



Campus Master Plan Update

November 2019



WAKE FOREST
UNIVERSITY

CONTENTS

| | |
|---------------------------------|-------------------------------|
| Introduction | 5 |
| Observations | 9 |
| Concept Development | 25 |
| Precinct Studies | 33 |
| Reynolda Campus Master Plan | 50 |
| Architectural Design Guidelines | 71 |
| Acknowledgments | 85 |
| <hr/> | |
| Appendix | <i>(under separate cover)</i> |



View of Wait Chapel from the south

Introduction

Since Wake Forest completed its 2009 Master Plan, the University has undergone steady growth, with the addition of 16 buildings and new land acquisitions supporting the direction and principles of the 2009 Master Plan. With this in mind, the University engaged Ayers Saint Gross to update the master plan to accommodate recent changes and ensure that the physical development continued to support its goals. This Master Plan provides a framework to guide the evolution of the campus over the next four decades. The charge of this update is to renew the 2009 Master Plan vision and give particular attention on how to address the University's near-term needs while supporting a long-term framework

A master plan does not develop in isolation from prior plans. The early part of this effort involved revisiting previous plans from 2000, 1991, and 1986 and, most importantly, reviewing the original 1950's campus plan devised by Jens Fredrick Larson. Much of what was envisioned in Larson's master plan has been realized, and the current initiative focused on developing a similarly robust master plan for the coming half century. In keeping with the previous fifty years of development, this plan seeks to build on Larson's original vision and extend it for the next generation of Wake Forest University's development.

It is helpful to clarify what a campus master plan is and what it is not. By design a master plan is a framework for the future development of a campus. Ideally, it should guide current and future generations of leaders as they seek to understand where a needed facility or piece of infrastructure should be located and how it might relate to the surrounding areas. The master plan, however, does not drive larger questions such as the programmatic need for facilities or the institution's ability to afford them. A campus master plan truly is about providing options and opportunities for decision makers.

Process

The central question that the master planning process sought to answer was: How well do the physical qualities of the campus help the University to succeed in its mission? Many aspects of the campus—the buildings and open space; utility infrastructure and environmental systems; sidewalks, roads, and parking—were documented and assessed. This baseline information provided an important foundation for the resulting master plan.

Similar to the 2009 master plan, the 2019 Master Plan Update was structured intentionally to gather a broad range of perspectives and be responsive to feedback. In 2009, two committees—the Steering Committee and Advisory Committee—and three precinct study teams—Academic Life, Student Life, and Athletics and Recreation—formed the core working groups for this process. In 2019, a Steering Committee served as frequent advisors to the planning team. In addition to meeting with Academic, Student Life, and Athletic stakeholder groups, the planning team also met with committees related to Workplace and Administration, Parking and Transportation, Open Space, Real Estate, and Sustainability and Infrastructure. Input from Student Fellows, the Board of Trustees, and Faculty and Staff was also influential in forming the goals and outcomes of the plan.

The process was structured around these four phases:

Observations

During the Observations Phase, quantitative and qualitative information about the Reynolda Campus was gathered to provide an integrated picture of the University. This body of knowledge offered valuable insight into the history, culture, philosophy, and setting of the campus and how all of those are vitally entwined. During this early period, the design team and the community developed personal and intellectual relationships that led to a shared understanding of the campus. The conversations during the early period affirmed and expanded upon the 2009 Master Plan planning principles which formed the foundation for the plans that followed.

Concept Development

The Concept Plan was developed from the planning principles and information accumulated during Observations. The Concept Plan sought to convey, in broad brush strokes, a diagrammatic depiction of the ideas generated in the first phase. It tried to capture these ideas while also ensuring that the plan remained rooted in Wake Forest's culture and vision.

Precinct Studies

Precinct Studies are simply a closer look at a portion—or precinct—of the campus. This process allowed for testing of potential solutions that addressed current needs and options that provided flexibility for future needs. The topic areas selected for study were Sustainability and Infrastructure, Open Space and Landscape, and Mobility and Accessibility. An additional and parallel Academic and Administrative Space Utilization Study performed by Ayers Saint Gross' Space Analytics Studio also helped inform how these topics were addressed.

Final Plan

The Final Plan was developed by refining and integrating the many ideas generated in the previous phases. It illustrates the potential development of buildings and grounds that is consistent with the goals of the strategic planning process, the character of the existing campus, and the culture of Wake Forest.

By its nature, the development of the master plan was iterative, involving a wide array of options for various areas of the campus. As a result, the master plan represents a significant process of exploring ideas and refining alternatives with input from a broad cross-section of the community, including faculty, staff, students, deans, cabinet members, and the Board of Trustees. Through the effort of all of these constituencies, the whole Wake Forest community worked toward a vision of the campus' physical development as it may be far into the future. The final product represents a collective vision of the campus for many, many years with every possible building site included.

The Wake Forest community has spent nearly eighteen months engaged in intense conversation about how the campus should evolve in coming years to meet the University's mission of teaching, research, and public service. It is exciting to see that, as a result of this highly collaborative effort, the campus has an array of options available which will permit the University to use its physical spaces in meeting current and future needs. This plan provides those opportunities without compromising those features—the charm, the beauty, the strong sense of community and integrity—that make Wake Forest such an exceptional and enduring experience for students, faculty, staff, alumni, and visitors. This document reflects the best thinking and best effort of a substantial number of people, all of whom care deeply about Wake Forest. Through their support and hard work, a unique, robust, and vibrant plan for the future development of Wake Forest University has emerged, a plan that pays tribute to the best of Wake Forest's traditions and heritage while turning fully toward the future.



Cupola of Collins Residence Hall with downtown Winston-Salem in the background





Observations

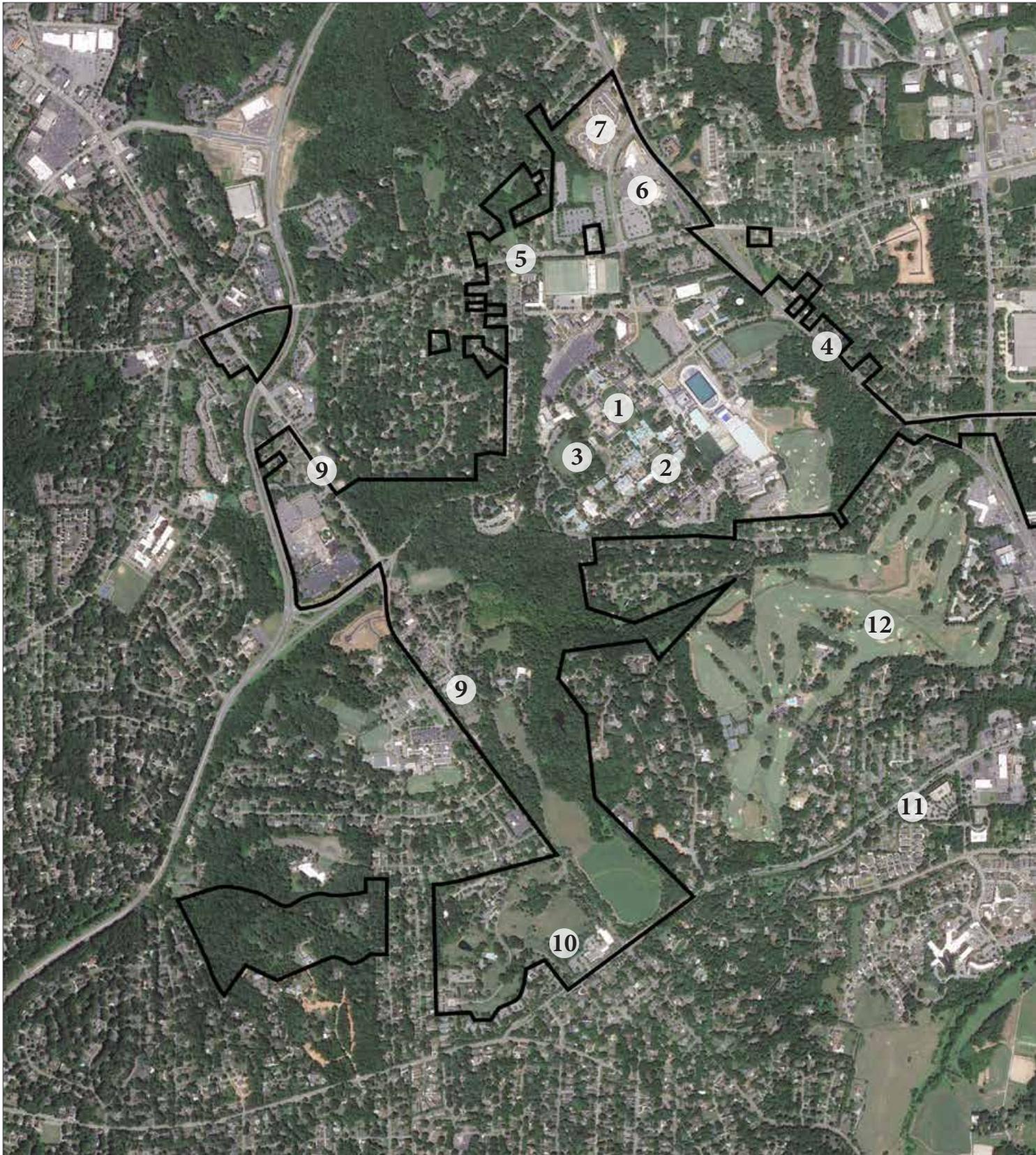


Looking towards ZSR Library along Manchester Plaza

Observations

The Reynolda Campus is celebrated for its iconic quadrangles, serene woodland setting, and intimate community. The design team spent several months getting to know the campus and its culture. This activity helped the entire campus community develop a shared understanding of the Reynolda Campus. Early in the process it became clear that students, staff, faculty, and alumni sincerely cherish the campus and the University. Documenting the history and physical conditions (built and natural) revealed the culture and traditions of the Reynolda Campus, as well as design opportunities and challenges. This body of knowledge offered valuable insight into the culture, philosophy, and setting, ensuring that the resulting master plan was true to the character of the campus. What follows is a summary of the information discovered in this phase of the project.

