



KEENE STATE COLLEGE

CAMPUS FACILITIES MASTER PLAN UPDATE

FINAL REPORT

APRIL 2004

THE SARATOGA ASSOCIATES

LANDSCAPE ARCHITECTS, ARCHITECTS, ENGINEERS, AND PLANNERS, P.C.
SARATOGA SPRINGS ■ NEW YORK CITY ■ BOSTON



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SECTION I: EXECUTIVE SUMMARY



“We need to renew the sense of excitement created by our planning process as well as the sense of responsibility and accountability for shared priorities.”

*Dr. Stanley J. Yarosewick, President
Keene State College
“Our Plan -1993” Status Report #3
September 2002*

Strengthening Our Community

1.1 Introduction

Keene State College focuses primarily on providing undergraduate education that serves the citizens of New Hampshire and the region. Founded in 1909 as Keene Normal School, the institution became Keene Teachers College in 1939. It was renamed Keene State College in 1963, when it became affiliated with the University System of New Hampshire (USNH). Today the 175+/- acre College has an enrollment of over 5,000 full and part time students. Keene State College offers liberal arts education with programs in the arts, humanities, and sciences, as well as programs based in the “applied” liberal arts, designed to prepare students for specific professional careers. The College is located on Main Street in Keene, New Hampshire a small New England city founded in 1753, with a population today of approximately 23,000 residents. The historically positive “town-gown” relationship, and picturesque “college town” atmosphere, is often cited as a strategic benefit mutually worth strengthening.

Campus Plan Update 2004

Keene State College’s previous Campus Master Plan was approved by the University System of New Hampshire (USNH) in January 1993. Over the past ten years the College has successfully implemented several major facility projects described in the 1993 Master Plan and achieved many of its goals, including enrollment growth. In the Spring of 2003, the College embarked on a year long effort to update the ten-year old Campus Plan. The desired outcome of this effort was to align the institution’s focused “functional planning,” dealing with academic, facilities, budget, technology and enrollment issues, with an updated broad-based “institutional planning” perspective.

Planning Process Goals

The “Campus Facilities Master Plan Update” issued in Spring 2004, successfully accomplishes three primary facilities planning goals.

- *Inclusive Planning Process*

The process of developing the College’s Campus Master Plan involved wide representation and hands-on involvement of the entire campus community. The basic approach considers perceived “user needs” inherently valid. This allows discussion, in light of peer institutional “benchmarking,” to evolve around relative priority, versus validity, of needs. Since the planning process must achieve

closure, numerous facilitation activities are included in the planning process, including: periodic Advisory Committee meetings; questionnaires and interviews; campus-wide goal-setting sessions; and a multi-day on-campus planning “Charrette,” or interactive work session, that ensures participation and consensus building at all levels.

- *Communicates a Compelling Vision*
Visioning is the effective translation of the institution’s Mission Statement and Strategic Plan into a recognizable construct of what the College’s collective aspirations suggest it could be. Various means of narrative and graphics presentations are used to develop a vision based on key planning goals and concepts. Utilizing a variety of media, including campus planning web page, ensures dissemination to, and feedback from, the campus constituency during the entire planning process.
- *Provides a Flexible Planning Tool*
The College’s comprehensive campus planning addresses, in fact embraces, the inevitability of unforeseeable change on campus and in the surrounding community. In doing so, the College acknowledges that campus planning is not about predicting or prescribing the future, but rather providing the means to manage future change productively.

The final campus planning deliverable is not a bound static document, but rather one that provides the College with a dynamic on-going *planning tool* in the form of a three-ring notebook and digital data base, that allows periodic adjustments to reflect the realities of change. An “Implementation Plan” guides specific short and mid-term projects, while maintaining long-term options. Updating the Implementation Plan on a yearly basis maintains alignment of the institutional planning with the on-going functional planning, accomplishing the goal of “integrated planning.”

Master Planning Team

For the purposes of developing and enhancing the master planning efforts an extended team was assembled to guide the planning and design professionals. The College expanded its Facilities Planning Advisory Committee (FPAC) made up faculty/staff, students, and City of Keene representatives that took part in a cooperative process to arrive at the information published within this report. The Saratoga Associates congratulates all members of the Master Planning Team on the results of their hard work.

Keene State College Facilities Planning Advisory Committee Members:

- Sam Azzaro – Professor of Arts & Humanities
- Candice Brown – Student Representative
- Teresa Donnelly-Major – Director of Bursar’s Office

1.2 Facilities Assessment

Summary Findings

Keene State College accumulation of facilities' maintenance needs across the entire campus is estimated to be \$46.8 million. Included within this total need are \$14.4 million for buildings and \$2.4 million for site identified through comprehensive inspections by The Saratoga Associates and M/E Engineering. Extrapolation of the surveyed costs to the remaining KSC Buildings totaling \$29.9 million. More than 2,000 specific projects have been identified and estimated in order to develop the estimated need.

