ACKNOWLEDGEMENTS

BOARD OF TRUSTEES
Herbert F. Asplund, Chair*
Reverend Peter M. Donohue, O.S.A., President*
James A. Anderson
Kimble A. Byrd
Tarra S. Cortese
James C. Curvey
James D. Danella*
James C. Davis*
Denise L. Devine
John G. Drosdick*
William B. Finneran
Reverend William T. Garland, O.S.A.
William M. Gibson*
Patricia H. Imbesi
John P. Jones III
Catherine M. Keating
Reverend Gary N. McChesney, O.S.A.
Anne Walsh McNulty
James F. Orr III
Terence M. O'Toole
Reverend James D. Paradis, O.S.A.
Michael B. Picotte*
Very Reverend Donald F. Reilly, O.S.A.
Reverend Robert Thornton, O.S.A.
Paul A. Tufano
Rev. Luis A. Vera, O.S.A.
* Advisory Committee Members

PRESIDENTIAL STEERING COMMITTEE
Reverend Peter M. Donohue, O.S.A., President
John R. Johannsen, Vice President for Academic Affairs
Dorothy A. Malloy, Vice President and General Counsel
Kenneth G. Valosky, Vice President for Administration and Finance
Reverend John P. Stack, O.S.A., Vice President for Student Life
Ann E. Diebold, Vice President for University Communication
Barbara E. Wall, Special Assistant to the President for Mission Effectiveness
Stephen Fugale, Chief Information Officer
Vincent Nicastra, Director of Athletics
Beth Hassel, P.B.V.M., Executive Director of Campus Ministry
Jayne O'Laughlin, Executive Administrator to the President and Board of Trustees

PROJECT ADMINISTRATION TEAM
Kenneth Valosky, Vice President for Administration and Finance
Robert H. Morro, Executive Director for Facilities Management
John Cacciola, Director of Engineering and Construction

ACADEMIC MISSION COMMITTEE
Adele Lindenmeyer, History (Faculty)
Alfonso Ortega, Associate Dean for Graduate Studies & Research, College of Engineering
Craig Wheeland, Associate Vice President, Academic Affairs
Kail Ellis, O.S.A., Dean, College of Arts and Sciences
Gary Gabriele, Dean, College of Engineering
James Danks, Dean, Villanova School of Business
Gerald Long, Dean, Graduate Studies, A&S
Joseph Lucia, University Librarian & Director of Falvey Library
Kathleen Byrnes, Associate Vice President, Student Life
Louise Fitzgerald, Dean, College of Nursing
Robert Stokes, Assistant Vice President, Part-Time & Continuing Studies
Stephen Merritt, Dean, Enrollment Management
Teresa Nance, Assistant Vice President, Multicultural Affairs
Daniel Neary, Student Government Association

ADMINISTRATIVE SERVICES COMMITTEE
Daniel McGee, Director Strategic Planning and Consulting, UNIT
David Tedjeske, Director of Public Safety
Douglas Norton, Mathematical Sciences (Faculty)
Eric Quinzenberry, Associate Director of Development
Florence Reif, CAD Specialist, Facilities Management
George Walter, Associate Dean of Enrollment Management
Marie Schauder, Assistant Director for Housing Services
Michael George, Director, Central Services
Neil Horgan, Controller
Rick Sieber, Executive Director, Auxiliary Services
David Pedra, Student Government Association

PEDESTRIAN ENCOUNTER COMMITTEE - con’t
Carolyn Arena, Parking Manager, Public Safety
Lisa Valosky, Assistant Vice President, Business Operations, University Communication
Margaret Grubiak, Humanities (Faculty)
Michael Foight, Digital Librarian & Special Collections Coordinator
Paul Rossier, History (Faculty)
Stacey Andes, Director, Health Promotion
Steven Cauterucci, Maintenance Supervisor Facilities Management
Anthony Alfano, Director, Connelly Center
Bryan Wagner, Student Government Association

STUDENT EXPERIENCE COMMITTEE
Barbara Haenn, Associate Director, Campus Ministry
Barbara Ott, Nursing (Faculty)
David Mann, Assistant Director, Public Safety
Frank Henninger, Director, University Shop
Lynn Tighe, Senior Associate Athletics Director/ Senior Women’s Administrator
Marjorie Torchon, Senior Associate Director, Admission
Robin Allen, Director, Technology Support Services, UNIT
Sue Ciccone, Director, Orientation/Assistant, Special Projects Student Life
Thomas Smith, Associate Dean for Humanities, College of Arts & Sciences
Timothy Dieteler, Director, Dining Services
Thomas Malloy, Custodial Operations Manager, Facilities Management
Thomas Mogan, Director, Student Development
Bryan Kerns, Student Government Association
Diane Ditzel, Student Government Association
John Von Euw, Student Government Association

TEACHING AND RESEARCH SPACE (SUB-COMMITTEE TO ACADEMIC MISSION)
William Fleischman, Computing Sciences (Faculty)
Catherine Connor, Associate Dean of Enrollment Management
Joan Lesovitz, Director, Instructional Technologies, UNIT
Marlou Smith, Project Manager, Facilities Management
Noah Barsky, Villanova School of Business (Faculty)
Philip Stephens, Biology (Faculty)
Sally Scholz, Philosophy (Faculty)
Liz Malinowski, Student Government Association
Paul Karagiannis, Student Government Association

VSBA PROJECT TEAM
Nancy R. G. Trainer, Principal in Charge
Jessica Tidd, Project Manager
John Izenour, Associate
Gina Dallago
With the assistance of: Seth Cohen, Matthew Cant, Josselyn Ivanov, Kevin Kaminiski, Jason Klinker, James Kolker, Qian Amanda Li, Daniel McCoubrey, Patricia McGrath, Ali Naghdali, Jason Nguyen, Raimy Schutzman, Bret Taboada, Jeremy Tenenbaum, Rebecca Vieyra

LANDSCAPE ARCHITECT
Stephen Stimson Associates

TRANSPORTATION, TRAFFIC & PARKING CONSULTANT
URS Corporation, Inc.

UTILITIES ENGINEER
RMF Engineering, Inc.

FOOD SERVICE CONSULTANT
Kail Ellis, O.S.A., Dean, College of Arts and Sciences
Gary Gabriele, Dean, College of Engineering
James Danks, Dean, Villanova School of Business
Gerald Long, Dean, Graduate Studies, A&S
Joseph Lucia, University Librarian & Director of Falvey Library
Kathleen Byrnes, Associate Vice President, Student Life
Louise Fitzgerald, Dean, College of Nursing
Robert Stokes, Assistant Vice President, Part-Time & Continuing Studies
Stephen Merritt, Dean, Enrollment Management
Teresa Nance, Assistant Vice President, Multicultural Affairs
Daniel Neary, Student Government Association

FOOD SERVICE CONSULTANT
Kail Ellis, O.S.A., Dean, College of Arts and Sciences
Gary Gabriele, Dean, College of Engineering
James Danks, Dean, Villanova School of Business
Gerald Long, Dean, Graduate Studies, A&S
Joseph Lucia, University Librarian & Director of Falvey Library
Kathleen Byrnes, Associate Vice President, Student Life
Louise Fitzgerald, Dean, College of Nursing
Robert Stokes, Assistant Vice President, Part-Time & Continuing Studies
Stephen Merritt, Dean, Enrollment Management
Teresa Nance, Assistant Vice President, Multicultural Affairs
Daniel Neary, Student Government Association

FOOD SERVICE CONSULTANT
Kail Ellis, O.S.A., Dean, College of Arts and Sciences
Gary Gabriele, Dean, College of Engineering
James Danks, Dean, Villanova School of Business
Gerald Long, Dean, Graduate Studies, A&S
Joseph Lucia, University Librarian & Director of Falvey Library
Kathleen Byrnes, Associate Vice President, Student Life
Louise Fitzgerald, Dean, College of Nursing
Robert Stokes, Assistant Vice President, Part-Time & Continuing Studies
Stephen Merritt, Dean, Enrollment Management
Teresa Nance, Assistant Vice President, Multicultural Affairs
Daniel Neary, Student Government Association

TEACHING AND RESEARCH SPACE (SUB-COMMITTEE TO ACADEMIC MISSION)
William Fleischman, Computing Sciences (Faculty)
Catherine Connor, Associate Dean of Enrollment Management
Joan Lesovitz, Director, Instructional Technologies, UNIT
Marlou Smith, Project Manager, Facilities Management
Noah Barsky, Villanova School of Business (Faculty)
Philip Stephens, Biology (Faculty)
Sally Scholz, Philosophy (Faculty)
Liz Malinowski, Student Government Association
Paul Karagiannis, Student Government Association

CIVIL ENGINEER
AEC Engineering

ACCESSIBILITY STRATEGIES CONSULTANT
Accessibility Development Associates, Inc.
TABLE OF CONTENTS

I. INTRODUCTION AND EXECUTIVE SUMMARY 1
A. PURPOSE OF THE PLAN 1
B. PLANNING APPROACH AND PROCESS 2
C. SOME KEY NEEDS 2
D. RECOMMENDED STRATEGIES 2
E. KEY COMPONENTS OF THE PLAN 3
F. NEXT STEPS 4

II. THE VILLANOVA CAMPUS 9
A. CAMPUS DEVELOPMENT 9
1. The Image of Villanova 9
2. Villanova within the Community 13
B. LEARNING FROM VILLANOVA 18
1. What Makes Villanova, Villanova? 18
2. Vistas and Landmarks 18
3. The University in the Township and Region 20
4. Campus, Road and Rail 20
5. Campus Precincts and Areas 20
6. Interior Spaces 21
C. EXISTING CAMPUS PATTERNS 23
1. Precincts and Land Use 23
2. Classroom Concentrations and Residence Halls 23
3. Pedestrian and Automobile Circulation and Parking 23
4. “Nolli” Plan 23
D. DESIRE FOR PRESERVATION, CHANGE AND CONNECTION 31
E. ZONING AND OTHER LAND USE RESTRICTIONS 31

III. SOUTH OF LANCASTER: THE “HAMLET OF VILLANOVA” 35
A. CONTEXT, SCALE AND CHARACTER 35
B. BUILDING USES 38
1. Student Housing 38
2. University Programs with External Visitors 38
3. Other University Uses 38
4. Non-University Retail 38
C. TRAFFIC, TRANSIT AND PARKING 40
D. STORMWATER MANAGEMENT 41
E. PHASING 41
F. ZONING 42
1. Setbacks and Lot Coverage 42
2. By-Right Development 42
3. Recommended Development 42

IV. A MORE PEDESTRIAN-FRIENDLY CAMPUS 43
A. SAFETY 43
1. Eliminate (Most) Cars from the Central Core 43
2. Street Crossings 43
B. WAYFINDING 44
1. Campus Gateways: Lancaster Avenue 44
2. Campus Gateways: Transit 44
3. Hierarchy of Pedestrian Pathways 44
4. Mendel Field – A Campus Icon 45
5. The Grotto 46
C. ACCESSIBILITY IN THE LANDSCAPE 46
1. Church Walk 46
2. Near St. Augustine Center 46
3. SEPTA Station and Crossing from Northwest Campus 46
4. Other 46

V. RENEWED AND EXPANDED STUDENT LIFE FACILITIES 47
A. AROUND THE OREO 47
1. Renovations and Additions 47
2. A New Student Center 47
3. Choosing between Renovation and Replacement 47
B. CENTRAL CAMPUS DINING 50
1. Based on Existing Demand 50
2. Moderate Change and Growth 50
3. Maximum Emphasis on Meals Eaten in Community Dining 50
4. Interim Plans 50
C. MUSIC ACTIVITIES AND STUDENT ORGANIZATIONS 51
D. RECREATIONAL ATHLETICS 51
1. The Athletics Campus Overview 51
2. Jake Nevin and the Butler Annex 51
3. Central Campus 52
4. West Campus 52
5. South Campus 52

VI. A RE-IMAGINED AND RENEWED HEART OF CAMPUS 53
VII. RENEWAL OF KEY ACADEMIC BUILDINGS 57
A. TOLENTINE HALL 57
B. LIBRARY 62
1. Falvey Memorial Library and Old Falvey in the Villanova University Context 62
2. Opportunities for Falvey 62
3. A New Falvey Commons 62
4. One Design Approach to A New Falvey Commons 63
5. An Alternative Approach 63
C. OTHER CENTRAL CAMPUS ACADEMIC BUILDINGS IN NEED OF RENEWAL 63
D. CONVERTING OTHER EXISTING BUILDINGS TO ACADEMIC USE 63
E. GAREY HALL 63
F. FUTURE ACADEMIC BUILDINGS 66

VIII. CAMPUS-WIDE SYSTEMS 67
A. CAMPUS CIRCULATION 67
B. PARKING 67
1. Overall Strategy 67
2. Parking Lots and Structures 67
3. Managing Demand 71
C. ACCESSIBILITY 72
1. Background 72
2. The Exterior Environment 72
3. The Interior Environment 73
4. System-wide Improvements 73
XII. ALTERNATIVE DEVELOPMENT PLANS 95
   A. OPTIONS FOR ALTERNATIVE DEVELOPMENT 95
      1. Performing Arts Center 95
      2. University Shop 95
      3. Admissions and Alumni Center 95
      4. Public Safety 95
      5. Student Housing 95

XIII. THE CAMPUS IN THE COMMUNITY 99
   A. VILLANOVA IN THE REGION 99
   B. VILLANOVA WITHIN THE TOWNSHIP AND COMMUNITY 99
      1. Villanova as a Resource for the Community 99
      2. Community Concerns 101
      3. Fundamentals of Villanova's Campus Plan 101
      4. Some Constraints 101
      5. Community Relations 101

XIV. TOWARD A MORE SUSTAINABLE VILLANOVA 103
   A. VILLANOVA: ONGOING EFFORTS 103
      1. Energy use, supply and distribution 103
      2. Material supply and disposal 104
      3. Food supply 104
      4. Water supply and disposal 104
      5. Building design and construction, including mechanical systems 104
      6. Transportation 104
      7. Vegetation and Landscape 104
      8. Education, research and outreach 104
   B. THE CAMPUS PLAN: OVERALL FRAMEWORK 105
   C. PLAN IMPLEMENTATION: ADDITIONAL CONSIDERATIONS 105
      1. Buildings 105
      2. Transportation 106
      3. Landscape 106
      4. Energy supply and distribution 107
      5. Operational and Administrative Initiatives 107
I. INTRODUCTION AND EXECUTIVE SUMMARY
I. INTRODUCTION AND EXECUTIVE SUMMARY

"From the day I was selected to serve in this role, people have been asking me to share my vision for the university. It is not complicated. I want Villanova to be Villanova. I don't want us to be anyone else. We know what we do well and we must strive to do it better..."

-- from Father Peter Donohue's Inauguration Speech

"I have initiated the development of a campus master plan to evaluate many aspects of our campus and assess current and future needs for space. The campus master plan will be a roadmap for future construction, renewal, and maintenance."

-- from Father Peter Donohue's message to the University, April 2007

VSBA has been invited to be the planners for this roadmap. Our mandate is to develop a plan rooted in a deep understanding of the institution’s history and mission, its opportunities and constraints, and goals and objectives for its future -- one that can help Villanova become more positively and cohesively what it is. Here we present an overall planning framework – one that can result in a coherent set of landscapes and buildings, provide opportunities for future growth, and retain the capacity for individual places of great beauty.

A. PURPOSE OF THE PLAN

Now, as the University is in the process of completing major construction projects -- including a building for the School of Law and the recently-opened Davis Center for Athletics and Fitness and the College of Nursing’s Driscoll Hall-- Villanova has chosen to survey a broader picture, to gauge the impact these projects may have on each other and on the campus as a whole and to plan purposefully and strategically for future phases of development. The plan should allow all aspects of the physical campus to work together in support of the University’s mission; the campus, like the University, should be more than the sum of its parts. Its recommendations should:

- Nurture a beautiful, amenable and sustainable campus that supports the Augustinian ideal of living and studying amongst friends in an atmosphere of hospitality and scholarship.
- Provide facilities, landscapes and physical linkages that support Villanova as a residential, co-educational and multi-cultural institution with a world-wide perspective.
- Plan for academic and cultural facilities – including a performing arts center – that support student engagement in curricular and co-curricular activities.
- Increase physical opportunities for interdisciplinary activities and scholarship, especially inter-college.
- Plan for student residential facilities that support Villanovan ideals of community, while meeting the University’s commitment to housing underclassmen and its desire to house seniors.
- Consider the needs of all members of the University community – undergraduate, post-baccalaureate and continuing education students; faculty and staff; Augustinians; visitors and others.
- Plan facilities and landscapes that help attract and retain students, faculty and staff of the highest caliber.
- Make the campus more pedestrian-friendly, accessible to people of all ages and abilities, and welcoming to visitors. For example, make entrance to the campus more welcoming, easier to find, and more distinctly Villanovan.
- Meet University needs for access, parking and service.
- Identify opportunities to move the campus toward the University's commitment to carbon neutrality.
- Carefully consider and create functional adjacencies that facilitate efficiency, collaboration and a greater sense of community.
- Provide guidelines and strategies for meeting the physical requirements of the University's evolving Strategic Plan.
- Honor the University's heritage while supporting the needs of the present-day Villanova and its aspirations for the future.

Because the physical campus is a vital operating engine of the University and part of its identity, heritage and meaning, campus planning should be considered in conjunction with the highest level of University academic, operational and financial planning. This final recommendations report should become a valuable tool for shaping future decisions on programming and policy, as well as on rehabilitating existing buildings and adding logical increments of new building at Villanova University.

As the University moves forward and as Radnor Township becomes more fully engaged in the discussion, this plan for the campus can provide a basis for the continuing debate on physical directions for Villanova University.
B. PLANNING APPROACH AND PROCESS

We have approached the campus planning process as a series of interrelated tasks whose goal is to propose strategies and a vision for the long term future and to obtain consensus among the University’s constituent groups. Our process has been an iterative one, surveying the campus at varying scales and levels of detail.

Over the course of the plan, we have worked with University committees of faculty, staff and students to evolve the recommendations presented in this document. We have reviewed our interim findings on a regular basis with the President’s Advisory Council; with the Pedestrian Encounter, Academic Mission, Student Experience and Administrative Services committees; and with the Teaching and Research Space subcommittee. Meetings with an appointed committee of Board of Trustee members were conducted quarterly, along with an interim update to the full Board. We also consulted with ad hoc groups throughout the campus; and conducted initial conversations with Radnor Township officials.

C. SOME KEY NEEDS

There are needs for more – and more functional, amenable and accessible – space throughout Villanova’s campus. Those defined by the University as high priorities include:

- **Academic space**, including a new Performing Arts Center, classrooms and faculty offices – particularly in Arts and Sciences -- and an updated library.

- **Student residences**. These are needed to meet the University’s commitment to underclassmen, and potentially offer seniors the opportunity to live on campus.

- **Student social space**, including activity space, central campus dining, and recreational athletics.

- **Administrative space**, particularly related to Campus Ministry and student services.

- **System-wide needs**, including the need to improve accessibility (throughout campus, and especially to buildings used by the public), life safety, building condition and campus infrastructure.

Also, there is a strong desire for a more **beautiful, sustainable campus**, with a more beautiful and visible entrance.

D. RECOMMENDED STRATEGIES

- Meet the University’s needs for space while preserving its iconic green spaces, including the Lawn.

- Create combinations of uses, within precincts and within buildings, that support Villanova as an integrated community.

- Preserve a vibrant mix of uses at the campus core, and consider more mixed use for campus satellites.

- Mediate between the need to add new facilities and the need to maintain and support those the University already has.

- Pursue development through a combination of strategies including new building and renovation within the campus core; further development of campus satellites; and, possibly, development along the routes between satellites and the core.

- To meet the University’s need for space, develop its properties on the south side of Lancaster Avenue -- including its large expanse of surface parking -- as an integral, positive component of Villanova’s identity and image. A vibrant townscape here would complement the University’s wide lawn on the north side of the Avenue. (See Section III.F for zoning considerations.)
• Preserve and rejuvenate the University’s historic buildings and spaces, including Alumni, Corr, St. Rita and Austin.
• Reclaim, rejuvenate and, where practical, return to communal use historic interior spaces such as St. Rita Chapel, the Old Falvey Reference Room, and the University’s first library in Austin Hall.
• Create a more pedestrian-friendly campus core, while meeting campus needs for maintenance, service, universal access for people with disabilities and emergency vehicles.
• Minimize land that must be allocated to parking by building structured parking and densifying existing parking structures. Locate parking near tracks wherever possible, and build structured parking as high as allowed – without creating public or campus eyesores.
• Take advantage of opportunities presented by the availability of St. Mary Hall and Garey Hall to benefit the entire campus.
• Improve accessibility and life safety throughout campus. The importance of this cannot be overstated.

Maintain some building sites near the center of campus for future development.

E. KEY COMPONENTS OF THE PLAN
• The “hamlet of Villanova.” The University’s ability to meet its needs for space depends in large part on its ability to develop its properties along the south side of Lancaster Avenue; this would require significant amendments and exceptions to current zoning. Ideally, a pedestrian-friendly townscape would be created along the south side of Lancaster Avenue, with retail or University “public” uses at the ground floor and student residences – and perhaps some offices – above. Structured (and some surface) parking would be provided along the Route 100 tracks; improved grade-level pedestrian crossings would connect to South Campus and the campus core. Functions that engage the broader community – such as a performing arts building, University Shop, and perhaps Alumni and Admissions – would be located along the Avenue, providing a welcoming face to the community. Public Safety could be located here as well, perhaps within or adjacent to a parking structure.

• A pedestrian-centered campus core. Keeping most vehicles near the perimeter of the campus core would help create a more sustainable, pedestrian-friendly campus, while allowing access for service, emergency and other essential vehicles. Existing University parking structures along the R-5 tracks would be replaced or enlarged to replenish spaces lost at the campus core. Eliminating constant conflicts between pedestrians and vehicles would allow a more cohesive, beautiful and functional campus landscape.

• A renovated and augmented center of student activity around the Oreo. Reprogramming, renovating, and adding to the existing buildings around the Oreo could create an enhanced center for student life. Student-oriented uses could initially include space in the Connelly Center and Dougherty Hall (or its replacement), and could be augmented by space in Vasey and by the historic library in Austin, once other space is available for existing uses in these areas. A sloped, tree-lined path would replace the existing concrete steps and ramps between these buildings, creating a more amenable and beautiful sense of place.

• A re-imagined and renewed heart of campus. The area around the Grotto – including Falvey, Old Falvey, Alumni, Austin and Corr, with paths extending to Mendel and the St. Augustine Center – could become a center of activity with a stronger sense of place, with large shade trees and green lawn, and a more lively mix of uses. Maintaining student residences in this area – in tandem with other uses – would ensure 24-hour activity at the center of campus.

• Renewed key academic buildings, including Tolentine and the Library. Renovating and rejuvenating the campus’ historic buildings could help meet new mandates for use while celebrating Villanova’s history.
- Tolentine could be completely renovated and renewed. With wide, generous hallways and high ceilings, this building could be Villanova’s premier academic building. Through strategic additions to the building, significant space could be added. New entrances would face a renewed Mendel Field – an enlarged, oval lawn.

- The Falvey Memorial Library and Old Falvey complex, could be re-imagined to create a community commons – an innovative, collaborative, multidisciplinary academic library facility tied into the social and academic life of the University.

- **Campus-wide improvements** to improve accessibility, life safety, building condition and campus infrastructure.

F. NEXT STEPS

The plan has engaged the campus community in a self-assessment of the University’s priorities and vision for its physical campus. The recommendations in this report are rooted in this perspective, but also in a shared understanding that input from the broader community is needed as well. Our October presentation to the Trustees marks the end of our study. In many ways, however, the University’s work is just beginning. Villanova’s ability to develop its campus responsibly and well depends on building trust and support in the Radnor Township community.

The plan outlined in this document will help meet the University’s needs for physical space, preserve its most memorable buildings and landscapes, and enhance the beauty and utility of the campus. The plan weaves the University’s past, present and future into a more integrated system of landscape and buildings – one that is explicitly and joyfully Villanovan.
TO CONFERENCE CENTER

ACADEMIC
- Garry Hall Renovation
- Tolentine Hall Addition + Reno
- Performing Arts Center
- Falvey Hall Renovation
- St. Rita's Hall Renovation
- Corr Hall Renovation
- Alumni Hall Renovation
- Kennedy Hall Replacement
- New Building near Nursing
- New Building near CEER
- New Building near CEER

ADMINISTRATION
- Office Use - Public Safety
- Welcome Center
- Office Use - Pike Lot

STUDENT LIFE
- University Shop Relocation
- Short Term Dougherty Renovation
- Dougherty Hall Addition + Reno
- Vasey Hall Addition + Renovation

PARKING
- Surface Lot (97 stalls)
- Structured Parking (1386 stalls)
- SAC Structure Addition (1268 stalls)
- Phillies Lot Structure (632 stalls)
- Surface Lot West Res (48 stalls)
- West Structure (689 stalls)
- Surface Lot (107 stalls)
- Structured Parking (99 stalls)
- Surface Lot (488 stalls)

STUDENT HOUSING/MIXED-USE HOUSING
- Mixed-Use (housing + retail)
- Mixed-Use (housing + office)
- Sullivan Hall Renovation
- Sheehan Hall Renovation
- Mixed-Use (housing + office)
- Mixed-Use (housing + office)
- West Campus Housing
- West Campus Housing

LANDSCAPE
- Mendel Field
- Church Walk ADA pathways
- Conti Walk - primary pathway
- The Grotto + Core campus
- Soccer Field Artificial Turf

OTHER
- Septa Station Tunnel Renovation
- Undetermined Use

KEY
- VU FACILITIES + SUPPORT
- VU ATHLETIC FIELD
- VU CAMPUS GREEN
- VU PEDESTRIAN PATHWAY
- VU ROADWAYS & PARKING LOTS
- VU PARKING STRUCTURE
- NON-VU FACILITIES
- VU-FACILITIES LEASED BY OTHERS

LONG-RANGE
21+ YEARS
ONE POSSIBLE SCENARIO

Villanova University Campus Planning

Base Map Source:
Information Source:

October 21, 2008
II. THE VILLANOVA CAMPUS
II. THE VILLANOVA CAMPUS

An understanding of Villanova’s campus as it exists is needed to help determine policies about its growth -- that is to say, what “ought to be” should be derived inductively from what “is.” This section considers the history of the campus, its aesthetic qualities, and existing patterns of activity and circulation.

A. CAMPUS DEVELOPMENT

When the Augustinians opened Villanova’s doors to its first seven students in 1843, it was for the purpose of providing “good education [of]…the children of the less opulent portion of our Catholic people.” Like many colleges founded about this time, the student body included boys and young men of various ages, some as young as 9 or 10; it was not until 1855 that the Augustinian College of Villanova awarded its first bachelor of arts degree.

The College closed twice during its early years, and enrollment fluctuated – in some cases, dramatically – with the times. Still, Villanova was able to add academic offerings, and officially became Villanova University in 1953. The University has continued to grow and change, and its campus reflects many of these changes.

A series of diagrammatic maps on pages 14 and 15 outline the history of Villanova’s campus.

1. The Image of Villanova

The Villanova campus has changed profoundly since its 1843 inception in a bucolic estate house on Lancaster Pike, yet the most iconic view of Villanova is still that of buildings on the ridge facing Lancaster, set against a wide green lawn. The image of the University is deeply rooted in this combination of buildings, sloping lawn and major road.

The Villanova rail station – like the post office, named for the University – also figures prominently in the development of the campus. For many years, most students and visitors arrived on campus via rail, and the history of campus development reflects the twin “gateways” of Lancaster Pike and the Villanova rail station.

Contemporary views of the University over the course of its history – some perhaps idealized – help trace the history of campus development and give us some clues to why development occurred as it did:

- A hand-drawn plan of Belle-Aire (fig.6) illustrates the 197-acre estate the Augustinians bought from the Rudolph family in 1842. It shows a working farm, with a house, barns, fields and various outbuildings. The farm’s rolling hills, woodlands, fields and orchards form the foundation of Villanova’s campus. When members of the Augustinian community moved to Belle-Aire in 1843, accepting its first class of seven students, the main house was “home to everyone and everything: monastery, dormitory, classrooms and church.”

- Early views of Villanova College from Lancaster Pike depict an eclectic series of buildings sitting proudly on the crest of a hill overlooking a lawn. In the earliest images (fig.7), the landscape is eclectic, too, and the property is clearly shown to be a working farm complete with barn and fencing. A drawing from the same year (fig.8) illustrates the College from the railroad – north – side, showing the rear facades of the original estate house, the “study chapel” – since demolished – and the east wing of what is now known as Alumni Hall. The drawing shows a single open gate indicating the route the vast majority of visitors took to the College – the path from the railroad.

2 Ibid.
Slightly later drawings of the view from Lancaster Pike (fig. 9, from 1872) show, essentially, the same group of buildings — but with a manicured lawn and absent the barn (cropped out of the drawing rather than demolished). A new building, a wooden gymnasium (converted two years after its construction to chapel use), is shown to the east; the original Belle-Air house is shown consumed by additions in the Italianate style, with a wide front porch overlooking Lancaster Pike.

Later images indicate curvilinear paths, an increasingly suburban (as opposed to rural) landscape, and long, uninterrupted views to the south and west. Mendel Field offers recreation and a contrast to the more densely treed areas at the heart of campus. Drawings from the north — both before and after the construction of the south-facing St. Thomas of Villanova in 1887 (fig. 10 and fig. 11) — emphasize the path from the railroad station, indicating the continued importance of the railroad as both a means of transportation and an organizing element for campus buildings. Campus buildings are shown with north-facing entrances; the expanded College (now Alumni Hall) has not only the now-beloved cupola but also a columnar porch extending the width of its central section. Steam engines, prominently depicted, carry passengers to Villanova Station.

“Let us build a College we can show to our patrons…”

Photographs and drawings of major expansion undertaken around the turn of the 20th century — New College Hall (now Tolentine) and an adjacent, connected monastery — show lively, towered and turreted Collegiate Gothic buildings at the crest of a hill and set against a broad expanse of manicured lawn. The present St. Rita’s has replaced the original Belle-Air house; the much-altered building had been destroyed by fire in 1912. Major entrances face Lancaster Pike to the south, once again reorienting the campus. (The towers and turrets were not rebuilt after fire damaged Tolentine and destroyed the monastery in 1929 and 1932, respectively; the present buildings are more stark than their forbears.) Stone gates mark the campus entrance from Lancaster Pike.

A 1915 drawing (fig. 13) shows the growing campus from Lancaster Pike. Corr Hall — with its chapel end facing Lancaster Pike, set back farther from the road — was built as a seminary.
Between the Wars

- An aerial photograph from around 1930 (fig. 14) shows Austin Hall – opened in 1924 to meet the needs of a rapidly growing student body and attributed to noted Philadelphia architect Wilson Eyre – in the foreground, and suburban residential development across Spring Mill Road in the background.

- A cleverly altered photograph from around 1930 (fig. 15) shows architect Paul Monaghan’s ambitious plan for eastward expansion of the campus, with Collegiate Gothic buildings forming malls and quadrangles. A new Library was to be at the head of the largest mall, facing Lancaster Pike. Owing to the Great Depression and the Second World War, these plans did not come to fruition, but the image tells a story about the University’s intentions and the continued importance of Villanova’s image along Lancaster Pike.

- The Stadium (1929) and Field House (1932) extended the image of Villanova across Ithan along Lancaster Avenue.

Growth and Expansion: From College to University

- The church spires and Alumni Hall cupola are visible in the background of photographs of temporary barracks (fig. 17) – where Sullivan, Sheehan and Bartley now stand. These photos illustrate the challenges the campus faced in a period of rapid growth after World War II, as the number of undergraduate students grew from 493 in 1945 to 1,946 in 1946.

- John Barry (1947), Chemical Engineering (1947) and a new library – now Old Falvey Hall – were built at the periphery of Mendel Field to meet the post-WWII demand for academic facilities. These buildings face inward, toward the field, rather than out to surrounding streets or the railroad tracks. Did the presence of the barracks abrogate the 1929 plan for eastward growth of academic buildings, or were there other reasons for this changed pattern?

- Sullivan (1954) and Sheehan (1957) continued this new pattern of inward-facing expansion. They and a new building for Commerce and Finance (1956, now Bartley) replaced the temporary barracks. Garey (1956) was built for the Law Program somewhat remote from other academic buildings; across Spring Mill Road from Garey the University built St. Mary’s as a seminary building.

- Maps and aerial photographs show the continued importance of imageful development along the ridge facing Lancaster Pike, and of the important route from the train station to the heart of campus.

fig. 16. Austin Field, c. 1932 (Source: VU Archives)

fig. 17. “Vets Village,” late 1940s or early 1950s (Source: VU Archives)

fig. 15. Renderings of campus plan showing planned East Quadrangle, 1930 (Source: VU Archives)
A campus map from the 1950s (fig. 20) shows the continued importance of the route from the rail line – along which the 1948 library (now “Old Falvey”) was situated – but also the growing importance of the automobile. Student parking lots are located across Lancaster (now called “Avenue” rather than “Pike”) and faculty parking is shown adjacent to academic buildings.

Mendel Hall, built in 1960, provided an arched pathway through to the train station, but the importance of the railroad – in image as well as practice – had clearly diminished.

Growth inside and outside the core

Villanova continued to build both inside and outside its central campus core.

Academic facilities – including Falvey Memorial Library (1969) and the St. Augustine Center (1992) – were built at the campus core, as was the Connelly Center (1980). The Pavilion (1987) is adjacent to other athletic facilities east of Ithan.
New residence halls were developed outside the core:

- Although Villanova had educated women in several of its schools and divisions for many years, the move to an entirely co-educational institution was not completed until 1968. The need for additional student residence halls spurred development of South Campus.
- St. Mary’s was converted to student housing (and to use by the College of Nursing) in 1972.
- In 1978, the University bought the 33-acre Morris estate, including Dundale Hall (now Picotte Hall at Dundale), designed by Addison Hutton and built in 1890. In 1985, Villanova bought an additional five contiguous acres. West Campus housing was built in two phases, 1994 and 2000.

