flow through the Primary Campus Landscape and around Campus Center.

- 5 **Building Site A** — a signature academic building site to help define and complement the West Campus Gateway at the beginning point of the Primary Campus Landscape corridor, and help frame and not interrupt the Bianculli View Corridor through the portal between Healey Library and Quinn Administration Building.
- 6 **Parking Structures** — construction of two free-standing garages to: (a) regain land currently used for temporary parking; (b) capture vehicles at entry points to campus; and (c) reduce amount of traffic penetrating into the campus proper. Emphasis should be placed on garage designs that provide flexibility and accommodate other uses, such as building over the central service lot without diminishing service, and support

future development on Site T if the running track is relocated elsewhere in the future.

The 25-Year Campus Master Plan establishes a blueprint for enhancements to the campus while offering wide latitude of interpretation for future planning and design. This flexibility of the plan allows decision-makers to adjust and adapt the plan to respond to changing circumstances, such as: curriculum adjustments, pedagogical changes, demographic preferences, funding availability, enrollment fluctuations, transportation evolution, environmental conservation, code changes, and impact of adjacent development.

First phase implementation of the 25-Year Campus Master Plan anticipates an initial number of improvements for the first ten years. Among the highest priority actions to be undertaken include:

- Relocate University Drive North to align with the end of Mount Vernon Street
- Realign University Drive West to



"Main Street"



Primary Campus Landscape & Circulation Network



Healey Library facing the Central Quad



Bianculli Boulevard Corridor to West Campus Gateway



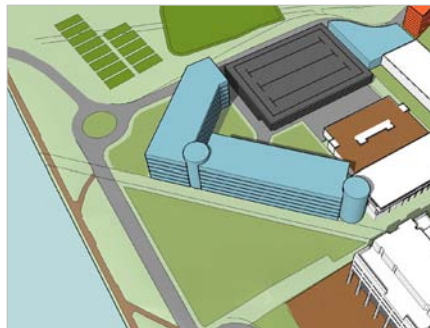
Central Quad



East Harbor Common

provide additional land within the campus loop road

- Realign University Drive East to create signature landscape space in front of the Campus Center that is not bisected by the road and that more seamlessly connects to the Harbor-Walk
- Implement the Primary Campus Landscape & Circulation Network
- Initiate construction of Parking Structure(s)
- Replace and relocate the Utility Infrastructure
- Initiate construction of at least two new academic buildings
- Demolish Substructure and Science Center
- Renovate selected areas within existing academic buildings
- Construct new Athletic Fields
- Develop 1,000 residential beds



Future Integrated Science Center at West Campus Gateway



Future General Academic Building at edge of new Central Quad



West Campus Gateway



North Campus Gateway at end of Mt. Vernon Street



Shared Athletic Fields with Boston College High School



Garages PW and PE along reconfigured campus loop road

I. UNDERSTANDING THE EXISTING CAMPUS



View of existing Substructure interior



Central campus plaza between Healey (left) and Quinn



South Lot, one of two lots flanking the main campus entrance



Existing entrance landscape near Healey Library



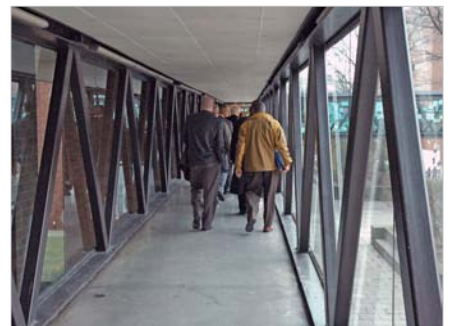
Student lounge in Wheatley



Waterfront landscape



Existing Science Center corridor



Existing catwalk interior along Science Center

SUMMARY

This chapter identifies the physical and natural characteristics of the existing University of Massachusetts Boston (UMass Boston) campus, its programmatic and operational issues, and past, present, and future considerations in shaping the campus. Broader issues of the Columbia Point peninsula are also identified to consider potential opportunities on how and where the campus may play a role in improving the peninsula's relationship to Dorchester — UMass Boston's host neighborhood; in improving its relationship to downtown Boston — UMass Boston's host city; and in expanding its importance within the network of educational, employment, and recreational resources — UMass Boston's host region.

Both Columbia Point and the UMass Boston campus have had humble beginnings relative to the rest of Boston — physically, socially, culturally, and politically. Advancements within each of these arenas, and the many achievements by the university, have created a new milieu and opportunity to improve the physical environment within the campus and with the urban context and natural amenities surrounding the campus.

A major opportunity is presented to transform the campus by the need to address the deterioration of the two-level above-ground parking structure — the Substructure — upon which most of the original campus buildings sit. Consideration of demolishing the Substructure beyond the footprints of the academic buildings would allow the campus build-

ings to improve and attain new connections to its surroundings, including: existing and planned campus buildings; the surrounding natural landscape and recreational amenities; nearby institutions, such as the John F. Kennedy Library and Presidential Museum, the Massachusetts Archives, Boston College High School, and the planned Edward M. Kennedy Institute for the U.S. Senate; surrounding neighborhoods, such as Harbor Point and Savin Hill; and existing and planned mixed-use development projects near the multi-modal JFK/UMass public transit station.

Beyond the deterioration of the Substructure, studies performed by Gilbane Building Co. in October 2005 and as a part of the master plan process reveal that major systems in the original campus buildings have reached, or are now reaching, the end of this useful life cycle. Outdated or obsolete facilities, overdue deferred maintenance, and inadequate and deficient spaces, are some of the problems that need immediate attention, correction, or improvement through either new facilities or various degrees of renovation and/or replacement.

Additionally, the curriculum has grown and enrollment has more than doubled since the University relocated to its new campus on Columbia Point in 1974. No new facilities have been built since the original campus was completed in 1977, except for a much needed campus center, completed in 2004. While retaining its status as a commuter

school for the vast majority of students, on-campus student residences are being seriously planned for the first time in order to accommodate student demand; reduce commuting time, cost, and energy for some students; and to qualify for competitive academic programs such as Fulbright Scholarships that require on-campus student housing.

As part of the campus master planning effort, technical studies were conducted to document existing conditions and programs, including: amount, quality, and use of space; building systems, including: heating, cooling, plumbing, electricity, fire protection, and utilities; traffic and parking; survey of property, buildings, open spaces, topographical features, and property boundaries; and coordination with other independent consultants studying the campus. Summaries of the assembled data may be found in the Appendix. Complete and detailed assemblage of the data may be found in two separately submitted documents, the 402-page *Volume 2A: Existing Conditions Report*, and the 250-page *Volume 2B: Existing Conditions Report Appendix*.

Chapter II will summarize the process of investigations that explored numerous design concepts, alternatives, and opportunities presented by the site and its context. Chapter III will present detailed expansion and refinement of the Preferred Campus Master Plan, including summaries of analyses, discussions, and feedback received from the planning and review process.

Introduction



1977 aerial view of UMass Boston against the Boston skyline (Source: *A Decent Place to Live* by Jane Roessner)

In January 1974, 6,000 students of the Boston branch of the University of Massachusetts relocated from the school's downtown location to a brand new 100-acre campus at Columbia Point in Dorchester. At the time, the campus was the largest building project in Commonwealth history, and may have been the largest project anywhere to use construction management to simultaneously manage six independent architectural teams to complete the planned 2.6 million gross square feet project in record time. The completed project represented approximately one-half of a campus master plan that was envisioned to eventually accommodate a projected enrollment of 15,000 to 25,000 students. An athletic facility was added in 1977 to complete the initial phase of the campus.

Today, as UMass Boston embarks on its first campus master plan in over thirty years, the context around the UMass Boston campus has experienced some significant changes that have and would continue to influence the evolution

of the campus, including:

- the opening in 1979 of the nearby John F. Kennedy Library and Presidential Museum, and a planned expansion to be built on land acquired from the Commonwealth in April 2009
- the opening in 1986 of the Massachusetts Archives which is situated between the Campus Center and the JFK Library
- a complete renovation and transformation in 1990 of the adjacent Harbor Point housing development, transforming it from a subsidized public housing project to a mixed-income residential community
- the completion in 2004 of a new campus center to help increase total campus development to 2.4 million gross square feet
- a proposed \$50 million facility for the Edward M. Kennedy Institute for the U.S. Senate to be built adjacent to the JFK Library

A Time and Need For Renewal

By 2006, four important events presented both challenges and opportunities to be addressed: (1) deterioration from salt infiltration to substantial portions of the steel reinforcement bars within the concrete floor slabs and columns of the two-level, 640,000 gross square feet, 1,560-car, above ground garage upon which most campus buildings sit, had reached a critical point prompting a complete shutdown of the Substructure parking garage and allowing only limited access for ongoing operations in other parts of the Substructure; (2) acquisition of the historic Calf Pasture Pumping Station building and 9.5 acres of grounds from the Boston Water and Sewer Commission; (3) rapid growth in student enrollment reaching 14,912 students by the fall of 2009; and (4) a call for a new campus master plan to study and suggest solutions to address the above and other related issues.

The challenges and opportunities for a new campus master plan raise sev-

The natural context surrounding the University of Massachusetts Boston is unique and unprecedented amongst institutions of higher education in the Commonwealth.



2007 aerial view of UMass Boston against the Boston skyline (Source: Sarah Weatherbee, UMass Boston)

eral overlapping questions:

- How should the campus solve the conundrum of its structurally damaged garage that serves as a podium under all of its buildings, and places the campus central open space two-levels above the surrounding landscape?
- How does the campus address the disparity between a student enrollment that has grown by 250% in size (from 6,000 to 15,000 students), while total campus development has increased by only 14% (from 2.1 million to 2.4 million square feet) since the completion of the original campus in 1977?
- Where, how and should the campus proceed with renovating and updating its buildings and infrastructure, many of which are in disrepair or obsolete?
- How can new improvements — both new construction and renovations — be phased in a ra-

tional order over time to minimize disruption to the campus while enhancing the quality of life on campus?

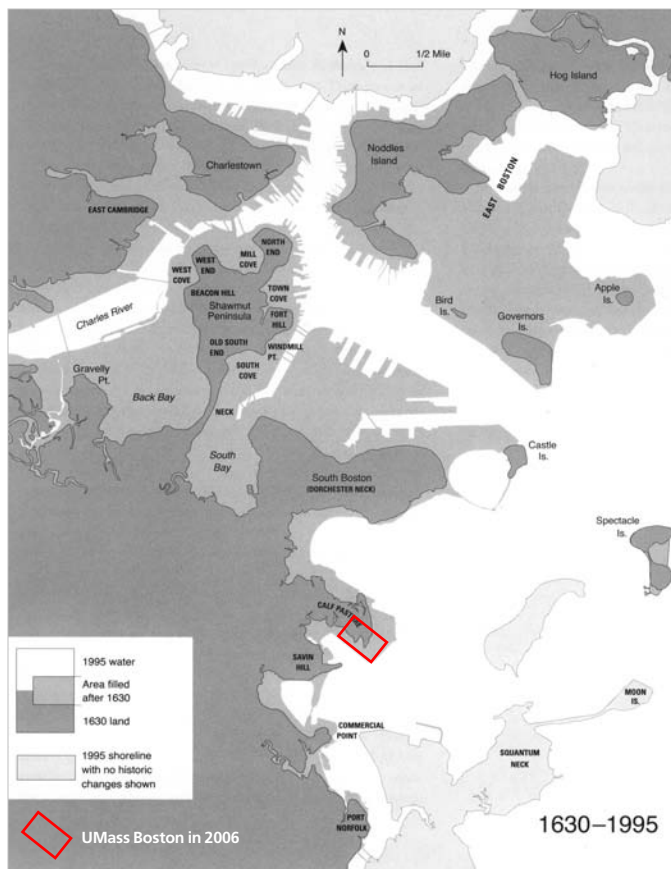
- How can the new campus master plan provide a greater sense of identity and create a physical environment that supports and enhances teaching, learning, research, and the campus's urban mission?
- How might the campus better relate to its neighbors, the unique natural surroundings, and the larger urban environment?

This report is the product of a comprehensive campus master planning process that began in January 2007 and was completed by a multi-disciplinary consultant team directed by Chan Krieger Sieniewicz and in collaboration with Hargreaves Associates, landscape architects, and a team of specialty consultants. While the primary mandate of the master plan was to produce guidelines that focus on the physical improvements and develop-

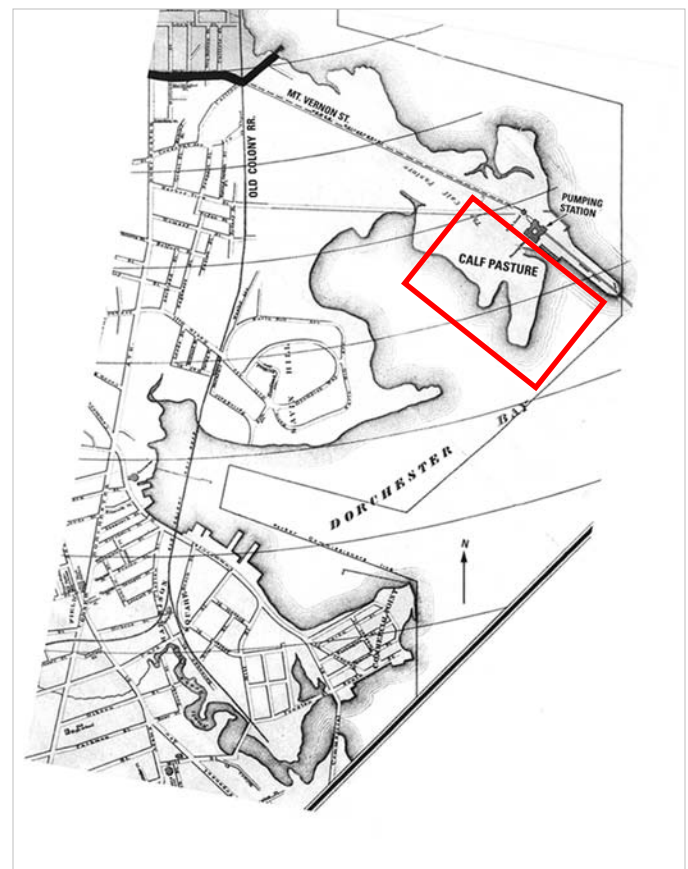
ment of the campus, a broader objective has been to anticipate and integrate the planning effort with other initiatives and influences of the surrounding context, and to propose a vision for the campus that will help to improve the peninsula of Columbia Point as a whole.

Planning for this project was done in conjunction with, and engagement of, representatives of the Massachusetts Division of Capital Asset Management (DCAM), who served as project managers of this study; the Master Plan Steering Committee of University of Massachusetts Boston; UMass Boston administrators, staff, faculty, students, and other constituents, such as the University of Massachusetts Board of Trustees and the University of Massachusetts Building Authority (UMBA); abutting property owners, including the John F. Kennedy Library and Presidential Museum, Massachusetts Archives, and Boston College High School; other concerned public agencies, including the Mayor of Boston, Boston City Council members, and the Boston Redevelopment Authority; and other concerned persons and public agencies.

Historic Perspective of Columbia Point



Boston land mass comparison between 1630 and 1995 (Source: *Gaining Ground* by N. Seasholes)



Map of Calf Pasture and vicinity in 1880 (Source: *Gaining Ground* by N. Seasholes)

Historic Origins

The UMass Boston campus as we know it today sits almost predominantly on landfill that was part of the expansion of Boston during the 19th and 20th centuries. The original 14-acre spit of land that jutted southeasterly into Dorchester Bay — called “Mattaponnock” by Native Americans, and served as the landing place for Puritan Settlers — was a tidal marsh that was used for the grazing of cattle between 1630 and 1869, providing the peninsula's first name as the Calf Pasture. Subsequent years, up until 1962, the peninsula was used widely as a garbage dump for the city of Boston.

Due to the site's humble status, historic maps suggests that the pattern of urban and transportation development virtually bypassed or ignored the Calf Pasture, and literally isolated it from the urban fabric. As a result, the Calf Pasture

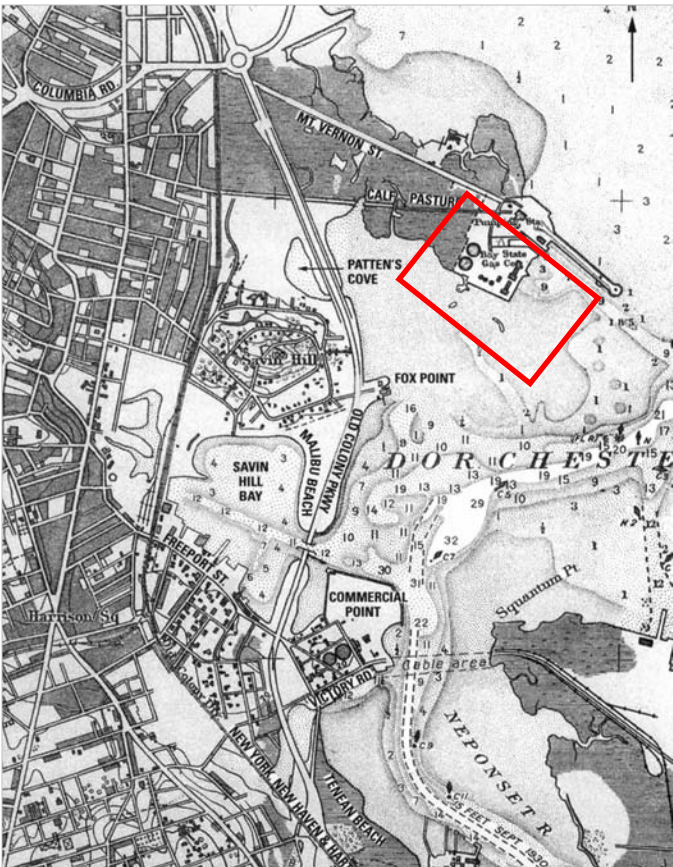
— today known as Columbia Point — remains a virtual satellite of Boston, tethered by minimum and indirect connections to adjacent Dorchester and Greater Boston.

Initial Occupants

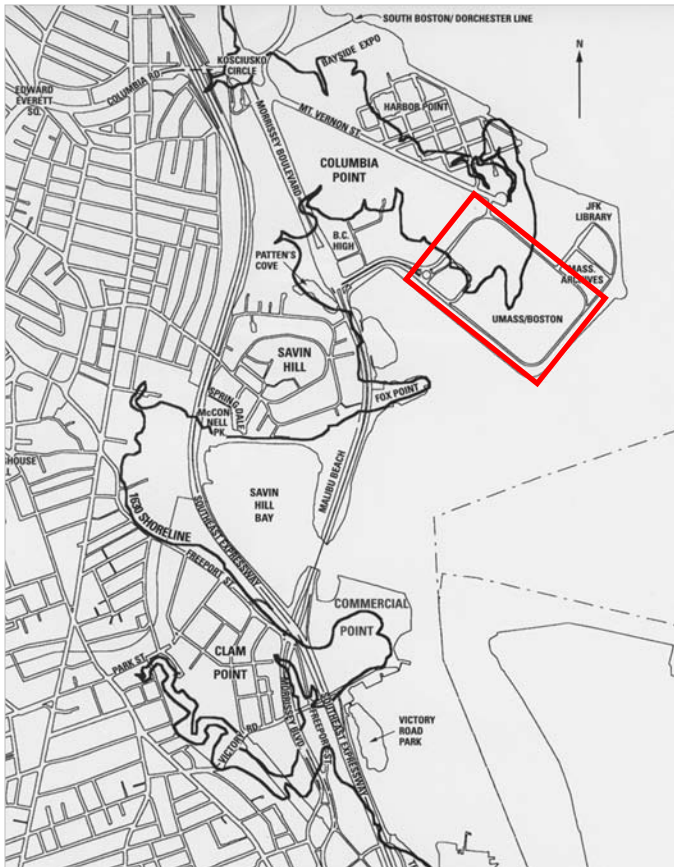
The first occupant — and remaining the oldest presence — on Columbia Point is the Calf Pasture Pumping Station, opened in 1883 with additions completed in 1905. The facility was the first of its kind in Boston to collect and discharge raw sewage out to Boston Harbor, and eventually served as a model for the rest of the country. The structure was designed for enormous mechanical pumps that would raise sewage thirty-five feet above the ground to allow gravity to carry the sewage out to the ocean through a long tunnel where the current would carry the untreated waste out at ebb tide.

The construction of the Pumping Station initiated the landfill on the Calf Pasture that included a long pier over an outfall tunnel that extends southeast from the Pumping Station towards Squantum Neck. The covered outfall tunnel can be found today between UMass Boston's running track and the John F. Kennedy Library and Presidential Museum, as part of a parking lot created by fill taken from the construction of the Campus Center, and marked by the original brick entrance pavilion at its east end.

Additional land was added to the Calf Pasture in the 1880s by the Boston Consolidated Gas Company that included several gas tanks in areas where UMass Boston facilities would be located, including: Service & Supply Building, Clark Athletic Center, Pool House, and the Substructure. Large-scale landfill operations began at what has become known as Columbia Point in the 1920s and continued



Map of Calf Pasture and vicinity in 1934 (Source: Gaining Ground by N. Seasholes)



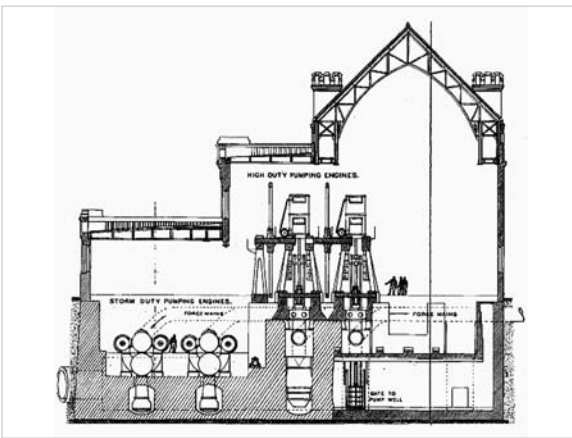
Comparison between 1630 land mass & 2001 street system (Source: Gaining Ground by N. Seasholes)



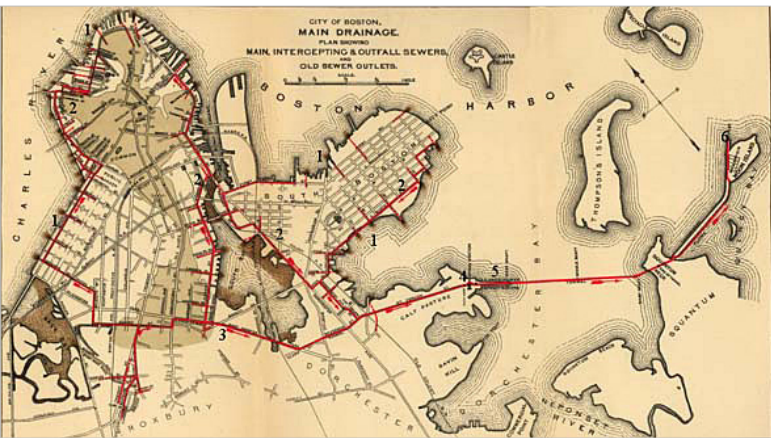
Pumping Station, 1885 (Source: www.dorchesteratheneum.org)



Entrance pavilion (3) to the covered outfall tunnel (1) leading from the Pumping Station (2) (Source: Gaining Ground by N. Seasholes)



Building section of Pumping Station (Source: web.mit.edu)



1885 intercepting & outfall sewers map (Source: City of Boston)

Site for the Future Campus 1883-2007

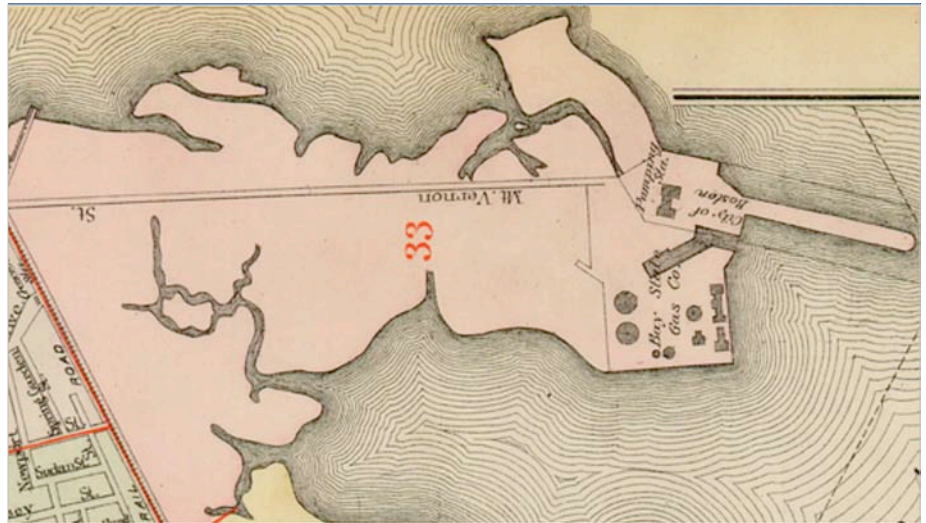
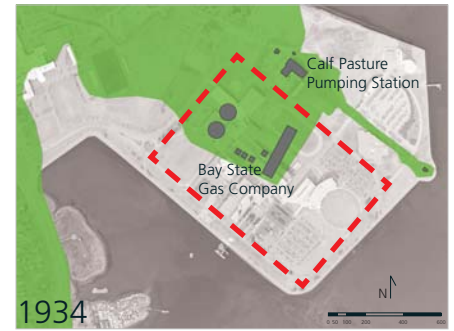
until 1962. This dumping expanded the size of the peninsula to 350 acres of land and added 30 feet of additional depth.

Boston College High School (BCHS), the next occupant at Columbia Point, completed its first building on its marshy and landfill property in 1950. Because the landfill was not well-compacted and full of empty underground pockets containing, among other debris, automobiles and oil drums, a ten-foot-deep concrete mat set on top of more than 100 caissons sunk 25 feet into the fill was needed as a foundation for the building — one indication of the abnormal circumstances to be encountered when constructing on the landfill.

Between 1951 and 1954, the Boston Housing Authority built the large public housing project known as Columbia Point Housing Development that resulted in changing the name of the Calf Pasture to Columbia Point, and introduced 1,504 apartments and 6,110 residents to the peninsula. The Paul A. Dever Elementary School was added in 1957, and the John W. McCormack Middle School was completed in 1967.

A New Location for UMass Boston

In 1967, Columbia Point was selected for the UMass Boston campus from over fifty other sites in Boston even though some of the planners felt that the site was too isolated, and because Copley Square, favored by campus students, faculty, and staff, was considered too valuable to the city's tax base to allow the tax-exempt university to build there. A 1967 report by the Boston Redevelopment Authority (BRA) touted the virtues of Columbia Point for an "Urban Campus by the Sea!", including: "the site is accessible to rapid transit and the Southeast Expressway; it is immediately available,



1889 Bromley Map showing the location of Bay State Gas Company gas tanks (Source: www.dorchesteratheneum.org)

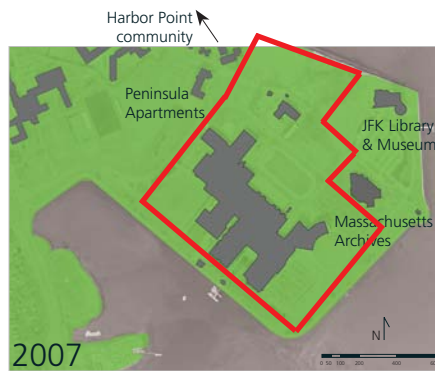


1923 aerial view of the Calf Pasture showing the Bay State Gas Company gas tanks (Source: *Mapping Boston*)



1968 aerial view of Columbia Point showing the Columbia Point Housing Development in the lower right (Source: *Gaining Ground* by N. Seasholes)

1. p. 113, *A Decent Place to Live*, by Jane Roessner



Diagrams produced in collaboration with Hargreaves Associates



1951 aerial of the Calf Pasture with World War II prisoner of war barracks (3) & BCHS (4) (Source: *Gaining Ground* by N. Seasholes)



View of Boston College High School from Healey Library

with no disruption of family or business, and no threat to an existing community; no tax-producing properties are impaired; land acquisition costs are low (\$2 million); the site offers ample space for student housing, outdoor athletic facilities, and parking; (and) the site offers unique access to Boston's shoreline."

The arrival of University of Massachusetts Boston in 1974 to Columbia Point dramatically changed the character of the peninsula from both its humble origins and the controversial decline of the Columbia Point Housing Development at the time. However, despite a 1967 BRA report's concluding exhortation that the "university must be bold, imaginative and resourceful in its site planning", the design concept for the UMass Boston campus has been universally described as a "fortress" since its completion through today.

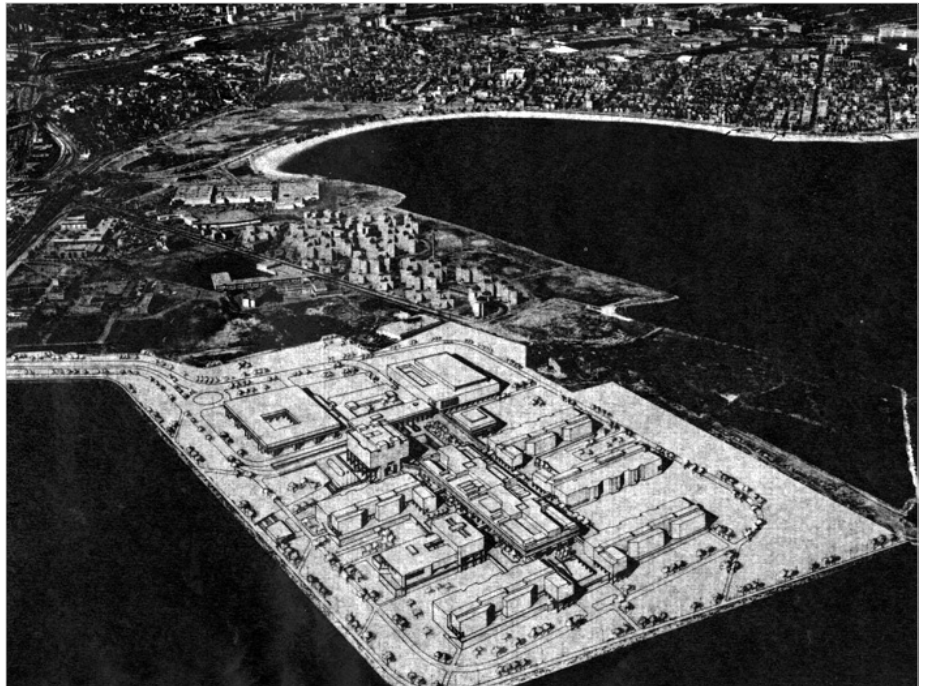
In 1979, the John F. Kennedy Library and Presidential Museum was dedicated following the final landfilling of Columbia Point at the northeastern quadrant of the peninsula. In 1985, the Massachusetts Archives was relocated to a new facility sited between UMass Boston and the John F. Kennedy Library & Presidential Museum.

Between 1986 and 1990, the Columbia Point Housing Development public housing project was transformed through select demolition, rehabilitation, and new construction and changed its name to Harbor Point Community Apartments, a mixed-income residential community that includes some new buildings constructed adjacent to the UMass Boston campus. The latest new neighbors include Peninsula Apartments, completed in two phases in 2006 and 2009, across University Drive West from UMass Boston's softball field. A future neighbor will include the Edward M. Kennedy Institute for the U.S. Senate, to be built next to the JFK Library.

Original Campus 1974-1977

The University of Massachusetts in Boston has two histories. One began in 1852 with the founding of Girls' High School, the future Boston State College. The second began in 1863, with the founding of Massachusetts Agricultural College, renamed the University of Massachusetts in 1964 when the state legislature voted to establish a new university campus in Boston. The two histories came together in 1982 when Boston State became part of UMass Boston, sharing the long-abiding commitment to "education for service."

- 1851** Superintendent Nathan Bishop proposes a normal school to train teachers for the elementary grades
- 1852** Girls' High School conducts its first classes in the Adams School building on Mason Street
- 1854** Girls' High is renamed Girls' High and Normal School
- 1863** Massachusetts Agricultural College (M.A.C.) is founded in Amherst
- 1870** M.A.C. moves to new quarters on West Newton Street
- 1872** Boston Normal School becomes a separate institution
- 1876** Boston Normal moves to the Rice School building on Dartmouth Street
- 1907** Boston Normal moves to a specially built facility on Huntington Avenue
- 1922** Boston Normal becomes the Teachers College of the City of Boston
- 1931** M.A.C. becomes Massachusetts State College
- 1947** M.A.C. becomes University of Massachusetts
- 1952** Teachers College becomes the State Teachers College at Boston. "Education for Service," is the motto over the Teachers College gate.
- 1960** The Teachers College is renamed the State College at Boston
- 1964** The University of Massachusetts Boston is established at 100 Arlington Street in Park Square



Montage from the original campus master plan as envisioned when the campus is fully built out.

- 1967** Columbia Point is selected as the site for the UMass Boston campus
- 1968** State College at Boston is renamed Boston State College
- 1974** First classes at UMass Boston's Harbor Campus
- 1982** Boston State College joins UMass Boston
- 2004** New UMass Boston Campus Center opens¹

The original master plan for UMass Boston organized the university into individual colleges of 2,500 students each. This initiative originated from the time when the campus was located in the Park Square district of downtown Boston where it occupied or used part or all of eleven buildings at its peak. Each college of the university was to be complete within itself, each including classrooms, laboratories, offices, auditorium, library, gymnasium, food service, and student activity spaces. It was envisioned that the organization of these relatively autonomous colleges could allow the university to be dispersed as a linear campus, with up to seven colleges located on mixed-use

sites around seven subway stations and all linked by the subway system.²

The university retained this model of autonomous colleges after the University's trustees selected Columbia Point for the new campus rather than a downtown location or multiple locations. Conceptual drawings of the campus indicated a fully completed campus to include a cluster of six colleges arrayed around a large science center. This academic cluster would be connected to a central campus plaza shared by the main library, administration building, and pool house. An outer layer of facilities for the fine arts, service building, and athletic center would complete the ensemble of campus buildings, all of which to be linked together by, and sit on top of, a two-level above ground garage.

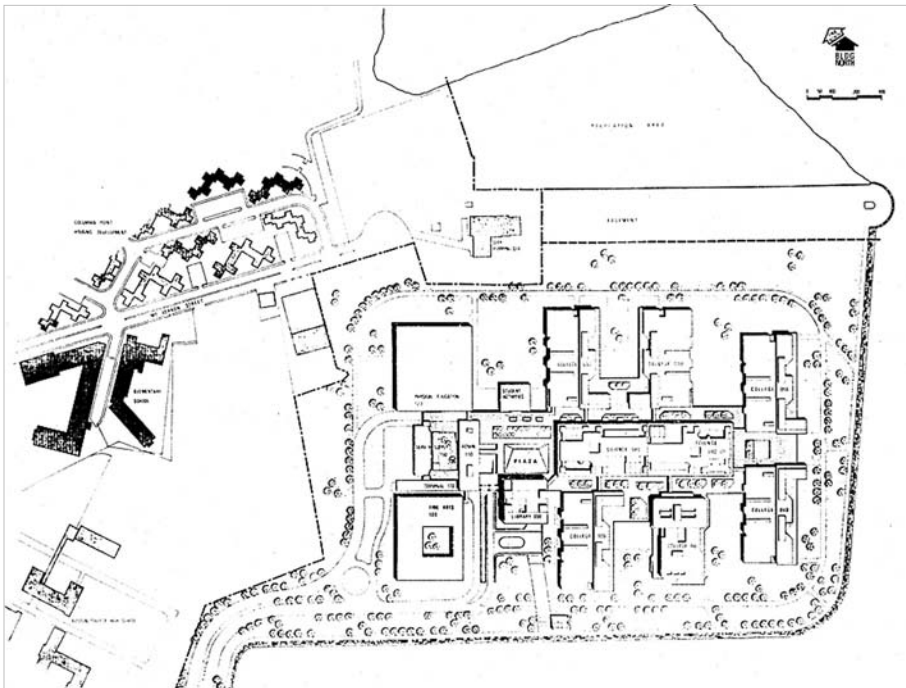
The first phase of construction, completed in 1974 included the two-level above ground garage — known today as the Substructure —, two of the six colleges, one-half of the science center, the main library, the administration building, and the service building. An athletic center and pool house were added in 1977,

1. From <http://www.umb.edu/about/history.html>

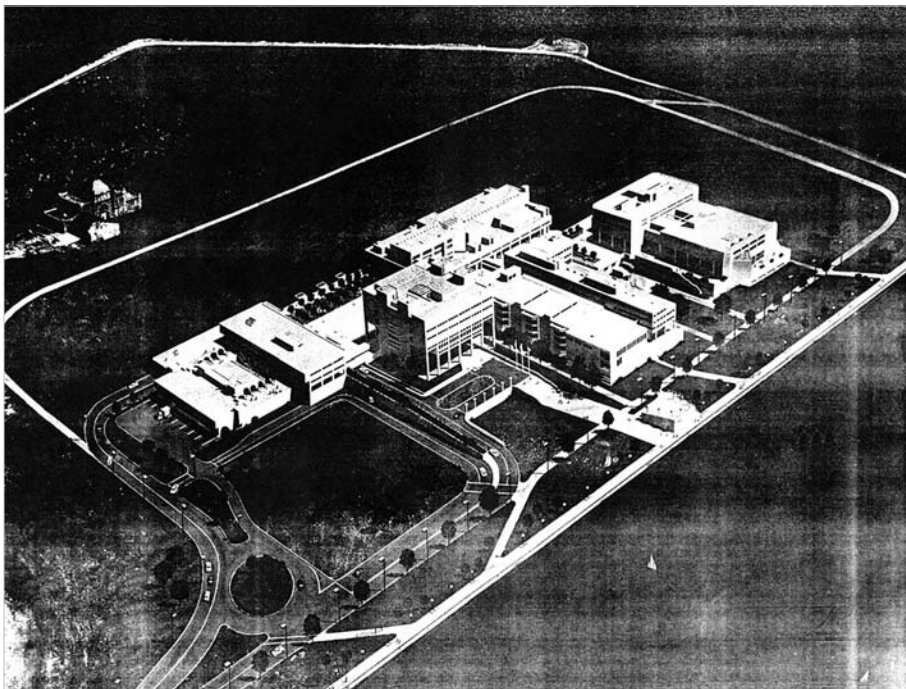
2. *Growth of A University*, Architecture Plus, March/April 1974

"...the University must be bold, imaginative and resourceful in its site planning."

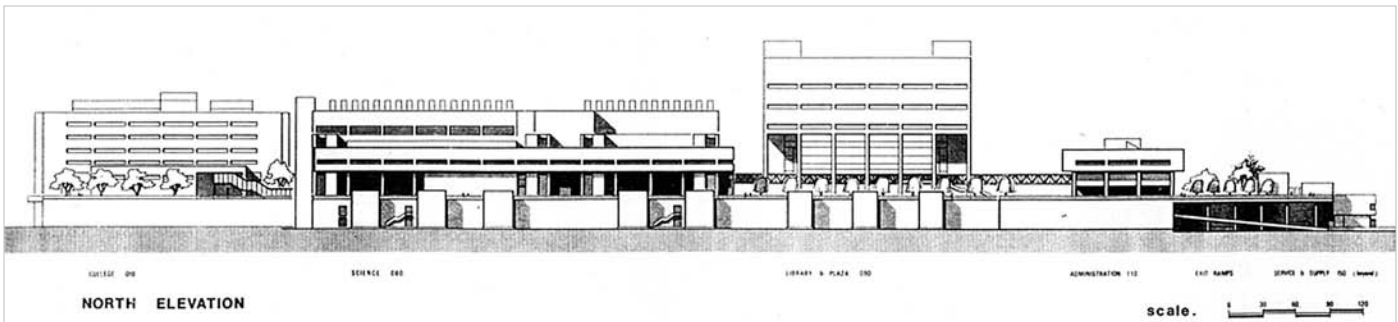
— Boston Redevelopment Authority, 1967



Original complete master plan showing 6 colleges, library, admin building, fine arts center, physical ed complex, and full-size science center



Montage of Phase One campus as completed in 1974 with 2 colleges, library, admin building, and one-half of the science center



Elevation view of Phase One looking south towards Wheatley (left), Science (center left), Healey (center right), and Quinn/Service Building (right), all built above a two-level garage (the "Substructure")

and a campus center in 2004.

The wide use in the 20th century of salt on city streets to melt winter snow and ice introduced a corrosive chemical that leached into the concrete and slowly weakened the bond between the reinforcing steel embedded in the concrete that gives concrete its strength. As the steel and concrete unbonded, or as the steel corroded, concrete began to spall from the garage floors, ceilings, and columns, exposing the steel to continuous corrosion from the salt air that surrounds the peninsula.

The deteriorating conditions reached a critical point of concern for public safety and prompted the closing of the 1,560-car substructure in 2006. Questions of how to remedy the situation and the magnitude of the cost implications followed: Should the Substructure be repaired, requiring it to be essentially rebuilt in place? Or should the Substructure be demolished, providing an opportunity for verdant open spaces in the center of campus? If the Substructure is demolished, could, and if so should, the lower two levels under the campus buildings be adaptively reused as occupied space? How should parking be replaced?

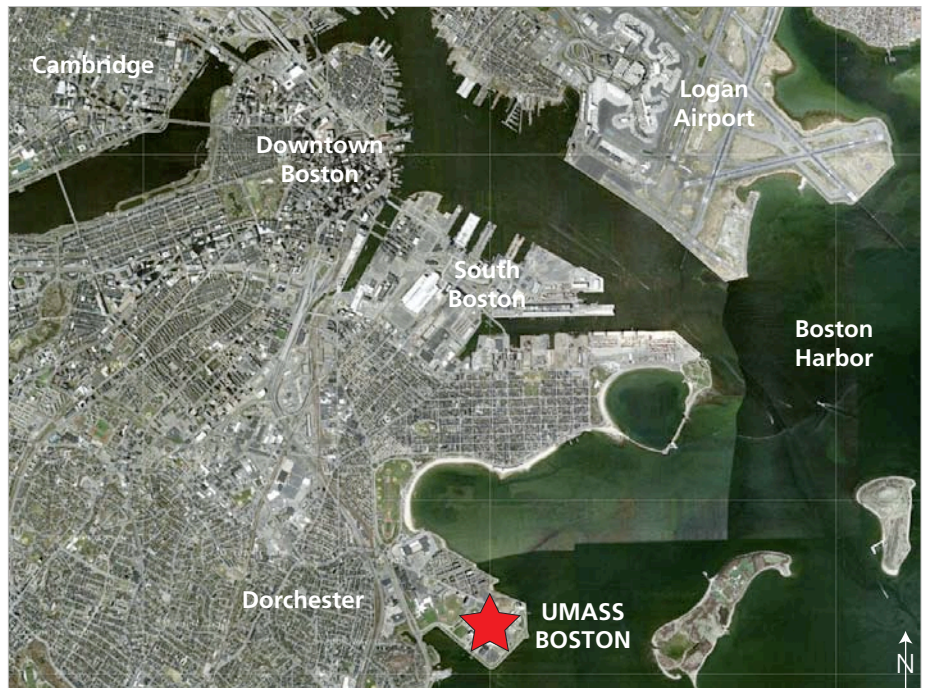
Preliminary cost and construction analyses led to the decision to temporarily stabilize the Substructure, replace the parking with new free-standing garages, and then demolish the Substructure. The implications of this conclusion initiated this campus master plan assignment.

Urban Context

University of Massachusetts Boston is one of five campuses in the state's university system. Located on an original tract of 100 acres on Columbia Point, a persistent perception of the campus as a desolate location has been fueled by: (a) the campus' austere architecture and the site's past history as Boston's garbage dump; (b) its adjacency to what was the state's largest public housing project, but since rehabilitated and operated by a private firm; and (c) the peninsula's physical separation from the rest of Dorchester. The campus' isolation has been exacerbated by a multi-layered nest of transportation spines that constitutes a moat, including: Interstate Highway I-93, parkway-scaled Morrissey Boulevard, the above-ground MBTA Red Line subway, and three MBTA commuter train lines serving the South Shore. (See satellite photos to the right.)

Following the completion of the campus in 1977, the peninsula's image began to improve and mature with: the construction of the John F. Kennedy Library and Presidential Museum in 1979; the opening of Bayside Exposition Center in 1983, the arrival of Massachusetts Archives in 1986; the comprehensive rehabilitation and transformation of Columbia Point Housing Development (now known as Harbor Point Apartments) into a mixed-income development between 1986 and 1990; the development of Peninsula Apartments in 2006 through 2009; and the ever consistent presence of Boston College High School since 1950.

While the transportation network continues to act as a barrier, it does provide effective and convenient public transportation for students, faculty, and staff. The network of roads, subway, buses, and commuter rail easily connects the campus to downtown Boston, a relatively short 2.5 miles to the north. The MBTA Red Line at JFK/UMass Station links the campus to South Station a mere three



Map of UMass Boston in relation to the Boston metropolitan area (Source: Google Earth)



Map of the five campuses of the University of Massachusetts.

stops away, and the downtown hub at Park Street Station only five stops away. Nearly 2,600 parking spaces are available to serve over 15,000 students, 900 faculty, and 1,500 staff who commute to the campus.

The entrance experience to the campus is relatively underwhelming despite the surrounding attraction of Boston Harbor and the waterfront park along the perimeter of the peninsula. Whether coming from any direction other than the south by car, train, bus, or subway, one must first pass through Kosciuszko Circle, a multi-layered, multi-modal transportation nucleus of activity reminiscent of a highway intersection that is the *de facto* gateway to Columbia Point. From the Circle, the main approach to campus is



Metropolitan Boston transit map (Source: MBTA)

currently along Morrissey Boulevard, to Bianculli Drive, to University Drive South. A secondary indirect approach to campus is possible along Mt. Vernon Street.

The original driveway in front of, and a four-story portal under, Healey Library provided a formal main entrance into campus. However, most commuters and visitors arrived through the Substructure and entered the front doors of the original campus buildings from the central plaza, away from the water's edge. Thus, the experience along the perimeter of the campus has been the backsides of each building, exaggerated since 2004 by the reorientation of the main campus entrance to the Campus Center — at the farthest end of campus from both vehicular approaches to campus.