Of the surveyed buildings total \$14.4 million, \$9.6 million or two thirds, are considered sufficiently important to be designated priority 1 & 2 (with \$3.2 million or 22.2 percent for Priority 1 alone), and in need of attention within the next three years. Keene State College's proportion of high priority maintenance needs to the total inventory of need falls approximately in the middle third of similarly assessed institutions. Overall, the Priority 1 & 2 total demonstrates a significant maintenance accumulation. Life Safety/Code Updates (Priority 1) and Asset Preservation (Priority 2) issues represent the majority of facilities' needs.

Exhibit V-Section III graphically depicts the relationship between priority need and total need by maintenance system. This exhibit clearly demonstrates that of the total need, the greatest financial exposure is within the Mechanical systems followed by Electrical and Site/Infrastructure.

Of the surveyed buildings, maintenance needs identified within heating, ventilation, cooling, and other mechanical systems represent the largest area of total need at \$11.5 million, with \$7.2 million identified as Priority 1 & 2 need (and an additional \$4.3 million identified as Priority 3 & 4). The upgrade of building mechanical systems must receive priority attention throughout the campus. The bulk of the major heating and cooling equipment on campus is rapidly approaching or, in many cases, has already exceeded its useful life. In addition, significant continued attention to the campus primary electrical systems will be required in the future.

Of the surveyed building total, the interior space restoration needs throughout all the facilities inspected totaled \$450,200 with \$312,550 of Priority 1 & 2 need (and an additional \$137,650 identified as Priority 3 & 4). In general, the interior spaces of the College's main academic buildings are well maintained and in good repair. Much of the need identified is the result of interior finishes in buildings that have simply reached the end of their life cycle and appear worn.

Of the surveyed buildings total, \$1,103,700 was identified to address the exterior shell needs of the buildings inspected, of which \$926,000 has been designated Priority 1 & 2 (and an additional \$177,700 identified as Priority 3 & 4). Included are masonry repointing,

windows, and painting and caulking necessary to ensure the integrity of the buildings' envelopes.

Exhibit VIII-Section III places the total Assessed Project Cost of Keene State College's building needs (surveyed and extrapolated and site needs in a comparative context with physically and programmatically similarly surveyed institutions based upon the Building Identified needs - on a square foot basis. Keene State College's total need of \$28.66/GSF places in the middle of the institutions surveyed for the buildings included in this survey.

The emerging Master Plan will recognize the necessity of incorporating high-priority maintenance requirements in the decision-making processes. Instructional and residential programs are negatively impacted by the accumulation of maintenance needs. Future planning at the most senior level should include the phase-out of facilities with high priority maintenance needs.

The maintenance needs identified have evolved into recurring themes from which three strategic priority classifications have been developed. These Strategic Priorities should serve as the conceptual framework for the development of the Keene State College's deferred maintenance phase-out plan of the Surveyed building total:

- Envelope Integrity: \$1.0 million to arrest and prevent water intrusion and restore envelope integrity.
- Space Restoration: \$450,000 for interior space restoration, to maintain instructional program and residential life quality.
- Mechanical Reliability: \$6.3 million to improve the reliability of mechanical systems.

Note: Included across categories listed above is \$\$2,040,519 of the surveyed building total in Priority 4 Architectural and Engineering Facility Asset and Infrastructure improvements to enhance the user's experience and increase the asset values.

The Association of Higher Education Facilities Officers (APPA), National Association of College and University Business Officers (NACUBO), and Society of College and University Planners (SCUP) recommend that institutions spend annually between two and four percent of their buildings current replacement value on routine maintenance and capital renewal. Using appropriate 2003 costs, the replacement costs for all College buildings would amount to approximately \$140,000,000. The annual operating budget dedicated for planned maintenance should be \$4.2 million if Keene State College were to annually reserve 3 percent of its campus replacement value.

The KSC fiscal year 2004 (FY04) Operations and Maintenance Budget totals just under \$10 million.. Removing the approximately \$7.2 million operational and custodial elements of the budget leaves approximately \$2.7 million for "deferred maintenance &

renewal” as shown in Table 3.3-1. On paper this amount is under the goal of 3 percent of the replacement value (\$4.2M) spent on deferred maintenance annually.

The deferred maintenance need at Keene State College, not unlike other public institutions, has grown as a result of under-funded Operating and Major Maintenance Budgets. The \$46.8 million dollars estimated to address Priority 1-4 building and site defined maintenance campus-wide projects can be addressed with the complimentary solutions of "Catch Up" capital allocations and "Keep Up" budget increases. However, a balanced approach to deferred maintenance funding is the only long-term answer for effective phase-out spending. The protection of future investments in Keene State College's facilities from erosion due to under funded operating and maintenance budgets is the only way to prevent the renewed accumulation of maintenance deferrals.

1.3 Site Assessment

The site inventory and analysis at Keene State College involved the assessment and analysis of many components, including but not limited to, visiting and evaluating existing campus conditions, interviews, and reviewing the 1993 College Master Plan. Several site inventory analysis categories were created. They included community environs, environmental factors, sustainability, spatial qualities, vehicular circulation, parking, pedestrian circulation, athletics, potential campus redevelopment zone, potential property acquisition, and adjoining properties of influence. A composite analysis was then developed to summarize the key components of the assessment and identify opportunities and constraints for future campus development.