A number of projects have been completed over the past several years, including the new Health Services Building and garage, the new structured parking near Garey Hall, the renovation of and addition to Bartley Hall, the new Davis Center for Athletics and Fitness, and most recently a new building for the College of Nursing. The School of Law project is currently under construction.

2. Villanova within the Community

The maps on pages 16 and 17 illustrate the growth of the community to which the University gave its name. They show the gradual subdivision of farms and estates (and, in some cases, land once part of the Villanova campus) to create a largely residential suburban community – spurred on by increased access to the area.

Both Lancaster Avenue (then Lancaster Pike) and a rail line north of the campus core were already in existence when the Augustinians bought the Belle-Air estate in 1842. (Lancaster Pike – the first toll road in the United States – was opened in 1795, and the rail line became operational in 1832.)

Increasing suburbanization of Villanova and the desire to develop areas beyond it to the west and south brought new requirements for transportation. The Route 100 rail line (to Norristown and Philadelphia’s 69th Street Terminal) south of the main parking lots became operational around 1909, and the long-planned Blue Route providing access to the Schuylkill Expressway, the Pennsylvania Turnpike and Interstate-95 opened in 1991.

fig. 21. Aerial view of campus and surrounding area, 2007 (Source: VU Facilities)
EVOLUTION OF VILLANOVA AND SURROUNDINGS

Villanova University Campus Planning

Base Map Source: http://www.lmls.org; http://maps.google.com
Information Source: http://www.lmls.org; http://maps.google.com

B. LEARNING FROM VILLANOVA

“... people have been asking me to share my vision for the university. It is not complicated. I want Villanova to be Villanova.”

-- from Father Peter Donohue's Inauguration Speech

To make a plan that provides for preservation, growth and change while making Villanova’s campus more positively what it is requires an understanding of the architectural and landscape characteristics of the campus. This intuitive study parallels the more analytical approach applied elsewhere in this document. Together, these suggest the basis for plans to support and extend the historic value and beauty of the campus and its facilities, while planning to use its facilities and landscapes intensely and appropriately. Principles and guidelines for growth recommended in this report are rooted in this understanding.

1. What Makes Villanova, Villanova?

What aspects of the campus remain indelibly in the minds of students, faculty, staff and alumni? What image does Villanova project to Radnor Township and others outside the institutional community? What discernable subareas or precincts make up the whole? What elements must be preserved, clarified, or celebrated?

2. Views and Landmarks

The view of the University’s stone buildings and wide lawn from Lancaster has remained Villanova’s most identifiable image since the Augustinians bought Belle-Air. The twin spires of St. Thomas of Villanova Church, prominent in that image since 1887, are also visible from most places within the central campus core—and from many outside the core as well—and are integral to the physical identity of the institution.

Other buildings and landscapes, too, help form the physical embodiment of Villanova’s identity: the bright contrast of the plaster Alumni Hall and its shining cupola; the gateway through Corr Hall; students playing Frisbee on the lawn in front of the elegant Austin Hall. Further west, views of Picotte Hall at Dundale, the barn and the swan pond offer a more bucolic, Romantic identity.

On the map that appears to the right we have sought to compile an inventory of important views and landmarks. Such a list can never be complete, of course, and its contents can be debated—but, in combination, these provide a memorable and positive image of the University.
3. The University in the Township and Region

Aerial photographs show the proximity and direct relationship between the University and the City of Philadelphia, yet the campus feels distinctly suburban. This suburban identity provides (largely) green, leafy surroundings and a perception of safety – but few places outside campus to walk for a bite to eat, a cup of coffee, or the occasional aspirin. There is little of the “college town” about Villanova; the institution existed before – and gave its name to – the post office and rail station.

Villanova’s wide, sloped lawn is an anomaly along Lancaster Avenue, which is largely a commercial street from Center City to Wayne and beyond. Along with the residential neighborhood to the University’s east, this lawn and the University playing fields (Pike Field) provide a green swath along the Avenue. Villanova’s expanse of parking along the south side of Lancaster, however, is far less welcoming and attractive. Any long-term plan for the campus should consider ways of making this area a more positive gateway to the University and Township, while meeting the University’s very real need for parking.

4. Campus, Road and Rail

The view of the University’s stone buildings and wide lawn from Lancaster helps communicate Villanova’s identity to the many who travel the Avenue. Indeed, Villanova’s campus is closely linked to – and its development heavily influenced by – the major transportation routes that run through it. The roads and rail lines provide access – but also separation between campus precincts. These separations – particularly across Spring Mill, Lancaster, Ithan, and the railroad tracks – help create campus precincts with unique identities but also make traveling between areas of campus cumbersome.

The great number of automobiles and service vehicles on campus, particularly at the core, make walking the campus unwieldy, add noise to the campus, and block important views of campus landscapes and buildings – making the overall campus experience less appealing and the campus itself less beautiful than it otherwise might appear.

In addition, the large – and largely unlandscaped – parking lots on the south side of Lancaster also form part of the public image of the University, leading some passers-by and first-time visitors to think of Villanova as a “commuter school.”

5. Campus Precincts and Areas

Central Campus

For most Villanovans, the heart of campus is somewhere in the campus core: for some, it’s St. Thomas of Villanova Church, for others the Oreo or the Connelly Center.

Most of the University’s most beautiful and historic buildings and landscapes are in the core as well:

- Alumni Hall stands out for its graceful proportions, and materials that contrast with the rest of the campus.
- Corr Hall, with its arched passage and beautiful, intimate chapel, faces at least two important campus landscapes: the Grotto and the green in front of Kennedy Hall.
- St. Rita’s is small and graceful, with some gracious floor spaces, a lovely chapel and beautiful stained glass.
- Austin Hall, too, designed by Wilson Eyre, is a distinguished building. The University library had been in the east wing; a mezzanine has been added to the original two-story space.
- The Monastery, owned by the Augustinian Order and home to 68 of its members, is physically connected to Tolentine Hall and to St. Thomas of Villanova Church; it is a physical reminder of those whose foresight and labor established and nourished the University.
- Mendel Field is illustrated on some of the earliest maps of the campus, and retains its importance as a recreational area and open space. (Defining its boundaries and improving its landscape could make this a more memorable, iconic campus landscape.)

However, the University’s patterns of growth have resulted in some problems:

- The landscape, though beautiful in parts (and beautifully planted and maintained), seems episodic and, in places, confusing.
- Conflicts between pedestrians, automobiles and service vehicles compromise safety as well as aesthetics and create an environment that is too hazardous for bicycles.
- The vehicular gateway is inauspicious and hard to find.
- Patterns of growth along Lancaster have led to under-used, almost vestigial “front” doors and unceremonious back doors. Tolentine is a good example of this – most daily users walk through a parking lot and through service-character, unmarked entrances to reach their destinations.
Athletic Campus

The Athletic campus contributes to the University’s identity along Lancaster Avenue, and is the first part of campus seen by visitors approaching from the east. The Jake Nevin Field House, a handsome brick building, has a strong presence on Lancaster.

Buildings on the athletic campus are predominantly brick, setting them apart visually from the largely stone buildings on the campus core. It appears that there is little connection between pedestrian circulation patterns on the athletic and central campus.

To the east, the campus is cheek-by-jowl with a small-scale residential neighborhood.

South Campus

The image of South Campus is one of brick buildings, set within a landscape of mature trees. Though built over a period of twenty years or so, the buildings on South Campus seem of a similar era. The relatively low density of building – and the high density of mature trees – gives this area a very different “feel” from other areas on Villanova’s campus.

There is little to identify the wooded Aldwyn Triangle across Ithan as part of Villanova’s campus.

West Campus

The various building components of West Campus – the quadrangles, the former houses, and St. Mary’s Hall – have distinct identities and are not integrated with each other or with the rest of Villanova’s campus.

The buildings that form the quadrangles were faced with stone to make them seem more civic and Villanovan. The spaces the buildings form, however, seem “too large” for their use and lack the intimate scale of residential quadrangles at some other institutions. What additional landscape and other uses might make them feel more welcoming and less “windsept”? Adding volleyball pits, basketball courts, or increasing open green space for example, could help enliven the courtyards while providing needed recreational uses.

Areas North of the SEPTA/Amtrak Rail Line

How should the plan consider the area north of rail tracks bounded on the west and east by Spring Mill Road (Route 320) and Ithan? The construction of the new Law School and parking garage will have a large impact on the character of this area.

Garey Hall is generously proportioned, with a lovely courtyard, yet isolated from other campus buildings and activities. How should it relate to the new construction and to St. Mary’s Hall across Spring Mill?

This area also includes the SEPTA station and parking lot, Facilities and Steam Plant buildings, a structures lab, and a detention basin. Can these areas be more coherently knit together and better connected to the rest of campus? Can the density of uses around Facilities and the Steam Plant be increased to take pressure off more central, congested campus areas?

Conference Center

The Conference Center, about 32 acres located approximately one mile west of campus, gets its most vivid imagery from Montrose Mansion and its outbuildings, and the rolling hills and woods that comprised the estate. A small hotel, conference center and parking lots predate the University’s purchase of the property.
6. Interior Spaces

Beyond the worship space in St. Thomas of Villanova, the campus has few memorable interior spaces. Even large spaces for major gatherings, like the Villanova Room or the Pavilion, are mostly utilitarian in character.

Besides the Church, the most memorable interiors on campus include Corr Chapel and St. Rita’s Chapel. The Chapel in St. Mary’s, though large, would require modification to better suit its current use by Music Activities.

The original reference room in Old Falvey is a nicely proportioned two-story space with large windows; it is visible from Mendel Field. With sensitive renovation and new uses, it could become a more vibrant, iconic campus place.

Historical photographs show a two-story library in the east wing of Austin Hall, for example. If Admissions were to be relocated, could this volume be restored as part of an enhanced student-centered precinct around the Oreo?
C. EXISTING CAMPUS PATTERNS

A university campus comprises layer upon layer of complex patterns, some readily apparent, others less discernable. In what follows, we have mapped, at several scales, some of these patterns as they exist on campus today. By analyzing them – displaying them, comparing them, disaggregating them, recombining them – we discern principles for their future development. Here we show some selected images from our Phase I report.

1. Precincts and Land Use
(See pp. 24 and 25.)

At Villanova, campus activities are grouped, loosely, into residential enclaves, academic concentrations, and athletic and recreational zones. Defining discrete precincts can be hazardous, as the subtle complexities of a pluralistic campus are misrepresented by homogeneously colored “goose eggs.” With this in mind, we offer a conceptual diagram of activity precincts followed by more analytical land use maps, aggregated and disaggregated by use.

2. Classroom Concentrations and Residence Halls
(See pp. 26 and 27.)

By identifying the location and relative size of classrooms, laboratories and lecture halls, one can gain a picture of some of the primary daily activity generators of the University. The existing pattern is one of intense academic activity at the far east and west ends of the campus core, with other uses – including communal and social activities – at the center.

Diagramming where students and faculty study and learn and overlaying these on their dining, sleeping and recreating patterns can provide a basis for locating other activities and services and give a better understanding of desire lines and circulation paths.

Comparing maps of classroom concentrations and residence halls help give some idea of the Villanova way of life.

3. Pedestrian and Automobile Circulation and Parking
(See pp. 28 and 29.)

The existing pattern of pedestrian ways is mapped and combined with roadways, parking, and pedestrian and service entrances to buildings. Then pedestrian circulation patterns, vehicular routes and parking layouts are analyzed in relation to physical and environmental patterns already diagrammed.

4. “Nolli” Plan
(See pp. 30.)

To understand the flow of public space, from the outside into and through the public areas of private buildings, we use the “Nolli” plan (named after the Italian architect’s famous map of mid-18th century Rome). The map shows delicately rendered entry level plans of each campus building, set on the “macramé” of exterior pedestrian paths.

The “Nolli” plan highlights pedestrian movements across campus and to and through buildings. It shows the “street through the building” and the relationship between public and private both indoors and out. Additional patterns can be added, such as symbolic green spaces, building entrances and service locations, in order to analyze more complex relationships.
EXISTING LABORATORY, CLASSROOM & LECTURE HALLS

Villanova University Campus Planning

Base Map Source: Information Source: www.villanova.edu/enroll/registrar/reservation.htm; Blueprints Vol. 9, Issue 5; http://www.law.villanova.edu/campaign/thedbldng.asp
STUDENT RESIDENCE HALLS + RESIDENTIAL AMENITIES

Villanova University Campus Planning

Base Map Source: Information Source: Res Hall FP Update Sept., 2007

RESIDENCE HALL OCCUPANCIES

KEY

* RESIDENTIAL DINING HALLS
ALA-CARTE DINING
OFF CAMPUS FOOD RETAIL
INDOOR RECREATIONAL FACILITIES
FP UPGRADE
NO FP UPGRADE

STUDENT RESIDENCE HALLS + RESIDENTIAL AMENITIES
NOLLI MAP WITH PEDESTRIAN AND SERVICE ENTRANCES - CENTRAL

Villanova University Campus Planning

Base Map Source:
Information Source:

KEY
- SECONDARY PEDESTRIAN ENTRANCE
- PRIMARY PEDESTRIAN ENTRANCE
- SERVICE ENTRANCE
- VU BUILDINGS ENTRY LEVEL PLAN
- VU DORMITORIES ENTRY LEVEL PLAN
- NON-VU BUILDINGS
- VU LEASED BUILDINGS
- VU GREEN SPACES
- VU ATHLETIC GREEN SPACES
- PEDESTRIAN PATHS
- ROADWAYS AND PARKING LOTS
- VU ROADWAYS
- VU PARKING STRUCTURES
D. DESIRE FOR PRESERVATION, CHANGE AND CONNECTION

The map on page 32 illustrates “hot” and “cold” areas of campus – where change is anticipated or likely, and where change would be difficult or undesirable.

The map on page 33 indicates desired linkages between areas of campus.

E. ZONING AND OTHER LAND USE RESTRICTIONS

The map on page 34 shows zoning restrictions and development covenants on Villanova’s campus.

Current setback, height and use restrictions limit Villanova’s ability to develop within its boundaries, and encourage patterns of development counter to the interests of both the University and the larger community. For example:

• Building envelopes allowed by current zoning on the University-owned parking lots south of Lancaster effectively prohibit the University’s use of the property for anything other than parking. (Although small buildings would be allowed on these sites, these would displace surface parking; allowable building envelopes would be too small to accommodate parking structures.)

• Current zoning allows construction on significant areas of the front lawn. This pattern of development would not be in the interests of the University or the community.

• Current zoning allows the University to develop retail uses on the southwest corner of the central campus, near the corner of Spring Mill and Lancaster Avenue, exacerbating traffic congestion at that intersection. However, academic buildings or underclassmen residences – which would generate minimal traffic – are not allowed.

Villanova plans to open discussions with its residential neighbors and the Township to explore solutions that meet the goals of both the University and the larger community. (See Section XIII.B.)
TO CONFERENCE CENTER

KEY
- NO INTENTION TO CHANGE
- LITTLE OR NO PHYSICAL CHANGE
- INTENTION TO CHANGE USE
- POTENTIAL TO CHANGE
- VU BUILDINGS
- NON-VU BUILDINGS

CHANGE AND PERMANENCE

Villanova University Campus Planning

Base Map Source:
Information Source:
CURRENT ZONING ENVELOPE

Villanova University Campus Planning
Base Map Source: AEC Base Map July 2008
Information Source: Radnor Township Zoning

CONFERECNE CENTER

KEY
- COMMERCIAL 1 (C1) ZONE
- C1 BUILDABLE AREA
- COMMERCIAL OFFICE (CO) ZONE
- CO BUILDABLE AREA
- PLANNED INSTITUTIONAL (PI) ZONE
- PI BUILDABLE AREA
- PUBLIC LAND USE
- RESIDENTIAL ZONE
- PROPERTY BOUNDARY LINE

1 MILE TO ST. MARY'S HALL

RESTRICTIONS ON DEVELOPMENT UNTIL 2019

38' TALL OR 3 STORIES

35' TALL OR 3 STORIES
III. SOUTH OF LANCASTER: THE “HAMLET OF VILLANOVA”
III. SOUTH OF LANCASTER: THE “HAMLET OF VILLANOVA”

By sensitively and strategically developing its property on the south side of Lancaster Avenue, the University could address some of the its most critical needs while preserving Villanova’s most symbolic and public green space, the Lawn. A new component of Villanova’s identity and image would be created – a vibrant townscape complementing the University’s wide lawn on the north side of the Avenue.

The University’s ability to develop these properties is critical to its ability to meet its need for space without additional land acquisition. Building somewhat more densely than current zoning would allow could help meet some of the goals shared by the University and its neighbors to:

- House a greater percentage of Villanova students on campus.
- Provide adequate parking on Villanova’s campus. (Parking structures and lots should be considered in tandem with demand management strategies, including better bicycle routes and storage options, car-share options and incentives for using public transportation.)
- Improve stormwater management. Redeveloping the existing parking lots would provide opportunities for managing and retaining stormwater. (See Technical Appendix for Civil Engineer’s report.)
- Maintain important green space, particularly the Lawn.
- Maintain Pike Field as a buffer between the University and a residential neighborhood.
- Provide a more pedestrian-friendly environment.

A. CONTEXT, SCALE AND CHARACTER

In 1913, the 62-mile-long Philadelphia and Lancaster Turnpike, first established in 1795, was incorporated into the Lincoln Highway – the country’s first transcontinental automobile road, “Main Street Across America.”

A short drive along a segment of the present-day Lancaster Avenue is punctuated by pedestrian-friendly “Main Streets” that help give identity to Wayne and Bryn Mawr. Vehicular traffic slows as it passes through these areas, cars are parked along the street, and shops – with apartments or offices above – line both sides of the Avenue. Between these hubs, Lancaster Avenue includes suburban-style offices and retail, with an apron of parking in front of each building; a major highway interchange; mid-rise apartment buildings; and, east of the University, an area of mostly single-family homes.

The view of Villanova’s campus along Lancaster Avenue is distinctly asymmetrical. The north side of Lancaster Avenue includes the images most associated with the University – St. Thomas of Villanova Church in the center of a line of buildings along a ridge, defining the Front Lawn. The most identifiable view of the University along the southern edge of the Avenue, though, is of a very narrow sidewalk, a fence and parking lots.

What physical characteristics and qualities would help create a more amenable, walkable “hamlet of Villanova?” Our recommendations include:

- An intentional asymmetry at Villanova – with the sloping Front Lawn and historic buildings on the north side of Lancaster, and a series of buildings along the south side of Lancaster Avenue.
- Wide sidewalks, with trees along public streets – including double rows of trees along Lancaster Avenue, one scaled to the pedestrian experience and a row of larger trees along the street.
- Green spaces between buildings, including a wide, park-like lawn aligned with the green in front of St. Thomas of Villanova. This area would establish a visual connection between the two sides of Lancaster Avenue and provide attractive, amenable paths from public sidewalks to parking and to the Villanova SEPTA Route 100 station.
- Generous, uniform building setbacks from the street, with the potential for deeper setbacks under certain circumstances, such as at the interface with existing buildings west of Church Walk.
- Transparency at the ground floor of buildings, with large windows.
- Buildings three stories tall along the south side of Lancaster Avenue, and up to five stories behind an additional setback.
- Less transparent uses, primarily student housing but also potentially including some offices, above the ground floor.
- Parking behind, hidden from the street.
- A mix of structured parking (for efficiency and density) and surface parking (for convenience).
- If allowed, metered parking along the street – to buffer pedestrians from the street and to help “calm” traffic. (The posted speed limit is 25 miles per hour, but even casual observation shows that drivers routinely exceed that limit.)
STREETSCEAPE
SETBACK OPTIONS
Villanova University Campus Planning

Base Map Source:
Information Source: Stimson Associates
Scale: 1/32" = 1'-0'

B. BUILDING USES

1. Student Housing

Student housing would be an important element of the hamlet, particularly above the ground floor. For planning purposes, we have assumed a combination of suites and traditional style single and double rooms, about 340 square feet per student.

As shown in the diagrams on page 39:
- About 565 to 600 beds could be accommodated on floors two through five of buildings located between the new performing arts center and Church Walk. This would meet most of the demand for underclassmen housing.
- In the recommended long-term increments (21+ years), about 365 beds could be accommodated in floors two through five of buildings west of Church Walk.

2. University Programs with External Visitors

In such a public, exposed location, housing should be located above the ground floor level. Besides student housing, what programs and uses should be located on the south side of Lancaster Avenue? Adjacent to parking and easily accessible to the campus core, this area could be suitable for University programs with external components, including:
- A performing arts center here would be visible to passersby – identifying Villanova as a cultural resource for the community – and convenient for both students and visitors. A location at the southwest corner of the intersection of Lancaster and Ithan would be highly public yet also linked to the academic core. Members of the campus community, including South Campus residents and many arriving by car, would pass it every day. It would be the anchor for the “hamlet of Villanova.”
- A University Shop along Lancaster Avenue would be highly visible and convenient for students and to visitors parking on site to attend events in the Stadium, Pavilion or other campus venues.
- Admissions could be located here, perhaps just west of Church Walk. It would be easy to find, adjacent to parking, and convenient – via newly accessible routes – to the campus core. A widened crossing zone – between Church Walk and the drive in front of St. Rita Hall – would facilitate crossing Lancaster Avenue with large numbers of people. The same factors could make this a good location for Alumni Relations or, as discussed in some Committees, a Welcome Center.
- Career Services, which serves as a link between students, alums and potential employers, could also benefit from this location, particularly if collocated with Alumni Relations and Admissions.
- Some academic programs – for example, Continuing Education – could find it convenient to hold some classes in this location.
- Locating Public Safety within a parking structure would help increase the security in and around parking areas while also providing access to vehicle parking. Public Safety would also be close to student housing at an important community interface.

3. Other University Uses

- Student services. Students could find the south side of Lancaster convenient for some frequently-visited student service departments.
- Coffee shop or University white-tablecloth dining. This could also be a convenient location for a University ‘Holy Grounds’ outlet. A restaurant with table service could help keep faculty and staff on campus (and out of their cars) at lunchtime.

4. Non-University Retail

The inclusion of non-University retail has also been discussed. This would be an important subject of discussion with Radnor Township, weighing the potential amenity of community-desired retail (if any) with traffic concerns.
C. TRAFFIC, TRANSIT AND PARKING

1. Transit

The SEPTA Route 100 Station would be more visible to the campus and the community; the pedestrian path between it would be made safer and more pleasant.

University shuttle routes would make stops on interior roads within the new development. (See Section VII.A.)

2. Traffic

The Transportation Consultant’s report, in the Technical Appendix to this report, considers preliminary concepts for transportation improvements related to development of the “hamlet,” for discussion with the relevant Township and state transportation authorities. Preliminary traffic control suggestions include:

- Working with Radnor Township and other stakeholders to investigate options for improving the Lancaster Avenue / Spring Mill Road intersection.
- Reconfiguring the existing minor access at the Lancaster Ave / Church Walk intersections to better align pedestrian paths across the roadway and to widen the crossing zone to accommodate large pedestrian groups. Congregation areas on either side of the roadway would be provided to accommodate waiting pedestrians and minimize delay.
- Consolidating access to parking areas west of Church Walk, eliminating multiple existing driveways.
- Potentially, a new signal along Lancaster Ave between Spring Mill Road and Church Walk. This would assist pedestrians crossing Lancaster without negatively impacting vehicular traffic.
- Wider sidewalks and congregation areas, and possible signal retiming, at the intersection of Lancaster and Ithan Avenues.
- Limiting egress from parking areas between Church Walk and Ithan Avenue. Access into this area (the current Main Lot) would be provided from curb cuts on both Ithan and Lancaster, but only right-turn-out would be allowed onto Ithan; all other exiting vehicles would turn onto Lancaster Ave. This would mitigate existing issues with exiting vehicles making left turns and blocking Ithan Avenue. The addition of a right-out-only onto Lancaster Avenue, between Church Walk and Ithan Avenue, would help relieve congestion.
- From parking in the location of the existing Pike Lot, right-turn-out onto Ithan towards Lancaster Ave, as sight distance allows.
- Possibly, a new signal along Lancaster Ave between Spring Mill Road and Church Walk. This would assist pedestrians crossing Lancaster without negatively impacting vehicular traffic.
- Wider sidewalks and congregation areas, and possible signal retiming, at the intersection of Lancaster and Ithan Avenues.
- Limiting egress from parking areas between Church Walk and Ithan Avenue. Access into this area (the current Main Lot) would be provided from curb cuts on both Ithan and Lancaster, but only right-turn-out would be allowed onto Ithan; all other exiting vehicles would turn onto Lancaster Ave. This would mitigate existing issues with exiting vehicles making left turns and blocking Ithan Avenue. The addition of a right-out-only onto Lancaster Avenue, between Church Walk and Ithan Avenue, would help relieve congestion.
- From parking in the location of the existing Pike Lot, right-turn-out onto Ithan towards Lancaster Ave, as sight distance allows.

3. Service

Service areas of new buildings would be accessed via an internal roadway between the buildings and parking.

4. Parking

Our plans assume that:

- The University would keep at least the same amount of parking on site. Additional parking would be added to accommodate the performing arts center and other new uses.
- Zoning relief would be discussed for student housing-related parking, as housing additional students on campus would actually decrease the number of students with automobiles as fewer students would commute to campus. (If zoning relief were not forthcoming additional parking spaces would be needed, one space for every three student beds.)
- The surge in parking demand caused by large campus events, like basketball games, would continue to be treated as exceptions, with off-site parking and shuttles. Pricing could be structured to encourage the use of off-site lots; in any case, areas of convenient parking would be reserved for evening students.
- Parking would be provided to accommodate changes at the campus core.
Parking for SEPTA Route 100 customers would be located on site. The University should investigate relocating all SEPTA parking to the north side of the Route 100 tracks, to alleviate park-and-ride traffic on Aldwyn Lane.

Some metered surface parking would be desirable for retail uses.

The most attractive places for multiple-level parking structures are where both sides of the Route 100 tracks are owned by the University – from the softball field to Church Walk.

The change of grade along the railroad tracks on the western half of the site could allow for a small two-story structured parking lot, to be built into the slope of the hill.

The diagrams on page 39 show one potential configuration of parking.

We have indicated zoning-required parking for additional areas, except that parking is not added for new student housing. More stringent requirements for allowing students to bring cars on campus could help create support in the Township for this approach. Phasing of parking would need to be carefully coordinated with the phasing of other projects, to be sure adequate parking is available in all phases.

D. STORMWATER MANAGEMENT

The Technical Appendix to this report includes a Civil Engineering study describing three alternative approaches to stormwater management in this area. Our recommended approach includes a holistic approach to maximize prevention of downstream flooding:

- In early phases of the project, creation of a large detention basin on Aldwyn Triangle to manage stormwater runoff from a watershed that includes most of the University's Main and Pike lots, Aldwyn Triangle, areas of the residential neighborhood immediately south of Aldwyn Triangle, and portions of Lancaster and Ithan Avenues.

- Underground detention basins to manage the second watershed, the University-owned areas west of Church Walk.

Because this approach sacrifices the University's ability to build on Aldwyn Triangle, it would be practical only if some zoning relief were provided to allow more intense development in other areas.

E. PHASING

Construction of the "hamlet" could occur in phases. For example, we believe the early increments should include:

- the pedestrian streetscape along Lancaster Avenue from Spring Mill Road to Pike Field.

- development between Church Walk and Ithan Avenue. This area has the strongest relationship with the campus core, and could help form an imageful and convenient link between the core and South Campus and Route 100 tracks. Here, the University owns both sides of the Route 100 tracks –property continuously owned by the University since the mid-19th century. This development would include a new performing arts center, the University Shop and about 565 to 600 student beds in a combination of suites and traditional single and double rooms.

- structured parking to meet parking needs while preserving green space, in keeping with the principle that parking should be dense and compact, as opposed to dispersed and sprawling.

- stormwater management, preferably including a detention basin on Aldwyn Triangle.
Development of the property on the southeast corner of the intersection of Lancaster and Ithan Avenues (Pike Lot) could occur at the same time, or remain surface parking lot until a second or third phase of development. If developed, the property could accommodate much of the University’s parking demand in structured parking in addition to other uses; however, it is also the only large parcel the University owns suitable for future development. The urgency of present needs should be weighed against future flexibility.

Full development of the property between Church Walk and Spring Mill Road could occur in a second phase or be reserved for even longer-range development. In the interim, new parking could be developed along the tracks, without demolishing the existing houses. Developing the entire length of Lancaster Avenue, from Spring Mill to Ithan – about equivalent to the entire length of “downtown” Wayne – could result in more public space than the University needs at present. Although the houses are not efficient for most University uses, the area – unlike the Main parking lots – contains a considerable amount of green space, and is not considered an eyesore. An active pedestrian environment depends in large part on an intensity of interesting and accessible public or commercial uses at grade. Early increments should place such uses cheek-by-jowl rather than disperse them along the length of the street. Therefore, we recommend that the University’s small buildings along Lancaster remain in place until it is clear that demand exists for at-grade, pedestrian oriented space. Consolidating the surface parking behind these small buildings could allow for the removal of several small driveways, improving safety for those traveling by foot and limiting the number of curb cuts on Lancaster Avenue.

F. ZONING

Deviations from existing zoning – in the form of a new Overlay District or a series of individual variances – would be needed to develop the property in a way consistent with sound planning, the goals of the master plan – and as we understand them – the goals of Radnor Township and the community.

1. Setbacks and Lot Coverage

The Setback and Coverage Map on page 41 demonstrates the zones of possible development, as determined by required setbacks and maximum allowable lot coverage.

- The three lots zoned as Planned Institutional require that buildings be set back 120 feet from the street right-of-way, but allow surface parking 60 feet from the street. Maximum building footprint is restricted to 30% of lot area, and a minimum of 55% of the lot must be devoted to landscaping, so that 15% of lot area remains available to be used as surface parking, interior roads or other paving.

- In the Commercial-Office-zoned lot, only 20% of the area may be devoted to building. A minimum of 50% of the lot must be landscaped, leaving 30% available for parking, interior roads or other paving. Buildings must be set back from the street right-of-way at least 65 feet, and from side property lines at least 25 feet.

- Along the R100 rails, there is a 50’ right of way from each side of the center line of the tracks. At least 50’ will be reserved as a buffer planting strip where a residential zone abuts.

- A 200-foot setback is required along the easternmost lot line of the current Pike Field as this property is adjacent to residences.

- Building on Aldwyn Triangle is greatly restricted due to the lot’s awkward proportions and the presence of a stream near Ithan Avenue.

- On the north side of Lancaster Avenue, a 120-foot setback from the street is required for new buildings. In aggregate, the University is well within the established limits for lot coverage.

2. By-Right Development (Not Recommended)

Under current zoning requirements, the following development could occur.

- The Commercial-Office District may only be used for office functions not associated with retail. For the University, the use would mainly be as administrative offices. Rear parking is feasible because the buildings can be relatively close to Lancaster Avenue.

- On the parcel of land across from Dougherty currently occupied by the main parking lot, building program can be of various institutional uses, including residences and academic spaces. Because of the narrow proportions of the lot, parking must be located in front of the buildings.

- In order to meet the University’s parking demands, several large parking garages could be built on Pike Field. The varsity softball field would need to be relocated off-site (similar to the varsity baseball field).

- Since all buildings on these four parcels are restricted to 38 feet in height, sufficient space for parking or student housing could not be attained.

- To meet the demand for housing, the University could also build along the northern edge of Lancaster Avenue, so long as the buildings are located at least 120 feet from the street right-of-way, and 45 feet from existing buildings.

We do not recommend this pattern of development, as it would destroy much of the Lawn and obscure views of the Church, and would not create a positive image or sense of place along Lancaster Avenue. Additionally, by building on Pike Field, the University would lose an important buffer between it and a residential neighborhood.

3. Recommended Development

Our recommended development is based on calculating lot coverage throughout the campus; exceptions to height, setback and building use would still be required.
IV. A MORE PEDESTRIAN-FRIENDLY CAMPUS
IV. A MORE PEDESTRIAN-FRIENDLY CAMPUS

This section includes excerpts from Landscape Consultant’s report; the entire report is included in the Appendix to this document.

Major rail and vehicular traffic routes pass through the Villanova campus, making the University easily accessible to the region, but also creating barriers between campus precincts. Even within precincts, the campus is largely automobile-centered. In many areas, pedestrians and vehicles share curbed asphalt roads; conflicts between pedestrians, automobiles and service vehicles are constant occurrences, particularly during class changes. In addition, pedestrian routes through the campus are confusing and difficult to visualize.

Imagining pedestrian walkways as a campus-wide system of connections could make orientation and wayfinding clearer and more coherent – and by shifting the emphasis of the campus infrastructure from cars to pedestrians, Villanova’s campus could become more welcoming, beautiful and accessible.

As described in the Landscape Consultant’s report, excerpted and adapted in the sections below and reproduced in full in the Appendix of this document, goals for a pedestrian-friendly campus include:

- minimizing the impact of vehicles at the campus core;
- eliminating conflicts between pedestrians and vehicles;
- clarifying and strengthening the pedestrian path system;
- identifying and improving sightlines to major destinations;
- improving wayfinding;
- enhancing and beautifying major arrival points;
- prioritizing readily achievable barrier removal along paths to provide universal access to all buildings on campus;
- improving pedestrian safety.

A. SAFETY

1. Eliminate (Most) Cars from the Central Core

Cars are a necessity of contemporary life and must be accommodated on campus. However, much can be done to minimize the impact of the automobile and to eliminate the constant conflict between vehicle and pedestrian. Removing cars from the center of campus, reorganizing service access and relocating parking to the edges of campus will put the needs of pedestrians at the heart of the campus circulation system. Except in exceptional circumstances, such as to accommodate the needs of individuals with disabilities or of monastery residents, parking at individual buildings should no longer be allowed. Necessary vehicle circulation can be accommodated in a safe and efficient manner, but should be seen as subsidiary to the movement of pedestrians. Limiting central campus to service and emergency vehicles would have access to all interior roads, including service routes, and to otherwise pedestrian-only paths designed for such vehicles. Providing denser storage of parked cars is an important key to creating a more pedestrian-friendly campus -- without surrounding the center with a sea of parking. Parking is considered in Section VIII.B of this report.