OBSERVATIONS



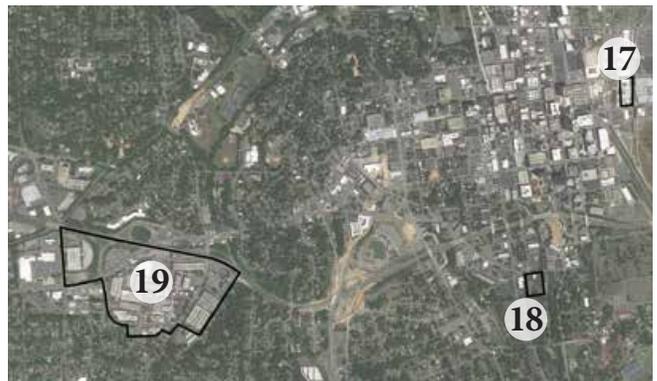
Aerial of Reynolda Campus vicinity

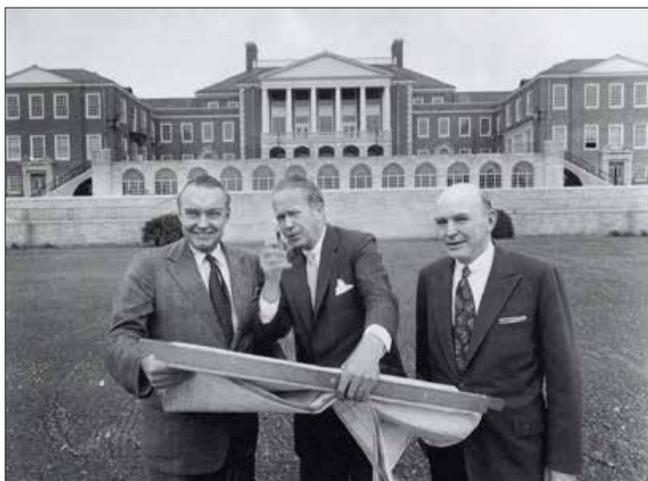
— University property



Places of Interest

1. Hearn Plaza
2. Manchester Plaza
3. Davis Field
4. University Parkway
5. Polo Road
6. First Church Property
7. Deacon Place
8. Reynolda Road
9. Reynolda House, Gardens, and Village
10. Graylyn International Conference Center
11. Coliseum Drive
12. Old Town Golf Course
13. Deacon Boulevard
14. Lawrence Joel Veterans Memorial Coliseum
15. David F. Couch Baseball Stadium
16. BB&T Stadium
17. Wake Downtown
18. Brookstown Campus
19. Wake Forest Baptist Health





R.J. Reynolds, Jr., Jens Fredrick Larson, and Charles H. Babcock on Manchester Plaza, circa 1955.



Larson's rendered plan for the Reynolda Campus, circa 1950.

University History and Campus Development

From its beginning in 1834, the founders of Wake Forest had a noble and promising dream: to establish an institution of higher learning in the forest of Wake County with the early purpose of educating Baptist ministers and teachers. The early history of the College was tied intimately to the town of Wake Forest, North Carolina. As time progressed, both the town and College became seemingly inseparable. Both weathered the Civil War, though the College closed between 1862 and 1865, and emerged from a period of desolation with a renewed determination.

By the end of the 1880s, the campus was liberally planted with oak trees and magnolias. The style of buildings on campus evolved over time, but emerged by the 1940s as predominantly Georgian revival in character. The evolution of the Old Campus from an assortment of farm buildings in the 1830s to a distinctly collegiate character was to have a profound impact on the future development of the institution.

In 1938, the Bowman Gray Foundation developed an agreement between Baptist Hospital in Winston-Salem and Wake Forest College that permitted medical students to study for two years at the College and an additional two years at the Hospital; in 1941, the medical school moved to Winston-Salem. This relationship eventually led to the bold proposal by the Z. Smith Reynolds Foundation to move the entire College from Wake Forest to Winston-Salem.

By 1946, the College had hired Jens Fredrick Larson to devise a plan for the new campus. Larson was a well-regarded campus planner who produced significant campus plans and building designs for Dartmouth College, Colby College, Bucknell University, University of Paris, and University of Louisville. Larson also authored what was considered in his day to be the definitive text on collegiate architecture and campus planning, *Architectural Planning of the American College* (1933). Larson's work at Wake Forest represents the culmination of his professional career.

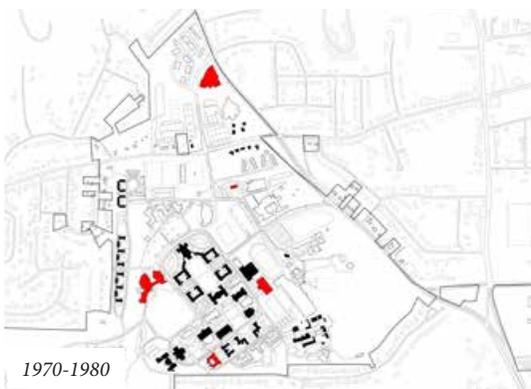
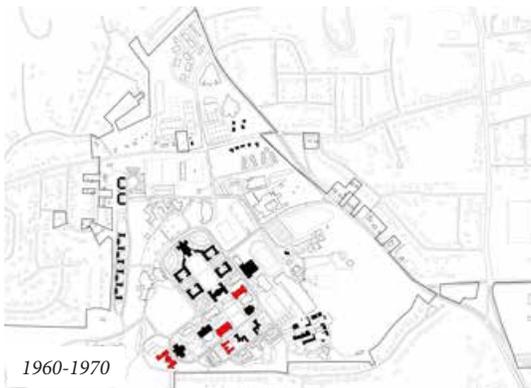
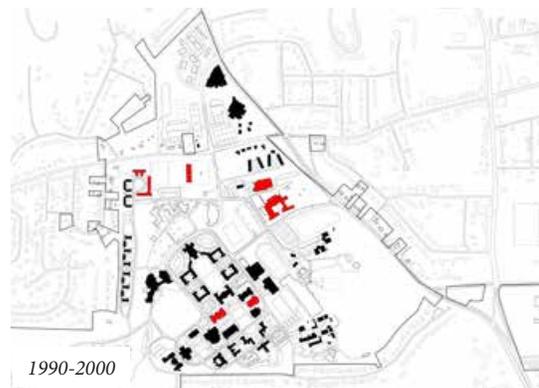
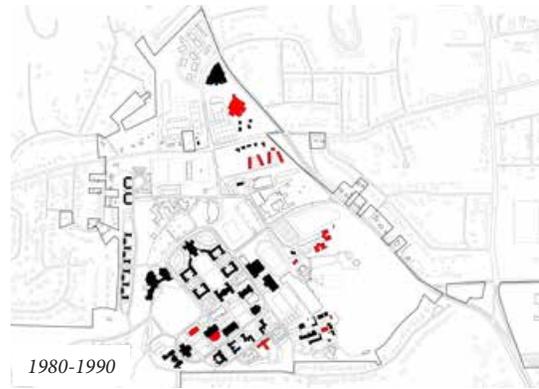
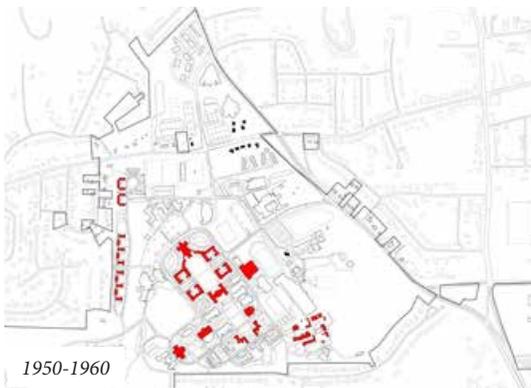
The Z. Smith Reynolds Library has a partial collection of Larson's drawings and records from the Reynolda Campus plan. It includes several versions of Larson's plan for the campus that record his consistent effort to incorporate two major areas of activity: a public plaza where the University would greet the community, and a private quadrangle for the serious pursuit of academics. Larson tested several different relationships between these two open spaces while exploring ways to incorporate the modernity of the automobile and the heritage of the original campus.

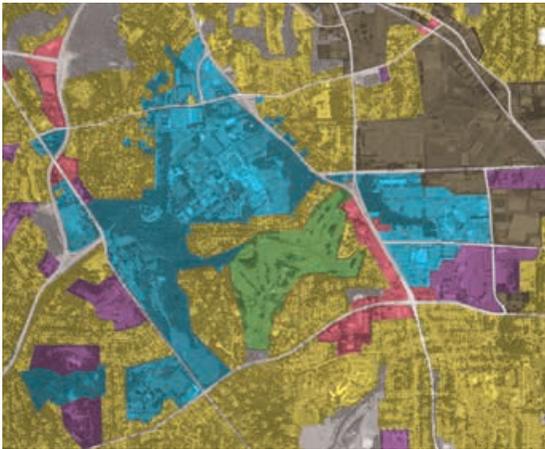
During a short but intense period of building, much of the organization and hierarchy of Larson's plan for the campus was realized, establishing a distinct and harmonious campus through the consistency of building-to-open-space relationships; the scale and proportion of the buildings; and the complementary use of building materials. Today, the campus heritage is still rooted in buildings and open spaces laid out by Larson.

Building Age

The Reynolda Campus was established in Winston-Salem in 1956. A large percentage of the existing facilities was constructed in a short period of time. Today, the University faces a significant maintenance challenge as most of the original buildings are more than fifty years old and would benefit from comprehensive renewal and/or modernization. Because there have not been significant upgrades to the infrastructure systems, they have far exceeded the lifespan for which they were originally designed, and they do not consistently meet modern expectations and standards. These diagrams illustrate the history of buildings as they relate to the current campus.

■ existing building ■ new building





Local Context



Local Context

Wake Forest University is located in Winston-Salem, in the heart of the North Carolina piedmont. This area of the state is characterized by soft rolling hills punctuated with freshwater creeks and streams. The beauty of the piedmont is an inherent part of what makes Wake Forest a special place; it is readily seen along Wake Forest Drive at the Reynolda Road entrance.

The campus is surrounded by mostly single-family residential neighborhoods to the northeast, north, west, and south. Three groups of directly adjacent neighbors are the residents of Belle Vista Court, the residents of Faculty and Royall Drives, and the residents of Paschal Drive. These near neighbors are an extension of the strong residential community on campus and contribute to the intellectual climate of the campus by fostering interaction among faculty, staff, and students. For instance, decades of Wake Forest students have walked to their professors' homes to share meals and discussion.