1.4 Space Program Assessment

Developing a complete picture of an institutional space program requires first verification of the “existing space” location, quality and size. The “required space” for individual departments based on FTE driven normative standards is calculated by benchmarking against institutions with similar profile. The “perceived space” needs are then solicited from appropriate representatives within the entire college community. Then finally a consensus is developed from these inputs for the “justified space” needs on campus.

Student Enrollment Projections

The College provided enrollment projections to test the effect of future enrollment growth over a ten-year period. With high school graduation peaking late this decade, the impact on the College will be increasing enrollments into the next decade. Longer term, the demographics in the Northeast with the exceptions of Greater New York and Boston metropolitan areas indicate a decline in the traditional college age population.

Spatial Profile – Overview

The spatial profile looks at the current and long-term need for space at the College. The profile is based on 2002 enrollments and projected enrollment projections for 2007 and 2013. The choice of 2002 enrollments in lieu of the more current 2003 is because of the on-going renovation and expansion of the Science Center during which time the facility was vacated. The fall course schedule is utilized extensively in evaluating the individual academic departments. The displacement resulting from the science project creates significant distortion in the Fall 2003 course schedule, making the use of Fall 2002 more functional.

The space program assessment focuses on the non-residential components of the College. These non-residential components include two major divisions. The first is those elements that are in direct support of the College's educational mission. Titled Academic Space is a category that includes the general classroom and lecture space, shared computing facilities for teaching, dedicated laboratories whether in the sciences or the arts, and the office for faculty and immediate support staff. Also included are the two learning centers, one for Mathematics and the other for Writing.

As is typical at an institution of higher education, this category represents the minority of the College's non-residential space. Presently these functions total over 179,000 net assignable square feet (NASF) with a current deficit of approximately 34,000 NASF. This existing total plus the deficit assumes the adaptation of Elliot and Blake House entirely to non-academic functions, as discussed in the Concepts portion of this report. The plan projects a total need for Academic Space of over 238,000 NASF by 2013. This will require the construction of approximately 100,000 gross square feet.

The second major division of the campus space makes up the majority of all non-residential components. This division consists of spaces devoted to the non-academic, or "support," program of the College's mission. The elements making up this category include public service functions, the Mason Library, student activity space including food facilities, The Spaulding Gym Complex and related functions, various assembly and exhibition spaces, the Child Development Center, student services such as the Registrar and Counseling, administrative functions, the technology components of the College including administrative computing and instructional technology, and finally, campus services.

Support components of the campus totals almost 340,000 NASF. This is approximately 80% more than space devoted to academic functions of the college. Discounting the total support need by the adaptive reuse of both Blake House and elements of Elliot Hall, transforming current academic functions into support functions, the Fall 2002 support need is 40,000. By 2013, the support need will grow to almost 60,000 NASF. The total additional gross square footage required by 2013 is 100,000.

1.5 Master Plan Concepts

The concept section of the Facilities Master Plan report identifies Short-Term, Mid-Term and Long-Term concepts for the College. The concept framework was developed during an on-campus Planning “Charrette” held December, 2003 in the Young Student Center. Several hundred combined Administration, Faculty, Staff, and Students contributed their thoughts and ideas. The participants answered questions, illustrated concepts, and participated in focus groups that centered on landscape, parking, housing, facility infrastructure and programming issues. Since the “Charrette,” the concepts have been reviewed, updated, and enhanced by the dedicated participants of the Master Plan Advisory Committee.

Concept Development

Concept development was initiated with the “Charrette” and further developed by the Advisory Committee’s discussions and conclusions. Short-Term and Mid-Term concepts are illustrated as one plan, and the Long-Term Plan is illustrated as a separate plan. The Short/Mid-Term Plan identifies significant stages of development between 2004 and 2013, and the Long-Term Plan illustrates future growth beyond the year 2013. Below is a list of Master Plan Concept Goals that have been identified by the College.

Deferred Maintenance

- Set realistic multi-year budget goals for addressing deferred maintenance priorities.
- Assure annual deferred maintenance budgeted dollars are expended on repairs and renovations.
- Maintain and update the backlog of deferred maintenance projects/priorities and make available to decision makers.
- Consider “surge spaces” needed to temporarily accommodate groups dislocated during renovation.

Site/Civil Infrastructure

- Isolate KSC site utilities (water, sewer, and electric) from City grid to allow metering and maintenance shut-offs.
- Develop closed loop systems for redundancy.
- Improve Winchester Street underground utilities capacity and layout.
- Improve and expand steam loop to include additional buildings now on electric heat. (Carle Hall, Owls Nest)

Parking, Traffic & Pedestrian Circulation

- Separate pedestrian and service vehicle traffic whenever possible.
- Develop a rational “parking management plan” to accommodate current and future campus parking needs.