2. Street Crossings

a. Across Lancaster Avenue

We recommend improved on-grade crossings along Lancaster Avenue, with improved crossing points at Ithan Avenue, Church Walk and Spring Mill.

Improvements would include:

- Widened sidewalks along the south side of Lancaster, with planted buffers between the sidewalk and the road.
- Oversized crosswalks designed to accommodate large groups of people, with widened areas of paved sidewalks on each side, to allow groups to gather waiting for light changes. These should be placed at the primary crossing points along Lancaster -- Church Walk and Ithan Avenue. (See Landscape Consultant’s report in the Appendix for crosswalk material suggestions.)
- Potentially, an intermediate crosswalk between Spring Mill and Church Walk, as described in Section III.C.

Pedestrian tunnels and bridges were considered as options but are not recommended:

- Owing to the linear nature of the sites being connected, multiple crossing points would be required.
- Pedestrians are, in general, unlikely to change grade to cross streets.
- The approvals process could take years, and costs could be prohibitive.

fig. 36. Pedestrian and vehicle conflict
b. Across Ithan, between Athletics and the Campus Core

In May of 2008, Radnor Township installed several “Yield to Pedestrian Channelizing Devices” on roadways that serve the University. Removal of some central campus parking spaces will alleviate multi-modal conflicts by reducing traffic near the Ithan gate. There is potential at this intersection to integrate the Athletics campus with the Campus Core in the future.

c. Between West Campus and the Campus Core

Making more convenient, more barrier-free connections between the R-5 SEPTA station and the campus core, as described below in Section IV.C.3., would also improve safety for pedestrians and bicyclists travelling between West Campus and the campus core.

B. WAYFINDING

1. Campus Gateways: Lancaster Avenue

Whether travelling by foot, train or car, most visitors to campus arrive via Lancaster Avenue. The north side of Lancaster contains striking vistas to some of the University’s most iconic scenery, including St. Thomas of Villanova. In contrast, the south side of Lancaster, with its unattractive expansive asphalt parking lots, does little to strengthen the university’s image and, at worst, creates a negative impression of the campus for visitors and passersby. Improving the streetscape will help enhance this primary gateway to campus.

An enhanced streetscape, particularly south of Lancaster, will greatly strengthen this edge of campus by helping to define the transition between the surrounding community and the university, and to unify the campus along Lancaster Avenue. Assuming new development occurs on the south side of Lancaster, a setback of 35’ – 40’ would be ideal, as it would allow for new buildings while easily accommodating wide planting beds with street trees and a broad pedestrian boulevard of 14’. The size of the walk would allow for outside seating, such as benches. Parallel parking along Lancaster, currently prohibited, would help to calm traffic and could be located periodically between “bump-outs” planted with sizable shade trees. Large canopy trees planted on the north side of Lancaster will help to frame views into central campus. These should be planted widely apart and be limbed up so as not to impede views towards the iconic St. Thomas Church.

Improving the streetscape along Lancaster will also enrich the pedestrian experience. (See Section III.)

2. Campus Gateways: Transit

The two SEPTA transit stations that run directly through Villanova’s campus are valuable campus and community assets; encouraging their use could help bring Villanova closer to its goals for sustainability.

The R-5 commuter rail line bisects the campus core from North and West Campus, and with Spring Mill Road, creates a barrier to pedestrian access between West Campus and the campus core. A new, universally accessible route between the SEPTA R-5 Station and the campus core would help re-establish the rail station as a primary gateway to campus. This would also create an accessible route between West Campus and the campus core -- for individuals with disabilities and for bicyclists.

3. Hierarchy of Pedestrian Pathways

b. Across Ithan, between Athletics and the Campus Core

With vehicles removed from the center of campus, pedestrian paths can be reconfigured, simplified and made more direct while still serving the many desire lines. These desire lines are defined largely by the various building sizes, locations, departments and classes that take place there. Landscape also helps to define these desire lines. A clear hierarchy of paths which responds to the level of pedestrian traffic between desire lines will help to facilitate both movement and wayfinding. These paths range from broad promenades which can accommodate large groups of people to smaller, more intimate paths. Primary routes through campus should be visually differentiated from secondary routes through width, paving and adjacent vegetation, with rows of trees along all major paths to strengthen edges and frame views.

Primary pedestrian routes (such as the pathway connecting Sullivan/Sheehan and the Connelly Center) should be 20’ wide at minimum in order to accommodate heavy foot traffic, service carts and emergency vehicles. This width allows small groups of people walking abreast to easily pass other groups or individuals and can also accommodate slow speed bicycle traffic. If a conversation forms in the walkway, others can pass without hesitation or without moving off the walkway. Two primary paths, from Tolentine Hall to Bartley Hall and from the Mendel to the St. Thomas of Villanova Church, form east-west and north-south axes through the campus and respond to major access points. A stroll along these axes brings individuals through important student life, academic and residential precincts. Many of the smaller, intermediate campus paths begin or end along these axes.

At 10’-14’ wide, intermediate paths connect the inside perimeter of open spaces and building entries to major paths. These, too, serve major desire lines and can accommodate heavy foot traffic, carts and emergency vehicles. Minor paths serve less heavily trafficked areas and, at a minimum width of 6’-8’, allow for two people to walk abreast or to pass one another. Wherever possible, paths should have grades of less than 5% and be free of steps or other impediments in order to allow universal access for individuals with disabilities.

Where each path terminates at a building entrance, the entrance should be strengthened by the addition of terraces. In some cases, these areas are simple changes in paving which give prominence to the entrances, making them easier to find. In other instances, they are small plaza-like areas with distinctive pavement, trees, plantings and seating areas which function as outdoor break spaces or areas for students to gather between classes.
For many visitors to campus, the pathway which connects Bartley, Sullivan and Sheehan to the Connelly Center, Dougherty and Mendel Field is the primary point of access to the campus and helps to form their first impression of Villanova. While this area is the major east-west route through campus, at present it is a "concrete jungle" of ramps and stairs which is neither attractive nor pleasant. Regrading the area between Sullivan and Connelly will create an ADA accessible walkway and eliminate the need for stairs and ramps. This is possible through the careful use of retaining walls and allows the paved area to be narrowed to 20', freeing up additional space for vegetation and transforming the walkway into a new landscaped boulevard. Benches located along the path encourage students to stop or gather, whether to relax, study, or simply people watch. The resulting atmosphere is more lively and interactive.

This is further emphasized by a newly landscaped quad at Sullivan and Sheehan. Currently an unexceptional space through which students, staff and visitors must pass, the area between Sullivan, Sheehan and Connelly will be transformed into an attractive quad with open lawn, shade trees and, at the edges, masses of shrubs. This space provides opportunities for dorm residents to relax, study, or play and, with the new activity along the enhanced pathway, it is the perfect place to "see and be seen."

Despite the re-design of both the pathway and the quad at Sullivan/Sheehan, the path width and center "island" of pavement at the dorms is sufficient to accommodate a number of automobiles during move in/move out day.

4. Mendel Field – A Campus Icon

With the exception of the lawns along Lancaster Avenue, Mendel Field currently provides the only large swathe of grassy open space in the center of campus and, therefore, it is an important part of the campus landscape. This plan proposes that the edges of the field be made slightly concave and be defined by low curving seat walls in the form of an oval. In some areas these walls retain earth and, in others, they are free standing. A row of trees just outside of the wall helps to further define this new oval space. While still suitable for various forms of recreation, the space is an ideal location for large and small gatherings, including vigils and prayer meetings.
5. The Grotto

With vehicles, shrubs and the mazelike path system removed from the Grotto, this space can be transformed into a welcoming, open landscape which reveals and frames views of the surrounding architecture.

C. ACCESSIBILITY IN THE LANDSCAPE

A fundamental goal of any campus landscape project must be improving access to all areas of campus for those with disabilities. There are several ways that circulation can be improved to enhance mobility and help orient people and, given the difficulties presented by the campus’ topography, ADA paths must be easily located and identified with clear path signage. Crosswalks, cross signals and curb cuts should be provided where needed to help facilitate movement.

There are numerous improvements necessary (in both landscape and architecture) in order to make the campus accessible. Several have been identified in this landscape proposal, and are outlined below.

1. Church Walk

For disabled students crossing at St. Thomas, a series of steps makes it difficult, if not impossible, to continue along the path to the center of campus. This crossing is enhanced through the addition of two new barrier-free pathways, on which students can easily proceed after crossing Lancaster. The western path provides more direct and barrier free access to Tolentine Hall and CEER. Moreover, the Lancaster crossing at Church walk is enhanced through the addition of a very wide crosswalk and crossing signals designed for the blind.

2. Near St. Augustine Center

The landscape in front of St. Augustine Center is quite steeply sloped and ADA access for those traveling from the east could be improved. An ADA path beginning in front of the adjacent parking garage (behind Kennedy) and terminating below the final set of stairs can be accommodated with minimal regrading of the slope. Moreover, regrading this slope would allow for the removal of the large, imposing retaining wall at the eastern slope, opening up the landscape and creating a more welcoming arrival at the building.

3. SEPTA Station and Crossing from Northwest Campus

Traveling between the campus core and north/west campus is extremely difficult for those with disabilities. Whether choosing to travel beneath the SEPTA tracks (via the tunnel) or over Spring Mill Bridge, pedestrians are faced with stairs, steep slopes, or both. The existing tunnel beneath the SEPTA tracks, currently cramped, dark, unattractive and accessible only via stairs, is made safer and more pleasant through widening, which allows easy pedestrian access between the campus core and the west/north of campus. 10’ wide ADA ramps on either side of the tunnel make the crossing less physically demanding and suitable for bicycles as well as pedestrians. On the south side of the tracks, the ramp reaches grade and connects to the walkway at the rear of Mendel. On the north side, a circular ramp emerges at grade with the sidewalk in front of the SEPTA station.

4. Other

Other aspects of an accessible campus are considered in Section VIII.C.
V. RENEWED AND EXPANDED STUDENT LIFE FACILITIES
V. RENEWED AND EXPANDED STUDENT LIFE FACILITIES

A. AROUND THE OREO

Most people in the Villanova community agree that the Oreo is an important hub and landmark of Villanova student life, but there is also general agreement on need for more -- and better -- space for student activities of many kinds: student organizations, music activities, dining, and just “hanging out.” Some of these spaces exist in the buildings around the Oreo, but many feel that these do not “add up” to a true student-centered place.

1. Renovations and Additions

We believe it is possible to renovate the existing buildings around the Oreo to create a lively center for student life. The drawings on pages 48 and 49 illustrate conceptual options for these buildings. Key components include:

• Re-grading and re-landscaping the area between the buildings to create a more beautiful environment and more positive sense of place. (See Section IV.B. and the Landscape Consultant’s report in the Appendix to this report.)

• Creating a more transparent addition along the pedestrian path -- so that building users and passersby can “see and be seen.”

• Completely renovating, and adding to, Dougherty, providing more visible and direct links to important spaces at the lower level. Depending on the food service direction chosen (see Section V.B.), it may be possible to create a new event space similar in size to the Villanova Room in the current dining area, with a terrace overlooking the Lawn.

• Providing back-of-house connections, including a ramp or elevator, between the lower levels of Connelly and Dougherty.

• Converting parts or all of Vasey -- with or without an addition -- to student-centered activities space when the Theater Department moves to a new performing arts center; reorienting building circulation toward Connelly. It may be possible to create a bridge-like connection, with a lounge, between Dougherty and the second level of Vasey Hall.

• Converting the Admissions space in Austin -- originally the campus library -- to public space (securely separated from residential spaces), perhaps a kind of campus “living room,” when Admissions moves to new space elsewhere.

2. A New Student Center

Many in the University feel strongly that there is a need for a new, single student center building rather than a student-centered precinct. Some of the goals of the building would be similar to the renovation-addition option:

• The major pedestrian path would be re-graded and landscaped, with trees lining the path.

• Greater transparency between the building and the main path could add to the “see and be seen” quality of the building.

• Back-of-house underground connections between a central kitchen in the new building and food service in Connelly could be accomplished.

A new building would allow more flexibility in design, and more capacity in certain areas of the building:

• A large event space at the Lawn level could extend slightly further into the Lawn and inflect toward the Church. The Lawn’s beautiful copper beach tree could be jeopardized by an addition extending too far south; care should be taken to precisely locate this tree and protect it.

• More space could be provided for organizations and offices at the upper level -- the largest quantitative difference between a renovated building and new.

Either replacement or renovation of Dougherty would most likely require “down time” of at least 18 months, and possibly longer. Sequencing of projects, particularly around food service, would need to be carefully coordinated. Some thoughts on this are included in Section V.B.

3. Choosing between Renovation and Replacement

The decision whether to add to or replace Dougherty should be based on a more detailed study, including a finer-grained estimate of costs and potential benefits of each option, closer in time to construction.
B. CENTRAL CAMPUS DINING

Food service planning consultant Envision Strategies has met with students and members of the Dining Services team to discuss food service needs on campus. It is clear that whatever the plan for food service, having a large and central venue at the campus core will be an important component. Dougherty Hall is the most appropriate site for this use, by virtue of its location at the social center of the campus, its proximity to the Connelly Center, and service access away from main pedestrian paths. Other available sites on the main campus block are too far from the center, more ideally located for academic use, or too difficult to provide service access.

Here we illustrate alternate diagrams for Dougherty, based on alternate views of on-campus food service. The decision between options will depend on the University’s vision of food service at the time of implementation and on the demand for other program uses within a new or renovated Dougherty Hall.

1. Based on Existing Demand

In this option, sizing is based on the existing number and mix of venue types in Main Campus, current meal/transaction volumes and distribution, and the assumption that all operations will be supported at the appropriate levels by the Central Kitchen.

2. Moderate Change and Growth

The second option is based on moderate change and growth, as described in Envision Strategies’ report:

- Dougherty Dining Hall is renovated and activity increases in response to improvements.
- Faculty Dining Room is closed.
- The IK and Corner Grille are replaced by a table service Diner concept and a Retail Marketplace featuring 3 to 5 quick service concepts.
- Belle Air Terrace is renovated and simplified to feature 2 to 3 concepts.
- All other venues remain the same.
- Operations within Dougherty and Connelly experience 10% growth; others remain stable.
- All operations are supported at the appropriate levels by the Central Kitchen.

Physical implications of this strategy include:

- An underground connection between the back of house kitchen spaces in Dougherty and Connelly.
- Event space on the ground floor level approximately the same size as the Villanova Room with an adjacent catering kitchen.
- Expanded back of house kitchen space on the ground floor.
- A relocated all-you-care-to-eat (AYCE) community style dining option on the first floor, overlooking the Lawn.
- A renovated and expanded retail operation, perhaps the Italian Kitchen and Corner Grille -- or possibly a different combination of concepts -- facing the Oreo.
- Prominent student life/activities space on the first floor.

3. Maximum Emphasis on Meals Eaten in Community Dining

The third option is based on a maximum emphasis on meals eaten in community dining:

- This scenario shows the impact of shifting to a renewed emphasis on AYCE meals in the center of campus.
- Meal Plan Equivalents (MPE’s) are eliminated in Dougherty and Connelly; these meals are moved to Dougherty Dining
- The Italian Kitchen, Corner Grill and Faculty Dining Room operations are closed.

- The cash and debit card meal activity associated with the three closed venues are assumed to be picked up by the Belle Air Terrace; in addition, we assumed Belle Air Terrace revenues would grow by as much as 25% in response to the reduction in MPE traffic.

In this scenario, physical implications include:

- An underground connection between the back of house kitchen spaces in Dougherty and Connelly.
- Expanded back of house kitchen space on the ground floor.
- A renovated and expanded retail operation, perhaps the Italian Kitchen and Corner Grille -- or possibly a different combination of concepts -- on the ground floor.
- A relocated AYCE community style dining option on the first floor, with two seating areas overlooking the Lawn and facing the Oreo.

4. Interim Plans

If a complete renovation or replacement of Dougherty is not anticipated in the very near term, some improvements should be made in the interim to increase the accessibility, amenity and appeal of the dining hall. One option is illustrated in the diagram on page 49. Changes would involve:

- Alterations to provide barrier-free access to the dining hall and other major public spaces in the building. This could involve a new public elevator and/or a direct and convenient public entrance to the ground floor dining area from the exterior.
- Removal of the non-ADA-compliant ramp to the dining hall.
- Reconfiguration and renovation of the servery, including expansion into the space now occupied by the ramp.
- Improvements to the dining area, including finishes, lighting and – if funds allow – creation of a terrace overlooking the Lawn.

Even if kitchen renovations are not imminent, a link between Dougherty and Connelly should be constructed when improvements to the landscaped plaza between them occur. Perhaps the Belle Air Terrace in Connelly could be redeveloped in conjunction with the near term improvements to Dougherty. If the cyber lounge could be removed from Connelly, this would allow space for a Belle Air Terrace servery expansion.
C. MUSIC ACTIVITIES AND STUDENT ORGANIZATIONS

We anticipate that, at some point in the future:

- Student Activities would have space in Dougherty (or its replacement) and Vasey Halls.
- Music Activities may have space in a new performing arts building on Lancaster Avenue.

In addition, the Chapel in St. Mary’s Hall could be reconfigured to provide additional practice or organization space while also improving the space for music performances or lectures. We include here a sketch showing a potential reconfiguration of this multi-story space while maintaining its stained glass windows and some sense of its original volume. We understand that the Chapel is only infrequently used for devotion or worship, and is more often used by Music Activities.

D. RECREATIONAL ATHLETICS

The new fitness center at the Davis Center is extremely popular, but there is still need for both indoor and outdoor recreational athletics space across Villanova’s campus.

(Space needs related to varsity teams are outlined in Section IX.A.7.)

1. The Athletics Campus Overview

The Athletics Campus combines varsity, club and intramural uses; these uses co-exist with parking and University Staff (grounds crew). If feasible, creating space for the grounds crew in another part of campus – perhaps related to the rest of Facilities on the north side of the SEPTA R5 tracks – could allow additional space for Athletics “under” the stadium. This could, perhaps, allow some uses to be decanted from Jake Nevin, allowing more of that building to be used for recreational athletics or other purposes.

Using the space under the Stadium to meet Athletics Department needs would also ease pressure for eastward expansion of Athletics facilities and help the University maintain its existing landscape buffers between the Athletics campus and its residential neighbors.

2. Jake Nevin and the Butler Annex

Jake Nevin and the Butler Annex should be considered together and in detail to determine a plan for increasing the usefulness of the facilities in this area for intramurals, club sports and recreational users.

- Considering the changing use of Jake Nevin could yield some ideas about how the space could be made more useful. For example:
  - Replacing the Butler Annex with a taller, more up-to-date space could provide practice space that Baseball, Field Hockey, Football, Men’s and Women’s Soccer, and Softball varsity teams could share with intramurals, club sports and recreational users.
3. Central Campus

a. Alumni Gym and Vasey

The gym in Alumni Hall -- although not an ideal athletics space -- serves an important need for indoor recreational athletics in the campus core. If converted to another use as part of an overall renovation of Alumni Hall, other space on central campus should be provided to fill this void.

One alternative, after a new Performing Arts building is constructed, would be to convert Vasey Theater -- a high-volume space almost identical in size to Alumni gym -- to recreational athletics multi-purpose space as part of new, student-centered reprogramming of Vasey Hall. Even if the gym in Alumni remains, a central campus multi-purpose/ exercise room in this location is likely to be well-used.

b. Mendel Field and the Front Lawn

Proposed changes to Mendel Field (Section IV.B.4) would slightly enlarge the field; its design assumes that this space continues to be used for recreational athletics as well as ROTC drills and other events.

The Front Lawn should be preserved for its value as recreation space, as well as for its beauty and iconic importance to the campus.

4. West Campus

Opportunities to improve athletic recreational space on West Campus include:

a. Changes to Existing Outdoor Fields and Courts

- Providing artificial turf on one or both fields in the West Campus Soccer Complexes, would allow shared use for recreational athletics, including club sports and intramurals. (Currently, the need to maintain playable conditions precludes such use.)
- Converting the full court outdoor basketball courts to half courts or other recreational courts.

b. Northwest Quads

Stephen Stimson Associates

Simplifying the circulation patterns in the quads at the west campus dorms will create more usable open space and allow for a wide variety of activities and events to occur. These large areas of uninterrupted open space can be used to accommodate formal and informal gatherings of students. Separate or combined, the two spaces can be used for dorm-wide or university-wide social events, such as barbeques, performances, outdoor movie nights, open air exhibitions, end of term celebrations, etc., as well as for use by individuals and small groups. Such events will enliven these spaces and encourage social interaction, both among those individuals living in the west campus dorms and between those on west campus and those living in central or south campus.

Programmed activity may also be added to these areas, while still allowing ample open space for more informal or casual activities. The addition of two sand volleyball courts in the space between St. Clare, Welsh, Jackson and Rudolph will create hubs of activity. Small groups of students playing sand volleyball, visible to those on the floors above, will encourage students out into the quad. The space between Galen, Moulden, Farley and Klekotka is proposed to be more open and flexible in nature. In both areas, emergency vehicle access through the center of the quad is possible.

c. Other West Campus Improvements

The Athletics Department has raised the possibility of converting St. Mary's pool and locker rooms to other uses; this would be a long-term option, if the Pavilion pool were replaced. The St. Mary's pool area would then be available for other recreational athletic space, including a weight room and group exercise room.

5. South Campus

- The existing gym in Stanford Hall is out-of-date and could be renovated to extend its usefulness to the campus community.
VI. A RE-IMAGINED AND EXPANDED HEART OF CAMPUS
VI. A RE-IMAGINED AND RENEWED HEART OF CAMPUS

The area around the Grotto – including Falvey, Old Falvey, Alumni, Austin and Corr, with paths extending to Mendel and the St. Augustine Center – has the potential to become a much more memorable, lively and iconic campus place. Paths and landscape would be reconfigured, linking uses to one another and to other areas of campus; most vehicles would be prohibited from paths to create a more pedestrian-centered campus green.

Besides changes to landscape and circulation, key components include:

• The renovation of Falvey Library, with more active uses visible along its front façade (Section VII.B.).

• Renovating some of the buildings around this space for use as academic offices and seminar rooms, perhaps associated with the liberal arts and sciences. Geographically central and including some of the institution’s most historic buildings, this location could help align the physical campus with its academic mission by providing a locus for the liberal arts and sciences at the “heart” of the campus.

• The addition of more community-wide or academic uses, strategically located. Alumni Hall, for example, could be converted to academic use – or a mix of academic and senior administrative use – after additional student residences have been built.

• Removing incompatible uses from the core – particularly Housekeeping, in the lower level of Alumni, which brings vehicular traffic and service deliveries to the center of campus.

• Maintaining at least a core component of student residences in this area – in tandem with other uses – to ensure 24-hour activity at the center of campus. The University should continue its program of life safety improvements and accessibility improvements to existing dormitories.

Ideas for new uses in Alumni Hall, St. Rita’s and the first and lower levels of Corr are considered in the diagrams on pages 54 and 55. Conversion of residential spaces to other uses would need to be preceded by new student living spaces as part of a long-term plan.

New uses are also considered for Kennedy – and could be considered as near or long-term alternatives to complete replacement of the building.
KENNEDY
Existing Uses:
- Bursar
- Financial Aid
- Enrollment Management
- Graduate Studies
- Residence Life
- University Mail
- University Shop

Ideas for Future Uses in Renovated Space or a New Building:
- Academic departments
  (Related to Arts and Sciences?)

ST. RITA
Existing Uses:
- Campus Ministry
- Residential

Ideas for Future Uses:
- Admissions?
- Campus Ministry / Center for Peace and Justice?
- Remain residential?

---

KEY
- OFFICES AND CLASSROOMS IN EXISTING SPACE
- SERVICE, TOILETS
- OTHER STUDENT-ORIENTED SPACE
- ADDED WINDOWS AT PERIMETER

KENNEDY AND ST. RITA OPTIONS
Villanova University Campus Planning

Base Map Source:
Information Source:

Villanova University Campus Planning

**CORR HALL**

**Existing Uses:**
- Career services
- Greek life

**Ideas for Future Uses:**
- Academic departments?
- Campus Ministry?
- Remain residential above?

**ALUMNI HALL**

**Existing Uses:**
- Recreational gym
- Residential housekeeping
- Student residences

**Ideas for Future Uses:**
- Recreational gym
- Academic departments?
- Central administration?
- Remain residential?

Where should Housekeeping be located?

**KEY**
- OFFICES AND CLASSROOMS IN EXISTING SPACE
- SERVICE, TOILETS
- OTHER STUDENT-ORIENTED SPACE
- CHAPEL
- ATHLETIC SPACE

**CORR AND ALUMNI OPTIONS**

Villanova University Campus Planning

Base Map Source:
Information Source:
VII. RENEWAL OF KEY ACADEMIC BUILDINGS
VII. RENEWAL OF KEY ACADEMIC BUILDINGS

Renewal of existing academic buildings is an important component of the campus plan. Here we consider the future of Tolentine Hall, Falvey Library, and other, smaller academic buildings, and consider potential locations for future academic buildings.

A. TOLENTINE HALL

This generously-proportioned building is an important part of the campus' history and identity. With renovation and a significant addition, it could become the University's premier academic building with technologically advanced classrooms, interdisciplinary labs, and common space.

It is one of the University’s largest academic buildings, and heavily used by the campus community. The building, though it appears to be generally sound, is in poor repair and its teaching spaces are outmoded; its overall condition and provisions for life safety, accessibility and comfort require improvement.

The diagrams on page 61 outline the possibility of renovation and an addition. Proposed changes include:

- Complete renovation of the existing building.
- A new addition creating a “fourth wall” of the courtyard, with a new building entrance facing Mendel Field.
- Infill of the courtyard at the first and basement levels only, with skylights to admit natural light and, potentially, a vegetated green roof.

We expect that renovation and addition would produce a building of about 161,380 gross square feet, with about 104,900 sf of net assignable area. Program options for Tolentine are summarized in the charts on pages 58 through 60.

fig. 51. Potential renovation and addition to Tolentine Hall
### PROGRAM OPTIONS FOR TOLENTINE - OPTION 1

**Assuming net-to-gross ration of 65%.**

*Net-to-gross ratio, program areas needed and space provided require confirmation during detailed feasibility study.*

#### OPTION 1

<table>
<thead>
<tr>
<th>Program</th>
<th>Approximate Net Area (sf)</th>
<th>Location of Area Made Available</th>
<th>Approximate Net Area Gained (sf)</th>
<th>Potential Use for Area Made Available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic - Departmental Space</strong></td>
<td>29,000</td>
<td>Engineering Functions Currently in Tolentine</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13,800</td>
<td>Comparable to Existing Spaces</td>
<td>Mendel</td>
<td>961</td>
</tr>
<tr>
<td></td>
<td>16,000</td>
<td>Psychology</td>
<td>Falvey</td>
<td>2,014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication</td>
<td>Mendel</td>
<td>1,209</td>
</tr>
<tr>
<td></td>
<td></td>
<td>About 200% of current space; includes most but not all required program</td>
<td>St. Mary's</td>
<td>1,673</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>St. Augustine Center</td>
<td>3,162</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>104,900</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Administrative Space, including some shared conference space</strong></td>
<td>11,300</td>
<td>President, Vice Presidents and Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classrooms</strong></td>
<td>28,000</td>
<td>Existing Tolentine classrooms plus 20% (somewhat &quot;right-sized&quot;)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,000</td>
<td>Interdisciplinary labs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>2,100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Café and Commons</strong></td>
<td>2,700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104,900</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Displaced

<table>
<thead>
<tr>
<th>Program</th>
<th>Approximate Net Area (sf)</th>
<th>Potential Permanent Relocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registrar</td>
<td>2,204</td>
<td>Garey Hall</td>
</tr>
<tr>
<td>Arab Islamic Studies</td>
<td>159</td>
<td>SAC</td>
</tr>
<tr>
<td>Army</td>
<td>112</td>
<td>SAC</td>
</tr>
<tr>
<td>Classical Studies</td>
<td>396</td>
<td>SAC</td>
</tr>
<tr>
<td>Modern Languages</td>
<td>369</td>
<td>SAC</td>
</tr>
<tr>
<td>Political Science</td>
<td>115</td>
<td>SAC</td>
</tr>
<tr>
<td>Geography and the Environment</td>
<td>626</td>
<td>Mendel</td>
</tr>
<tr>
<td>Telefund Space</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*fig. 52. Program Options for Tolentine - Option 1*
### PROGRAM OPTIONS FOR TOLENTINE - OPTION 2

**Assuming net-to-gross ration of 65%.**

Net-to-gross ratio, program areas needed and space provided require confirmation during detailed feasibility study.

<table>
<thead>
<tr>
<th>OPTION 2</th>
<th>Approximate Net Area (sf)</th>
<th>Program</th>
<th>Location of Area Made Available</th>
<th>Approximate Net Area Gained (sf)</th>
<th>Potential Use for Area Made Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic - Departmental Space</td>
<td>29,000</td>
<td>Engineering Functions Currently in Tolentine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,700</td>
<td>Mathematical Sciences</td>
<td>St. Augustine Center</td>
<td>4,765</td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td></td>
<td>4,500</td>
<td>Geography and the Environment</td>
<td>St. Augustine Center</td>
<td>1,252</td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td></td>
<td>14,000</td>
<td>Computing Sciences</td>
<td>Mendel</td>
<td>1,747</td>
<td>Psychology</td>
</tr>
<tr>
<td>Administrative Space, including some shared conference space</td>
<td>11,300</td>
<td>President, Vice Presidents and Support</td>
<td>Mendel</td>
<td>11,586</td>
<td>Psychology</td>
</tr>
<tr>
<td>Classrooms</td>
<td>31,000</td>
<td>Existing Tolentine classrooms plus 35% (“right-sized”)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,000</td>
<td>Additional classrooms, media and interdisciplinary labs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>1,700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Café and Commons</td>
<td>2,700</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approximate Total Net Area (sf)</strong></td>
<td><strong>104,900</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Displaced</strong></td>
<td><strong>Approximate Net Area (sf)</strong></td>
<td><strong>Potential Permanent Relocation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registrar</td>
<td>2,204</td>
<td>Garey Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arab Islamic Studies</td>
<td>159</td>
<td>SAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army</td>
<td>112</td>
<td>SAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classical Studies</td>
<td>396</td>
<td>SAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modern Languages</td>
<td>369</td>
<td>SAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
<td>115</td>
<td>SAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>9,760</td>
<td>Mendel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telefund Space</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

fig. 53. Program Options for Tolentine - Option 2
PROGRAM OPTIONS FOR TOLENTINE - OPTION 3

Assuming net-to-gross ratio of 65%.

Net-to-gross ratio, program areas needed and space provided require confirmation during detailed feasibility study.

<table>
<thead>
<tr>
<th>OPTION 3</th>
<th>Approximate Net Area (sf)</th>
<th>Program</th>
<th>Location of Area Made Available</th>
<th>Approximate Net Area Gained (sf)</th>
<th>Potential Use for Area Made Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic - Departmental Space</td>
<td></td>
<td>Mathematical Sciences</td>
<td>St. Augustine Center</td>
<td>4,765</td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geography and the Environment</td>
<td>St. Augustine Center</td>
<td>1,252</td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existing from Tolentine, Mendel and SAC plus 50%</td>
<td>Mendel</td>
<td>1,747</td>
<td>Psychology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computing Sciences</td>
<td>Mendel</td>
<td>11,586</td>
<td>Psychology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existing from Mendel plus 30%</td>
<td>Falvey</td>
<td>2,014</td>
<td>Library</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication</td>
<td>Mendel</td>
<td>1,209</td>
<td>Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>St. Mary’s</td>
<td>1,673</td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>St. Augustine Center</td>
<td>3,162</td>
<td></td>
</tr>
<tr>
<td>Administrative Space, including some shared conference space</td>
<td>11,300</td>
<td>President, Vice Presidents and Support</td>
<td></td>
<td></td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td>Classrooms</td>
<td>31,000</td>
<td>Existing Tolentine classrooms plus 35% (“right-sized”)</td>
<td>Falvey</td>
<td>2,014</td>
<td>Library</td>
</tr>
<tr>
<td></td>
<td>8,500</td>
<td>Additional classrooms, media and interdisciplinary labs</td>
<td>Mendel</td>
<td>1,209</td>
<td>Sciences</td>
</tr>
<tr>
<td></td>
<td>3,000</td>
<td></td>
<td>St. Mary’s</td>
<td>1,673</td>
<td>Liberal Arts and Sciences Offices, Seminar Rooms and Common Space</td>
</tr>
<tr>
<td></td>
<td>2,700</td>
<td></td>
<td>St. Augustine Center</td>
<td>3,162</td>
<td></td>
</tr>
<tr>
<td>Approximate Total Net Area (sf)</td>
<td>104,900</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Displaced</th>
<th>Approximate Net Area (sf)</th>
<th>Potential Permanent Relocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil, Elect, Comp, Mech Engineering Registrar</td>
<td>29,000</td>
<td>New Engineering Building (future)</td>
</tr>
<tr>
<td>Arab Islamic Studies</td>
<td>2,204</td>
<td>Garey Hall</td>
</tr>
<tr>
<td>Army</td>
<td>159</td>
<td>SAC</td>
</tr>
<tr>
<td>Classical Studies</td>
<td>112</td>
<td>SAC</td>
</tr>
<tr>
<td>Modern Languages</td>
<td>369</td>
<td>SAC</td>
</tr>
<tr>
<td>Political Science</td>
<td>115</td>
<td>SAC</td>
</tr>
<tr>
<td>Psychology</td>
<td>9,760</td>
<td>Mendel</td>
</tr>
<tr>
<td>Telefund Space</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

fig. 54. Program Options for Tolentine - Option 3
B. LIBRARY

An academic library is a major campus destination, where resources are used day and night for research, study, collaboration, teaching and learning, browsing and snacking -- or napping.