Satellite view of Columbia Point with key landmarks (Source: Google Earth)



JFK Library as seen from UMass Boston Campus Center



Massachusetts Archives as seen from Healey Library



Bayside Expo Center, built in 1983 (Source: Bayside Expo Center)



Harbor Point Apartments (Source: A Decent Place to Live)



Boston College High School, founded 1950



Boston Globe Headquarters (Source: <http://www.bing.com>)



Kosciuszko Circle c. 1977 (Source: Architecture Plus, April 1974)



Approach from Morrissey Blvd c. 1974 (Source: Gaining Ground)



Existing campus gateway and Healey Library (left)



Approach to campus from Mt. Vernon Street



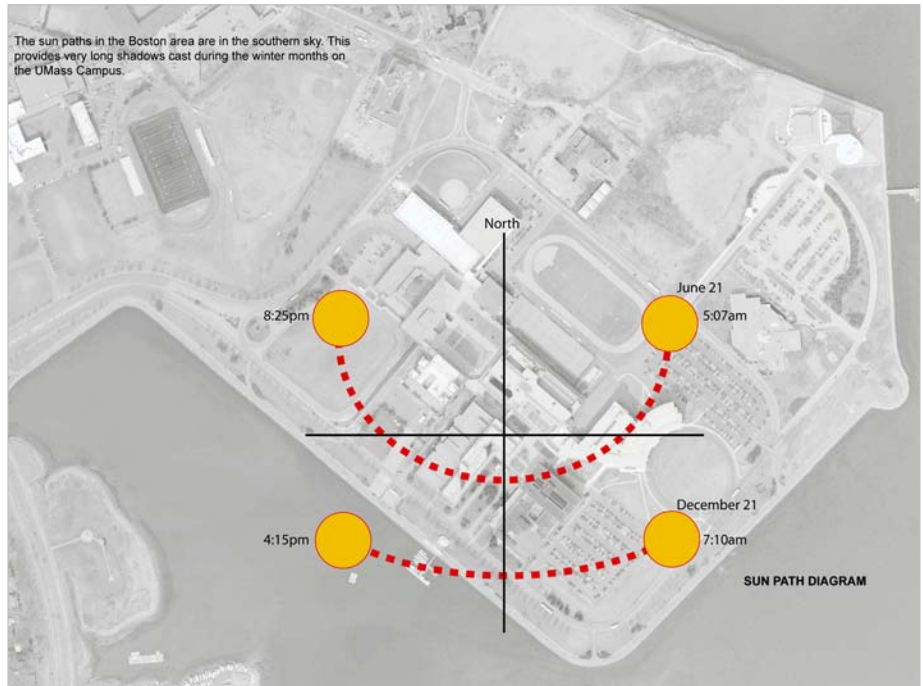
Current main entrance at Campus Center (Source: maps.live.com)

Environmental Context

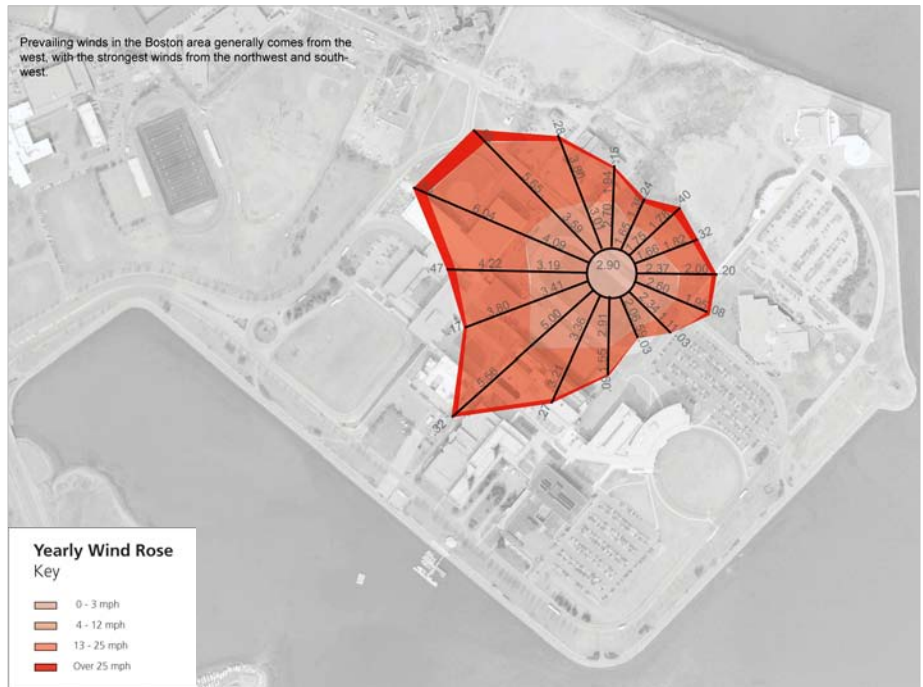
The natural context surrounding UMass Boston is unique and unprecedented amongst institutions of higher education in the Commonwealth. Sited at the end of a peninsula surrounded by the Boston Harbor and Dorchester Bay, the campus has little to obscure its external visibility.

Conversely, there is also little to protect the campus from the elements that include: solar exposure, strong harsh winds, buffeting waves, corrosive saltwater-laden air, and noisy aircraft taking off or landing at nearby Logan International Airport. One consequence of the original campus design in responding to the elements is an internally-oriented campus that more or less shuns the outside world with physical barriers, including: (a) large expanses of solid masonry walls and small slit-like windows; (b) triple-paned fixed glass that seals the interior from external noise; (c) seamless, convenient parking under the entire campus that facilitated entering and leaving one's dedicated facility without interacting with other buildings or people; and (d) a continuous enclosed, weather-protecting corridor/bridge network that disengages the campus from its natural surroundings.

The original master plan conceived the campus not unlike a space station, where the mother ship is the Substructure garage to which college building modules dock along its edges and above it. The resultant characteristic, like a space station, is an inwardly focused campus where the main open spaces between the buildings



Paths of the sun in summer and winter (Source: Hargreaves Associates)



Predominant wind direction and intensity (Source: Hargreaves Associates)



High noise at ground and air (Source: Hargreaves Associates)

are concrete plazas and streets that are twenty-five feet above the surrounding landscape. While on campus, one's connection to the surroundings is typically limited to looking out and down towards — rather than engaging or interacting with — one's surroundings. In effect, the lower Columbia Point peninsula is broadly characterized as two distinct, separate

realms: a dense urban construct of a campus ringed by a roadway moat, and a picturesque landscape of verdant parks, formal allées, waterfront promenades, marinas, and ocean views.

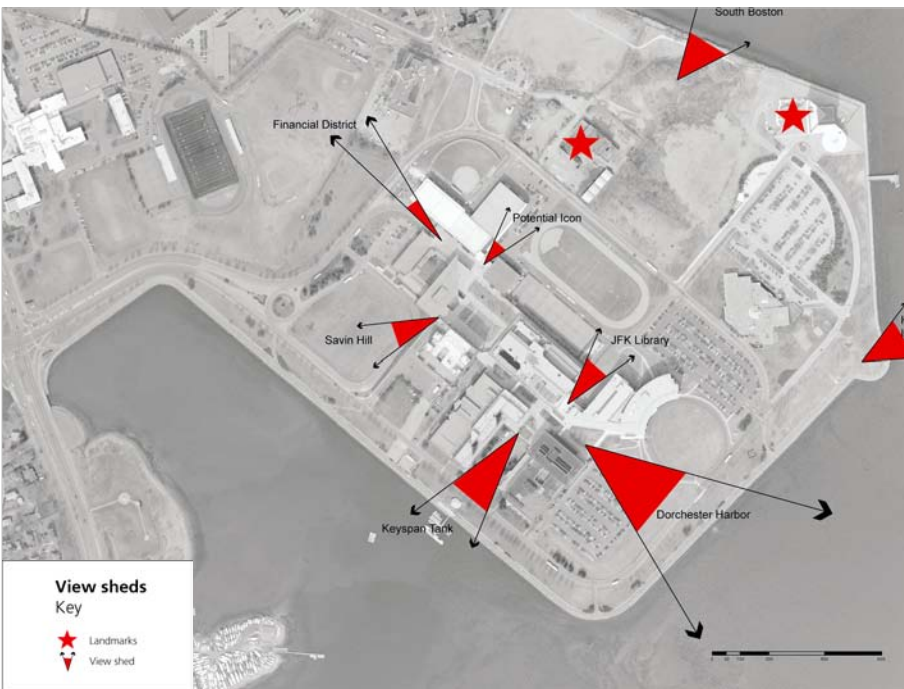
Demolishing the two-level Substructure provides an opportunity to integrate the realm of the urban campus with the realm of the surrounding land-



Connections to HarborWalk along the perimeter of UMass Boston (Source: Hargreaves Associates)



HarborWalk network (Source: www.bostonharborwalk.com)



Outward views from the UMass Boston campus (Source: Hargreaves Associates)



HarborWalk along the southern shore



Park edge at UMass Boston property along the north shore

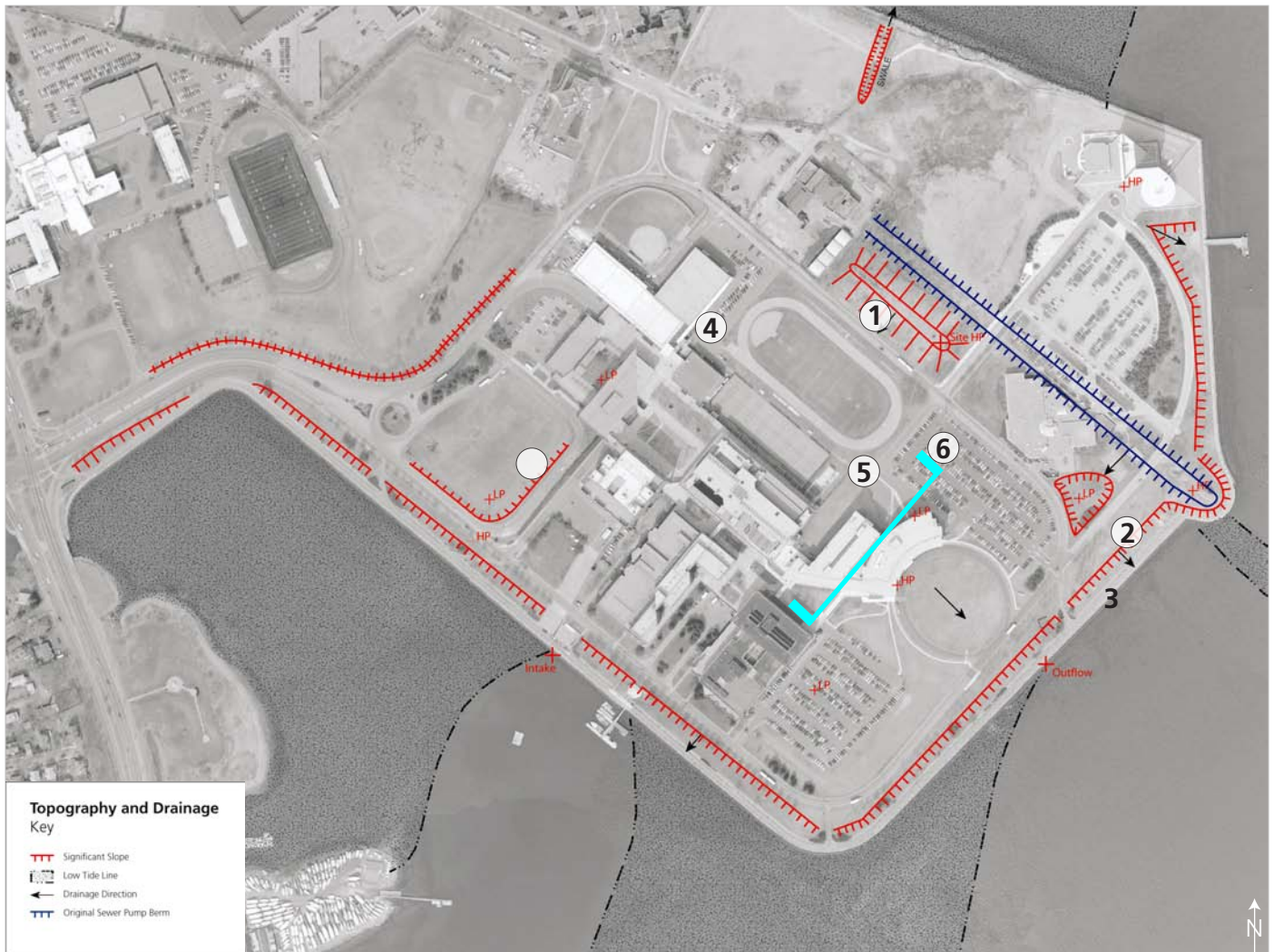
scape. As a result, the individual buildings will become free-standing, independent from the former mother ship Substructure. Thus, the central open space of the campus — currently a raised masonry plaza — would physically and metaphorically descend to earth, offering the opportunity for the surrounding landscape to flow *through* the campus rather than

around the Substructure. In addition, future buildings and landscapes may be sited more freely and strategically — unrestricted by the need to be tethered to the mother ship.



View north of the Boston skyline across Boston Harbor

Natural Context



Existing drainage at UMass Boston (Source: Hargreaves Associates)

At the conclusion of landfill in 1977, the original peninsula had grown from 14 acres to 350 acres. When UMass Boston acquired the Calf Pasture Pumping Station in 2006, campus property increased to 175 acres.

The peninsula includes a segment of Boston’s HarborWalk which is planned to be a continuous pedestrian path that stretches from Charlestown to the Neponset River. North of the John F. Kennedy Library & Presidential Museum, the walkway is an unpaved trail between the Library and the Harbor Point Apartments. The picturesque quality of the water’s edge is in stark contrast to the bulwark character of the UMass Boston campus. Any opportunity to mitigate the disparity between the campus and its surrounding landscape would help to reduce UMass

Boston’s image as an formidable fortress.

Like the rest of Columbia Point, the UMass Boston campus was originally and generally flat above the waterfront edge, except for topography created by development, including:

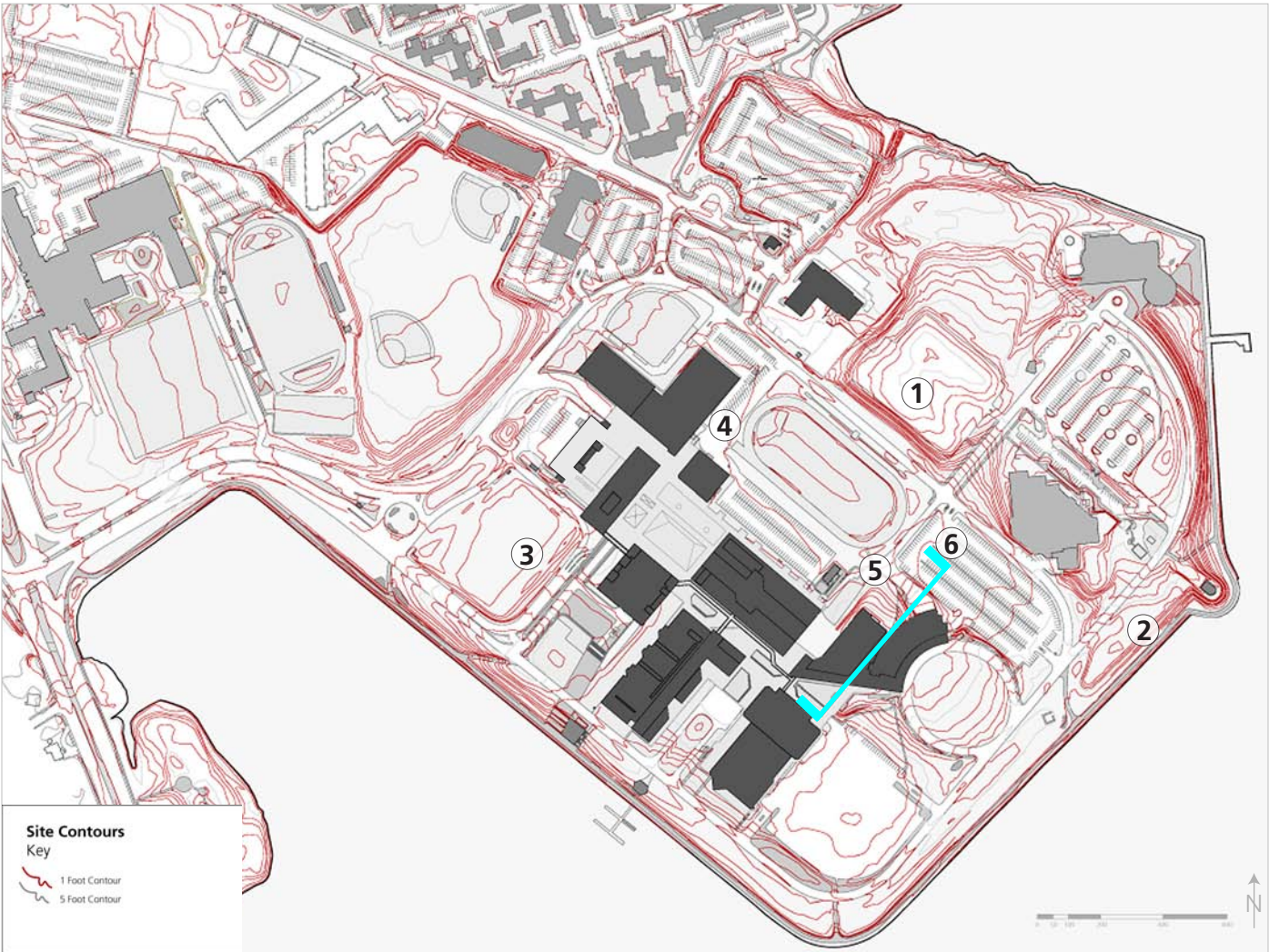
- a landform ridge that covers the outfall tunnel extending eastward from the Calf Pasture Pumping Station — since expanded by excavated fill from the construction of the Campus Center, and now a plateau for a temporary parking lot for 375 cars to replace part of the 1,560-spaces upon closing of the Substructure garage. This creates a distinct grade level separation between the UMass Boston campus and the JFK Library.
- the Substructure itself — a two-level

garage upon which all campus buildings sit or connect, establishing a hardscape open space twenty-five feet above grade that is accessible via vehicular ramp, stairs, or planted berm

- entrances to Campus Center, including the oval driveway and its side entrance, created by fill to bring arrival to the second level above natural grade



Stair to and over Substructure and to Central Plaza



Existing topography at UMass Boston (Source: 2008 site survey by Nitsch Engineering)



Landfill expanding the outfall tunnel



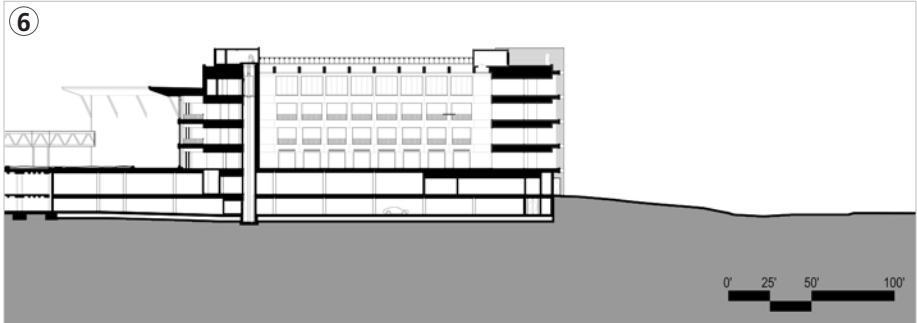
Access building to outfall tunnel at east edge of HarborWalk



Vehicular ramp over Utility Plant to plaza above Substructure

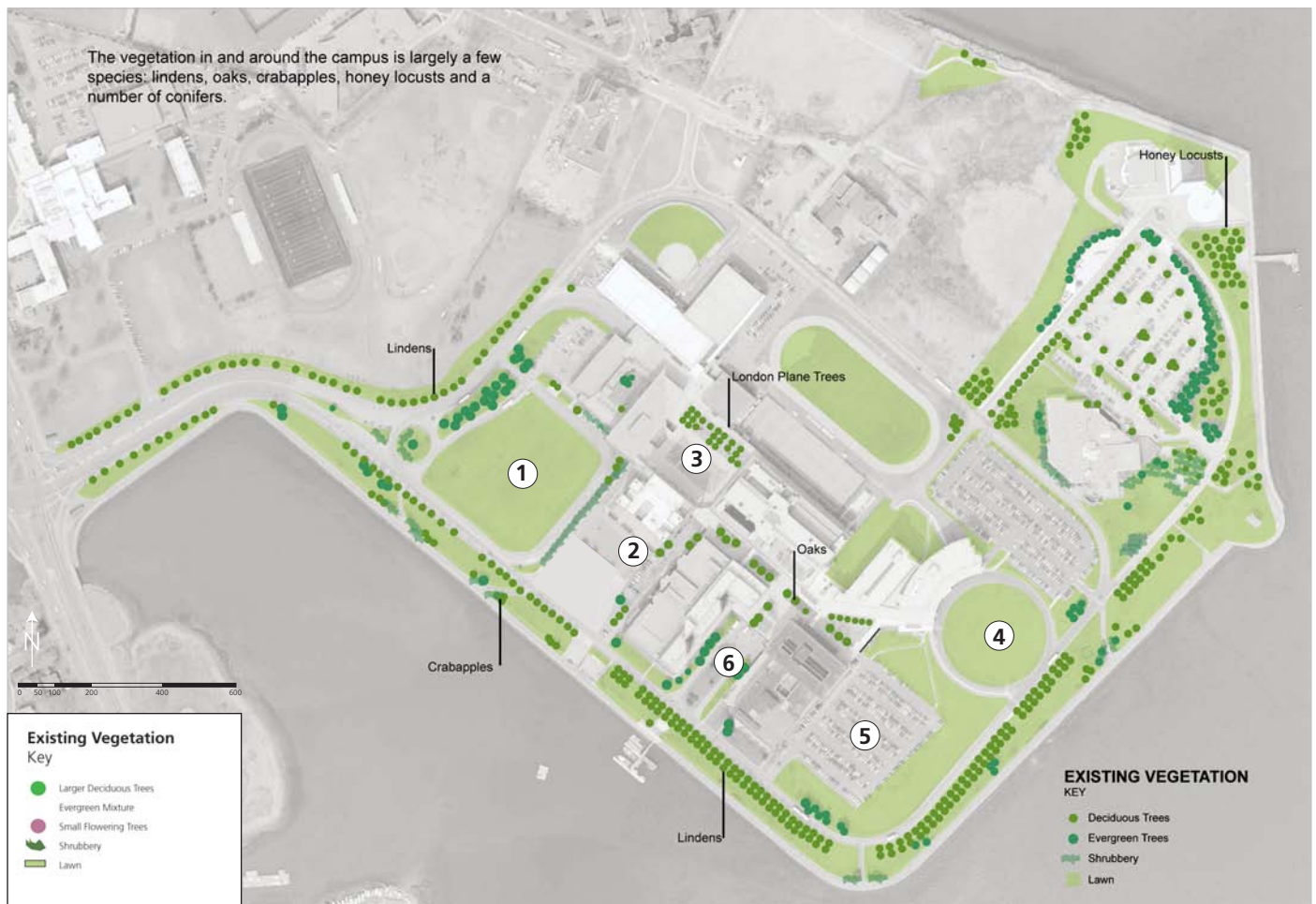


Berm ramping over the Substructure to the campus plaza



Section through the Campus Center and atrium showing the sloped fill leading to the side entrance and second level

Campus Landscape & Open Space



Existing vegetation (Source: Hargreaves Associates)

Although there is a wide range of open spaces throughout the UMass Boston campus, few if any are notable or attractive. A visitor's first encounter of campus open space occurs at the intersection joining Bianculli Boulevard, University Drive South, and University Drive West, where an athletic practice field occupies the location of what was envisioned in the original campus master plan as the site for a fine arts facility.

The next formal open space along the arrival path was the front lawn in front of Healey Library which was removed when the Substructure was closed in 2006. This was the original and former main campus entrance; the lawn lead up and over the partially submerged Utility Plant roof that served as a stark entrance plaza sliding under the three-to-four-story underside of Healey Library towards

UMass Boston's central plaza.

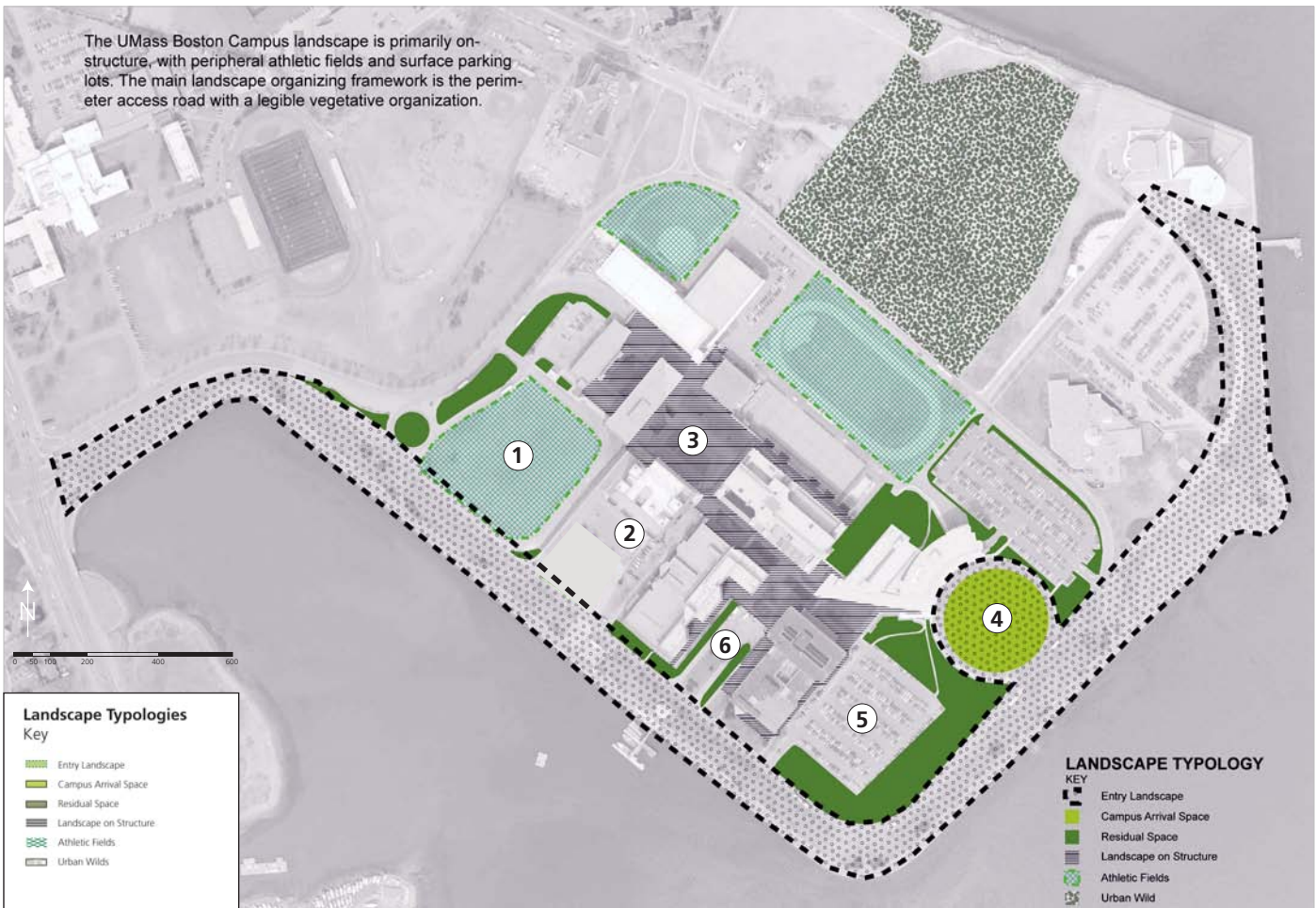
Except for a row of potted trees along the central plaza's northeast edge, the plaza is devoid of any amenities for sitting, comfortable lawns to lay down on, or vegetation for shade and protection from winter wind. Located north of Healey Library — the tallest structure on campus — the central plaza is perpetually in shadow, aggravating its harsh and stark conditions.

Besides the practice field at the campus gateway and other athletic fields, the only other major campus landscape is the large grassy oval driveway situated in front of the Campus Center. Like the campus gateway landscape and other secondary landscapes, there are few if any attractive and engaging amenities to invite pedestrians and social activities; thus they remain largely unused.

Before the Substructure was closed for safety reasons, most of UMass Boston's parking was effectively hidden from sight within the 1,560-car garage. The closing of the Substructure required the construction of several temporary parking lots to accommodate commuters until replacement structured parking may be located and constructed.

Many of the parking lots are located on prominent sites, including two that flank the Campus Center oval, exaggerating the sterileness of the main campus entrance. Replacement structured parking structures will allow UMass Boston to reclaim many of the temporary parking lots to more strategically locate new facilities, additions to existing buildings, and redesigned landscapes to improve campus open space and overall circulation.

The UMass Boston Campus landscape is primarily on-structure, with peripheral athletic fields and surface parking lots. The main landscape organizing framework is the perimeter access road with a legible vegetative organization.



Landscape typology (Source: Hargreaves Associates)



1 Campus lawn at Bianculli Boulevard & University Drive West



2 Healey Plaza, the roof of the Utility Plant, sliding under Healey



3 Existing central plaza, the roof of the Substructure



4 Existing main campus entrance oval at Campus Center

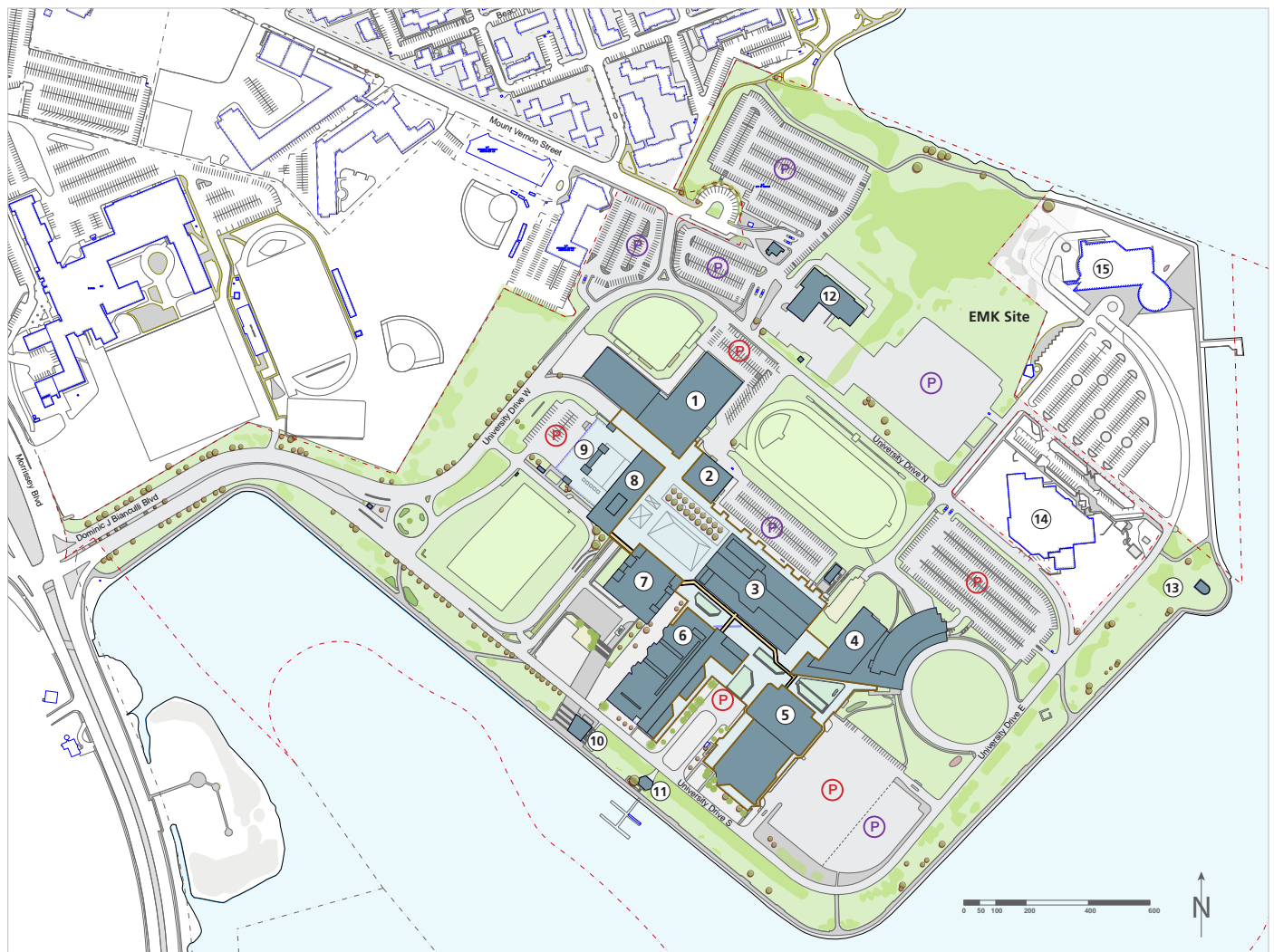


5 South Lot, one of two lots flanking the main campus entrance



6 Service lot open space between Wheatley & McCormack Halls

Campus Architectural Context



Existing campus buildings and ground

Architectural Character

The apparent singularity of design, selection of materials, and uniformity of workmanship of UMass Boston in 1974 was coordinated under a single project management firm that managed over 100 different contracts. Whenever possible, economy-of-scale decisions were made, such as a common use of brick, hardware, equipment, and furniture. The predominant presence of large brick surfaces was predetermined by the need to use triple-glazed windows — which restricted the size of fenestration — in order to provide effective sound-proofing against aircraft noise landing at nearby Logan International Airport.

COLOR KEY	BUILDING KEY
UMass Boston property line	1 Clark Athletic Center
Property conveyed to JFK Library	2 Pool House
Existing UMass Boston buildings	3 Science Center
Plaza on roof of Substructure	4 Campus Center
Existing Substructure	5 Wheatley Hall
On-grade open space	6 McCormack Hall
Surface parking lots	7 Healey Library
Temporary surface parking lots	8 Quinn Administration
	9 Service and Supply
	10 Salt Water Pump House
	11 Fox Point Pavilion
	12 Calf Pasture Pumping Station
	13 Outfall Pavilion
	14 Massachusetts Archives
	15 JFK Library & Presidential Museum



Aerial view of UMass Boston c. late 1980s (Photo by Tom Hannon)



Typical architectural character of original brick buildings



Typical windows of original academic buildings



Color palette and window pattern of Campus Center



Example of fenestration and daylighting in Campus Center



Architectural character of Campus Center at night

Project management by a single firm over the consortium of six architectural teams for the campus included the coordination of the concurrent design phases that reduced an estimated design duration from thirty months to twelve months. Upon completion in 1974, it was commonly observed that the entire campus appeared as if the design came out of a single office.¹ The use of brick was extended in 1977 to the construction of the Clark Athletic Center and Pool House, extending the uniformity of the overall campus and reinforcing the perception of the campus as a fortress.

It was not until the construction

of the Campus Center in 2004 that the choice and color of facade materials, size and expanse of glass, building geometry, and relationship to exterior spaces was broken from the pattern established by the original campus master plan. The current sight of a bright, airy, and highly glazed iconic structure along the harbor's edge has given the campus an uplifting image and sense of identity, especially in the company of the nearby John F. Kennedy Library and Presidential Museum residing along the same shoreline.

As UMass Boston considers various opportunities to develop new facilities, whether constructing new buildings or additions, renovations, modifications, or adaptive reuse of existing buildings, the

campus should be inspired by the apparent success and impact that the Campus Center's architecture has had in improving the image of, and atmosphere within, the campus. Besides helping to better integrate spaces and visual connections within the campus, the design of the Campus Center is an exemplary model of architecture, when superbly conceived, projecting a positive impression to the world around it, and enhancing the sense of identity and quality of life for the occupants and visitors within.

1. *Growth of A University*, Architecture Plus, March/April 1974

Campus Programmatic Use

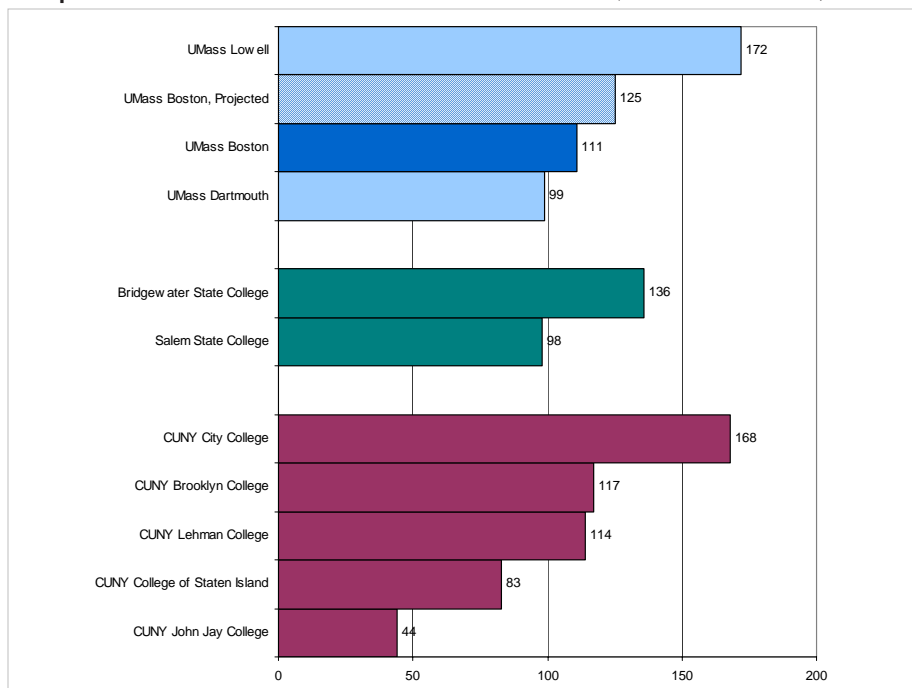
In the thirty-five years since UMass Boston opened its campus on Columbia Point, the student population has grown from the original enrollment of 6,000 students to 15,000 today, while the amount of general classrooms and laboratory space has remained unchanged. The Campus Center — the only new building built since 1977 — has allowed some space to be reclaimed in existing buildings. However, many of the vacated spaces have not been easily converted for additional academic use.

Total classroom and laboratory space remains a minority portion of total campus space — 6% and 20%, respectively. Moreover, a space utilization study by Rickes Associates completed in 2007 as part of this campus master plan indicates that short- and long-term changes are impacting campus space needs and the campus's ability to be competitive. Additional space to allow UMass Boston to achieve its goals and objectives will be necessary in order for the campus to adequately respond to larger student bodies, student demographic changes, and expansion of academic programs and research.

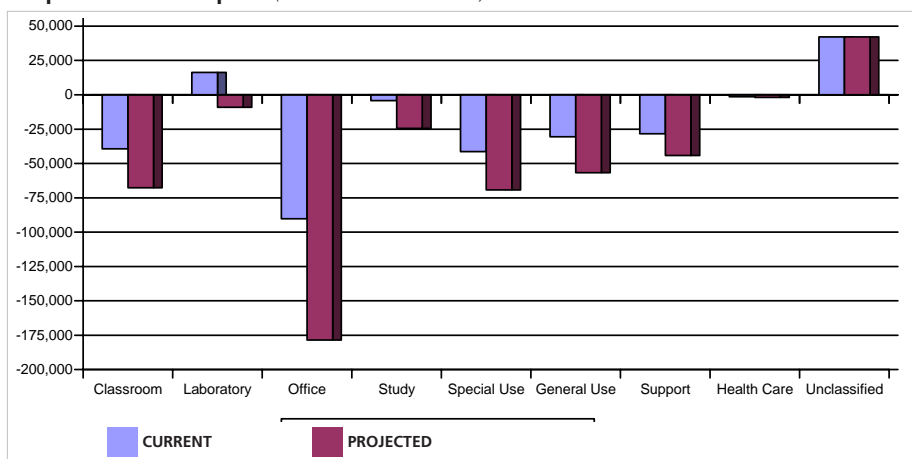
When evaluated against industry benchmarks and guidelines, UMass Boston consistently falls short of many peer and other public institutions, including several state and community colleges in the Commonwealth of Massachusetts. Current and projected space deficits may be found in nearly all categories of use, and will grow as the trend of enrollment continues to increase.

Research in 2007 by Rickes Associates indicates that there is a need for classroom space, much of which is generated by a need to increase the station size in instructional spaces to a level that accommodates current technology and pedagogy. The research also indicates that laboratory spaces are inadequate and outdated for current needs, and are not

Comparison of ASF/FTE with Other Public Institutions (Source: Rickes Associates)



Surplus & Deficit Space (Source: Rickes Associates)



sufficient to support additional research, despite the fact that many spaces coded as instructional laboratories are underutilized or not used at all. In general, the diminished and declining quality of space overall — such as structural deterioration, outdated infrastructure and systems, deficient environmental quality, and inadequate or uninspiring interior and exterior spaces — exacerbate the perception of a lack of space and instill a negative impact on the pedagogical, physical, social, and cultural milieu of the campus overall, and particularly in instructional spaces.

An additional factor that will further influence the need for space is the introduction of on-campus student housing. Support spaces and functions — such as a new Residential Services office, increased Counseling and Health Services spaces, supplemental student activities facilities, expansion of dining functions, service and office space for additional staff, and other common and dedicated spaces — are some of the anticipated non-academic space needs to be considered as the campus plans for the future.

Existing Building Use, Assignable Space, and Gross Floor Area (Source: UMass Boston Facilities Department, January 2008)

Space	Unassigned	Classrooms	Labs	Offices	Study	Special	General	Support	Healthcare	Assignable	Circulation	Building	Gross	Building
Use Code	000	100	200	300	400	500	600	700	800	SF			SF	Efficiency
Clark										84,040			194,695	43%
LL	1,515			315		73,400				75,230	11,111	13,840	100,181	
UL				1,470		7,340				8,810	10,357	75,347	94,514	
Healey										175,054			345,672	51%
LL		2,275	5,785	3,850		3,215	770			15,895	6,963	12,203	35,061	
UL			7,085	725	3,644					11,454	4,020	15,182	30,656	
1										0	3,872	2,458	6,330	
2				300	1,000		780			2,080	4,137	3,001	9,218	
3			7,640		355					7,995	4,750	3,198	15,943	
4		1,290	485	2,265	15,220					19,260	1,877	5,518	26,655	
5				615	14,046		1,570			16,231	8,527	2,878	27,636	
6				220	26,980					27,200	1,295	5,254	33,749	
7					10,830					10,830	2,418	20,501	33,749	
8			5,865	560	18,790		520			25,735	4,527	3,487	33,749	
9					10,830					10,830	3,347	19,572	33,749	
10		325	291	20,202	305		1,302			22,425	7,894	3,430	33,749	
11				1,225			3,894			5,119	4,005	16,304	25,428	
McCormack										158,448			275,387	58%
LL										0			0	
UL										0			0	
1		9,859	13,949	3,991		11,935	3,026			42,760	19,395	10,555	72,710	
2	462	9,064	12,807	5,215			4,420			31,968	18,752	21,725	72,445	
3	15,211	4,309	14,546	9,014			6,814			49,894	17,378	10,462	77,734	
4		576		17,671		1,887				20,134	5,920	4,880	30,934	
5		300		13,000	212		83	97		13,692	4,818	3,054	21,564	
Quinn										63,263			103,016	61%
LL										0			0	
UL	5,850			920			4,485	1,500		12,755	6,796	6,308	25,859	
1				14,720						14,720	3,423	3,667	21,810	
2	140			12,465				75	1,860	14,540	6,646	3,750	24,936	
3			284	20,484			480			21,248	2,600	6,563	30,411	
Science										140,924			258,367	55%
LL										0			0	
UL			6,120	265				1,710		8,095	3,667	8,639	20,401	
1			19,904	11,375			5,982			37,261	13,901	6,903	58,065	
2		2,127	18,830	3,968			695	598		26,218	20,917	10,247	57,382	
3	2,655		21,155	20,825				3,410		48,045	20,954	10,279	79,278	
4			18,065	1,730		1,510				21,305	12,298	9,638	43,241	
Service										44,525			84,576	53%
LL				3,505				19,141		22,646	4,558	14,327	41,531	
UL	2,864			8,470				10,545		21,879	7,393	13,773	43,045	
Wheatley										168,379			284,943	59%
LL										0			0	
UL										0			0	
1		19,610	750	7,480			6,962	681		35,483	12,790	4,564	52,837	
2		5,902	13,701	14,692	140		739			35,174	13,472	14,888	63,534	
3	11,963	1,140	12,200	10,826	840		2,015			38,984	11,723	11,863	62,570	
4	1,871	1,550	9,487	18,726	1,190		900			33,724	13,970	15,166	62,860	
5	260	376	130	11,371			185			12,322	6,261	2,988	21,571	
6		670		11,877	145					12,692	6,261	2,618	21,571	
Campus Cen										106,526			245,999	43%
LL				972			4,351	1,680		7,003	2,590	8,874	18,467	
UL				8,648	1,624		20,280			30,552	12,794	14,827	58,173	
1				6,395	2,241		15,469			24,105	15,064	15,789	54,958	
2				6,648			8,579			15,227	14,498	17,212	46,937	
3				7,306			12,926			20,232	16,142	9,953	46,327	
4				8,645			762			9,407	8,664	3,066	21,137	
TOTALS	42,791	59,373	189,079	292,951	108,392	99,287	107,989	39,437	1,860	941,159	382,745	468,751	1,792,655	53%
% of Total	5%	6%	20%	31%	12%	11%	11%	4%	0.2%	53%	21%	26%		

Campus Interior & Exterior Space

The sense of identity and place on a campus permeates throughout all of its spaces, from the campus entrances as described above, to places where one learns, teaches, studies, works, relaxes, and/or otherwise engages others in academic or social discourse. The quality of space is tempered not only by the original design, but also by changes brought about by aging building systems, pedagogy improvements, advances in technology, increases in enrollment, academic leadership, economic conditions, and changes in student demographics and culture, among other impacts.

Except for the addition of the Campus Center, the original campus that was completed between 1974 and 1977 has remained physically and relatively stagnant. Much of classrooms, laboratories, study spaces, offices, and social spaces in the original buildings has not changed in any significant way for over thirty years, and often do not meet current acceptable standards for learning, teaching, working, and researching. In some cases, because space and maintenance have not matched the pace of



Infrastructure failure exemplified by the Substructure damage

student enrollment and staff increases, physical infrastructure is worse than when the campus was new.

Based on contemporary academic, facility, and social standards, some of the more noticeable deficiencies — particularly in the Substructure, McCormack Hall, Science Center, and Wheatley Hall — include:

- Damage and/or hazardous conditions due to infrastructure failure or insufficient maintenance
- A large number of interior, windowless classrooms and offices located through long and narrow corridors and deep within buildings with large floorplates
- Outdated laboratories



Water hazard on electrical equipment in Power Plant

- Insufficient number of offices that has often resulted in double, triple, and quadruple occupancy
- Adaptation and use of space not originally designed or intended for assignable occupancy
- Inadequate number of informal, social, and recreational spaces to meet student demand, including food and refreshment facilities convenient and/or adjacent to academic functions, and serendipitous and informal study areas
- Inadequate amount and quality of open spaces for social and leisure use, including lawns for lounging and/or informal recreation, comfortable outdoor seating, and trees to provide shade where desirable



Typical older classroom (Wheatley) often criticized as windowless



Traditional study space: Reading Room in Healey Library



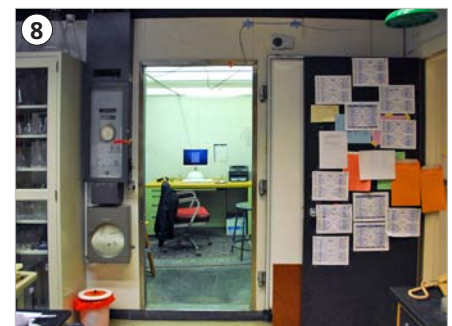
A windowless low-ceiling office for four in Healey's basement



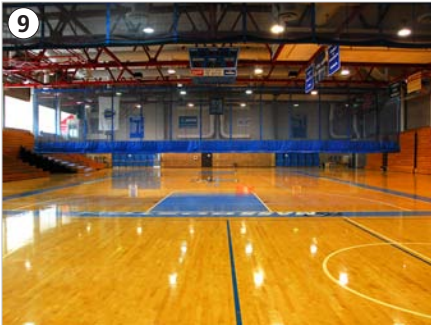
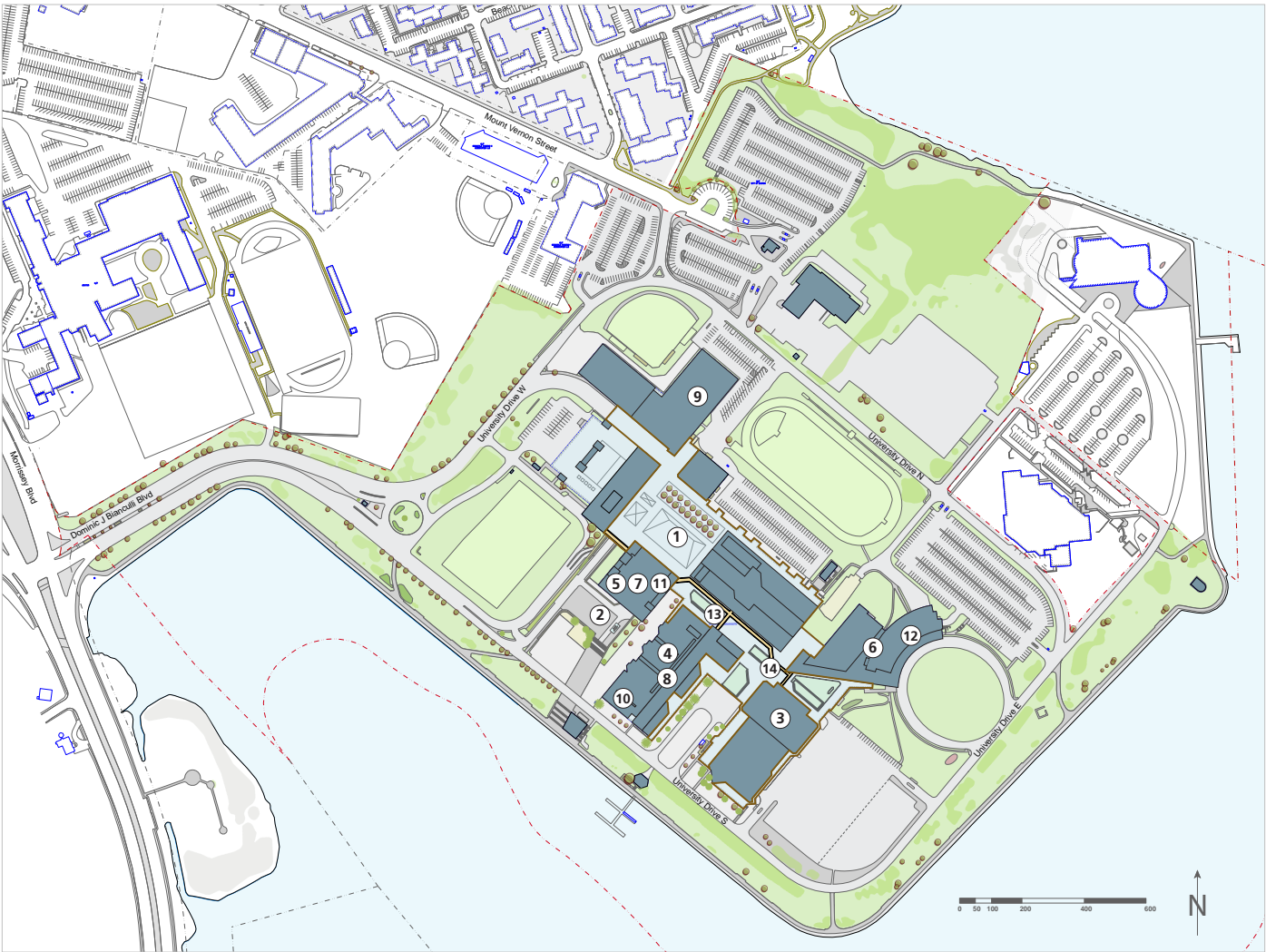
Typical outdated laboratory (McCormack Hall)



Popular contemporary informal study lounge (Campus Center)



An office inside a former McCormack laboratory refrigerator



9 Gymnasium in Clark Athletic Center dedicated to athletic program



11 Popular Jazzman's Cyber Café created in Healey's Library



13 Typical original open space at entrance to McCormack Hall



10 Popular fitness center in McCormack Hall



12 Central dining facility in Campus Center



14 Open space at plaza entrance to Campus Center

Vehicular Circulation & Parking

As originally planned, all visitors parked in a cavernous two-level, 1,560-car Substructure garage upon which all academic buildings sit, much like candles sitting on a layered birthday cake. Since the Substructure has been closed for safety reasons, visitors now park outside the boundary of the campus envelope in parking lots distributed along the perimeter loop road, and enter the campus by rising up over the closed Substructure to reach the entrance level of campus.