To the east of the campus and north and east of BB&T Stadium and the Joel Veterans Memorial Coliseum there is a significant area of former industrial lands, dominated by the inactive Reynolds American, Inc. East of the campus and south of BB&T Stadium is a commercial district clustered around Deacon Boulevard, University Parkway, and Coliseum Drive. South of BB&T Stadium and east of Joel Veterans Memorial Coliseum is the Dixie Classic Fairgrounds. The stadium, coliseum, and fairgrounds offer the campus convenient access to numerous special events, and offer a unique opportunity for community engagement and interaction.



Campus Land Form



Natural Systems

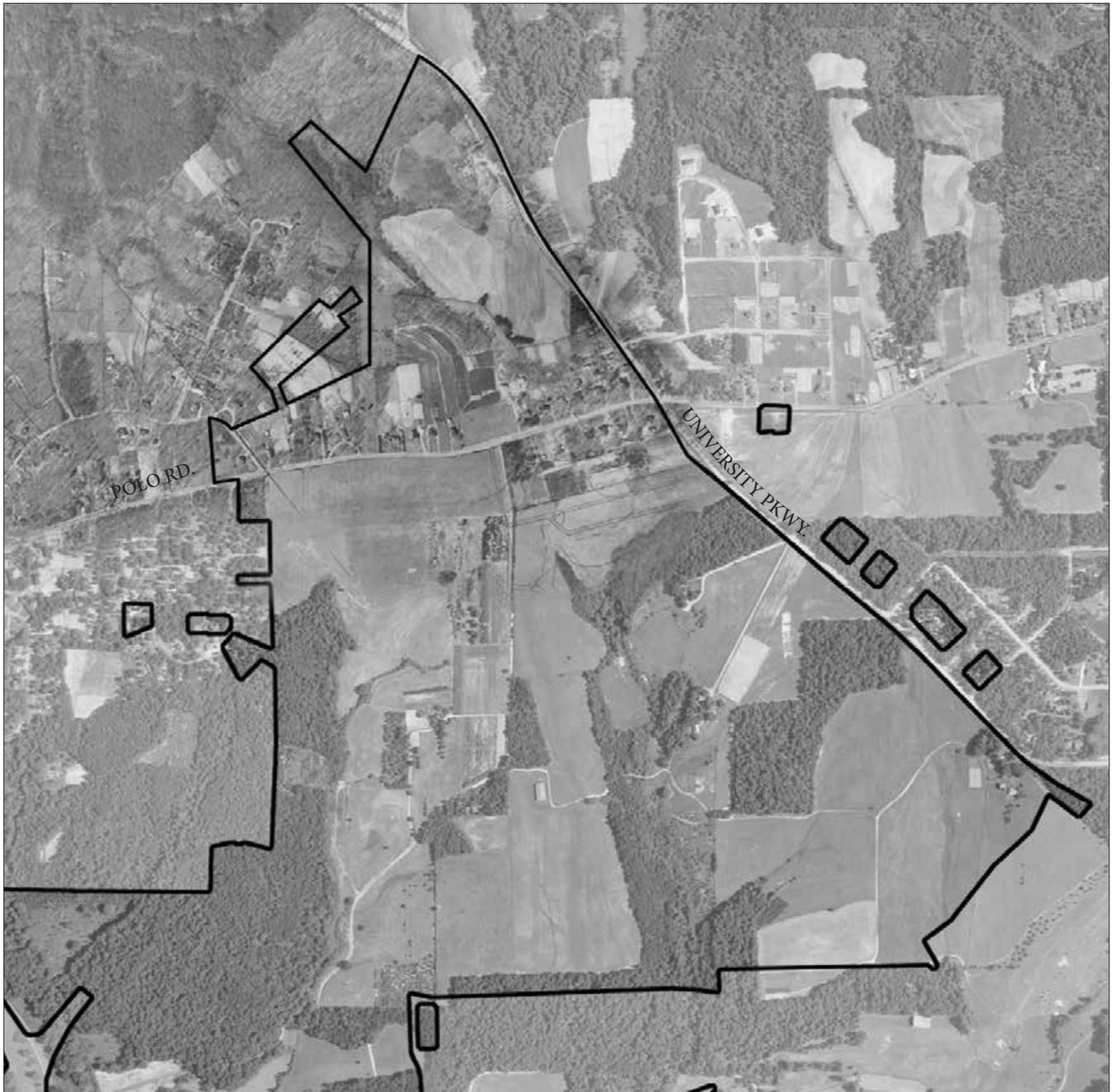
Both the developed and natural areas of the Reynolda Campus have historically been shaped by the ecology and land form of its setting. From a 1950 aerial photograph it is evident that much of today's campus was already cleared and in use as farm land, and that parts of the Silas Creek valley and current western periphery of the campus were woodland.

Polo Road follows a pronounced topographic ridge along the north edge of the campus. Two lesser ridges run south through the campus from the Polo Road ridge. The campus core covers most of the western ridge. The Cross Country trails and Palmer Golf Center take up most of the flat land on the eastern ridge. Hearn and Manchester Plazas are organized on axis with downtown Winston-Salem to the southeast and Pilot Mountain to the northwest.

The two ridges define the valleys of three unnamed tributaries that drain into Silas Creek. The south edge of the campus roughly follows the Silas Creek valley. Much of the creek valley is developed as the Old Town Club and golf course.

The forested areas and streams on campus are valuable assets, both aesthetically and ecologically. As a sustainability goal in the face of today's environmental stresses, the University is interested in conserving these assets. Forest resources are integral to the campus green infrastructure network, providing habitat; open space and recreational areas; connections to the regional ecosystem; teaching, research, and cultural opportunities; and stormwater management, among other benefits. A vigorous forest cover is also critical

CAMPUS MASTER PLAN



From a 1950 aerial photograph, it is evident that much of today's Reynolda campus was used as farm land.



University property





Practically all of the forested campus land is mature.

to maintaining healthy stream ecosystems and flood control. Practically all of the forested campus land is mature (fifty-plus years old) and therefore valuable on both a local and regional basis.

Sustaining a healthy and beautiful campus environment will require a thoughtful integration of stormwater management strategies. Currently, the stormwater management facilities present on campus are generally consistent with the accepted practices at the time when the original campus was constructed in the 1950s. As a result, the volume and velocity of untreated stormwater from campus contributes to downstream erosion, sediment, and poor water quality. Lack of stormwater management in terms of on-site control also represents a missed opportunity to use rainfall for irrigation or other beneficial uses.

All but a small portion of Wake Forest University property holdings drain to Silas Creek, which is the major water feature of the Reynolda Campus. Subwatersheds were mapped to better understand watershed hydrology and the relative contributions to stream flows from non-University and University land holdings. The watershed context is important in understanding the conditions of the tributaries to Silas Creek and inferring the causes of the current stream

conditions. As the University develops strategies for ecological restoration and conservation, watershed-based approaches will be an important consideration.

The overall philosophy and long-term approach recommended for the Reynolda Campus is to develop a stormwater strategy for the site that mimics the natural, undisturbed infiltration capacity of the land to the maximum extent practicable using a distributed stormwater management approach. A priority will be placed on vegetative filtering and uptake and/or infiltration, and providing stormwater treatment as close to the source as possible.

In addition to preserving woodland buffers in order to reduce the University's environmental footprint, these landscapes further benefit the University by providing students spaces to recreate and focus on their health and well-being. The woodlands and adjacent Reynolda House and Gardens provide a unique environment for students to healthily unplug from their often high-energy lives on campus.

Additional information on this topic can be found in Appendix: Ecological & Stormwater Management Considerations.



- Open Space Network*
- natural area
 - courtyard
 - parking court
 - high-quality open space
 - recreation field
 - organizing axis

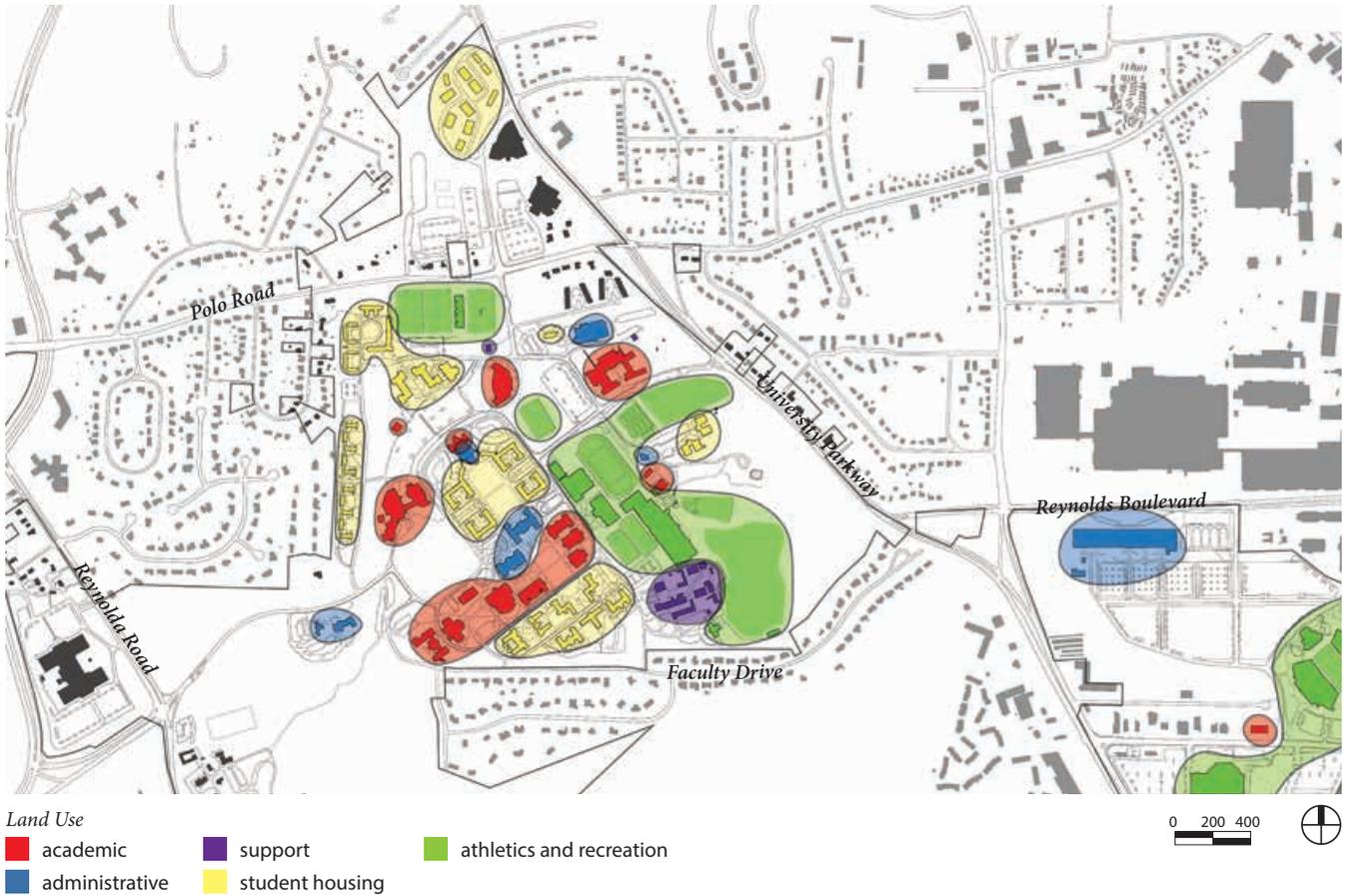


Campus Open Space Network

The campus is dominated by two principal open spaces, Hearn Plaza and Manchester Plaza. Hearn Plaza, affectionately known as “the Quad” to generations of Wake Forest students, is the primary public, ceremonial space on campus. The campus community gathers together here for the celebration of commencement, athletic victories, and other major campus events.