Within the library, access to the collections creates an environment of research and discovery, where faculty learn how to teach and where students learn how to learn.

Academic libraries can also embody the history and the future of a university. They are often located on prominent sites, with significant architecture, rich materials and meaningful iconography. The library is often the one campus building guests visit. And the library is part of a network of other academic libraries throughout the country and the world, with which it shares information and resources.

1. Falvey Memorial Library and Old Falvey in the Villanova University Context

The Falvey Memorial Library and Old Falvey complex, at the heart of the Villanova University campus, offers great possibilities to support and enliven the information services, academic and social goals of the current and evolving community -- for students, faculty and visitors.

Its central location, at a campus crossroads, is conveniently situated along major pedestrian routes connecting living, learning, teaching and social activities. As students and faculty traverse the campus, they can stop in Falvey for a quick respite, for meeting a colleague, for a cup of coffee, or for a reading. Or they can plan to spend extended time there for intense, individual research and writing.

2. Opportunities for Falvey

A re-imagined Falvey could help create a community commons – where all users and staff can thrive at this campus crossroads, celebrate the history of the University and embody the many missions of its future.

An integrated Falvey Commons would be an innovative, collaborative, multidisciplinary facility tied into the social and academic life of the University. It should be designed in a way that allows inevitable change as methods of research, teaching pedagogies, digital technologies and campus life evolve. But it should also be designed with clear, distinct organizing principles and routes to and through the building, so that even as activities and programs change, the building’s framework remains.

The existing Falvey complex has a variety of types of spaces -- dense bookstacks with high capacity, building perimeter with access to views and light, and some significant and formal rooms, especially in Old Falvey, that could be brought back closer to their original understated grandeur. Falvey Memorial Library has some beautiful modern stonework, as well as floors of open book stacks and reading spaces that are flexible and offer a variety of uses.

However, there are some significant barriers that would need to be addressed in a re-imagined Falvey. Mechanical systems are likely in need of upgrades to current standards. Many areas of the buildings are not accessible to all, with limited elevator service and other circulation barriers, and the exterior envelope’s windows and walls might not meet current temperature and humidity standards. There are many spaces, especially in Old Falvey, where high ceilings, clear and memorable spaces, and relationships with campus contexts, are not used for their highest and best use. Better vertical integration could help link floors in Falvey Memorial Library, which are separated from each other.

The most significant barrier that exists is between Falvey Memorial Library and Old Falvey. When the 1968 addition was built, the two buildings were not well integrated, becoming functionally independent, especially for the users. The resources and spaces of each building are not easy to share as currently configured.

For the Falvey complex to evolve and thrive as an information commons of the 21st century, the two buildings should be knit together to build on the opportunities they offer.

3. A New Falvey Commons

A new Falvey Commons, uniting all spaces within the complex, could create an integrated complex that:

- Supports and encourages individualized patron services
- Responsibly and clearly houses the collections
- Provides individual and group study spaces
- Provides a range of sizes and types of meeting rooms, conference and instruction rooms
- Provides traditional and smart classroom in different sizes and configurations
- Accommodates exhibits and special events
- Creates spaces for a variety of amenities, including food, information, inspiration, and contemplation.
- Houses administrative and support staff in efficient, convenient, well planned and flexible spaces, and recognizes that staff should expect light, views and appropriate workspace.

4. One Design Approach to A New Falvey Commons

Integrated activities could be accommodated within the existing footprint and support an information commons community. An east-west connector along the south side of the complex – “Falvey Road” – could link the second floor of Old Falvey with the ground floor of Falvey Memorial Library. Gracious stairs and ramps would mediate the vertical differences between the two buildings, connecting the former Reading, Reference, Periodical and Reserve rooms in Old Falvey with the Holy Grounds, Reference, Print and Copy, Course Reserve and Periodicals rooms in Falvey Memorial Library. Lounge, café, commons and meeting spaces would be located along the sides of the “Road.”

“Falvey Road” would be the connecting crossroads linking Mendel Field with the Grotto and the eastern precincts of the campus. People would be encouraged to enter the building and use it as a route through campus, while respecting library security. Exhibitions, computer stations, snacks and naturally lit spaces with comfortable seating would encourage planned and incidental meetings with friends and colleagues.

“Falvey Road” would play host to a series of special events along with research, study and consultation sessions with the library staff. Library services, the front desk and access to the stacks would be located off of the “Road.” The linear organizing principle of the “Road” could be carried through to the upper floors, where Special Collections and other unique spaces could be located.

Library collections, including bound and current periodicals and media, might be redistributed within Falvey and Old Falvey, allowing the ground floor computing and study area to expand, if desired. The three levels of Old Falvey and five levels of Falvey stacks would accommodate the core collection, allowing for periodicals to possibly move into the former Old Falvey Reading Room. The upper floor perimeter of Falvey could remain programmed as it currently is, with group and individual study spaces. Library support and administrative services could be collocated in the basement of Falvey -- to conveniently serve the activities above.
During any renovations, the library buildings should be able to remain open and usable. Construction could be incremental, possibly as funds become available, and allow departments and collections to be reorganized, digitized, and relocated to temporary swing space or permanent off site storage, if desired and required.

A more detailed library feasibility study could examine the programming, engineering, logistical and operational feasibility of this diagrammatic scheme, weigh its pros and cons and develop options for an approach that meets the evolving missions and goals of the University on the library community.

5. An Alternative Approach

It would also be possible to create “Falvey Road” via a shallow addition along the south – front – façade of Falvey and Old Falvey.

A more detailed design study could confirm the preferred approach.

C. OTHER CENTRAL CAMPUS ACADEMIC BUILDINGS IN NEED OF RENEWAL

Other, smaller academic buildings are also in need of renewal, including John Barry Hall, White Hall and the Chemical Engineering Building. These should be considered and programmed together, as part of an overall plan for Engineering. If a new Engineering Building were built, it might be possible to convert one or more of these buildings to academic offices for other, non-Engineering departments – while maintaining space for NROTC.

In addition, space should be decanted from the St. Augustine Center, to better accommodate Arts and Sciences academic offices and – potentially – to add additional seminar rooms or common space.

D. CONVERTING OTHER EXISTING BUILDINGS TO ACADEMIC USE

Options for converting space in Alumni, Kennedy and parts of Corr Hall are considered in Section IX.B.2.

E. GAREY HALL

Soon to be vacated space in Garey Hall could be used as “swing space” for renovations to academic buildings. (Classrooms in the new Driscoll Hall will also help alleviate – but not solve – the burden of taking classrooms off-line for renovation.)

In the long term, though, we believe Garey Hall’s location separated from the campus core by the SEPTA/Amtrak rail lines – is better suited to administrative than to academic functions.

In addition, the building offers some advantages, including vehicular access, for certain administrative uses. Garey could provide a home for:

- Student administrative services – the Bursar, Registrar, Wildcard and Residential Life, permanently or as “swing space.”
- Uses that require easy vehicular access, including Housekeeping, Graphic Services (and Publications), and Bulk Mail.
- Business and Human Resources, which would benefit from an on-campus location but do not need to be within the core.

5. An Alternative Approach

It would also be possible to create “Falvey Road” via a shallow addition along the south – front – façade of Falvey and Old Falvey.

A more detailed design study could confirm the preferred approach.

C. OTHER CENTRAL CAMPUS ACADEMIC BUILDINGS IN NEED OF RENEWAL

Other, smaller academic buildings are also in need of renewal, including John Barry Hall, White Hall and the Chemical Engineering Building. These should be considered and programmed together, as part of an overall plan for Engineering. If a new Engineering Building were built, it might be possible to convert one or more of these buildings to academic offices for other, non-Engineering departments – while maintaining space for NROTC.

In addition, space should be decanted from the St. Augustine Center, to better accommodate Arts and Sciences academic offices and – potentially – to add additional seminar rooms or common space.

D. CONVERTING OTHER EXISTING BUILDINGS TO ACADEMIC USE

Options for converting space in Alumni, Kennedy and parts of Corr Hall are considered in Section IX.B.2.

E. GAREY HALL

Soon to be vacated space in Garey Hall could be used as “swing space” for renovations to academic buildings. (Classrooms in the new Driscoll Hall will also help alleviate – but not solve – the burden of taking classrooms off-line for renovation.)

In the long term, though, we believe Garey Hall’s location separated from the campus core by the SEPTA/Amtrak rail lines – is better suited to administrative than to academic functions.

In addition, the building offers some advantages, including vehicular access, for certain administrative uses. Garey could provide a home for:

- Student administrative services – the Bursar, Registrar, Wildcard and Residential Life, permanently or as “swing space.”
- Uses that require easy vehicular access, including Housekeeping, Graphic Services (and Publications), and Bulk Mail.
- Business and Human Resources, which would benefit from an on-campus location but do not need to be within the core.
fig. 55. Old Falvey Library

fig. 56. Falvey Memorial reception area

fig. 57. Holy Grounds
FALVEY LIBRARY COMPLEX
OPPORTUNITIES
FLOOR PLANS AND SECTION

Villanova University Campus Planning

Base Map Source: Information Source:


KEY
- MAJOR BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ENTRANCE
- ELEVATORS
- STAIRS / RAMPS
- SECURITY POINT
- GATHERING / GROUP / STUDY
- LIBRARY PATRON SERVICES
- “FALVEY ROAD”
- CIRCULATION
- STACKS
- STACKS / STUDY
- SPECIAL USE
- CLASSROOMS / ACADEMIC
- LIBRARY SUPPORT / ADMINISTRATION
F. FUTURE ACADEMIC BUILDINGS

Building additions and renovations will meet some but not all, of the University’s need for academic space. Building sites at the center of campus are an important resource for Villanova’s future academic development, allowing program expansion in ways that strengthen relationships between existing uses.

- The southwest corner of main campus is a potential building site for one (or possibly two) academic buildings related to Engineering or the Sciences. This development would be a prominent part of the University “gateway” from the west. Programs in several smaller buildings – including dormitories – would be displaced. Current zoning would allow commercial retail, but not academic or other institutional use. Converting this area to allow institutional use should be part of the University’s conversations with the Township.

- A new bar or L-shaped building west of the new Driscoll Hall would help define the Nursing courtyard. This could be used by programs with some programmatic relationships to uses in Nursing or on the Kennedy Hall site. (See Section XII.A.5. for alternate uses for this site.)

- One prominent new building opportunity on central campus would be the replacement of Kennedy Hall with a significantly larger building. Ideally, uses in this replacement building would be related to Arts and Sciences, have a campus-wide component and benefit from proximity to parking.
VIII. CAMPUS-WIDE SYSTEMS
VIII. CAMPUS-WIDE SYSTEMS

A. CIRCULATION

The diagrams on pages 68 and 69 show the recommended vehicular routes through the campus, including routes for automobiles, service vehicles, monastery vehicles, campus shuttles and emergency access.

As described in other sections of this report, primary recommendations include:

- Eliminating most vehicles from the campus core, and densifying parking along the SEPTA/Amtrak rail line.
- Providing service access to buildings in the campus core from several access points, similar to the present situation, but with at least some service-intensive uses removed from the center of campus.
- Improving safety and easing congestion on Spring Mill Road by allowing only right turns out of Fedigan Gate.
- Providing on-campus parking for Monastery residents, accessible from Ithan or Fedigan gates.
- Providing parking along the Route 100 tracks south of Lancaster Avenue and consolidating access points.
- Improving at-grade crossings of Lancaster Avenue, and creating barrier-free paths between parking and on-campus destinations.
- Improving pedestrian paths and landscape throughout campus, including paths along major streets.
- Providing a hierarchy of on-campus pedestrian paths, with the widest able to accommodate both pedestrians and bicyclists.
- Re-routing campus shuttles to include the area south of Lancaster.
- South of Lancaster Avenue, widening Ithan Avenue slightly to accommodate a shared on-road lane for bicyclists and cars.
- Improving connections to SEPTA transit stations, including barrier-free access between campus and the Villanova R-5 station.

The Transportation Consultant’s full report is included in the Technical Appendix to this report. In addition, transportation issues related to the “hamlet of Villanova” are considered in Section III.C, and circulation within central campus is discussed in Section IV.

B. PARKING

Villanova’s strategy should include both accommodating the need for parking and actively managing the demand.

1. Overall Strategy

Our plans assume that:

- The University would keep at least the same amount of parking on site. Additional parking would be added to accommodate the performing arts center and other new uses.
- Zoning relief would be discussed for student housing-related parking, as housing additional students on campus would actually decrease the number of students with automobiles as fewer students would commute to campus. (If zoning relief were not forthcoming an additional 505 parking spaces would be needed, one space for every three student beds.)
- The surge in parking demand caused by large campus events, like basketball games, would continue to be treated as exceptions, with off-site parking and shuttles. Pricing could be structured to encourage the use of off-site lots; in any case, areas of convenient parking would be reserved for evening students.

We've indicated zoning required parking for the additional area added, except that parking is not added for new student housing. Phasing of parking would need to be carefully coordinated with phasing of other projects, to be sure adequate parking is available in all phases. More stringent requirements for allowing students to bring cars on campus could help create support in the Township for this approach.

2. Parking Lots and Structures

The diagrams on page 70 show one potential configuration of parking. The parking shown replaces existing parking, and adds 170 spaces.

a. At the Campus Core

Providing denser storage of parked cars is an important key to creating a more pedestrian-friendly campus – without surrounding the center with a sea of parking.

Alternatives for St. Augustine Center parking include:

Adding an additional level of parking, as anticipated by the design of the existing structure. Using existing grade changes to reach a third level of parking would be cost-efficient, but would limit the number of additional spaces possible. Parking tags would need to be carefully planned and monitored by level to ease the frustration of having to leave and re-enter the structure if a particular level is full.

Replacing the structure with a new, ramped garage. This structure could have a larger footprint than the existing structure, with more cars per level. This option could accommodate all main campus parking lost through the plan, with additional spaces to accommodate future demand. First costs, however, would be high.

Adding a “green” roof or providing recreational opportunities at roof level. Tennis courts, for example, could be added at the roof level of either option. This would be a particularly attractive option as this part of the campus becomes more densely developed – requiring more recreational space and providing more surrounding buildings to camouflage fencing around the courts.

The Health Center parking structure site is more constrained than SAC’s, and more study is needed to determine whether a ramped structure in this location would be feasible and, if so, how many spaces could be added.

b. South of Lancaster: The “Hamlet of Villanova”

South of Lancaster, parking is shown along the SEPTA Route 100 line, screened by buildings from public streets and buffered by landscape from residential neighborhoods.

- The most attractive places for multiple-level parking structures are where both sides of the Route 100 tracks are owned by the University – from the softball field to Church Walk.
- Parking for SEPTA Route 100 customers would be located on site. The University should investigate relocating all SEPTA parking to the north side of the Route 100 tracks, to alleviate park-and-ride traffic on Aldwyn Lane.
- Some metered surface parking would be desirable south of Lancaster, for convenience.
- The change of grade along the railroad tracks on the western half of the site could allow for a small two-story structured parking lot, to be built into the slope of the hill.
VEHICULAR CIRCULATION DIAGRAMS

Villanova University Campus Planning

Base Map Source: Information Source:

KEY
- **VEHICULAR PATHS**
- **EMERGENCY ACCESS PATHS**
- **SHUTTLE LOOP**
- **SHUTTLE LOOP STOP**
- **SERVICE ACCESS**
- **CART SERVICE ONLY**
- **MONASTERY LOOP**

EXISTING

PROPOSED
POTENTIAL PARKING DEVELOPMENT

Villanova University Campus Planning

Base Map Source: 
Information Source:
c. Athletics Campus

Here, we have assumed that the existing parking would remain.

d. South Campus

South Campus parking serves primarily as overflow from the Main and Pike Lots. The residential students on South Campus are freshmen and are not allowed to have cars on campus except in special circumstances.

e. West Campus

In the long term, when additional building is added to West Campus, parking will also need to be added. To conserve land and open space, we recommend considering a parking structure near the R-5 tracks, sited to minimize its visual impact on West Campus residents and, particularly, on residential neighbors across the tracks.

3. Managing Demand

Adapted from Transportation Consultant’s report; full report is included in the Technical Appendix to this document.

Adopting strategies to encourage greater transit, bicycle, pedestrian and multiple vehicle occupancy will help minimize single occupancy car use, help in becoming a ‘greener’ campus and reduce parking needs and university traffic on the local roadways. Improving the non-motorized on-campus environment is detailed in other parts of the report, and some other suggestions and incentives are presented here.

a. Encouraging Transit Use

The opportunities for future transit appear to lie with better utilization of the existing transit service. While both rail and bus service is available, transit is not currently viewed as a viable option for many students, faculty, staff and visitors – many of whom do not live convenient to transit lines. For those who could use transit but choose not to, transit incentives may help increase use of bus and rail services, particularly if used in conjunction with parking disincentives (such as more remote locations and permit fee increases) and improved non-motorized on-campus facilities.

Transit incentives might include publicizing pre-tax purchase or discount transit passes, shuttle service coordinated with train arrivals, improved transit stop location, amenities and pathways and/or a guaranteed ride home program. The services of a travel coordinator to help new employees and students, or people considering switching, to determine new travel choices and tools (timetables, transit passes, etc) could encourage those choices. The option of parking on-campus for a certain, small number of days per month (perhaps four) could perhaps still remain an option for transit users, to provide flexibility and ease the transition for those switching.

SEPTA’s R5 Paoli/Thorndale line will expand its service in the Fall of 2008 to increase peak and off-peak routes in order to alleviate overcrowding. The updated R5 schedule will also feature more late-night Friday and Saturday options.¹

b. Employee Parking

Villanova University could also consider offering incentives to faculty and staff in order to reduce the number of single occupant cars traveling daily to and from campus. For example, Boston College does not guarantee space for parking permit holders in a particular lot or garage except for those who register for carpool permits.² Offering a less expensive carpool parking pass and providing reserved preferred spots could increase the number of carpool participants.

Some campuses have even found that paying employees not to drive is less expensive than building structured parking. (Dartmouth College, for example, pays employees up to $360 per year for forgoing a parking pass.)

c. Student Parking

With regard to student parking, Villanova could consider revising the parking cost and eligibility requirements for resident students.

Cost. In comparison to a group of peer universities, Villanova was at the lower end for cost of student parking permits.

The introduction of a car-share program to the University. This could provide options for resident students without cars to make trips to the grocery store or to frequent off-campus retail destinations.

Restricting West Campus permit holders from parking in the Main Lot area during the workday could reduce Main Lot parking demand during peak hours.

¹ http://septa.org/services/preview_schedules.html
² http://www.bc.edu/offices/transportation/regs.html

d. Special Event Parking

Special event parking will continue to need tailored solutions depending on the situation. Some additional parking is proposed within the “hamlet” of Villanova, but depending on the special event needs, the various tools available will still be needed, including additional traffic control, remote parking and shuttles. The University should investigate enhancing the incentives for remote parking and shuttle service. The University should also consider charging a fee for on-campus game night parking.
C. ACCESSIBILITY

An accessible campus is one that accommodates the widest range of potential uses, including people with mobility, visual or auditory impairments or other special needs. It includes not only accessible buildings but also accessible landscapes, transit, communication and information systems.

This section of our report is adapted from a series of minutes and memos written by project consultants, Accessibility Development Associates, Inc. The consultant’s full documents are included in the Technical Appendix to this report.

that a minimum of 3% of available beds be made accessible.

Some residence hall study lounges - for example, those in Katharine and St. Monica Halls - are not accessible, preventing students with physical disabilities from full participation in student and campus life, as well as inclusion in “Learning Communities.”

Reasonable accommodations for students with learning disabilities appear to be handled by one Department, while accommodations for those with physical disabilities are handled through another. The University’s commitment to work with the disabled student population is exemplary, as every effort is made to accommodate a student’s particular need. However, analysis of those requests are not thoroughly vetted, as decisions regarding modifications are made to accommodate one student, rather than expenditures to serve the larger student population with disabilities. Modifications made are occasionally eliminated once the student who originally requested the modification moves on to another class level or away from the campus.

Cultural difficulties, including some faculty’s unwillingness to move classes to accommodate students with physical disabilities, as well as a reluctance to develop and publish accessibility policies adds another layer of difficulty to the process.

Emergency evacuation routes are not posted in buildings, or on campus. This poses a serious problem for the campus population at large, but specifically even more challenging for the population of students, faculty, alumni and visitors with disabilities.

As stated previously, the readily-achievable barrier removal process was to have begun on January 26, 1992 and it is to be an on-going process. Villanova University should document any and all efforts made, whether to perform readily-achievable barrier removal, as well as documenting any modifications made to the common areas of facilities as a result of a reasonable accommodation for a student, employee or faculty member (not to include individual workspaces).

A number of recent cases investigated and litigated by the United States Department of Justice (DOJ) have demonstrated that a failure to engage in the readily-achievable barrier removal process, while altering or building new facilities (and spending money there) does not produce a favorable outcome for the institution, regardless of their size, age of buildings (or institution for that matter). The resulting Settlement Agreements become extremely far-reaching to include all site elements within the campus, and all elements of the buildings.

The 1993 ADA guidelines establish a baseline set of standards that provide equal opportunities and access for individuals with disabilities. While compliance is required for new construction, Villanova needs to set forth a plan for readily achievable barrier removal within the existing facilities and throughout the campus landscape. Accessibility improvements may go above and beyond the requirements of the ADA guidelines; however, priority should be given to first providing the baseline set of standards throughout the existing campus fabric.

2. The Exterior Environment

Improvements to the exterior campus environment shown in the Master Plan will be transformational, both aesthetically and in terms of accessibility. Throughout the master plan, landscaping projects address major accessibility concerns on the campus. Also, when existing buildings are renovated or new facilities are built, not only the building but also the immediate site must be made as barrier-free as possible in accordance with the ADA.

In order to make a more accessible and inviting campus, the entire campus should also be brought into a state of compliance where feasible. An overall goal is to create a campus that is at least partially accessible is connected to all other at least partially accessible facilities along an accessible route.

The Department of Justice lists as examples of readily achievable barrier removal the following exterior improvements:

- Installing ADA compliant ramps
- Making curb cuts in sidewalks and entrances
- Widening doors
- Installing offset hinges to widen doorways
- Installing accessible door hardware
- Creating designated accessible parking spaces

1 http://www.ada.gov/taman3.html#III-4.4200
3. The Interior Environment

a. Setting Priorities

Some buildings whose accessibility is of high priority to the University are already well on their way to being fully accessible. Other buildings are lacking in many of the major criteria that make a building not only welcoming and equitable for a person with a disability, but that also reflect favorably upon the University in the eyes of the Department of Justice in the case of an ADA complaint.

Each facility’s use, location, and prominence in campus life should factor into the equation when prioritizing accessibility improvements. Priority should be placed on buildings with the highest use by students, faculty, employees, and visitors. Of these, the highest priority buildings for achieving barrier removal are those with highly public functions, particularly those one-of-a-kind structures which serve functions that cannot readily be moved to another venue. Examples include the Pavilion, Jake Nevin Field House, the Stadium, Falvey Library, and the Connelly Center. Within the Connelly Center, the Villanova Room, the cinema and food service areas require particular attention.

Highly used academic buildings -- including Tolentine, Bartley, Mendel and Falvey Library – should also be a top priority. The Fall 2008 opening of Driscoll Hall (the College of Nursing) and the proposed renovation of Tolentine recommended by the Master Plan will greatly increase the number of accessible University classrooms.

Next priority should be given to student life issues such as resident life and access to campus life (i.e. eating and drinking establishments, sport and fitness facilities). The Dougherty Dining Hall requires additional attention, to make the residential dining spaces universally accessible. Select residential halls within the campus core should be made barrier-free so that individuals with disabilities are able to live in the various neighborhoods over their years at the University. We assume that the planned renovations to Fedigan, for example, include some barrier-free rooms and facilities.

When substantial barrier removal will not be conducted on a particular facility, the reasons for the University’s decision should be clearly documented. For example, if the program in that facility will be moved to another location, or if that building will be replaced within several years according to the Master Plan, it may be reasonable for the University to post-pone substantial barrier removal until the renovation. Documentation of the University’s decisions should be placed in the University’s ADA compliance files.

b. Readily Achievable Barrier Removal

According to Title III Section 4 of the ADA, a “readily achievable” barrier removal refers to one that is “easily accomplishable and able to be carried out without much difficulty or expense.” Issues which may affect whether or not barrier removal is readily achievable include the cost of the action in relation to the institution’s financial resources, its number of employees and the number and type of the institution’s other facilities.

Since the University’s resources are not limitless, priorities must also be assessed in terms of which barriers are eliminated first. The Department of Justice makes suggestions—not mandates—on which types of barriers should be addressed first. Top priority is getting all individuals through the door utilizing physical means that are efficient and that respect the dignity of individuals with disabilities. The next priority is providing access to public goods and services, then providing access to restrooms, followed by access to other public facilities.

The Department of Justice lists as examples of readily achievable barrier removal the following:

First Priority
- Installing ramps
- Widening doors
- Installing offset hinges to widen doorways
- Eliminating a turnstile or providing an alternative accessible path
- Installing accessible door hardware
- Installing flashing alarm lights

Second Priority
- Removing high pile, low density carpeting
- Rearranging tables, chairs, vending machines, display racks, and other furniture

Third Priority
- Installing grab bars in toilet stalls
- Rearranging toilet partitions to increase maneuvering space
- Insulating lavatory pipes under sinks to prevent burns
- Installing a raised toilet seat
- Installing a full-length bathroom mirror

Fourth Priority
- Repositioning shelves
- Repositioning telephones
- Adding raised markings on elevator control buttons
- Installing an accessible paper cup dispenser at an existing inaccessible water fountain

The University should take steps not only to create accessibility for individuals with mobility issues that require the use of a wheelchair, but also to eliminate barriers to individuals with other disabilities. For example, door and faucet hardware should be corrected, as to benefit those individuals with limited hand dexterity; Braille and raised character signage should be installed for those who have vision loss; and visual strobe alarms should be installed for hearing impaired or deaf individuals.

c. Alternatives to Barrier Removal

When the University cannot provide physical access to certain spaces, it should train employees and institute methods for making its services accessible. Alternative methods to providing individuals with disabilities access to public goods, services and accommodations at Villanova must be instituted if doing so is readily achievable.

For example, the University is responsible for providing accessible courses and examinations, but not all classroom and examination facilities must be accessible. Alternatives must be provided that make the experience equal and comparable to the experience provided to others, and the individual can not be required to bear the cost of any modifications or auxiliary aids. (The University already does change classrooms to accommodate students with disabilities.)

4. System-wide Improvements

For new construction and major renovation projects, it is recommended that the University:

- Perform accessibility design reviews of all architectural design documents for new construction/renovation projects so that errors can be identified and corrected on paper in advance of construction.
- Perform ADA Contract Warranty reviews of all newly constructed/renovated properties to identify any barriers within the contract warranty timeframe.

In addition to ADA-compliant major renovations and new construction:  

2 http://www.ada.gov/taman3.html#III-4.4200
It is strongly recommended that the University establish an annual budget for readily-achievable barrier removal throughout the campus. The budget should be sufficient to accomplish readily-achievable accessibility within three to five years.

The maintenance of accessible features should be built into normally scheduled routines for the Facilities Department on campus to ensure that the provisions in place are operational and usable by the intended recipients. The Department of Justice recognizes that mechanical failures of elevators and automatic doors, for example, will occur occasionally, but considers persistent failures, inadequate maintenance, or derelict equipment to be unsatisfactory towards meeting the requirement for providing access to a public accommodation.

Create and post evacuation route maps for all buildings illustrating the fastest route out of buildings – for persons with mobility as well as persons with disabilities; or in lieu of accessible routes, the locations of Areas of Rescue Assistance for persons with disabilities should be posted.

Consideration should also be given to effective communication issues, such as website accessibility, public and emergency telephones that provide TTY service, assistive listening devices that are available for use when needed. Key to this is the availability of such devices, and finally that strobe alarms exist in all common public areas.

The University may want to consider an Awareness Campaign geared toward accessibility. This campaign could include initiatives like focus group sessions, the publishing of accessibility policies, the publishing and distribution of accessibility information and a map detailing the location of accessible parking, exterior routes, shuttle stops, entrances, rest rooms, etc. (Disability focus groups were held in 2004-2005, but minutes are not available.)

Accessibility information should be readily available before individuals arrive on campus. It is strongly recommended that the University restructure and add to the accessibility website. (See Technical Appendix for Accessibility Consultant’s Report.)

A job description for the Disability Student Advisor position should be developed.

A pro-active approach to both barrier removal and ensuring that all renovations and new construction fully comply with the ADA requirements is strongly recommended.

D. UTILITIES INFRASTRUCTURE

Significant additions to the campus would require investment in infrastructure. For example, after the Law School building is completed, the University will be close to the existing steam plant’s firm capacity on No. 6 fuel oil. The University would be at the existing steam plant’s firm capacity on gas after 520,000 gsf of additional construction. A new boiler and expansion of the steam plant should be installed before further development of the campus. Renewal of cooling equipment and the implementation of district chilling should also be considered. (See Technical Appendix for Utility Engineer’s Report.)

It is strongly recommended that the University conduct a survey to determine the size and location of existing steam pipes. This will help the University make informed choices about future infrastructure options for potential development south of Lancaster Avenue.

E. CLASSROOMS

Registrar-scheduled classrooms could be considered a University-wide system. To better understand this system, we studied classroom scheduling for the Fall 2007 semester. (Because most students who study abroad do so in the Spring, the Fall semester tends to show peak activity.)

1. Use

Villanova’s classrooms are used for many hours of the week. (“And they show it!” replied members of the Academic Mission Committee.) Some institutions set a goal of a certain number of class hours per week of use for each classroom; the University of Wisconsin-Madison, for example, sets a goal of 30 daytime hours. A typical rule-of-thumb used by many institutions is that classrooms should be used about 67-70% of scheduled class hours, to allow efficiency but also time for regular cleaning and maintenance as well as for non-class activities. Using this standard and assuming 12 class hours per day Monday through Thursday, and 8 class hours on Friday, Villanova’s target for classrooms used for both day and evening classes could be about 38 to 39 scheduled class hours per week. (A target for classrooms used only during the day would be around 30 hours per week.) Some rooms in Bartley, Tolentine and SAC are used over 50 hours per week.

Many of Villanova’s classrooms are used for classes and other activities almost continuously from 8:30 AM to 8:30 PM or even later. (Including class and non-class activities, University classrooms are in use – on average – more than 40 hours a week.) The one exception is Friday afternoons; for example, at 1:30 PM about 34 classrooms are in use, while at the same time on Wednesday about 108 classrooms are occupied.

Perhaps not surprisingly, classroom use appears to be linked to building condition and location, with classrooms in Bartley very intensely used (average 46.3 class hours per week), and rooms in St. Mary’s somewhat less so (average 26.5 hours per week, although it is worth noting that the auditorium is well-used, mostly after 5:00 p.m., by Music Activities). The most intensively used classrooms, however, are the five small seminar rooms in St. Augustine Center (average of 48.7 class hours per week).

Another typical rule of thumb is that each classroom, on average, should have 60% to 70% of its seats filled during the hours in which it is occupied (seat utilization). By this measure, too, the rooms in St. Augustine Center are the most used, with an average seat utilization of 78.5%.

At Villanova, small and medium-sized classrooms are intensively used, and larger classrooms less so.

• The nine classrooms with seating capacities of 70 or more students are used for class, on average, a little over 29 hours a week. (“And they show it!” replied members of the Academic Mission Committee.) Some institutions set a goal of a certain number of class hours per week of use for each classroom; the University of Wisconsin-Madison, for example, sets a goal of 30 daytime hours. A typical rule-of-thumb used by many institutions is that classrooms should be used about 67-70% of scheduled class hours, to allow efficiency but also time for regular cleaning and maintenance as well as for non-class activities. Using this standard and assuming 12 class hours per day Monday through Thursday, and 8 class hours on Friday, Villanova’s target for classrooms used for both day and evening classes could be about 38 to 39 scheduled class hours per week. (A target for classrooms used only during the day would be around 30 hours per week.) Some rooms in Bartley, Tolentine and SAC are used over 50 hours per week.

• The nine classrooms with seating capacities of 70 or more students are used for class, on average, a little over 29 hours a week. (“And they show it!” replied members of the Academic Mission Committee.) Some institutions set a goal of a certain number of class hours per week of use for each classroom; the University of Wisconsin-Madison, for example, sets a goal of 30 daytime hours. A typical rule-of-thumb used by many institutions is that classrooms should be used about 67-70% of scheduled class hours, to allow efficiency but also time for regular cleaning and maintenance as well as for non-class activities. Using this standard and assuming 12 class hours per day Monday through Thursday, and 8 class hours on Friday, Villanova’s target for classrooms used for both day and evening classes could be about 38 to 39 scheduled class hours per week. (A target for classrooms used only during the day would be around 30 hours per week.) Some rooms in Bartley, Tolentine and SAC are used over 50 hours per week.

2. Size, configuration and condition

Classroom sizes – in terms of area per occupant – vary widely across the campus. For example, a 32-person classroom in Bartley allows about 25-26 square feet per seat, while similar capacity spaces in Tolentine allow 15-19 square feet per seat. Many existing classrooms in older buildings are furnished with tablet armchairs, making working on laptops or in groups difficult. More flexible arrangements, including moveable tables and chairs, require more space than either fixed seating or tablet armchairs. (One has only to compare the area per seat in Bartley and Tolentine to see that this is true.)
Classroom condition, too, varies widely, with recently constructed space in Bartley and "tired" rooms with worn, outdated finishes and furnishings in older buildings like Tolentine and John Barry Hall. We have heard from both students and faculty that there is growing resentment about the disparity.

The complete renovation of Tolentine offers an opportunity to address this disparity, and – with an addition – to add more classrooms.