The arrival experience to campus is analogous to a typical suburban shopping center where a driver encircles the development along a perimeter loop road and enters the campus/shopping center via one of several driveways into a parking lot. One major difference is that the loop road around UMass Boston is only one-way.

The primary vehicular approach to UMass Boston is along Morrissey Boulevard. Although Mt. Vernon Street was originally a dead-end street that terminated in front of the Calf Pasture Pumping Station, a recent spur connecting Mt. Vernon Street to the UMass Boston loop road allows a secondary means to enter and leave the campus.

Shuttle buses from the JFK/UMass transit station at Kosciuszko Circle follow the same or similar paths to and from campus as commuter vehicles. The shuttle bus path to the John F. Kennedy Library & Presidential Museum is a slight variant of the Morrissey Boulevard loop.

The vehicular arrival paths to campus and to the JFK Library pass through two major intersections at the edge of campus that are currently underwhelming. The deterioration of the Substructure offers not only an urgency to address critical problems and deficiencies on campus, but also a timely opportunity to improve the sense of arrival to campus, improve the relationship between the campus and its edges, and enhance the entry experience at the campus gateways.



Morrissey Blvd. one-way auto loop to-and-from UMass Boston



Primary one-way shuttle bus loop to-and-from UMass Boston



Mt. Vernon St. one-way auto loop to-and-from UMass Boston



Alternate one-way shuttle bus loop to-and-from UMass Boston



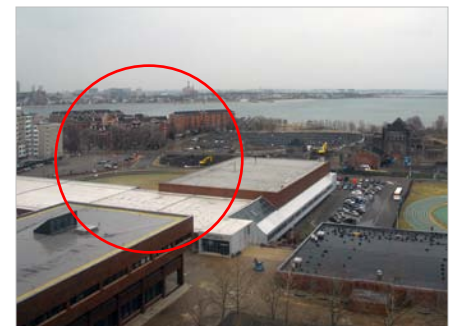
Alternate one-way auto loop to-and-from UMass Boston



Primary one-way shuttle bus loop to-and-from JFK Library



Campus gateway at Morrissey, Bianculli, & Univ. Drive West



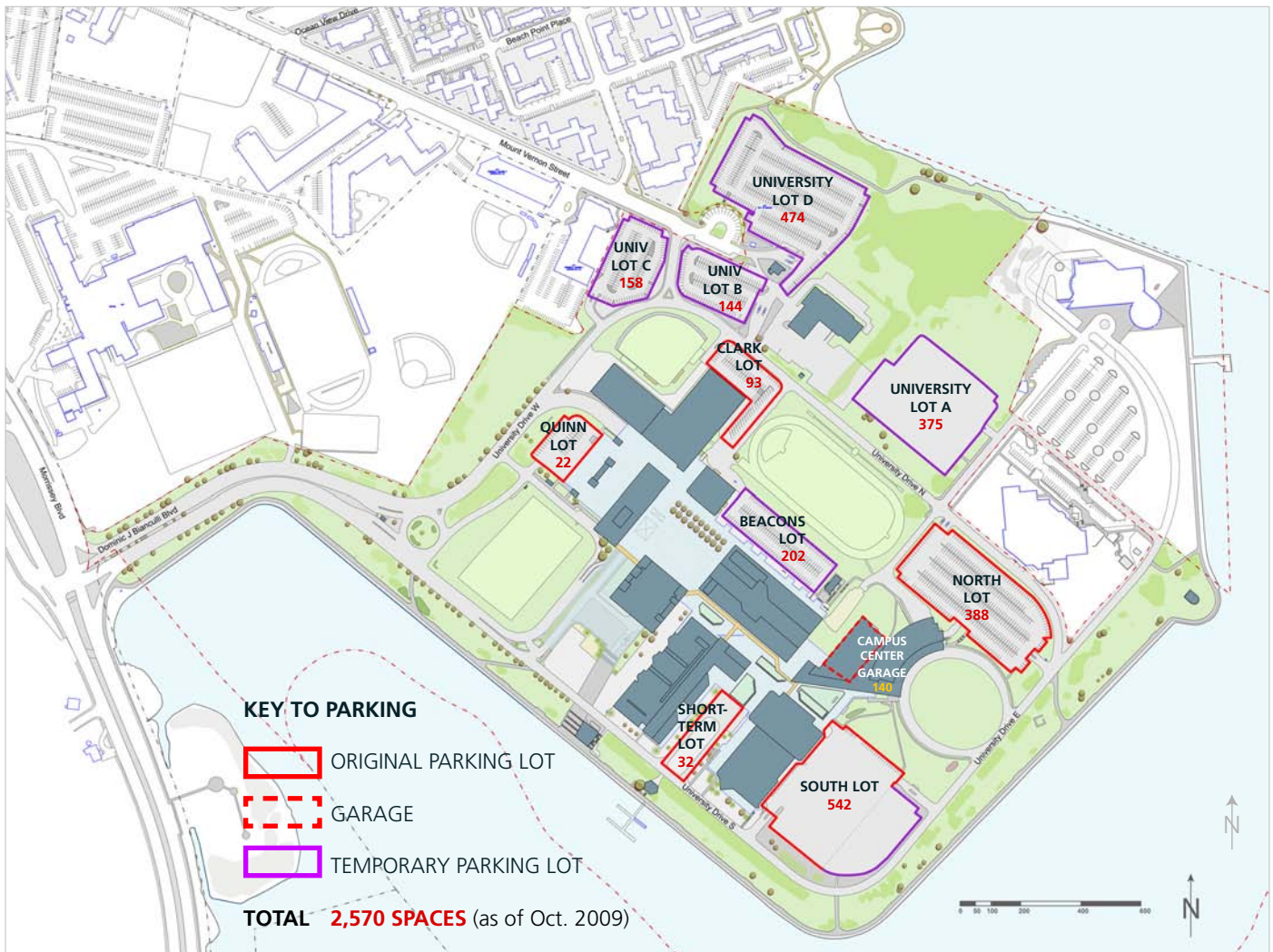
Gateway at Mt. Vernon, Univ. Drive West, & Univ. Drive North



Campus gateway at Morrissey, Bianculli, & Univ. Drive West



Gateway at Mt. Vernon, Univ. Drive West, & Univ. Drive North



Existing UMass Boston parking lots, including temporary lots created to replace 2,398 parking spaces lost by the closing of the deteriorated Substructure garage in 2006



Existing service centers

KEY TO SERVICE PORTALS

- 1 SERVICE & SUPPLY BUILDING**
 - central receiving area
 - 5 full-time staff
 - 3 operating bays
- 2 CAMPUS CENTER**
 - food service, bookstore & misc.
 - unstaffed
 - 3 operating bays
- 3 MCCORMACK HALL**
 - vending & cleaning equipment
 - unstaffed
 - 4 loading bays

Pedestrian Circulation & Common Space

There have been four distinct categories of pedestrian circulation environments on the UMass Boston campus: cavernous garage, open hardscape, disconnected landscape, and encapsulated corridors.

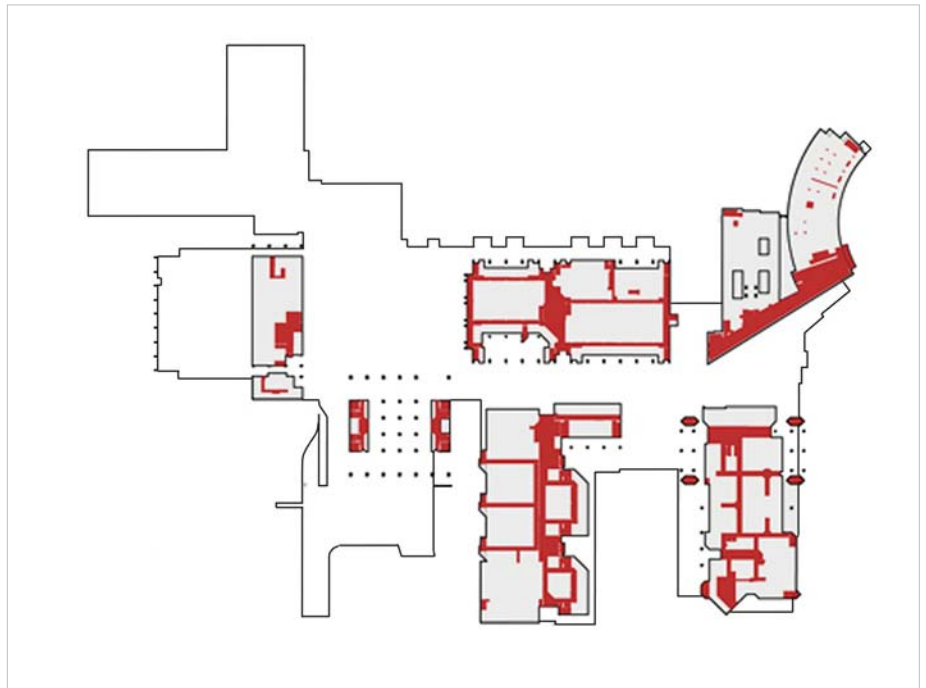
Cavernous Garage

The two-level, 1,560-car above-ground garage (“Substructure”) is a dark and dreary place and has been closed since 2006 for safety reasons. Deep within the windowless interior, the 640,000 square feet facility is effectively subterranean-like, devoid of daylight and human activity except through stairs and elevators to the buildings above. Since the closing of the garage, many have remarked how pleasant it has been to enjoy fresh air, daylight and more occasions of meeting others.

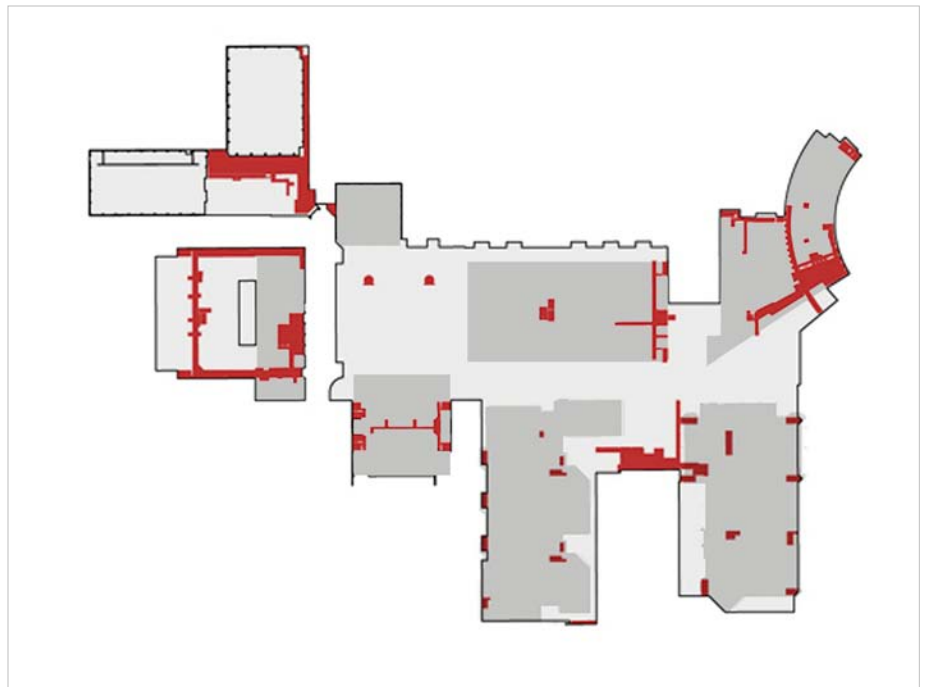
Where once the Substructure provided covered access to all parts of the campus above, it is now closed for vehicular and general pedestrian circulation. Sufficient repairs are now underway to stabilize the Substructure’s deterioration and to permit limited pedestrian access and facilitate fire and emergency egress. The Science Center, and areas of the Substructure not under buildings to remain, are slated for demolition. Areas of the Substructure underneath existing buildings will be stabilized; their potential reuse will be discussed in later chapters of this report.

Open Hardscape

The open spaces between campus buildings are currently portions of the Substructure roof that caps a two-level concrete podium with limited depth and structural capacity to allow lawns to be flush with walking surfaces, extensive planting, or large trees. The result is a spartan cityscape of relatively endless pavers interspersed with occasional raised planters with concrete edges for seating.



Building Level 1 and campus plaza level



Substructure Upper Level showing footprints of buildings above its roof/campus plaza level (dark gray)



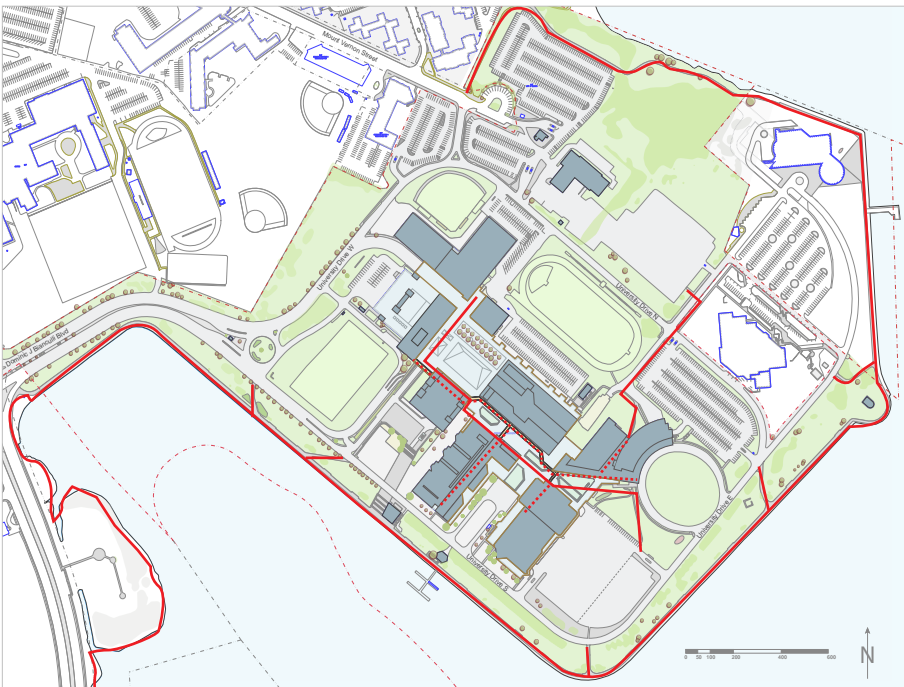
View of existing Substructure interior



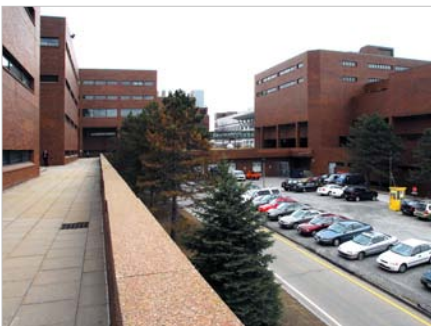
Central campus plaza between Healey (left) and Quinn



Building Level 2 and catwalk network level



Landscape areas around the campus and pedestrian network



Example of ambiguous landscape between buildings



Existing catwalk interior along Science Center

The pedestrian experience is further diminished by a lack of functions or activities to engage passersby along building facades that face the campus plaza.

Disconnected Landscape

Since all the campus buildings are situated along the perimeter of the Substructure, the relationship with the natural landscape beyond the buildings is limited to the occasional narrow gaps between, and framed by, large flanking buildings. Therefore, the surrounding natural landscape is mostly a distant versus a direct view, especially since the surrounding landscape is twenty-five feet below the main campus/entrance/lobby level.

At grade, the environment is no less hostile to pedestrians since there are no sidewalks along roads — except for some recent paths to the temporary parking lots created to replace spaces lost in the closed Substructure. As a formidable fortress, the campus only allows pedestrians to walk around the campus, not through it. Most campus building facades — except for the Campus Center — that edge and touch the surrounding landscape have no formal building entrances or fenestration except for openings to ventilate the garage.

Encapsulated Corridors

The predominant pedestrian network between campus buildings is a system of corridors called “catwalks.” There are no activities along the catwalks other than the flow of people between buildings. In contrast, the catwalk that extends into the new Campus Center connects into a series of linear lobbies that pass by respite areas, study lounges, occasional tables and chairs, snack bars, rest rooms, information desks, and other activities to engage pedestrians. During campus meetings regarding the master plan, there was widespread sentiment expressed for maintaining this catwalk concept.

Major Campus Issues & Opportunities

Aside from typical capital improvements and deferred maintenance issues that campuses commonly encounter, UMass Boston faces some special challenges that also present some equally unique opportunities. The common problems are shared by many campuses with facilities that are over 30-years-old when their infrastructure — predominantly mechanical systems — begin to reach the end of their life expectancy and require substantial upgrade, repair, or replacement. A particular problem at UMass Boston, however, is that except for the Campus Center, all of the facilities on campus are reaching their life expectancy threshold at the same time.

Technological advances often require new construction, renovations and/or replacement in order to adapt new pedagogy to teaching and learning — particularly in science and research facilities. Increases in enrollment and changes in student demographics place demands on having the proper facilities for universities to be competitive in attracting and retaining students; these include the need for facilities to add extracurricular activities, student services, social spaces, healthcare services, and student housing — just some of the many needs that have evolved since 1974 when UMass Boston opened at Columbia Point.

The Substructure — A Special Issue

A most unique campus problem is the deterioration of the steel reinforcement bars within the concrete floor slabs, beams, and columns of the Substructure. An engineering analysis completed in 2006 determined that in order to stabilize and repair the structure, all of the deteriorated structural reinforcing bars would need to be replaced — an involved construction process that would include the demolition of the concrete floors and beams, and some columns, resulting in rebuilding in place the two-level, 640,000 gross square feet, 1,560-car garage upon

which most campus buildings sit.

The Substructure reconstruction process would not only be costly but also extremely complex since all of the campus's life lines — water, sewer, gas, heating, cooling, telecommunications, and methane detection network (for monitoring off-gassing from the landfill beneath the entire campus) — run throughout, and hang from the ceiling of, the Substructure. The possibilities of disrupting teaching, learning, working, and researching during the conservatively estimated two-year reconstruction period, would be extremely high, not only from the inevitable noise that will radiate through the structure to the academic floors above, but also from potential conflicts with construction vehicles, and chances of interrupting or severing the campus infrastructural network lines.

In addition, engineering evaluations and cost estimates by other consultants to the Division of Capital Asset Management (DCAM) — Simpson Gumpertz & Heger, structural engineers — have determined that it is cost-prohibitive to repair and restore the Substructure to its original state. Moreover, it would be more cost-effective to demolish the Substructure and build free-standing garages to replace the parking spaces.

Some Special Opportunities

The demolition of the Substructure would provide UMass Boston with a solution to not only solve a major costly and complex problem, but also present the campus with some important opportunities to simultaneously and collectively correct, fix, and/or otherwise resolve other problems. Through the campus master planning process, many alternatives were explored and evaluated to not only develop a plan to solve current issues through the next ten years, but also coordinate the plan with other potential development over the long-term up to twenty-five years hence.



Typical aging infrastructure (Quinn Building)



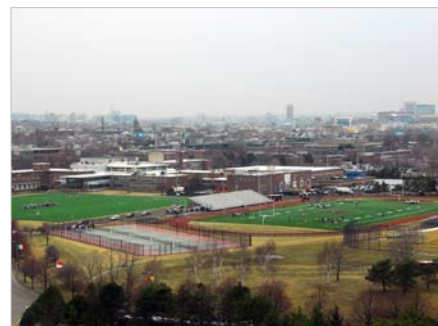
South Lot, between the campus and the waterfront



Crowded office for four people in Healey basement



Short-Term Lot: Future McCormack-Wheatley landscaped quad?



Shared athletic fields between BCHS & UMass Boston?



Substructure under Wheatley: Adaptable for reuse?



Typical classroom (Wheatley), old, windowless, & uncomfortable



On-grade, through-campus path after Substructure is demolished



Void under Healey Library that may be infilled for new space



Visual & pedestrian corridor to JFK Library & future EMK Institute

Achievable and potential opportunities for a new campus plan include:

- Replace the Substructure with free-standing parking structures strategically located along the perimeter of campus in order to improve the overall environment, including: vehicular access and level of service; pedestrian access and connections to campus facilities; reduced pedestrian/vehicular conflicts; improved quality of open space; and minimized pollution by reducing vehicular intrusion into the center of campus
- Reclaim surface parking lots — especially the temporary lots that were created when the Substructure was closed — to make available development sites for new facilities and new and improved landscapes
- Plan the location of new buildings to support the academic mission and address space shortages
- Redistribute and/or reorganize academic programs as new space is acquired to improve and complement pedagogy, relationships, communication, connections, and collaborations
- Improve and upgrade existing space for teaching, learning, working, and research so that existing spaces would be on par with new facilities
- Improve the sense of identity and sense of place on campus by creating a verdant central quad to serve as a new campus focal point and to symbolize a new beginning
- Enhance the sense of identity and arrival to campus at the major gateways to campus by improving the approaching streets, strategically framing the view corridors with new buildings, and creating new landscape and pedestrian environments
- Allow open spaces between buildings to be relocated on the ground; permit pedestrian circulation and

open spaces to flow freely through the campus; and improve access to the surrounding landscape and the waterfront

- Adapt and reuse the parking levels under each campus building to gain additional programmatic space — if a cost effective, minimally-disruptive solution can be found within contemporary code requirements and regulatory constraints
- Improve and enhance previously underutilized areas — such as the expansive 3-story, open air breezeway under the central library — to create additional programmatic space, such as: a new campus gateway, an accessible entrance to the Library, new student service and social spaces, and a new facility for dining and relaxation
- Delineate a new utility infrastructure network, such as a loop system to provide redundancy — especially desirable for the telecommunications network
- Investigate opportunities with Boston College High School to jointly develop open space for athletic fields, share and use recreational facilities, and accommodate pedestrian access
- Investigate opportunities with neighbor institutions — such as: John F. Kennedy Library & Presidential Museum, Massachusetts Archives, and the future Edward M. Kennedy (EMK) Institute for the U.S. Senate — to coordinate common interests, including: complementary landscape and pedestrian corridors; corresponding academic and research programs; coordinated conference and public events; access to open space, parking areas, and pedestrian paths; and shared exhibition, meeting, and lecture space
- Sensitively scale and place new facilities and landscapes that adjoin neighbors of the campus

Past, Present & Future Planning Context

With the acquisition in 2007 of the Calf Pasture Pumping Station and property, UMass Boston increased its land area to 175 acres since opening its Columbia Point campus in 1974. With the possibility of dramatically redefining its campus through a combination of selective demolition, additions, new construction, new circulation, and integration of natural open spaces, UMass Boston has a unique opportunity to transform itself and the southern half of the 350-acre peninsula.

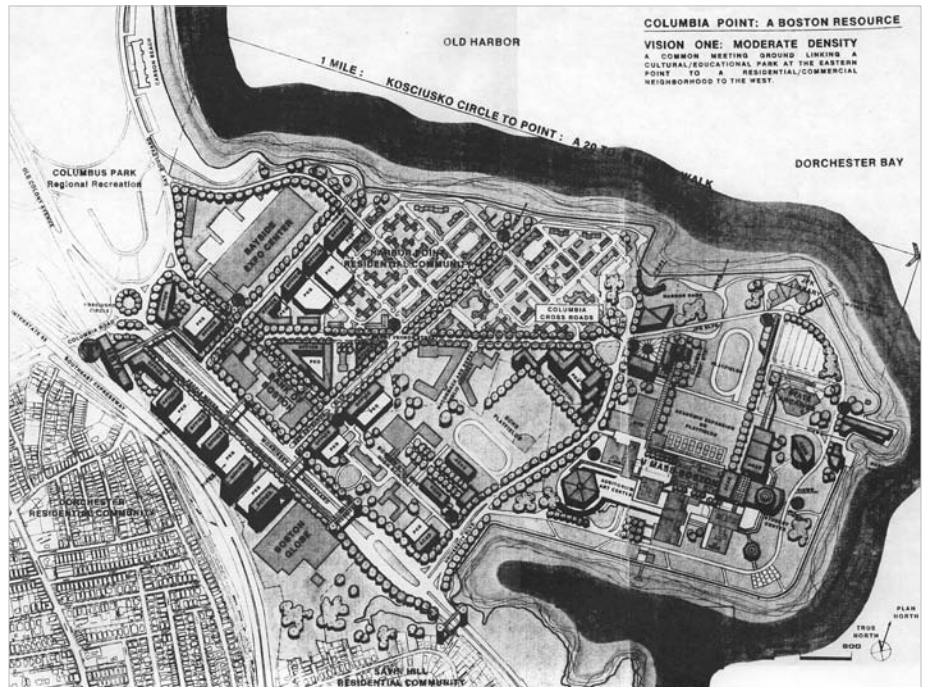
Reflections on Past Planning Efforts

The northern half of Columbia Point includes Harbor Point Apartments that, in its origin as a large public housing project, has been part of Columbia Point since 1953, second only to Boston College High School, which came in 1950. The moment for UMass Boston to redefine its campus also provides an opportunity to emulate the Jeffersonian ideal that a college should be both academy and forum, intertwined with its community.

While the Columbia Point Housing Development was being planned in 1950, consultants to the Boston Housing Authority identified a need to “create a complete neighborhood” at the Calf Pasture to support the 6,000 residents who would live there. This was reinforced by a 1953 City Planning Board report to the Boston City Council that “many of the facilities and amenities essential for good community living must be provided”.¹ While some basic infrastructure recommended by the Boston Redevelopment Authority (BRA) in 1964 has since been built, such as schools and recreational facilities, many other recommended amenities and services have not been realized, including: neighborhood shops, restaurants, a post office, and a citywide campus high school. As UMass Boston plans new facilities to accommodate its current



I.M. Pei & Partners plan in 1976 of the JFK Library highlighting a landscape corridor to UMass Boston at Wheatley Hall



A plan in 1991 by the BSA showing links to JFK Library, Mass Archives and CPPS, and gateways at Mt Vernon St. and Bianculli Blvd.

and future growth, there would be ample opportunities to consider mixed-use functions at special locations, street edges, and precincts of its property where the campus can collaborate and contribute towards “creating a complete neighborhood”.

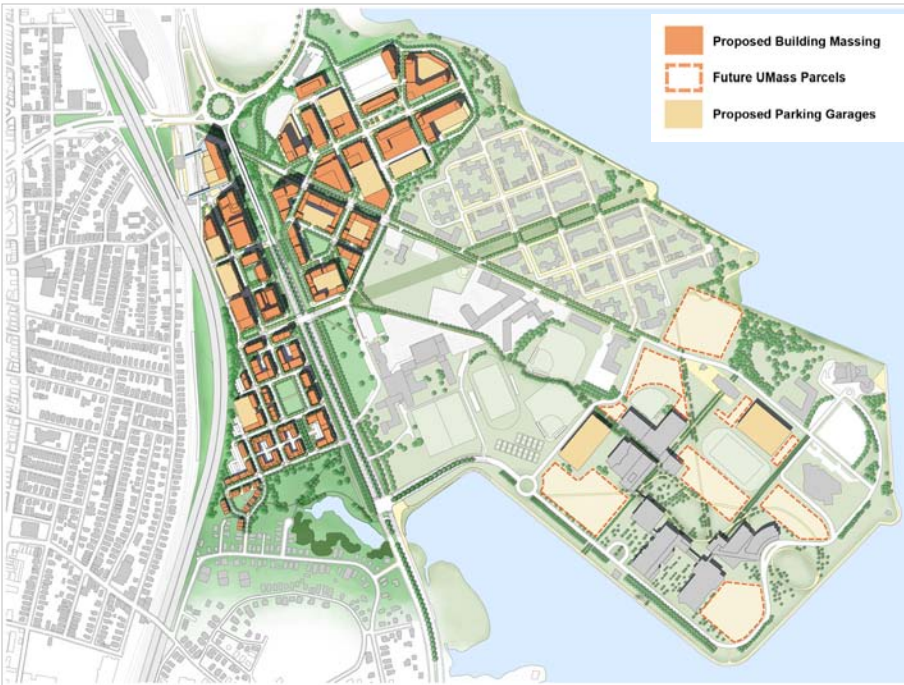
Planning Leading to the Present

According to one architect in the consortium of six architectural firms that designed the original campus, the UMass Boston campus master plan prepared in the 1970s resulted in the fortress motif as a response to security concerns against the then deteriorated conditions of the

1. *A Decent Place to Live*, by Jane Roessner



Plan of buildings, open space, and parking lots in 2007 of Columbia Point and its environs



Columbia Point Draft Master Plan prepared in July 2009 for the Boston Redevelopment Authority by Crosby Schlessinger Smallridge

Columbia Point public housing project.² This, along with a variety of other factors such as the environmental factors cited earlier, has resulted in a campus that is turned inward and disengaged from its context.

Since the original campus master

plan, other architects who have worked on projects at Columbia Point have suggested or proposed changes to help the campus reengage with its environs. As early as 1976, a landscape corridor was suggested by I.M. Pei & Partners to connect UMass Boston to the JFK Library that the firm was designing at the time. Their plan also recognized potential paths between UMass Boston and the Calf Pasture

Pumping Station (CPPS) that extended past Quinn Administration Building to the south waterfront.

In 1991, an ambitious urban design plan by the Boston Society of Architects (BSA) not only included pedestrian connections between UMass Boston and JFK Library, and between UMass Boston and CPPS, but also between UMass Boston and the Massachusetts Archives. More significantly, the BSA plan proposed elements that expanded the urbanity of all of Columbia Point towards the original 1950 goal to “create a complete neighborhood”. Highlights of the plan included special treatment that embellished the gateways into the UMass Boston campus at the end of Mt. Vernon Street and the eastern terminus of what is now Bianculli Boulevard.

Visions of Future Plans

The new campus master plan for UMass Boston coincides with current planning initiatives by the BRA, particularly along major transportation corridors. The July 2009 Columbia Point Draft Master Plan prepared by Crosby Schlessinger Smallridge builds upon the original 1950 goal and provides a vision for a vibrant transit-oriented community, including: a mix of land uses — homes, offices, shops, restaurants, and hotels; ample, tree-lined streets; an extensive system of new multi-modal paths, providing improved connections to the adjacent Dorchester and South Boston neighborhoods, and the waterfront; new parks and recreational facilities; and a diversity of housing types.

The UMass Boston campus master plan would not only help to improve and transform the campus itself, but also support and contribute to the overall effort to enhance Columbia Point. As illustrated by the BRA plan, the size and location of the campus emphasize UMass Boston’s prominence and suggest a stewardship role for the campus in creating a new vision for the entire peninsula.

1. *Growth of A University, Architecture Plus*, March/April 1974

II.

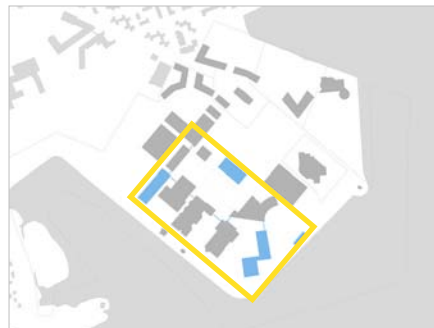
PLANNING STRATEGIES FOR UMASS BOSTON



Existing UMass Boston campus



Existing UMass Boston campus (Source: maps.live.com)



"Reinforces the Campus Core"



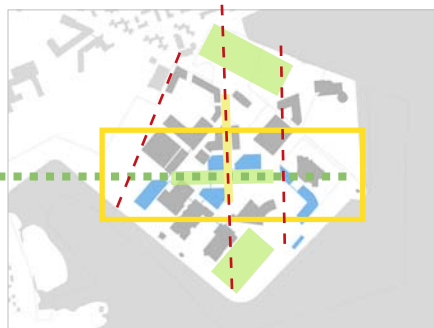
University of Virginia (Source: UVA)



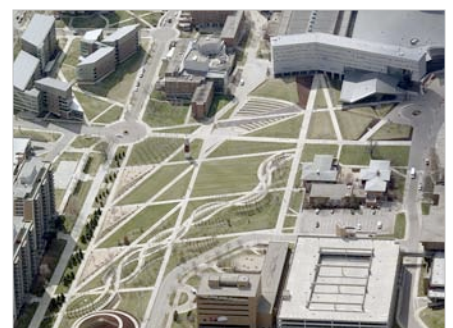
"Expand the Campus Hub"



University of Washington (Source: UWash)



"Improves Connections"



University of Cincinnati (Source: maps.live.com)

SUMMARY

Chapter I provides the background of Columbia Point and the opportunities and constraints at UMass Boston for a new campus master plan. This chapter summarizes the process of numerous investigations that explored design concepts, alternatives, and visions presented by the site, its context, and the university constituency. From these studies, a Preferred Campus Master Plan was developed with the UMass Master Plan Steering Committee and the Massachusetts Division of Asset Management (DCAM).

Chapter III will present detailed expansion and refinement of the Preferred Campus Master Plan, including summaries of analyses, discussions, and feedback received through the planning and review process. The alternatives and multiple concepts serve to create a flexible framework that would allow the master plan to better fulfill its academic mission, respond to curricula needs and enrollment growth, and adapt to changes in available funding, technological advancements, infrastructural improvements, and expanded collaborations with adjacent institutions and surrounding neighbors.

The Planning Process

The planning process included engaging a broad spectrum of the campus constituency, including: elected officials; the hierarchy of administrative staff; faculty; students; associated public agencies;

adjacent institutions and stakeholders; neighborhood residents; and community associations. The process included: numerous informational interviews, meetings, and workshops; regular presentations of iterative design and planning concepts; noted comments and feedback; and refinements to the concepts following each round of review.

Concepts for a new campus plan were developed from, and evaluated at, two opposite but complementary scales: (a) the overall development of the campus as an evolution of the existing campus core; and (b) individual components of the campus, both individually and in coordination with other related or relevant components.

At the global scale, design concepts took into account the urban context, past and present deficiencies, future opportunities and benefits, and renovations and modifications as a consequence of the demolition of the Substructure.

At the campus scale, studies of planning and design elements included:

- improving the road network to reduce the impact of traffic on the campus and pedestrians
- parking options to create the most efficient use of land and traffic that would also provide the greatest advantages for siting new buildings, landscape, and connections to various corners of the campus, adjacent destinations,

neighbors, and the larger context of Columbia Point and Dorchester

- defining and locating gateways to campus to enhance the sense of identity and place
- strategically locating and introducing on-campus student housing, which is currently absent
- expanding the landscape and integrating it with surrounding natural resources
- improving pedestrian circulation, both internal and external
- accommodating athletic fields and recreational open spaces
- improving access to and through campus buildings and open spaces
- identifying the most beneficial location for new utility infrastructure

Each component was evaluated on its own merit and in coordination with other related or adjacent components, and at the global scale.

Three planning strategies evolved from the process: (a) reinforce the pre-established campus core; (b) extend the outreach of the core to new parts of the campus; and (c) improve the correspondence between buildings within the campus, between the campus and its immediate neighbors and natural surroundings, and between the campus and the larger urban context of Columbia Point, Dorchester, and downtown Boston.

The Planning Process & Master Plan Vision

The campus master planning process was developed to be as inclusive as possible. Overall project management was directed by the Commonwealth of Massachusetts Division of Capital Asset Management (DCAM), which owns and manages the land and non-revenue producing facilities on the UMass Boston campus. The University of Massachusetts Building Authority (UMBA) provided expertise and consultation for revenue-producing facilities, such as student residences, resident dining facilities, and parking structures. Liaison with the UMass Boston campus was conducted through a master plan steering committee (MPSC) with representatives from a thorough cross-section of administrators, faculty, staff, and students.

The master planning process included over 160 interviews, meetings, workshops, presentations and public meetings. Matching specific campus needs and campus goals to analyses and conceptual solutions helped to reach consensus towards a preferred planning strategy. Periodic project reviews and presentations were made to a cross-section of the senior university leadership, including the Chancellor and the UMass Board of Trustees. Major review committees can be found on page 8.

The following vision and guiding principles were established by the MPSC at the beginning of the process to guide the development of the master plan and decision-making throughout the master planning process:

MASTER PLAN VISION¹

The Master Plan will develop a physical blueprint for UMass Boston that optimally reflects and supports strategic priorities and goals. The physical environment will be renewed and rebuilt to meet the needs of students, faculty, and staff as they contribute to the University's leadership in public higher education and research in the twenty-first century while pursuing its urban mission. The re-centering and reorganizing of campus space will result in a more vibrant and engaging University life. State of the art facilities will inspire and connect our students, faculty, and staff with the University's local, national and global communities and serve to bolster ties with our surrounding neighbors.

MASTER PLAN GUIDING PRINCIPLES

Pursuit of Urban Mission

From its founding in 1964, UMass Boston was defined as a University with an "urban mission" whose teaching, research and service programs will serve the public and promote community engagement. For the Master Plan, particular attention will be paid to the site location and design of facilities in support of academic priorities that seek to advance UMass Boston's urban mission. In addition, collaborative strategies will be considered that cultivate partnerships with the community and integrate campus plans with those of the larger community.

Student Life

In recognition of the need to improve student life at UMass Boston, the Master Plan will focus on re-conceptualizing space to meet the specific needs of both commuting and resident students (i.e. accessibility of information, social and cultural events, dining, rest and comfort, intercollegiate athletics, recreation, physical fitness & wellness) and determine how it can support the enhancement of the student experience at UMass Boston.

Green/Sustainable Facilities and Environmental Priority

The University's strong commitment to environmental protection and sustainability will be integral to the Master Plan. Sustainable site development, energy efficient building design and materials, renewable energy sources and technologies, use of recyclable and locally available materials, and increased reliance on clean transportation alternatives will be prioritized in this process.

1. http://www.umb.edu/administration_finance/masterplan/index.html



Some of the representatives of faculty and staff who participated in interviews.



Engaging students regarding campus planning issues.

Durability & Flexibility of Space

Given the environmental conditions of the campus, durability of facilities is an important design standard for future buildings. Moreover, the need to maximize the versatility of space and technological resources must be considered in the design of academic buildings that will enable space to be re-configured over time without major structural modifications, while providing an inviting teaching and learning environment for students and faculty, and the necessary infrastructure for existing and future technology.

Integration of Space Functions

New and renovated academic facilities should house a mix of academic programs so as to help support interdisciplinary instruction and research at UMass Boston. Under this concept, non-academic and co-curricular activities regarding student life and other social activities would also reside in academic facilities as one method of helping to meet student needs and concerns.

Use of Ground Level Space

In an effort to help enliven campus life and provide an asset to the larger community, campus buildings should accommodate non-academic functions such as retail, recreation, physical fitness & wellness, and public safety.

Incorporation with the Natural Surroundings

The future campus design and orientation should take full advantage of the natural beauty of Columbia Point and sensibly integrate the physical plant with the waterfront.

Integration with the Surrounding Community

Through the rebuilding of the campus, options exist to strengthen in a respectful manner the University's physical connection with its neighbors, including the JFK Library and Commonwealth of Massachusetts Archives, and enhance its place in the neighborhood as an accessible public area.

Transportation and Parking

Through campus design, comprehensive solutions to accessibility to the campus should be addressed including the facilitation of multi-modal transportation alternatives (i.e. bus, subway, automobiles, bikeways, boat, and pathways) and construction and location of above ground parking structures that respect pedestrian connections, adjoining land uses, and the natural surroundings, and enhances connections with the surrounding community. The University will coordinate with other state and municipal agencies on future transportation plans for Columbia Point.

Future Growth and Development

The Master Plan will make available future building sites that provide a range of future land use activities to support the academic mission of UMass Boston and allows for growth and development that positively impacts adjacent land use, campus accessibility, and the natural surroundings."

Broad Planning Considerations

The demolition of the Substructure would allow existing campus buildings to become freestanding, sitting on *terra firma*, with new on-grade entrances and facades touching open space. As new buildings and open spaces are added, UMass Boston will be more like a “campus” — figuratively and literally, in Latin, a “field.”

Free of a garage edge to dominate the ground plane, campus buildings may have new entrances and activities facing outward towards the street and the waterfront in contrast to their current inward-facing orientation. The impact would help the campus appear more welcoming, much like the Campus Center today.

Within a reconfigured campus of untethered buildings and verdant open spaces, visual and physical access to the natural surroundings would be unobstructed, allowing pedestrian circulation to flow freely through the campus. This new accessibility would begin to eliminate the long-standing physical image of the campus as a fortress.

External pedestrian networks, including the surrounding trails and HarborWalk may be connected through the campus to link old and new landscapes, facilitate access to recreational areas, and participate in the broader open space system identified and proposed in the BRA’s Columbia Point Draft Master Plan.

Strategically-placed new garages to replace the Substructure and temporary parking lots will help reduce the presence of vehicles in the campus core and improve the pedestrian environment and public safety. University Drive, currently a one-way loop road that encircles the campus and encourages speeding, can become a two-way street, thus effectively reduce traffic speeds, provide circulation choices, and improve traffic flow.

Mt. Vernon Street, currently lined

with the gated fence of Harbor Point Apartments on one side and empty lots on the other side, can become an active neighborhood boulevard flanked by infill mixed-use commercial and community facilities, including available offerings on the ground levels of new UMass Boston projects.

New campus buildings in the vicinity of Mt. Vernon Street can have street-level uses and services that would benefit both the campus and the surrounding neighborhood with uses that may include: convenience stores, restaurants, household services, day care centers, public library, post office, health services, fitness center, office space, community facilities, classrooms, and meeting rooms. A multitude of these uses would help promote social and community activity, and help to better realize the 1950 challenge to “create a complete neighborhood”.

Other cities and towns offer many examples of successful streets and precincts between campuses and neighborhoods that can provide mutual benefits economically, socially, and culturally. Thriving precedents include: Massachusetts Avenue and Harvard Square outside Harvard University; Massachusetts Avenue and Kendall Square outside M.I.T.; Commonwealth Avenue and Kenmore Square outside Boston University; Thayer Street outside Brown University; Nassau Street outside Princeton University; and Telegraph Avenue outside University of California, Berkeley; just to name a few.



Columbia Point Draft Master Plan: network of paths & open space (Source: BRA)

BUILDING AND SITE KEY

- 1 MBTA / JFK UMass Station
- 2 Bayside Expo
- 3 Harbor Point Apartments
- 4 Peninsula Apartments
- 5 Calf Pasture Pump Station
- 6 EMK Institute Site
- 7 JFK Library
- 8 Massachusetts Archives
- 9 UMass Boston Campus Center
- 10 UMass Boston Central Plaza
- 11 Boston College High School
- 12 Boston Globe Headquarters

STAKEHOLDERS KEY

- UMass Boston Property Line
- Institutional Buildings
- Industrial Buildings
- Commercial Buildings
- Residential Buildings
- Open space / Landscape



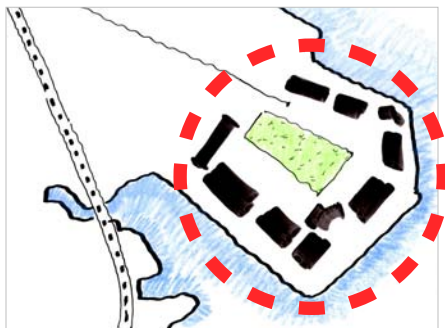
Diagrammatic perception of UMass Boston as a fortress today



Aerial view of the monolithic campus on a two-level podium



Major stakeholders and landmarks on Columbia Point



Conceptual diagram transforming UMass Boston into a campus



Diagram of the waterfront resource surrounding Columbia Pt.

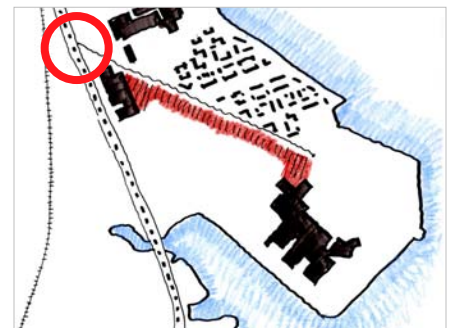


Diagram symbolizing Mt Vernon St. as "Main Street"



Oxford University as a network of buildings and landscape



Passive and active open space of Boston's Charles River



A mixed-use street between a transit station and Harvard Univ.

Space Planning Impacts on the Physical Plan

By 2006, enrollment had doubled in size since UMass Boston relocated to its new campus at Columbia Point. With no new classroom or laboratory space added since 1974, and a projected growth to 15,000 students by 2010, it is clear that there is a shortage of academic space. A space utilization study conducted by Rickes Associates in 2007 based on fall 2005 data helps to estimate space needs.

The analysis of 2007 data indicated that UMass Boston has 940,000 assignable square feet (ASF) of space for the equivalent of 8,500 full-time equivalent (FTE) students. Compared to a modest space standard of 125 ASF per FTE for peer public universities, UMass Boston's 111 ASF per FTE student is relatively low.

An estimate of space for an enrollment of 15,000 students — projected for 2010, but achieved in fall 2009 — will yield 10,800 FTE. At 125 ASF per FTE, 1.35 million ASF of academic space is the recommended modest standard. At a standard of 220 gross square feet (GSF) per student FTE, some 2.4 million GSF of building space will be required. This compares to a current total of 1.8 million GSF of academic space when the Substructure is not included.

Aside from additional academic space, UMass Boston is planning to introduce on-campus student housing to fulfill student demand. Since the proposed 2,000 beds represents only 13 percent of the 15,000 student body, the historic mission of UMass Boston as an affordable, commuter university will be relatively unchanged. However, student residences would require additional campus services, not currently required or provided, that would further impact the need for space.