Manchester Plaza is the crossroads of the campus and affords connections between athletics, freshman housing, academic facilities, and student services. It also serves as a gathering space for student-organized events.

The rest of the structured open spaces on campus are organized around these two principal open spaces. A series of smaller quads and parking courts are orthogonally arranged around Hearn and Manchester Plazas. A smaller quad, defined by the Benson Center, Z. Smith Reynolds Library, and Tribble Hall, opens off of the west side of Manchester Plaza. A similarly sized science quad is defined by Z. Smith Reynolds Library, Olin Hall, and Salem Hall. The strong structure of open space in the campus core is complemented by softer woodland that skirts the periphery of the campus to the east and west.



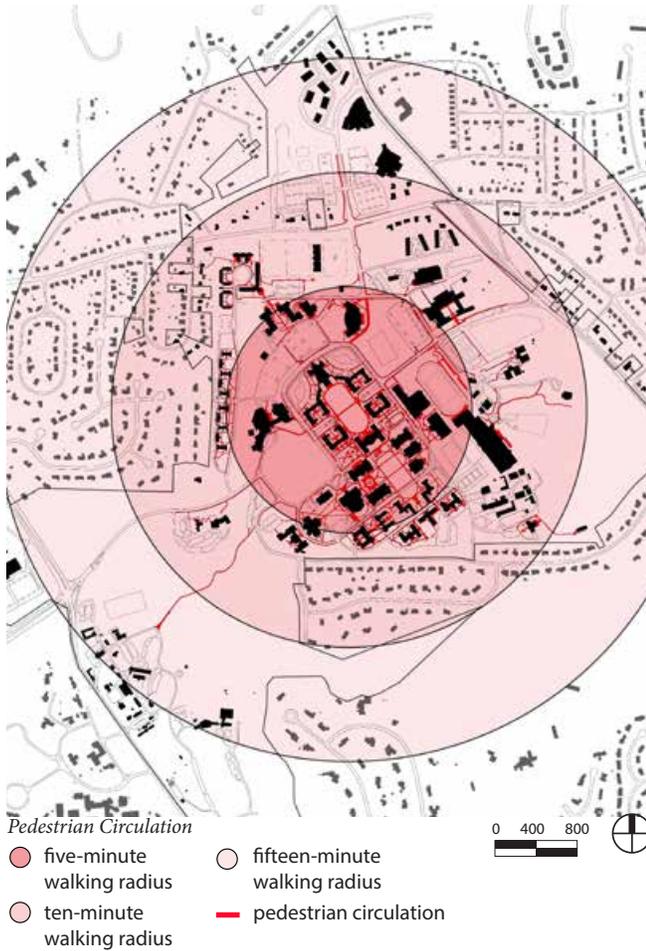
Built Systems

Building and Land Use

Wake Forest is known for its friendly and intimate collegiate culture. The building and land use pattern in the campus core is characterized by a close-knit mix of academic and student life activity that supports this strong sense of community.

There are other parts of the campus that are dominated by an individual use. For example, the northwest part of the campus including Polo and Martin Halls is primarily devoted to residence life. Similarly, there is a wide swath of athletic and recreation use that runs along the east side of the campus core. This area provides valuable resources and amenities for the campus, but also interrupts the flow of pedestrians across the campus where pedestrians cannot walk easily through varsity athletic fields and facilities.

While the recent construction of North Campus Dining and Magnolia, Dogwood, and Farrell Halls has improved connectivity between certain portions of campus, other destinations such as Worrell Professional Center, and Scales Fine Arts Center are still perceived as remote or disconnected from the core. Changes to the campus land use that increase the mix of uses could result in a continuous pattern of activity across the campus.



Pedestrian Circulation

The campus has a rich and picturesque network of pedestrian paths in the campus core. Pedestrian connections outside the core are not as strong, especially at the periphery. Pedestrian movement on campus is complicated by a series of grade changes between the formal open spaces of the campus.

The change in grade between Hearn Plaza and the surrounding courtyards and parking courts are negotiated with short runs of steps. The steps are a distinctive feature of the campus, and they are often beautifully detailed with granite treads and decorative wrought iron. While the stairs add character to the campus, they have an unintended consequence of limiting mobility and access for some users.

Several significant Wake Forest destinations are a short distance from campus: Reynolda House, Gardens, and Village, as well as the area around the Athletics Campus. An

existing footpath that starts near the west side of Winston Hall provides easy access from campus to the cultural, recreational, and retail amenities of Reynolda House, Gardens, and Village.

Many areas around the Athletics Campus could readily be redeveloped; safe and easy access there will be increasingly desirable. The current pedestrian route follows University Parkway along the eastern edge of campus to the Athletics Campus. It is indirect and unfriendly to pedestrians. Vehicular traffic along this route is heavy and fast moving, there is little of interest along the way, and a limited number of protected pedestrian crossings.

OBSERVATIONS



Campus Circulation

- street
- shuttle stop
- campus gateway
- neighborhood access



Pedestrian and Vehicular Conflicts

- streets
- pedestrian volume
- ▨ conflict areas

Transportation and Parking

Transportation infrastructure—the roads, parking lots, sidewalks and trails—comprises a significant portion of the Reynolda Campus and greatly influences growth on the campus. This infrastructure competes for limited space with potential academic, residential, recreational, athletic, green space, and other future projects. Many growth opportunities are constrained by access needs and the existing road network and parking.

Campus circulation is the result of a long history of traffic challenges. Many of those have subsided, but the legacies of their impacts remain in a campus circulation network that is confusing, especially for first time or occasional visitors. The quality of campus can be improved by structuring future development to ameliorate the impacts of the past.

Since 2009, the University’s shuttle systems has expanded significantly to improve accessibility between the Reynolda Campus, other University facilities (UCC, Wake Downtown, Brookstown), and the surrounding community. Different shuttles originate from different points on campus and are not always well marked. Consolidating shuttle service to a central location with a well-designed stop that supports the campus aesthetic could improve way-finding and circulation across campus while also reducing the amount shuttles must travel along roads in the campus core.

Additional information on this topic can be found in Appendix: Transportation Elements.

Utilities Infrastructure

The successful ongoing operation of Wake Forest University requires a robust and reliable infrastructure system. The existing campus infrastructure includes: chilled water, heating, electrical, telecommunications, and water and sewer. These systems are adequate to meet current campus needs and in relatively good condition. Over time, new buildings on campus will trigger the expansion of capacity in these areas, with the exception of water and sewer:

- Chilled water infrastructure meets some campus needs but does not serve all campus buildings. It ranges from good condition to nearing the end of its useful life, depending on where on campus. Ideally, renewal will coincide with capacity needs. Installing a connector between the Sports Performance Center and the loop at Wake Forest Road will minimize most risks posed by ageing infrastructure and support eastward growth.
- A single heating plant provides steam to the campus; there is room in the existing facility to add necessary long-term capacity.
- Electrical infrastructure is adequate but ageing. Modernization and automation improvements will better accommodate campus expansion.
- Telecommunications infrastructure is near capacity; new facilities will prompt need to increase bandwidth.
- Domestic water and sanitary sewer systems are in good repair and of adequate capacity; low pressure deficiencies of domestic water system should be corrected and damaged areas of the sanitary sewer system should be repaired.



Existing Conditions



Additional information on this topic can be found in Appendix: Utilities Systems.

Observations Summary

Wake Forest, a student-centered Collegiate University, is a dynamic institution that will continue to add and expand academic programs. Thus, its campus must evolve to meet the changing needs of teaching and scholarship in the twenty-first century. During many conversations as part of the Observations Phase, it became clear that current conditions are neither up to date nor adequate to support the existing programs. More than thirty existing buildings will need comprehensive renewal in the coming years. The plan must address the challenge of renewal, expansion, addition and potential repurposing of facilities to meet the needs of the campus and provide the flexibility necessary to accommodate future opportunities:

- Original buildings from the 1950s are an inherent part of the charm of the campus, but consistency of building age means that many buildings are due for renewal.
- The beauty of the Carolina piedmont is an essential part of what makes Wake Forest a special place; Conserving this asset is vital to the University for aesthetic and ecological reasons and is rooted in the College's very origins—in a forest.
- The campus has a rich and beautiful network of pedestrian paths, which make it a joy to walk on campus. The quality of campus can be further enhanced by structuring future development to expand this asset, guiding vehicular traffic to the perimeter.





Concept Development



Concept Development

The Concept Plan evolved from the planning principles articulated early in the process and significant input from the committees and campus community. These principles reflect those used in 2009 and were vetted and affirmed with help from the Board of Trustees. The concept plan is intentionally broad-brush in its approach. It seeks to both convey ideas emerging from initial input conversations and to tie those concepts to the historical development of the campus.

Planning Principles

Planning principles by design guide the development of the physical campus and reflect the philosophy, culture, and character of the University. They represent the qualities and characteristics that define Wake Forest. The following planning principles were adopted to direct the development of the master plan:

Enhance Community and Scholarship

Maintain the intimacy of the undergraduate experience through the seamless integration of social and academic spaces. Create an expanded pedestrian campus that invites human interaction and harmony. Offer a welcoming environment for visitors while retaining the scholarly focus.