3. Needs and Options

A description of Villanova’s need for classroom space should consider not only the number of rooms available, but also the size, quality and condition of those spaces. What is the “right” balance between capacity, flexibility, and the University’s ability to build more classroom space? What are the right targets for Villanova’s use of its rooms?

If all classrooms were held to a maximum of 40 hours of use per week, for example, at least 9 new classrooms would be needed to satisfy demand – assuming no changes to scheduling policies or reconfiguration of existing classrooms. The most need for classrooms is for those seating 20 students or fewer (at least 8 classrooms), although there is some need for classrooms seating 21 to 29 students (at least 1 classroom).

Much of this need, in terms of scheduling, will be met by the 8 new small-to-medium sized classrooms opening this Fall in Driscoll Hall. Other ways of meeting this need include:

- adding more small seminar rooms.
- adding some medium-capacity classrooms, sized for flexibility, and reconfiguring existing medium-capacity classrooms allowing them to seat fewer students, but in more flexible configurations.
- adding more Friday afternoon classes, by changing some M-W afternoon classes to MWF. (This will alleviate but not solve the need. For example, scheduling all 55 classrooms that now have 2 MW classes between 1:30 and 4:15 with 3 MWF classes in that time period instead would create the equivalent of a little over one new classroom.)
- some combination of these methods.

Updating finishes, furniture and technology in older classrooms would help ease the disparity between facilities (although we should also note that the disparity goes beyond the classroom to hallways, toilet rooms and common facilities). Updating older classrooms could also ease demand on more recent buildings like Bartley (and, as of this Fall, Driscoll).

There is a need for more up-to-date, flexible classrooms to accommodate current teaching methods, and reconfiguring existing classrooms for flexibility would mean some loss of seating capacity - requiring additional, larger classrooms to accommodate current class sizes. For example, if all classrooms in Tolentine -- besides the auditorium in 215 -- were to meet the space standards of Bartley, there would be only one flat-floor Tolentine classroom seating more than 32 students, and only three seating between 30 and 32. About an additional 7 medium-sized classrooms would be needed to meet the peak demands of the Fall 2007 schedule.

When planning new facilities, the results of the University’s Strategic Plan should help inform design. For example, are current trends – to larger and smaller classes (i.e., away from the middle of the size spectrum) – likely to continue?

4. Recommendations

We recommend:

- “Right-sizing” classrooms to create more flexible teaching spaces; for example, with tables and chairs instead of tablet armchairs. Adjusting the sizes of the classrooms in Tolentine, for example, would result in a net area increase of about 35%.
- Beyond “right-sizing” adding:
  - 5 to 6 seminar rooms, each seating about 20 students, near the center of campus.
  - 2 to 3 classrooms seating 35 to 45 students.

A renovated and expanded Tolentine would be an appropriately central location for these rooms, although there will be competing demands on available space by faculty and administrative offices and departmental space.

Also, when the new theater is built, consider adding several general classrooms in the Performing Arts Building, to allow Vasey to be used for student organization space.

![Sample classroom configurations](https://example.com/sample-classroom-configurations.png)
are many more dining options conveniently located to the Main Campus residence halls. However, many students living on South Campus indicated that they prefer to eat at least one of their meals each day in Dougherty as they are already up on Main Campus, so it would seem that the lunch counts should be significantly higher than Donahue’s. We believe the main reasons participation is not higher at Dougherty are that the facility has a dated, institutional feel and that the approach and flows are awkward. Our analysis of current usage indicates that the existing capacity far exceeds current demand requirements, but that it is very reasonable to expect counts could increase by a minimum of 50% to as much as 250% with a new facility and a different approach to meal plan policy. Should the University decide in the future to de-emphasize the conversion of dining hall meals for use in the retail units (Meal Plan Equivalents, or “MPE’s”), demand for central campus retail dining would drop significantly and the need for additional space in Dougherty Dining would increase dramatically. Given the cultural and financial implications of this decision, this master plan recommendation is provided as a series of alternatives for further review and decision by the University relative to broader initiatives and priorities. Regardless of the direction taken, we find the renewal of Dougherty Dining to be a very high priority presenting opportunities for improving both student satisfaction and operating efficiencies.

EnvisionStrategies Analysis
(Excerpted from Food Service Consultant’s Report, included in full in the Technical Appendix to this report.)

Envisions Strategies’ recommendations follow:
1. Support the residential program with great community dining experiences for residents to gather with friends over meals in convenient and attractive venues.
   • Donahue is the main dining room for approximately 1,300 South Campus residents, most of whom are first year students. Having received the most recent renovation of the residential dining halls, and being conveniently located to a high concentration of meal plan holders, Donahue has the highest traffic. It also is considered by most the best dining hall on campus, and many wish it could be “moved” to Dougherty. Our analysis indicates the current space allocation is insufficient to meet the everyday demands placed on this facility, but we do not recommend any significant changes at this time. The overcrowding sometimes evidenced by South residents will most likely be relieved when the dining options in the central part of campus are improved.
   • Dougherty serves a base population of the approximately 1,500 residents of Main Campus as well as some cross-over meal plan holders from South and West Campuses during lunch. The ratio of neighborhood residents to meals served at Dougherty is somewhat lower than for Donahue at lunch (56% vs. 66%), whereas the ratio for Dougherty is significantly lower for dinner (28% vs. 74%). Two mitigating factors are that the Main Campus has more upperclass residents than South Campus who are less likely to use a traditional residential dining hall as frequently, and there are many more dining options conveniently located to the Main Campus residence halls. However, many students living on South Campus indicated that they prefer to eat at least one of their meals each day in Dougherty as they are already up on Main Campus, so it would seem that the lunch counts should be significantly higher than Donahue’s. We believe the main reasons participation is not higher at Dougherty are that the facility has a dated, institutional feel and that the approach and flows are awkward. Our analysis of current usage indicates that the existing capacity far exceeds current demand requirements, but that it is very reasonable to expect counts could increase by a minimum of 50% to as much as 250% with a new facility and a different approach to meal plan policy. Should the University decide in the future to de-emphasize the conversion of dining hall meals for use in the retail units (Meal Plan Equivalents, or “MPE’s”), demand for central campus retail dining would drop significantly and the need for additional space in Dougherty Dining would increase dramatically. Given the cultural and financial implications of this decision, this master plan recommendation is provided as a series of alternatives for further review and decision by the University relative to broader initiatives and priorities. Regardless of the direction taken, we find the renewal of Dougherty Dining to be a very high priority presenting opportunities for improving both student satisfaction and operating efficiencies.

2. Provide a complementary set of retail venues throughout campus to meet the dining needs of all campus community members. Locate and size based on demand, being careful to balance requests with consideration of financial viability so that the retail venues do not become a burden on the overall dining program.
   • The retail program is highly distributed across all areas of campus with most activity occurring in Dougherty and Connelly. The Italian Kitchen and Corner Grill are conveniently accessed off the plaza, very popular, and serve a large number of students throughout the day. The updating and expansion of these facilities should be considered a high priority. Conversely, the Faculty Dining Room space is oversized for demand. If this service should continue, it should be relocated directly adjacent to the kitchen providing the food for optimal quality and operational efficiency. Many campuses have moved to providing a dedicated faculty/staff dining room that can be accessed off of another dining venue’s servery to further increase efficiency. The dining facilities in Connelly have sufficient dining space, but the serving area in the Belle Air Terrace is less than half the size it should be for the high volume of customers it serves at lunch and dinner.
   • The location of several coffee shops and cafes throughout other buildings on main campus provide convenient options, and in some cases, opportunities for gathering over a light meal or snack. Our analysis indicates the number of venues is appropriate for a campus of this size, but the location and mix may need to be adjusted for better coverage. We understand that the renovation of Tolentine Hall will create a new concentration of classroom activity on this part of campus; in response to this, we believe this part of campus and in fact, this building is a good candidate for a small scale food venue such as a café. Although the CEER Holy Grounds is virtually next door, we find this operation is actually serving too many customers for its size, and believe this is an indication of the need for additional capacity in this area (particularly when the added activity of the renovated Tolentine is factored in). Conversely, the St. Augustine Café has been experiencing very low activity and is not particularly favorably located to attract customers from outside the building. As a balanced strategy, we recommend the following:

-- Increase the size of the Belle Air Terrace servery and reconfigure the space to allow for a better flow of traffic. Access to the seating area should not flow through the servery. If possible, strengthen connections with Dougherty Hall and used shared space to increase efficiency.
-- Develop a small café in Tolentine as part of the central infill development. It should have approximately 50 seats with storage and support area of 250-300 SF and serving area of 400 SF.

-- Scale CEER back to just coffee. This will serve as a complementary offering in this area of campus, meeting the needs of the large population in CEER and will adjust the demands on this very compact venue to a more manageable level.

-- If the new café in Tolentine meets the needs of Arts and Sciences (in addition to those of other users), close the St. Augustine Café, shifting the staff to Tolentine.

• The two convenience stores on campus are very popular among students and have been successful in meeting their needs for food on the go. We believe the addition of a third store in the center of campus would be well received by students, faculty and staff, and could help meet the tremendous demand for quick food options in an efficient manner.

3. Develop improved centralized support to ensure consistent delivery of quality at a reasonable cost.

• We have confirmed that the existence of a central kitchen is an important tool in maximizing staff productivity and controlling costs. It also enables Dining Services to develop new locations with less need for additional kitchen or storage infrastructure. We believe the best location for the Central Kitchen is on Main Campus, directly connected to the largest users of the facility – Dougherty and Connelly.

• The size of the Central Kitchen is somewhat dependent on the overall mix, location and size of dining venues planned for the future; as such, three Central Kitchen sizing studies were conducted based on overall planning scenarios for the dining program.

• The result of this analysis is that, regardless of which scenario best characterizes the future direction of the dining program, the Central Kitchen should be developed in the 11,000 – 12,000 SF (net) range.
IX. PROGRAMMING NOTES

A. SPACE NEEDS

1. A Summary of Some Key Needs

There are needs for more -- and more functional, amenable and accessible -- space throughout Villanova’s campus. Those defined by the University as high priorities include:

- **Academic space**, including a new Performing Arts Center classrooms and faculty offices -- particularly in Arts and Sciences -- and an updated library.
- **Student residences**: These are needed to meet the University’s commitment to underclassmen, and offer seniors the opportunity to live on campus.
- **Student social space**, including activity space, central campus dining, and recreational athletics.
- **Administrative space**, particularly related to Campus Ministry and student services.
- **System-wide needs**, including the need to improve accessibility (throughout campus, and especially to buildings used by the public), life safety, building condition and campus infrastructure.

Also, there is a strong desire for a **more beautiful, sustainable campus**, with a **more beautiful and visible entrance**.

Program areas listed in this section have been derived from a number of sources, and should be considered as drafts for further discussion as implementation of the plan, and coordination with the University’s Strategic Plan, progress.

2. Academic Space

a. Overview

Academic space should help support the goals of the new strategic plan.

<table>
<thead>
<tr>
<th>PERFORMING ARTS CENTER</th>
<th>Net area (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theatre</td>
<td>4,200</td>
</tr>
<tr>
<td>350 seats</td>
<td></td>
</tr>
<tr>
<td>Stage</td>
<td>3,500</td>
</tr>
<tr>
<td>Orchestra pit (with lift)</td>
<td>600</td>
</tr>
<tr>
<td>Black box theatre</td>
<td>100 seats</td>
</tr>
<tr>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>Scene Shop</td>
<td>3,000</td>
</tr>
<tr>
<td>Costume Shop</td>
<td>1,000</td>
</tr>
<tr>
<td>Rehearsal space/practice rooms</td>
<td>2,400</td>
</tr>
<tr>
<td>1 @ 2,400 square feet</td>
<td></td>
</tr>
<tr>
<td>3 @ 1,000 square feet</td>
<td></td>
</tr>
<tr>
<td>Classrooms</td>
<td>4,400</td>
</tr>
<tr>
<td>4 @ 900 square feet</td>
<td></td>
</tr>
<tr>
<td>2 @ 400 square feet</td>
<td></td>
</tr>
<tr>
<td>Offices</td>
<td>20 @ 120</td>
</tr>
<tr>
<td>2,400</td>
<td></td>
</tr>
<tr>
<td>Green Room</td>
<td>300</td>
</tr>
<tr>
<td>Catering/concessions</td>
<td>1,000</td>
</tr>
<tr>
<td>Lobby/function area</td>
<td>2,000</td>
</tr>
<tr>
<td>Tickets</td>
<td>250</td>
</tr>
<tr>
<td>Technical booths</td>
<td>500</td>
</tr>
<tr>
<td>Dressing rooms</td>
<td>2 @ 120</td>
</tr>
<tr>
<td>240</td>
<td></td>
</tr>
<tr>
<td>2 @ 550</td>
<td>1,100</td>
</tr>
<tr>
<td>Storage</td>
<td>5,000</td>
</tr>
<tr>
<td>Music Practice Rooms</td>
<td>10 @ 70 square feet</td>
</tr>
<tr>
<td>2 @ 200 square feet</td>
<td>400</td>
</tr>
<tr>
<td>Green Room</td>
<td>450</td>
</tr>
<tr>
<td>Music Activities</td>
<td>Existing plus 20%</td>
</tr>
<tr>
<td>Retain St. Mary’s Chapel for performances</td>
<td></td>
</tr>
<tr>
<td>Studio Art Spaces</td>
<td>3 @ 1,000 square feet</td>
</tr>
<tr>
<td></td>
<td>45,342 nsf</td>
</tr>
</tbody>
</table>

b. Performing Arts Center

Arts spaces, including performance spaces, are completely inadequate. Recent Intellectual Climate surveys indicate that only 28% of Villanova students were “satisfied” or “very satisfied” with the University’s facilities for the creative and performing arts. Twice as many students were “very dissatisfied” as were “very satisfied.” Perhaps more troubling, more students were neutral than either satisfied or dissatisfied.1

Villanova’s Theatre program is well-respected and well-supported by subscribers in the community, but its facilities are substandard. A new building housing the program and other arts spaces, prominently located, could help promote intellectual engagement, participation in the arts and a more multicultural perspective University-wide.

A draft program for a performing arts building is included in fig. 61.

e. Academic Office Space

There is a lack of faculty offices and in some cases lab space, particularly in the College of Liberal Arts and Sciences, as more full-time faculty are hired and teaching loads are slightly reduced. Office space for part-time faculty, graduate assistants and research fellows are also in short supply. According to an Assistant Dean of the College of Liberal Arts and Sciences, about 35 offices would be needed to satisfy the needs of the Arts division.

d. Classrooms

The need for classrooms is outlined in Section VIII.E.

e. Laboratories

Science laboratory space in Mendel is in short supply, with no available space for necessary expansion. Decanting non-laboratory space from Mendel is a priority.

Engineering also needs more lab space to attract and retain faculty.

School and Departmental Space

In colleges located in multiple buildings – Engineering and Arts and Sciences – physical connections between buildings are awkward. Entrances and landscapes don’t facilitate connections. Administrators in both schools mentioned the lack of a “home” for students.

Individual departments are in dire straits. For example:
- Communication -- which has 24 full-time faculty and nearly 500 student majors -- is in about 8,060 net square feet spread across four buildings. Its Live Video Studio has been in “temporary” space in the basement of Falvey Library for more than two decades.
- Psychology offices and labs are inadequate, and have not kept pace with the growth of the department or changes in the discipline. As outlined in a memo by the Psychology Department Space Committee, from 1966 to 2004, the faculty grew by 78% -- but the space allocated to Psychology only grew by 20%. As a result, labs are inadequate, and some offices are only six feet wide. Restoring the department to the 1966 per-faculty department allocation would require 14,000 net square feet; current area is about 9,760 net square feet. Areas needed include space for faculty, staff and research assistant offices; faculty and floating labs; animal support; teaching and meeting space; and storage.

There is no locus for campus-wide interdisciplinary work. Interdisciplinary studio space is needed.

SELECTED ACADEMIC NEEDS
ESTIMATED - NOT AN EXHAUSTIVE LIST

<table>
<thead>
<tr>
<th>Net area (SF)</th>
<th>Net area (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Classrooms - Additional</td>
<td></td>
</tr>
<tr>
<td>“Right-sizing” existing classrooms in Tolentine, White, John Barry and Chemical Engineering</td>
<td>7,000 nsf</td>
</tr>
<tr>
<td>Five 20-person seminar rooms</td>
<td>2,600 nsf</td>
</tr>
<tr>
<td>Three 35-to-40-person rooms</td>
<td>3,000 nsf</td>
</tr>
<tr>
<td>12,600 nsf</td>
<td></td>
</tr>
<tr>
<td>LIBERAL ARTS AND SCIENCES</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
</tr>
<tr>
<td>Offices</td>
<td></td>
</tr>
<tr>
<td>Full-time faculty (16)</td>
<td>1,920</td>
</tr>
<tr>
<td>Human Resource Development Faculty (3)</td>
<td>360</td>
</tr>
<tr>
<td>Part-time and emeriti (12)</td>
<td>960</td>
</tr>
<tr>
<td>Staff (2)</td>
<td>240</td>
</tr>
<tr>
<td>Research assistants</td>
<td>350</td>
</tr>
<tr>
<td>Labs</td>
<td></td>
</tr>
<tr>
<td>Faculty-16 @ average 350 sf</td>
<td>5,600</td>
</tr>
<tr>
<td>Floating labs</td>
<td>800</td>
</tr>
<tr>
<td>Support/storage</td>
<td>1,500</td>
</tr>
<tr>
<td>Meeting/teaching</td>
<td>2,000</td>
</tr>
<tr>
<td>Estimated need</td>
<td>13,730 nsf</td>
</tr>
<tr>
<td>Existing allocation</td>
<td>9,760 nsf</td>
</tr>
<tr>
<td>Net additional need</td>
<td>3,970 nsf</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Media classrooms</td>
<td>6,000</td>
</tr>
<tr>
<td>Offices (40)</td>
<td>4,800</td>
</tr>
<tr>
<td>Research suite</td>
<td>4,000</td>
</tr>
<tr>
<td>“Black box” classrooms (6)</td>
<td>5,400</td>
</tr>
<tr>
<td>Lounge and conference</td>
<td>500</td>
</tr>
<tr>
<td>Estimated need</td>
<td>20,700 nsf</td>
</tr>
<tr>
<td>Existing allocation</td>
<td>8,060 nsf</td>
</tr>
<tr>
<td>Net additional need</td>
<td>12,640 nsf</td>
</tr>
<tr>
<td>Arts Division - Additional Faculty Offices</td>
<td></td>
</tr>
<tr>
<td>35 faculty offices</td>
<td>4,200</td>
</tr>
<tr>
<td>Teaching assistants (assume 50 shared spaces at 80 sf each)</td>
<td>4,000</td>
</tr>
<tr>
<td>8,200 nsf</td>
<td></td>
</tr>
<tr>
<td>Additional Science Laboratory Space</td>
<td></td>
</tr>
<tr>
<td>Common Space</td>
<td></td>
</tr>
<tr>
<td>Library functions</td>
<td></td>
</tr>
<tr>
<td>Reading and work rooms</td>
<td></td>
</tr>
<tr>
<td>Reference areas</td>
<td></td>
</tr>
<tr>
<td>Group study areas</td>
<td></td>
</tr>
<tr>
<td>Media lab(s)</td>
<td></td>
</tr>
<tr>
<td>Rare book room</td>
<td></td>
</tr>
<tr>
<td>Back-of-house support and work areas</td>
<td></td>
</tr>
<tr>
<td>Compact storage</td>
<td></td>
</tr>
<tr>
<td>“Town Square” Functions</td>
<td></td>
</tr>
<tr>
<td>Exhibit/gallery</td>
<td></td>
</tr>
<tr>
<td>Space for readings, lectures, panel discussions</td>
<td></td>
</tr>
<tr>
<td>Holy Grounds</td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary studios</td>
<td></td>
</tr>
<tr>
<td>Connections between buildings</td>
<td></td>
</tr>
<tr>
<td>Other compatible uses</td>
<td></td>
</tr>
<tr>
<td>Augustinian Historical Institute (with rare book room)</td>
<td></td>
</tr>
<tr>
<td>Learning Support Spaces</td>
<td></td>
</tr>
<tr>
<td>Classrooms</td>
<td></td>
</tr>
<tr>
<td>Language Labs?</td>
<td></td>
</tr>
</tbody>
</table>

As one University administrator noted, "There is not another University of our stature in the country that has a library facility as bad as this one." The library is outdated and in need of renovation.

Given its mission and central location, Falvey Library could be the public square, the commons -- the place that engages everyone.

There is general agreement that the amount of space in Falvey and Old Falvey -- completely renovated and reorganized -- could potentially serve the Library’s needs; a modest addition might also be considered. Non-related uses would be decanted from the building, and off-site Library collections storage could be considered to allow more space in Falvey for students.
3. Student Residences

Additional beds are needed to meet the obligations Villanova has made to its underclassmen to provide on-campus housing for three years. Administrators estimate that an additional 600 beds would be needed to meet the University’s 3-year housing guarantee without triples. (See fig. 63.)

Few seniors are housed on campus. The lack of on-campus housing for seniors contributes to a sense of disengagement in the final year of undergraduate education.

- Quality and condition of the existing housing is problematic. Staff find it difficult to defend triples, some substandard doubles, and the conditions in St. Rita’s to students and their parents. (It should be noted that two of the buildings in poor repair – Sullivan and Sheehan – are the most desirable to students because of their locations and reputations.)

4. Student Social Space

a. Student Life Center

Space needs for a student life center are outlined in figure 64.

b. Central Campus Dining

See Section V.B.

c. Recreational Sports

See Section V.D.

d. Space within Residence Halls

- The lack of lounge, seminar, meditation and gathering space within residence halls does not support the Augustinian, Villanovan ideal.
- There is a need for meditative space in residence halls.

5. Administrative Space

a. Overview

Administrative functions are spread throughout campus. Priorities should include:

- Moving non-compatible uses out of residential and academic buildings, including the Library.
- Moving vehicle intensive uses, like Bulk Mail and Housekeeping, from the campus core.

### STUDENT HOUSING REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen beds required</td>
<td>1,585</td>
</tr>
<tr>
<td>Sophomore beds required</td>
<td>1,506</td>
</tr>
<tr>
<td>Junior beds required</td>
<td>1,280</td>
</tr>
<tr>
<td>Senior beds required</td>
<td></td>
</tr>
<tr>
<td>73% of seniors who are guaranteed housing</td>
<td></td>
</tr>
<tr>
<td>choose to live on campus</td>
<td>175</td>
</tr>
<tr>
<td>Seniors serving as Resident Advisors</td>
<td>50</td>
</tr>
<tr>
<td>Second year transfer students</td>
<td>57</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>4,653</strong></td>
</tr>
<tr>
<td><strong>Current bed count</strong></td>
<td><strong>4,365</strong></td>
</tr>
<tr>
<td><strong>Current bed shortfall</strong></td>
<td><strong>288</strong> beds</td>
</tr>
</tbody>
</table>

### Additional beds needed to:

- House first-year transfer students on campus    | 100  |
- Reduce sophomore-to-junior housing attrition rate to 5% | 75   |
- Remove isolated St. Mary’s beds from service   | 28   |
- Offset loss from converting Fedigan to singles  | 60   |
- Offset loss from change in use to St. Rita’s Hall | 52   |
- Offset loss from renovation of Sullivan and Sheehan | 25   |

**Subtotal, additional beds needed** 340 beds

### Total new beds needed to meet housing commitments

- 628 beds

### Gross building area needed to meet housing commitments

- **213,520 gsf**

### Additional beds needed to offset potential change of use of central buildings

- **Alumni Hall** 104 beds

**Subtotal, additional beds needed** 104 beds

### Gross building area needed to offset potential changes of use

- **35,360 gsf**

### Additional beds needed to house seniors who want to live on campus

- **600 beds**

### Gross building area needed to house seniors

- **225,000 gsf**

### STUDENT LIFE SPACE REQUIREMENTS

<table>
<thead>
<tr>
<th>Category</th>
<th>Net area (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dining Hall, Retail Food and Kitchen</strong></td>
<td>See Section V.B.</td>
</tr>
<tr>
<td><strong>Retail Food</strong></td>
<td>See Section V.B.</td>
</tr>
<tr>
<td><strong>Central Kitchen</strong></td>
<td>See Section V.B.</td>
</tr>
<tr>
<td><strong>Event Space</strong></td>
<td></td>
</tr>
<tr>
<td>Divisible Space</td>
<td>6,000</td>
</tr>
<tr>
<td>Catering Kitchen</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Meeting Rooms, Classrooms</strong></td>
<td>5,100</td>
</tr>
<tr>
<td>4 @ 900</td>
<td></td>
</tr>
<tr>
<td>3 @ 500</td>
<td></td>
</tr>
<tr>
<td><strong>Student Activities</strong></td>
<td>12,000</td>
</tr>
<tr>
<td>Student Government</td>
<td></td>
</tr>
<tr>
<td>Horizons</td>
<td></td>
</tr>
<tr>
<td>Bel Air</td>
<td></td>
</tr>
<tr>
<td>Radio Station</td>
<td></td>
</tr>
<tr>
<td>Villanova</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td>Communal Space</td>
<td>3,000</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>750</td>
</tr>
<tr>
<td>Multicultural Affairs</td>
<td>500</td>
</tr>
<tr>
<td>Greek Life</td>
<td>1,600</td>
</tr>
<tr>
<td>International Studies</td>
<td></td>
</tr>
<tr>
<td>Lounges/Communal Space</td>
<td>4,500</td>
</tr>
<tr>
<td>Game Room</td>
<td>1,000</td>
</tr>
<tr>
<td>Wildcard (exp +10%)</td>
<td>350</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35,800 nsf</strong></td>
</tr>
<tr>
<td><strong>Plus Food Service</strong></td>
<td></td>
</tr>
</tbody>
</table>

fig. 63. Student Housing space needs

fig. 64. Student Life space needs
Much of the office space in small converted houses does not work well; small floorplates hamper efficient operations and collegial interactions. Much of this space is inaccessible to those with impaired mobility.

b. Senior Administration

There is a strong desire for the President and Vice Presidents to be located together, in a central building with student traffic.

### ADMINISTRATION - STUDENT SERVICES

<table>
<thead>
<tr>
<th>Service</th>
<th>Net area (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Business Services</td>
<td></td>
</tr>
<tr>
<td>Bursar</td>
<td>1,250</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>3,100</td>
</tr>
<tr>
<td>Residence Life</td>
<td>1,800</td>
</tr>
<tr>
<td>Enrollment Management</td>
<td>320</td>
</tr>
<tr>
<td>WildCard</td>
<td>350</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6,820 nsf</strong></td>
</tr>
<tr>
<td>Registrar</td>
<td></td>
</tr>
<tr>
<td>Existing</td>
<td>2,200</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>11,106 nsf</strong></td>
</tr>
<tr>
<td>Career Services</td>
<td></td>
</tr>
<tr>
<td>Existing</td>
<td>2,086</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>12,106 nsf</strong></td>
</tr>
<tr>
<td>University Store</td>
<td></td>
</tr>
<tr>
<td>Selling Space</td>
<td>6,300</td>
</tr>
<tr>
<td>Storage</td>
<td>5,800</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>12,100 nsf</strong></td>
</tr>
</tbody>
</table>

### OTHER ADMINISTRATION (SELECTED LIST, NOT EXHAUSTIVE)

<table>
<thead>
<tr>
<th>Service</th>
<th>Net area (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Services</td>
<td>4,600</td>
</tr>
<tr>
<td>Admissions</td>
<td>4,300</td>
</tr>
<tr>
<td>Alumni Affairs</td>
<td>2,600</td>
</tr>
<tr>
<td>Campus Ministry</td>
<td></td>
</tr>
<tr>
<td>Director’s Office</td>
<td>225</td>
</tr>
<tr>
<td>Campus Ministers (12 @ 120 nsf ea)</td>
<td>1,440</td>
</tr>
<tr>
<td>Administrative Staff (4 @ 100 nsf ea)</td>
<td>400</td>
</tr>
<tr>
<td>Interns (8 in shared workspace)</td>
<td>300</td>
</tr>
<tr>
<td>Reception</td>
<td>250</td>
</tr>
<tr>
<td>Conference Room</td>
<td>400</td>
</tr>
<tr>
<td>Storage</td>
<td>500</td>
</tr>
<tr>
<td><strong>Subtotal - Campus Ministry</strong></td>
<td><strong>3,515 nsf</strong></td>
</tr>
</tbody>
</table>

* Additional space may be required for meditative and prayer space as well as off-site storage.

### SENIOR ADMINISTRATION SPACE REQUIREMENTS

<table>
<thead>
<tr>
<th>Role and Function</th>
<th>Net Area (nsf)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>President</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>500</td>
</tr>
<tr>
<td>4 Offices at 120 sf each</td>
<td>480</td>
</tr>
<tr>
<td>Conference Room</td>
<td>200</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>250</td>
</tr>
<tr>
<td>Kitchen</td>
<td>100</td>
</tr>
<tr>
<td>Ancillary Room</td>
<td>200</td>
</tr>
<tr>
<td>Powder Room</td>
<td>100</td>
</tr>
<tr>
<td><strong>Subtotal - President’s Office</strong></td>
<td><strong>1,830 nsf</strong></td>
</tr>
<tr>
<td><strong>Vice President, Academic Affairs</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>250</td>
</tr>
<tr>
<td>Office</td>
<td>200</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>200</td>
</tr>
<tr>
<td>2 Offices at 120 sf each</td>
<td>240</td>
</tr>
<tr>
<td><strong>Subtotal - VP Academic Affairs</strong></td>
<td><strong>890 nsf</strong></td>
</tr>
<tr>
<td><strong>Vice President, Administration and Finance</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>300</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>250</td>
</tr>
<tr>
<td><strong>Subtotal - VP Administration and Finance</strong></td>
<td><strong>550 nsf</strong></td>
</tr>
<tr>
<td><strong>Vice President, University Communications</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>250</td>
</tr>
<tr>
<td>Office</td>
<td>200</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>200</td>
</tr>
<tr>
<td>2 Offices at 120 sf each</td>
<td>240</td>
</tr>
<tr>
<td>Conference</td>
<td>160</td>
</tr>
<tr>
<td><strong>Subtotal - VP University Communications</strong></td>
<td><strong>890 nsf</strong></td>
</tr>
<tr>
<td><strong>Vice President and General Counsel</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>250</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>200</td>
</tr>
<tr>
<td>2 Offices at 120 sf each</td>
<td>240</td>
</tr>
<tr>
<td>Conference</td>
<td>160</td>
</tr>
<tr>
<td><strong>Subtotal - VP and General Counsel</strong></td>
<td><strong>850 nsf</strong></td>
</tr>
<tr>
<td><strong>Vice President, Student Life</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>250</td>
</tr>
<tr>
<td>Office (Dean of Students)</td>
<td>200</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>200</td>
</tr>
<tr>
<td>Office</td>
<td>200</td>
</tr>
<tr>
<td><strong>Subtotal - VP Student Life</strong></td>
<td><strong>850 nsf</strong></td>
</tr>
<tr>
<td><strong>Special Assistant to the President for Mission Effectiveness</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>250</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>200</td>
</tr>
<tr>
<td><strong>Subtotal - Mission Effectiveness</strong></td>
<td><strong>450 nsf</strong></td>
</tr>
<tr>
<td><strong>Vice President for University Advancement</strong></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>250</td>
</tr>
<tr>
<td>Reception and Administration</td>
<td>200</td>
</tr>
<tr>
<td><strong>Subtotal - VP University Advancement</strong></td>
<td><strong>450 nsf</strong></td>
</tr>
<tr>
<td><strong>Conference Room and Shared Space</strong></td>
<td></td>
</tr>
<tr>
<td>Additional Shared Spaces</td>
<td>600</td>
</tr>
<tr>
<td><strong>Subtotal - Shared Space</strong></td>
<td><strong>600 nsf</strong></td>
</tr>
<tr>
<td><strong>Total Senior Administration</strong></td>
<td><strong>7,360 nsf</strong></td>
</tr>
</tbody>
</table>

### Student Services and Related Functions

Student Services – including the Wildcard, Bursar, Financial Aid and Residence Life – receive a great deal of student traffic, especially during peak times of year. Ideally and if space permitted, these functions would be located together, in a student life building.

The Registrar also receives a good deal of student traffic, and should be located with Student Services. Ideally, these would be located with the Controller’s Office, the Procurement Office, Payroll, Insurance and Risk Management and Financial Information Systems Support.

Career Services should be conveniently located for students, alums and employers.

d. Admissions

Admissions need more visible, amenable spaces convenient to parking.

e. Campus Ministry

Campus Ministry is not as visible as it could be; its offices are spread out in several buildings, most of which are not accessible.

There is no interfaith meditation and prayer space, and the Muslim prayer room was recently converted to other uses. There is a need for meditative space, particularly in residence halls.

f. Other

Graphic Services should be relocated from Galberry Hall to a building with the structural capacity and vehicular accessibility to accommodate this use. About 1000 square feet beyond its present size is needed. Ideally, Graphic Services would be located with Bulk Mail.

Storage takes up a considerable amount of space in University buildings. Off-site storage could be considered to relieve pressure on spaces in Dougherty, Austin and other buildings.

Facilities functions are located throughout campus, including in the basement of Alumni Hall (Housekeeping) and on the Athletics campus (Grounds). Consolidating these functions in a two or three-story building, including a ground floor garage, at the location of the present Facilities building, could make space available in other parts of campus for other uses.

fig. 65. Administration/Student Services space needs

fig. 66. Senior Administration space needs
6. Athletics

Athletic facilities compare unfavorably with those at other Division 1 schools. Even many schools with less developed athletics programs have better event spaces, practice facilities, locker rooms and meeting spaces. The University's facilities limit the playing time of varsity, club, intramural and recreational athletes; hinder recruitments; limit the kinds of events Villanova can host; and impede some athletes reaching their full potential.

a. Indoor practice facilities

An indoor practice facility for outdoor teams is needed. The greatest demand for indoor practice facilities is in January and February, when it is too cold to practice outdoors. Because practice time is limited – by weather and over-scheduled indoor facilities – some varsity athletes are not able to develop to the degree they should. An indoor facility with turf and batting cages would be ideal for these teams.