- Accommodate special event/visitor parking without major disruption to KSC daily campus parking needs.
- Provide parking access that is predictable for commuters and secure for student residents.
- Continue to relocate primary parking areas to campus perimeter to reinforce pedestrian campus core.
- Strengthen primary pedestrian corridors leading to Appian Way.
- Develop more alternative transportation to/from campus.

Open Space & Recreation

- Maintain no less than the current ratio of open space to building/parking lots.
- Scale down core density off Appian Way.
- Develop additional multi-use signature open spaces.
- Create additional informal athletic/recreation areas for student residential population.
- Develop outdoor teaching areas/labs.
- Identify areas of campus redevelopment for open space.

Campus Land Development

- Evaluate best disposition of Zorn Dining Commons.
- Locate appropriate sites for new student residences.
- Identify potential for new buildings/additions.
- Identify areas of campus redevelopment (i.e., replace existing structures) (Whitcomb Garage, Ceramic Studio & Elliot Lot, Area Between Bruder Street & Wyman Way, Zorn Dining Commons)
- Keep development of academic space in campus core.
- Evaluate flood plain restrictions under new regulations.

Campus Surrounding Environs

- Work closely with City of Keene and adjoining neighborhoods to develop better communication and shared goals.
- Identify “zones of influence” along Main Street and Winchester Street to ensure long-term stability and preservation.
- Identify “potential acquisitions” of non-college owned properties surrounding the campus.
- Capitalize in the river-walk and bike path potential to link with campus pedestrian circulation patterns.
- Improve the Winchester land-use patterns with appropriate “town-gown” development and preservation.
- Work with adjacent shopping center to create student-friendly “back door.”

“Town-Gown” Dynamics

- Maintain and enhance Main Street image and vitality.
- Acknowledge and celebrate City of Keene (town) and KSC (gown) interface and mutual reliance.
- Establish guidelines and process for mutual communication of college and city planning issues.
- Develop ongoing means to address common issues such as creating multi-generational neighborhoods, affordable housing, acceptable off-campus student housing, parking, security & traffic, and retail offerings.
- Improve community access to campus events and functions.
- Communicate economic linkage between City and College.
- Advance local workforce training and student volunteerism.

Sustainability

- Increased operational and eco-efficiency and “bottom-line.”
- Improve relations with neighbors and City.
- Stakeholder relations (students, faculty, trustees, and donors).
- Institutional ethics & commitment to stewardship practices.
- Supplement curricular resources with eco-learning labs.
- Recruitment and public relations.
- Pro-actively address activist and regulatory pressures.

The Short/Mid-Term and Long-Term concepts have been organized into several concept categories. The first is Building Concepts, which outlines significant building projects for the Short/Mid-Term, and Long-Term Plans. This includes the site components as they relate to building concepts. The second category is site concepts that are implemented separately not in association with a building addition/renovation. This category includes vehicular circulation, parking, pedestrian circulation, open space and athletic/recreation concepts. The third category is infrastructure systems. This category includes Building Design Specifications and FF&E (Fixtures, Furniture & Equipment) Standards for Renovation and Construction Projects, and extension of mechanical, electrical, water, storm, and sanitary systems. The fourth category is environmental which involves concept discussion about compensatory storage and sustainability. Specific areas of the campus are identified for compensatory storage of future projects being constructed in the floodplain. The final concept category discusses town/gown initiatives between the College and the local community that enhance economic and social relationships for successful project identification, planning, and implementation.

Building Concepts

The building concepts presented in this report are a direct outcome of the calculated space needs of the campus, the goals set forth by the college for its development, and the outcomes developed for this Master Plan. The following text outlines each of these projects as they were identified and incorporated into the overall Master Plan.

Active Projects

Keene State currently has over 26 Million Dollars in projects active on its campus. This most notably includes an approximately 52,000 SF new dining commons building, located west of the Young Student Center. The \$19 Million project is slated for completion by the 2006-2007 school year. Also included in this tally is the acquisition of the property at 232 Main Street for administrative surge space, and the initial planning and permitting for a new parking lot located in the utility right-of-way west of the rail bed.. Not included in the active total, but slated for completion in Fall 2004, is the \$23 Million renovation and expansion of the Science Center

Student Residence Projects

Keene State College is committed to the stated goal of achieving 60% of full-time students housed on campus. Maintaining this commitment will require the addition of 503 new beds of in the next 9 years. This Master Plan outlines the addition of 557 beds by the Fall of 2013. Residential projects will not only include the addition of student beds, but the renovation of current student residences, and the upgrade/ replacement of existing student housing units. These projects will be sequenced in a manner as to provide surge space for existing housing, while working toward the improvement of the overall campus housing stock and growth of the on-campus housing capacity. Projects include developments near Brickyard Pond and at Butler Court. Short/Mid-Term development does not impact the floodplain, but Long-Term residential development will require adequate compensatory storage. In conjunction with these residential projects, site improvements will tie these structures to existing campus circulation, as well as creating new outdoor spaces and more cohesive residential zones on campus.