Foster Connections

Provide physical and social spaces that encourage human connections. Strengthen outward connections to engage with surrounding communities, the region, and the world.

Create an Inspirational Environment

Extend the quality and scale of the built environment to support teaching and learning. Provide facilities informed by best practices and built for today and tomorrow. Create opportunities for a vibrant campus life.

Respect Natural and Historic Beauty

Emphasize and protect the natural and historic resources of the campus. Expand opportunities for green spaces and integrate sustainable practices during development.



Concept Plan

- | | | | |
|--|--|---|--|
| open space | enhanced pedestrian connections | campus circulation | organizing axis |
| woodland edge | development opportunity areas | areas of study | campus gateway |



Concept Plan

Wake Forest’s harmonious campus, with its emphasis on open spaces, reflects the free and open exchange of ideas which is the hallmark of the University. In order to draft a master plan for the future, an understanding of the campus heritage was developed through campus walks, photography, and research. During many conversations with the campus community, a number of opportunities and challenges were repeatedly discussed. These recurring ideas reflect the most important opportunities and goals for the campus and are documented in the Concept Plan—the starting point for the full master plan:

Extend core “feeling”

The master plan will extend the feeling of the core throughout campus. The campus core represents the warm and collegial culture of the Wake Forest community. It is characterized by an intimate scale, organized open space, and strong internal connections. These qualities can be used to knit together the core with other areas of the campus.

Expand pedestrian network

The master plan will expand the pedestrian network across campus. The campus is intimate, and walking creates opportunities for friends and colleagues to interact face-to-face. Street and sidewalk improvements will prioritize the pedestrian presence throughout campus to make walking a safer and more enjoyable activity.

Create a variety of open spaces

The master plan will enrich the campus open space network. High-quality open spaces on campus, such as Hearn Plaza and Manchester Plaza, are important gathering places for the campus community. New buildings will be organized around new open spaces of similar quality, but of varying sizes. Medium sized and intimate spaces will create additional opportunities for intellectual and social interaction among students, faculty, and staff.

Enhance campus ecology

The master plan will enhance campus ecology. The forested areas and streams on campus are an important part of Wake Forest life—both aesthetically and ecologically. The master plan will focus new construction in areas that are already developed and advocate for the overall health of the campus.

Connect to Deacon Boulevard, UCC, Athletics Campus, and Reynolda Village

The master plan will improve access to the University's peripheral land holdings. The history and amenities of Reynolda House, Gardens, and Village offer enrichment and practical services to the campus community. The existing pedestrian connection is well established with recent improvements. The Athletics Campus is already a special events destination for the campus community, and potential redevelopment in and around this area emphasizes the need for a safe and easy pedestrian connection. Additionally, the University Corporate Center plays an important role in the University's administration and will continue to do so as the limited capacity of the campus core is increasingly used to support Academics and Student Life. The expanded role illustrates the need not only to improve accessibility across University Parkway but also for improvements to align the UCC's aesthetics to reflect the University brand and identity.

Circulation

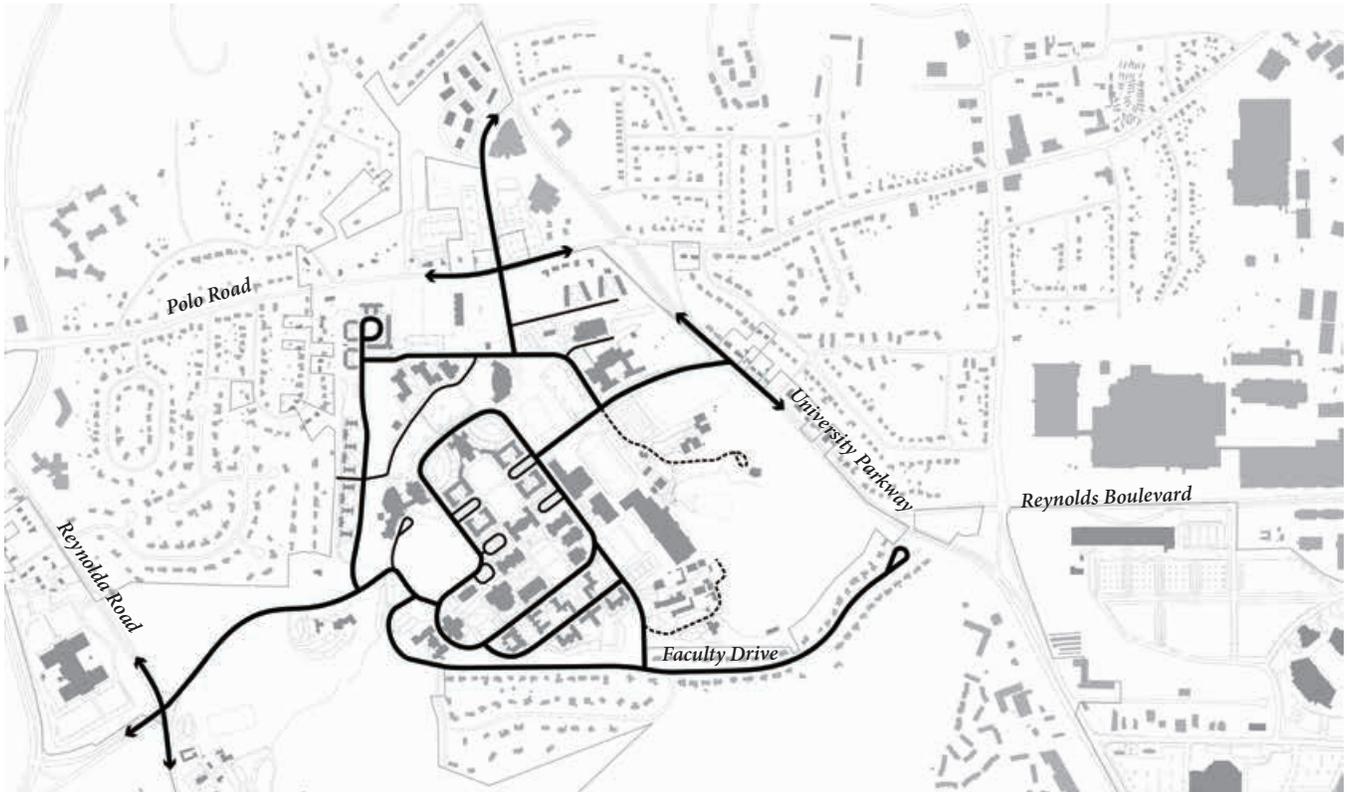
The master plan will simplify campus circulation. The campus has a rich and picturesque network of pedestrian paths. To expand this network, a priority should be placed on reducing the impact of automobile circulation by clarifying routes and limiting the impact of parking in the campus core, and improving wayfinding.

In one way or another each of these goals is tied to the campus circulation. The design team and campus community had many discussions about the ideal campus circulation. Campus circulation has been shaped by a long history of traffic challenges. Cross-town traffic has been alleviated by extension of Silas Creek Parkway and the volume of traffic associated with the industrial area east of campus has changed significantly, but the legacy of their impacts remain. As a result, campus circulation is confusing, especially for first-time or occasional visitors. The quality of campus can be improved by structuring future development to ameliorate the impacts of the past.

As the result of much study, the master plan proposes a new loop road around the campus perimeter to reduce non-essential traffic in the campus core. The loop is created by connecting pieces of existing road with short lengths of strategically placed new road. The new circulation pattern creates direct access for regular users who know where they are headed, simplifies access for service and deliveries, and maintains direct access to the most compelling views of campus for first-time or occasional visitors. These changes to the road network make way for expansion of the pedestrian network. Access to the core of campus is maintained, and practical improvements favor pedestrians to create a high-quality walking experience.

Resolving the challenges of campus circulation allowed the planning process to move forward to more detailed study of smaller areas of campus.

CONCEPT DEVELOPMENT



Existing Circulation Diagram

— standard road - - - limited-access road



At some points, Wake Forest Drive is four lanes wide.



Narrower lanes, slower traffic, and high quality materials like brick and granite improve the pedestrian network.



Proposed Circulation Diagram

— standard road - - - limited-access road — high-quality pedestrian road - - - high-quality, limited-access road



Wingate Road already has many positive features, including mature Willow Oaks.



Practical improvements favor pedestrians to create a high-quality walking experience.





Precinct Studies



Reynolda Hall with downtown Winston-Salem in the background

Precinct Studies

Strong campus plans must balance the visionary and the realistic. Without vision, a plan will not inspire; without realism, it will not be practical—and therefore not implemented. Focused studies of small areas or precincts were used to test the vision established by the Concept Plan. Using the information gathered during the Observations Phase, as well as themes outlined in the University’s strategic plan and recently completed space assessment, the design team and the campus community came together to brainstorm ideas of what the campus could be. A range of old and new ideas were considered, and the group’s collective creativity guided the final decision. These workshops allowed frank discussion of the pros and cons of many different ideas; often an idea that at first seemed far-fetched turned out to be part of an ideal solution.



Reynolda Hall serves as the physical and spiritual center of campus and the hub of the University's administration

Like the 2009 Master Plan, the 2019 Update focused on Academic Life, Student Life, and Athletics and Recreation and incorporated three additional focus areas: Sustainability and Infrastructure, Open Space and Landscape, and Mobility and Accessibility. By involving members of the campus community and responding to their suggestions, these studies provided a plan that reflected the needs and desires of the campus community:

Workplace, Office, and Administration

The first workshop focused on the facilities that support the operations and Administration of the University. Since 2009, Wake Forest has relocated a significant number of “back-of-house” administrative functions to the University Corporate Center, freeing up space for student-facing academic and administrative functions on the campus core. In doing so, some departments housed in the UCC have noted a sense of disconnection from the University due to lack of clear identity and poor connectivity to the campus.

Within the campus core, the age and layout of many of the buildings inhibits the ability to significantly improve efficiencies through renovation. As the University will continue to target additional departments to relocate off the campus core, it should expand and improve hoteling space within key administrative building such as Alumni Hall and Reynolda Hall. Such spaces provide visiting staff a place to work when on campus for meetings and improves a sense of connectivity to the campus

In addition to those departments relocated to the UCC, other departments that have moved off campus include Human Resources and the offices of the Graduate School of Arts and Science. While the latter has helped activate Reynolda Village and is a short walk from campus, the former poses operational challenges due to the need to provide shuttle service to a relatively remote location.