One compromise might include a shared indoor practice and recreation facility to replace the Butler Annex. Baseball, Field Hockey, Football, Men's and Women's Soccer, and Softball varsity teams could share an improved space with intramurals, club sports and recreational users.

Currently, the track teams practice indoors at Haverford College. An indoor practice track – of the proper distance, surface and angles – is needed for the track team. At least 2 lanes are needed; an indoor 6-lane track would allow Villanova to host events.

b. Fields

At least one, and potentially two, artificial turf fields are needed to extend the playing time of the fields to the benefit of varsity, club and intramural teams. For example, lacrosse and field hockey practices co-exist in the Stadium with track team practice, creating a potentially dangerous situation for runners.

c. Pavilion

The Pavilion requires renovation or eventual replacement.

- The Pavilion should be made more accessible to individuals with disabilities. All barriers that can be "readily removed" should be.

The Athletics Department reports the following needs to be considered in any future renovation:

- Seating should be improved and, if possible, increased. A facility with between 8,000 and 9,000 seats would be ideal. Increasing the seating in the Pavilion will add to the need for special events parking. By code, one parking space would be required for every 4 seats.
- The pool requires renovation or replacement.
- Locker rooms, including those for visiting teams, should be improved to meet Big East standards.
- An officials’ locker room, with showers, should be added.
- More points of sale for concessions are needed.
- At least a two-lane practice running track should be added.
- The audiovisual system was installed around 1992, and is outdated.

Given the University's other needs for on campus space, replacement of the Pavilion might be a long-term option, outside the time frame of the master plan. If so, renovations in the nearer term should be considered.

d. Pools

A new 50 meter-by-25 yard pool would serve a number of different varsity, club and recreational needs, but it is unclear whether this is a University priority.

The pool at St. Mary’s is used for recreation and is necessary. In the future, if a new pool replaces the one in the Pavilion, the pool at St. Mary’s could be converted to other uses.

e. Jake Nevin Field House

Jake Nevin still has vestiges of its former use as the University's main athletics space. It seats 2,000 spectators, for example. Considering the changing use of Jake Nevin could yield some ideas about how the space could be made more useful. For example, filling in little-used spectator spaces could allow additional space to accommodate offices or training areas. (This would continue a pattern of reuse already begun by the Athletics Department.) Considering the entire building in detail – in tandem with other Athletics buildings – could potentially yield other opportunities to increase the usefulness of the building.

f. Recreational Space

More indoor and outdoor space, including court space, is needed throughout campus.

g. Support spaces

- The weight room, though recently improved, is still "in the bottom three" of facilities at comparable institutions, according to one Athletics Department administrator. Team workouts need to be staggered, because the facility cannot accommodate the entire team.
- Locker rooms, especially for year-round athletes, and team meeting spaces are lacking. Except for the Basketball teams, all varsity teams have shared locker rooms. For example, the men’s and women’s track and field teams, the men’s and women’s swimming teams and the women’s water polo team have no dedicated locker space and share locker space with Pavilion pool users. Providing an equal standard of locker access to all athletic participants should be a high priority, in order to meet Title IX requirements.
- Coaches’ offices are needed. Many head coaches share office space with their assistants and are separated from their support staff.
- Concession areas are needed for both the Pavilion and Villanova Stadium.

h. Notes on location

If necessary owing to space constraints, varsity practice facilities could be located off-site; the current Baseball facility in Plymouth Meeting would be about the limit for travel distance. Off-site facilities would free up on-campus facilities for intramurals, club sports and recreational users.

Moving some Varsity programs -- Women’s Soccer, for example -- to West Campus could work in the future, when the University might be able to build locker rooms or other space there.

The University Facilities Staff (grounds crew) occupies space in the Athletics Campus, including space in the Stadium. If feasible, creating space for the grounds crew in another part of campus – perhaps related to the rest of Facilities on the north side of the Route 100 tracks or, eventually, on the far edges of West Campus – could allow additional space for Athletics "under" the stadium. This could, perhaps, allow some uses to be decanted from Jake Nevin, allowing more of that building to be used for recreational athletics or other purposes.

Using the space under the Stadium to meet Athletics Department needs would also ease pressure for eastward expansion of Athletics facilities and help the University maintain its existing landscape buffers between the Athletics campus and its residential neighbors.
MIXED USE

ADMINISTRATION

POTENTIAL FUTURE DEVELOPMENT (AFTER 2019)

POTENTIAL STRUCTURED PARKING (AFTER 2019)

SWING SPACE FOR MULTIPLE RENOVATION PROJECTS

RENOWNED LIBRARY (OLD & NEW FALVEY)

INCREASED PARKING (IF FEASIBLE)

INCREASED PARKING

MIXED USE ACADEMIC

RENOVATE LIBRARY (OLD & NEW FALVEY)

STRUCTURED PARKING

INCREASED PARKING

LIFE SAFETY + ACCESSIBILITY UPGRADES

PUBLIC SAFETY OFFICE + AUXILIARY OFFICE USE

MIXED USE RESIDENCE

STRUCTURED PARKING

MIXED USE ACADEMIC

MIXED USE RESIDENCE

MIXED USE ADMINISTRATION

RECREATIONAL COURTS

FUTURE ACADEMIC BUILDING SITES

SLEEPING, STUDENT ACTIVITIES

.named SWING SPACE FOR MULTIPLE RENOVATION PROJECTS

PROGRAMMING

SOME "CONSTANTS"

Villanova University Campus Planning

Base Map Source:
Information Source:

October 21, 2008
B. PROGRAMMING: A PLAN AND SOME VARIABLES

Our plan considers principles for expansion in tandem with programmatic needs and the capacities and constraints of the existing campus. Here, we consider programmatic options for Villanova’s future development – “what goes where.” Choices between options will depend on timing, funding and University priorities, especially as these evolve in relation to Villanova’s new strategic plan.

Information about existing program information was derived primarily from floor plans provided by Facilities. Because uses on university campuses are constantly evolving and shifting location, these should be considered rough estimations rather than the “final word” on program requirements.

1. Some Constants in the Equation

Based on prior conversations with the planning committees and subcommittees, the scenarios that follow assume some constants (diagram pg. 84):

- Tolentine Hall would be renovated, with a significant addition facing north toward major pedestrian paths. Given the magnitude of the University’s need for space, we believe taking advantage of the opportunity for an addition would be prudent. We’ve assumed the building would continue to meet many of the campus’ needs for general classroom space.

- A significant number of student residences would be added on the south side of Lancaster Avenue.

- A new Performing Arts Center would consolidate Theater department spaces from St. Augustine Center and Vasey Hall, while providing space for the fine arts and some general classrooms as well.

- The Library – including Falvey and Old Falvey – would be completely renovated. Connections between the buildings would be made, and non-compatible uses would be relocated elsewhere. The Library would remain at the heart of the academic campus and would serve as an “intellectual town square” for all Villanova.

- To allow better relationships between uses, some spaces in Mendel and the St. Augustine Center would be decanted to new or renovated buildings. For some – such as the network server in Mendel – off-site locations should be considered.

The existing student center precinct around the Oreo – which currently includes Dougherty and Connelly – would be strengthened and augmented. This could take the form of renovating and adding to Dougherty and Vasey (with, perhaps, some connection between them), a new building on the Dougherty site, or some combination of the two.

- Non-compatible uses would be removed from the center of campus. For example, Housekeeping would be moved from Alumni to a building with better vehicular access, perhaps Garey Hall. The UNIT server would be moved from Mendel – perhaps off-site – to allow more program space within the existing building.

- Parking at the SAC structure would be increased, either by addition of a planned third level or, preferably (but more expensively), by construction of a new, larger and more efficient parking structure – possibly with tennis courts on the roof. This would help compensate for lost parking on main campus. If feasible, parking at the Health Center lot would also be increased.

- New structured parking would be located along the SEPTA Route 100 tracks, to replace parking lost to other development and to provide parking for newly developed uses. Public Safety offices could be prominently located in one of these structures.

- Off-campus accommodations for functions moving from Huebner Hall, if feasible, should be considered for the near and mid-term, to allow existing underused campus buildings to be used as swing space for much-needed renovations.

- Garey Hall would provide swing space for multiple renovation projects in the near term; in the long term, this building – close to central campus but outside the academic core – would be used for administrative offices, possibly including student service functions.

- Spaces in the Pavilion and Jake Nevin would be improved, including renovations to make public space accessible to individuals with disabilities.

- Uses on South Campus would not significantly change, and the landscape character would be preserved.

Additional student housing would be added to West Campus when the University’s covenant with the Township expires in 2019. At that time, administrative space, if needed, could also be added near Picotte Hall at Dundale.

The Villanova Conference Center would continue to function for at least the near term. Options permitted under current zoning would include converting the conference center to senior student housing.

2. Some Variables

Tolentine Hall, sensitively adapted with a new addition facing Mendel Field (See Section VII.A.), could be a mixed-use building with interdisciplinary academic and social spaces bringing people together – a potential locus we’ve dubbed “Tolentine Commons.” Engineering uses currently located in the building would remain, at least in the near term. General classrooms would be augmented, and opportunities for interdisciplinary studios added. Preliminary options for other programs in the building include:

- Option 1: Consolidating Dispersed Programs. Communication or Psychology could be consolidated in Tolentine, with classrooms, labs and offices. In this option, Senior Administration would be located in Alumni Hall.

- Option 2: Grouping Academic Programs. Compatible academic programs – perhaps Arts and Sciences programs with some affinity with Engineering – could be located in Tolentine, decanting space from Mendel Hall and St. Augustine Center. One possibility would be to locate either Mathematical Sciences and Geography and the Environment or Computing Sciences in Tolentine, along with senior administrative offices.
Kennedy Hall – though not much-loved – is centrally located, structurally sound and fairly flexible in floor plan. Most uses would require additional windows at the perimeter, particularly at the first (University Shop) level. Options for program at this location could be seen as "placeholders" for the eventual redevelopment of the Kennedy Hall site as a major new academic building. We've assumed the relocation of the University Shop to a more public location on the south side of Lancaster Avenue.

Option 1: Academic. This would have the potential to consolidate an academic department – potentially Communication or Psychology – at the center of campus, very near the Library and College of Fine Arts in St. Augustine Center. Ceiling heights at the ground and first floors, though perhaps less than optimal, could accommodate Communication classrooms.

Option 2: Student-centered Business Services. This option would build on the uses already on the second floor of Kennedy Hall.

Alumni Hall is the oldest building on campus. It is geographically and symbolically at the center of campus. We've assumed that – because recreational space is in short supply – the existing gym would remain unless alternate central campus recreational space were provided in Vasey Hall. We've also assumed that Residential Housekeeping would move from the basement to a building more easily accessible by automobile. Because new uses would displace about 108 much-needed student beds, we've assumed any change of use would occur after the construction of new residence halls.

- **Option 1: Senior Administration and Seminar Rooms.** A combination of seminar rooms and the Office of the President and other senior administration above, would bring some University-wide use to the building. In this option, the existing Gym would be converted to the President’s Lounge (and the Theatre space in Vasey converted to a student recreational athletic space).

- **Option 2: Arts and Sciences Seminar Rooms and Offices.** This use would be at the heart of campus, on axis with Falvey Library and equidistant from Mendel, St. Augustine Center and Tolentine Hall.

- **Option 3: Student Residences.** The building could remain as student residences.

St. Rita Hall is an important part of the University’s history. The building is highly visible from the campus perimeter and very close to the University’s most recognizable building, St. Thomas of Villanova. Landscape and transportation plans would make the building universally accessible from the main parking area across Lancaster Avenue. Any option for its reuse would displace about 50 student beds.

- **Option 1: Campus Ministry.** This consolidated program, combined with other administrative uses, would be located near the center of campus, between St. Thomas of Villanova and Corr Chapel.

- **Option 2: Admissions.** The building would provide an auspicious introduction to first-time campus visitors.

Corr Hall, too, is centrally located. Non-residential space in the building is limited; current net programmable area (excluding the Chapel, residence life spaces and general storage) is about 3,000 square feet on the first level and 2,200 square feet on the lower level.

- **Option 1: Campus Ministry.** This would place this program at the heart of campus, adjacent to Corr Chapel. As this may not meet the entire need of Campus Ministry, additional space could be required in other buildings. Renovations to improve accessibility would be needed.

- **Option 2: A Small Academic Department.** The space could also be appropriate for a small academic department requiring proximity to the Library and St. Augustine Center. Potential configurations could include a lounge, 2 or 3 seminar rooms, 15 to 19 private offices, and open office space.

The area around the Oreo is the focus of a significant amount of student life, and could be augmented with a series of renovations and additions or a new building on the Dougherty Hall site. The site has at least three important advantages for the center of student life: it faces the campus’ major pedestrian thoroughfare, it is centrally located between classroom precincts, and it has reasonable service access (reasonably segregated from major pedestrian paths).
Along with the constants listed (see Section IX.B.1.), two of the possible combinations of variables are described below. The University’s decisions will be guided by both its ideals and pragmatic concerns.

- Option A, a long term plan, would be closest to ideal, but would require the most construction and the longest time horizon:
  - Grouped Academic Programs – Math, Computing Sciences and Geography and the Environment – in Tolentine, along with University President and Vice Presidents. The building would also include general classrooms and interdisciplinary and shared space.
  - Communication, Psychology and related Academic departments in an academic building replacing Kennedy Hall.
  - A new Engineering building south of CEER to house displaced uses from Tolentine and expanded Engineering programs.
  - Science labs expanded in Mendel, in space vacated by Computing Sciences, and Communication.
  - Performing Arts, including at least some Music Activities, on the south side of Lancaster Avenue.
  - Student Administrative Services in Vasey Hall or Garey Hall.
  - Administrative functions in Garey Hall.

- Option B:
  - A combination of academic and senior administrative uses in Tolentine. The building would also include general classrooms and interdisciplinary and shared space.
  - Communication, Psychology and related Academic departments in an academic building replacing Kennedy Hall.
  - A new Engineering building south of CEER to house displaced uses from Tolentine and expanded Engineering programs.
  - Science labs expanded in Mendel, in space vacated by Computing Sciences, and Communication.
  - Performing Arts, including at least some Music Activities, on the south side of Lancaster Avenue.
  - Campus Ministry in Corr Hall.
  - Student Administrative Services in Vasey Hall or Garey Hall.
  - Administrative functions in Garey Hall.

- Option 2:
  - Dougherty and Vasey would be programmed together as student-oriented space and, with Connelly, would be a “campus neighborhood” serving the needs of students, faculty and staff. Dougherty and, perhaps, Vasey would receive transparent additions facing an improved pedestrian path; both would be completely renovated.
  - Dougherty’s upper level would remain student activities; these would be augmented by spaces in Vasey.
  - Loading would be somewhat reconfigured; it might be possible, with a new connection, to combine loading for Connelly and Dougherty, thus minimizing conflicts.
  - Some of the space in Austin now devoted to Admissions could be devoted to student activities and related spaces. The remainder would provide residents of Austin with a lounge, laundry, and other amenity. Access to residential and student activities areas would be completely separated.

**Garey Hall** would provide valuable swing space for much-needed renovations of campus buildings. In the longer term, it could house student services and other administrative components, freeing space in the core for academic and student life uses. Administrative uses that require easy vehicular access, including Housekeeping, Graphic Services (and Publications), and Bulk Mail, could be especially appropriate there.
X. SUMMARY OF PROPOSED DEVELOPMENT
### STUDENT HOUSING OR MIXED USE WITH HOUSING

<table>
<thead>
<tr>
<th></th>
<th>New Construction</th>
<th>Renovation</th>
<th>Area/bed (sf)</th>
<th>Student Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mixed Use</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Use Building 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>136,640</td>
<td></td>
<td>340</td>
<td>402</td>
</tr>
<tr>
<td>Bookstore, Holy Grounds, other University Retail and Community Space</td>
<td></td>
<td></td>
<td>35,220</td>
<td></td>
</tr>
<tr>
<td>Mixed Use Building 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>75,480</td>
<td></td>
<td>340</td>
<td>222</td>
</tr>
<tr>
<td>Other - Retail or Administrative</td>
<td></td>
<td></td>
<td>20,780</td>
<td></td>
</tr>
<tr>
<td>Mixed Use Building 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>105,200</td>
<td></td>
<td>340</td>
<td>309</td>
</tr>
<tr>
<td>Other - Retail or Administrative</td>
<td></td>
<td></td>
<td>29,090</td>
<td></td>
</tr>
<tr>
<td>Mixed Use Building 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>83,840</td>
<td></td>
<td>340</td>
<td>247</td>
</tr>
<tr>
<td>Other - Retail or Administrative</td>
<td></td>
<td></td>
<td>20,960</td>
<td></td>
</tr>
<tr>
<td><strong>West Campus Student Residences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence 1</td>
<td>82,920</td>
<td></td>
<td>340</td>
<td>221</td>
</tr>
<tr>
<td>Residence 2</td>
<td>82,920</td>
<td></td>
<td>340</td>
<td>221</td>
</tr>
<tr>
<td><strong>Fedigan Renovation</strong></td>
<td>19,990</td>
<td></td>
<td>-60</td>
<td></td>
</tr>
<tr>
<td><strong>Sullivan Renovation</strong></td>
<td>74,000</td>
<td></td>
<td>-25</td>
<td></td>
</tr>
<tr>
<td><strong>Sheehan Renovation</strong></td>
<td>74,000</td>
<td></td>
<td>-25</td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td>567,000</td>
<td>167,990</td>
<td>1512</td>
<td></td>
</tr>
</tbody>
</table>

### ACADEMIC OR ACADEMIC MIXED USE

<table>
<thead>
<tr>
<th></th>
<th>New Construction</th>
<th>Renovation</th>
<th>Net-to-Gross</th>
<th>Student Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Addition and Renovation of Tolentine Hall</strong></td>
<td>46,300</td>
<td>28,700</td>
<td>122,890</td>
<td>76,200</td>
</tr>
<tr>
<td><strong>Performing Arts Center</strong></td>
<td>75,600</td>
<td>45,350</td>
<td>132,000</td>
<td>85,800</td>
</tr>
<tr>
<td><strong>Kennedy Hall Replacement (Net Gain)</strong></td>
<td>56,000</td>
<td>36,400</td>
<td>132,000</td>
<td>85,800</td>
</tr>
<tr>
<td><strong>Academic Buildings South of CEER</strong></td>
<td>80,340</td>
<td>52,200</td>
<td>132,000</td>
<td>85,800</td>
</tr>
<tr>
<td><strong>Falvey and Old Falvey Renovation</strong></td>
<td>80,980</td>
<td>52,200</td>
<td>132,000</td>
<td>85,800</td>
</tr>
<tr>
<td><strong>John Barry Hall Renovation</strong></td>
<td>32,100</td>
<td>21,000</td>
<td>105,200</td>
<td>64,100</td>
</tr>
<tr>
<td><strong>Chemical Engineering Renovation</strong></td>
<td>32,100</td>
<td>21,000</td>
<td>105,200</td>
<td>64,100</td>
</tr>
<tr>
<td><strong>White Hall Renovation</strong></td>
<td>36,000</td>
<td>23,400</td>
<td>105,200</td>
<td>64,100</td>
</tr>
<tr>
<td><strong>Alumni Hall Renovation</strong></td>
<td>30,800</td>
<td>20,020</td>
<td>105,200</td>
<td>64,100</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td>431,220</td>
<td>276,445</td>
<td>369,971</td>
<td>233,601</td>
</tr>
</tbody>
</table>

---

*Fig. 72: Proposed development - Academic or Academic Mixed Use*

*Fig. 73: Proposed development - Student Housing or Mixed Use with Housing*
## STUDENT LIFE

<table>
<thead>
<tr>
<th>New Construction</th>
<th>Renovation</th>
<th>Net-to-Gross</th>
<th>Student Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Area (gsf)</td>
<td>Gross Area (gsf)</td>
<td>Approx. Net Area (nsf)</td>
<td>Approx. Net Area (nsf)</td>
</tr>
<tr>
<td>Addition and Renovation of Dougherty Hall</td>
<td>20,000</td>
<td>79,270</td>
<td>51,526</td>
</tr>
<tr>
<td>Renovation of Vasey Hall</td>
<td>3,500</td>
<td>44,770</td>
<td>29,101</td>
</tr>
<tr>
<td>Targeted Renovations to Connelly Center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td>23,500</td>
<td>124,040</td>
<td>80,626</td>
</tr>
</tbody>
</table>

(Some Student Life in Mixed Use, Above)

## ADMINISTRATIVE

<table>
<thead>
<tr>
<th>New Construction</th>
<th>Renovation</th>
<th>Net-to-Gross</th>
<th>Student Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Area (gsf)</td>
<td>Gross Area (gsf)</td>
<td>Approx. Net Area (nsf)</td>
<td>Approx. Net Area (nsf)</td>
</tr>
<tr>
<td>Welcome Center</td>
<td>50,400</td>
<td>65%</td>
<td>-48</td>
</tr>
<tr>
<td>Public Safety (within Parking Structure)</td>
<td>8,680</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Renovation of St. Rita’s Hall</td>
<td>16,700</td>
<td>60%</td>
<td>-52</td>
</tr>
<tr>
<td>Garey Hall Renovation (with other uses)</td>
<td>98,160</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td>59,080</td>
<td>73,824</td>
<td>-100</td>
</tr>
</tbody>
</table>

## ATHLETICS

- Turf Field
- Jake Nevin Renovations
- Renovations to Pavilion
- Renovation of Space below Stadium (Requires new space for Facilities Garage)

## PARKING STRUCTURES

See Page 70 for Location and Number of Spaces

## OTHER

- Steam Plant Expansion | 1,200 | 14,500 |

Student beds - Net Gain - All Phases | 1161 |

---

fig. 74. Proposed development - Student Life, Administrative, Athletics, Parking Structures & Other
XI. NOTES ON IMPLEMENTATION
XI. NOTES ON IMPLEMENTATION

In this section, we outline the steps needed to accomplish the individual projects set out in the evolving campus plan. The order in which projects are completed, and in which program needs are met, will depend in large part on the objectives and requirements of the University’s Strategic Plan, currently under development.

Here we present some general principles for implementation to be considered in tandem with the Strategic Plan and with the program options set out in Section IX.

A. PRINCIPLES FOR IMPLEMENTATION

- New construction is needed to meet many of the University’s needs; however, meeting these needs should be balanced with improvements to Villanova’s existing buildings and infrastructure.
- Sustainability issues should be considered in programming and planning projects from the earliest stages.
- Soon to be vacated space in St. Mary Hall and Garey Hall could be used as ‘swing space’ for renovations. (New classrooms in the Driscoll Hall will also help alleviate – but not solve – the burden of taking classrooms off-line for renovation.)
- Any uses that could be located off-site during the first few years of plan implementation – certain offices, for example, or long-term storage – should be located off-site to ease demand on swing space.
- The number of moves should be minimized, to contain both costs and disruption. This could result in moves with multiple steps. For example, some uses that could be located permanently in Garey Hall – Graphic Services or Publications, perhaps, could be moved there in the near term, allowing the space they vacate to be used as swing space for another renovation.
- Significant additions to the campus would require investment in infrastructure. For example, after the Nursing and Law School buildings are completed, the University will be close to the existing steam plant’s firm capacity. A new boiler, along with renewal of cooling equipment, should be considered before further expansion. (See the Utility Engineer’s report in the Technical Appendix to this document.)

B. THE “ZERO” INCREMENT

Even in advance of substantial new construction, improvements could be made to enhance the campus and improve community life. This “zero increment” could include:

- Moving vehicle-intensive uses – for example, bulk mail and housekeeping -- out of the campus core.
- Considering off-site Library collections storage, to allow more space in Falvey for students.
- Improvements to finishes, furniture and equipment in classrooms not scheduled for near-term renovation.
- Prioritizing accessibility projects and, in particular, eliminating barriers to accessibility in the Pavilion and other public buildings. Low budget quick fixes, such as hardware and signage should also fall within these improvements.
- Continuing the University’s program of life safety improvements, including sprinklers, to residential buildings. Also, continue to correct any code violations in buildings throughout campus.
- Considering off-site storage to relieve pressure on spaces in Dougherty, Austin and other buildings.
- Considering an off-site location for the Data Center, currently located in Mendel Hall.

C. NOTES ON SPECIFIC PROJECTS

The chart on page 93 outlines the preliminary steps necessary to embark on some of the major projects described in the campus plan. The complexities of certain projects are worth highlighting:

Tolentine Hall. Many – but not all – functions displaced by construction at Tolentine could be housed in vacated space in Garey Hall, St. Mary Hall and – perhaps – in temporary office cubicles in the old reference room in Old Falvey. The availability of this “swing space” would depend on the eventual timing and sequencing of projects.

Dougherty Hall. Any major renovation or replacement of Dougherty Hall is bound to create some inconvenience and hardship on campus. The dining hall at St. Mary’s (with a few cosmetic improvements) could accommodate a significant amount of Dougherty’s all-you-care-to-eat dining hall capacity, perhaps in tandem with the existing kitchen at Garey Hall. The retail lunch demand – currently served by the Corner Grille and the Italian Kitchen – will be harder to satisfy as it is somewhat dependent on a central location. One option – albeit an imperfect one – would be to convert the Villanova Room to a temporary servery and dining room, served by a mobile kitchen on the asphalt at the rear of Connelly. University events now in the Villanova Room would need to be moved off-site or possibly to Jake Nevin. Smaller events – requiring up to 3,400 square feet – could potentially be accommodated in the Garey Hall dining room. If this is unacceptable, large temporary units could be installed on campus parking lots, requiring additional temporary parking. The University could also consider a combination of temporary spaces and some of the recommendations below:

- Limiting meal plan options to evenly distribute students
  \(\rightarrow\) non-central AYCE locations in St. Mary’s Hall and Donahue.
- Removing MPE’s from Connelly Center retail operations.
- Adjusting class schedules to better manage the peak lunch time flow of students.

South of Lancaster. Development of the University’s properties south of Lancaster would require zoning relief. An alternative development scenario is considered in Section XII., in the event that relief is denied or delayed.

D. COSTS

Preliminary, order-of-magnitude costs, project by project, are included in a Technical Appendix to this report.
<table>
<thead>
<tr>
<th>PRELIMINARY STEPS</th>
<th>PROJECT</th>
<th>COROLLARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>South of Lancaster - Parcel 1 (then to Chapel Walk)</td>
<td>Dougherty Replacement OR Renovation and Addition to Dougherty Hall</td>
<td>New Residence Halls at Southwest Corner</td>
</tr>
<tr>
<td>Identify existing spaces for building occupants. This could be a several step process, in order to reduce the number of moves any one department needs to make. For example, Graphics Services and Publications could make a permanent move to Garey Hall, present locations for these programs in Galerry and Falvey could serve as temporary existing space for Tolentine occupants to return to the building after renovation.</td>
<td>Select design team.</td>
<td>Identify interim housing for residents of O'Dwyer (50 beds) and, possibly, Simpson (30 beds).</td>
</tr>
<tr>
<td>Secure necessary approvals and variances from Radnor Township and Penn DOT. Negotiate with SEPTA and provide appropriate parking.</td>
<td>Select design team.</td>
<td>Identify and prepare interim all-you-care-to-eat (AYCTE) and retail dining solutions.</td>
</tr>
<tr>
<td>Provide temporary parking.</td>
<td>Secure necessary approvals from EPA, if needed for stormwater management systems.</td>
<td>Identify replacement parking for Tolentine courtyard spaces.</td>
</tr>
<tr>
<td>Provide temporary parking.</td>
<td>Expanding central steam plant.</td>
<td>Construct residence halls, with retail at grade level and basement storage.</td>
</tr>
<tr>
<td>Middleton</td>
<td>Construct parking structure (with Public Safety), parking lots and traffic improvements.</td>
<td>Construct landscape improvements along Lancaster Avenue from Spring Mill to Softball Field.</td>
</tr>
<tr>
<td>Identify swing space locations for building occupants. This could be a several step process, in order to reduce the number of moves any one department needs to make. For example, Graphics Services and Publications could make a permanent move to Garey Hall, present locations for these programs in Galerry and Falvey could serve as temporary existing space for Tolentine occupants to return to the building after renovation.</td>
<td>Select design team.</td>
<td>Identify on-campus space for large-scale events that cannot be accommodated off-site – Jake Nevin? Garey Hall dining for smaller events?</td>
</tr>
<tr>
<td>Secure necessary approvals and variances from EPA, if needed for stormwater management systems.</td>
<td>Provide temporary parking.</td>
<td>Move student organizations and offices to temporary existing space – St. Mary’s Hall?</td>
</tr>
<tr>
<td>Identify swing space locations for building occupants. This could be a several step process, in order to reduce the number of moves any one department needs to make. For example, Graphics Services and Publications could make a permanent move to Garey Hall, present locations for these programs in Galerry and Falvey could serve as temporary existing space for Tolentine occupants to return to the building after renovation.</td>
<td>Select design team.</td>
<td>Identify on-campus space for large-scale events that cannot be accommodated off-site – Jake Nevin? Garey Hall dining for smaller events?</td>
</tr>
<tr>
<td>Secure necessary approvals and variances from EPA, if needed for stormwater management systems.</td>
<td>Provide temporary parking.</td>
<td>Move student organizations and offices to temporary existing space – St. Mary’s Hall?</td>
</tr>
<tr>
<td>Identify swing space locations for building occupants. This could be a several step process, in order to reduce the number of moves any one department needs to make. For example, Graphics Services and Publications could make a permanent move to Garey Hall, present locations for these programs in Galerry and Falvey could serve as temporary existing space for Tolentine occupants to return to the building after renovation.</td>
<td>Select design team.</td>
<td>Identify on-campus space for large-scale events that cannot be accommodated off-site – Jake Nevin? Garey Hall dining for smaller events?</td>
</tr>
<tr>
<td>Secure necessary approvals and variances from EPA, if needed for stormwater management systems.</td>
<td>Provide temporary parking.</td>
<td>Move student organizations and offices to temporary existing space – St. Mary’s Hall?</td>
</tr>
</tbody>
</table>

fig. 75. Project by project planning - selected projects
E. OTHER ASPECTS OF IMPLEMENTATION

The implementation of the campus plan could require changes in University policy and practice. A few of these are listed below, for review and discussion:

1. Parking Demand Management

Strategies for reducing demand for parking are discussed in Section VIII.B.

2. Facilities Policies and Practices

The University might consider:

- Establishing an “operational endowment” for each new or newly renovated building, to offset increases in the cost of operations. Project costs could include an “endowment” to offset the additional operating costs associated with a project. If implemented, how large should this endowment be? At some institutions, building-specific operating endowments approach 50% of construction costs, and the return on investments is expected to cover all utilities and maintenance for the building; even a much smaller endowment could help increase a building’s long-term affordability and ensure its continued good condition.

- Operating costs could be a significant factor in project planning and construction; higher initial costs could, in the long term, result in greater economy. If it has not done so already, the University might consider establishing a payback threshold for certain items; for example, encouraging energy or water-saving improvements that have a payback period of less than, say, ten years. Some Universities have created self-perpetuating funding vehicles that reduce energy consumption or other operational costs.
XII. ALTERNATIVE DEVELOPMENT PLANS
XII. ALTERNATIVE DEVELOPMENT PLANS

In earlier sections of this report, we outlined the preferred development plan for Villanova. Many aspects of the plan can be accomplished within existing zoning regulations, with minor variances of the kind the University and the Township have typically negotiated. These aspects of the plan -- the constants -- include creating:

- A pedestrian-centered campus core.
- A complete renovation of Tolentine and a new addition creating a “fourth wall” of the courtyard, with a new building entrance facing Mendel Field.
- A renovated and augmented center of student activity around the Oreo, including the renovation of Vasey and renovation or replacement of Dougherty Hall.
- A re-imagined and renewed heart of campus, including renovations and possibly additions to buildings at the core.
- Campus-wide improvements to improve accessibility, life safety, and building condition.

Some aspects of the preferred plan – particularly development along the south side of Lancaster Avenue -- are highly dependent on zoning variances or adjustments. The University’s ability to build in this area, though, is far from assured and so we suggest here some alternative locations for programs planned for the “hamlet of Villanova.” Of these programs – a new Performing Arts Center, the University Shop, an Admissions and Alumni Center, Public Safety and student housing – alternative locations for student housing prove the most problematic.

A. OPTIONS FOR ALTERNATIVE DEVELOPMENT

1. Performing Arts Center

The site of Kennedy Hall could be an alternative location for the performing arts center.

- Uses in Kennedy Hall – including the Mailroom, Central Receiving, Bookstore and administrative offices – would require relocation.
- Additional parking would be provided by adding to or replacing the SAC parking structure. Because an addition to the SAC lot would already be required to remove parking from surface lots at the campus core – including the Tolentine courtyard lot and the Kennedy Hall lot – a new, larger ramped structure at the SAC lot site could be needed to satisfy the additional demand if no parking could be built south of Lancaster.
- The site is somewhat more constrained than the south of Lancaster site, and is less visible to the public.

2. University Shop

Alternate sites for the University Shop could include:

- The ground floor of Vasey, once other programs have been relocated.
- This location is near the student heart of campus.
- Frequent deliveries would be problematic, and would conflict with service access to dining in Dougherty Hall.
- The southwest corner of the campus core, south of CEER.
- This site is zoned C-1 (Commercial) and so could be developed for the University Shop and other retail by right.
- Even if the shop served primarily an on-campus customer base, delivery access would exacerbate the already poor level of service at the intersection of Lancaster and Spring Mill.
- The ground floor of a mixed-use residential building on the southeast corner of Lancaster and Ithan Avenues.
- Structured parking would be required to replace existing surface parking.