Academic Projects

As introduced in the space program discussion, Keene State College has a current academic need of 62,000 GSF. With additions to its academic facilities the college will position it self to grow and/ or compete in a tight, perhaps even sluggish market of potential college attendees. In the past Keene State has made a strong commitment to developing high quality academic facilities. The current Science Center project continues this tradition of commitment to excellence. This Master Plan proposes the addition of 89,000 GSF and renovation 145,100 GSF of academic space. In addition some academic departments will be reorganized within the campus. Academic spaces will be removed from buildings ill

suited to this purpose, and relocated to new and/ or renovated spaces that would better suit their programmatic needs and create more cohesive academic zones within the campus core. Projects include:

- A new 84,000 GSF Arts Center, incorporating both Media Arts and Fine Arts components
- The phased renovation of Redfern Arts Center
- The reorganization and renovation of Adams Technology Building and Butterfield Halls, to include the Technology Studies programs to remain there as well as the addition of the Management program.
- The renovation and reuse of vacated space in Joslin Hall
- A new 36,000 sf Long-Term building located along Winchester Street, that will incorporate academic program and possibly accommodate mixed-uses.

Administrative and Campus Services Projects

In addition to the academic needs of the campus this Plan identifies projects to meet the requirements for Administrative and Campus Services spaces as well. This means addressing some substantive needs. As highlighted by the information provided in Section IV Campus Services is roughly half the size warranted, and there exists a significant shortfall in spaces designated for student services. This Master Plan identifies 46,384 sf in newly constructed support space, 11,256 sf of space that will be vacated by relocated academic departments that will be renovated and rededicated to support functions, and 98,622 sf of existing administrative and campus services space that will be renovated. Projects include:

- A New Facilities Building, comprised of 42,096 GSF dedicated to the Facilities Department, and 4,288 GSF for the Central Stores and Receiving Department, to meet the projected need for the Fall of 2013.
- The phased renovation of and addition to Elliot Hall, involving Admissions, Academic and Student Affairs, Counseling, Health Services, and Resident Life functions.
- The renovation and reuse of Blake house to accommodate the administrative functions relocated from Fiske Annex.
- The renovation of Hale House

Site Concepts

The site concepts include vehicular circulation, parking, pedestrian circulation, open space and athletics/recreation. The proposed projects described under these categories in most cases are not associated with a building construction project.

Vehicular Circulation

Concepts for vehicular circulation are developed to create arrival areas and circulation patterns that; provide entry points at key visitor entries; are reinforced by architecture, open space, landscape and signage; provide a first impression experience; and minimize vehicular and pedestrian conflict areas. Streetscape enhancements are one way to package arrival, circulation and landscape into one project.

Two types of streetscape types are identified for enhancement. The first type is campus streets that provide access to the campus. These include Butler, Madison, Blake, Wyman, Bruder and Appleton Streets. The second are perimeter streets surrounding the campus. These include Main Street, Winchester Street and Route 101. All streetscape improvements shall include new asphalt paving, granite curb, lighting and landscape. In addition a comprehensive signage study is suggested and would involve all levels of campus exterior signage from campus arrival images, to campus directories, to vehicle and pedestrian way finding, to individual building signage standards.

Short/Mid-Term

- Bruder Street Streetscape and arrival area will provide access to the new Pondside Residences III, IV, and V.
- Butler Court Streetscape will include improvements from Winchester Street to Appian Way.
- Wyman Way Streetscape will include improvements from Main Street to Elliot Center parking area.

Long-Term

- Butler Court Streetscape and arrival area will include improvements for the remainder of Butler Court to an arrival area in front of Carle Hall.
- Madison Streetscape Improvements will include improvements from Winchester Street to the service areas of the new Dining Commons and Young Student Center.
- Wyman Way Streetscape will include improvements from Elliot Center parking into the Recreation Center parking area.

- Winchester Street Streetscape will begin with traffic improvements slated by the City for the intersection of Main and Winchester Streets, then continuing to the KSC Winchester Street parking area. The city has identified this corridor for improvement; therefore, College coordination efforts should be integrated with city planning efforts. Aesthetically, the part of Winchester between Madison and Blake Streets offers the greatest need for enhancement. Granite curb, concrete sidewalks and street trees would improve aesthetics as well as drainage. In addition, existing trees that are poor quality or disrupt sight lines should be removed, along with consolidation of utility poles and alternative pavement or striping would greatly enhance safety for pedestrian crossing.

Parking

Parking areas should: preserve the history, character and sense of scale by creating perimeter parking areas; maintain existing open space rather than develop new parking areas; identify appropriate designation for student, faculty/staff, accessible and visitor parking; provide way finding through directional signage; and provide safe separation from pedestrian movements.

As part of the campus assessment, peak parking demand ranges and design values for parking were calculated. Specific Keene State College values were also developed. Concept parking numbers were calculated by assuming a 10% student growth over 10 years, 3% faculty/staff growth over 10 years, 60% on-campus residents, no resident freshman parking and ADA requirements. High and low range values were calculated to provide a guideline for relocating and developing new parking in the Short/Mid-Term and Long-Term Plans.