Davis Field Scenarios

■ existing building ■ proposed building



These drawings of Davis Field (above) are typical of the iterative process of Precinct Studies. Each scenario tests a different solution to the identified need for additional academic program space and provides options for long-term academic growth as the campus matures. Both scenarios clarify campus-wide circulation by reestablishing a road up the gentle hillside, and meet the need for additional academic program space. Scenario 1 prioritizes maintaining as much of the existing field as possible while Scenario 2 accommodates a new quad framed by the new academic building and Davis Residence Hall.



The Reynolda Campus has a pedestrian-oriented campus core that supports a well-connected student experience

Mobility, Parking, and Transportation

The second workshop focused on issues related to how people arrive to campus and how they move once on campus. The Reynolda Campus enjoys a pedestrian-friendly core, with most major residence halls, academic buildings, and support buildings within a 5-minute walk of Reynolda Hall. The campus topography, however, means that there are multiple grade-changes which make accessibility a challenge for those with limited mobility. This is further exacerbated by buildings like Tribble Hall, where split-level designs and dated building infrastructure make accessibility a challenge.

There is adequate parking on campus and the University has managed demand well at the campus core through parking policies and the provision of remote and overflow lots. Remote parking lots near the UCC and Polo Road entry are well connected to the campus regular shuttle service. As the University looks towards potential new building projects at and adjacent to the campus core, care should be taken to make sure that there continues to be adequate parking availability as it considers building on existing parking lots.

In recent years, Wake Forest's shuttle bus network has grown from 3 to 9 buses and 4 vans (13 shuttles total). In addition to serving the UCC, Downtown, and Brookstown, this service also connects off-campus housing to the campus. In some instances, routes are in low-demand but necessary due to poor departmental alignments. Additionally, busses currently depart campus from multiple locations and do not always have visible or attractive shelters. It would be ideal to consolidate the number of lines and stops on campus in a way that improves visibility and minimizes their presence on the campus core.

Finally, while the current road network supports access to the campus, traffic calming measures are not always effective and a number of vehicle-pedestrian conflicts still exist on campus. The idea of creating a loop road to move the majority of traffic along the campus periphery should be studied, along with aesthetically pleasing ways to calm traffic that does traverse the campus core to reinforce the pedestrian-oriented nature of campus.



Wake Downtown supports expanded biomedical sciences and engineering programs in modern, well-design teaching spaces supporting modern pedagogies

Academics

Wake Forest continues to attract students both nationally and globally due to its engaged learning model. Many academic departments include lounge space shared by students and faculty. Additionally, there is a sense of departmental stewardship over teaching spaces, allowing students to meet with professors before and after instruction. One drawback to this is that many classrooms are limited in their access beyond the department perceived as having stewardship over the space. This reduces classroom utilization across campus and may inhibit access to classrooms that have specialized furnishings, size, and technology well-suited to the needs of courses beyond the department.

Faculty across campus share a strong desire for access to classrooms that support a broader range of pedagogies. There is an increasing demand for teaching spaces furnished with flexible furniture and ample surfaces for writing and projecting information so as to facilitate collaborative and project-based learning within classrooms.

Wake Forest's strong academic environment is supported by the proximity of residence halls to the academic buildings. Some facilities, however, like Scales Hall, seem peripheral due to their architectural style and location within the broader

campus. Furthermore, other buildings, such as Tribble and Carswell Halls, are dated and no longer support the University's culture and mission.

There is a lack of formal and informal study space on campus, and classrooms are frequently used for after hours study, despite a lack of clear campus-wide policy. There is a demand for additional spaces on campus similar to those in ZSR Library or the ground floor living room space in Farrell Hall. Any renovation or construction of academic space should provide a range of collaborative environments for both quiet, independent study and group collaboration. These spaces should be distributed across campus as students will often study immediately before or after class. Their location adjacent to academic departments fosters informal interactions with faculty.

The master plan process identified the need for facilities to support growth in many academic departments, the Humanities, and emerging institutes and centers - in particular one that might be dedicated to leadership and character. Concurrent with the Master Plan Update, Ayers Saint Gross' Space Analytics Studio conducted an Academic Space Utilization Study, the conclusions of which are available in a separate report.



Since 2009, Magnolia and Dogwood Residence Halls have improved North Campus' sense of identity

Student Life

Wake Forest's thoughtful blending of academic and residential space is key to student success. Since 2009, the University has added 225 freshman beds at Angelou and South Halls and 280 beds at Magnolia and Dogwood Halls. North Dining Hall, adjacent to Magnolia and Dogwood, provides dining and informal study and lounge space to students living on North Campus. Additionally, the University has undertaken renovation of the six residence halls adjacent to Hearn Plaza, which date back to the 1950s.

The Student Life workshop targeted several areas for improvement. Palmer and Piccolo Residence Halls do not support the University's mission due to their remote location, the building conditions, and a lack of critical mass to support a sense of community. These halls, which house 118 upper-class students, are tentatively slated to come offline in 2026. In addition to providing replacement housing for Palmer and Piccolo Halls, an additional 210 beds are needed to meet long-term demand.

While North Dining Hall provides much needed dining and gathering space for the students, The Pit, in Reynolda Hall, still serves as the primary dining hall for students, especially during lunch hours. The current 26,000 sqft, 600-seat venue

not only needs expansion to support upwards of 900-1,000 seats but also would benefit from renewal to meet the evolving culinary needs of the student body. This could be accomplished either by creating or reallocating an additional 16,000 sqft to the existing space in Reynolda Hall or constructing a new 42,000 sqft dining venue elsewhere on campus.

The Student Life working group noted the need for spaces for students to engage in extracurricular and social activities. While Reynolda Hall and Benson Center support student activities, there is no true student-union and a need for better student group spaces and multi-purpose gathering spaces. Additionally, there is a strong demand for a student maker or incubator space for students to work on projects that don't necessarily fall within their academic curriculum.

Finally, it is worth noting that the physical landscapes plays a strong role in supporting student life and well-being. While the campus plazas host important gatherings throughout the year, the forested buffers and more intimately-scaled gardens and courtyards are equally important in providing students a place to recreate, meditate, or otherwise provide balance to their busy lives.



The quality and scale of Hearn Plaza, Wake Forest's main quad and other open spaces are critical to preserve,

Open Space and Landscape

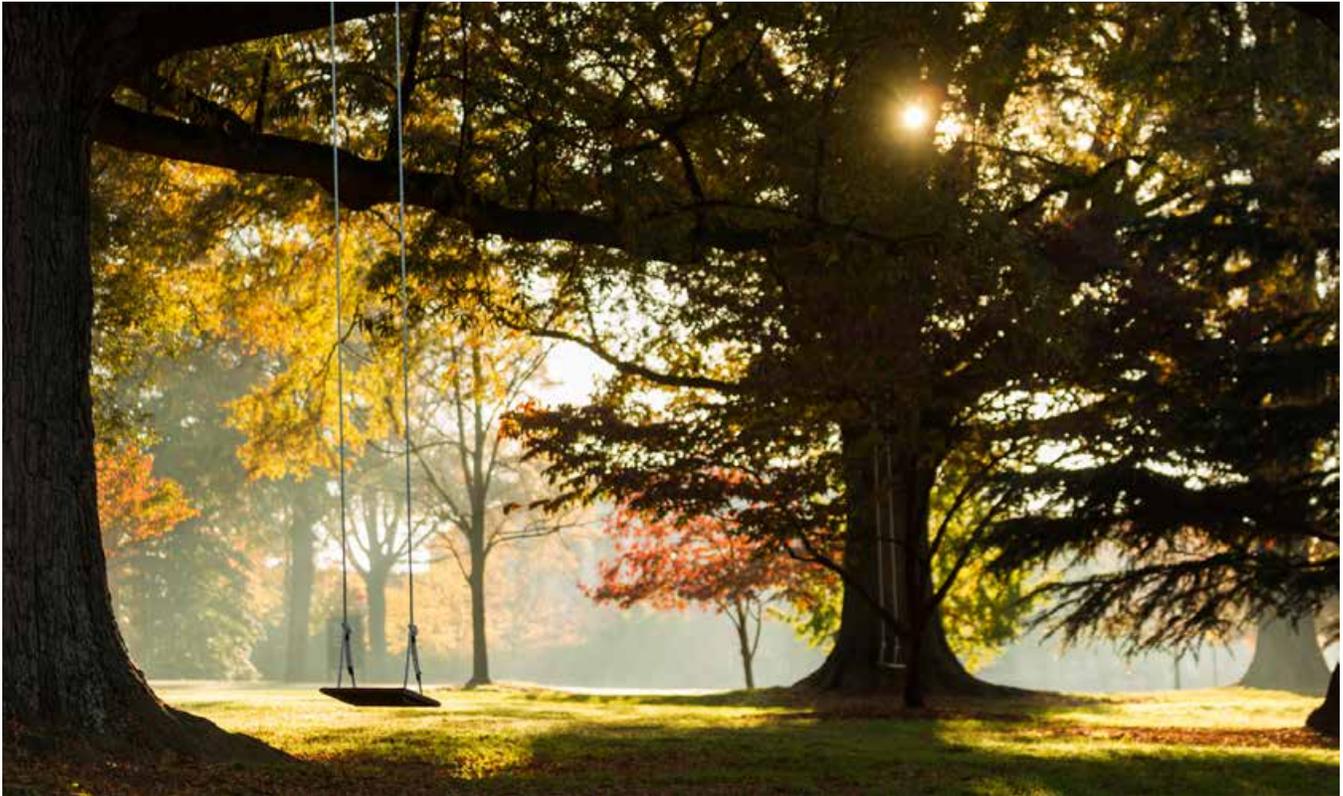
The landscapes that make up and surround Wake Forest are a defining aspect of any experience on campus. The culture and identity of the University is intimately connected to its open spaces, trees, pocket forests, and surrounding woodlands. These natural assets not only ameliorate the University's impact on adjacent ecological systems, but also provide living laboratories for students to engage in hands-on learning.

From the nearby Reynolda historic district, a 140 acre district encompassing a historic estate and gardens, through the woodlands surrounding Wake Forest Road to the west, the entrance from Reynolda Road provides the sense of arrival to an intimate campus nestled within a forest. Improving circulation by restoring the alignment of this entry road to traverse Davis Field would improve what is already an iconic arrival experience.