3. Admissions and Alumni Center

- Admissions and an Alumni Center, primarily office facilities with a public component, could perhaps be developed in the CO (Commercial Office) zone south of Lancaster, west of Moriarty Hall, with surface parking behind.
- Alumni House and Geraghty Hall would be demolished; programs in Geraghty Hall would be relocated.
- Sidewalk and traffic control improvements would be needed to help link this site to the campus core.
- Another option for Admissions would be to house it in a renovated St. Rita’s Hall.
- Student housing would be displaced.
- Campus Ministry offices would be displaced.
- Visitors would be across Lancaster Avenue from convenient parking.

4. Public Safety

If a new parking structure is located south of Lancaster Avenue, Public Safety offices could be located there, just as in the recommended development.

If not, alternative locations include Garey Hall, or as part of a new administrative building on or near the current Public Safety location in Farrell Hall (zoned CO, Commercial Office).

5. Student Housing

Options available to the University by right for student housing are few, and would require compromises in both location and in the number of units available:

- Sites available by right along the north side of Lancaster Avenue (the Lawn) are not recommended and are not considered as desirable building sites by the University owing to the symbolic, aesthetic and recreational importance of the Lawn.
- The Villanova Conference Center, zoned Institutional, could be developed as student housing.
- There is parking on-site, and a sidewalk could be added on Villanova’s property to within 100 feet of the County Line SEPTA Route 100 station.

95
- Residence halls developed by right on Pike Field could accommodate about 400 students on three levels. Surface parking would be provided.

  - The newly developed softball field would be displaced, requiring off-site facilities for varsity teams and eliminating student recreational use of the field.

  - Alternate means of managing stormwater would be required to replace the existing, newly developed infrastructure on site.

  - An important green buffer between the University and its residential neighbors would be reduced.

- A renovation to Garey Hall could accommodate about 215 students in traditional doubles, or about 140 students in suites.

  - Alternate locations for administrative uses planned for Garey Hall would be required.

  - In addition to uses planned for the long-term, the building is needed in the short term for use as swing space for much-needed renovations of central campus academic buildings.

One combination of housing options is illustrated on page 97. Compared to the recommended development, this scenario offers less academic space and fewer student beds.
ALTERNATIVE DEVELOPMENT OPTIONS FOR STUDENT HOUSING

XIII. THE CAMPUS IN THE COMMUNITY
XIII. THE CAMPUS IN THE COMMUNITY

“We need to tell our story...it is my hope that Villanova also will strengthen current partnerships and identify new ones that will allow us to enhance our presence in the Greater Philadelphia Region.”

The Rev. Peter M. Donohue, O.S.A.
Address to the University Senate
December 1, 2006

A. VILLANOVA IN THE REGION

Villanova’s 90,000 living alumni provide a network of connections that span the globe. Many of those alums -- over 30,000 -- live in Greater Philadelphia region.

How should a physical plan for the campus support the University’s image and identity in the region? An aerial photograph showing the close geographical connections between Villanova and Center City Philadelphia and the major travel arteries passing by and through the University gives some clues:

- The University’s presence on Lancaster Avenue is an opportunity to communicate with those in the 25,000 vehicles that travel past the University daily. Improving this important gateway to the campus -- and prominently siting a new performing arts center -- could help remind passers-by of Villanova’s cultural offerings.

- Stressing links with Center City -- for example, encouraging student use of transit -- could support Villanova’s academic mission by leading to greater student engagement in the City’s cultural and arts offerings.

- Providing a modest Center City presence -- perhaps, as suggested during the course of our planning, a place for the School of Business to hold evening classes -- could help raise Villanova’s profile in the region.

B. VILLANOVA WITHIN THE TOWNSHIP AND COMMUNITY

Goals for the campus, established in the first phase of our plan, include Villanova’s desires to:

- Provide facilities that enable Villanova to serve as an intellectual and cultural resource for the extended local community.

- Coordinate communication and planning efforts with local governments and their agencies.

- Support the continued beauty, amenity and livability of the surrounding neighborhoods.

1. Villanova as a Resource for the Community

Villanova’s campus is host to the community in a number of ways:

- A number of Villanova’s employees are also campus neighbors. About 268 of the University’s administrative employees live within the Villanova zip code (19085) or in the zip codes immediately to the east (19010) or west (19087).

- University facilities are made available to the community for various events; for example, 14 area high school graduation ceremonies were held in the Pavilion in June 2007.

- Use of the University’s pool and fitness facilities is available to all Radnor Township residents -- free except for the cost of a Wildcard ($25).

- Local residents attend performances by Music Activities and the Theater Department; Villanova Theater has about 700 subscribers.

fig. 76. View east toward Center City (Source: VU Facilities)
VILLANOVA UNIVERSITY AND SURROUNDING AREAS

Villanova University Campus Planning
Base Map Source: Google Earth, July 2007
Information Source: Google Maps, July 2007

KEY
- RETAIL
- VILLANOVA UNIVERSITY CAMPUS
- AREA CAMPUSES
- PARKS & RECREATIONAL AREAS
2. Community Concerns

Although we have studied the future of Villanova’s campus primarily from the University’s perspective, we have also met with the professional staff of Radnor Township and reviewed available documents – including Radnor’s Comprehensive Plan and drafts of the Wayne Business District and Garrett Hill plans – to begin to understand and anticipate community concerns. From these, and from a meeting with a Township Commissioner, we understand that major concerns include:

- **Neighborhood preservation.** The community does not want Villanova to grow beyond its boundaries, or to negatively impact the quality of life of the residents of Radnor Township. This includes the issue of noise and lights “spilling” into neighboring properties.
- **Student housing.** Residents would prefer that students live on campus rather than in neighboring communities. At present, about 71% of Villanova undergraduates live in on-campus housing.
- **Traffic.** Maintaining the new 25 miles-per-hour speed limit along Lancaster Avenue is important, but the congestion along Lancaster – and particularly at the intersection with Spring Mill Road – is at least as important an issue.
- **Parking.** Neighbors, quite understandably, do not want students’ or other University-bound automobiles parked in residential neighborhoods.
- **Stormwater management.** The University’s recent improvements, particularly at Pike Field, have improved stormwater management in the area. The opportunity exists to do even more to reduce the impact of run-off - from parts of the campus, from Lancaster Avenue (PennDOT), from neighboring developments, and from the neighborhoods - as part of the proposed development south of Lancaster Avenue.

3. Fundamentals of Villanova’s Campus Plan

Our plan seeks to address these concerns, while meeting the University’s needs to attract and educate students and to remain competitive with its peers. Fundamentals of the plan include:

- **A desire to keep the size of the student body relatively constant.** In fact, the number of undergraduates, by design, has been relatively stable for at least the last decade.
- **Making the campus more pedestrian-friendly.** Much of the campus core will be off-limits to most automobiles. More parking will be added closer to the current campus entrance to compensate, and additional measures will also be considered to encourage ride-sharing, bicycling and – particularly – the use of transit.
- **Including “greener,” more sustainable design and policy.** This includes measures to save energy, manage stormwater run-off and reduce reliance on single occupancy vehicles.
- **Renovating a number of the University’s buildings, to extend their usefulness and preserve the character of the campus.**
- **Adding student housing, to allow the University to meet its commitment to students for three years of housing.** Another long term goal is to provide University housing to those seniors who want to remain on campus.
- **Preserving campus green space, particularly the Lawn along Lancaster Avenue.**

4. Some Constraints

Constraints on the University’s development include:

- **Covenants against building on West Campus; these begin to expire in 2019.**
- **The need to reserve at least some building opportunity at the center of campus for future academic use.**
- **Zoning restrictions which, in some cases, benefit neither the University nor the community.** The University’s most iconic buildings – including Alumni Hall, Tolentine and the St. Thomas of Villanova – would not have been built under current zoning; one result would have been far less green space.
- **Its desire to preserve iconic green space on campus, including the much-used Mendel Field and, particularly, the green along Lancaster Avenue.**

5. Community Relations

The ability to develop the campus responsibly and well depends on building trust and support in the Radnor Township community. The University is in the process of reaching out to community members to strengthen existing community ties and to build new ones.
XIV. TOWARD A MORE SUSTAINABLE VILLANOVA
XIV. TOWARD A MORE SUSTAINABLE VILLANOVA

“An education in ecological responsibility is urgent: Responsibility for oneself, for others and for the earth. Modern society will find no solution to the ecological problem unless it takes a serious look at its lifestyle.”

“The Commitment of Believers to a healthy environment for everyone stems directly from their belief in God the Creator.”

—The message of his holiness Pope John Paul II for the celebration of the World Day of Peace, January 1, 1990, from the Villanova University Environmental Website

How can Villanova contribute to the creation of a “healthy environment for everyone?” Broadly speaking, the concept of campus sustainability involves a thoughtful (yet imprecise) measure of resources consumed and wastes emitted, and the consideration of the long-term effects of these on earth’s systems and on human health. Campus sustainability initiatives include a broad range of actions, and encompass:

- Energy use, supply and distribution
- Material supply and disposal
- Food supply
- Water supply and disposal
- Building design and construction, including mechanical systems
- Transportation
- Vegetation and landscape
- Education, research and outreach

In this section, we list some of the University’s ongoing sustainability efforts; describe how the fundamental framework of the campus plan could contribute to a more sustainable Villanova; and recommend some additional avenues for consideration as the plan is implemented.

A. VILLANOVA: ONGOING EFFORTS

Villanova already has a considerable number of sustainability initiatives underway or in planning phases. The following list – illustrative but not exhaustive – is derived from the University’s Response to the Endowment Institute Report Card (July 2008), Villanova’s website and master planning meeting minutes.

1. Energy use, supply and distribution
   - Villanova’s President, along with 557 other college and university leaders, has signaled an institutional commitment to sustainable efforts by signing the American College & University Presidents Climate Commitment.
   - As part of the President’s Climate Commitment, the University is in the process of completing a carbon emissions inventory, for submission in Fall 2008.
   - The University has purchased enough renewable energy credits for 100% windpower to offset the electrical consumption for the new Nursing and Law buildings for two years.
   - Villanova is part of the Environmental Protection Agency’s voluntary Energy Star and Green Lights programs, which require participants to perform energy-efficiency upgrades “where profitable.”

- The University is planning a phased lighting retrofit project to replace older, inefficient lighting; this multi-year project is expected to begin Summer 2009.
- Villanova is also planning a building-automation and energy management analysis and master plan to increase operational efficiency throughout campus; this effort will take place in 2009, with phased implementation to follow.
- Four residence halls are being fully metered to monitor water and electricity consumption for display on “green screens” in the buildings’ lobbies, to help educate the community about resource consumption. A competition among the dormitories is being planned, to encourage conservation and increase awareness.
- The renovation of Fedigan Hall is a partnership between Facilities and the College of Engineering and may include solar power, solar thermal, LED-lighting and geothermal technologies, with a goal of LEED® Gold certification.

1 http://yosemite.epa.gov/ee/epalib/incent.nsf/c7950cb0634d42808525634e00438a4a/f6779f6630c71ced3852564f600728800!OpenDocument

fig. 77. View east toward Center City (Source: VU Facilities)
2. Material supply and disposal

- Villanova has had a recycling program since 1990, and currently recycles 25% of its total waste. The University has a Recycling Coordinator on the Facilities Management staff to manage programs for paper, cans, bottles, landscape waste, food waste, computers, ink jet cartridges and fluorescent light bulbs. Tires, antifreeze, oil and batteries are also recycled. The Coordinator also makes an effort to sort through debris during end-of-year move-out and donates usable items to local charities.
- Over 90% of construction debris from the College of Nursing and School of Law projects will be recycled; this effort is planned for all future renovation and new construction projects on campus as well.
- The University participates in the Waste Minimization component of the national Recyclemania program, a “friendly competition and benchmarking tool for college and university recycling programs to promote waste reduction activities to their campus communities.”
- The University Information Technologies group (UNIT) has developed policies and procedures to reduce paper waste generated in public computing labs, including a “credit allowance” that limits the amount of paper a student can generate in any academic year.
- Reusable dish ware is used in all residence dining halls; 100% pre-consumer recycled plates are used in all University retail outlets; 100% post-consumer recycled, no-bleach paper napkins are used throughout campus. In two retail operations, Dining Services serves reusable containers and utensils, and -- for disposable items -- only 100% compostable materials.
- The Graphic and Mail Services department prints all University stationery on recycled paper, uses soy-based ink, and takes steps to minimize junk mail and undeliverable or returned mail.

3. Food supply

- Villanova purchases about 18% of its produce from local farms, and purchases all dairy products from a local dairy.
- In partnership with Facilities Management, Dining Services has two on-campus herb gardens, located immediately outside its two largest residential dining halls.
- Villanova Dining Services serves only fair trade coffee in all 19 dining outlets on campus; fair trade rice is served in all residence dining hall operations.
- All fish served is sustainably harvested, and is sourced according to guidelines produced by the Monterey Bay Aquarium Seafood Watch.
- Dining Services provides an MSG-free, trans-fat free dining operation (except for naturally-occurring trans-fats like those found in butter).
- Food scraps and other compostable trash are composted by a local composting field, and excess food is donated to Philabundance, which delivers to local food shelters.

4. Water supply and disposal

- Several on-campus projects aimed at reducing water pollution have been completed in collaboration with the Villanova Urban Stormwater Partnership (VUSP; see XIV.A.8, below). These projects, fully described for educational purposes on the VUSP website, include:
  -- a vegetated bio-filtration traffic island on West Campus;
  -- conversion of an existing stormwater detention basin north of Facilities to an extended detention wetland;
  -- areas of porous concrete paving in the Athletics parking area, pervious concrete between Sullivan and Sheehan, and a comparison of porous asphalt and pervious concrete in the Mendel parking lot.
  -- a vegetated roof on a portion of CEER.
- Villanova’s two newest buildings, for the College of Nursing and School of Law, include water efficient plumbing systems. The School of Law building, for example, is estimated to save over 900,000 gallons of water a year over a conventional design.
- Driscoll Hall, the new College of Nursing Building, includes a green roof component.
- Water-conserving plumbing fixtures have been phased into buildings throughout campus over the past two years.

5. Building design and construction, including mechanical systems

- Villanova’s two newest buildings, for the College of Nursing and School of Law, are being designed for LEED® certification with a goal of Silver.
- The design for the renovation of Fedigan Hall follows LEED® (Existing Building) standards and is pursuing Gold certification.
- The University intends to pursue LEED® Silver certification (at a minimum) on all future new construction and major renovation projects on campus.

- The University requires environmentally-friendly materials even for minor renovations and improvements. Examples include low-VOC paints that meet Green Seal GS-11 standards, and carpet that meets the requirements of the Carpet and Rug Institute’s Green Label program. Facilities Management is developing a Green Products list for all campus projects.

6. Transportation

- Villanova recently implemented a Commuter Benefit Plan, which allows members of the Campus Community to pay for eligible transit expenses through pre-tax payroll deductions.
- New building projects include preferred parking for Alternatively Fueled Vehicles, bike racks and shower areas.
- Electric-powered golf carts are used by Facilities.
- The University’s shuttle bus includes routes to nearby shopping destinations; bio-diesel fuels will be used in shuttle buses beginning in Fall 2008.

7. Vegetation and Landscape

- The Facilities Management philosophy is to reduce or eliminate the need for pesticides and to work with native and adapted plants, planting no invasive species.
- Vegetative clippings are left on the ground, to fertilize and reduce waste.
- A rain garden – to be installed where the temporary parking lot is currently located (near Tolentine) – is being planned to filter rainwater and increase groundwater recharge.

8. Education, research and outreach

- The President’s Climate Commitment Core Team and Support Board includes faculty, students and staff appointed by the President to satisfy the commitments of the American College & University Presidents Climate Commitment.
- The College of Engineering is developing a Master of Sustainable Engineering curriculum.
- Villanova’s Department of Civil and Environmental Engineering joined with The Pennsylvania Department of Environmental Protection to form the Villanova Urban Stormwater Partnership “to advance the evolving
comprehensive stormwater management field and to foster the development of public and private partnerships through research on innovative stormwater Best Management Practices, directed studies, technology transfer and education.” This program has joined forces with other research partnerships, the Temple-Villanova Sustainable Stormwater Initiative and the Low-Impact Development-Mid-Atlantic Consortium. 

- Students can elect to be part of the Environmental Leadership Learning Community, an interdisciplinary living-learning community focused on global environmental issues.
- Each year, a two-day Earth Day event is organized on campus by volunteer staff, students and faculty.
- A sustainability website is under development, which will include information about sustainability initiatives and programs taking place across the campus.

B. THE CAMPUS PLAN: OVERALL FRAMEWORK

The overall organization of the campus plan is rooted in sustainable design principles:

- Maintain a compact campus core and minimize expansion into the community and “sprawl.”
- Value, maintain and – where necessary – update and adapt existing buildings where programatically and financially feasible.
- Where new building is necessary, build on sites where natural systems have already been disrupted – on parking lots, for example – and minimize new impervious surfaces.
- Maintain and enhance existing important green spaces – particularly the Front Lawn and Mendel Field.
- Build intensively to minimize building footprints and maximize open area.
- Stack parking to minimize site area devoted to automobiles and to minimize run-off.
- Create stormwater initiatives that consider watersheds areas holistically, including areas – such as Lancaster Avenue – that lie outside the University’s boundaries.
- Create a more pedestrian-friendly, bicycle-friendly campus – and help change the culture of Villanova from car-centered to pedestrian-centered – by creating a network of shaded walks throughout the campus and by keeping most vehicles at the perimeter.

- Reduce student automobile use by providing additional on-campus student housing.
- Reduce midday automobile use by providing convenient, attractive places for the campus community to eat lunch or run basic errands within easy walking distance of most campus administrative and academic hubs – and provide pleasant, amenable paths connecting these.
- Encourage transit use of the SEPTA R-5 train by making more accessible and amenable paths between the campus and the station and considering the walk from the station an important gateway to Villanova’s campus.
- Encourage transit use of the SEPTA R-100 line by creating a more visible, attractive route linking the Villanova station to the campus. A sidewalk from the Villanova Conference Center (nearly) to the County Line station could also be considered.
- Encourage bicycle use between campus precincts by providing routes between West Campus and Central Campus that do not require carrying bicycles on stairs, and by working with the Township to create a shared bicycle lane on Ithan connecting South Campus and Central Campus.
- Create native vegetation zones – a celebration of the native Piedmont vegetation -- in select areas of campus. As described in the Landscape Consultant’s report, this would not only allow for quiet refuge from the more heavily trafficked campus core and enhance campus aesthetics, but also create habitat, allows for natural stormwater management (in the form of rain gardens) and help to stabilize the sloping topography. (If combined with signage, this zone could become an interesting and enjoyable educational tool as well as a visually beautiful space.)

C. PLAN IMPLEMENTATION: ADDITIONAL CONSIDERATIONS

Beyond the University’s current efforts and the sustainable principles integral to the framework of the master plan, what measures might Villanova incorporate into its implementation of the plan?

1. Buildings

Roughly half of U.S. energy use is related to buildings, and so the way institutions build, heat and cool their buildings – and how much they build – can have a large impact on energy consumption.

- Consider reuse of existing buildings, and consider the embodied energy in the building when weighing the pros and cons of demolition. Buildings can be viewed as repositories of the energy used to create them: the energy used to extract or manufacture materials, transport them to the site, and assemble them. “According to a formula produced for the Advisory Council on Historic Preservation, about 80 billion BTUs of energy are embodied in a typical 50,000-square-foot commercial building. That’s the equivalent of 640,000 gallons of gasoline…”
- Consider setting performance targets for energy use reduction in renovated buildings. (Most renovated buildings end up using more energy after renovation because of the addition of cooling, elevators and other equipment.)
- Consider aesthetically and historically appropriate storm windows or window replacement on existing buildings, to reduce energy consumption.
- Consider installing “Vending Misers” on vending machines on campus.

http://www3.villanova.edu/vusp/about_us/Aboutus.htm

2http://www.architecture2030.org
3http://www.villanova.edu/casj/about_us/Aboutus.htm
4http://www3.villanova.edu/vusp/about_us/Aboutus.htm
5Provides a useful point of reference.

6From a speech by Richard Coe, President of the National Trust for Historic Preservation.
7From a speech by Richard Coe, President of the National Trust for Historic Preservation.
2. Transportation

Second only to buildings, transportation is responsible for about 27% of U.S. energy consumption and production of greenhouse gas emissions. Consider replacing conventional washing machines with energy-saving/water-conserving front-loading washers to conserve both water and energy. At Amherst College, this switch is estimated to save about 580,000 gallons of water per year, and a similar initiative at Bowdoin saved the College an estimated 31,356 kWh in electrical energy per year.

- Consider replacing conventional washing machines with energy-saving/water-conserving front-loading washers to conserve both water and energy.
- Increase the number of bicycle racks and bicycle shelters on campus, and provide more showering facilities.
- Once safe bicycle routes have been established between campus precincts, consider additional measures to increase bike use, such as bike share programs. For example, at Middlebury College, anyone who is a member of the Yellow Bikes Cooperative may access a bike anywhere on campus and use it to take them to their next destination.
- Consider further limiting cars for on-campus residents. Swarthmore, for example, limits student parking passes to 110 to 115 per year—less than 10% of the student population. Even far less extreme measures could reduce student automobile use: for example, restricting campus permits to students in their third year of campus residence—instead of allowing passes to students who qualify as juniors by credit hour—could significantly reduce the number of student parking passes in the Spring semester. Tightening policies for first and second year students—limiting exceptions to the no-permit rule only in cases of documented medical necessity or off-campus employment—could also reduce the number of cars on campus.
- Consider offering incentives for public transportation, carpooling, or other alternatives to single-person vehicles. For example, at Cornell—which raised parking fees, coordinated the transit system with the city system, and provided free public transit passes—as 36% of employees commute by means other than driving alone. Stanford University offers a flexible "Commute Club" that rewards club members—employees and students—with up to $216 a year for not driving alone. In September of 2007 Brown partnered with the local transportation authority to provide free bus transportation, called UPASS, for students, staff, and faculty of the University. The goal of this program is to reduce fuel emissions and ease congestion. In the six months since the program’s inception, bus use has increased 189% over the same period last year. Costs of such programs should be weighed against the cost of providing new parking.
- Consider coordination of on-campus shuttle routes with SEPTA arrivals, particularly around peak staff or student rush hours.
- Continue and expand existing initiatives begun at Driscoll Hall and the School of Law offering preferred parking for energy-efficient vehicles or carpool vehicles.

3. Landscape

Stephen Stimson Associates

While efforts at increasing building efficiency [and reducing single-car occupancy transportation] should be a part of any development efforts, there is also a wide range of landscape efforts which can be undertaken to improve sustainability and create a green campus. Wherever possible, these “best management practices” should be incorporated into the Villanova landscape in the future, and several more specific recommendations are made in the sections which follow.

a. Stormwater Management

Conventional stormwater management practices strive to gather stormwater in underground pipes and sewer systems and remove it from a site as quickly as possible. Many environmental problems may result from this approach, including erosion, downstream flooding and reduced groundwater (the result of water being quickly whisked off site rather than allowed to infiltrate). Often, stormwater collects pollutants and hazardous chemicals as it travels over impervious surfaces. Ultimately, these make their way into rivers, streams and other water bodies, impacting water quality and creating hazardous conditions for fish and other wildlife which live there. A sustainable approach towards stormwater management involves a wide variety of techniques, each of which aims to increase the absorption of runoff, recharge groundwater and reduce or eliminate pollutants. Where possible, runoff should be filtered and infiltrated into the ground at its source. This approach, which should be incorporated into the campus landscape wherever possible and/or practical, has numerous benefits, including helping to recharge groundwater and aquifers, reducing downstream water pollution, and improving wildlife habitat on site.

Moreover, rather than treat stormwater as a problem which must be “hidden” in underground pipes and quickly whisked off site, this approach treats stormwater as an important part of the visible landscape—a reminder of the natural cycle of water, one of the planet’s most precious natural resources.

Techniques for Sustainable Stormwater Management

- Incorporate biofiltration systems to filter and remove pollutants from stormwater. These are already being incorporated into areas of the campus. Plants can be highly effective in removing many of the toxins and pollutants that can be carried in stormwater. Vegetated swales, constructed wetlands, rain gardens, and vegetated strips can be used to slow and filter runoff, allowing stormwater to be cleaned, detained or infiltrated and for groundwater to be recharged. The retention and infiltration of stormwater on site can minimize water quality degradation, erosion, and flooding, as well as eliminate the expense associated with artificial stormwater conveyance systems (pipes, sewers, etc.).
- Minimize impervious surfaces and increase pervious surfaces. Where possible, impervious materials (such as asphalt) should be minimized and materials which allow water to infiltrate into the ground, such as porous concrete, grass pavers and gravel should be used. Some of these materials are already being used on campus, in limited areas.
- Minimize curbs where possible. Curbs encourage the concentration of pollutants and, where there are no curbs, stormwater is allowed to flow from roads or parking lots into swales, where it can be cleaned and infiltrated.
- Minimize hardscape where possible and use landscape or green roofs to reduce runoff and increase stormwater infiltration.

---

www.architecture2030.org
b. Native Vegetation

Native plants are those which naturally occur in a particular region. These plants have evolved over time in response to the conditions of that region, including climate, soil, rainfall, pests, and disease. As a result, native plants have traits which make them uniquely adapted to a given area. Moreover, native plants can be used to create a beautiful and culturally appropriate landscape, and they are typically better suited than non-natives to resist periods of drought, weather extremes and local insects and disease. Villanova is committed to the use of native plants in its landscape. The use of native plants should continue, as there are many ecological and practical benefits to their use.

Benefits of Native Plants over Exotic Plants

- Preservation of diversity in local plant populations;
- Reduction or elimination of the need for harmful chemicals in the landscape which may infiltrate groundwater, reducing water quality and threatening aquatic species;
- Increase in quality habitat for native birds, insects and small mammals;
- Elimination of the possibility that exotic or invasive species may spread into neighboring areas, displace the native plant populations, disrupt ecological systems and degrade local environments;
- More vigorous growth, healthier plants and greater probability of long-term survival;
- Lower maintenance requirements (fertilizers, watering, pesticides, etc.) and, therefore, lower maintenance costs;
- More effective stormwater filtration and, therefore, higher water quality.

c. Green Roofs

Green roofs can play an important role in increasing the sustainability of a landscape and have, in recent years, grown increasingly popular on college campuses. Villanova has already installed green roofs on CEER and on Driscoll Hall, and is considering another on South Campus.

Green roofs may be extensive (shallowly planted roofs with groundcover which are designed primarily for ecological benefit) or intensive (roofs planted with a wide variety of groundcovers, shrubs and trees which provide both ecological and recreational space). In both cases, the benefits—ecological, aesthetic and economic—are many.

Benefits of Green Roofs

- Provision of useable landscape space for recreation;
- Increased aesthetic appeal;
- Increased energy efficiency and reduction of HVAC loads;
- Stormwater retention and filtration (50% – 90% of stormwater can be captured by a green roof for use by its plants, as compared to 80%-95% runoff in conventional roofs);
- Reduced need (and, therefore, reduced costs) for conventional stormwater conveyance systems and reduction of stress on those systems during peak stormwater flows;
- Mitigation of the Heat Island Effect through reduction of rooftop temperatures;
- Filtration of airborne particulates, absorption of air pollution and storing of carbon;
- Creation of quality habitat for birds and insects.

4. Energy supply and distribution

- Continue to consider alternative energy sources and, when new boilers are added, complete a cost-benefits analysis for cogeneration. The utility rate structure in Pennsylvania—which currently does not support co-generation—is scheduled to change in 2010, with large increases in the cost of electricity expected; this could impact the financial feasibility of energy-saving technologies. Other possibilities include: - Solar thermal technologies, which produce heat energy. Systems can be active or passive and can be used to heat water (especially for pools), for space heating (especially where steam is not available) and even for space cooling. The Solar Rating and Certification Corporation, a non-profit that certifies and provides ratings for collectors and systems, is a good resource. (http://www.solar-rating.org/). - Solar photovoltaics, which convert the sun’s energy into electricity.
- Biomass is the burning of organic matter, such as wood and plants, to produce energy. Systems using biomass typically require large storage areas, and – perhaps most important – a reliable and economical source of fuel. Several organizations in Pennsylvania are actively promoting the development of a state biomass industry; one source of information is the Pennsylvania State University website (http://www.abe.psu.edu/extension/factsheets/h/H82.pdf).

5. Operational and Administrative Initiatives

- Consider additional partnerships with other local institutions, governments or other entities to help achieve shared conservation and stewardship goals. For example, Amherst, Smith and Mount Holyoke colleges hired, initially with the help of a grant from the Mellon Foundation, a single Energy Manager who reports to the Director of Operations at each of the three schools. His responsibilities include identifying and implementing cost-effective ways to reduce fossil fuel and electrical energy consumption.
- Consider expanding green cleaning initiatives to eliminate toxic chemicals by using Green Seal certified cleaning products.
- Consider campus-wide informational programs, encouraging people, for example, to turn off lights and equipment and unplug chargers.

These initiatives, in tandem with the University’s ongoing efforts and within the framework of the campus master plan, could move the University closer to its environmental goals for a healthier environment.

-- Using wind power to generate electricity is viable in areas of the country, but wind resources in the Greater Philadelphia Region have insufficient power and speed to be “commercially viable,” although small-scale demonstration projects might be feasible.8

Grants -- for example, from the Pennsylvania Energy Harvest Grant Program (http://www.depweb.state.pa.us/energy/cwp/view.asp?c=1374&q=483024) -- could be available to offset the costs of alternative technologies.

- Continue to replace and upgrade inefficient equipment.
- Consider district-wide chilled water plants, to save energy and reduce maintenance. (See Utilities Engineer’s report in the Technical Appendix to this report.)

http://www.wppsef.org/wind.html
XV. A FEW NOTES ON DESIGN
XV. A FEW NOTES ON DESIGN

Thus far in our report, we have considered where buildings might be added, how big these might be and how the campus might function, but – what should the campus look like? The answer is at once simple and endlessly complex – why, it should look like Villanova. This is not to say that it should look like the campus does today, or – for that matter – like it did at any point in its past. Instead, we believe the campus should both honor its long history and reflect its evolving identity as a contemporary and forward-looking institution.

It’s in this spirit of evolution that we offer the following design guidelines, conceptual ideas for discussion and debate:

The Church and the Lawn. St. Thomas of Villanova, together with the Lawn, is (almost literally) the central emblem of the University. The hierarchical importance of the Church and the Lawn should be acknowledged by future buildings, which should not obscure this iconic view.

Domes and spires. Views of the Church spires and the cupolas atop St. Rita and Alumni Hall are visible throughout campus; they are important not only as orientation devices but also as symbols of the University’s mission.

Physical and institutional identity. As one member of the Villanova community noted, “A walk around the campus should tell our story.” Important campus buildings – Alumni Hall, Tolentine, Austin and St. Rita, to name a few – should be preserved, not as time capsules or as museum pieces but as revitalized links to Villanova’s past, present and future identity. Alumni Hall, for example, is emblematic of Villanova’s early days; Tolentine is physical evidence of Father Fedigan’s ambitions for the institution; and the proliferation of 1940s and 1950s buildings on campus tells the story of the great number of returning soldiers attending Villanova post-WWII. New buildings, likewise, should reflect their own times, and the contemporary image of Villanova as a forward-thinking, modern institution. (For example, the University might consider encouraging its architects to explore using traditional materials in contemporary ways.)

Updating historic buildings. Care should be taken to use compatible materials and building components when renovating existing building fabric. For example, mullion and muntin dimensions of replacement windows should closely match the originals in configuration and dimension.

Additions and renovations. Older buildings need not be static; significant change is often necessary for them to remain vibrant and useful. The National Park Services’ Standards for Rehabilitation state that additions will be “distinguished from the old,” the most successful additions often include elements that contrast with the existing building. For example, a new addition to Tolentine should seem contemporary and new, rather than attempt to look “like it was always there.”

Transparency. Greater transparency in campus buildings – a higher window-to-wall ratio or even curtain walls, particularly along major pedestrian paths – could help make better connections between buildings and landscape, connect to the “see and be seen” aspect of Villanova student culture and communicate the kind of activity and learning that goes on inside buildings. Certainly, we’ve heard from students that they want to see each other – to see who’s in a room before they enter; or to be able to sit and watch the passeggio along the main pedestrian walks. For some late-night uses, transparency can provide an additional level of security.

For some uses along Lancaster Avenue – the theater, for example, or an art gallery – this transparency could be a means of communication with the broader public as well. The architects of these buildings and spaces should engage in careful conversation with the University and building users – which spaces should be visible, and which activities should be private?

“Greening” the campus. The Landscape Consultant’s report (See Appendix) weaves distinctly Villanovan characteristics – its rolling topography and specimen trees, for example – into a more connected campus. Incorporating planted elements along utilitarian buildings – for example, trellised vines along parking structures – can help knit more utilitarian areas into this connected campus landscape, while making views and walkways more pleasant and amenable.

Reflection of the University’s Mission. How should symbols and experiences central to Villanova’s mission be incorporated into the landscape? Specific suggestions from the University community include “a garden symbolic of the place where Augustine experienced his conversion and a labyrinth to encourage non-denominational spiritual reflection,” perhaps on South or West Campus, where there is currently little Christian or Catholic symbolism.

Transitions to residential neighborhoods. Transitions – in scale, landscape and material – should be made from institutional to residential neighborhoods.

Graphics. These could include:

- Beautifully designed wayfinding signs on Aldwyn Walk could help identify the property as part of the University.
- Different kinds of graphics – flags from other countries, for example, from international students’ home countries or from countries where Villanova students are studying abroad – could be welcoming, explicit symbols of Villanovans in the larger world.
- Clear and beautiful signage – inside buildings as well as out – related to pathways and building entrances can help tell the “story” of the University and facilitate wayfinding.
XVI. CONCLUSIONS
XVI. CONCLUSIONS

The plan has engaged the campus community in a self-assessment of the University’s priorities and vision for its physical campus. The recommendations in this report are rooted in this perspective, but also in a shared understanding that input from the broader community is needed as well. Our October presentation to the Trustees marks the end of our study. In many ways, however, the University’s work is just beginning. Villanova’s ability to develop its campus responsibly and well depends on building trust and support in the Radnor Township community.