Impact on Physical Planning

The challenge to plan new facilities will include many factors regarding programs, departmental needs and growth, academic emphasis, competition with other academic institutions, and other pedagogical issues. From a physical planning and programming standpoint, several intertwining questions arise that would or could impact the physical campus plan. For example,

- How many buildings should be built to address the space shortage and what size and configuration should they be? Current academic buildings have very large floor plates that yield undesirable windowless classrooms.
- Where should new buildings be located? If the distance is far from related existing buildings and departments then the need for redundant services will skew the total requirement for space.
- What programs will occupy the new buildings and how will vacated spaces in existing buildings be reprogrammed, reused, and or reassigned? More often than not, vacated spaces would need renovation and/or reconfiguration, requiring sufficient funding to create appropriate space of sufficient quality to fit the needs of the new user.

The impact on total campus space could include: reducing the number of classrooms through combining small rooms to create larger classrooms; increasing the number of seminar rooms through subdividing large classrooms or lecture halls; and changing the use of spaces not originally designed for the new use.

- How can existing buildings be improved physically, functionally, and environmentally with minimum disruption and at an acceptable cost? Disruptions that include extensive

noise, interruption of services, and safety hazards may require a need to vacate the building during renovations. Is there a need, accommodations, and funding for swing space?

- The advent of on-campus housing suggest the need for additional services to address the needs of the residents. What additional facilities and programs would need to be added or expanded, such as: student life services; healthcare facilities; offices for additional staff; public safety and security infrastructure; dining facilities; fitness and recreational facilities; live-learning spaces; and worship spaces?
- Where should the additional service space be located and how do they impact other spaces on campus? What and where should/could commercial and/or mixed-use functions be provided, and how would it impact the total demand for space and funding?
- As UMass Boston explores collaborations with other institutions — such as Boston College High School, John F. Kennedy Library & Presidential Museum, Massachusetts Archives, and the future Edward M. Kennedy Institute for the U.S. Senate — what specialty functions would/should be added to support these collaborations, and where should they be located?

Academic Space Need

ACADEMIC SPACE NEED					
	Head count	FTE	ASF/FTE	GSF/FTE	Bldg Efficiency
2006	12,362	8,855	111	212	52%
2007	13,433	9,817	96	185	52%
2010 (est)	15,000	10,800	125	220	57%
Required Academic Space				2,400,000 GSF	
Existing Academic Space				1,800,000 GSF	
Shortfall For 2010				600,000 GSF	

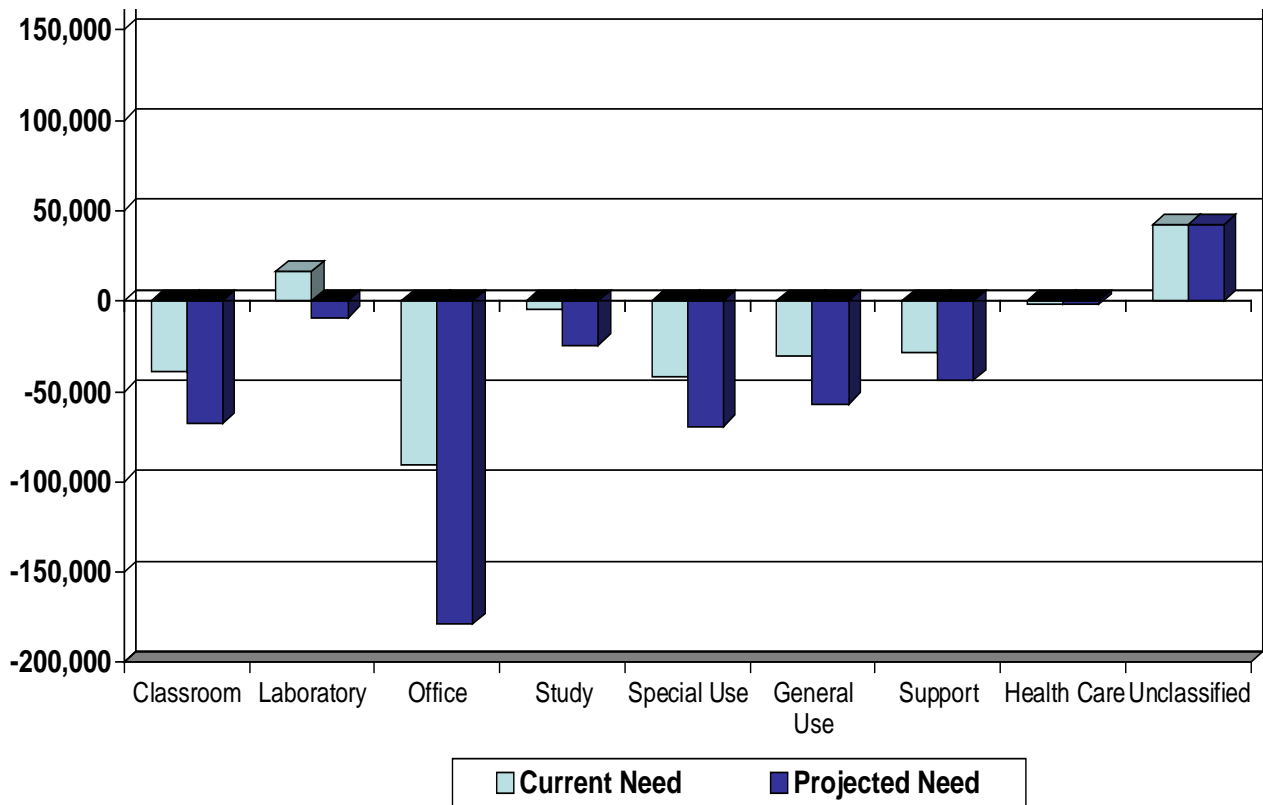
2007 & 2010 Projected Space Needs per FTE Student

Space Type	2007 Actual	2007 Need	2010 Need
Classroom	65,455	104,869	133,183
Laboratory	189,304	173,047	198,391
Office	296,352	386,620	474,902
Study	108,392	112,571	132,771
Special Use	95,412	136,764	164,727
General Use	100,961	131,588	157,730
Support	42,917	71,302	87,048
Health Care	1,930	3,300	3,760
Unclassified	42,231	0	0
Total	942,954	1,120,060	1,352,512
Student FTE	8,529	8,529	10,785
ASF per FTE	111	131	125

2005 & Projected Headcount and FTE Students

	2005		2010 Projected	
	Headcount	FTE	Headcount	FTE
Undergraduate	8,958	6,510	11,328	8,232
Graduate	2,904	2,019	3,672	2,553
Total	11,862	8,529	15,000	10,785

2007 & Projected Space Needs by Type of Space



2007 Space Utilization Findings (Source: Rickes Associates)

Renovation Issues of Existing Spaces

In its evaluation of the 640,000 square feet Substructure, structural engineers Simpson Gumpertz & Heger determined that past use of road salt to de-ice roads during the winter had caused irreparable damage to reinforcing steel bars in much of the concrete floor slabs, beams, and columns. The recommended corrective measure is to first stabilize the structure to facilitate emergency pedestrian egress from the buildings above the Substructure, and then demolish damaged areas and rebuild the concrete floors, beams, and columns.

Renovation of the Substructure Under Academic Buildings

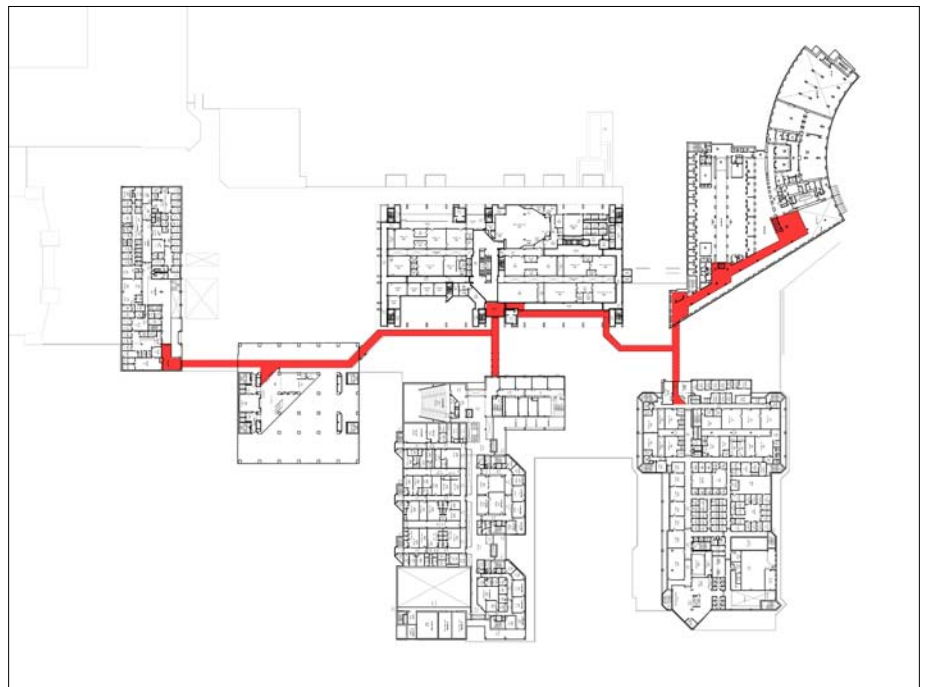
Based on the 2006 cost estimate of \$160 million to fix the Substructure, state and university officials concluded that a more cost effective and transformative advantage to the campus is to demolish the Substructure and replace the parking with new freestanding garages located elsewhere on campus. Since the extent of the Substructure garage serves as the lower two floors of several academic buildings, it was hoped that the four major academic buildings — McCormack Hall, Quinn Administration Building, Science Center, and Wheatley Hall — may gain up to 140,000 square feet each of additional space if the rebuilt parking levels can be adaptively renovated for academic use.

Unfortunately, the change in use and cost of renovations of the lower two floors would trigger contemporary code requirements to upgrade the *entire* building to meet more stringent seismic standards, and increase the cost of renovation far beyond the replacement value of each of the large academic buildings. The implications facing the state and the university are thus:

(a) Pay the premium to comprehensively renovate the buildings (preliminarily



Existing size and extent of Lower Level Substructure garage

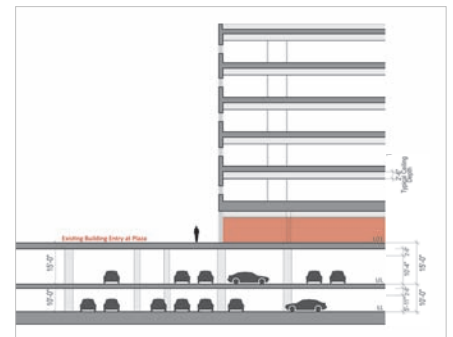


Existing catwalk system on current Level 2 (future Level 4)

estimated to be in the ballpark of up to 150% of replacement value)

(b) Demolish the existing, fully occupied, buildings after replacement buildings have been built. The replacement buildings, in this situation, would not address the projected shortage of space.

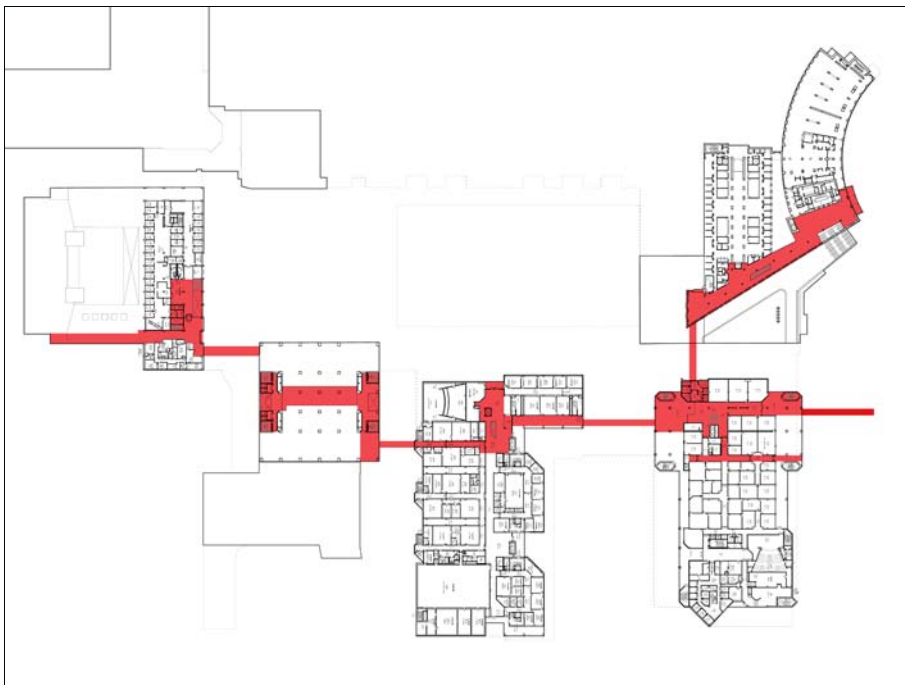
(c) After stabilizing the lower floors,



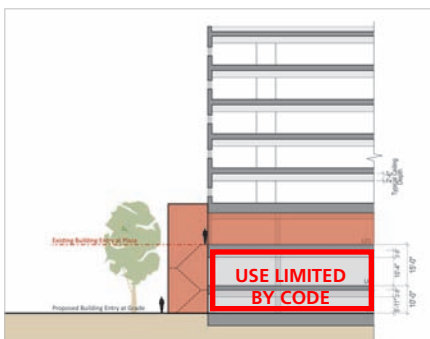
Typical section through existing Substructure



Proposed demolition related to Substructure



Proposed catwalk and lobby network on future Level 3 (existing Plaza Level/Level 1)



Alternative access concept after Substructure demolition

mothball the spaces to avoid use that would trigger non-code compliance, and build small additions outside the footprints of the buildings to facilitate entrance and vertical circulation from grade to the original lobbies (that would become the *third floor* from the ground once the Substructure is demolished)

Renovation of the Science Center

An assessment of the Science Center indicated that its extensive inventory of laboratories are very outdated and would require substantial renovations to transform the building to meet contemporary standards, a complex and cost-prohibitive task due to the extensive use of masonry in the interior wall construction and contemporary compliance with codes to provide access for the physically disadvantaged. As a consequence, state and university officials concluded that the Science Center should be simultaneously demolished with the Substructure, after a replacement science facility is constructed as part of the initial improvements to the campus.

Impact on Infrastructure

Since the existing utility infrastructure is suspended in the Substructure ceiling, it will also be demolished and need to be replaced. Studies by ARUP are helping to determine the most advantageous route for a new utility network.

Impact on Pedestrian Circulation

Since most of the prized catwalk system is connected to the Science Center, it too will be demolished. A replacement network is also desirable to create a more effective and useful system, especially since the current location is located four floors above the future ground plane. A more ideal network and location would be to move the catwalk path to the future third level (where it will still allow emergency vehicles to pass underneath), and integrate the system into the internal corridor and lobbies of each academic building. Among the advantages are: shorter bridges than the current configuration; improved climate control; interaction with interior spaces and functions; and potential support and reinforcement of social activities.

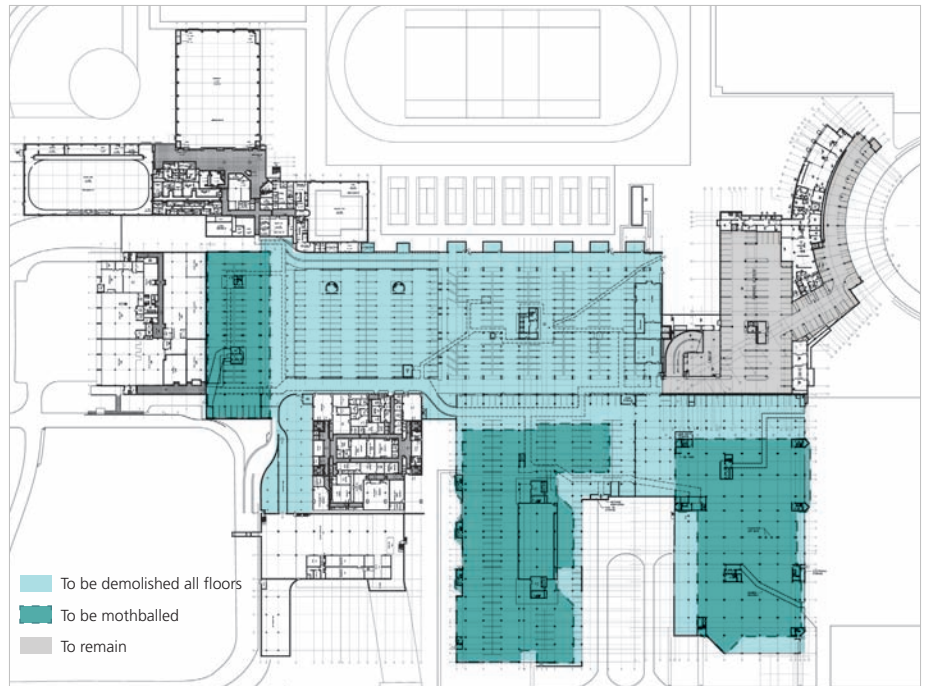
Considerations to Transform the Base of the Campus

The potential to adaptively reuse the Substructure levels under the existing academic buildings would dramatically alter the relationship between existing academic buildings and their surrounding landscapes. New exterior facades of glass together with active uses would help to enliven the appearance of the former garage, help to engage pedestrians along the building edges, and allow interior uses and users to more directly connect with the landscape at the ground level.

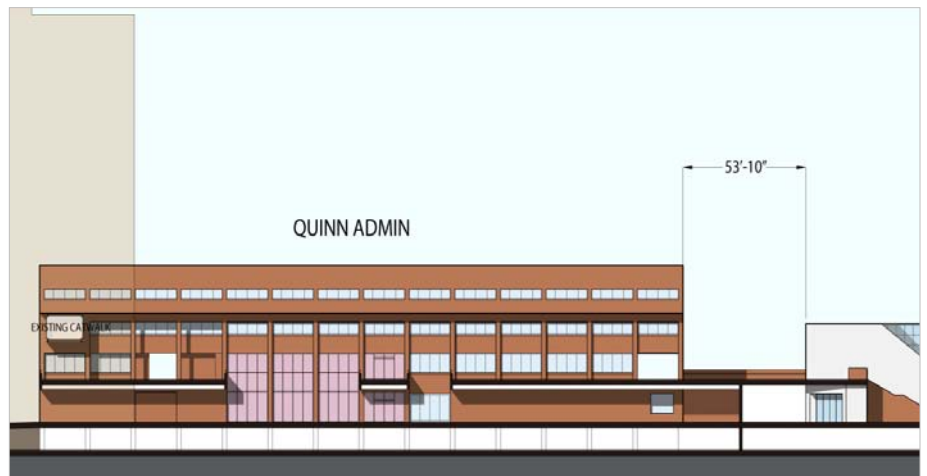
However, any function other than parking would be a change in use, and will require extensive structural upgrades throughout the entire building to comply with the current seismic code. Unless a cost-effective means can be found to implement a renovation for a change in use, the adaptive reuse of the lower floors under McCormack Hall and Wheatley Hall appears remote. Until a viable solution can be found, the only solution appears to be mothballing the interior spaces. One potential option for habitable space in this case, including new building entrances at the ground level and vertical conveyances to the third level (the current plaza level), may be additions outside the building envelopes in anticipation of the need to comply with the constraints of contemporary regulatory codes.

Non-habitable reuse may avoid triggering the costly seismic upgrade for the entire building. Some potential uses include: glass display and information cases facing outward; art and media walls along the solid facades; mechanical and electrical equipment rooms; and possibly storage rooms. Ironically, parking for utility and service vehicles would be allowed because they do not constitute a change in use in the former Substructure space.

The most important edges to consider potential additions are the lower level facades of the buildings that will face a new Central Quad to replace the



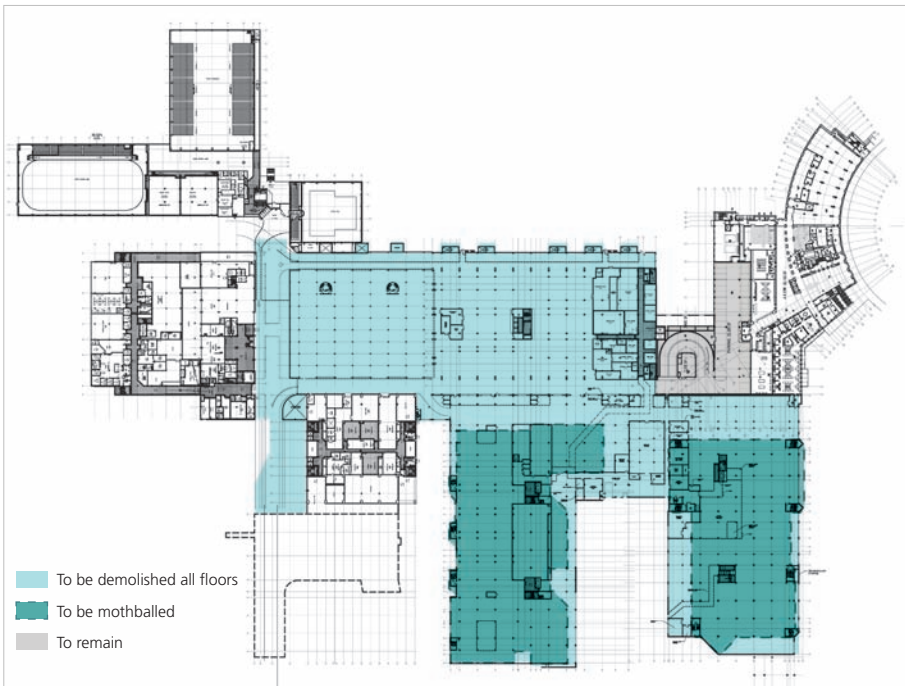
Alternative concept for demolition and assignment of existing Substructure parking areas at the ground level



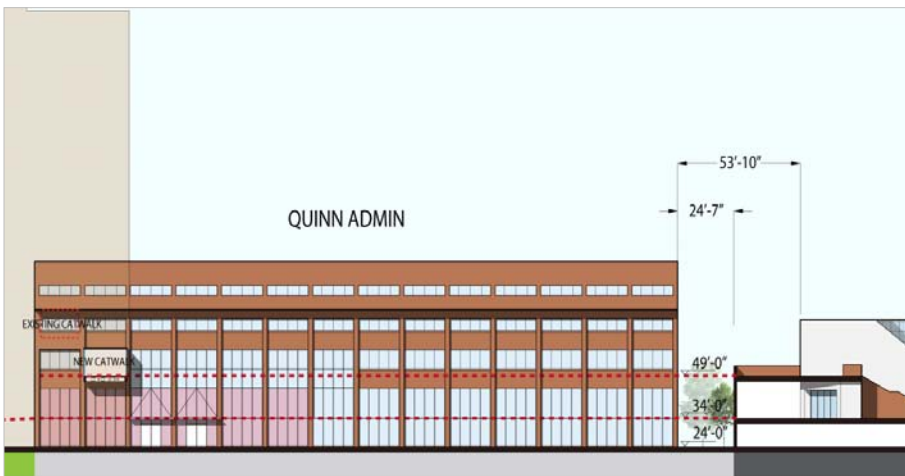
Existing east elevation of Quinn Administration Building and section through the Substructure



Existing north elevation of Healey Library and section through the Substructure



Alternative concept for demolition and assignment of existing Substructure parking areas at the second level above grade



Alternative east elevation of Quinn Administration Building and new facade to its exposed lower floor after demolition of Substructure.



Alternative west (Quad) elevation of Healey Library and new facade to its exposed lower floors after the Substructure's demolition

demolished Substructure and Science Center. Special attention in design is warranted for the north facades of Healey Library and McCormack Hall, the east facade of Quinn Administration Building, and the west facade of Campus Center.

The most difficult challenge would be to change the ground level uses under McCormack and Quinn due to the triggering of costly seismic upgrades.

Modification and adaptation of the current parking ramp inside the west appendage of Campus Center may not be affected by the code since it is assumed that the recently completed facility already complies with current seismic standards. Nevertheless, the conversion of the parking ramp into an important entrance facing the quad will be a change in use and will require the elimination of the 40 parking spaces on Campus Center's second floor.

Healey Library, the tallest building on campus and the former main gateway into campus can once again provide a special focus and function facing the future Central Quad. Fortunately, the lower two levels of the building, though obscured by the Substructure, was designed as habitable space from inception, and a change in use will not be an issue, and creating a new glazed entrance at the lower floor would be achievable without the constraints imposed on McCormack and Wheatley Halls.

However, it would be highly desirable to create a two-level entrance at Healey or any existing building, especially since the lower level, at only 10-foot floor-to-floor, would yield a relatively low ceiling height below its structure and mechanical and lighting system. By combining the lower (first) level with the upper (second) level, a generous ceiling height of 15- to 20-feet would provide the appropriate scale warranted for a campus gateway and main library entrance.

A Sampling of Alternative Planning Elements

A series of design elements were developed to correspond with, and respond to, the campus planning principles identified by UMass Boston and to test various components that would help structure the campus plan. The adjacent matrix and more detailed summaries on the following pages summarize some of the many components and alternative concepts that were studied, including but not limited to:

Alternative Road Patterns — investigate the relocation of the loop road to support campus access, improve traffic circulation, and enhance campus identity, including the opportunities and constraints of a two-way road pattern

Garage Locations — evaluate various locations and configurations of replacement garages in concert with alternative road configurations, improve access to important destinations, and reduce pedestrian and vehicular conflicts

Gateways to Campus — test, define, and configure the locations for campus gateway(s) from a vehicular, pedestrian, and experiential perspective

Student Housing — study sample layouts and locations for on-campus student housing, including how it may serve to mediate the edges between the campus and its neighbors

Open Space Network — define and conceptualize patterns of on-campus open spaces to complement alternative building patterns and connect to surrounding natural resources

Pedestrian Circulation — overlay pedestrian patterns to support alternative landscape and building options

Athletic Fields — test locations to coincide with choices for academic buildings, circulation, and open space, and potential collaborations with Boston College High School

Sustainable Landscape — develop concepts to protect and enhance existing natural open spaces and resources, including: reinforcing existing waterfront parks; protecting existing wetlands and mature tree clusters; and expanding and helping to complete the HarborWalk



Figure ground plan of existing buildings and open space

New Utility Infrastructure Loop — evaluate alternative locations for a new redundant utility network to replace the existing utility spine when the Substructure is demolished, and to support new buildings, new road configurations, and new open spaces

Alternative Building Patterns — investigate potential patterns of campus growth in response to programmatic needs and to the relationship between the campus and the surrounding urban and natural context, both in the initial phase of new campus development and in the long-term growth of the campus over time



Examples of new alternative campus road networks overlaid on potential growth patterns of a future UMass Boston campus



Examples of alternative locations of singular, multiple, or mix-and-match garages that would replace the Substructure and temporary parking lots



Examples of alternative configurations for a mixed-use node that may also help to define a campus gateway at the intersection of Mt. Vernon Street and the University Drive campus loop (* by others)



Examples of alternative configurations and locations for on-campus student residences



Examples of alternative configurations for campus open spaces and their potential connections to the surrounding landscape and open space network



Examples of alternative configurations for a new pedestrian network within the campus and its potential connection to important destinations around the campus



Examples of alternative locations and configurations of athletic fields, including potential collaborations with Boston College High School

Examples of Alternative Campus Loop Road

With the recent acquisition of the Calf Pasture Pumping Station, the land area of the UMass Boston campus increased to 175 acres to which the current loop road does not readily access. Moreover, the existing loop road effectively cuts *through* the expanded campus, requiring pedestrians to cross the loop road between existing and future campus

precincts. The following investigations are a sampling of alternative concepts for loop roads in speculation of various campus patterns that may evolve, to support campus access, improve traffic circulation, and enhance campus identity, including the opportunities to change the current one-way circulation route to a two-way road system.



Existing campus loop road



LARGER LOOP ROAD

North loop road is relocated to the northeast to align with Mt. Vernon Street.

Advantages:

- Mt. Vernon Street would offer an alternative and more direct path to JFK Library, Massachusetts Archives, future EMK Institute, and the UMass Boston campus.
- Connecting Mt. Vernon Street to a relocated University Drive North raises its prominence and may spur improvements and development along the street.
- Campus is more contiguous without a road separating one-fourth of the campus.
- Existing University Drive North reverts to become part of the new pedestrian and open space network.



SMALLER LOOP ROAD

West loop road is relocated to the east, creating a more useful parcel for development along the west campus edge. East loop road is moved westward.

Advantages:

- Campus Center oval is integrated with, and enlarges, the east harbor landscape to create a more generous park in front of Campus Center.
- Small western campus parcels are enlarged and made more useful.
- Mt. Vernon Street would offer an alternative direct path to JFK Library, Massachusetts Archives, future EMK Institute, and UMass Boston.
- Connecting Mt. Vernon Street to a relocated University Drive North raises its prominence and may spur improvements and development along the street.

Disadvantages:

- West loop road separates one-fourth of the campus.



REDEFINE ACCESS & CIRCULATION

The road and circulation pattern is reoriented with additional connections to the loop road and Mt. Vernon Street.

Advantages:

- Improved, multiple access options to the waterfront from the neighborhood.
- Connections through campus and adjacent uses are less constrained by a pre-established pattern.
- Geometries of buildings and open spaces offer more variety and interest.
- Small western campus parcels are enlarged and made more useful.
- Connecting Mt. Vernon Street to a relocated University Drive North would offer an alternative path and may spur improvements and development along the street.

Disadvantages:

- West loop road separates part of the campus.

Examples of Alternative Parking Concentrations

The Substructure provided parking for 1,560 cars in a single location in a large two-level podium under the campus buildings. The closing of the Substructure created multiple temporary parking lots and dispersed 2,600 cars throughout the campus.

By strategically locating new parking structures at key locations, the

campus will be able to efficiently fulfill parking needs, improve vehicular circulation, and reclaim the temporary parking lots for new buildings and open spaces. The following is a sampling of concepts for replacement garages in concert with alternative road configurations, improving access to important destinations, and reducing pedestrian and vehicular conflicts.



Existing Substructure garage (to be demolished) & parking lots



EAST GARAGE

Garage on either side of Clark Athletic Center close to Mt. Vernon Street or Morrissey Boulevard.

Advantages:

- Reduce vehicular traffic in center of campus, improve traffic flow, reduce vehicular/pedestrian conflicts, and minimize pollution.
- Immediate proximity to athletic fields and sports venues.

Disadvantages:

- Longer walking distances from parking to campus, especially assembly facilities at Campus Center, JFK Library, and waterfront parks.
- Garage near Mt. Vernon Street would diminish quality of the intersection for a campus gateway.



NORTH GARAGE

Garage on either side of north campus loop near Campus Center, JFK Library, and waterfront parks.

Advantages:

- Convenient parking to large assembly facilities and close to the campus core.
- Partially reduce vehicular traffic in center of campus, improve traffic flow, reduce vehicular/pedestrian conflicts, and minimize pollution.

- Adjacent to running track.

Disadvantages:

- Vehicles penetrate into campus core.
- Potential of vehicular/pedestrian conflicts.
- Parking on desirable building sites close to the waterfront.



SOUTH TIP OF CAMPUS

Expand the parking levels under the Campus Center.

Advantages:

- Immediate access to the center of campus.
- Expands efficiency and capacity of Campus Center garage.
- Support main campus image of, and assembly functions in, the Campus Center.

Disadvantages:

- Deep penetration of vehicles into campus, increasing potential of vehicular/pedestrian conflicts, and adding pollution.
- Parking close to the waterfront.
- Obstructs pedestrian flow at the ground level of a desirable development site.

Examples for A Gateway at Mount Vernon Street

Of two entry points to the campus proper, the current connection between Mt. Vernon Street and the existing campus loop road is ill-defined, appearing much like an afterthought or having the quality of a back alley connection.

The opportunity to relocate University Drive North (described above) to coincide with the alignment of Mt.

Vernon Street provides an opportunity to plan an intersection that will create a sense of identity and place of entry to campus. It will also provide an opportunity to help create a vibrant community hub that will serve as a catalyst to additional improvements along the length of Mt. Vernon Street between the campus and Kosciuszko Circle.



Current entry points at the external corners of campus



MIXED-USE GATEWAY

Commercial mixed-use development integrated into street level of new UMass facilities.

Advantages:

- Active uses enliven Mt. Vernon Street and provide amenities and services to both UMass Boston and Harbor Point neighborhood.
- Helps to define and frame northern gateway to campus.
- Promotes improvements to Mt. Vernon Street corridor.

Disadvantages:

- Increases density and development costs of UMass Boston projects.



(* by others)

MIXED-USE STREET CORRIDOR

Commercial mixed-use development encouraged and integrated into existing buildings and empty street edges along Mt. Vernon Street corridor and bases of new UMass facilities.

Advantages:

- Active uses enliven Mt. Vernon Street and provide amenities and services to both UMass Boston and Harbor Point neighborhood.
- Helps to define and frame northern gateway to campus.
- Promotes improvements to Mt. Vernon Street corridor by others.

Disadvantages:

- Increases density and development costs of UMass Boston projects.
- Requires coordination and broad collaboration of multiple property owners and city agencies to participate.



COMMUNITY HUB

A commercial and/or community function centered around the historic Calf Pasture Pumping Station.

Advantages:

- Reuses and transforms an established focal point into a resource for both UMass Boston and the community.
- Iconic building can be a fitting facility for assembly, conference, and/or hospitality function.
- Active uses enliven Mt. Vernon Street and provide amenities and services to both UMass Boston and neighborhood.
- Helps to define and frame northern gateway to campus.
- Promotes improvements to Mt. Vernon Street corridor.

Disadvantages:

- May be very expensive to repair and adaptively reuse the deteriorating Substructure.
- No current program to use, or funding to renovate, the building.

Examples for Student Housing

To meet student demand and to diversify offerings to the student body, UMass Boston will be providing on-campus student housing for the first time in its thirty years at its campus on Columbia Point.

The following is a sampling of concepts that investigated some of the potential planning benefits of student

housing, including: a building type and scale that provides a smooth transition between academic buildings and adjacent residential neighborhoods; opportunities to provide mixed-use development to serve both the campus and the neighborhood; and to help activate and improve Mt. Vernon Street.



Current on-campus student housing (None)



HOUSING ABOVE COMMERCIAL

Student housing above mixed-use retail at terminus of Mt. Vernon Street.

Advantages:

- Student housing mediates the scale between academic buildings and neighborhood residences, expands the urban neighborhood, and minimizes the isolation of students residing in UMass Boston housing.
- Building type and scale complements Harbor Point Apartments.
- Ground level commercial space provides community and campus amenities.
- Student housing at edge of campus preserves campus sites for academic uses.

Disadvantages:

- Accentuates the perception that the campus is encroaching on the neighborhood, especially across Mt. Vernon Street.



NEIGHBORHOOD CONNECTOR

Student housing above mixed-use retail as gateway to campus.

Advantages:

- Reduces impression of campus expansion into the neighborhood.
- Student housing mediates the scale between academic buildings and neighborhood residences and reduces the isolation of students residing in UMass Boston housing.
- Building type and scale complements Harbor Point Apartments.
- Ground level commercial space provides community and campus amenities.

Disadvantages:

- May require relocating softball field.
- Reduces number of central campus parcels for future academic growth.



"ACADEMICAL VILLAGE"

Student housing located near the center of campus.

Advantages:

- Minimizes impression of campus expansion towards neighborhood.

Disadvantages:

- Future academic buildings directly across the street from the residential neighborhood promotes the perception that the campus is encroaching on the neighborhood.
- Future academic buildings would be far from the campus core.
- Reduces options within central campus parcels for future academic growth.
- Requires relocating running track and soccer field.
- Gives impression that the minority of resident students are more privileged than the majority of commuting students.

Examples of An Open Space Network

Existing UMass Boston open space is either hardscape on the roof of the Substructure or disconnected 25-foot below the main campus plane and inconveniently located along the distant edges of the waterfront.

The future demolition of the Substructure would lower the central campus open space to the ground level,

transforming it from hardscape to landscape, and connecting the campus to the broader open space network of Columbia Point and the beyond. The following investigations are a sampling of alternative concepts for a future campus open space network in speculation of various campus patterns that may evolve.



Current campus open space at edges



ACADEMIC QUADS

Traditional campus quads determined by reinforcing the existing orthogonal pattern.

Advantages:

- Reinforces the existing academic core.
- Recalls familiar pattern of traditional campuses.

Disadvantages:

- Paths through campus may lack spatial and design hierarchy to distinguish different open spaces, becoming repetitive and monotonous as the campus expands.



LANDSCAPE EXTENDED

Landscape extensions and allées connecting future campus buildings and adjoining institutions.

Advantages:

- Long, well-landscaped corridors can be very powerful and majestic, especially when anchored or lined with impressive facilities.
- Processional landscape helps to emphasize relationships with adjoining destinations, such as Mt. Vernon Street, HarborWalk, John F. Kennedy Library & Presidential Museum, and future Edward M. Kennedy Institute for the U.S. Senate.

Disadvantages:

- Requires careful balance of design between many hierarchical elements that may begin to compete with each other.



LANDSCAPE NETWORK

Unique network of building sites, open spaces, and pedestrian circulation network crisscrossing the southern peninsula.

Advantages:

- Provides an armature to build interconnectivity and broad connections within and across campus.
- Inherent flexibility to create hierarchy of space, paths, and building sites.
- Provides flexibility to modify over time, unrestrained by formality, and adapt to programmatic and funding changes.

Disadvantages:

- Requires some understanding of new building programs in order to accurately reserve land for quality landscape and connections.

Examples of A New Pedestrian Network

The future demolition of the Substructure would help create a campus open space network that has the potential to weave together the landscape and open spaces around and through the campus. Currently, the pedestrian pattern within the campus, elevated 25-feet above grade, is disconnected from the pattern on the ground.



ACADEMIC QUADS

Pedestrian paths that complement pattern of traditional campus quads.

Advantages:

- Reinforces the existing academic core.
- Recalls familiar pattern of traditional campuses.

Disadvantages:

- Paths through campus may lack spatial and design hierarchy to distinguish different open spaces, becoming repetitive and monotonous as the campus expands.

The following investigations are a sampling of alternative concepts for a pedestrian network to complement comparable open space systems, and test how the pedestrian pattern might be unified through the campus when the pedestrian system, currently internal to the campus, connects with the pedestrian system, currently external of the campus.



EXTENDED PEDESTRIAN PATHS

Pedestrian paths that coincide with landscape extensions and allées connecting future campus buildings and adjoining institutions.

Advantages:

- Long, well-landscaped corridors can be very powerful and majestic, especially when anchored or lined with impressive facilities.
- Processional landscape helps to emphasize relationships with adjoining destinations, such as Mt. Vernon Street, HarborWalk, John F. Kennedy Library & Presidential Museum, and future Edward M. Kennedy Institute for the U.S. Senate.

Disadvantages:

- Requires careful balance of design between many hierarchical elements that may begin to compete with each other.



Current campus pedestrian network



FREE-FORMED PEDESTRIAN NETWORK

Unique network of pedestrian circulation paths crisscrossing the southern peninsula.

Advantages:

- Provides an armature to build interconnectivity and broad connections within and across campus.
- Inherent flexibility to create hierarchy of space, paths, and building sites.
- Provides flexibility to modify over time, unrestrained by formality, and adapt to programmatic and funding changes.

Disadvantages:

- Requires some understanding of new building programs in order to accurately reserve land for quality landscape and connections.

Examples for Locating Athletic Fields

Current athletic fields were located along the edge of campus. With the acquisition of the Calf Pasture Pumping Station, 9.5 acres of additional campus land became available north of the existing running track and softball field, thus placing the large field in the center of the enlarged campus.

The following investigations are

a sampling of alternative concepts for a future campus open space network in speculation of alternative locations for replacement athletic fields — including potential collaborations and sharing with Boston College High School — in order to maximize opportunities to locate academic buildings and open spaces in the most strategic locations on campus.



Current UMass Boston athletic fields



SHARED NEW BASEBALL FIELD

Share a new collegiate baseball field with Boston College High School (BCHS) on BCHS property.

Advantages:

- Provides a baseball field not currently available on UMass Boston campus.
- Preserves land within central campus for future academic facilities.
- Reduces the cost of ownership due to shared development and maintenance.

Disadvantages:

- Distributes athletic fields over a long distance rather than grouped together.
- Less flexibility to use baseball field when shared with another owner.



RELOCATED TRACK & SOCCER FIELD

Baseball field, running track, and soccer field relocated to BCHS property.

Advantages:

- Provides a baseball field not currently available on UMass Boston campus.
- Increases land within central campus for future academic facilities.
- More options to plan the center of campus for academic use.
- Reduces the cost of ownership due to shared development and maintenance.
- Consolidates most athletic fields more closely together.

Disadvantages:

- Less flexibility to use fields when shared with another owner.
- Requires moving University Drive West closer to campus to increase land for athletic fields.



RELOCATED ALL FIELDS

Baseball field, running track, soccer field, and softball field relocated to BCHS property.

Advantages:

- Provides a baseball field not currently available on UMass Boston campus.
- Increases land within central campus for future academic facilities.
- Maximizes options to plan the center of campus for academic use.
- Reduces the cost of ownership due to shared development and maintenance.
- Consolidates all athletic fields in one location.

Disadvantages:

- Less flexibility to use fields when shared with another owner.
- Requires moving University Drive West closer to campus to increase land for athletic fields.

Examples for A North Harbor Landscape

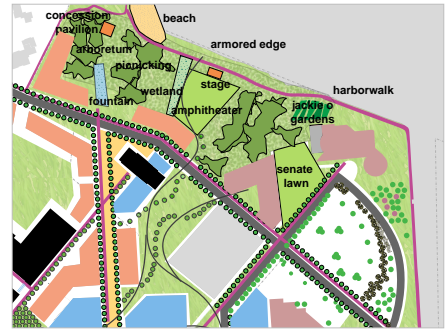
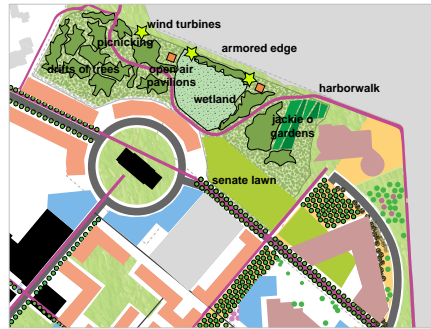
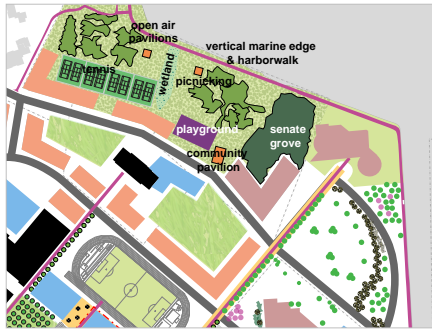
Part of the land acquired with the Calf Pasture Pumping Station is natural and undeveloped. There is evidence of existing wetlands, and a cluster of mature trees that help to protect the center of campus from harsh north winds.

The following investigations are a sampling of alternative concepts to sustain and enhance existing open space

and natural systems that may also serve to become a valuable resource for recreation and sustainability. Broader benefits include: complementing open space considerations on campus; helping to complete HarborWalk; and contributing to the comprehensive landscape network and recreational system in the region. *(Concepts per Hargreaves Associates)*



Current open space, wetland, and mature trees on north coast



Louisville Waterfront Park



Chattanooga Renaissance Park



Louisville Waterfront Park

INFORMAL RECREATION

Park land on the northern edge of Columbia Point.

Advantages:

- Takes advantage of the waterfront.

Cautions:

- Need to be mindful of coastal changes and rising sea levels.

URBAN WILD

Urban wild on the northern edge of Columbia Point.

Advantages:

- Takes advantage of the waterfront.
- Reinforces and incorporates principles of sustainability.

Recommendations:

- Study harnessing winds off Columbia Point for power on campus.

WATERFRONT PARK

Waterfront park along the northern edge of Columbia Point.

Advantages:

- Takes advantage of the waterfront.
- Adds recreational resources, such as an amphitheater.

Cautions:

- Need to be mindful of safeguarding wetland areas and implement sustainable practices.

Three Planning Strategies

Thomas Jefferson is renowned for describing his beloved University of Virginia as an “academical village” — in which the campus serves as both academy and forum — affirming the time-honored maxim that a place of higher learning is open, transparent, and engaging. The opportunity to demolish the Substructure and bring the campus open space down to the ground and integrate campus buildings with open space and the urban context, will allow UMass Boston to transform itself towards Mr. Jefferson’s ideal.

Based on numerous meetings and conversations with the campus constituency and an analysis of the campus, three urban design concepts were established to help articulate and guide a path towards creating a new physical vision for the campus.

REINFORCE THE CORE

This theme suggests that, as the campus opens up, the established core of the campus buildings, highlighted by its new iconic Campus Center should be strengthened as the campus hub. Future buildings, new open spaces, and new circulation paths can help to reinforce the pattern established by the existing framework.

Emphasis is placed on reinforcing and incrementally adding to the current cluster of buildings that would face each other once the Substructure and Science Center are demolished. The center of the cluster would be an ideal location to create a new focal point, such as a major quadrangle, around which new buildings would help define along the open north edge once the Substructure is demolished.

Additional buildings, as growth makes necessary, may be added to the perimeter of the central cluster, not unlike

space modules are attached to a space station. The resultant diagram would be a compact campus composed of alternating blocks of buildings and open spaces not unlike a checkerboard of black and red — or more correctly, in this case, green — squares. The pattern may be repeated beyond the original core cluster, allowing maximum flexibility in completing the next square beyond the campus.

EXPAND THE HUB

This theme includes two objectives: (1) to ensure that new buildings and open spaces are well integrated and connected to the academic core; and (2) to establish and extend linkages to nearby destinations, whether it be important institutions — such as the John F. Kennedy Library & Presidential Museum, Massachusetts Archives, or the future Edward M. Kennedy Institute for the U.S. Senate — or recreational amenities and the waterfront, or connections to urban activities along Mt. Vernon Street.

There would be a complementary connection back to the campus itself, reinforcing the mutual synergy and collaboration between two ends of a path. The overall result would effectively expand the definition and influence of the campus beyond the currently perceived boundaries, touching upon the edges and the ends of the rest of Columbia Point.

The impact of this theme is to not think of the campus as a compact or amorphous grid of buildings and open spaces, but more of a continuum of academic learning, teaching, researching, working, living, athletics, recreation, outdoor activities, public event hub, sculpture park, and community resource.

The backbone of the campus is envisioned to be a new core that centers around the Campus Center on one end, and the John F. Kennedy Library and Presi-

dential Museum on the other end. New and original campus facilities and open spaces would spring from this armature not unlike charms on a bracelet, clustering around and reinforcing the Campus Center as the heart of UMass Boston.

One advantageous result of this theme is an orientation towards the sea and the views outward. One potential disadvantage is the perception of the campus turning its back to the city and the community of Dorchester.

IMPROVE CONNECTIONS

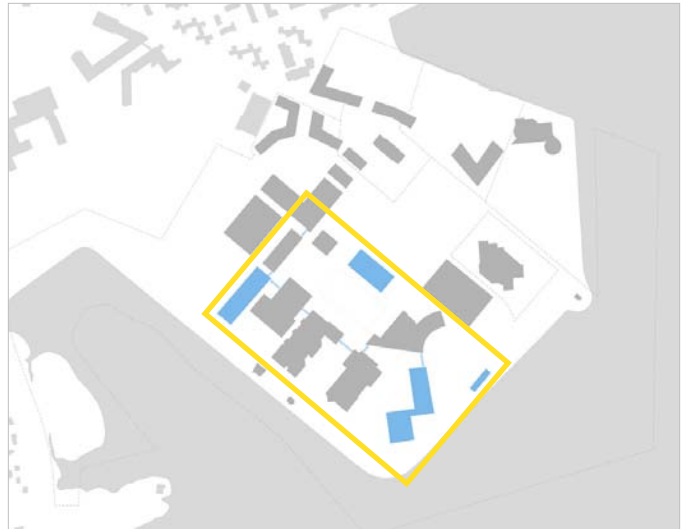
This theme emphasizes connecting the campus to its context that includes nearby institutions, adjoining neighbors, and other occupants of Columbia Point. Planning objectives include: (1) establish a new pattern that both contrasts with, and complements, the established campus configuration; (2) open the campus to create a greater sense of place, that is welcoming and accessible; and (3) maximize opportunities to circulate through the campus — for campus constituents, neighbors, and visitors —, to connect to all areas of the waterfront and surrounding neighborhoods — including Harbor Point and Savin Hill —, and create iconic gateways to campus at Bianculli Boulevard and Mt. Vernon Street.