On the opposite side of campus, there was consensus that the arrival experience from University Parkway could be improved. The parking spaces and water tower along Wake Forest Road to the east of campus do not provide as high-caliber an entry experience and this gateway is becoming increasingly trafficked due to expanded use of the Athletics Campus and UCC.

From within and adjacent to the campus core, care should be taken to maintain sitelines of key campus landmarks, such as Reynolda Hall, the cupola on ZSR Library, and the steeple of Wait Chapel. Similarly, there are opportunities to improve and expand the existing open spaces that promote and clarify pedestrian circulation.

Finally, the University enjoys a wide range of sizes and types of open spaces. The Master Plan should continue to provide a variety of spaces for students. Future plans should preserve and expand on the activities the current campus can accommodate.



The campus is set within a mature woodlands, which provide a regional ecological resource and support student health and well-being

Sustainability and Infrastructure

The campus' location within mature woodlands of the North Carolina piedmont provide a natural connecting point for the community to engage with environmental issues. The University continues to preserve woodland systems and riparian buffers while also finding ways to connect students to them through walking paths, and outdoor teaching lab spaces. The University should continue to support engaged learning through the environment.

As the University has grown, it has limited its footprint within the Reynolda Campus while providing good stewardship over campus infrastructure. As the University considers the responsible carrying capacity of the Reynolda Campus, some back-of-house facilities functions could be centralized on an alternate site, freeing up valuable land near the campus core.

The University could also improve operational efficiencies by centralizing the collection of waste and distribution of materials. These operations are currently not well-coordinated, resulting in many service vehicles traversing the campus and a number of visible loading and trash collection areas. Additionally, the University should consider sourcing more compostable materials for food services.

In recent years, the University has expanded its footprint through acquiring Joel Coliseum and the Couch Baseball Stadium. Despite these acquisitions, regional stormwater management is not broadly supported by city or county officials. While there are no requirements to address regional stormwater management, the University should continue to provide good stewardship to reduce its current impervious runoff despite a lack of formal requirements.

While the University has done well to preserve its natural surroundings, there are a number of opportunities to expand green infrastructure on campus. Locating retention and detention basins on campus would further ameliorate impacts on downstream watersheds while providing potential sources of non-municipal irrigation water. Finally, while the statewide legislative environment is not currently hospitable for on-site solar generation, the University should continue to anticipate opportunities for solar installation on rooftops or above parking.



For a University of its size, Wake Forest supports robust and well-respected athletics programs

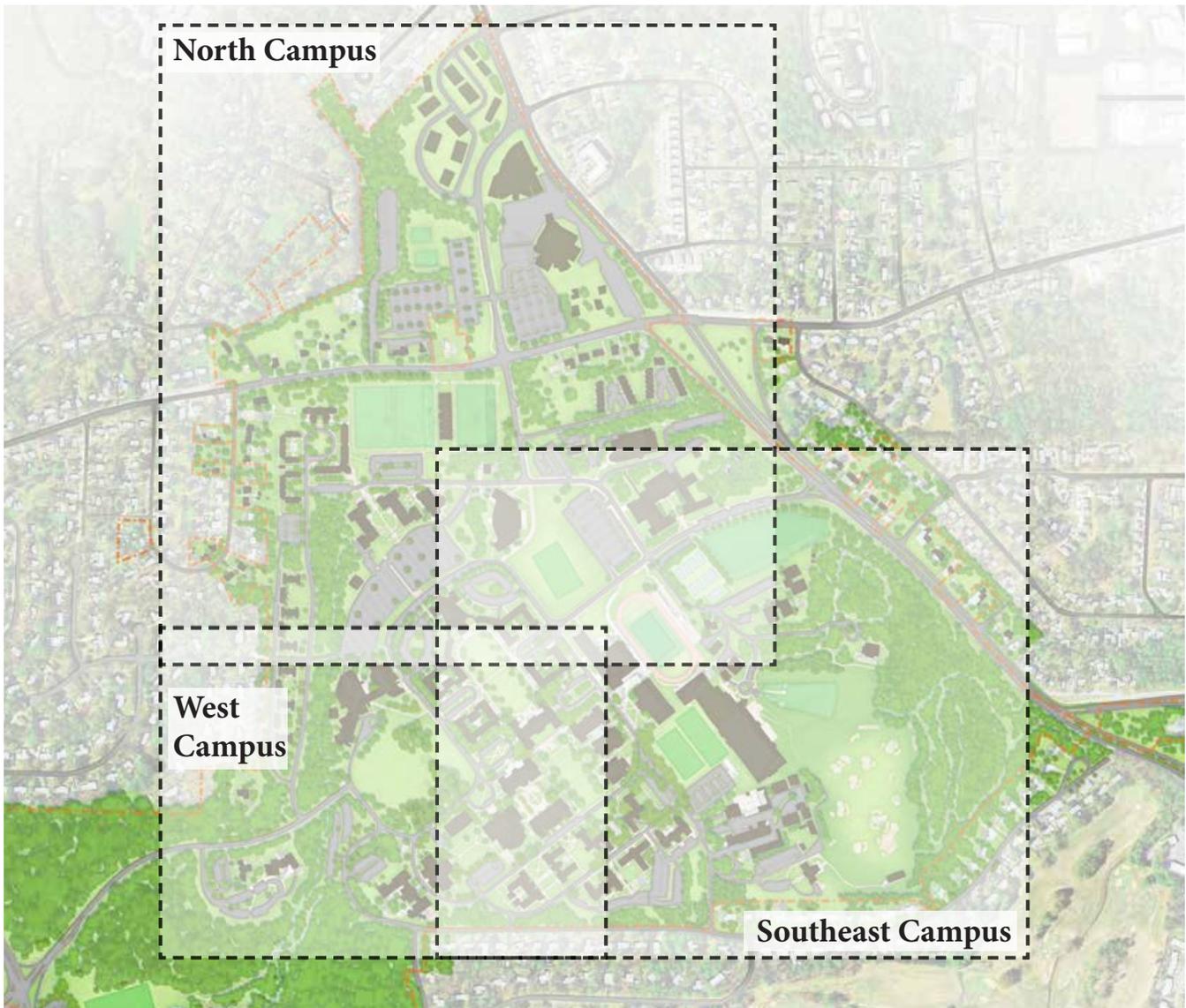
Athletics and Recreation

Wake Forest is unique in its ability to offer world-class athletic programs within a closely-knit, academically rigorous community. A number of projects identified in the 2009 Master Plan have been completed to support the broad goals of student athletes and recreation. The Sutton Center addition transformed the Reynolds Gymnasium by tripling the amount of fitness space available on campus. McCreary Field House provides dedicated all-weather practice facilities for the University's varsity football programs. These new facilities mean that student athletes now spend the majority of their time on the Reynolda Campus.

The majority of concerns raised in these workshops were related not to the size or adequacy of the University's athletics and recreation facilities but rather to their connectivity. As

Volleyball relocates to the expanded Reynolds Gymnasium, there are concerns as to whether there is adequate spectator parking. More broadly, there is a general sense that the Athletics Campus feels disconnected from the Reynolda Campus. Combined with the University's expanded presence at the UCC, there is a shared demand to improve connectivity between these two important areas.

Given that most of the University's game-day facilities are located within the Athletics Campus, it could readily support an area dedicated to staging premium tailgating events. Additionally, it is hoped that improved connectivity to the Reynolda Campus would allow more students attend athletic events.



Existing Conditions



During the 2009 Master Plan, the campus was broken down into three distinct precincts. The 2019 effort looked more broadly and holistically at how programs fit within the entirety of campus while working strategically with specific stakeholders. Many ideas were tested and are represented in the Master Plan, which identifies many exciting opportunities to meet not only individual program needs but also address significant campus-wide challenges. Among these challenges is the desire to better connect the campus core with the UCC and Athletics Campus and a need to improve the entry experience from University Parkway. Additionally, there was broad consensus that, while not an immediate priority, the campus master plan should consider a right-of-way for a campus loop road and call for improvements to enhance pedestrian accessibility across the campus core. What follows is a description of potential projects proposed by the master plan in each of three areas of the campus—the west, north, and southeast:



West Campus

- University building
- Proposed renovation
- near-term building site
- long-term building site



West Campus

The arrival on campus from Reynolda Road delivers a special experience through the quiet woods of Wake Forest Road and direct access to the academic core. The experience can be enhanced by restoring the original alignment of Wake Forest Road across Davis Field. This change simplifies automobile circulation and creates an opportunity to expand the open space of Davis Fields towards the woods of Reynolda House and Village. At the same time, there is potential for new buildings that are crucial to meeting the needs of academic programs. The approach to the Chapel from University Parkway in the east will be transformed by new academic buildings that define and preserve Poteat Field:

1. Realignment of Wake Forest Road includes restoring the road on the north side of Davis Field to create a noticeable arrival experience true to Larson’s vision for the campus and expands the southwestern edge of Davis Field.
2. Additions to Salem Hall and a new building site provide space for program growth and further define the Science Quadrangle.
3. Renovation of ZSR Library to accommodate additional student study and group-work space.
4. Renovation of Tribble Hall site to address building infrastructure and accessibility challenges, and provide modernized and updated academic teaching and office space.
5. New academic quadrangle east of Davis Field on axis with the library’s new façade creates additional high-quality open space and realizes an idea that originated in Larson’s campus plan.
6. A new academic building on the south side of Scales Fine Arts Center provide additional program space and anchor the north end of the new academic quadrangle.



North Campus

existing building
 proposed near-term building
 proposed long-term building



North Campus

Today, North Campus is dominated by picturesque views of Wait Chapel from the north and east. This campus icon can be enhanced by making use of the untapped potential of the parking lot to its north. The low ground occupied by the Q Lot could remain as a parking resource, or could simply be graded, creating a new quadrangle and buildings that simplify pedestrian access between Polo Hall and Wait Chapel. The approach to the Chapel from University Parkway in the east will be transformed by new academic buildings that define and preserve Poteat Field:

7. A new residential quadrangle anchored by Wait Chapel makes best use of existing grade change to create additional high-quality open space on grade with Chapel and improves pedestrian experience from campus core to Magnolia and Dogwood Residence Halls.
8. Two residence halls provide additional on-campus housing for upper-class students adjacent to Polo Hall.
9. A new residence hall on the Z Lot provides additional on-campus housing for upper-class students.
10. Academic building provides program space for high profile programs, improves arrival experience from University Parkway and Wingate Road, and help define and preserve Poteat Field.
11. Enhance connectivity between recently acquired housing at Deacon Place and the Campus Core through streetscape improvements and shuttle service.