Currently there are 1,609 parking spaces on campus. After completion of active projects (Dining Commons and Science Building), there will be 1,515 spaces. Based upon the values calculated, there is a minimum shortfall of 120-439 spaces. There is a projected deficit of 271-633 spaces by fall of 2013.

Active

- The planning of a 250+/- space parking area is in progress in the PSNH (Public Service of New Hampshire) right-of-way. The parking will occupy 3-4 acres and will be lowered in elevation to accommodate future compensatory storage needs of the campus. There is a wetland in the middle of the property so the parking will be divided with the southern portion being constructed first. The first phase of construction will yield approximately 132 spaces.
- The Dining Commons project will displace parking in the Madison Street South Lot as well as a few additional spaces while the completion of the Science Building project will gain 11 new spaces.

- The recently acquired 232 Main Street property will be improved to provide an additional 15 spaces.
- Alternative solutions and incentive programs should continue to be explored to encourage students and faculty to ride the campus shuttle (The City Express), car-pool, walk. The incentives may be centered around campus events, special privileges, or awards and contest prizes.

Short/Mid-Term

- Over the course of the Short/Mid-Term plan 238 spaces are removed and 475 spaces are gained, resulting in a net gain of 237+/- spaces. Short/Mid-Term parking is removed from Elliot Hall, Res. Life Office, Bruder Street, 160 Winchester, 34 Bruder St., Old RLO and Merrimack House. Parking will be gained at Student Center, and the Facilities parking areas.

Long-Term

- Over the course of the Long-Term plan 182 spaces are removed and 540 spaces are gained, resulting in a net gain of 358+/- spaces. Long-Term Parking is removed from Blake Street, Redfern, Spaulding, Madison Street North, and Owls Nest. Parking will be gained at Butler Court, and two parking decks are proposed.

One parking deck is proposed along Winchester Street and will include 240 spaces. The location of this deck provides close proximity to the Student Center, Dining, resident halls and commuting demand. The deck would replace existing parking and be a minimum of 2 levels. In addition, the structure should create a street presence with appropriate scale and character.

The second parking deck is proposed adjacent to Redfern Arts Center. Bushnell would be removed and the topography allows for access at multiple levels. The deck would serve the arts, library, resident and recreation activities at the southern end of campus.

Pedestrian Circulation

Pedestrian circulation should maintain a pedestrian experience through the planning of future building placement, open space, and parking; mitigate or eliminate pedestrian and vehicular conflict areas; provide accessible routes that meet local, state and federal regulations; and provide walk placement that accommodates primary and secondary movements as well as adequate walking distances.

The 1993 Master Plan emphasized the development of Appian Way as the main arterial pedestrian spine through the campus core. This plan emphasizes the concept of

developing secondary north/south spines connecting to Appian Way. A second concept involves the extension of Appian Way to the east.

Short/Mid-Term

- Extend Appian Way from the new Dining Commons to Butler Court. Pavement and amenity standards should be continued and the Oya Hill memorial landscape should be integrated into the design.
- Extend Appian Way from Butler Court west through the railbed to the new facility services area bridging across Ashuelot River to the Winchester Street parking lot.
- Provide a 6' asphalt walk extending from Ashuelot River Bridge at Joyce Fields over the existing railbed to the new PSNH parking lot. This walk will also service the community who use Joyce Fields for recreation. A secondary walk is proposed from the rail bed east to Carle Hall to facilitate potential pedestrian traffic in both directions.
- There are several north south spine concepts for the campus that are identified for the Short/Mid-Term and Long-Term Plans. All of the spines maintain a historic street pattern and connect to Appian Way. The spines should have concrete walks that are a minimum 8' wide with landscape enhancement that frame the spine. The following graphic illustrates north south spine concepts.

Long-Term

- A South field pedestrian connector enhancement is proposed from Pondsides Apartments, under Route 101 along Martell Court, over Ashuelot River to the Athletic Stadium Complex. Portions of this project should be incorporated and planned with the bypass improvements scheduled for Route 101.
- At the southeast portion of Joyce Fields and adjacent to Pondsides Apartments, a pedestrian bridge is proposed to cross the Ashuelot River.
- As part of the Landscape Master Plan, a riverwalk concept has been outlined from the railbed along Ashuelot River to connect with the enhanced Athletic Stadium Complex pedestrian connector. The riverwalk should provide a 6' walk that meanders along the river rather than directly adjacent to it. The landscape along the walk should keep within the principles and guidelines set out in the Landscape Master Plan.

Open Space

Open space should be maintained and preserved for historical, ecological, and aesthetic qualities; planned around future buildings that define and link quadrangles and courtyards; and have athletic/recreation areas integrated into the overall plan of the campus.

The campus open space concepts add to the existing framework by enhancing the existing historical quad, and providing a new academic and residential quad

Short/Mid-Term

- The residential quadrangle created by the new Pondside Halls serves the students that live there but extends and connects this development back to the main campus.
- The quadrangle created by the new Media Arts Center will be centrally located and will enhance the heart of the campus

Long-Term

- Fiske Quad improvements are scheduled to improve pavement, landscape and incorporate a plaza space for graduation ceremonies.
- Whitcomb Quad site improvements will take place after the Whitcomb Building and its functions are removed. An expansive lawn quad will be developed from Holloway Hall extending to the Ashuelot River. The area would provide an area for seasonal activities such as ice-skating and contribute to the framework of this residential precinct.
- Two basketball courts and sand volleyball court is proposed between Carle Hall and the Ashuelot River to accommodate student recreation from the adjacent residences. These courts will be constructed after the relocation of ceramics, recycling and other facility components.