In some respects, the resultant pattern can be a combination of the first two themes, at once providing a dynamic organization of building parcels and open spaces that are integrated into special circulation and visual corridors that both tie the campus together and connect the campus to its edges and the surrounding context. Some corridors may also act as armatures as described in Expand the Hub strategy. Together the pattern mimics the theme to Reinforce the Core.

(A summary of comments from the planning workshops and public meetings is included in the Appendix.)



Oxford University as a model campus of buildings and quads



Conceptual campus pattern that **Reinforces the Campus Core**



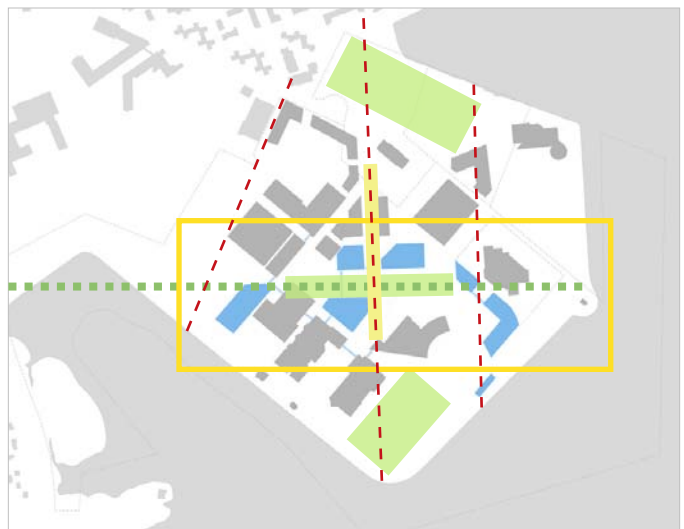
JFK Library as seen from UMass Boston Campus Center plaza entrance



Conceptual linkages that **Expand the Campus Hub**



Existing obstructed path to Calf Pasture Pumping Station



Conceptual notion that **Improves Connections**

“REINFORCE THE CORE”

A fundamental physical difference that separates UMass Boston from other campuses is the relationship between the campus buildings and its adjoining landscape. Where many campuses have green landscape and tree canopies in their central campus open space, UMass Boston has concrete pavement and steel and glass bridges overhead. Where many campuses offer quadrangles and views through a continuous landscape, UMass Boston’s open space is raised 25-feet above, and disconnected from, the surrounding land. Where many campuses build around a physical or symbolic center, UMass Boston has its Campus Center at the perimeter, at the far end of the main approach to campus.

By demolishing the Substructure garage and existing Science Center, the UMass Boston campus will have an opportunity to reverse the above conditions. The center of campus can become an open space centerpiece that all existing buildings will face. New academic buildings may be strategically located to help reinforce and accentuate the character of this new Central Quadrangle.

The size of the Central Quad would be nearly identical to the size of historic Harvard Yard at Harvard University. The slightly larger dimensions at UMass Boston would complement the taller and larger buildings at UMass Boston in a similar scale that the pre-Industrial Age student residences at Harvard frame its signature “Yard”.

While the elevated catwalk network may be reintroduced to connect the buildings to one another at the outer ring of buildings around the Central Quad, students, faculty, staff, and visitors may find traversing across the quad may be not only a shorter route but also a more enjoyable and interactive experience, a chance to meet friends, enjoy the

weather, or have a period of respite.

The orientation of the new Central Quad would also help to visually and physically focus on the Campus Center, just as The Lawn at the University of Virginia draws attention to The Rotunda. A complementary landscape design and network of pedestrian paths across the quad leading to the Campus Center would help to reinforce the Campus Center as the hub of the UMass Boston campus.

Springing from the Central Quad, pedestrian paths and view corridors would extend the pattern of growth and circulation to future buildings and adjoining landscapes, including connections to the waterfront, adjacent institutions, and activity centers. The pattern may be expanded as needed with all connections leading to the campus core.

This organizational concept will improve the sense of place for the campus and establish a strategy to strengthen and help reinforce UMass Boston’s current academic core. The plan has great flexibility to accommodate changes and needs as the campus evolves.

A conceptual plan of this theme, “Reinforce The Core”, envisions an alternating pattern of buildings and landscapes, each complementing one another, forming clusters of smaller and unique ensembles, but together articulating a unifying campus pattern. Although the edges of buildings line the perimeter of the peninsula, the locus point of this theme is relatively inwardly focused towards the new Central Quad, where all paths lead to and from.



Ohio State University's centerpiece, The Oval



Harvard Yard, Harvard University (Source: www.bing.com)



Respite on a campus quad at Washington University



The Lawn and The Rotunda, University of Virginia



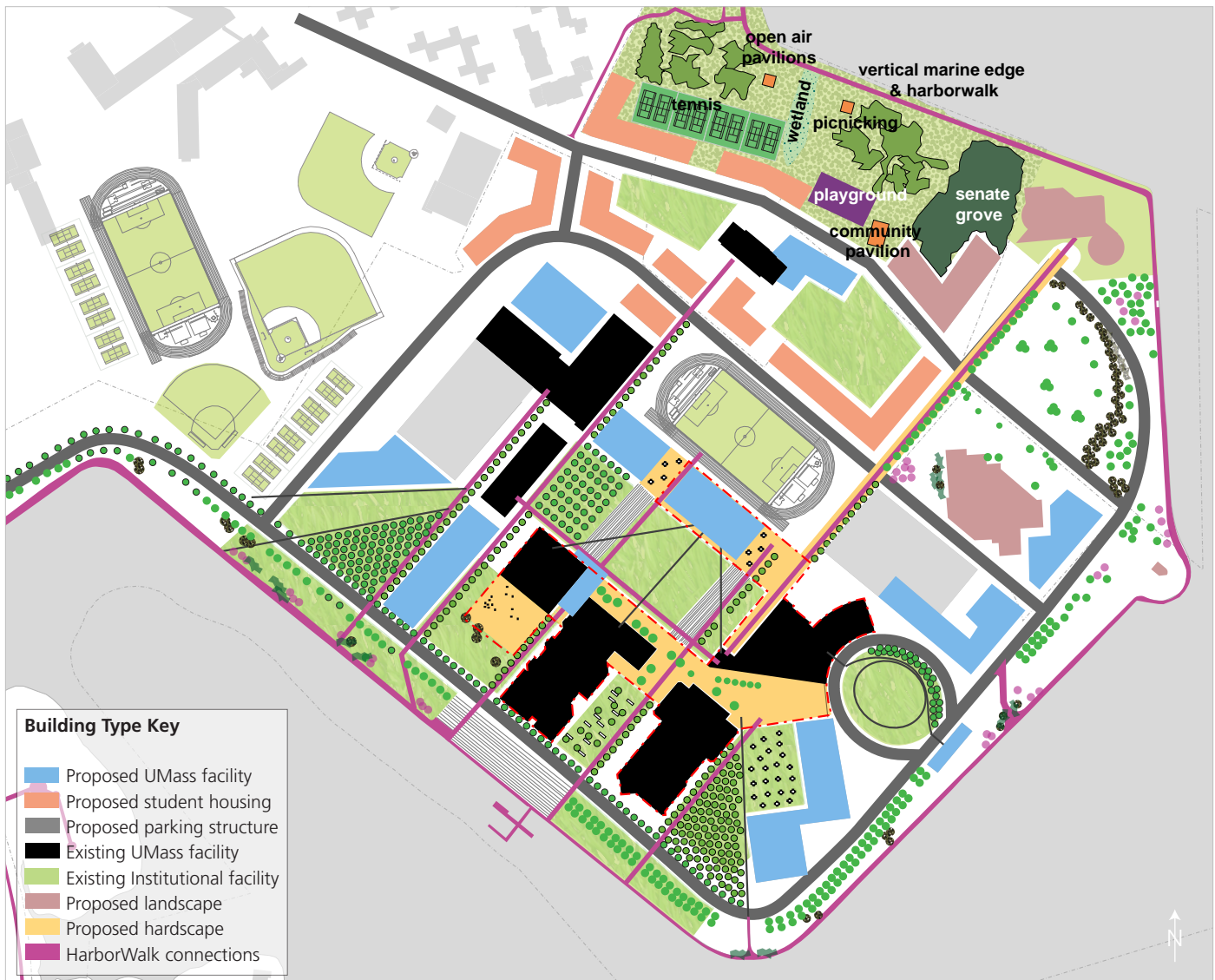
Oxford University (Source: www.bing.com)

“Central landscape quads are associated with quality institutions.”

— member, Master Planning Steering Committee



Concept diagram for "Reinforce The Core"



Concept vision plan of a long-term build out with landscape improvements of the theme, "Reinforce The Core"

“Expand The Hub”

Given the past isolation of the UMass Boston campus from its surroundings, the proposed demolition of the Substructure would provide UMass Boston with an exciting opportunity to reverse the condition and engage the surrounding landscape, nearby institutions, and the rest of Columbia Point peninsula as a whole.

This planning strategy, “Expand The Hub”, expands upon the foundation of “Reinforce The Core” by thinking about the campus beyond its core from the viewpoint of three scales:

- (a) the *immediate campus precinct* of buildings and open spaces
- (b) the *larger district* of the recently expanded 175-acre campus, of which approximately 60 percent is used for parking or recreation
- (c) the *overall urban context* of the Columbia Point peninsula — an integral extension of nearby downtown Boston — of which the UMass Boston campus is situated on the lower half of the peninsula.

The attributes of the *immediate campus precinct* is comparable to those of the previous organizational strategy, Reinforce The Core, including: a new signature central landscape as a centerpiece; future buildings and ancillary landscapes that complement and frame the campus core; and a campus layout that provides flexibility and structure to expand and evolve the campus as it grows. Pedestrian paths and interstitial spaces between buildings in the core may be created at a variety of sizes and shapes — from generous quads, similar to those found at Skidmore College, to more intimate transition spaces as in the University of Cincinnati example shown here.

As one zooms out from the campus core to the *larger district* scale, the outreach to prominent and distinctive

paths create armatures to tie the campus to important areas or facilities. Important or prominent connections include: John F. Kennedy Library & Presidential Museum; Massachusetts Archives; and Edward M. Kennedy Institute for the U.S. Senate. Additional linkages include: future operations that may occupy and adaptively reuse the Calf Pasture Pumping Station; on-campus UMass Boston student residences; commercially-activated Mt. Vernon Street; the waterfront; and a proposed enlarged park at the eastern shore of the peninsula.

The picturesque identity of UMass Boston campus at the *overall urban scale* is best appreciated from the water and the air, both visible from commercial transportation lanes. The location of UMass Boston at the tip of Columbia Point and adjacent to the John F. Kennedy Library and Presidential Museum provides the campus with both special prominence to be seen and a vantage point to see out. With waterfronts on three sides of its property, there are ample opportunities to orient campus buildings towards the sea, especially along the celebrated eastern shore which currently includes the front door to the Campus Center and the glazed facade of the JFK Library’s atrium.

A conceptual plan of this theme, “Expand The Hub”, envisions spine-like armatures stringing buildings and landscapes together like pearls on a necklace. Although the spines and paths lead back to the Campus Center — the Hub — and the adjacent Central Quad, the emphasis of this theme, in contrast to “Reinforce The Core”, is relatively outwardly focused to the boundaries of the core campus, tying and integrating the campus to its context.



Students enjoying their campus quad at Skidmore College



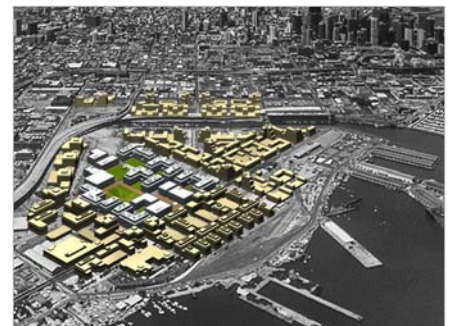
Intimate quad between buildings, University of Cincinnati



Formal campus path, University of Washington



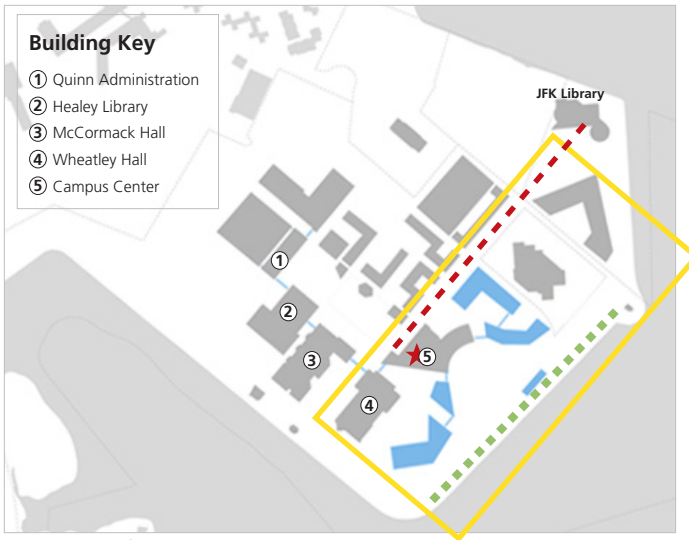
UMass Boston from Boston Harbor



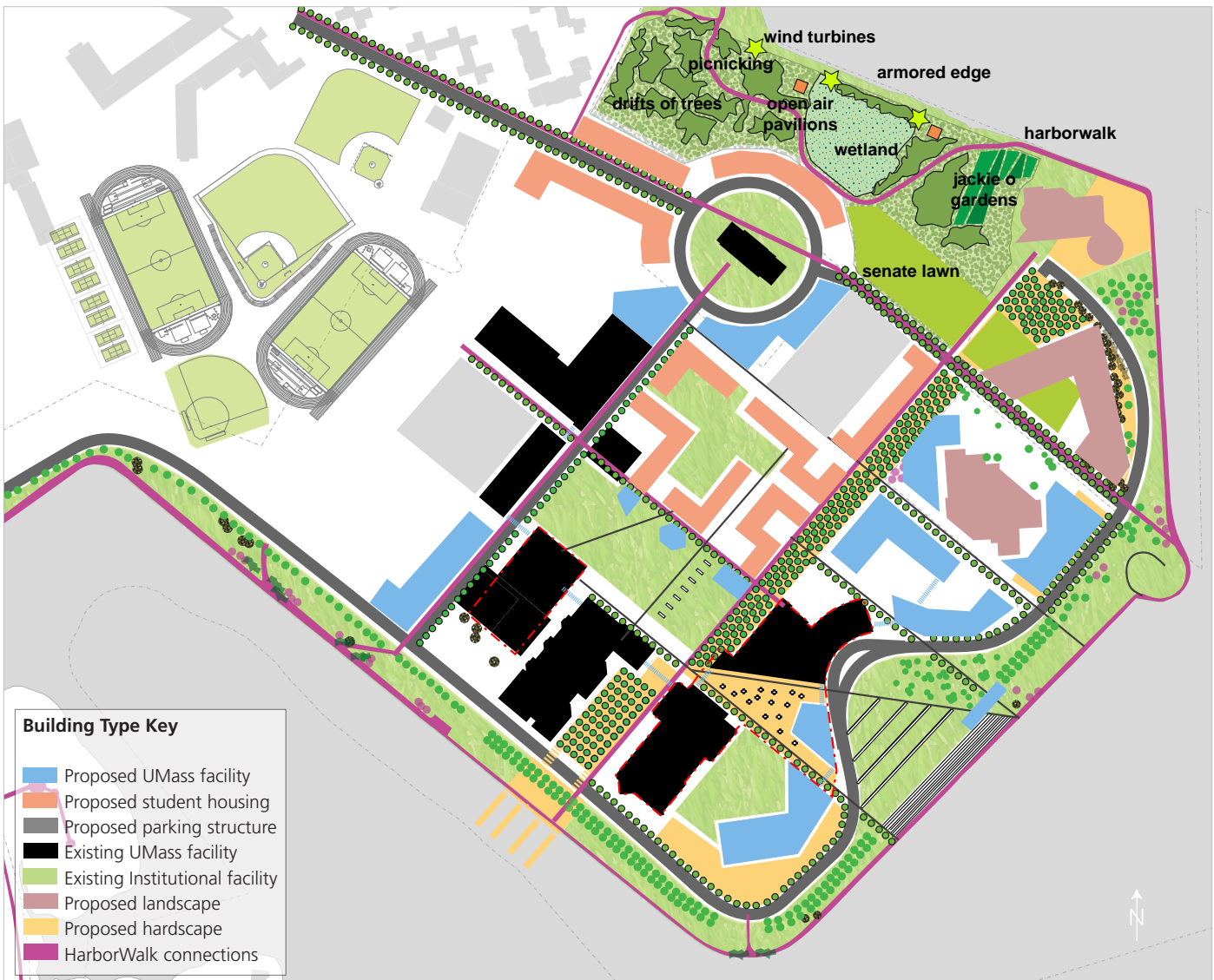
Campus/city integration, UC San Francisco

"The most successful concept is the gesture and connection to JFK library."

— member, Master Planning Steering Committee



Concept diagram for "Expand The Hub"



Concept vision plan of a long-term build out with landscape improvements of the theme, "Expand The Hub"

“Improve Connections”

Together, the previous organizational strategies, “Reinforce The Core” and “Expand the Hub” complement one another and when integrated together, provide a strong combination theme that may be called: “Improving Connections”. The pattern of development suggests characteristics which have both an inward focus and an outward reach, connecting buildings and landscapes within the campus, and connecting the campus with the various scales of its context.

Physical characteristics of the site imply both a suggestion to reinforce an established pattern and an opportunity to introduce a design intervention to supplement the pattern. For example, the relatively uniform orthogonal street grid across the peninsula, broken by the diagonal of Mt. Vernon Street, is analogous to Broadway slicing through the orderly general pattern of streets in Manhattan, and diagonal avenues intersecting across the streets of Washington D.C.

The Campus Green, designed by Hargreaves Associates for the University of Cincinnati, is an example that combines fluid paths in harmony with the original campus geometry. The end result provides both a rich variety of open spaces and social event spaces that will be further enhanced when the trees and landscape mature over time, and may serve as an appropriate overall physical model for the UMass Boston campus.

Within the internal campus environment itself, opportunities for a variety of pedestrian circulation and open space typologies may be offered to complement existing as well as new buildings, new open spaces, new activities, and new connections. Building upon the concept paths described in “Reinforce the Core” and “Expand The Hub”, design details may be expanded here to include special pavement, streetscape, and landscape features at key locations. For example,

a “Main Street” on campus can embellish and reinforce the urban character of UMass Boston. University of Cincinnati’s Main Street, also designed by Hargreaves Associates, is an exemplary precedent of a pedestrian spine that recognizes and facilitates heavy student circulation. This may be similarly envisioned between the proposed UMass Boston residential precinct and the academic buildings and Campus Center surrounding the future Central Quad.

In less intensive pedestrian circulation areas, a variety of new open spaces, landscape, and pedestrian experiences may be offered. The UMass Boston property has many features that can and should be enhanced or exploited, such as: transitions in topography; existing tree clusters; wetlands; lawns; recreational fields; and a waterfront esplanade. The variety of pedestrian connections include: sidewalks along the loop road; promenades along formal allées; pathways through quadrangles; paved courtyards; and paved and natural trails through parks.

A conceptual plan of this theme, “Improve Connections”, envisions an overlay of complementary patterns, whether formal or more free-formed, or some combination of both. The emphasis of this theme is connections, both inwardly and outwardly, to improve circulation and communication *within* the campus, facilitate access *through* the campus, and integrate the campus *with and beyond* its context.



The intersection of streets at Washington's Mt. Vernon Square



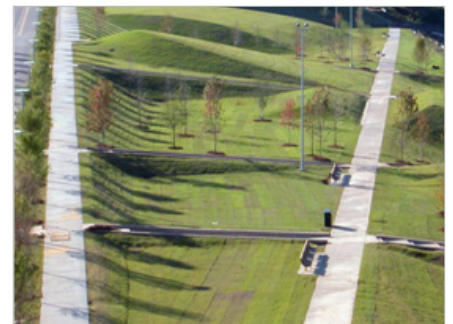
The Campus Green at University of Cincinnati



Main Street at University of Cincinnati



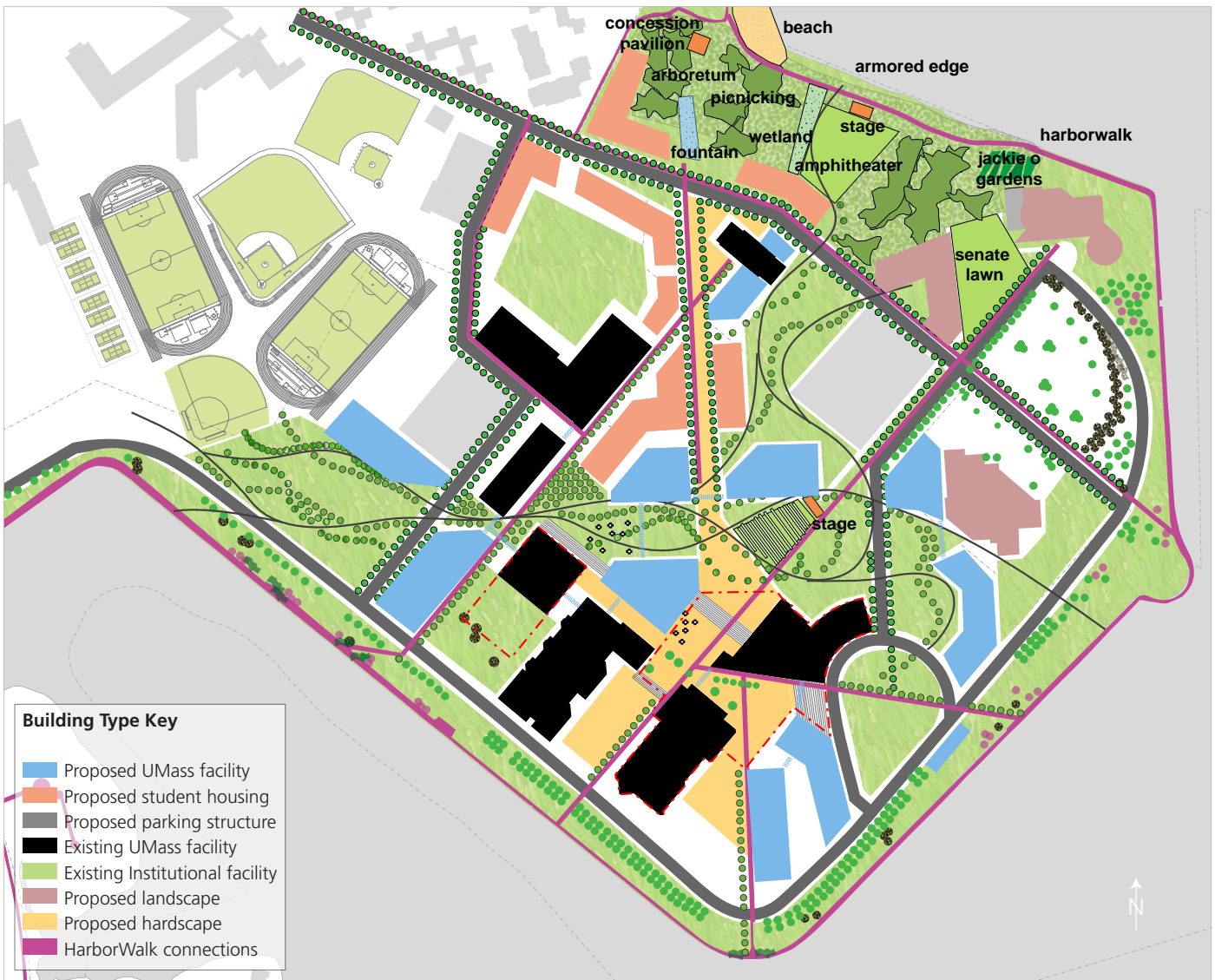
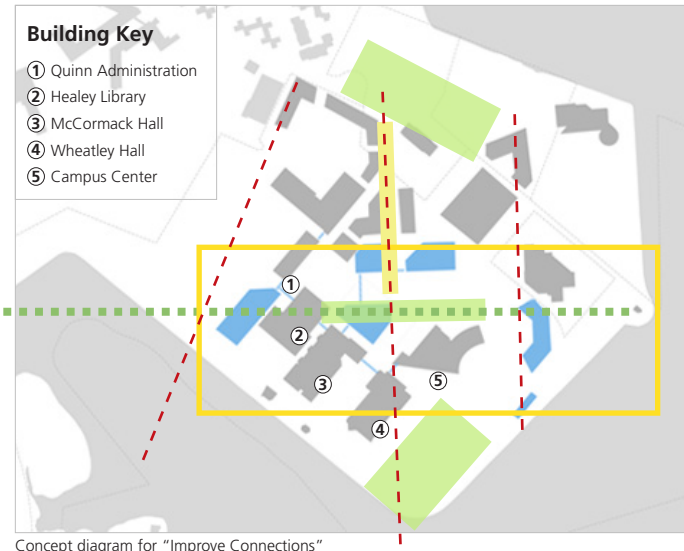
Formal allée at Washington University



Landscape & paths, Clinton Presidential Library, Little Rock

"The orientation is the most interesting and the most urban."

— member, Master Planning Steering Committee





CAMPUS MASTER PLAN



25-Year Campus Master Plan



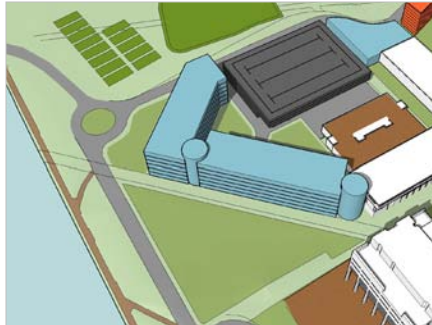
Precinct of the campus landscape network



A Main Street connecting the campus (Source: www.psu.edu)



A new Central Quad for UMass Boston



Massing study at Site A



Massing study at Site O



West campus gateway



North campus gateway (Source: Hargreaves Associates)

SUMMARY

Following an extensive planning process review with UMass Boston leadership, a 25-Year preferred campus master plan was extrapolated from many options considered and illustrated in the work highlighted in Chapters I and II. The plan provides some flexibility for each parcel to adapt to changes over time guided by primary urban design concepts that establish the fundamental structure upon which the plan is built, including:

- 1 “Main Street”** — a north-south *cardo* that links the Campus Center to the reconfigured north campus gateway where Mt. Vernon Street intersects the realigned University Drive North at a new campus gateway to the campus at the foot of the historic Calf Pasture Pumping Station.
- 2 Bianculli Boulevard View Corridor to Central Quad** — the complement to the *cardo*, the *decumanus*, serves as the east-west secondary main street that originates from the intersection of Morrissey Boulevard and Bianculli Boulevard, and enters the new Central Quad in the heart of the campus. At the intersection of the *decumanus* and the *cardo* is UMass Boston’s new **Central Quad** — the primary public *forum* traditionally found in the middle of a city.
- 3 Primary Campus Landscape & Circulation Network** — the paramount landscape that extends from a new signature **West Campus Gate-**

way at the intersection of Bianculli Boulevard and University Drive South/ University Drive West, through the Central Quad, and terminating at the east harbor waterfront common.

- 4 Building Site O** — a new academic building site to bracket and help frame the Central Quad, interrupting the visual axis from the Bianculli Boulevard View Corridor, and guiding pedestrian flow through the Primary Campus Landscape and around Campus Center.
- 5 Building Site A** — a signature academic building site to help define and complement the West Campus Gateway at the beginning point of the Primary Campus Landscape corridor, and help frame, not interrupt, the Bianculli Boulevard View Corridor through the portal between Healey Library and Quinn Administration Building.
- 6 Parking Structures** — construction of two free-standing garages to: (a) regain land currently used for temporary parking; (b) capture vehicles at entry points to campus; and (c) reduce amount of traffic penetrating campus proper. Emphasis should be placed on garage designs that provide flexibility and accommodate other uses, such as building over the central service lot without diminishing service, and support future development on Site T if the running track is relocated elsewhere in the future.

The 25-Year Campus Master Plan establishes a blueprint for campus enhancements while offering wide latitude of interpretation for future planning and design. This flexibility of the plan allows decision-makers to adjust and adapt the plan to respond to changing circumstances, such as: curriculum adjustments, pedagogical changes, demographic preferences, funding availability, enrollment fluctuations, transportation evolution, environmental conservation, code changes, and impact of adjacent development.

First phase implementation of the 25-Year Campus Master Plan anticipates an initial number of improvements for the first ten years. Among the highest priority actions to be undertaken include:

- Relocate University Drive North to align with the end of Mt Vernon St.
- Realign University Drive West to provide additional land within the campus loop road
- Realign University Drive East to enhance the signature landscape in front of Campus Center
- Implement the Primary Campus Landscape & Circulation Network
- Initiate construction of Parking Structure(s)
- Replace the Utility Infrastructure
- Initiate construction of at least two new academic buildings
- Demolish Substructure and Science Center
- Renovate existing academic buildings
- Construct New Athletic Fields
- Develop 1,000 residential beds

25-Year Campus Master Plan



25-Year Campus Master Plan of building parcels and open space network for UMass Boston

The three urban design concepts described in Chapter II — *Reinforce The Core*, *Expand The Hub*, and *Improve Connections* — collectively provide a fresh direction to solve some specific major problems at UMass Boston and offer opportunities to simultaneously improve the overall physical campus. Throughout the planning process, the general consensus among reviewers of the urban design investigations was to develop a master plan that would incorporate the best features of all three campus strategies into a preferred plan.

Since programs have not yet been developed for the potential sites, the plan must be multi-dimensional and flexible to adapt to evolving conditions both from influences internal and external to the campus.

Major plan components include:

- Identify development parcels for new academic buildings, parking structures, and student residence halls
- Create a network of open spaces and landscape that will complement new and existing campus buildings, and integrate with surrounding open space, circulation systems, and the waterfront

- Develop a new, efficient, and effective pattern of circulation for pedestrians, commuters, parking, public transit, and service vehicles, that would improve the pedestrian experience and safety around campus
- Improve opportunities to welcome campus users, surrounding neighbors, and outside visitors to enjoy, circulate through, and participate in, the campus and its public offerings
- Require that future construction and renovations of existing academic buildings would minimize disruption of campus operations and use



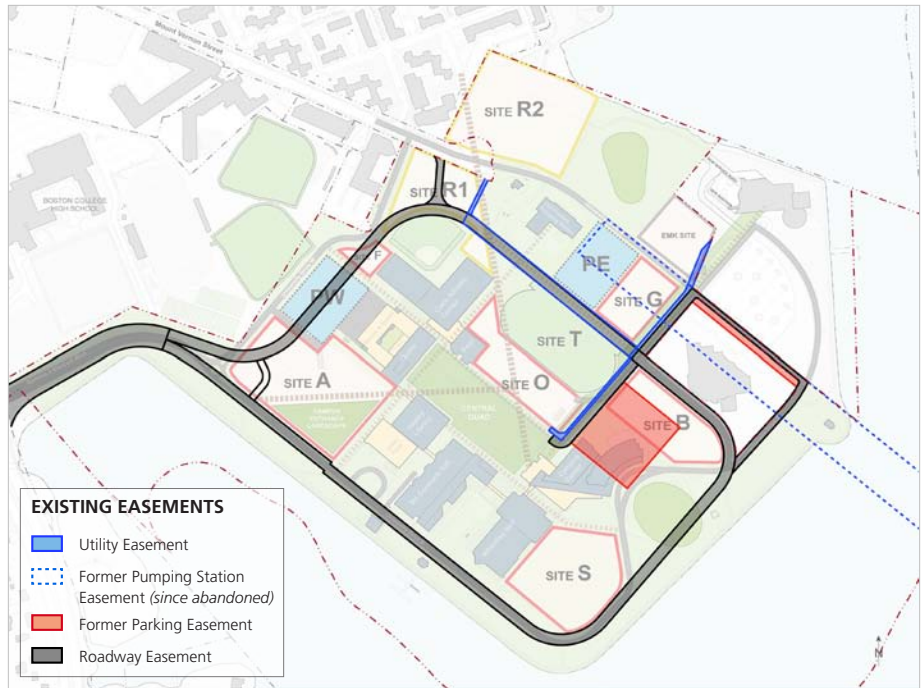
A network of open space with key landscapes



Development parcels for new construction



A new road network



Existing easements

ing wetlands and relatively steep topography along the northeast quadrant of the campus

- Determine the sequence of new construction, renovations, and redistribution of uses and users to minimize the impact on parking capacity, vehicular and pedestrian conflicts, loss of usable space, and interruption of telecommunication and infrastructure systems
- Recommend a strategy to phase the work that would take maximum advantage of funding sources, available resources, and minimize the impact on the pedagogical mission and quality of life on campus

Together, the above diagrams summarize the master plan concept for the campus, highlighting major components, including: a network of open space; key landscapes; development parcels for new construction; a new road network; and major infrastructure and property boundary constraints.

Studies of development parcels will be summarized in the following pages illustrating: urban design guidelines; examples of conceptual configurations and massing to demonstrate interpretations of the design guidelines; relative strengths and weaknesses of each concept; and sketch and precedent images that illustrate the potential milieu of each parcel.

Additional illustrations will describe constraints and alternative considerations for planning the campus, including: renovating and adaptively reusing the lower floors of existing structures; delineating open spaces as part of, and realizing the master concept for, a master landscape network; relocating and allocating of athletic fields; and selecting phasing choices that would impact the physical appearance, ongoing use, and future development of the campus over time.

Key Infrastructure Improvements

At least three major conditions help determine the prerequisite steps towards implementing the UMass Boston campus master plan. Firstly, because the current utility loop is an integral component of the Substructure, a new campus utility loop must be constructed before the Substructure can be demolished.

Secondly, because most of the preferred construction sites for academic buildings are currently used as parking lots — many of which are temporary lots to replace parking spaces due to the closing of the Substructure —, at least one new parking structure must be constructed to maintain parking capacity before large surface lots are taken offline.

Thirdly, the reconfigured University Drive loop road should be initiated as early as possible to avoid impacts to Site A and to provide connections on the north end of campus. Each of these infrastructure components form the critical foundation for the new UMass Boston campus master plan to get underway.

The Road Network

Three sides of the rectangular loop road around the UMass Boston campus — University Drive North, East, and West — are slated for improvements:

- a. **University Drive North** — to be extended to the northeast to align with the end of Mt. Vernon Street, providing direct access towards John F. Kennedy Library & Presidential Museum, Massachusetts Archives, the waterfront, and the future Edward M. Kennedy Institute for the U.S. Senate
- b. **University Drive West** — to be rerouted and improve the connection between Mt. Vernon Street and Bianculli Boulevard; to maxi-



Proposed reconfigured loop road highlighting Garage Site PW and Garage Site PE



Potential shuttle drop-off locations



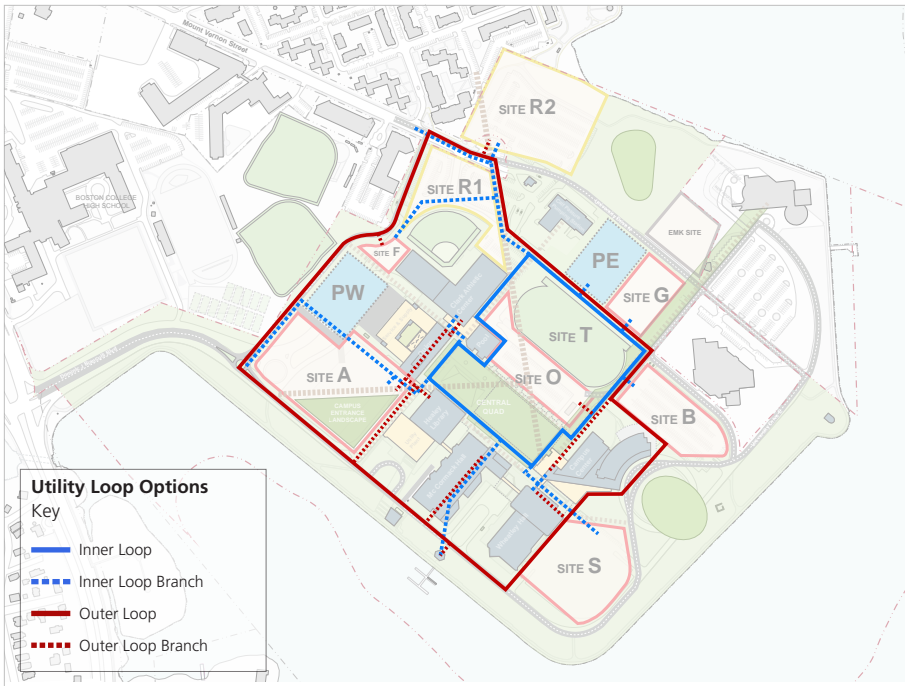
Existing South Lot, the proposed development Site S

mize the utility of UMass Boston property between the existing campus and Boston College High School; and to avoid the requirement for pedestrians to cross the loop road

- c. **University Drive East** — to be rerouted in front of Campus Center to facilitate a more efficient and sustainable flow of traffic and use of land, and to incorporate the underutilized oval driveway to create a more generous waterfront park edge along the east harbor shoreline

The new campus loop road —

currently a one-way, counterclockwise loop — is slated to become two-way, with sidewalks and bike lanes on both sides of the street, to facilitate efficient and flexible access to campus, the academic buildings, and the three parking structures when the campus is fully built out: **PW**, along University Drive West; **PE**, along University Drive North; and the existing small **Campus Center garage**, along University Drive East. The new road configuration, in concert with the locations of the new garages PW and PE would capture the majority of cars coming to UMass Boston, thus generating less traffic than today into and around the heart of the campus.



Plan of 2 alternative configurations for the replacement utility loop network



Street facade of a waterfront garage in Cardiff Bay, UK



Garage & bleachers facing track & soccer field, Univ. Cincinnati

Parking Strategy

When completed, the two new garages would have a total capacity of approximately 2,800 parking spaces. The west garage, PW, would be immediately accessible from both Mt. Vernon Street and Bianculli Boulevard at the westernmost boundary of campus, effectively diverting almost fifty percent of all cars away from the campus proper. As a result, the environment would benefit from reduced auto exhaust pollution, gas consumption, and vehicular-pedestrian conflicts.

Similarly, the east garage, PE, would provide almost all of the same benefits as PW. Although PE it would be

further into the campus proper than PW, it would be directly accessible from Mt. Vernon Street/University Drive North, and will be located more conveniently to the center of campus and venues of large public assembly, including: Campus Center, John F. Kennedy Library & Presidential Museum, the waterfront recreation areas, the UMass Boston running track, and the anticipated Edward M. Kennedy Institute for the U.S. Senate.

Garage facades that face the street and campus should be designed to create attractive elevations, particularly if the garages face premier vistas or prominent buildings. If a replacement running track is reestablished adjacent to PE, the south-

west edge of the track may incorporate bleachers or viewing stands to disguise the height of the garage from views south of the running track.

Replacement Utility Loop

A new utility infrastructure will offer UMass Boston with an opportunity to upgrade the network configuration from a hub network to a loop network that would provide redundant connections in the event of power and telecommunication interruptions. The range of options evaluated by ARUP, design engineers, and GEI Consultants, geotechnical engineers, to locate the new loop include:

- Outer Loop — an ideal, and most extensive, layout that places the utility line under the loop road where it can be easily installed, be freely accessible over time, and unencumbered by buildings above it
- Inner Loop — places the utility loop beneath the slab of the existing Substructure prior to demolition — a layout that would be more intrusive to the campus during construction, and for future maintenance since the utilities would be partially under the Central Quad and partially passing under existing academic buildings

One major complexity to installing the new utility loop is the need to construct it and have it operational before the existing utility line can be disconnected, and before the Substructure can be demolished. Any utility loop option that runs through and under the Substructure or existing buildings would restrict the use of heavy equipment during installation of the utility line, thus requiring greater construction costs and logistics.

Priority Project Sites

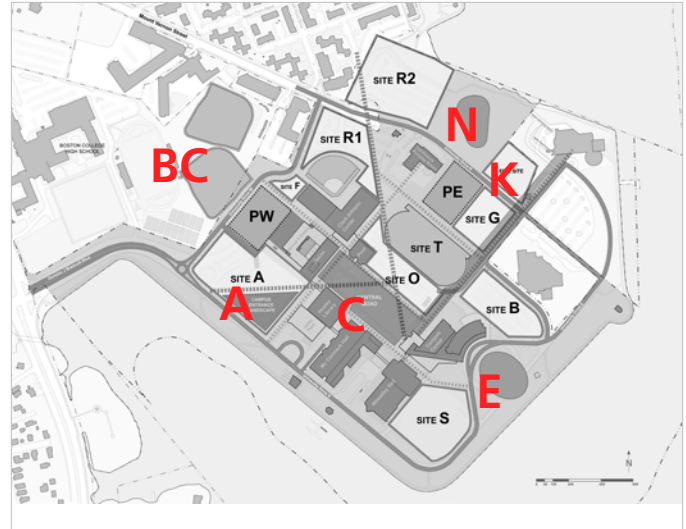
INTRODUCTION

The preferred campus plan that came out of the planning process provides a framework for the campus, delineating a pattern to support the program of construction and renovation over the next twenty-five years as identified in the previous sections. The resultant road map identifies several priority project sites for new buildings, open spaces, and circulation patterns that will initiate the campus plan over the next ten years.

Components of priority project sites include the following initiatives, goals, and objectives:

- Demolish the central portion of the Substructure and existing Science Center and create a signature landscape — a **Central Quad** — in the center of campus
- Create a signature **West Campus Gateway** landscape in conjunction with, and anticipation of, a new academic building at the main approach to campus at Site A
- Develop the **Primary Campus Landscape & Circulation Network** to unify the campus core with existing and future parts of the campus
- Clarify and enhance **pedestrian connections** throughout the campus, including connections through the campus that lead to the adjacent waterfront edges and surrounding neighborhoods
- Enhance opportunities for, and access to, **recreational fields and natural open spaces** — both existing and proposed — including the south harbor esplanade, north harbor common, east harbor common, and HarborWalk
- Improve the connections to, and relationships with, **adjacent institutions**, such as the John F. Kennedy Library & Presidential Museum, Massachusetts Archives, and the proposed Edward M. Kennedy Institute for the U.S. Senate

The following pages describe each of these components in greater detail.



Campus Master Plan



Site C — Central Quad



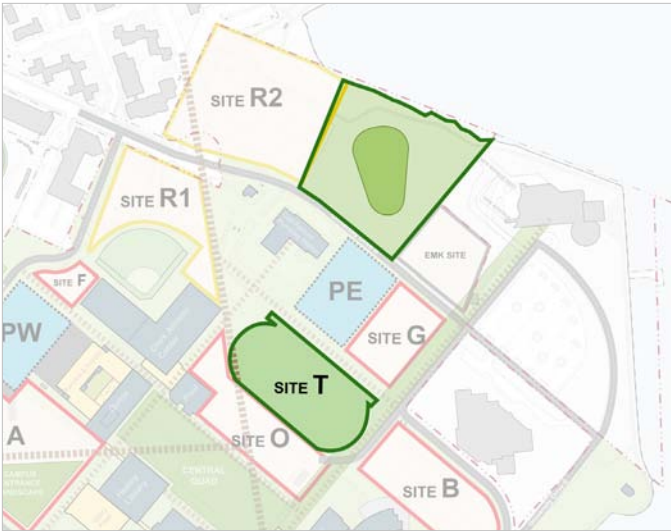
Site A — West Campus Gateway Landscape Precinct



Primary Campus Landscape & Circulation Network



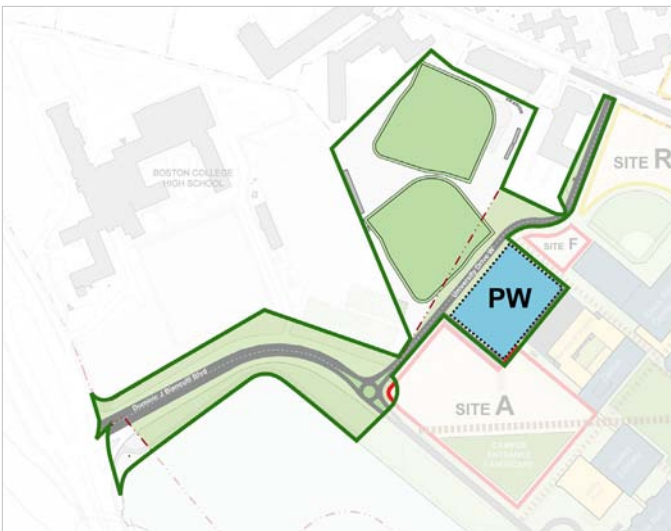
Pedestrian Circulation Network



Site N — North Harbor Common & Site T with replacement running track



Site E — East Harbor Common



Site BC — Shared Athletic Fields at Boston College High School and University Drive West



Site K - future EMK Institute site (left), with JFK Library (center), and Massachusetts Archives (right)

Primary Campus Landscape & Circulation Network

The key element to help reorganize the campus and provide a renewed sense of place and identity is a new campus landscape. The primary landscape concept serves to reinforce the campus core, beginning at the enhanced campus gateway, leading into a Central Quad that will replace the Substructure and existing Science Center, extending towards the existing campus main entrance at the Campus Center, and terminating at the eastern waterfront.

The continuous landscape helps to characterize the campus, leading pedestrians through a variety of landscape experiences ranging from more formal lawns to informal and traditional university quadrangles. These landscape elements will be defined by a hierarchy of pedestrian pathways that connect the various zones — academic, athletic, residential, etc. Each connection will encourage and enable access and view corridors that are currently obscured. The connections will become progressively evident as they unfold, allowing one to visualize and experience the campus once the Substructure is demolished, new buildings are constructed, and the new landscape takes shape.

Upon completion, UMass Boston will be transformed from the inside out. A typical experience will mimic a more urban experience — walking on sidewalks and through landscapes with views and experiences constantly changing, while integrating a constant awareness of one's proximity to the ocean, and linking campus edges with the HarborWalk. This is in contrast to one's current experience of walking through campus in a series of enclosed elevated walkways supported by a fortress-like structure that seldom celebrates its environment and turns its back on its neighbors.



Diagram of the campus landscape network in the most generous proportions



Diagram of the campus landscape network emphasizing campus gateway & central quad



Precinct of the campus landscape network from west campus gateway to east harbor edge



Diagram of the campus landscape network in a minimum configuration

Pedestrian Circulation

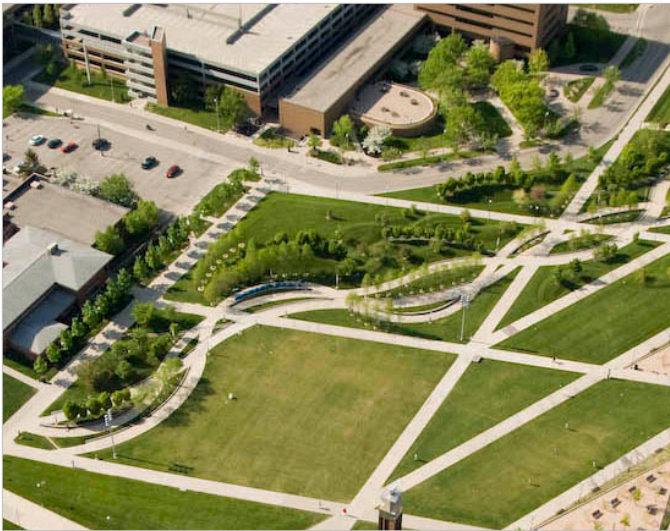
The demolition of the Substructure will allow campus open space to be contiguous to the surrounding land, and encourage pedestrian paths to flow through the campus. When designed in concert with the campus landscape, a network of pedestrian circulation paths will emerge to both unify the campus and help better integrate the campus to its surroundings.