The plan outlined in this document will help meet the University’s needs for physical space, preserve its most memorable buildings and landscapes, and enhance the beauty and utility of the campus. The plan weaves the University’s past, present and future into a more integrated system of landscape and buildings – one that is explicitly and joyfully Villanovan.
APPENDIX - LANDSCAPE PLAN
STEPHEN STIMSON ASSOCIATES
INTRODUCTION

Villanova University is an independent coeducational institution of higher learning founded by the Augustinian Order of the Roman Catholic Church. The University is a community of persons of diverse professional, academic and personal interests who, in a spirit of collegiality, cooperate to achieve their common goals and objectives in the transmission, the pursuit and the discovery of knowledge. This community serves society by developing and sustaining an academic environment in which the potentialities of its members may be realized. Villanova is committed to those same high goals and standards of academic integrity and excellence as well as personal and corporate achievement that characterize all worthy institutions of higher learning. this community seeks to reflect the spirit of St. Augustine by the cultivation of knowledge, by respect for individual differences and by adherence to the principle that mutual love and respect should animate every aspect of University life.

- from “Heritage in Perspective: the University Mission Statement ”

A critical component of the University realizing its mission is the continued enhancement of the quality of life on campus. The campus’ buildings, facilities, faculty, staff and students contribute significantly to campus life. So, too, does the landscape, as it provides unique and valuable opportunities for recreation, learning, fellowship and spirituality.

This Landscape plan is meant to address, conceptually, the design and treatment of the Villanova University landscape, including open space, circulation, streetscape, vegetation and campus gateways. It is a comprehensive and long range plan meant to guide the development, improvement and stewardship of the campus landscape, and was developed in conjunction with the goals developed and set forward by Venturi, Scott Brown and Associates in the Villanova University Campus Master Plan.
GOALS & OBJECTIVES

Landscape plays a unique and important role in establishing and strengthening a university’s image and identity, as well as providing opportunities for recreation. The goal of this report is to create a campus landscape which responds to and supports the University’s educational and cultural goals, and one that enhances the Villanova experience for students, faculty and staff. Moreover, the landscape should help to create a unique sense of place and enrich the educational experience through a rich visual beauty which celebrates the diversity of the native Piedmont landscape. Ultimately, the success of the campus landscape should be measured by its ability to support the Villanova mission of “developing the total person: intellectually, emotionally, spiritually, culturally, socially, and physically” by providing useful, beautiful spaces for academic and social interaction, outdoor learning, passive and active recreation, and moments of spiritual reflection. To this end, the goals outlined below helped to guide and shape the landscape proposals which follow:

CREATE A PEDESTRIAN FRIENDLY CAMPUS
• minimize the impact of vehicles at the campus core
• eliminate conflicts between pedestrians and vehicles
• clarify and strengthen the pedestrian path system
• identify and improve sightlines to major destinations
• improve wayfinding
• enhance and beautify major arrival points
• prioritize disabled-accessible pathways wherever possible
• improve pedestrian safety

CREATE AND ENHANCE OPEN SPACES TO ENCOURAGE SOCIAL INTERACTION
• create a traditional landscape of lawn and trees in the campus core
• identify key open spaces for varied outdoor activities

STRENGTHEN THE CAMPUS EDGES TO ENHANCE THE UNIVERSITY IDENTITY
• strengthen the streetscape along Lancaster Avenue
• create strong, identifiable visual gateways to the campus

ENHANCE THE CAMPUS’ PLANT PALETTE WITH NEW LANDSCAPE PLANTING
• encourage sustainability and landscape diversity which celebrates the native Piedmont landscape
• encourage a “landscape of learning”
• create a sequence of varied landscape experiences for students, faculty, staff and visitors

LANDSCAPE CONCEPT DIAGRAM
The new campus landscape eliminates conflicts between pedestrians and vehicles in the campus core and creates a more open, traditional campus of lawn and trees. Major desire lines are served by a simplified, direct system of footpaths which connect buildings and open spaces. Major pathways and open spaces are edged by rows of trees which emphasize the circulation and frame views.
LANDSCAPE SUSTAINABILITY

In recent years, many American colleges and universities have joined the movement toward sustainability and have begun to “go green”. Simply stated, sustainable principles deal with limiting energy consumption and carbon output, conserving resources, and protecting and restoring ecological systems. While increased understanding about the threat of climate change, environmental degradation and the limited nature of non-renewable resources undoubtedly plays a role in encouraging institutions to be better stewards of the environment, there are many reasons why more sustainable campuses makes sense. For example, the growing limitation of non-renewable energy sources has led to massive increases in heating, cooling and electricity costs. In contrast, measures to increase sustainability can show significant and immediate economic benefits, such as greatly reduced energy costs of more efficient buildings. Equally important is the realization that attempts to green a university can help to raise its profile and aid in attracting students, funding and media attention.

Like many American universities, Villanova has demonstrated a commitment to sustainability on campus. President Donohue signed the Presidents’ Climate Commitment and the University has a sustainability policy which stresses conservation, education and a green purchasing policy. Students, faculty and staff are actively working to implement green initiatives, as evidenced by the University’s Energy Star purchasing policy, its support for local, organic and fair trade foods, its aggressive recycling and composting programs, the use of electric carts by Facilities, mail and dining services staff, its commitment to the use of native plants in the landscape, and the fact that the campus’ two newest buildings, the College of Nursing and the School of Law, have been designed for LEED certification.

While efforts at increasing building efficiency should be a part of any development efforts, there is also a wide range of landscape efforts which can be undertaken to improve sustainability and create a green campus. Wherever possible, these “best management practices” should be incorporated into the Villanova landscape in the future, and several more specific recommendations are made in the sections which follow.

LESSONS FROM ACROSS THE COUNTRY
Campuses around the country are researching and implementing a wide variety of green technologies. Here are just a few examples:

UNIVERSITY OF NEW HAMPSHIRE
In 2007, the University of New Hampshire installed the first major pervious concrete parking lot in New England. A research team, led by the UNH Stormwater Center, has been studying and analyzing the materials’ performance with regards to improving water quality, reducing runoff, and minimizing the need for salt and sand in winter. Use of pervious surfaces have, in the past, been a concern for those in very cold climates and, with this project, the University hopes to show that these materials are suitable for such climates.

UC DAVIS
In 2007, scientists from UC Davis installed a new, lighter kind of soil engineered specifically for parking lots. Trees, their root systems, and the soil form a reservoir for capturing stormwater and the soil traps, cleans and then slowly releases stormwater. This reduces pollutant loads and flooding. Also, trees are used to provide shade, lower pollutant emissions from cars and reduce ambient temperature. The design is being tested and compared to similarly sized conventional parking areas.

YALE UNIVERSITY
Yale University's new Kroon Hall, a LEED-certified platinum building, employs a number of green technologies. The building not only produces nearly as much energy as it consumes (through such features as solar panels and solar water heaters), an underground rainwater harvesting system provides water for flushing toilets and for irrigating the native landscapes in two courtyards. This system conserves water, improves water quality and helps to control the flow rate of stormwater by detaining and slowly releasing runoff. It is expected to save approximately 500,000 gallons of potable water annually.
LANDSCAPE SUSTAINABILITY

Stormwater Management

Conventional stormwater management practices strive to rapidly gather stormwater in underground pipes and sewer systems and remove it from a site as quickly as possible. Many environmental problems may result from this approach, including erosion, downstream flooding and reduced groundwater (the result of water being whisked off site rather than allowed to infiltrate). Often, stormwater collects pollutants and hazardous chemicals as it travels over impervious surfaces. Ultimately, these make their way into rivers, streams and other water bodies, impacting water quality and creating hazardous conditions for fish and other wildlife which live there.

A sustainable approach towards stormwater management involves a wide variety of techniques, each of which aims to increase the absorption of runoff, recharge groundwater and reduce or eliminate pollutants. Where possible, stormwater runoff should be filtered and infiltrated into the ground at its source. This approach, which should be incorporated into the campus landscape wherever possible and/or practical, has numerous benefits, including helping to recharge groundwater and aquifers, reducing downstream water pollution, and improving wildlife habitat on site. Moreover, rather than treat stormwater as a problem which must be “hidden” in underground pipes and quickly removed from campus, this approach treats stormwater as an important part of the visible landscape—a reminder of the natural cycle of water, one of the planet’s most precious natural resources.

Techniques for Sustainable Stormwater Management

- Incorporate biofiltration systems to filter and remove pollutants from stormwater.

Plants can be highly effective in removing many of the toxins and pollutants that can be carried in stormwater. Vegetated swales, constructed wetlands, rain gardens, and vegetated strips can be used to slow and filter runoff, allowing stormwater to be cleaned, detained or infiltrated and for groundwater to be recharged. The retention and infiltration of stormwater on site can minimize water quality degradation, erosion, and flooding, as well as eliminate the expense associated with artificial stormwater conveyance systems (pipes, sewers, etc.).

- Minimize impervious surfaces and increase pervious surfaces.

Where possible, impervious materials (such as asphalt) should be minimized and materials which allow water to infiltrate into the ground, such as porous concrete, grass pavers and gravel should be used.

- Minimize curbs where possible.

Curbs encourage the concentration of pollutants and, where there are no curbs, stormwater is allowed to flow from roads or parking lots into swales, where it can be cleaned and infiltrated.

- Minimize hardscape where possible and use landscape or green roofs to reduce runoff and increase stormwater infiltration.

BIOFILTRATION SYSTEMS

Vegetated areas, including bioswales, wetlands and rain gardens can dramatically increase a landscape’s sustainability. These are highly effective at filtering toxins from stormwater and allowing the water to infiltrate into the ground.

Pervious Landscape Materials

There is a wide variety of paving materials which can help to increase stormwater infiltration and groundwater recharge. These include porous concrete, pervious pavers and grass pavers.
Native plants are those which naturally occur in a particular region. These plants have evolved over time in response to the conditions of that region, including climate, soil, rainfall, pests, and disease. As a result, native plants have traits which make them uniquely adapted to a given area. Moreover, native plants can be used to create a beautiful and culturally appropriate landscape, and they are typically better suited than non-natives to resist periods of drought, weather extremes and local insects and disease. Villanova is committed to the use of native plants in its landscape. The use of native plants should continue, as there are many ecological and practical benefits to their use.

BENEFITS OF NATIVE PLANTS OVER EXOTIC PLANTS
- Preservation of diversity in local plant populations;
- Reduction or elimination of the need for harmful chemicals in the landscape which may infiltrate groundwater, reducing water quality and threatening aquatic species;
- Increase in quality habitat for native birds, insects and small mammals;
- Elimination of the possibility that exotic or invasive species may spread into neighboring areas, displace the native plant populations, disrupt ecological systems and degrade local environments;
- More vigorous growth, healthier plants and greater probability of long-term survival;
- Lower maintenance requirements (fertilizers, watering, pesticides, etc.) and, therefore, lower maintenance costs; and
- More effective stormwater filtration and, therefore, higher water quality.
LANDSCAPE SUSTAINABILITY  green roofs

Green roofs can play an important role in increasing the sustainability of a landscape and have, in recent years, grown increasingly popular on college campuses.

Green roofs may be extensive (shallowly planted roofs with groundcover which are designed primarily for ecological benefit) or intensive (roofs planted with a wide variety of groundcovers, shrubs and trees which provide both ecological and recreational space). In both cases, the benefits—ecological, aesthetic and economic—are many.

BENEFITS OF GREEN ROOFS

- Provision of useable landscape space for recreation;
- Increased aesthetic appeal;
- Increased prestige;
- Increased energy efficiency and reduction of HVAC loads;
- Stormwater retention and filtration (50% – 90% of stormwater can be captured by a green roof for use by its plants, as compared to 80%-95% runoff in conventional roofs);
- Reduced need (and, therefore, reduced costs) for conventional stormwater conveyance systems and reduction of stress on those systems during peak stormwater flows;
- Mitigation of the Heat Island Effect through reduction of rooftop temperatures;
- Filtration of airborne particulates, absorption of air pollution and storing of carbon; and
- Creation of quality habitat for birds and insects.

INTENSIVE GREEN ROOF

The use of green roofs, such as this intensive green roof at Harvard University, has grown increasingly popular on college campuses.

EXTENSIVE GREEN ROOF

Extensive green roofs use small plants to capture, filter and retain stormwater. Other benefits include filtration of airborne particulates, absorption of air pollution and the creation of habitat.
At present, the Villanova campus is one dominated by roadways and cars. Vehicles and pedestrians are in constant conflict, as the absence of sidewalks forces pedestrians to travel alongside cars and service vehicles. This situation not only complicates pedestrian movement through campus, but the constant presence of moving vehicles presents a difficult and dangerous situation for those on foot. As the current campus culture is oriented towards the car rather than the pedestrian, many of the most highly travelled paths are congested by both moving and parked vehicles. In addition to creating a potentially dangerous condition for pedestrians, the large number of cars in the campus core greatly detracts from the campus’ beauty. Even those paths designated as pedestrian-only often terminate at a roadway, leaving pedestrians little option but to walk in the road. Moreover, with so much of the campus landscape given to the automobile, spaces which might otherwise accommodate social interaction or academic exchange are minimized.

The campus lacks a clear and cohesive system of pedestrian circulation. Instead, there are a number of minor pathways which do not reflect the campus’ desire lines. This makes wayfinding difficult and poses particular challenges to visitors, including parents and prospective students. Disabled students and staff also face a number of challenges navigating campus: the presence of cars in the campus core makes traveling through campus particularly difficult, as do curb cuts which do not align with crosswalks, parked cars which obstruct curb cuts, and lack of clarity regarding where paths are/are not accessible. Undoubtedly, providing ADA access on a campus with significant topographic change is challenging, but the current system is acknowledged by the University to be deficient and in need of great improvement.

A strong, well defined gateway can help to enhance and reinforce a campus’ image. At present, Villanova has no clear gateway and arriving at the campus can seem confusing, even unwelcoming.
LANDSCAPE ANALYSIS gateways

Access to central campus is made difficult by the presence of the SEPTA line to the north and Lancaster Avenue, a major arterial road, to the south. The SEPTA line forces a sharp division between the campus core and the western and northern parts of the campus. This situation is made worse by the difficulties in crossing the tracks: students must climb a steep set of stairs in order to cross over the tracks via Spring Mill Bridge or, alternatively, descend stairs to travel through a narrow, unpleasant tunnel below the tracks. In both cases, the presence of stairs makes navigation difficult, if not impossible, for the disabled, and the approach to campus is neither beautiful nor welcoming. Crossing Lancaster Avenue poses a different set of challenges, as students must contend with four lanes of rapidly moving traffic and few crossing points.

Whether travelling by foot, train or car, most visitors to campus will arrive via Lancaster Avenue. The north side of Lancaster contains some of the University’s most iconic scenery, including the expansive lawns with magnificent specimen trees and views to St. Thomas of Villanova Church. This is in stark contrast to the south side of Lancaster, which is notable only for the large, expansive asphalt parking lots. This does little to further the Villanova image and, in fact, creates a negative impression for those visiting or passing the campus.
LANDSCAPE ANALYSIS open space & vegetation

OPEN SPACE
Open spaces are critical to the quality of life on a university campus, as they provide opportunities for a multitude of activities and can strengthen and enhance a university’s identity. Villanova has relatively few open spaces, with the lawns along Lancaster Avenue and the field between Mendel Hall and the monastery acting as the principal open spaces of the central campus. Open greens such as these are the traditional heart of most campus landscapes, creating a park-like setting for both educational and recreational activities.

At Villanova, this campus ideal is compromised, as much of the landscape is heavily planted with shrubs and/or contains a myriad of pathways. The more traditional landscape of trees and open lawn would create a welcome sense of space and scale.

VEGETATION
A great strength of the Villanova campus is the presence of large numbers of mature specimen trees, including Chinese chestnuts, gingko, weeping beech, copper beech, dawn redwoods, burr oak, saucer magnolia and sequoia. The mature shade trees in the campus core help to beautify the landscape, and include such species as oak, ash, tulip poplar, sugar maple and elm. These trees play a key role in helping to knit together varied architectural styles into a more unified and harmonious tapestry. West and south campuses are also well planted with shade and flowering trees.

The center of campus also has a diverse collection of shrubs, with a wide range of both evergreen and deciduous plants. Many shrubs are planted around building foundations; others are planted along the edge of paths, often at path intersections, and are used to control and direct pedestrian traffic flow. While often beautiful, the shrubs can have a negative impact on the campus, impeding sightlines to major destinations, making the paths seem maze-like, reducing the scale of open spaces, and limiting access to spaces which might otherwise encourage social interaction or allow for various recreation.

Significant numbers of perennials are planted on campus, often alongside shrubs. These, too, are quite unusual for a university setting.
EXISTING SPECIMEN TREES
1. Chinese chestnuts
2. Copper or purple beech
3. Gingko
4. Weeping European beech
5. Metasequoia
6. Giant redwood
7. Horse chestnut
8. Blue atlas cedar
9. Burr oak
10. Saucer magnolia
11. Silver linden
12. Lacebark pine
13. Sugar maple
14. Sycamore
15. White pine
16. Willow oak
17. Northern
ELIMINATE CARS FROM THE CAMPUS CORE

Cars are a necessity of contemporary life and must be accommodated on campus. However, much can be done to minimize the impact of the automobile and to eliminate the constant conflict between vehicle and pedestrian. Removing cars from the center of campus, reorganizing service access and relocating parking to the edges of campus will put the needs of pedestrians at the heart of the campus circulation system. Except in exceptional circumstances, such as to accommodate the needs of the disabled or of the elderly monastery residents, parking at individual buildings should no longer be allowed. Necessary vehicle circulation can be accommodated in a safe and efficient manner, but should be seen as subsidiary to the movement of pedestrians. Limiting central campus to service and emergency vehicles and relocating service access to the periphery of the campus core will not only end a dangerous and disorienting situation for those on foot, it will allow for unimpeded pedestrian circulation and improved open spaces. While, at times, pedestrians and vehicles may travel the same path, the use of both new and existing sidewalks will ensure safety by eliminating vehicle/pedestrian conflicts. In those instances where pedestrian-only paths meet service roads, barriers may be used which will redirect pedestrians from the path to the sidewalk.

Relocating vehicles and parking to the edges of central campus will require a significant shift in the current car-centered culture that currently exists on campus. However, the benefits which will follow will undoubtedly help to ease the transition. These include an enhanced landscape and open spaces, as well as a safe and clear system of circulation for all pedestrians and a more pedestrian-oriented campus which is conducive to more outdoor activity and encourages social interactions and campus exploration.

With vehicles removed from the center of campus, new opportunities arise to create safe and interesting walking paths which not only connect major buildings and open spaces, but allow for recreation and exercise. The trails above, one mile (in orange) and one-half mile (in yellow) loop trails, pass through a variety of open spaces and allow for a visually interesting and beautiful experience.
CREATE A PEDESTRIAN FRIENDLY CAMPUS

With vehicles removed from the center of campus, pedestrian paths can be reconfigured, simplified and made more direct while still serving the many desire lines. These desire lines are defined largely by the various building sizes, locations, departments and classes that take place there. Landscape also helps to define these desire lines. A clear hierarchy of paths which responds to the level of pedestrian traffic between desire lines will help to facilitate both movement and wayfinding. These paths range from broad promenades which can accommodate large groups of people to smaller, more intimate paths. Primary routes through campus should be visually differentiated from secondary routes through width, paving and adjacent vegetation, with rows of trees along all major paths to strengthen edges and frame views.

Primary pedestrian routes (such as the pathway connecting Sullivan/Sheehan and the Connelly Center) should be 20’ wide at minimum in order to accommodate heavy foot traffic, service carts and emergency vehicles. This width allows small groups of people walking abreast to easily pass other groups or individuals. If a conversation forms in the walkway, others can pass without hesitation or without moving off the walkway. Two primary paths, from Bartley to Mendel Field and from the Mendel to St. Thomas, form north-south and east-west axes through the campus and respond to major access points, such as the path adjacent to Bartley and the path at the SEPTA tracks. Many of the campus’ major destinations are along these axes, including the Connelly Center, Mendel Science Building, dormitories and cafeterias. Many of the smaller, intermediate campus paths begin or end along these axes.

At 10'-14’ wide, intermediate paths connect the inside perimeter of open spaces and building entries to major paths. These, too, serve major desire lines and can accommodate heavy foot traffic, carts and emergency vehicles. Minor paths serve less heavily trafficked areas and, at a minimum width of 6’-8’, allow for two people to walk abreast or to pass one another. Wherever possible, paths should have grades of less than 5% and be free of steps or other impediments in order to allow disabled access.

Where each path terminates at a building entrance, the entrance is strengthened by the addition of terraces. In some cases, these areas are simple changes in paving which give prominence to the entrances, making them easier to find. In other instances, they are small plaza-like areas with distinctive pavement, trees, plantings and seating areas which function as outdoor break spaces or areas for students to gather between classes.
NORTH-SOUTH & EAST-WEST AXES
The primary pedestrian paths are oriented in a north-south and east-west axis. These paths connect many of the major destination points on campus, and begin/terminate at the primary access points.

CLARIFYING BUILDING ENTRANCES
Where paths terminate at buildings, distinctive pavement marks the entrances. These provide visual interest and, in some cases, create small terraces which may be vegetated and which provide comfortable spaces for quick, informal breaks between classes.
BARTLEY, SULLIVAN & SHEEHAN TO MENDEL FIELD

For many visitors to campus, the pathway which connects Bartley, Sullivan and Sheehan to the Connelly Center and Mendel Field is the primary point of access to the campus and helps to form their first impression of Villanova. While this area is the major east-west route through campus, at present it is an unattractive "concrete jungle" of ramps and stairs which is neither attractive nor pleasant. Regrading the area between Sullivan and Connelly will create an ADA accessible walkway and eliminate the need for stairs and ramps. This is possible through the careful use of retaining walls and allows the paved area to be narrowed to 20', freeing up additional space for vegetation and transforming the walkway into a new landscaped boulevard. Benches located along the path encourage students to stop or gather, whether to relax, study, or simply people watch. The resulting atmosphere is more lively and interactive.

This is further emphasized by a newly landscaped quad at Sullivan and Sheehan. Currently an unexceptional space through which students, staff and visitors must pass, the area between Sullivan, Sheehan and Connelly will be transformed into an attractive quad with open lawn, shade trees and, at the edges, masses of shrubs. This space provides opportunities for dorm residents to relax, study, or play and, with the new activity along the enhanced pathway, it is the perfect place to "see and be seen".

Despite the re-design of both the pathway and the quad at Sullivan/Sheehan, the path width and center "island" of pavement at the dorms is sufficient to accommodate a number of automobiles during move in/move out day.
A fundamental goal of any campus landscape project must be improving access to all areas of campus for those with disabilities. There are several ways that circulation can be improved to enhance mobility and help orient people and, given the difficulties presented by the campus’ topography, ADA paths must be easily located and identified with clear path signage. Crosswalks, cross signals and curb cuts should be provided where needed to help facilitate movement. There are numerous improvements necessary (in both landscape and architecture) in order to make the campus accessible. Several have been identified in this landscape proposal, and are outlined below.

**CHURCH WALK**
For disabled students crossing at St. Thomas, a series of steps makes it difficult, if not impossible, to continue along the path to the center of campus. This crossing is enhanced through the addition of two new handicapped accessible pathways, on which students can easily proceed after crossing Lancaster. The western path provides more direct and barrier free access to Tolentine Hall and the CEER. Moreover, the Lancaster crossing at Church walk is enhanced through the addition of a very wide crosswalk and crossing signals designed for the blind.

**ST. AUGUSTINE CENTER**
The landscape in front of St. Augustine Center is quite steeply sloped and easy ADA access for those traveling from the east could be improved. An ADA path beginning in front of the adjacent parking garage (behind Kennedy) and terminating below the final set of stairs can be accomodated with minimal regrading of the slope. Moreover, regrading this slope would allow for the removal of the large, imposing retaining wall at the eastern slope, opening up the landscape and creating a more welcoming arrival at the building.
SEPTA STATION & CROSSING FROM NORTH/WEST CAMPUS

Traveling between the campus core and north/west campus is extremely difficult for those with disabilities. Whether choosing to travel beneath the SEPTA tracks (via the tunnel) or over Spring Mill Bridge, pedestrians are faced with stairs, steep slopes, or both. The existing tunnel beneath the SEPTA tracks, currently cramped, dark, unattractive and accessible only via stairs, is made safer and more pleasant through widening, which allows easy pedestrian access between the campus core and the north/west of campus. 10’ wide ADA ramps on either side of the tunnel make the crossing less physically demanding and suitable for bicycles as well as pedestrians. On the south side of the tracks, the ramp reaches grade and connects to the walkway at the rear of Mendel. On the north side, a circular ramp emerges at grade with the sidewalk in front of the SEPTA station.

A newly designed ADA tunnel below the SEPTA tracks allows for easy passage between north/west campus and the campus core.
DESIGN PROPOSALS  gateways: lancaster avenue

Whether travelling by foot, train or car, most visitors to campus will arrive via Lancaster Avenue. The north side of Lancaster contains striking vistas to some of the University’s most iconic scenery, including St. Thomas of Villanova. In contrast, the south side of Lancaster, with its unattractive expansive asphalt parking lots, does little to strengthen the university’s image and, at worst, creates a negative impression of the campus for visitors and passersby. Improving the streetscape and minimizing the appearance of these lots will go a long way towards enhancing this primary gateway to campus.

STREETSCAPE
An enhanced streetscape, particularly south of Lancaster, will greatly strengthen this edge of campus by helping to define the transition between the surrounding community and the university, and will help to unify the corridor along Lancaster Avenue. Assuming new development occurs on the south side of Lancaster (see next page), a setback of 35’ – 40’ (as opposed to the current 120’) would be ideal, as it would allow for new buildings while easily accommodating wide planting beds with street trees and a broad pedestrian boulevard of 14’. This size sidewalk would allow for outside seating, such as benches. Parallel parking along Lancaster, currently prohibited, would help to calm traffic and could be located periodically between “bump-outs” planted with sizable shade trees. Large canopy trees planted on the north side of Lancaster will help to frame views into central campus. These should be planted widely apart and be limbed up so as not to impede views towards the iconic St. Thomas Church.

PEDESTRIANS
Improving the streetscape along Lancaster will also enrich the pedestrian experience. Still, more improvements are needed in order to ensure pedestrian safety and comfort, as crossing Lancaster can prove hazardous and, each year, students are involved in accidents with vehicles. Measures to improve safety and make crossing Lancaster less difficult would be a welcome addition to this primary pedestrian gateway. Oversized crosswalks which are designed to accommodate large groups of students will help to facilitate safe pedestrian movement and will be more visible to passing motorists. These should be placed at the primary crossing points along Lancaster, Church Walk and Ithan Avenue. Moreover, the addition of colored aggregate to the asphalt will make the crosswalks even more prominent and provide an additional visual signal to motorists, cautioning them to slow down. A blue aggregate is recommended, as it is the color of the University and can contribute to creating a strong visual gateway for passing motorists.
DESIGN PROPOSALS potential development sites

- potential building sites
- potential parking sites (structures and/or surface)

not to scale
PARKING ALONG LANCASTER AVENUE

The large asphalt parking lots along Lancaster Avenue are not only unattractive, but detract from the University’s image. For many, whether visiting or passing through campus, these lots leave a lasting first impression. While cars should, and must, be accommodated, there is much that can be done to minimize the impact of parking on Lancaster. When possible, parking should be located behind buildings. When this is not an option, shrub massings should be used along the edges to screen the lots from the road and ensure that asphalt lots and parked cars do not dominate the view. Trees and other vegetation should also be used in parking lots to soften the appearance of the lot and make for a more pleasant arrival point (after all, for many visitors to campus, the parking lot is their first and last destination). This can be done by relinquishing a small number of parking bays and, instead, using the space for trees. Landscaped islands and bioswales would also greatly improve the parking lots, both aesthetically and ecologically. These areas can provide limited habit, lower the temperature of the hardscaped area and, by lessening the total paved surface, improve stormwater management.

DESIGN PROPOSALS: gateways: lancaster avenue parking

The large paved lots along the south side of Lancaster Avenue are unsightly.
DESIGN PROPOSALS gateways: SEPTA station

For those arriving by SEPTA or coming from west or north campus, the SEPTA station and the area behind Mendel Science Building provide a primary point of access to the main campus and, therefore, it is important that it be made more aesthetically pleasing.

In addition to making the SEPTA tunnel more functional (as discussed earlier), the simple addition of lighting and color can greatly enhance its appearance, transforming it from dank and dark to colorful and “hip”.

The addition of terraced plantings between the path and the parking lot provides a visual buffer and screens the paved parking lot near the building, helping to transform the area and greatly improving the pedestrian experience. “Greening” the parking lot will also improve the aesthetics and can be easily done by removing small numbers of parking spaces and replacing them with trees and groundcover. This will improve the view for those looking onto the lot from above, whether from the upper floors of Mendel or from the adjacent Spring Mill Bridge, and help to mark the Villanova campus for those commuting by train.

The banks surrounding the train tracks can be beautified through the planting of a new “railroad garden” along the track banks. This garden may be a combination of native shrubs and seasonal perennials which, when in bloom, create a beautiful threshold to the campus for those arriving via SEPTA (or simply passing through). These measures, combined with the improved ADA tunnel access and performed in conjunction SEPTA, will foster good will towards the community (the majority of rail users at present).
Open space is an integral part of a university campus and can greatly enhance the academic experience. Well-defined open spaces can accommodate a wide variety of activities, foster enjoyment of the outdoors and provide meaningful places for students, faculty and staff. This plan proposes the campus move towards a more park-like setting—a traditional campus landscape of open lawn and trees—with a sequence of open spaces connected through a clearly defined pedestrian path system. This new landscape would require the removal of much of the shrubby vegetation in the campus core, but would result in many more opportunities for outdoor teaching, social interaction, recreation and reflective spiritual moments. Moreover, the new landscape will frame long, unimpeded views of the campus and allow for easier movement.
DESIGN PROPOSALS open space

MENDEL FIELD—A CAMPUS ICON
With the exception of the lawns along Lancaster Avenue, Mendel Field currently provides the only large swathe of grassy open space in the center of campus and, therefore, it is an important part of the campus landscape. This plan proposes that the edges of the field be made slightly concave and be defined by low curving seat walls in the form of an oval. In some areas these walls retain earth and, in others, they are free standing. A row of trees just outside of the wall helps to further define this new oval space and the presence of the walls helps to discourage pedestrians from passing through. While still suitable for various forms of recreation, the space is an ideal location for large and small gatherings, including vigils and prayer meetings.

THE GROTTO
With vehicles, shrubs and the mazelike path system removed from the Grotto, this space can be transformed into a welcoming, open landscape which reveals and frames views of the surrounding architecture.
**DESIGN PROPOSALS: open space**

**NORTHWEST QUADS**

Simplifying the circulation patterns in the quads at the west campus dorms will create more usable open space and allow for a wide variety of activities and events to occur. These large areas of uninterrupted open space can be used to accommodate formal and informal gatherings of students. Separate or combined, the two spaces can be used for dorm-wide or university-wide social events, such as barbeques, performances, outdoor movie nights, open air exhibitions, end of term celebrations, etc., as well as for use by individuals and small groups. Such events will enliven these spaces and encourage social interaction, both among those individuals living in the west campus dorms and between those on west campus and those living in central or south campus.

Programmed activity may also be added to these areas, while still allowing ample open space for more informal or casual activities. The addition of two sand volleyball courts in the space between St. Clare, Welsh, Jackson and Rudolph will create hubs of activity. Small groups of students playing sand volleyball, visible to those on the floors above, will encourage students out into the quad. The space between Gallen, Moulden, Farley and Klektka is proposed to be more open and flexible in nature. In both areas, emergency vehicle access through the center of the quad is possible.
Vegetation can significantly impact campus life, contributing visually, ecologically, and educationally and helping to reinforce a strong campus identity and image. Plants can be used to define spaces and circulation, frame (or limit) views, improve climate (by providing shade or windbreaks), provide beauty and strengthen a sense of place. Plants can also be used as educational tools, helping teach students and members of the campus community about ecology, botany, the importance of native vegetation, and stormwater management.

In this proposal, a landscape of trees and lawn dominates central campus. Large deciduous trees are used to define both pathways and open spaces and provide shade, habitat and seasonal interest. The many mature and beautiful trees currently in the center of campus are complemented by new plantings along major path edges. These new rows of trees, chosen for their similar fall color, accentuate the circulation, frame the views and provide a colorful backdrop for the architecture. Moreover, long lines of color (reds, yellows and oranges) form a striking visual composition.

Seasonal plantings and perennials should be limited to very specific areas, such as campus entry points or at particular building entrances, and used primarily as accent plantings. In general, overly intricate plantings of shrubs and perennials should be avoided.
NATIVE VEGETATION ZONE

In select areas of central campus (north of the primary open spaces) native shrubs, groundcovers and small deciduous trees are planted. This naturalized landscape, a celebration of the native Piedmont vegetation, allows for quiet refuge from the more heavily trafficked campus core, enhances the campus aesthetics, creates habitat, allows for natural stormwater management (in the form of rain gardens), helps to stabilize the sloping topography and creates a unique and interesting natural area which is a striking visual contrast to the highly cultivated landscape in and around the quads and Mendel Field. Moreover, this landscape gesture is in keeping with the University’s strong emphasis on environmental ethics and sustainability. Through emphasizing the native landscape over the cultivated landscape this zone is a visual reminder to the Villanova community of the University’s steadfast commitment to the environment. If combined with signage, this zone could become an interesting and enjoyable educational tool as well as a visually beautiful space.
CONCLUSION

The landscape initiatives set forward previously are intended to help guide the long term goals and development of the Villanova campus, in order to improve and ensure the future quality of the landscape and, thus, the quality of life on campus. The initiatives are not meant to be comprehensive—rather than give detailed design intents for every area of the campus, they are meant to provide a broad vision for the University's most important public spaces, with the Goals & Initiatives providing guidance for development and/or preservation of those areas not specifically dealt with herein.