Athletics/Recreation

Athletics and recreation components should be located in areas that functionally relate to indoor support areas with the establishment of an intercollegiate identity; be integrated into the overall open space campus plan; provide a program schedule that maintains field integrity and limits overuse; include recreation trails for seasonal use.

The assessment portion of this report identified that the athletic areas are constricted due to wetlands, 100-year floodplain, limited access and expansion areas. The

athletic/recreation concepts for the College are outlined below for Joyce Fields and the Athletic Stadium Complex.

Short/Mid-Term

- A new artificial playing surface is proposed to replace the existing artificial surface at the Athletic Stadium Complex.
- Improve existing grass fields and tennis courts on Joyce Fields and the grass fields at the Athletic Stadium Complex.
- Construct two additional tennis courts adjacent to existing courts to accommodate intercollegiate requirements and facilitate a future team.
- A new four-lane 400m practice running track on Joyce Fields. The track should be positioned with a north/south orientation around the existing grass field adjacent to PSNH property, maximizing internal field playing dimensions while providing opportunity for a future 2-lane addition without disruption to adjacent fields. The existing southern athletic field measuring 180' x 330' will need to be relocated eastward to overlap the softball outfield.
- A storage building is to be located at the Athletic Stadium Complex outside the Ashuelot River flooding to accommodate athletic storage and maintenance equipment.
- Construct two basketball courts and sand volleyball court between Carle Hall and the Ashuelot River to accommodate student residence recreation. These courts will be built after the removal of Whitcomb Garage, recycling and maintenance activities are relocated.

Long-Term

- A new artificial turf field with lighting is proposed on Joyce Fields. This will better accommodate intramural, academic, and recreation activities adjacent to the main campus.
- A locker room and storage facility with related site and utility improvements.
- Softball/baseball bleacher replacement and infield practice area.

The Community currently uses several recreation components of the College, such as trails, fields, and recreation center. The College should keep abreast of public or private developments and be a part of the programmatic decisions to see how new facilities can augment existing College facilities particularly as related to indoor soccer and ice hockey.

1.6 Implementation Plan

The Implementation Plan identifies individual project budgets and schedules based on relative priorities and needs identified during the Facilities Assessment and expressed during the development of the Concept Plans. The implementation chart organizes this information so it can be used as a planning tool, clearly illustrating the interdependencies and phasing of individual projects, as well as the need to simultaneously address deferred maintenance needs.

The Keene State College (KSC) Implementation Plan identifies \$253 Million in Total Project Costs based on 2004 dollars (\$2004). Roughly sixty percent of that number is slated for the Short-Mid-Term Plan. This is comprised of \$151 Million in projects (New and Renovations), and \$17 Million in deferred maintenance needs (Priority 1&2). The Long Term Plan consists of the remaining \$75M in project costs and \$10M in deferred maintenance (Priority 3&4). An additional \$26 Million dollars are comprised of projects currently underway.

Project Tracks

Individual projects listed in the data based spread sheet are grouped into nine (9) “tracks” as defined by the predominate intended “primary use” including:

- Track A: Active Projects
- Track B: Student Residence Projects
- Track C: Academic Projects
- Track D: Administrative & Student Services
- Track E: Athletic Field Improvements
- Track F: Campus Site Improvements
- Track G: Campus Bldg & Site Facilities Deferred & Upgrades
- Track H: Telecommunication / Data Campus Infrastructure
- Track I: Campus Utilities Infrastructure

This tracking system was suggested because of the way in which each of these project types has the potential to be funded. For example The University System of New Hampshire policy supports residence hall projects being separately bonded. Interdependencies between projects in separate tracks are noted in the project scheduling columns of the Implementation Plan Chart. Arrows connect proposed project completions and/or start dates with other proposed project schedules, upon which they depend or impact. Project implementation timeframe can be revised periodically based on available resources. Highlighting these dependencies allows the college to assess ramifications of these changes to the scheduling of other subsequent projects.

The summary at the bottom of the Implementation Plan Chart tallies financial information presented. Additionally it illustrates the relationship of development and maintenance projects relative to the size of the institution, in enrollment. This is particularly articulated over time as it impacts two major measuring indicators: housing goals and parking ratio.

Implementation Plan Schedule

The College chose a Phase 1: Short & Mid-Term project time frame that spans roughly the next eight (8) years. Long Term projects anticipated to happen beyond that point are indicated as “future.” Scheduling these projects would become overly speculative due to the ever-changing climate of higher education funding, enrollment, and development. The Implementation Plan identifies projects to address long-range needs, while allowing the flexibility to account for a dynamic planning environment.