Among the hierarchy of pedestrian paths, several key connections stand out above the others:

1. “Main Street” — a pedestrian boulevard reinforced by a strong lines of trees between the Campus Center and the planned student residential precinct and the Harbor Point Apartments neighborhood
2. Path from Bianculli Boulevard to the Central Quad — the visual and symbolic gateway welcoming all visitors to the heart of the UMass Boston campus
3. Path from Patten’s Cove to North Harbor Common — connects the Savin Hill neighborhood to UMass Boston and the north waterfront along narrowed, redesigned, and tree-lined Bianculli Boulevard and University Drive West
4. Path from South Harbor Promenade to the Calf Pasture Pumping Station — an urban pedestrian connection lined with an allée of trees and flanked by the Quinn Administration Building and Healey Library
5. Path between JFK Library entrance, the new Edward M. Kennedy Institute for the U.S. Senate and Campus Center Central Quad Entrance — a distinctive walkway lined with trees that extends past the Campus Center and leads to the South Harbor Promenade



Pedestrian Circulation Diagram



Pedestrian path system through University of Cincinnati's Campus Green



Campus pedestrian path design detail — University of Cincinnati



Campus pedestrian path redesign between existing buildings — Northeastern University

West Campus Gateway Entrance & Landscape

Preliminary landscape and traffic analysis suggests that the campus loop road, University Drive, may be improved in several ways, including: reducing its size, changing it to two-way movement, providing greater safety and use for pedestrians and bicyclists, and enhancing its edges with sidewalks and additional landscape. The primary approach to campus from Morrissey Boulevard is viewed as one of the most important opportunities to introduce visitors to the campus. Among the improvements to be considered are:

- Reduce the width of Bianculli Boulevard to the minimum number of lanes to improve the landscape and pedestrian environment along the waterfront
- Relocate the rotary to the intersection of Bianculli Boulevard, University Drive South, and University Drive West
- Redesign the campus loop road to a two-lane, two-way road system, with bicycle lanes and pedestrian sidewalks on both sides, and enhanced landscape
- Maintain a view corridor that begins at the intersection of Morrissey and Bianculli Boulevards and passes through the portal between Quinn Administration Building and Healey Library into the Central Quad
- Provide a campus gateway landscape between Healey Library and the future academic building at Site A
- Integrate the campus gateway landscape at Site A with the open space on the southwest side of Healey Library; maintain the view corridor between the waterfront and the Calf Pasture Pumping Station; and provide a bus zone that may support a second campus entrance to be incorporated in the void under Healey Library



Campus gateway at Bianculli Boulevard, University Drive South & University Drive West



Existing Site A and landscape



Sigma Sigma Commons at University of Cincinnati



Campus Main Entrance — University of Cincinnati

Central Quad



Central Quad



Existing elevated campus plaza on the roof of the substructure



McMicken Commons campus quad at University of Cincinnati

The Central Quad is considered the future center of campus, providing a point of focus, a sense of place and identity, and the locus where all campus paths and activities converge and pass through. It will serve as the primary visual and pedestrian destination from both the gateway paths originating from Morrissey Boulevard and Mt. Vernon Street.

The Central Quad will provide the primary transformation of the campus from tightly spaced buildings with narrow, residual pedestrian spaces, to broadly organized collegiate open spaces framed by new and existing buildings. The Central Quad redefines the image of UMass Boston by configuring an open-ended framework of collegiate landscape spaces varying in scale and programming.

As the heart of campus, the Central Quad is envisioned as a series of interlocking landscape “rooms”, containing a variety of components, including: a small amphitheater, gardens, fountains and diverse seating options. With tree-lined walks, the open space framework connects the Central Quad out to the HarborWalk and the community beyond.

The Central Quad will knit together the existing campus buildings and look to new infill buildings to reinforce an internal open space now absent from the current configuration. The Central Quad represents UMass Boston’s new commitment to open space and sustainability — a green center that is no longer a primarily paved surface nor elevated above the ground.

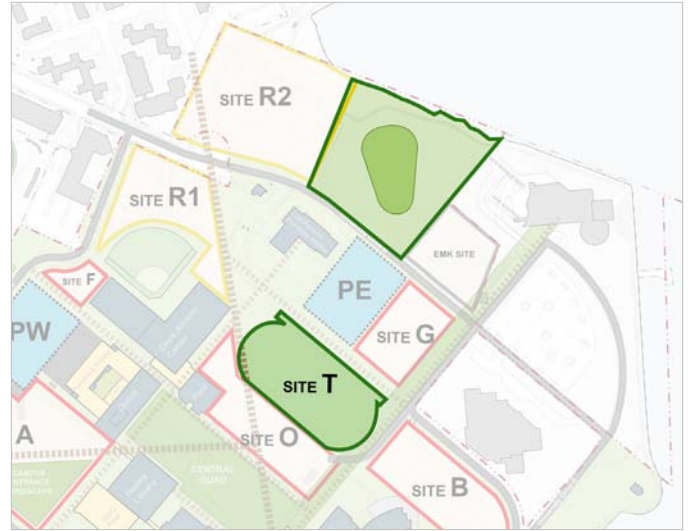


Brookings Quad at Washington University

North Harbor Common

The current north corner of campus — the North Harbor Common — faces Dorchester Bay and downtown Boston. Although lightly developed, the recent expansion of surface parking encroaches on a remnant wetland. Stretching from the Harbor Point apartments to the JFK Library, the existing lowland/wetland, with significant storm water runoff collection capacity, dominates the area and must be protected to comply with governing regulations. Equally important, the North Commons provides a landscape counterpoint to the current campus landscape of lawn and parking. North Commons, with the existing wetland, should transition from an actively programmed campus space to a passive, urban wild. A natural amphitheater, sculpted as a subtle landform will provide a focal point and destination with a modest stage for student or community performances or gathering.

The peninsula has finite land available to accommodate large athletic fields. The transition from surface lots to structured parking will alleviate the strain on campus space, allowing for campus reconfiguration, providing sites for new buildings and open space, including recreational fields. As a campus positioned on a peninsula jutting out into the harbor, UMass Boston athletic fields are subject to seasonally harsh climatic effects, restricting the location and orientation of fields. Analysis of field configurations has included both partial and full sharing of baseball, track, and soccer facilities with Boston College High School. The track and soccer field are desirable for informal exercise by the campus community. Until Site T is needed for future development, retaining recreational fields would both retain a valuable asset to attract and retain students and provide a desirable open space near the campus core.



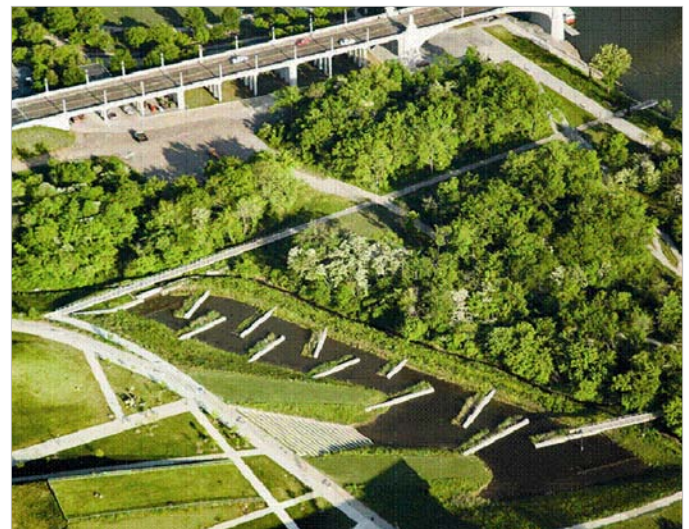
North Harbor Common and replacement running track/soccer field



Existing wetlands of North Harbor Common



Renaissance Park waterfront landscape — Chattanooga, Tennessee



Renaissance Park waterfront landscape — Chattanooga, Tennessee

East Harbor Common



East Harbor Common

UMass Boston has a unique opportunity to connect the eastern edge of campus with HarborWalk. The existing University Drive East creates as much a psychological barrier as physical barrier for both campus constituents and the general public who walk and bike along the waterfront. By realigning University Drive East where the Campus Center driveway oval is merged with the East Harbor Common, the barrier to the sea will be marginalized, and the landscape will not appear to be bisected by a road.

The nature or character of the existing Campus Center driveway oval is little more than a barren lawn. Although it has been used to host commencement ceremonies, it is largely underutilized for most of the year, remains unlandscaped and unprogrammed, and a lost opportunity that can be reclaimed by incorporating it into the East Harbor Common.

When fully improved, the East Harbor Common will complete the primary campus landscape network — that is bookended with Site A — and help to emphasize and contribute to the campus' goal to improve connections. By creating a more welcoming and well-used open space, the campus and its surrounding natural amenities would become increasingly more accessible to both the campus and its surrounding neighbors.



Existing view towards East Harbor Common beyond the Campus Center driveway oval



Example of open space along the waterfront — Louisville Waterfront Park



Example of informal recreational space — Louisville Waterfront Park

West Campus Precinct & University Drive West

UMass Boston currently has an irregular, relatively narrow corridor of land along its western boundary that is isolated from the core campus by University Drive West. In order to maximize efficient vehicular flow to a new garage planned at Site PW, and to enhance the pedestrian and bicycle environment along the street, there is an opportunity to realign and improve University Drive West.

Three strategic moves were investigated to determine the best use of the land:

- Relocate the loop road eastward to create a larger, more useful parcel for academic, student residential, athletic, and parking uses.

Disadvantages: Campus functions are divided by a road, and users must cross a busy street that serves a large garage and UMass Boston's central loading

- Relocate the loop road far westward to create a direct connection between the intersections of Morrissey/ Bianculli Boulevards and Mt. Vernon Street/University Drive West.

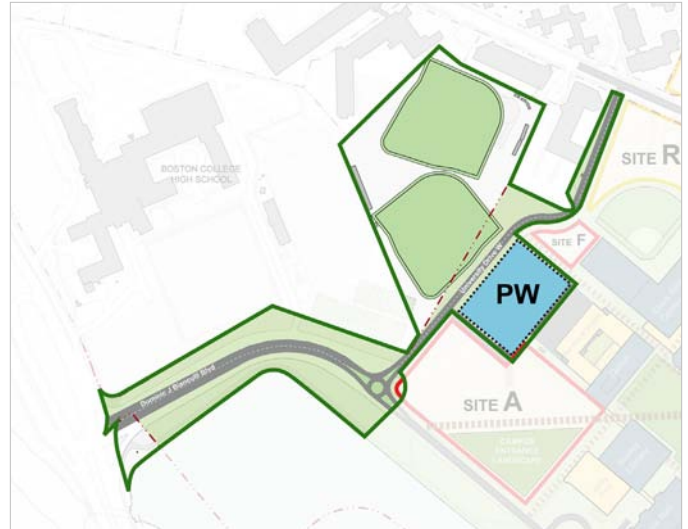
Disadvantages: Intrusion through multiple property owners, including: BCHS, UMass Boston, and Peninsula Apartments, with a major constriction on, and reduction of, the BCHS athletic fields

- Relocate the loop road westward to the western edge of UMass Boston property line.

Advantages: Eliminates the segregation of campus functions by a busy loop road, thus minimizing vehicular/ pedestrian conflicts and maximizing pedestrian safety

The third option has additional advantages that would benefit the larger community, including:

- The landscape and openness of athletic fields along the northwest edge of Bianculli Boulevard/University Drive West provides an attractive pedestrian/bicycle environment and view corridor between Patten's Cove/Savin Hill, on the west side of Morrissey Boulevard, and North Harbor Common
- There is an opportunity to collaborate with BCHS to jointly create, maintain, and share a new NCAA baseball field



Concept to realign University Drive West to the western boundary of the UMass Boston campus



Existing view looking west beyond Site A towards west campus edge and BC High School



Univ of Cincinnati integrating athletic fields and academic buildings at the edge of campus

East Campus Precinct & University Drive North

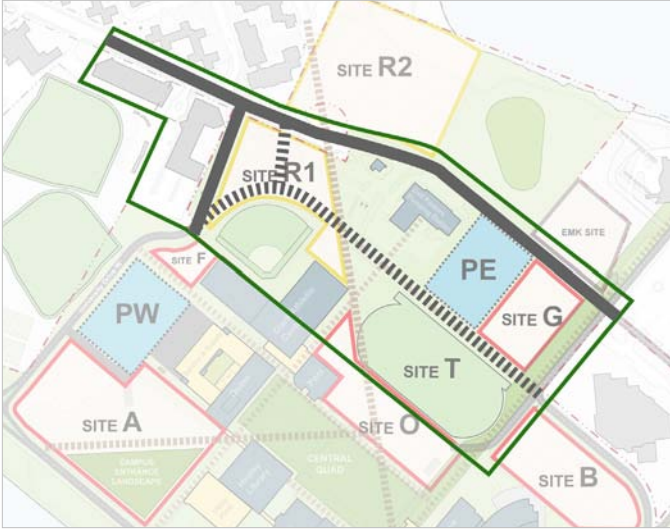
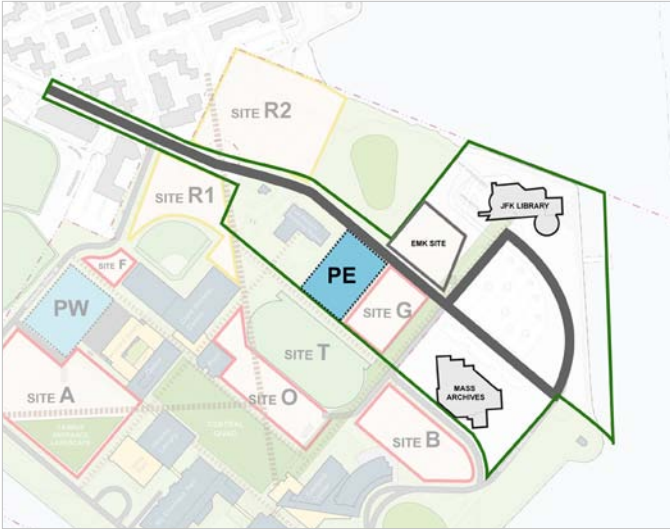


Diagram of Mt. Vernon Street extended and integrated to a realign with University Drive North



University Dr. North serving Garage PE, future EMK Institute, JFK Library & Massachusetts Archives



The future EMK Institute site (left); JFK Library (center); & Massachusetts Archives property (right)

The acquisition of the Calf Pasture Pumping Station offers UMass Boston greater flexibility in expanding its campus and planning the distribution and redistribution of its uses. The occasion also offers the campus the opportunity to improve and enhance access to the campus from Mt. Vernon Street — currently an uninspired and deficient portal to the campus — and provide an alternative formal approach to campus and the southern peninsula.

Mt. Vernon Street can be dramatically improved by extending it past its current termination point at the Calf Pasture Pumping Station, integrating it with a realigned University Drive North. The advantages of this move include:

- The campus precinct will not be bisected by the current alignment of University Drive North
- Calf Pasture Pumping Station provides an iconic anchor to help form a northern gateway to the UMass Boston campus
- A new intersection at Mt. Vernon Street and University Drive West offers UMass Boston an opportunity to contribute to an active street environment by introducing student housing and ground level mixed-uses that may include: restaurants, convenience commercial services, community activity spaces, live/learning functions, and public facilities
- The new vehicular configuration will improve access to the eastern waterfront, JFK Library, Massachusetts Archives, the future Edward M. Kennedy Institute for the U.S. Senate, and help make the North Harbor Common more publicly visible and accessible to the entire Columbia Point community
- Mt. Vernon Street will be improved as a vehicular and mixed-use corridor that may encourage landowners along Mt. Vernon Street to improve and help activate and transform the street
- A second campus garage structure, accessible directly from University Drive North, will help support the frequent public functions in the vicinity — including JFK Library, Massachusetts Archives, UMass Boston Campus Center, the future EMK Institute, and visits to the waterfront — minimizing vehicular traffic around the southern quadrant of Columbia Point and vehicular/pedestrian conflicts

Site Selection for Initial Facilities & Next Steps

Overlaid onto the priority project sites is the charge to address pressing programmatic needs in the face of increased enrollment and deficient facilities. Current minimum projections include an immediate need for a replacement science facility and a new academic classroom building.

Before university administrators and state authorities can implement the design of new buildings and open spaces, and consider other improvements for the UMass Boston campus, several prerequisite steps were studied and developed in greater detail relative to the intentions of the campus master plan, including:

- Select two sites — out of the top four priority project sites — for the new Integrated Science Complex (ISC), and new General Academic Building (GAB). Preferred sites under consideration were: A, B, O, and S.
- Determine the ideal, most efficient and cost effective configuration for a new utility infrastructure loop that must be installed and operational before the substructure can be demolished. Complexities and costs can be impacted by where and how the utility loop will be installed, such as: whether it is partially or entirely underground; how it is attached or hidden from view when fed through existing building spaces; and whether installation areas permit the use of heavy equipment or require higher cost manual labor, or must be completed during off-hours to avoid disruption of school operations. Taking all of these factors into account, it was determined that the outer loop configuration was the best design for the campus utility infrastructure. (See *Appendix for summary of current study by ARUP and GEI Consultants.*)
- Continue to evaluate a cost-effective/affordable means to reuse the former parking levels under existing academic buildings without triggering cost-prohibitive code upgrades to the entire facilities.
- Select, locate, and/or determine the construction sequence for, the parking structure or structures, and the phasing out of the permanent and temporary parking lots, during the ten- and twenty-five-year implementation of the campus master plan.
- Initiate the permitting process.
- Work with adjacent stakeholders, including: Boston College High School, the future EMK Institute, Massachusetts Archives, and JFK Library, to coordinate mutual design and programmatic interests.



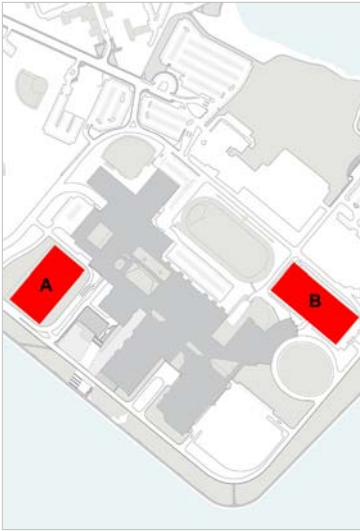
Campus Master Plan



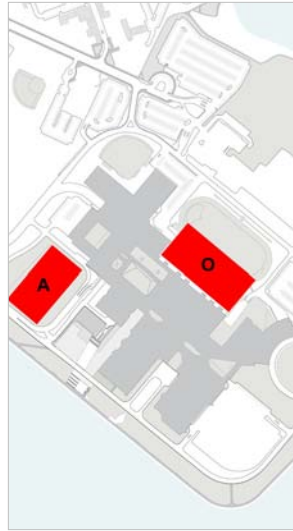
Pedestrian Circulation Diagram



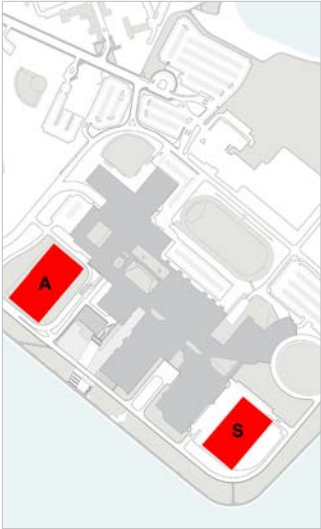
Primary Campus Landscape & Circulation Network



Academic Building Site A + Site B



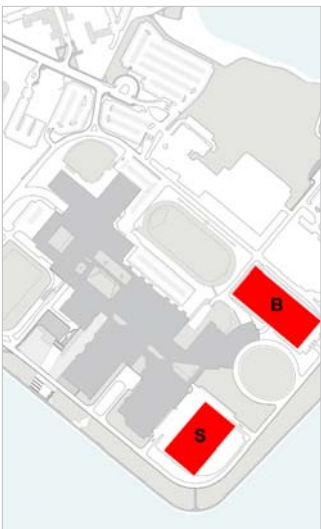
Academic Building Site A + Site O



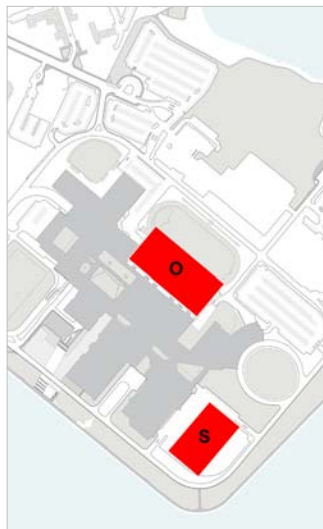
Academic Building Site A + Site S



Academic Building Site O + Site S



Academic Building Site B + Site S



Academic Building Site O + Site S

One of the most urgent tasks in the implementation of the campus master plan is to inform the site selection for the first two academic buildings that is part of the sequence of improvements and the demolition of the Substructure. (See *Proposed Timeline and Budget Costs*, by R.F. Walsh in the Appendix.)

Based on the planning and review process, the UMass Boston and DCAM decision-makers concluded and agreed upon the top four priority development sites: **Sites A, B, O, and S**. (Footnote: The alphabetical letters summarize the extent of the sites that remained viable and desirable, with others previously discarded. Of the other sites not previously discussed, **Site F** and **Site G** are smaller project sites whose uses will be determined at a later date for lower priority needs, such as a possible replacement for the Pool Building.)

It was assumed that a selection of the initial two project sites should provide: (a) the greatest number of advantages to the University as a whole; (b) that their pairing and addition to the campus will have the best fit into the physical, pedagogical, social, and cultural fabric of the school; and (c) that their construction makes the most sense within phasing strategy of the first 5- to 10-years of improvements.

Of the four priority project sites, there were six possible combinations of pairings. The following pages evaluate the advantages and disadvantages of each pair. In the end, the conclusion agreed upon by the UMass Boston and DCAM hierarchy was the selection of **Site A** for the Integrated Sciences Complex (ISC) and **Site O** for the first General Academic Building (GAB #1).

Phase One Site Selection Analysis for Two Academic Building Sites

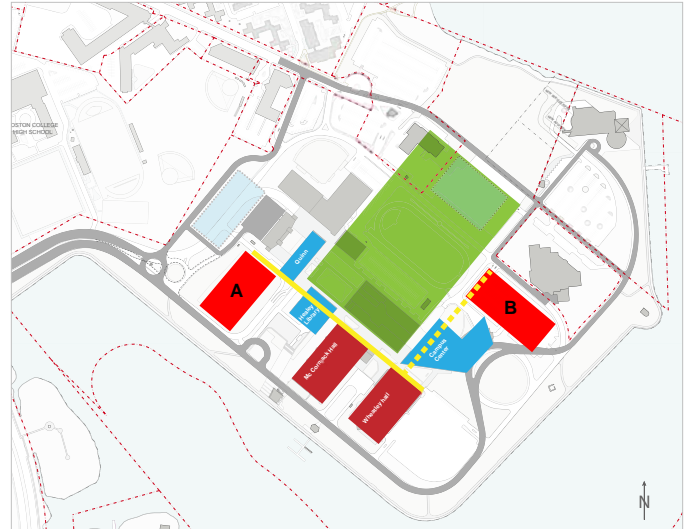
Academic Building Site A + Site B

Advantages:

- Site A provides a new “front door” to campus, visible from Morrissey Boulevard
- The combination of Site A + Site B evenly distributes, not concentrates, new activity across the elongated campus
- Both Sites A & B have harbor adjacency and views

Disadvantages:

- Central Quad becomes open-ended, over 4 soccer fields in size, for an indefinite period of time, especially while Garage PE is unbuilt; campus center is ill- or undefined
- Internal and external circulation between academic buildings will be stretched along an elongated “C” path
- Need to relocate 400 parking spaces before Site B can be developed



Academic Building Site A + Site B

Academic Building Site A + Site O

Advantages:

- Site A provides a new “front door” to campus, visible from Morrissey Boulevard
- Site O helps to define Central Quad to become focal point of the campus
- Campus appears “complete” if no other projects are built for an extended period of time
- Internal and external circulation between academic buildings will be compact and short
- The combination of Site A + Site O distributes new activity across campus around the Central Quad

Disadvantages:

- Need to relocate 200 parking spaces before Site O can be developed



Academic Building Site A + Site O

Academic Building Site A + Site S

Advantages:

- Site A provides a new “front door” to campus, visible from Morrissey Boulevard
- The combination of Site A + Site S evenly distributes new activity along a unified spine
- Both Sites A & S have harbor adjacency and views

Disadvantages:

- Central Quad becomes open-ended, over 4 soccer fields in size, for an indefinite period of time, especially while Garage PE is unbuilt; campus center is ill- or undefined
- Internal and external circulation between academic buildings will be stretched along an elongated linear path
- Need to relocate 540 parking spaces before Site S can be developed



Academic Building Site A + Site S



Academic Building Site B + Site O

Academic Building Site B + Site O

Advantages:

- Sites B & O reinforces the Campus Center as central hub of activity
- Site O helps to define Central Quad to become focal point of the campus
- Campus appears “complete” if no other projects are built for an extended period of time
- Internal and external circulation between academic buildings will be relatively compact and short

Disadvantages:

- Need to relocate 400 parking spaces before Site B can be developed, and 200 spaces before Site O can be developed
- Healey Library appears to be at the edge of academic activity



Academic Building Site B + Site S

Academic Building Site B + Site S

Advantages:

- Sites B & S reinforces the Campus Center as central hub of activity
- Internal and external circulation between academic buildings will be relatively compact and short
- Both Sites B & S have harbor adjacency and views

Disadvantages:

- Central Quad becomes open-ended, over 4 soccer fields in size, for an indefinite period of time, especially while Garage PE is unbuilt; campus center is ill- or undefined
- Need to relocate 400 parking spaces before Site B can be developed, and 540 spaces before Site S can be developed
- Healey Library appears to be at the edge of academic activity



Academic Building Site O + Site S

Academic Building Site O + Site S

Advantages:

- Sites O & S reinforces the Campus Center as central hub of activity
- Site O helps to define Central Quad to become focal point of the campus
- Campus appears “complete” if no other projects are built for an extended period of time
- Internal and external circulation between academic buildings will be relatively compact and short

Disadvantages:

- Need to relocate 200 parking spaces before Site O can be developed, and 540 spaces before Site S can be developed
- Healey Library appears to be at the edge of academic activity

Development Site A



Site A framed by Quinn Administration Building and Healey Library today



Concept for Site A with new academic facilities and a signature campus gateway landscape

Site Characteristics

Development Site A is a desirable location for a new academic building from three important viewpoints: (a) it will make the first impression on visitors by helping to define the intersection where Bianculli Boulevard converges with University Drive South and University Drive West; (b) it will help delineate the new West Gateway landscape; and (c) it will help frame the Bianculli View Corridor and pedestrian spine into the Central Quad. Key features of the site include:

- Site A is the first site that visitors encounter when approaching the campus from Bianculli Boulevard, offering an opportunity to direct attention to the new Central Quad rather than around the edge of campus as is the case today
- Site A is in direct proximity to proposed new garage at Site PW, Quinn Administration Building, and Healey Library, positioning Building A to be strategically accessible to immediate parking and key campus facilities
- Site A is directly adjacent to major circulation networks, including: the primary intersection of the campus loop road; the beginning of the

proposed network of campus quads; the waterfront promenade and views of the harbor; significant pedestrian connections to the rest of the campus, surrounding natural amenities and open spaces, and the neighborhoods of Harbor Point and Savin Hill

- Site A is free and clear for immediate development

Urban Design Guidelines

Site A has been selected as the location for the Integrated Sciences Complex (ISC). The adjacent page summarizes urban design guidelines that maximize the development potential of Site A while supporting the long-term campus master plan.

Key guidelines include:

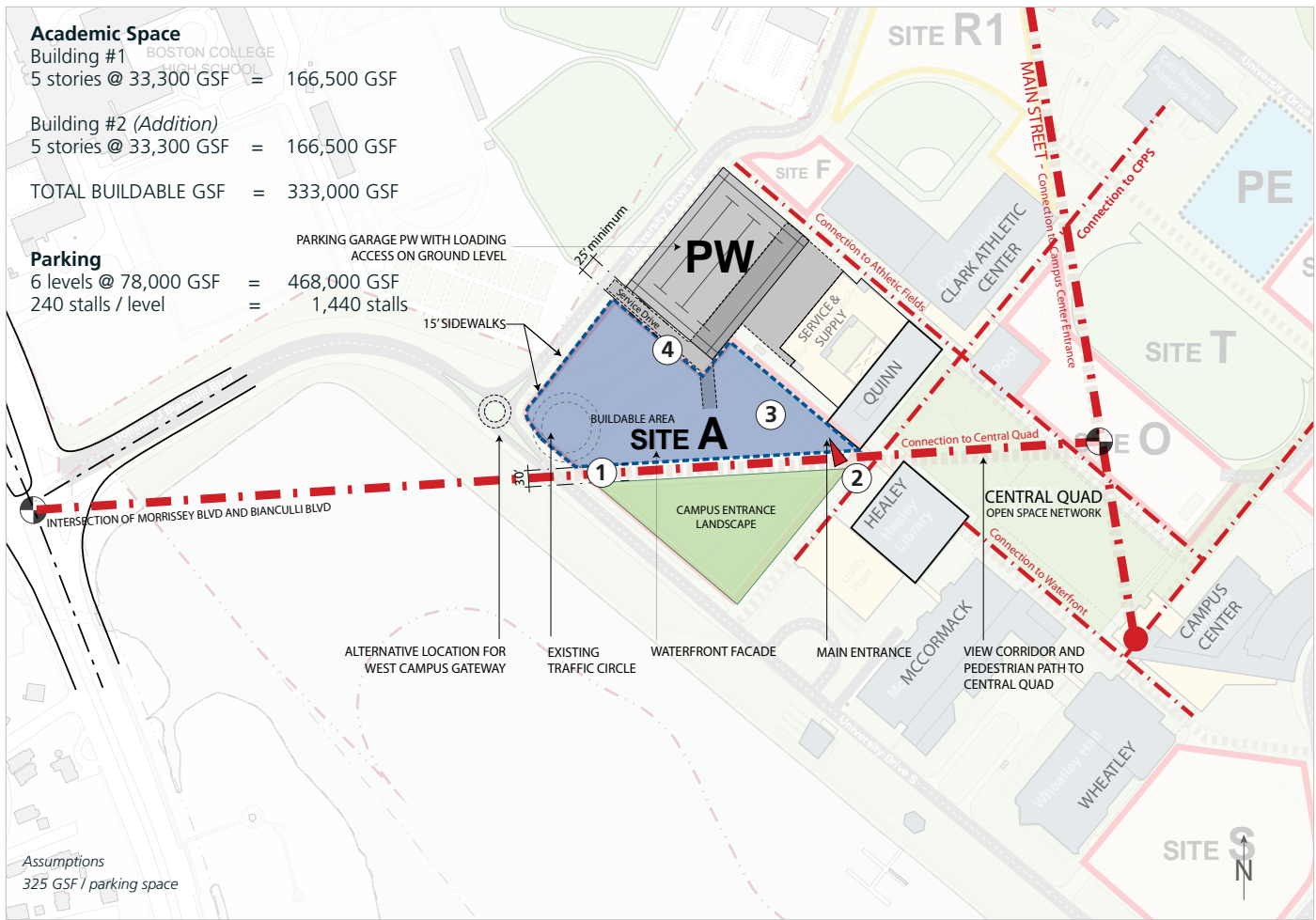
- Building edges should help frame and reinforce prominent view corridors and pedestrian paths, including:
 - the West Campus Gateway and Primary Campus Landscape & Circulation Network into the Central Quad
 - the visual axis from the intersec-

tion of Morrissey Boulevard and Bianculli Boulevard

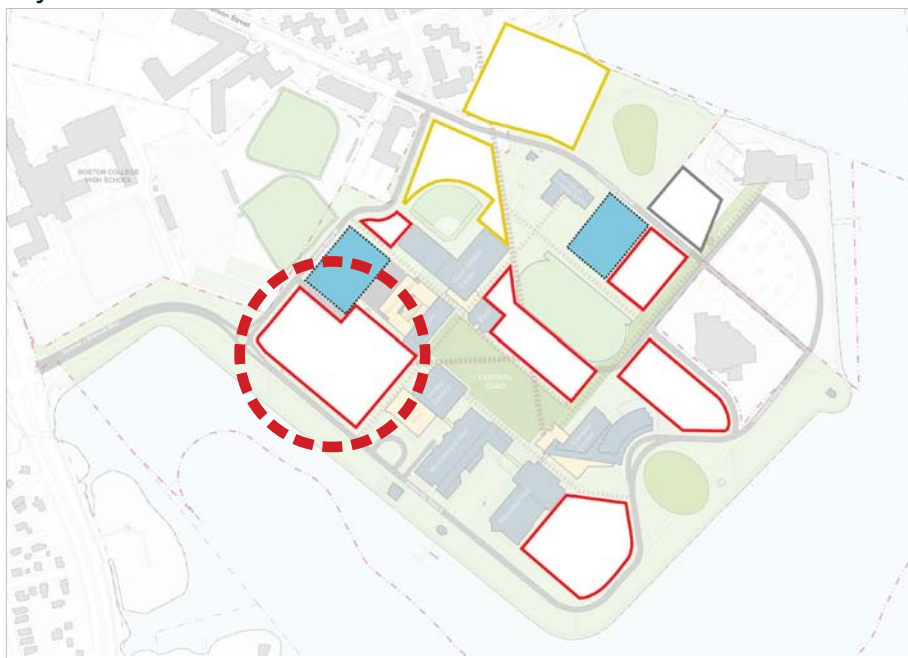
- the open space portal between Quinn Administration Building and Healey Library
- the pedestrian path and sightline between the Calf Pasture Pumping Station and the waterfront
- the building setback along University Drive South established by McCormack Hall and Wheatley Hall
- Maintain the prominence of Healey Library and potential for a second campus entrance addition to infill Healey's underutilized breezeway
- Integrate the external and internal circulation system of Building A into the pedestrian network of existing and proposed campus buildings, including Garage PW, Quinn Administration Building, and Healey Library

The following additional pages illustrate study concepts for Site A to demonstrate the development and massing feasibility of the parcel. Advantages and disadvantages, and approximate sizes of development are summarized for each concept.

Site A Urban Design Guidelines



Key Plan



Site A Urban Design Guidelines Key

- ① Maintain public right-of-way at ground level for view corridor and pedestrian connection to Central Quad
 - ② Building A entrance to be accessible from campus entrance view corridor and pedestrian connection
 - ③ Maximum building height = 80'-0"
 - ④ Provide service drive with access to Service & Supply Loading and Site A
- Preferred Building Site Precinct
 - Preferred Open Space Precinct
 - Primary Connection
 - Secondary Connection
 - Main Entrance

Site A Development Concepts

Concept 1 — Gateway Courtyard

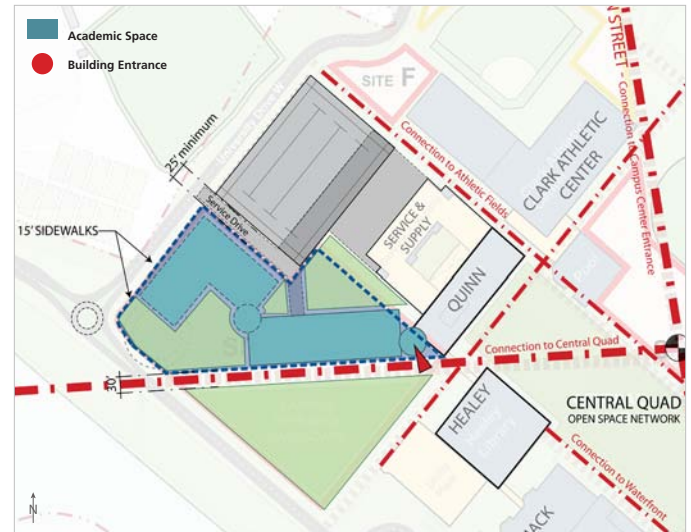
Advantages:

- Emphasizes pedestrian flow and landscape network into the central campus quad
- Maintains visibility and importance of Healey Library and a second campus entrance to infill Healey's existing breezeway

Disadvantages:

- One-half of Building A faces away from the harbor
- Internal courtyard is in shadow

Site A Site Plan



Site A Concept Plan 1

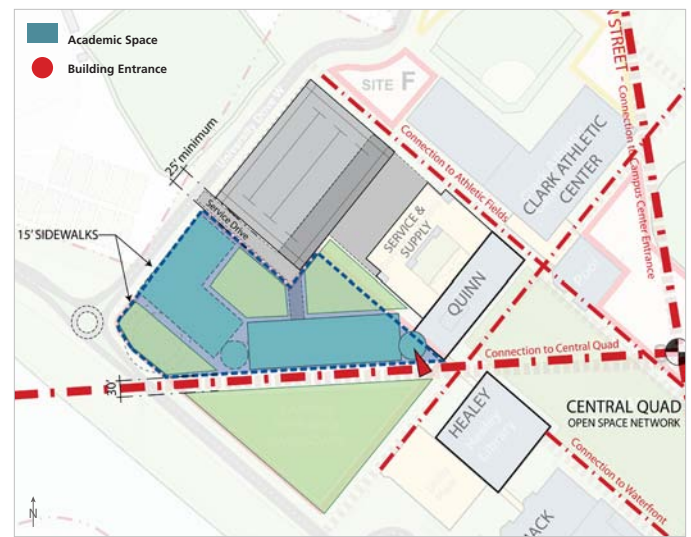
Concept 2 — Internal Courtyard

Advantages:

- Primary facade defines main entrance view corridor and campus gateway landscape
- All of Building A and open spaces have a harbor view
- Emphasizes pedestrian flow and landscape network into the central campus quad
- Creates a private courtyard for social & outdoor functions
- Maintains visibility and importance of Healey Library and a second campus entrance to infill Healey's existing breezeway

Disadvantages:

- Back of Building A faces a tight, cavernous space against service functions and a garage



Site A Concept Plan 2

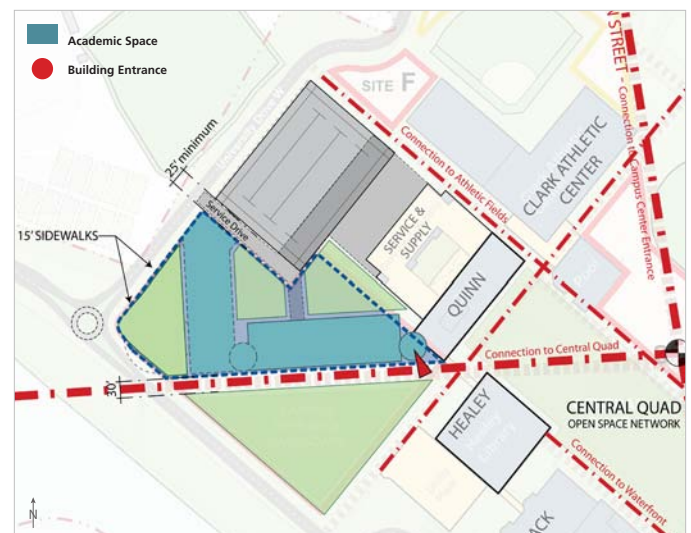
Concept 3 — Gateway Backdrop

Advantages:

- Primary facade defines main entrance view corridor and campus gateway landscape
- Emphasizes pedestrian flow and landscape network into the central campus quad
- Maintains visibility and importance of Healey Library
- Creates a private courtyard for social & outdoor functions

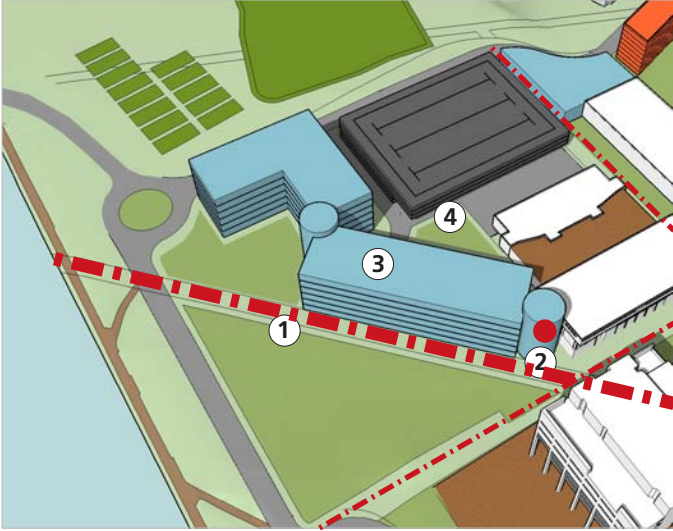
Disadvantages:

- Internal courtyard is in shadow



Site A Concept Plan 3

Site A Bird's Eye View

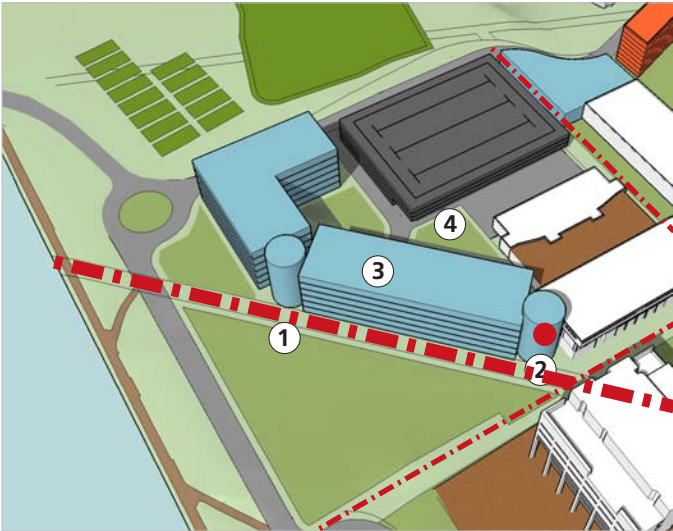


Site A Concept Massing 1

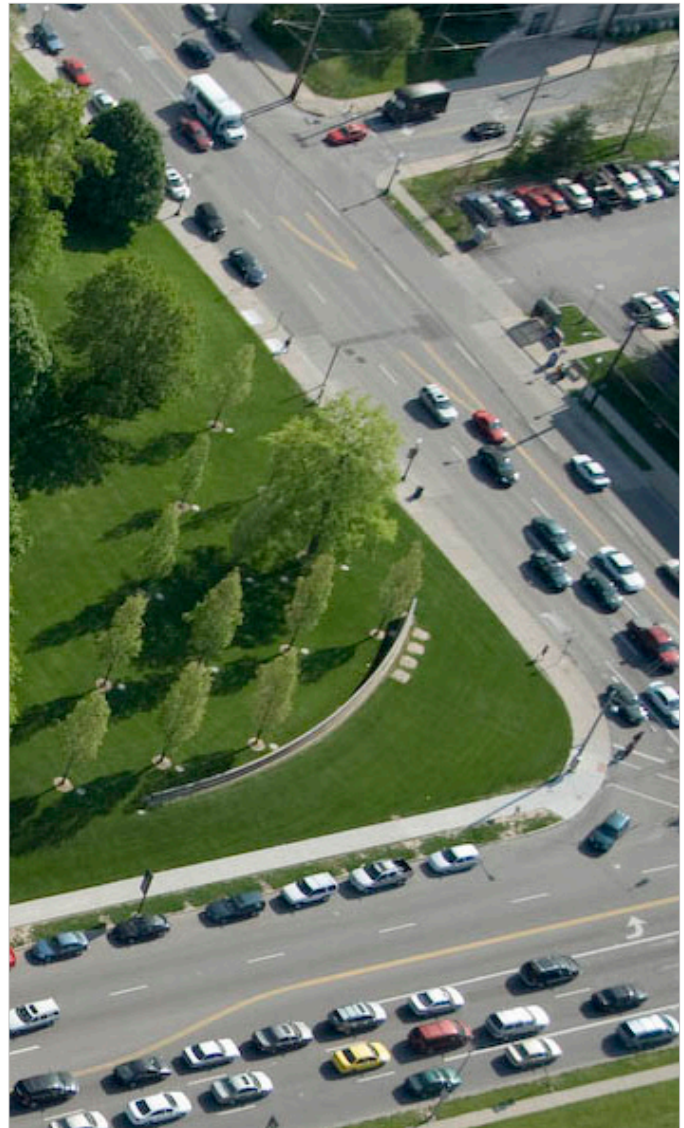
Site A Landscape Concept



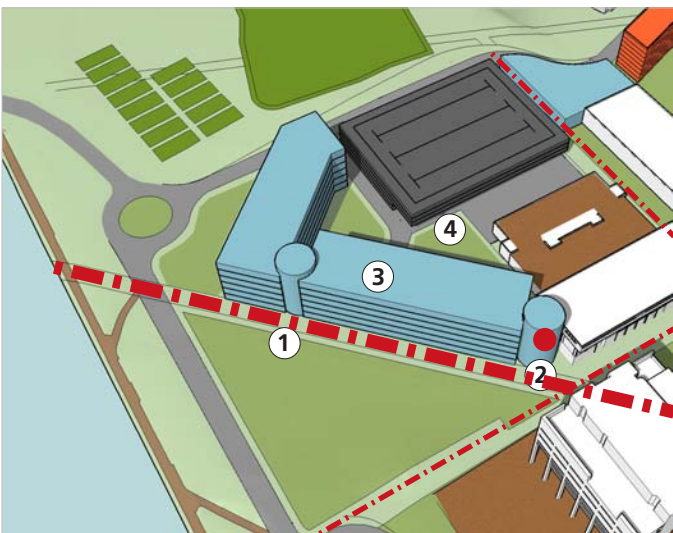
Ground level view of a campus gateway landscape & sign (University of Cincinnati)



Site A Concept Massing 2



Example of a campus gateway landscape (University of Cincinnati)



Site A Concept Massing 3

Development Site B



Site B today, to the right of the Campus Center and in front of Massachusetts Archives beyond



Concept for Site B with new academic building and realigned roadway and landscape

Site Characteristics

Development Site B is a desirable location for a new academic building to help frame the entrance landscape in front of, and be highly identified with, the Campus Center. Key features of the site include:

- Site B is prominently located adjacent to the Campus Center, the current main entrance to UMass Boston, and along the edge of the waterfront facing the proposed redesigned and enhanced east harbor common
- Site B is directly adjacent to important circulation paths, including: (a) University Drive East that will dramatically curve around the enlarged east harbor common; (b) the bookend of the Primary Campus Landscape & Circulation Network opposite the West Campus Entrance Landscape at Site A; and (c) the proposed pedestrian promenade that connects the entrances of the Campus Center and John F. Kennedy Library & Presidential Museum
- Site B is in close proximity to a

proposed garage at Site PE and shares a service drive with adjacent Massachusetts Archives

- Development of Site B will require relocating 400 parking spaces before the start of construction, and redesigning access to the service and parking levels to the Campus Center

Urban Design Guidelines

The adjacent page summarizes urban design guidelines that maximize the development potential of Site B while supporting the long-term campus master plan.

Key guidelines include:

- Frame the expanded edge of the east harbor common with, but in deference to, the Campus Center
- Incorporate a generous landscape along the southwest perimeter to complete the Primary Campus Landscape & Circulation Network that sweeps from the West Campus Entrance Gateway at Site A, through the Central Quad, continues past Site B, terminating

along the waterfront edge of the east harbor common

- Building edges should help frame and reinforce prominent view corridors and pedestrian paths, including:
 - the pedestrian corridor connecting the Campus Center quad entrance and John F. Kennedy Library & Presidential Museum entrance
 - the easement between Site B and Massachusetts Archives
 - the landscape between Site B and the Central Quad
 - a consistent building edge aligning the harborside facades of Site S, Campus Center, and Site B that would help frame the edges of University Drive East and the east harbor common

The following additional pages illustrate study concepts for Site B to demonstrate the development and massing feasibility of the parcel. Advantages and disadvantages, and approximate sizes of development are summarized for each concept.

Site B Development Concepts

Concept 1 — Long Quadrangle

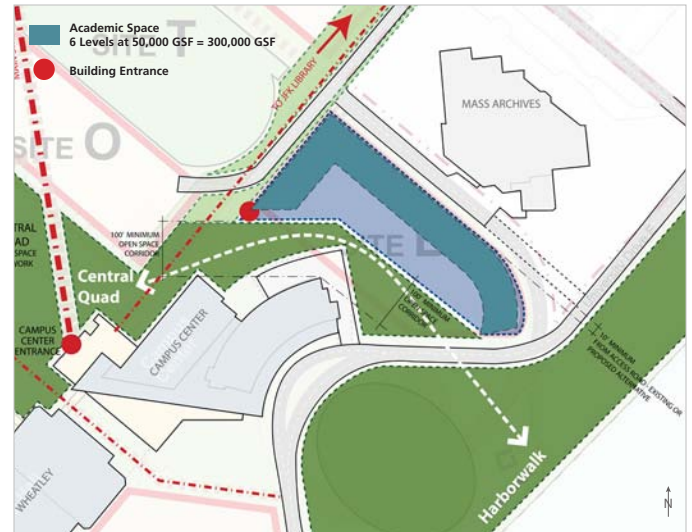
Advantages:

- Creates a long, prominent quadrangle between Building B and Campus Center
- Strongly reinforces pedestrian paths and view corridors between Campus Center/JFK Library and between Site B and Massachusetts Archives
- Majority of building has harbor views

Disadvantages:

- Very long building; harbor end is relatively disconnected from the center of campus
- Appears to wall off, and loom over, Massachusetts Archives

Site B Plan



Site B Concept Plan 1

Concept 2 — Multiple Wings & Courtyards

Advantages:

- Effectively breaks down large building into a series of feasible modules, each complemented by a front courtyard
- Strongly reinforces pedestrian paths and view corridors between Campus Center and JFK Library and between Site B and Massachusetts Archives
- Majority of building has harbor views

Disadvantages:

- Very long building; harbor end is relatively disconnected from the center of campus
- Appears to wall off, and loom over, Massachusetts Archives



Site B Concept Plan 2

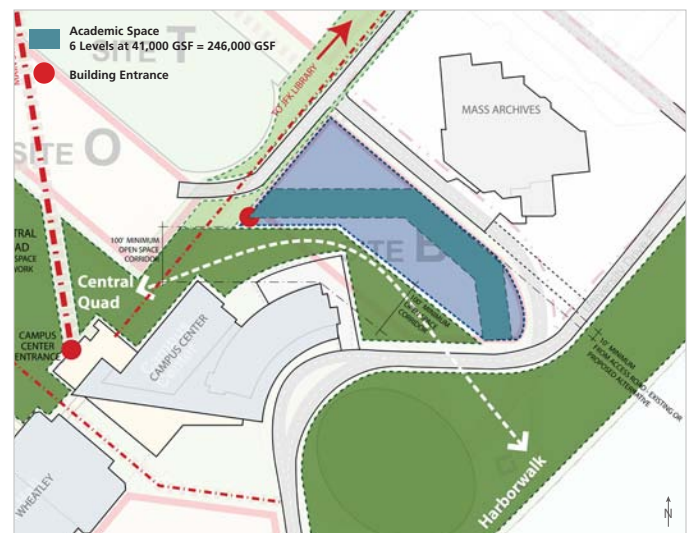
Concept 3 — Central Quad Extension

Advantages:

- Extends toward the Central Quad, emphasizing the thrust of the open space network and pedestrian flow to the waterfront
- Creates a more intimate quadrangle between Building B and Campus Center than Concepts 1 and 2
- Has a more sympathetic relationship with Massachusetts Archives than Concepts 1 and 2

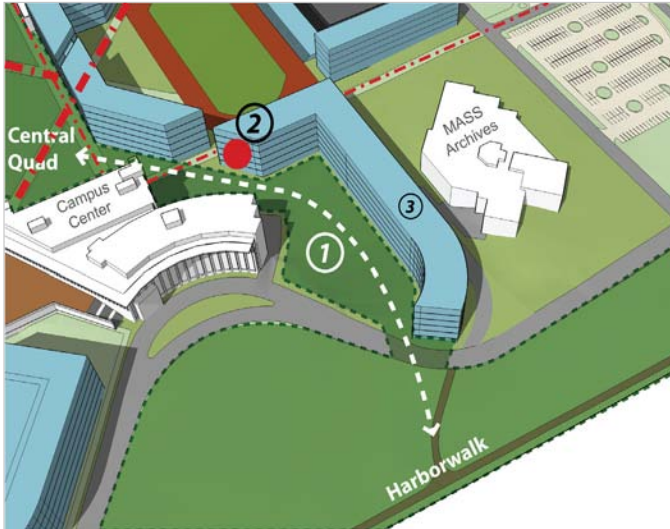
Disadvantages:

- Smaller building footprint than Concepts 1 and 2
- Tightens the open space between Building B and Campus Center that focuses attention on Campus Center service yard
- Leaves less significant triangular open space behind Site B



Site B Concept Plan 3

Site B Bird's Eye View

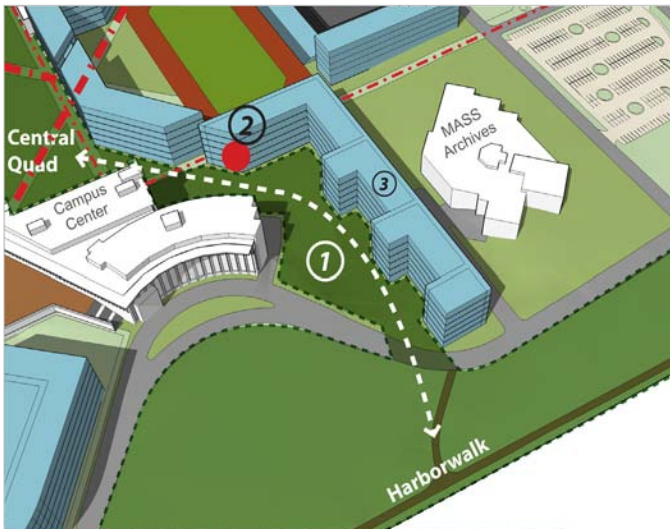


Site B Concept Massing 1

Site B Landscape Concept



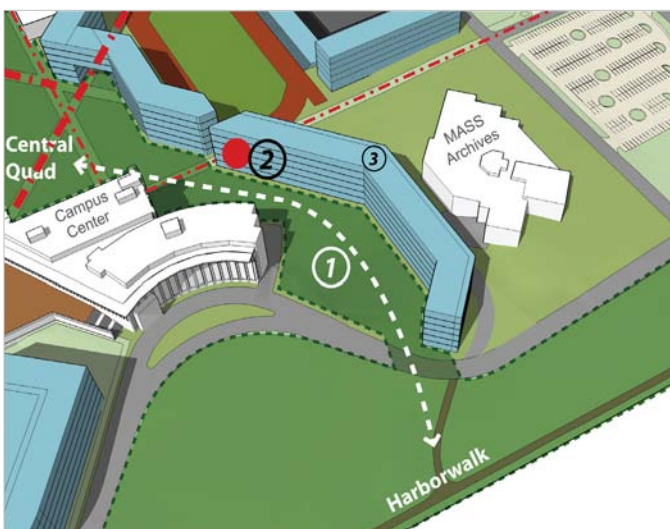
Active recreation and paths along waterfront — Louisville, Kentucky



Site B Concept Massing 2



Accessible campus quad between buildings and grade changes, University of Cincinnati



Site B Concept Massing 3

Development Site S



Site S today with the Campus Center and Science Center in the foreground



Site S with new waterfront academic facility and landscape

Site Characteristics

Development Site S is a desirable location for a new academic building to help anchor the south corner of the campus and the Columbia Point peninsula, and help frame the entrance landscape in front of the Campus Center. Key features of the site include:

- Site S is prominently located adjacent to the Campus Center, the current main entrance to UMass Boston, facing two edges of the waterfront and the proposed redesigned and enlarged east harbor common
- Site S sits strategically along the edge of the campus loop road at the southernmost point of Columbia Point that offers a sweeping vista of the harbor
- Site S is situated adjacent to Wheatley Hall, in a row of academic buildings that includes McCormack Hall, providing opportunities to effectively coordinate and integrate programs and departments between the three academic buildings
- Development of Site S would

require relocating 540 parking spaces before the start of construction

Urban Design Guidelines

The adjacent page summarizes urban design guidelines that maximize the development potential of Site S while supporting the long-term campus master plan.

Key guidelines include:

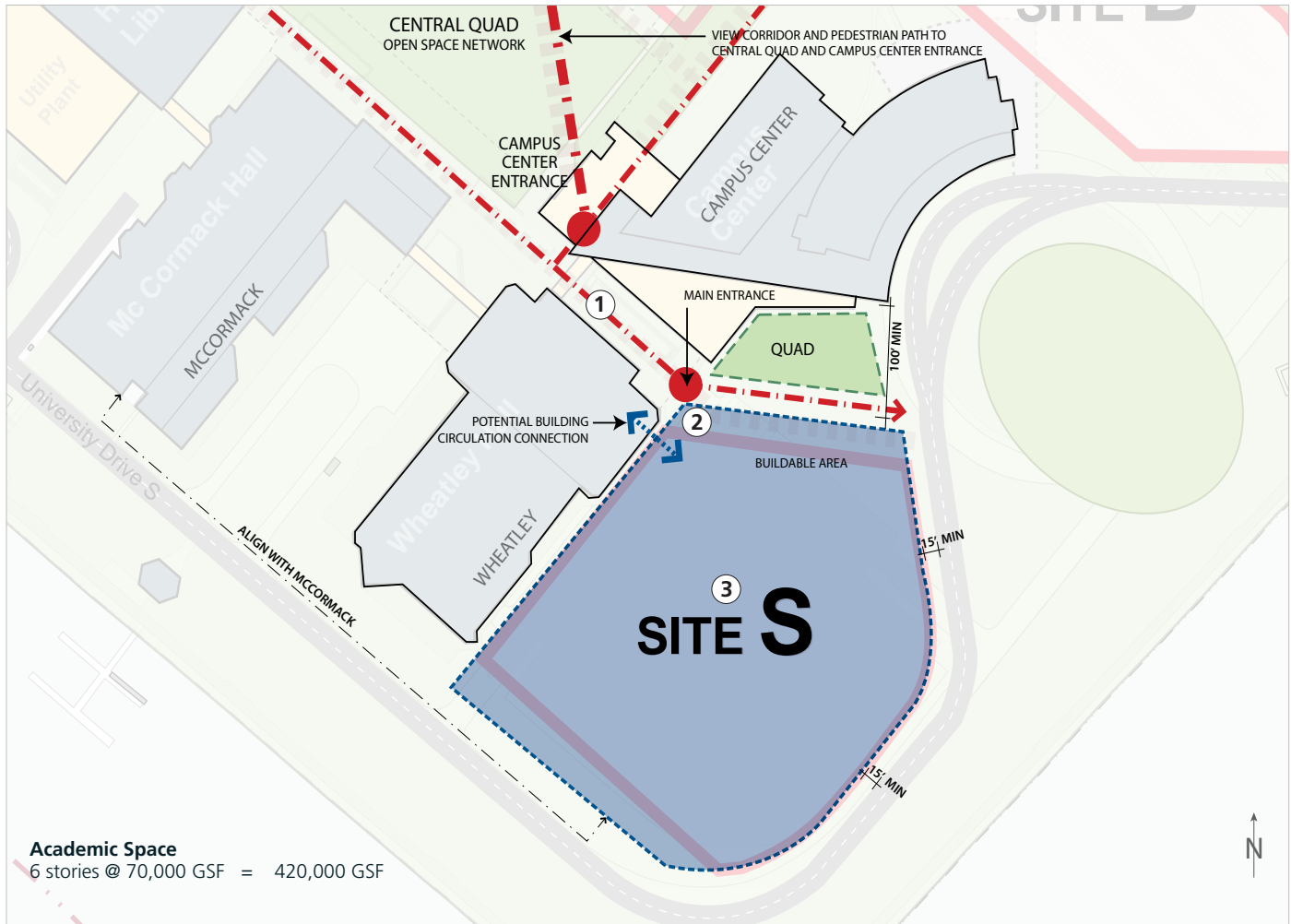
- Frame the expanded edge of the east harbor common with, but in deference to, the Campus Center
- Incorporate an entrance landscape between Building S and the Campus Center that will facilitate access to:
 - the Campus Center’s exterior stair
 - the entrance of the Admissions Office under the grand stair
 - the pedestrian path that leads to the front of Wheatley Hall and the Central Quad beyond
- Building edges should help frame and reinforce prominent view

corridors and pedestrian paths, including:

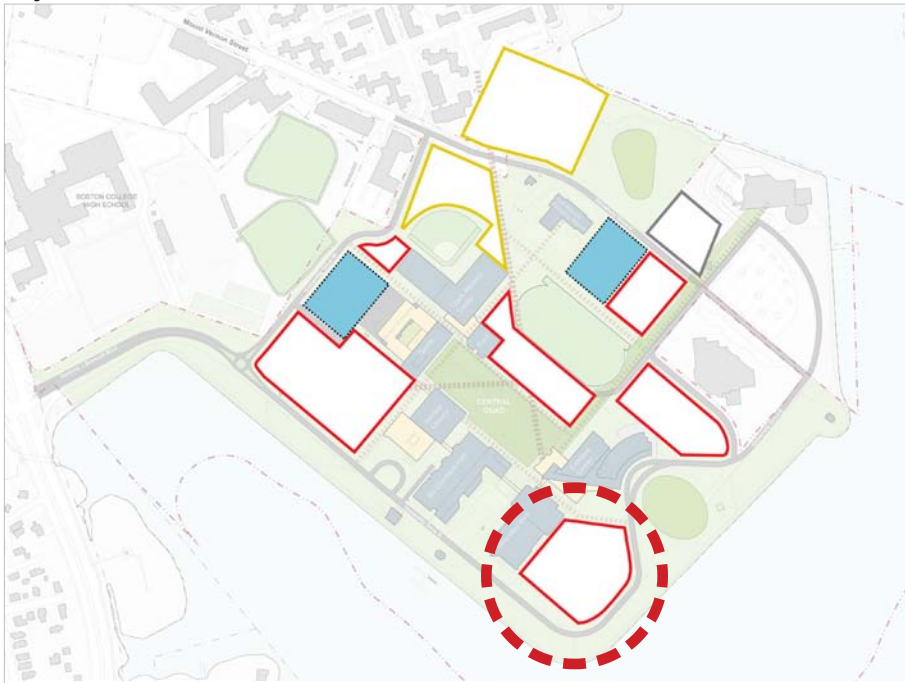
- a pedestrian and view corridor from Healey Library and passing between Building S and the Campus Center
- a pedestrian, view corridor, and open space quadrangle between Building S and Wheatley Hall
- the predominant building edge along South University Drive established by McCormack Hall and Wheatley Hall
- a consistent building edge aligning the harborside facades of Site S, Campus Center, and Site B that would help frame the edges of University Drive East and the east harbor common

The following additional pages illustrate study concepts for Site S to demonstrate the development and massing feasibility of the parcel. Advantages and disadvantages, and approximate sizes of development are summarized for each concept.






Site S Urban Design Guidelines



Key Plan



Site S Urban Design Guidelines Key

- ① Maintain public right-of-way at ground level for view corridor and pedestrian connection to Central Quad
- ② Building S entrance to be accessible from campus entrance view corridor and pedestrian connection
- ③ Maximum building height = 80'-0"
-  Building Site Precinct
-  Open Space Precinct
-  Primary Connection
-  Secondary Connection
-  Main Entrance

Site S Development Concepts

Concept 1 — Enclosed Gateway Quad

Advantages:

- Creates a semi-enclosed quadrangle between Building S and Campus Center — an east gateway quad to campus
- Reinforces rhythm of open spaces and building lines along University Drive South
- Majority of building has harbor views

Disadvantages:

- Obstructs pedestrian spine and view corridor between Healey Library and the waterfront
- Somewhat awkward building mass that adds to the multiple geometries around the site
- Obstructs part of Wheatley Hall's harbor views

Concept 2 — Walk To The Sea

Advantages:

- Creates between Building S and Campus Center a campus gateway landscape that bookends the entrance at Site A
- Maintains pedestrian spine and view corridor between Healey Library and the waterfront
- Reinforces rhythm of open spaces and building lines along University Drive South
- Majority of building has harbor views

Disadvantages:

- Semi-enclosed internal courtyard reduces harbor views for one-half of Building S
- Obstructs part of Wheatley Hall's harbor views

Concept 3 — Articulated Armature

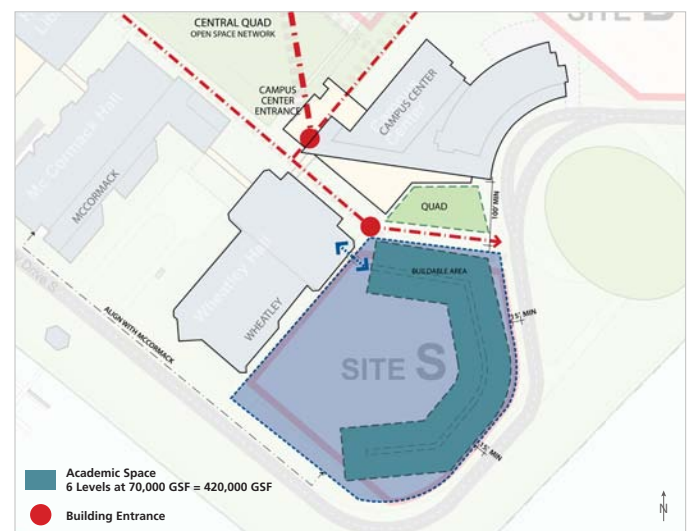
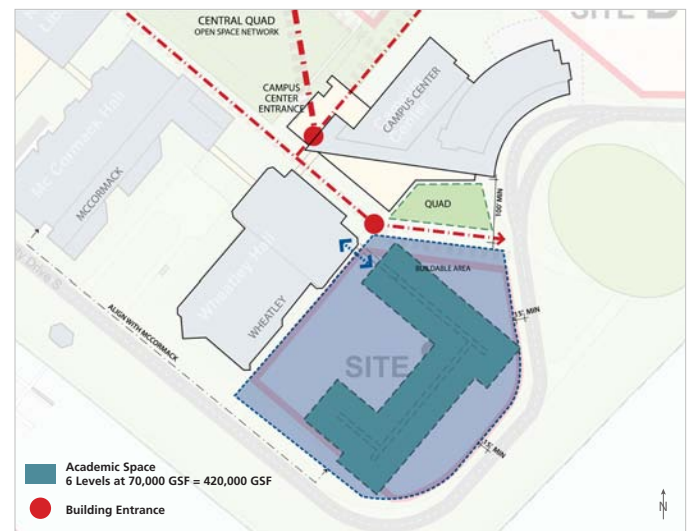
Advantages:

- Creates a semi-enclosed quadrangle between Building S and Campus Center — an east gateway quad to campus
- Building S exploits the strategic location and geometry of the site
- Majority of building has harbor views
- Large quad may permit a larger building or a future addition

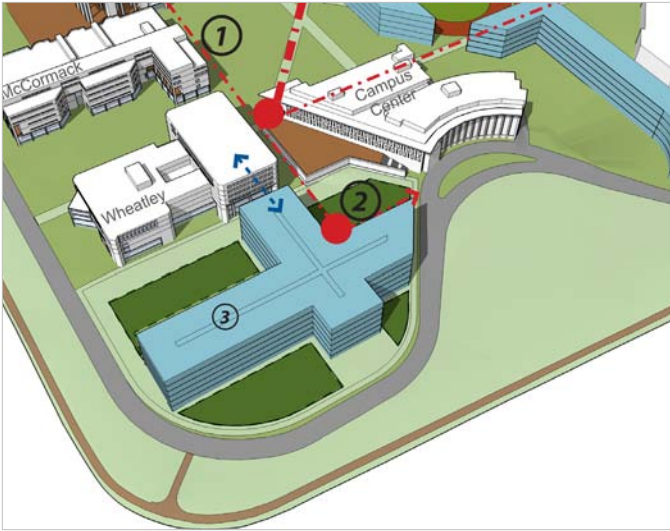
Disadvantages:

- Obstructs pedestrian spine and view corridor between Healey Library and the waterfront

Site S Plan



Site S Bird's Eye View

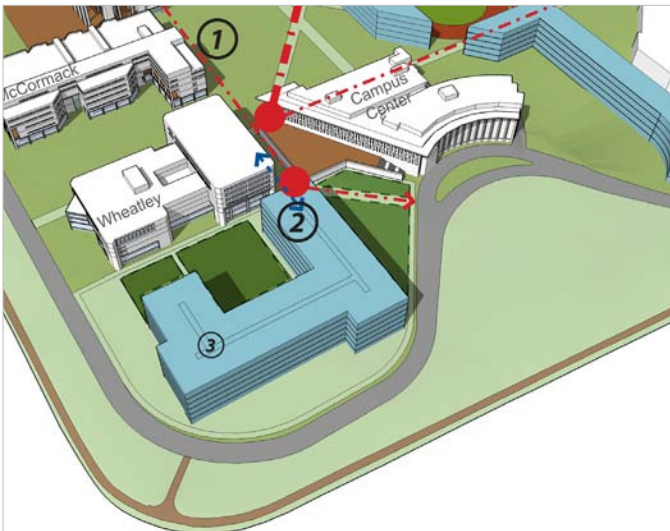


Site S Concept Massing 1

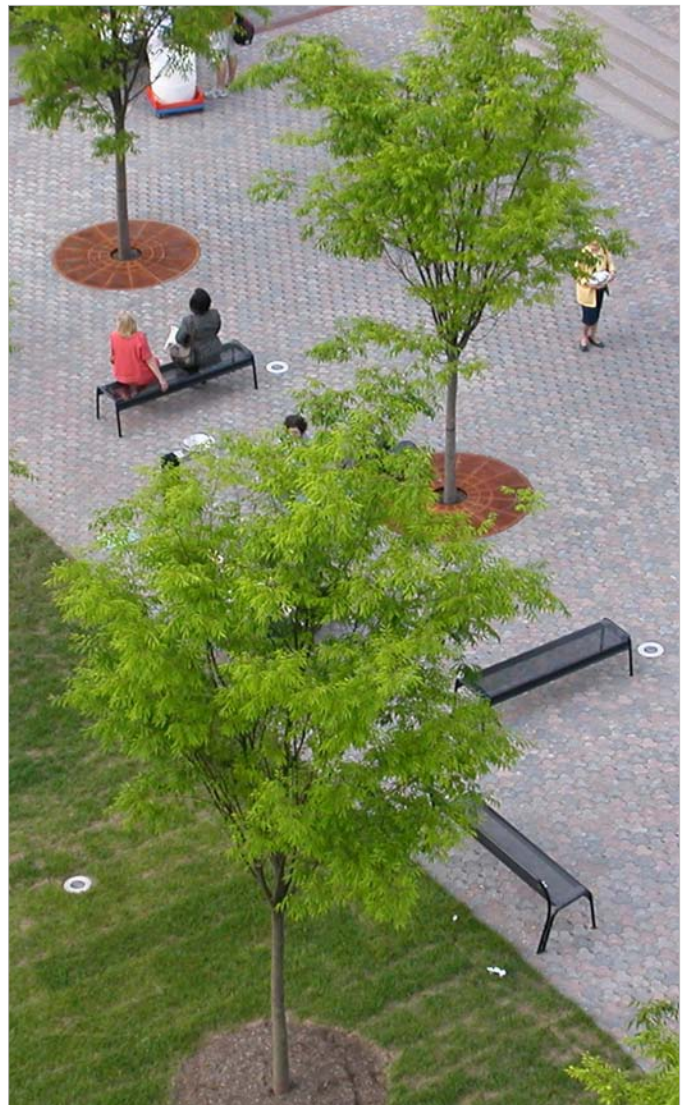
Site S Landscape Concept



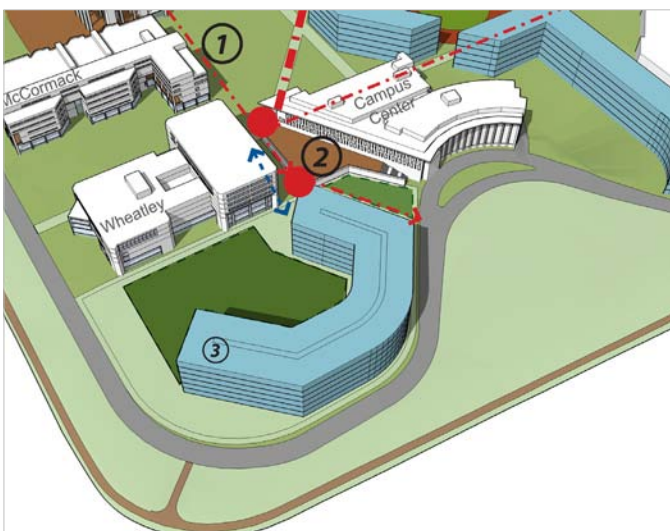
Example of a building common, Biomedical Science Research Building, University of Michigan



Site S Concept Massing 2



Example of a commons at University of Cincinnati



Site S Concept Massing 3

Development Site O



Campus tennis courts (currently used as a parking lot) and the running track/soccer field



Concept for Site O between the new Central Quad and running track/field

Site Characteristics

Development Site O is a desirable location for a new academic building to help define and frame the new Central Quad. Key features of the site include:

- Site O runs parallel to, and along the length of, the northeastern edge of the new Central Quad
- Main Street and Bianculli View Corridor, the two primary pedestrian spines of the campus master plan pass through Site O and intersect near the center of the new Central Quad
- Major boundaries of Site O include:
 - the proposed pedestrian promenade connecting the entrances of the Campus Center and JFK Library
 - the future pedestrian path between the Campus Center and the athletic fields that will pass by the front of Site O and between Quinn Administration Building and Clark Athletic Center
 - the pedestrian/view corridor between the Calf Pasture Pumping Station and the waterfront

- the existing pool house which, if replaced, could provide an annex for Site O
- Before the start of construction, development of Site O will require: relocating 202 parking spaces, currently a temporary parking lot on the campus tennis courts

Urban Design Guidelines

Site O has been selected as the location for General Academic Building #1 (GAB #1). The adjacent page summarizes urban design guidelines that maximize the development potential of Site O while supporting the long-term campus master plan.

Key guidelines include:

- Provide a prominent academic building edge that is at least four stories in height to define the northeast boundary of the future Central Quad
- Locate the main entrance to Building O at the intersection of the pedestrian/view corridor from Bianculli Boulevard and Main Street
- Provide an easement for “Main Street” through Site O — includ-

ing as necessary, a prominent open air portal at the ground level — to freely allow pedestrian access between the Campus Center and the future student residential precinct

- Accommodate the smooth landscape transition at the southern edge of the site between the Central Quad and Site B
- Building edges should frame and reinforce prominent view corridors and pedestrian paths along the boundaries of Site O, including:
 - the promenade between the Campus Center and JFK Library
 - the pedestrian connection between the Campus Center and the BCHS athletic fields
 - the visual axis between the Calf Pasture Pumping Station and the waterfront

The following additional pages illustrate study concepts for Site O to demonstrate the development and massing feasibility of the parcel. Advantages and disadvantages, and approximate sizes of development are summarized for each concept.

Site O Development Concepts

Concept 1 — Bifurcated Wings

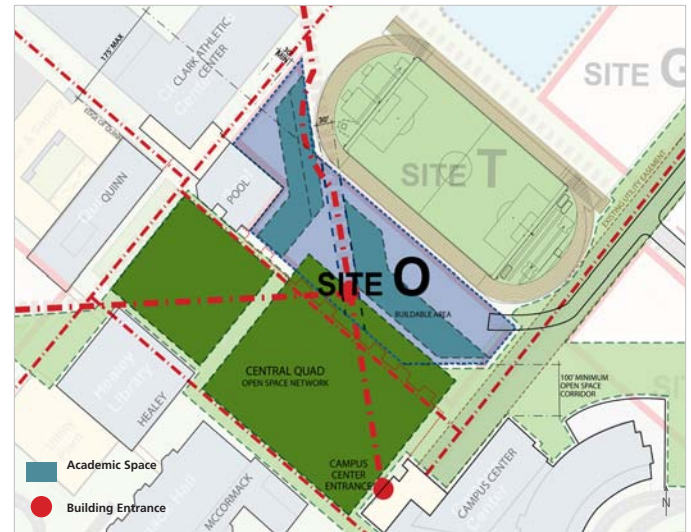
Advantages:

- The offset of Building O's wings suggests an option to design the Central Quad with two distinctive halves
- The entrance to Building O may be distinguished by an entry plaza at the intersection of Main Street and the campus gateway axis
- Variety of open spaces offers multiple programming choices

Disadvantages:

- Ground Level of the west wing needs to be setback to accommodate Main Street
- The Central Quad may appear too wide along the front of Building O's setback

Site O Plan



Site O Concept Plan 1

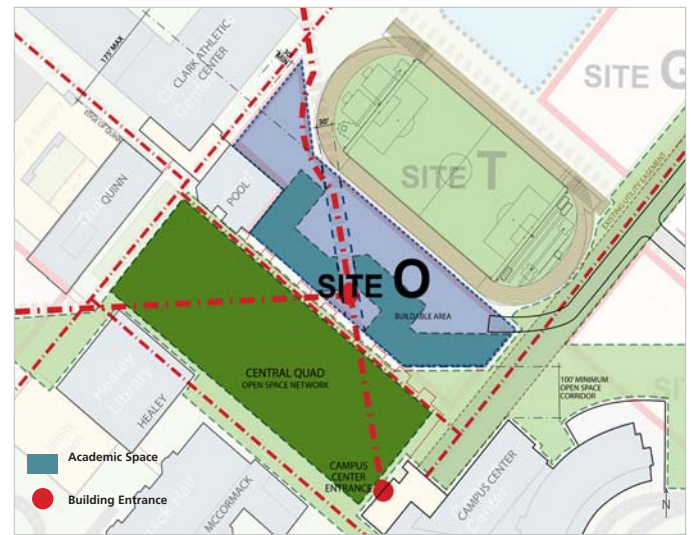
Concept 2 — Articulated Edge

Advantages:

- Provides an edge to the Central Quad, suggesting a dimension comparable in size and proportion to Harvard Yard
- The entrance to Building O provides a wide portal to Main Street at the center of the Central Quad
- Building O's east end helps to emphasize and direct Central Quad's connection to Site B and the waterfront beyond

Disadvantages:

- The long southern edge of Building O is very close to the edge of the existing Substructure, that would make construction cumbersome



Site O Concept Plan 2

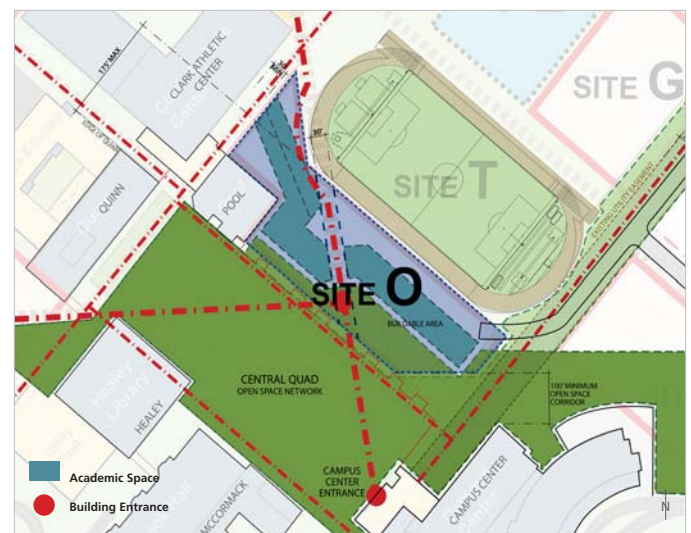
Concept 3 — Sinuous Edge

Advantages:

- Emphasizes the flow of the open space network from the West Campus Gateway, through the Central Quad, and onto the waterfront
- Variety of open spaces offers multiple programming choices
- Building O's setback is a comfortable distance from the existing Substructure, facilitating construction

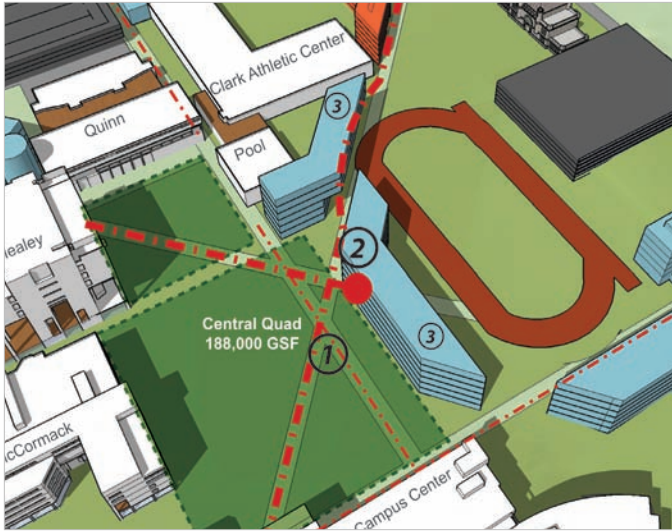
Disadvantages:

- Rear open spaces are close to running track, limiting their programming and use
- The Central Quad may appear too wide along the front of Building O's setbacks



Site O Concept Plan 3

Site O Bird's Eye View

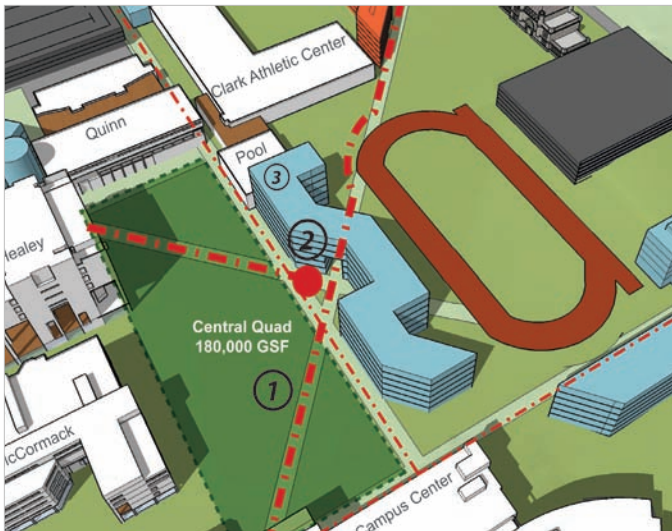


Site O Concept Massing 1

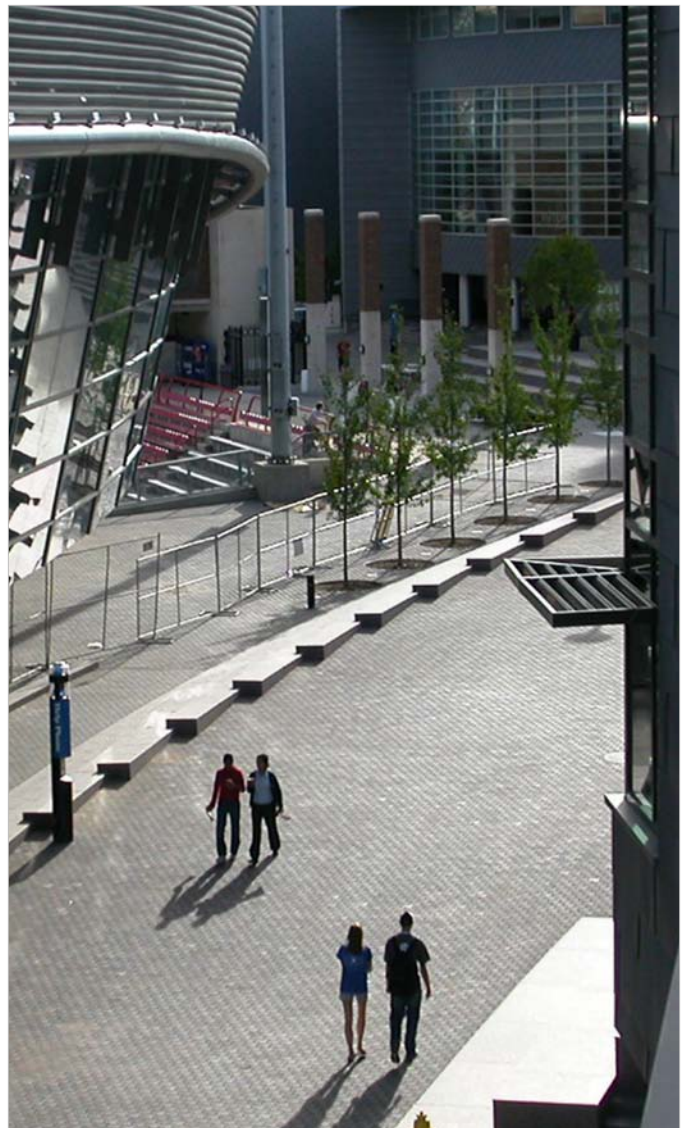
Site O Landscape Concept



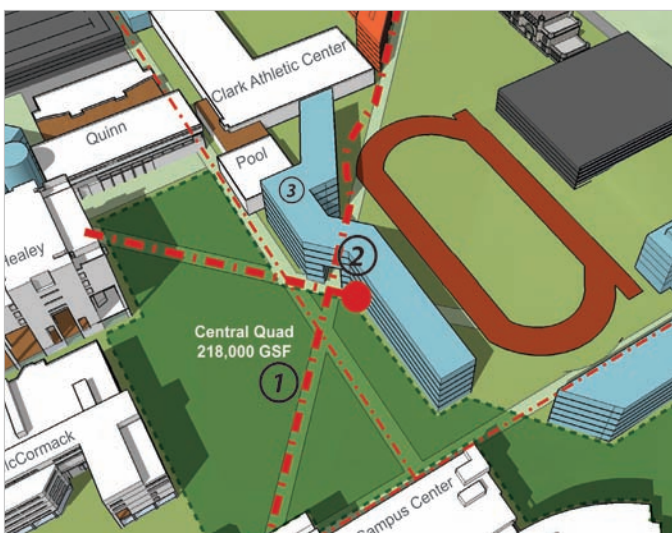
Pedestrian spine and view corridor, Columbia University



Site O Concept Massing 2



'Main Street', the campus main street at University of Cincinnati



Site O Concept Massing 3

Site T Alternate Development Concepts (with Relocated Running Track)

Although Site O is large enough to build a 6-story, 250,000 square foot academic facility, it is a difficult site to maneuver around during construction. With the 25-foot high wall of the Substructure on one side, and a running track on the other side, the construction zone would be restricted for the staging of materials and equipment, and the flow of construction vehicles.

If the running track and soccer field can be relocated elsewhere, then Site T, located between Site O and Garage PE/ Site G, would allow not only more room to construct on Site O, but also offer more choices for planning and designing the area if Site T, the running track site, is combined with Site O. Alternatively,

if the running track is relocated in the future, Site T may be considered as future expansion of Site O or other academic growth. Key features of Site T development include:

Advantages:

- Pedestrian access to the Central Quad and other academic buildings from Garage PE would be more direct by walking through a permeable academic complex instead of around a large contiguous running track
- Site O could be enlarged by Site T for considering a larger academic building; or Site T may be developed at a later phase as an addition to Site O or as a separate

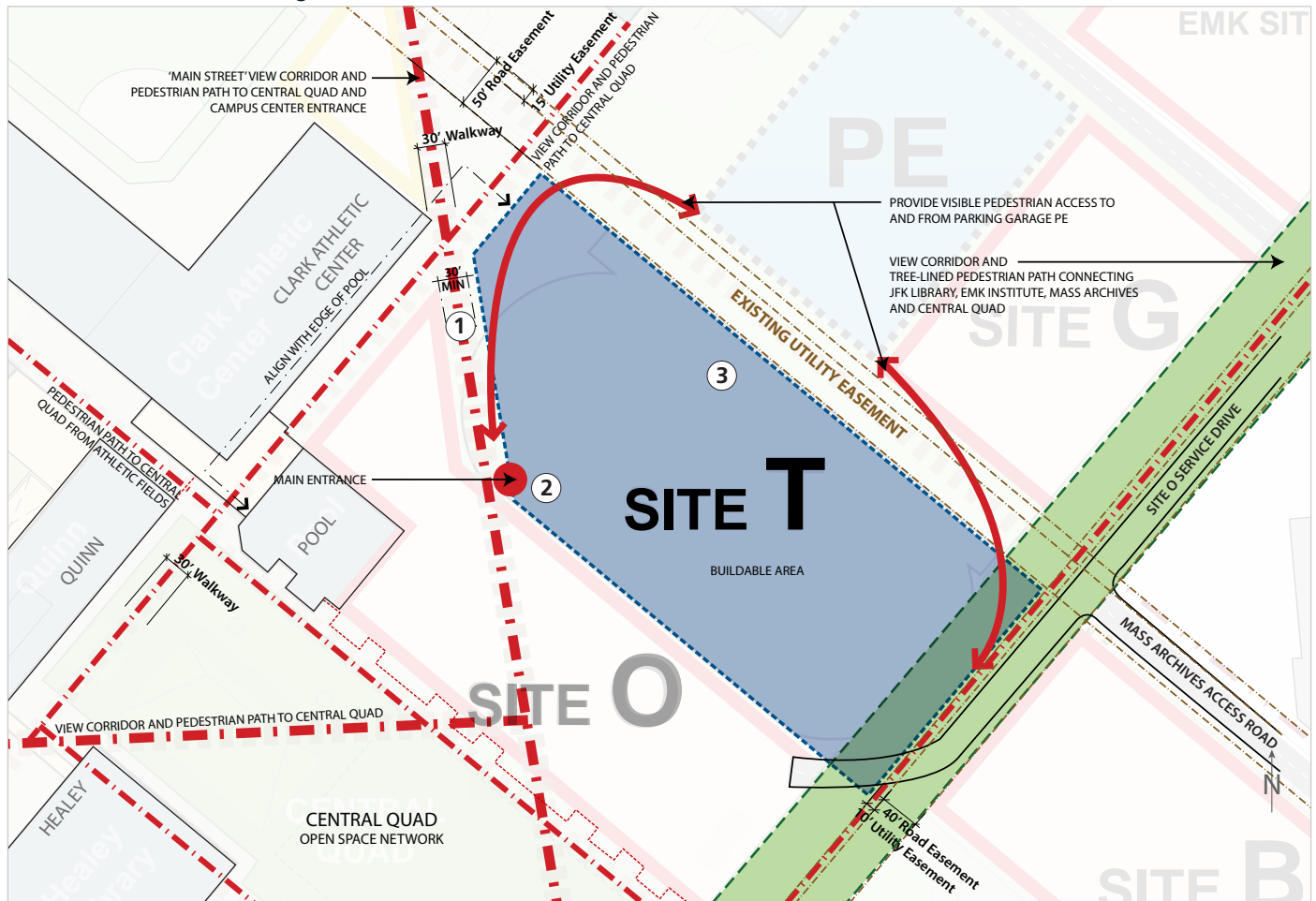
academic building(s)

- Garage PE could be enlarged to increase parking efficiency and/or lower the garage height, or increase capacity at the original height
- More opportunities to activate the edges along the path between Campus Center and JFK Library and along Main Street

Disadvantages:

- Requires relocation of the running track/soccer field
- Existing utility easement (existing University Drive North) between Site T and Site PE constrains development over the easement

Alternate Site T Urban Design Guidelines

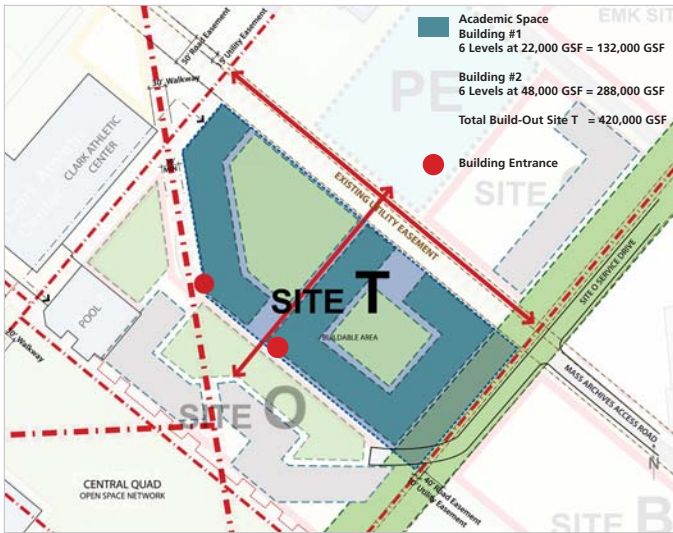


Alternative Site T Plan

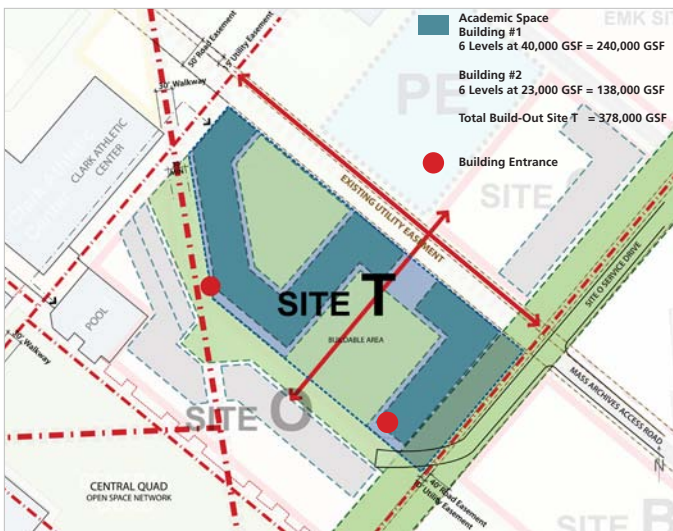
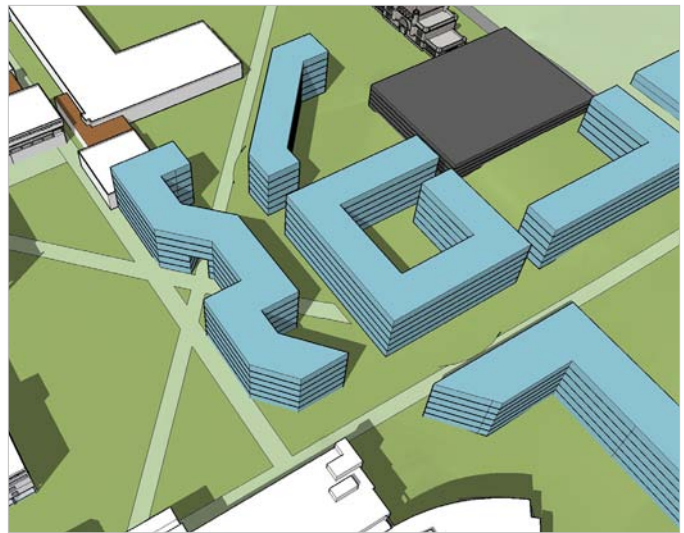


Site T Alternate Concept Plan 1

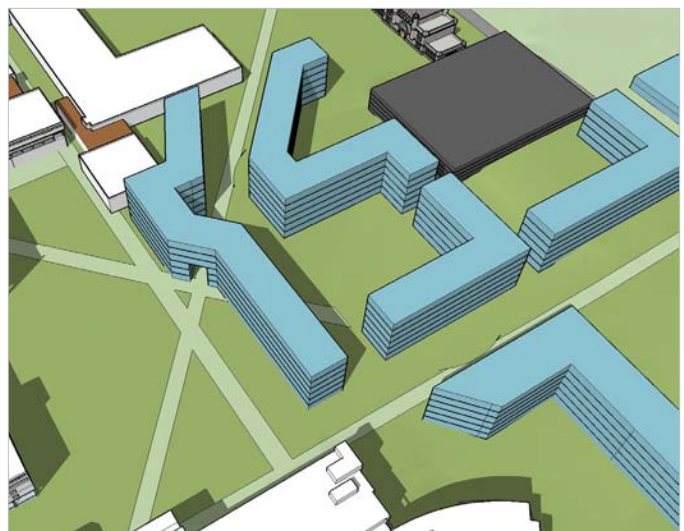
Alternative Site T Bird's Eye View



Site T Alternate Concept Plan 2



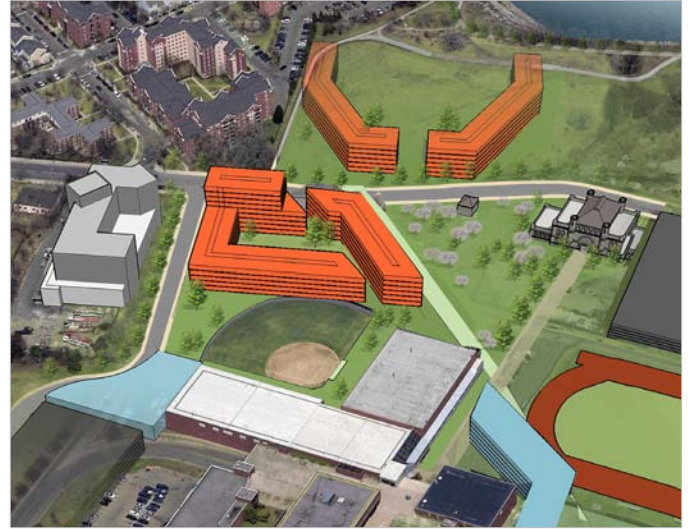
Site T Alternate Concept Plan 3



Development Site R1



Existing juncture of Mt. Vernon Street and University Drive, the campus loop road



Site R1 in foreground and future R2 beyond

Site Characteristics

Development of Site R1 is the preferred location for Phase One of a proposed student residential precinct. Key features of the site include:

- Site R1 is a transition zone between nearby neighborhood residential buildings and the north-west quadrant of the campus
- Major boundaries of Site R1 include:
 - “Main Street”, that will connect Campus Center to the student residential precinct and the north waterfront
 - North Campus Gateway where Mt. Vernon Street intersects with University Drive West and relocated University Drive North
 - Softball field and athletic facilities immediately to the south
- An existing utility easement constricts development along the eastern edge of Site R1 and along the south boundary around the softball field
- Development of Site R1 will require relocating 300 parking spaces

before start of construction

Urban Design Guidelines

The adjacent page summarizes urban design guidelines that maximize the development potential of Site R1 while supporting the long-term campus master plan.