Statement of Probable Project Costs

“Total Project Costs,” expressed in 2004 dollar values, consist of “hard costs” plus related “soft costs” with the latter typically representing an additional 40 percent of the former. This 40 percent is a standard increment employed by the college, which includes a 15% contingency factor. These are expressed as either dollars per Gross Square Feet GSF (\$/GSF) for larger projects or lump sum for smaller projects. The costs of projects vary depending on the “type” of work involved. These are based on current regional costs factors and the College’s recent experience with each project type.

Implementation Plan Chart

Projects listed in the Implementation Plan Chart are color-coded. Those projects indicated in pink/fuchsia are currently underway. This includes the Science Center, which is scheduled for completion in Fall 2004, and the Dining Commons, which is in design phase. Projects in yellow and green comprise the Phase 1: Short-Mid Term Plan. These are the first facilities needs that will be address as money becomes available. These colors coincide with those colors indicated on the Short-Mid Term Phasing Plan. Long Term items in the Implementation Plan Chart are marked in blue. These projects will most likely happen beyond the next 8 years. However, this may be adapted to the rate at which funding becomes available.

The Implementation Plan outlines a coordinated plan to address identified facilities needs and achieve efficient progress toward the institution’s stated facilities goals. To take full advantage of the flexibility of this tool it is important to understand the interdependencies between projects in separate tracks. Vertical arrows in the scheduling columns within the Implementation Plan Chart highlight these relationships. Decisions impacting prioritization and the relationships between projects directly reflect the college’s facilities planning goals.

1.7 Landscape Master Plan

As part of the current Master Plan efforts, a landscape master plan was requested and developed to enhance landscape guideline efforts existing on the Keene State College Campus. Two meetings were established to understand and discuss history, inventory, assessment, and potential concepts for the campus landscape. The first meeting was held during the master plan campus charrette where eleven Arboretum Committee members attended. This meeting provided opportunities to discuss potential pedestrian connections, landscape character, concerns and desires for the planning future of Keene State College's landscape. Campus Landscape Master Planning is an evolving process incorporating landscape history, analysis of campus vegetation, standard details and the incorporation of sustainable practices.

Goals

The following goals have been established for the landscape master plan.

- Provide a visually appealing, diverse, and accessible landscape that provides an environment conducive to academic advancement, recreation, and visitor interest.
- Locate future plantings through the use of landscape guidelines in a manner that will visually and spatially reinforce the character of the built and natural environment of the College.
- Enhance the arboretum as an outdoor laboratory to provide opportunities for botany, biology, wildlife habitat and horticulture studies.
- Preserve unique and natural plant specimens, which have historic value.
- Incorporate future plantings and maintenance practices that are sustainable within the New England Region, with an emphasis on native species.
- Incorporate sustainable maintenance practices for trees, shrubs and turf areas.
- Plan landscape mitigation measures for new and renovated construction projects in advance that preserve topsoil, designating staging areas and protect root zones.

Framework Concept

There are several landscape categories on campus. These include annual displays, foundation plantings, memorial plantings, quadrangle plantings, canopy and street tree plantings. These landscape categories as individuals portray a positive appearance; however, holistically, these categories lack an integrated framework that allows the landscape to flow from one category to another and ultimately effects landscape harmony and functionality.

Upon completion of the analysis, a Character Concept Plan was created that identified general landscape classifications of the campus. These classifications included areas that were formal, informal, natural and areas of landscape influence.

The formal classification included those areas that have a public interface and first impression affects visitors and the community. The academic, administration and support services dominated this classification

Informal classification included areas that were considered private or within the interior portions of the campus. Residence halls and the recreation areas dominated this classification.

The natural classification was located adjacent to the Ashuelot River and its floodway.

The Landscape of Influence classification was identified in those neighbor areas adjacent to the existing campus property that potentially affects visual aesthetics of the. The College has the opportunity to encourage, educate and assist neighbors in responsibly maintaining their landscapes for mutual benefits.

A more refined look at the landscape classifications resulted in the creation of landscape categories, which provided the basis of the Concept Framework Plan. The categories included: Streetscape, Academic, Residential, Parking, Facility, Athletic, River, Community and Memorial.

- Streetscape: High canopy, deciduous trees that are long lived such as oak and maple
- Academic: High canopy, deciduous trees with evergreens mixed in for seasonal interest with limited flowering trees, shrubs and foundation plantings
- Residential: High canopy trees with flowering trees
- Parking: High canopy trees that are drought tolerant such as locust and ash.
- Facility: High Canopy trees for parking and evergreens for screening
- Athletic: Turf and evergreens for wind breaks
- River: Native species, wetland vegetation no invasive species
- Community: Native species and low maintenance plants

Landscape Implementation

Implementation guidelines include:

- Encourage the landscape committee to be involved in the planning process and project review of construction projects
- Incorporate site and landscape enhancements into proposed construction projects rather than as separate projects
- Establish endowments, special funds and donor drives for specific projects possibly through alumni channels
- Review landscape plan, inventory and guidelines to frequently reevaluate old and new initiatives