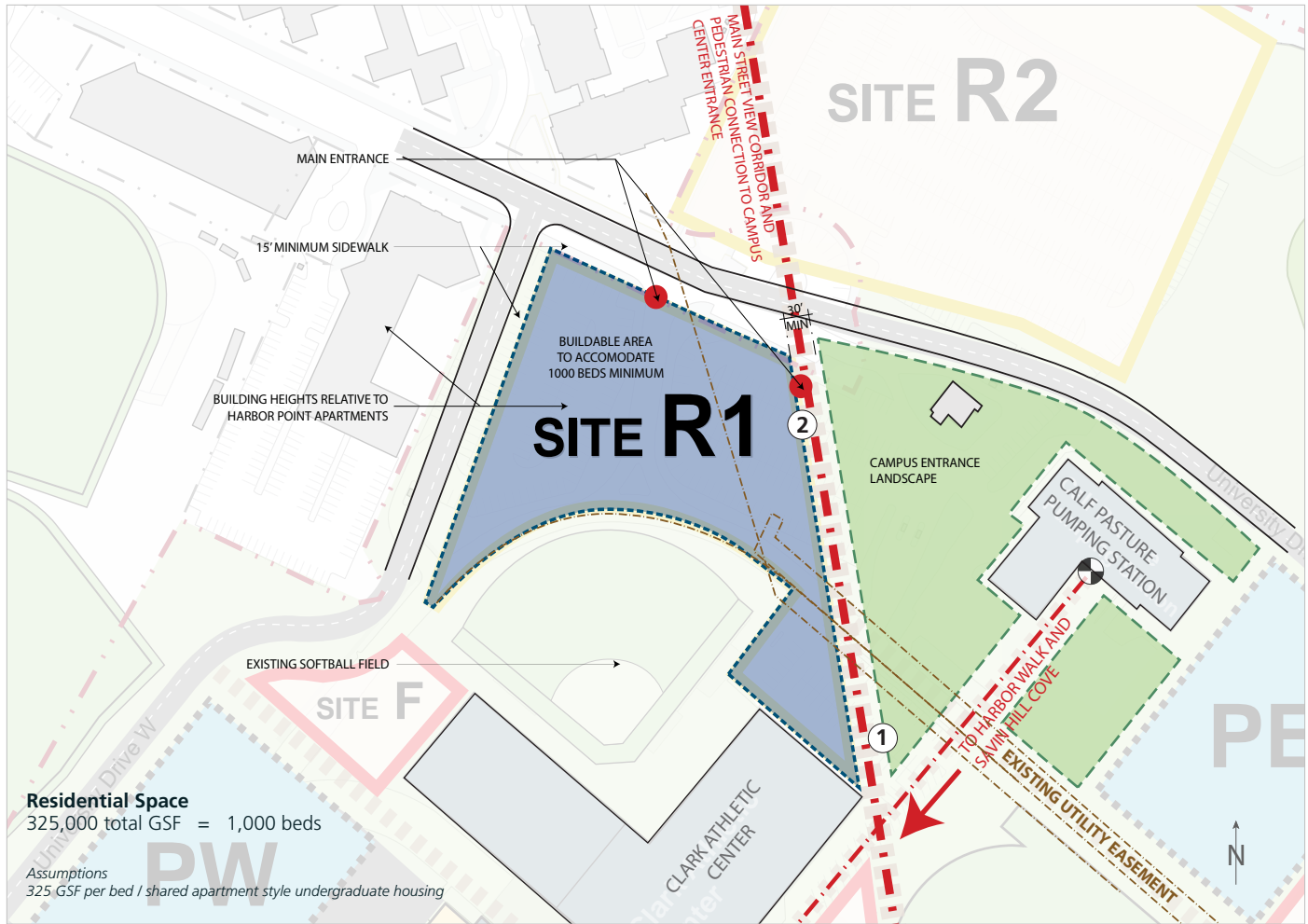
Key guidelines include:

- Reinforce the edges of adjacent streets to help activate pedestrian activity along the sidewalks, and provide commercial, community, or relevant academic uses that may both serve the campus and the neighborhood, such as: restaurants, convenience commercial services, community services, public library, meeting and training rooms, and fitness center
- Mediate the heights of student residence halls to create a transition in scale between neighborhood residences and campus academic buildings
- Reinforce and help frame prominent lines of sight, view corridors, pedestrian paths, and landscape, including:

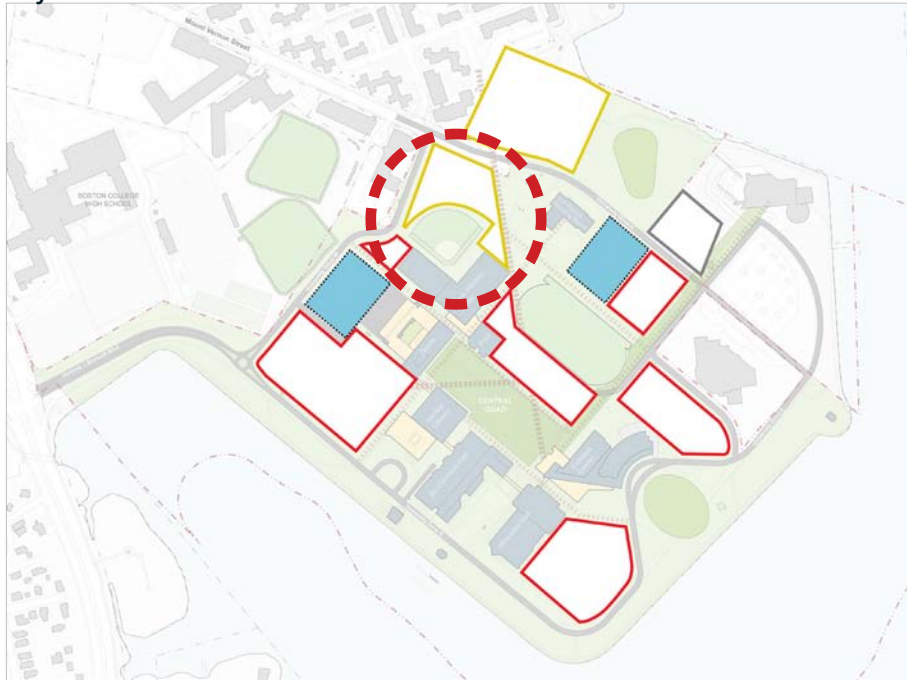
- surrounding streets: Mt. Vernon Street, University Drive West, and “Main Street”
- residential open space to support and complement student residences
- Building edges and heights should help frame the north campus gateway at: (a) the Campus Gateway intersection; (b) along the street edge of Mt. Vernon Street; and (c) Main Street, especially the plaza between R1 and Calf Pasture Pumping Station; and (d) University Drive West.

The following additional pages illustrate study concepts for Site R1 to demonstrate the development and massing feasibility of the parcel. Advantages and disadvantages, and approximate sizes of development are summarized for each concept.







Site R1 Urban Design Guidelines



Key Plan



Site R1 Urban Design Guidelines Key

- ① Maintain public right-of-way at ground level for Main Street connection to Campus Center
- ② R1 entrance visually accessible from Main Street
-  Building Site Precinct
-  Open Space Precinct
-  Primary Connection
-  Secondary Connection
-  Main Entrance
-  Existing Underground Utilities

Site R1 Development Concepts

Concept 1 — Open Courtyards

Advantages:

- Multiple courtyards provide choices for the resident's use and programming
- The linearity and openness of the courtyards reinforces the urban character of the building
- Long building bars maximize building footprint, offers efficient floor plates, minimizes height, and frames the street edges and the plaza in front of the Calf Pasture Pumping Station
- The softball field has a sense of enclosure across its perimeter

Disadvantages:

- The openness reduces the privacy of the courtyards

Concept 2 — Semi-Private Courtyard

Advantages:

- Large, singular curved courtyard provides distinctive centerpiece to residence hall
- Long building bars maximize building footprint, offers efficient floor plates, minimizes height, and frames the street edges and the plaza in front of the Calf Pasture Pumping Station
- The softball field has a sense of enclosure across its perimeter

Disadvantages:

- The openness reduces the privacy of the courtyard

Concept 3 — Private Courtyard

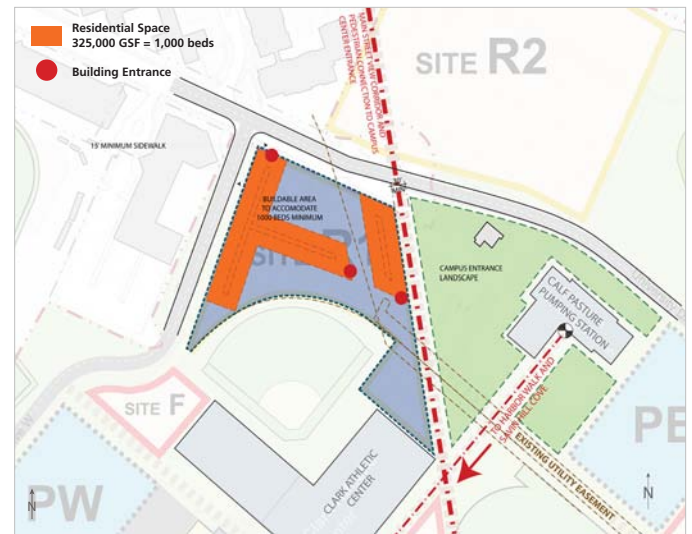
Advantages:

- Central private courtyard provides secure centerpiece to residence hall
- Perpendicular wings maximize building efficiency, minimizes height, and frames the street edges and the plaza in front of the Calf Pasture Pumping Station
- The linear footprint reinforces the urban character of the building
- Multiple open spaces provide choices for the resident's use and programming

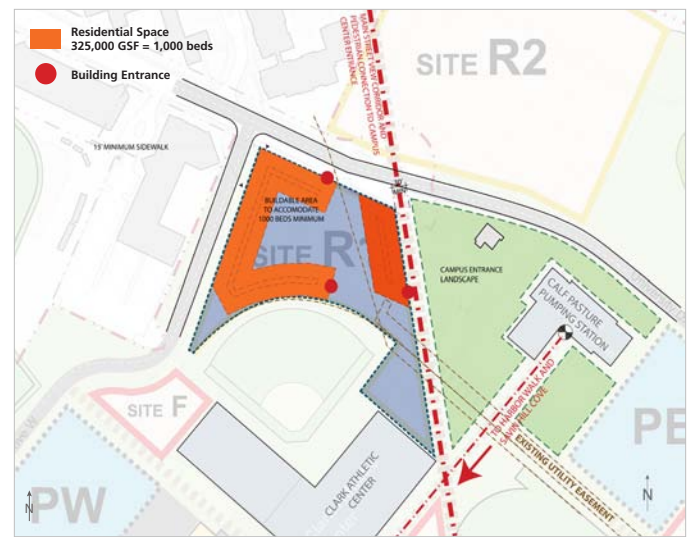
Disadvantages:

- The surroundings around the softball field are not well defined

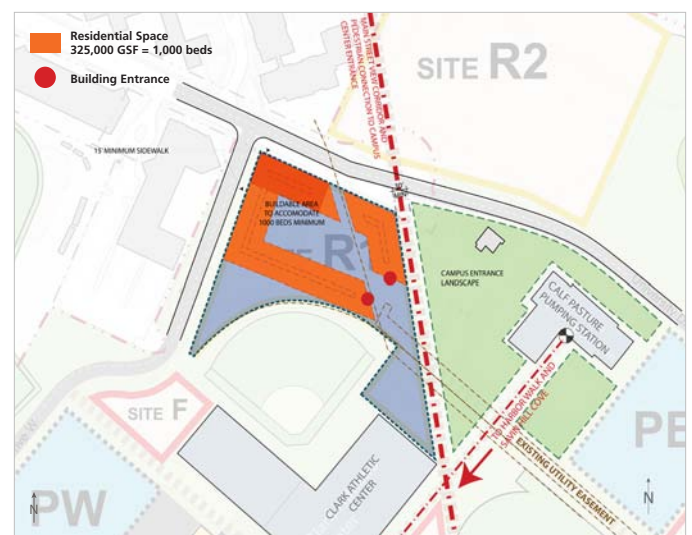
Site R1 Plan



Site R1 Concept Plan 1

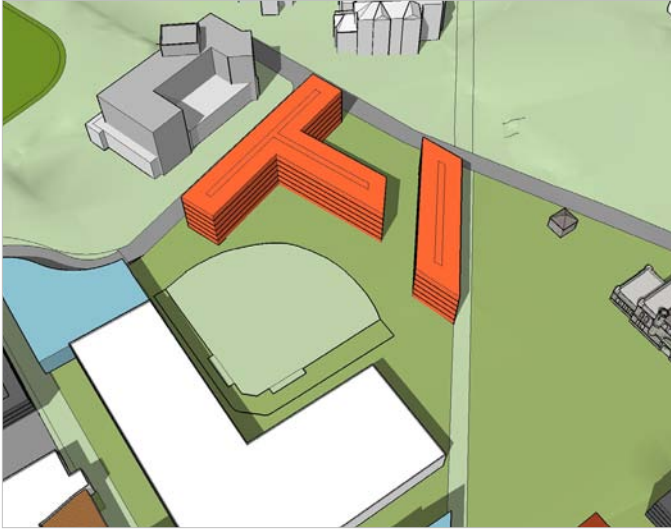


Site R1 Concept Plan 2



Site R1 Concept Plan 3

Site R1 Bird's Eye View



Site R1 Concept Massing 1

Site R1 Landscape Concept



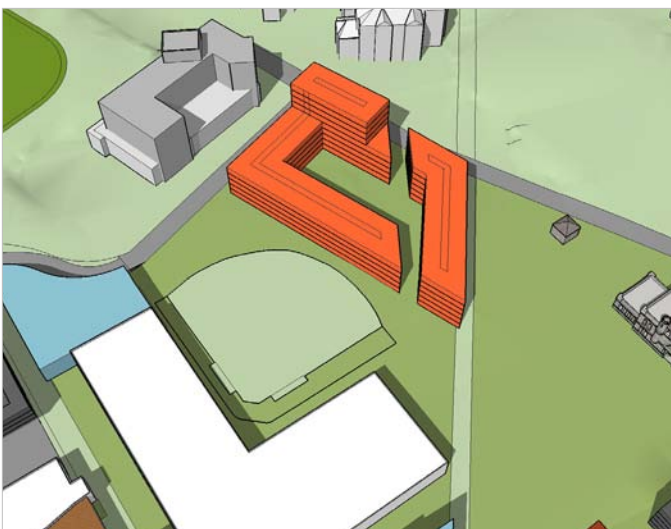
Student residence hall flanking campus portal facing city street, Clark University



Site R1 Concept Massing 2



Interior quad at night through residential portal, Northeastern University



Site R1 Concept Massing 3



Housing above street level mixed uses, Rue de Meaux, Paris, France

Development Site R2



Existing intersection of Mt. Vernon Street and campus loop road



Site R2 in background and Phase One R1 in the foreground

Site Characteristics

Development of Site R2 is the preferred location for Phase Two of a proposed student residential precinct. Key features of the site include:

- Site R2 is a transition zone between adjacent residential buildings and the northwesternmost corner of the campus, and between the campus and the north shore of the waterfront
- Major boundaries of Site R2 include:
 - Main Street leading to the center of campus and Campus Center
 - Mt. Vernon Street connected to University Drive North
 - Harbor Point Apartments residential neighborhood
 - HarborWalk, north harbor common, adjacent wetlands, and mature tree clusters
- Pre-established “Main Street” extends from Campus Center to Site R2 and the waterfront
- Development of Site R2 will require relocating 470 parking spaces before the start of construction

Urban Design Guidelines

The adjacent page summarizes urban design guidelines that maximize the development potential of Site R2 while supporting the long-term campus master plan.

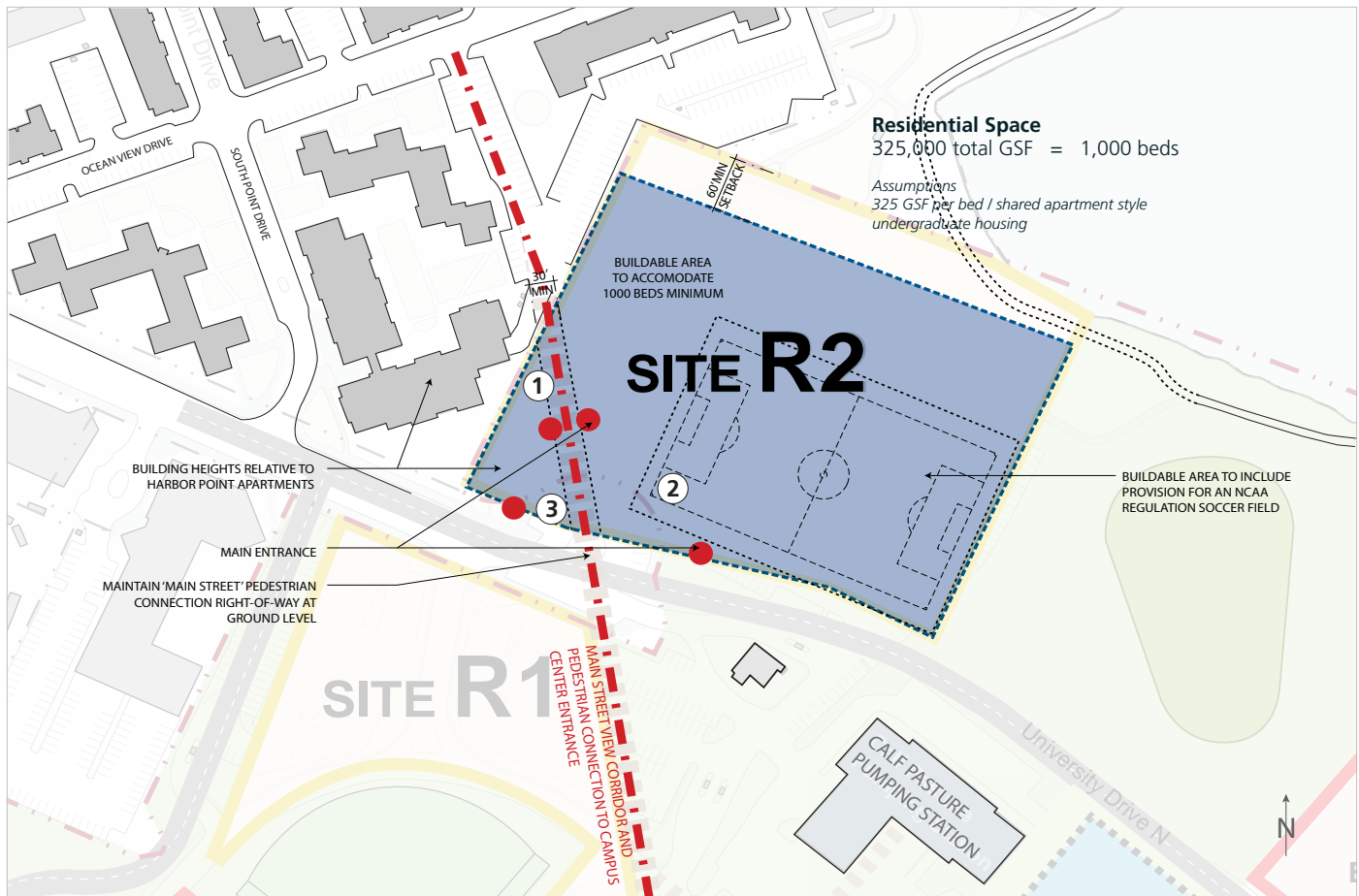
Key guidelines include:

- Reinforce the edge of Mt. Vernon Street/University Drive North with functions that will help activate the sidewalks
- Provide commercial, community, or relevant academic uses that may both serve the campus and the neighborhood, such as: restaurants, convenience commercial services, community services, public library, meeting and training rooms, and fitness center
- Mediate the heights of student residence halls to transition in scale between neighborhood residences and campus academic buildings, and between the residence halls and the waterfront
- Reinforce and help frame prominent lines of sight, view corridors, and pedestrian paths, including:

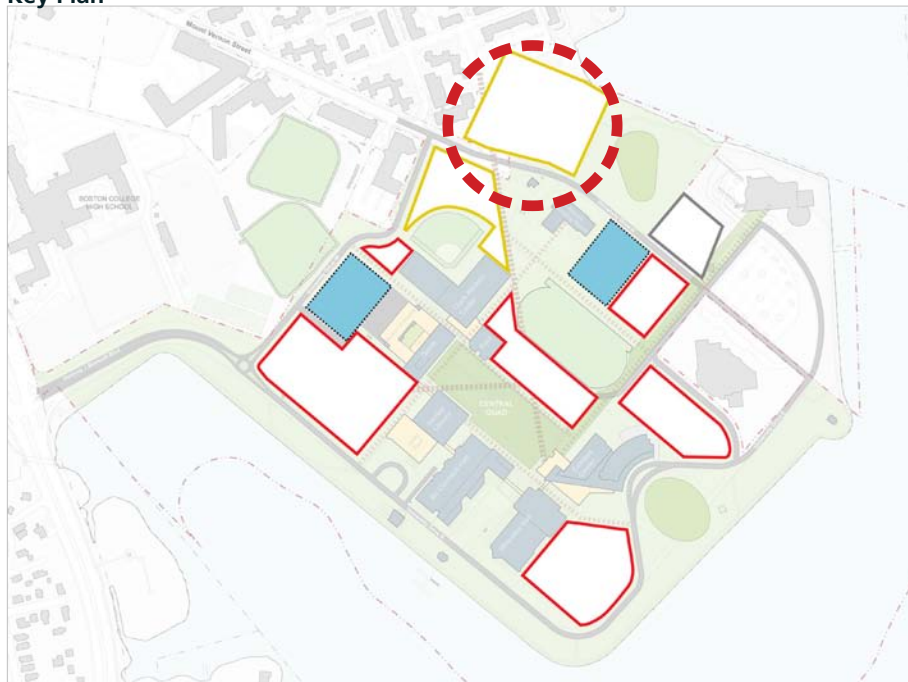
- Mt. Vernon Street
- University Drive North
- “Main Street”
- Building edges and heights should help frame the North Campus Gateway at:
 - (a) the intersection between Mt. Vernon Street, University Drive North, and University Drive West;
 - (b) the Campus Gateway Landscape created around the Calf Pasture Pumping Station;
 - (c) the portal over leading to Campus Center.
- Option to provide a soccer field to expand recreational opportunities on campus

The following additional pages illustrate study concepts for Site R2 to demonstrate the development and massing feasibility of the parcel. Advantages and disadvantages, and approximate sizes of development are summarized for each concept.






Site R2 Urban Design Guidelines



Key Plan



Site R2 Urban Design Guidelines Key

- ① Maintain public right-of-way at ground level for Main Street connection to Campus Center
- ② NCAA Regulation Soccer Field
- ③ R2 entrance visually accessible from Main Street
-  Building Site Precinct
-  Open Space Precinct
-  Primary Connection
-  Secondary Connection
-  Main Entrance

Site R2 Development Concepts

Concept 1 — Boston Garden

Advantages:

- A compact residential complex around a central courtyard
- Edges help to define Main Street and optional soccer field
- Building setbacks maximize preservation of open space

Disadvantages:

- Main Street acts more like a portal to Harbor Point Apartments than it does to UMass Boston residences
- Building minimally engages the street
- Building has a fortress image

Site R2 Plan



Site R2 Concept Plan 1

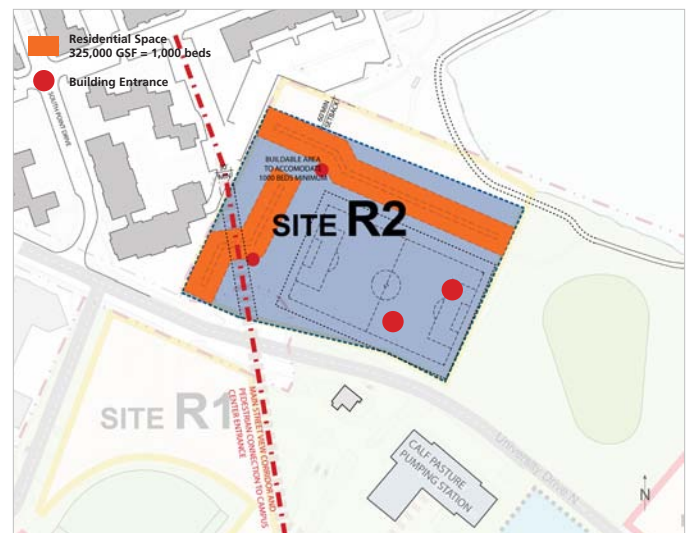
Concept 2 — Residential Quad

Advantages:

- Diverging wings embrace the space around them, especially the optional soccer field
- Building setbacks maximize preservation of open space
- Building entrance is on axis with Main Street

Disadvantages:

- Building minimally engages the street
- Building acts like a wall against Harbor Point Apartments
- Open space lacks privacy for student residents



Site R2 Concept Plan 2

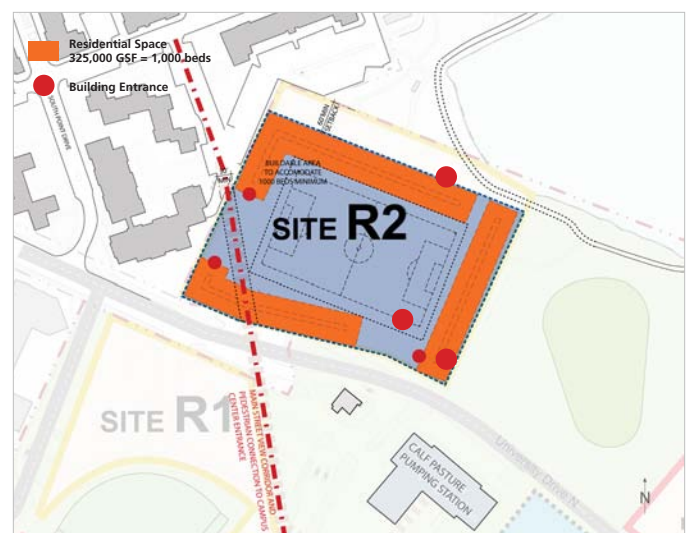
Concept 3 — Residential Courtyard

Advantages:

- Building edges reinforce the edge and activities along Mt. Vernon Street and the relocated University Drive North, and help to define North Campus Gateway around Calf Pasture Pumping Station
- Offers options to control amount of openness and privacy in courtyard
- Building entrance helps to terminate Main Street

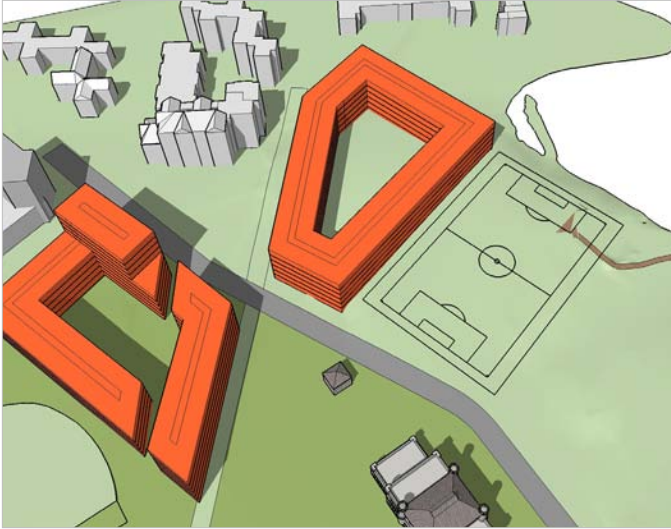
Disadvantages:

- Perception of large complex that reduces amount of open space

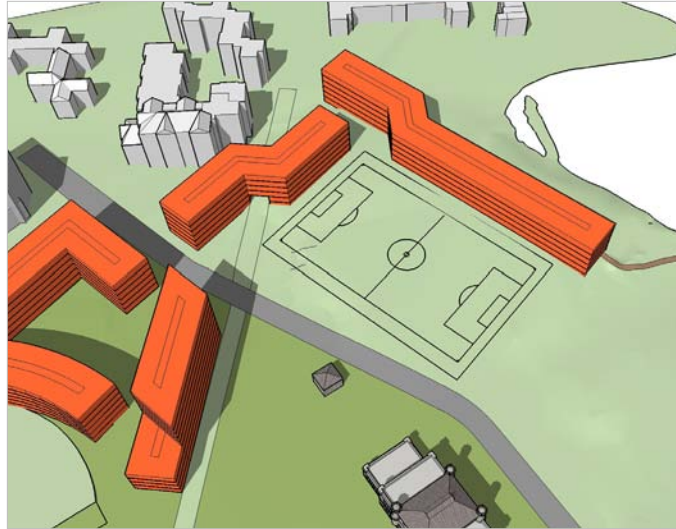


Site R2 Concept Plan 3

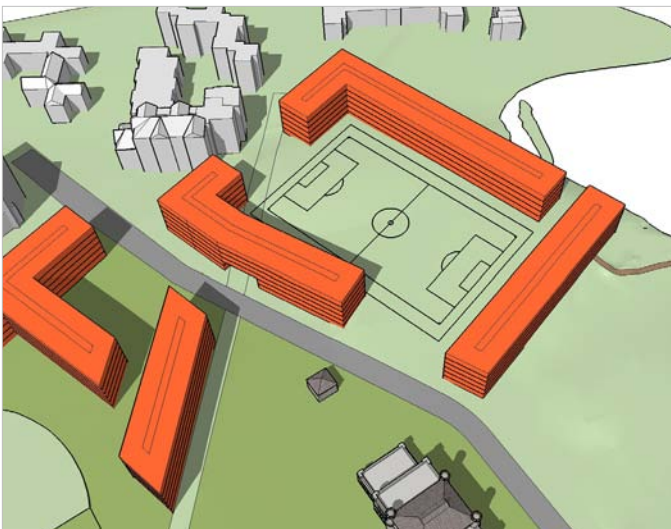
Site R2 Bird's Eye View



Site R2 Concept Massing 1



Site R2 Concept Massing 2

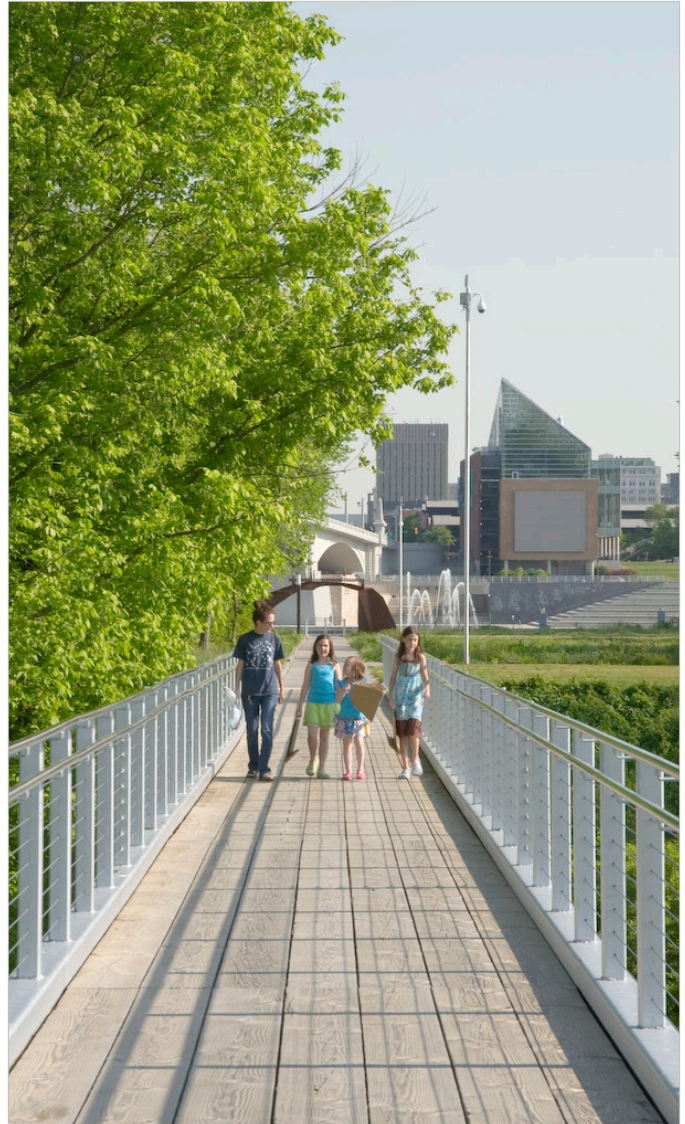


Site R2 Concept Massing 3

Site R2 Landscape Concept



Open Space, Houston Downtown Park



View corridor and pedestrian pathway, Renaissance Park, Chattanooga, Tennessee

Conceptual 10-Year Illustrative Campus Master Plan

The 25-Year Campus Master Plan establishes a blueprint for enhancements that include: new open spaces, landscape, pedestrian circulation, view corridors, and improved correspondence between buildings and between buildings and their adjoining landscapes. The plan provides a wide latitude of interpretation for design as demonstrated in the conceptual plans and massing studies shown for each development parcel. This flexibility of the plan allows the Division of Capital Asset Management (DCAM) and the University of Massachusetts Boston (UMass Boston) to adjust and adapt the plan to respond to changing circumstances, such as: curriculum adjustments, pedagogical changes, demographic preferences, funding availability, enrollment fluctuations, transportation evolution, environmental conservation, code changes, and impact of adjacent development.

The illustration presented here is outside the campus master planning process and an exercise in visualizing what the UMass Boston campus plan may look like after the first 10 years based on the established 25-Year Campus Master Plan, conceptual studies, and urban design guidelines presented above.

In addition to the features established in the Campus Master Plan, this conceptual illustrative plan offers the following characteristics for the first phase of campus development:

LANDSCAPE & CIRCULATION

- **Realigned University Drive Loop Road** — The conceptual illustrative plan maintains the loop road configuration as shown in the 25-Year Campus Master Plan but enhances it by smoothing out the S-curve in University Drive West, making it easier to navigate from both a vehicular, bicycle, and pedestrian point of view.
- **“Main Street”** — The conceptual illustrative plan believes that “Main Street”

does not need to be emphatically straight, but may shift slightly eastwards to provide the following benefits: (a) a more direct connection to the student residences and the waterfront; (b) an enhanced visual gateway for Main Street more directly framed by the Calf Pasture Pumping Station; (c) offer more land area to Site R1, allowing for better development opportunities on a site otherwise restricted by extensive underground utilities and easements; (d) offer an opportunity for a future entrance addition to Clark Athletic Center that faces the North Campus Gateway, Mt. Vernon Street/University Drive North, and Garage PE; and (e) more logically curve around the rebuilt running track and under a first level loggia of Building O.

- **First Phase of the Primary Campus Landscape Network** — The campus landscape network begins to take shape with the construction of the West Campus Gateway Landscape on Site A (1.9 acres), the Central Quad (4.2 acres), and East Harbor Common (2.7 acres added). This network, combined with Main Street, begins to establish connections through the campus to the waterfront for the first time.
- **Replace and Relocate the Utility Infrastructure**

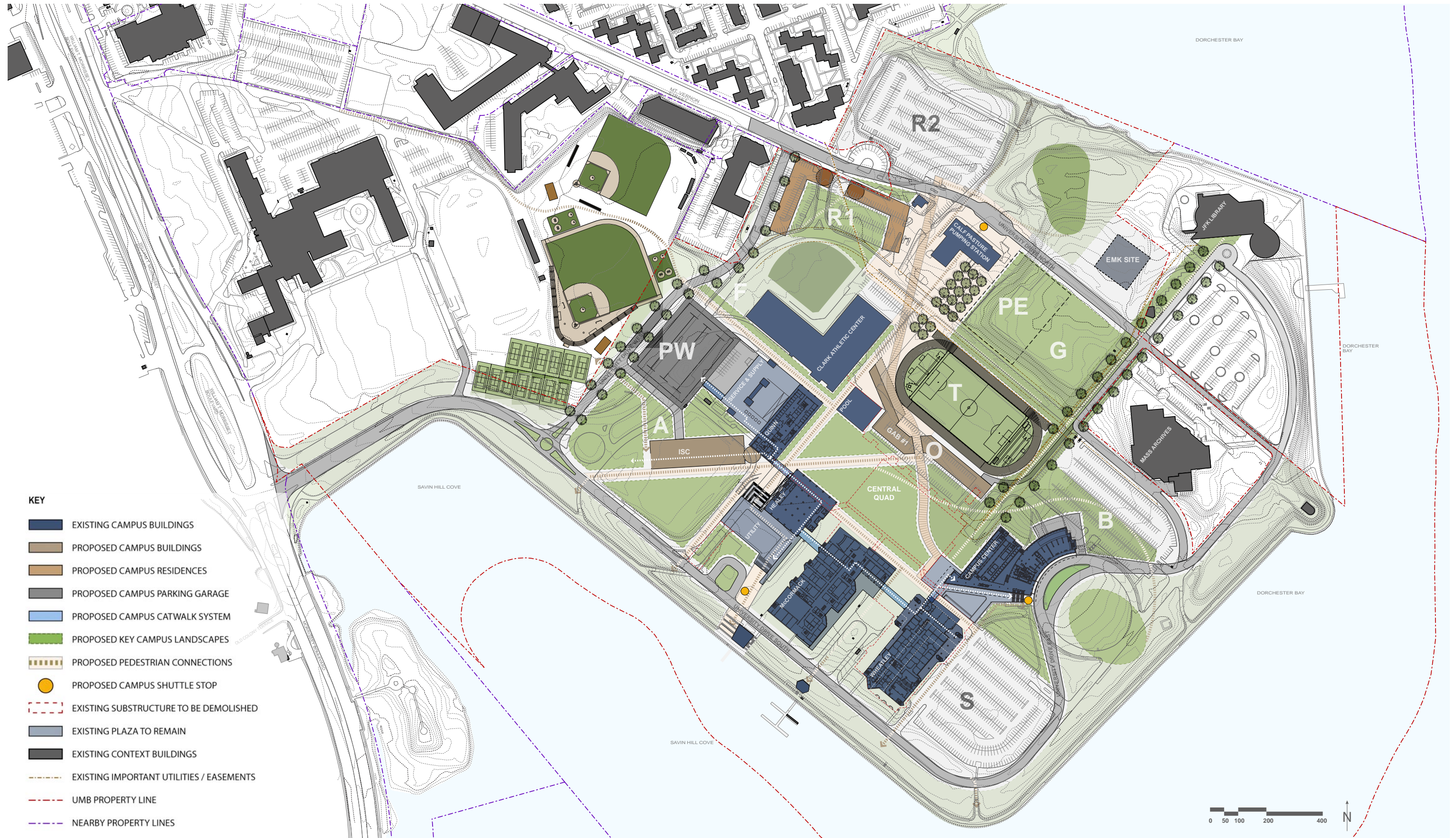
- **Construct New Athletic Fields**

ACADEMIC & RESIDENTIAL BUILDINGS

- **New Integrated Sciences Complex (ISC) on Site A** — The new ISC can easily be accommodated on Site A. The building shown on Site A meets the ISC requirements with a 33,000 GSF footprint and a total GSF of 166,500 (5 floors). The development of Site A also includes the West Campus Gateway Landscape (1.9 acres) between the ISC and Healey Library — the initial end of the overall Primary Campus Landscape network for the UMass Boston campus.

- **New General Academic Building (GAB) on Site O** — The site chosen for GAB #1, Site O, can easily accommodate a 252,000 GSF building (42,000 GSF/fl on 6 levels). Site O can be developed while leaving enough space to work around the existing track as well as the existing Substructure prior to its demolition. Site O plays a critical role in shaping the center of campus in the first phase and creating a sense of place and identity for the UMass Boston community.
- **First Phase of Student Residences on Site R1** — Existing underground utilities and easements restrict the development opportunities of Site R1 as shown in the 25-Year Campus Master Plan and corresponding massing studies. The 10- and 25-year conceptual illustrative plans address this issue by shifting “Main Street” slightly to the east, providing more land area for Site R1. The result is two residential buildings accommodating 390 beds each (325 GSF/bed) for a total of 780 beds, 1.82 acres of open space, and Main Street frontage, connecting the residences to the center of campus.
- **New Garage on Site PW** — The garage has a 78,000 GSF footprint which can accommodate up to 240 parking spaces per level (325 GSF/sp). While a portion of the ground level could accommodate Service and Supply loading needs, Garage PW has a capacity of up to 1,400 cars on 6 levels.
- **Renovate Selected Areas within Existing Academic Buildings**
- **EMK Institute for the U.S. Senate** — The concept plan incorporates an important landscape element within the first 10 years to strengthen the connection between UMass Boston Campus Center, Massachusetts Archives, EMK Institute & JFK Library.

The 10-Year Illustrative Campus Master Plan



Conceptual 25-Year Illustrative Campus Master Plan

The 25-year illustrative campus plan here is extrapolated from the official 25-Year Campus Master Plan and the many options studied, presented to, and considered by the Division of Capital Asset Management and the University of Massachusetts Boston. In addition to the elements included in the 10-year illustrative concept plan on the previous page, the 25-year illustrative concept plan offers the following additional concepts:

- **ISC Expansion on Site A** — Site A has the capacity to accommodate an additional science building of the same size and scale as the initial ISC facility — 166,500 GSF building (33,300 GSF/fl).
- **Site F & Site O** — The 25-year illustrative concept plan considers a new pool facility on Site F, freeing up the original Pool Building site for an ancillary addition to GAB No. 1 on Site O and to reinforce the northern perimeter of the Central Quad with a special, engaging use and physical edge, such as a large lecture auditorium or theatre.
- **Site B & Site G** — Both Site B and Site G present the opportunity to enhance the pedestrian connection between the center of campus, Massachusetts Archives, the EMK Institute, and the JFK Library & Museum. Site B, as shown, has a capacity of 285,000 GSF (47,500 GSF/fl, 6 floors); and Site G, as shown, has a capacity of 162,600 GSF (27,100 GSF/fl, 6 floors).
- **Site PE** — The garage has a 78,000 GSF footprint which can accommodate up to 240 parking spaces per level (325 GSF/space). In addition to possible commercial or other active functions on the ground level, Garage PE can accommodate up to 1,400 cars on 6 levels.

With the completion of Garage PE, the amount of traffic traveling through the campus will be significantly reduced as all the parking will be accessible from the perimeter rather than the heart of campus.

- **Site S & Wheatley Hall** — The exorbitant cost estimated by R.F. Walsh of renovating Wheatley Hall suggests that the building will be replaced in the future.

For replacement general academic buildings, the Wheatley Hall site has capacity for a 204,000 GSF building (34,000 GSF/fl, 6 floors); and Site S next door has capacity for a 234,000 GSF building (39,000 GSF/fl, 6 floors).

For replacement science buildings, the Wheatley Hall site has capacity for a 255,000 GSF building (51,000 GSF/fl, 5 floors); and Site S has capacity for a 295,000 GSF building (59,000 GSF/fl, 5 floors).

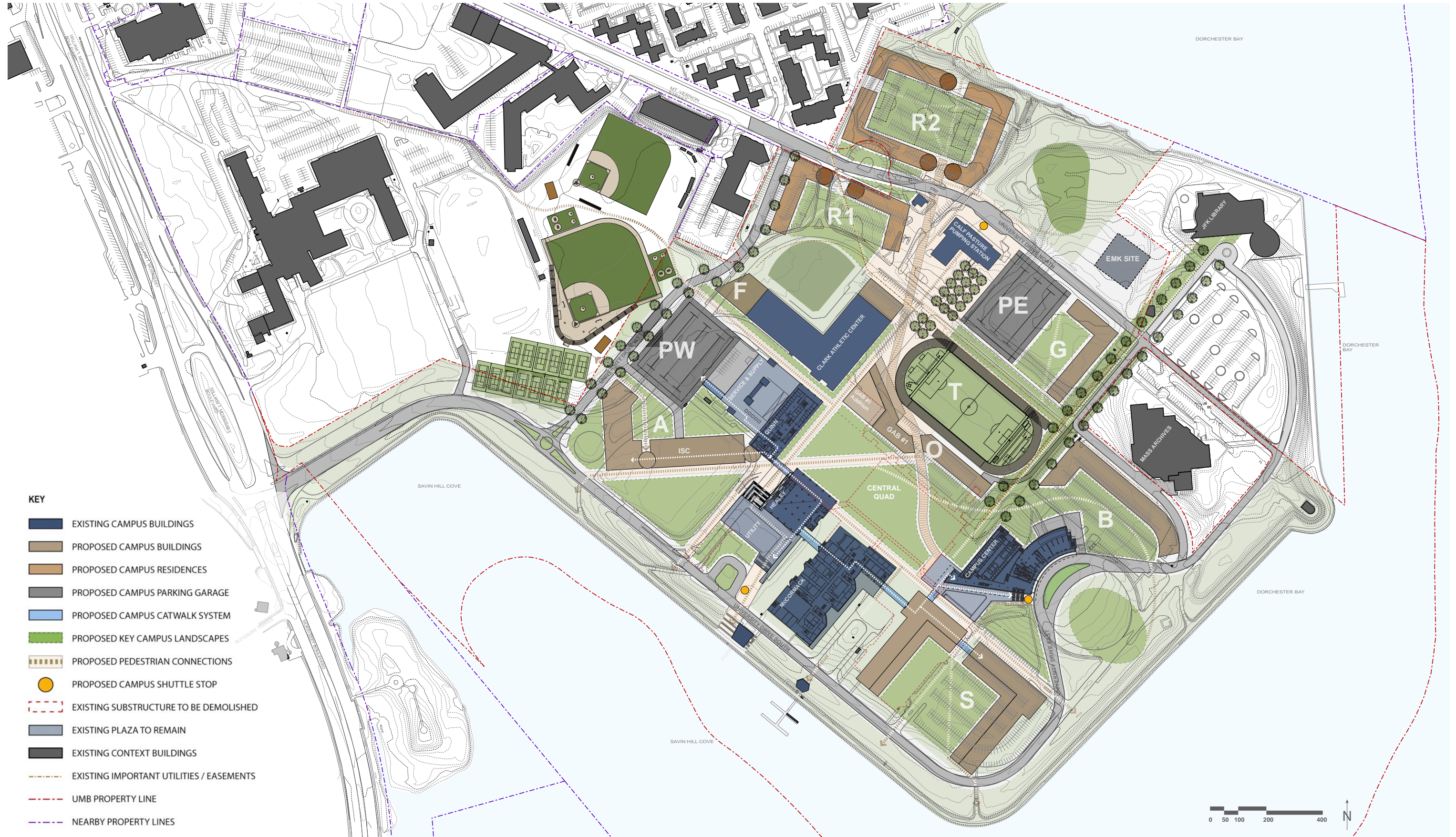
- **Site R2 With Soccer Field** — A soccer field that may be replaced due to the development of Site A can be incorporated within the development of Site R2.

As shown, Site R2 has capacity for the field along with space for 450,000 GSF of campus residences spread over 3 buildings. This amounts to about 1,380 beds (325 GSF/bed). When combined with the development of Site R1, the total student residences build-out will be at least 2,000 beds.

- **Clark Athletic Center Addition** — As noted briefly in the 10-year illustrative concept plan description, the slight shift of Main Street would allow an opportunity to provide a small addition to Clark Athletic Center that would provide a prominent street-oriented entrance on Main

Street that is easily accessible from the campus loop road, Garage PE, the bus drop-off at the Calf Pasture Pumping Station, and the student residences.

The 25-Year Illustrative Campus Master Plan



IV. APPENDICES