Southeast Campus

- University building
- near-term building site
- Proposed renovation
- long-term building site



Southeast Campus

Southeast campus provides much of the University’s athletic and recreation facilities. These facilities have demanding requirements for large, flat areas, and generally discourage foot traffic. These challenges inspired great collaboration within the campus community and as a result, the plan for this area of the campus includes a new connection to the UCC and Athletics Campus area, accommodated a campus loop road around recently constructed indoor practice fields, and provided additional space for freshman residents and targeted two potential sites for a new residential college:

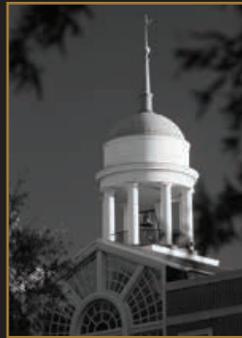
- 11. Redeveloping Lot G could accommodate a freshman residence hall.
- 12. Redeveloping Lot F could accommodate a future building site.
- 13. Redeveloping Lot J could accommodate a range of programmatic functions while preserving the woodland buffer along Faculty Drive.

- 14. The current H.S. Moore facility houses many back-of-house functions that could be located on University-owned land closer to the campus periphery. This would allow the site to be redeveloped as a future building site.
- 15. Palmer and Piccolo Residence Hall could be repurposed for non-residential use or redeveloped as a residential college or upper-class housing, providing the critical mass of occupants needed to activate this corner of campus.
- 16. A high-quality connection to University Parkway, the Athletics Campus, and UCC that replicates the wooded experience entering from Reynolda Road
- 17. In the long-term, a loop road could be accommodated between the indoor practice fields and the Arnold Palmer Golf Complex



Decorative wrought iron arch and lantern typical of campus





Reynolda Campus Master Plan



Courtyard between Babcock and Johnson Residence Halls

Reynolda Campus Master Plan

The final plan is the culmination of many ideas generated throughout the rigorous planning process and represents the best thinking and efforts of many people who care deeply about Wake Forest. A number of potential building sites are identified; each is consistent with the scale and quality of the existing campus environment, and all are inspired by the planning principles and Concept Plan goals. The final plan builds on the heritage of the campus and culture of the institution. By respecting context—neighbors and ecology—it follows in the footsteps of the Old Campus in Wake Forest, North Carolina, and Larson’s original plan for the Reynolda Campus. With this plan in hand, the University is well positioned to accommodate future program needs and change during its next phase of development.

REYNOLDA CAMPUS MASTER PLAN



Master Plan

- University building
- near-term building site
- long-term building site
- near-term renovation
- long-term renovation

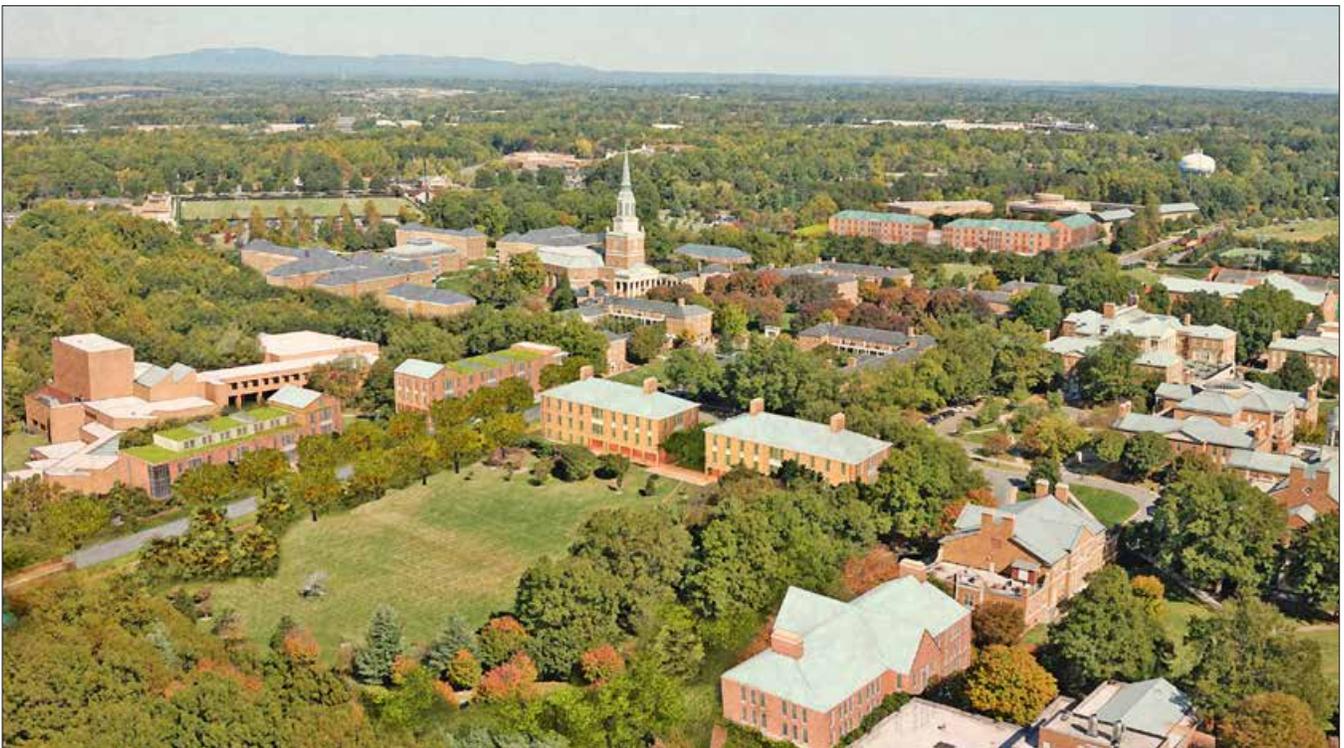
CAMPUS MASTER PLAN



Before and After Views



Existing view across Davis Field toward Wait Chapel



Proposed

CAMPUS MASTER PLAN



Existing view across Manchester Plaza toward Reynolda Hall



Proposed

REYNOLDA CAMPUS MASTER PLAN



Existing view south on Wingate Road toward Faculty Drive



Proposed

Implementation

Early implementation of Phase I is based on the currently planned facilities in the University's Strategic Plan. The order of projects identified in Phase II and III is based on current knowledge, but should be considered a theoretical exercise to demonstrate potential implementation.

Phase I of the master plan will likely include these projects:

1. **Academic Commons** on Davis Field will provide classroom, collaboration, and office space for the Humanities while also facilitating the renewal of other academic buildings. This building supports renewals of the campus arrival experience while preserve views to the historic campus core.
2. **Realignment of Wake Forest Road** improves the campus arrival experience and expands the southwestern edge of Davis Field.
3. **Renovation or Redevelopment of Tribble Hall** addresses significant building system and accessibility challenges while improving teaching, office, and collaboration spaces.
4. **Renovation of ZSR Library** to expand the amount of student study and collaboration space.
5. **Renovation of Luter, Bostwick, Johnson, Babcock, and Collins Residence Halls**
6. **Renovate and expand The Pit or Provide New Dining Capacity** near the campus core to address lack of adequate dining space at campus core.
7. **Renovate Wait Chapel and Wingate Hall**
8. **Renew and Convert Palmer and Picolo** to meet academic or administrative needs
9. **Renovation of Manchester, Greene, Carswell, and Scales Halls** to improve teaching spaces and realigns academic departments to accommodate academic growth, support a broader range of pedagogies, and provide dispersed collaboration and study space across the campus. **Renew and Convert Palmer and Picolo** to meet academic or administrative needs
10. **Enhance Entry and Arrival Experiences** from Polo Road and University Parkway
11. **Redevelop Winston-Salem First Church Property**

CAMPUS MASTER PLAN



Implementation Phase I

- University building
- proposed building site
- proposed renovation

Phase II of the master plan is expected to include the following projects:

1. **New Residence Halls on Lot R** provide additional beds for upper-class students with a short walk of North Dining Hall.
2. **Renovate Martin Residence Hall**
3. **A New Residence Hall on Lot Z** provides upperclass housing along Allen Easley Street and provides swing space to accommodate the renovations of adjacent residence halls.
4. **An Addition to Scales Fine Arts Center** could provide additional academic space while helping frame the renewed Davis Field open space.
5. **A New Building on Davis Field** will provide additional academic space.
6. **Two New Academic Buildings East of Poteat Field** to provide long-term growth space, improve the entry and arrival experience from University Parkway and Polo Road, and preserve Poteat Field for recreational uses.
7. **New Residence Hall on Lot F and G** would likely provide additional under-class housing.
8. **Residence Halls Northwest of Wait Chapel** provide additional upper-class housing and frame a new quad that improves pedestrian connectivity between North Campus with Hearn Plaza.
9. **A New Road Behind South, Collins, and Angelou Halls** provides the southern portion of a campus loop road and allow potential streetscape improvements to enhance the pedestrian experience along Gulley Drive and Jasper Memory Lane.
10. **A New Residence Hall on Lot E and J**
11. **Redevelop the H.S. Moore Facility**
12. **A New Road east of McCreary Fieldhouse**
13. **Multimodal Connection to University Parkway**
14. **Expand Deacon Place**
15. **Develop Polo Road Properties**

CAMPUS MASTER PLAN



Implementation Phase II

- University building
- proposed building site
- proposed renovation

REYNOLDA CAMPUS MASTER PLAN

| Map Number | Use | Project | GSF/Floor | Floors | Total GSF |
|------------|----------------|---|-----------|--------|-----------|
| 1a | Academic | New Academic Building (Upper Davis Field) | 25,000 | 3 | 75,000 |
| 1b | Academic | New Academic Building (Upper Davis Field) | 18,000 | 3 | 36,000 |
| 2 | Infrastructure | Wake Forest Road Realignment (Davis Field) | - | - | - |
| 3a | Renovation | Scales Fine Arts Center Renovation | - | - | - |
| 3b | Academic | Scales Fine Arts Center Addition | 15,000 | 3 | 45,000 |
| 4 | Open Space | Davis Field | - | - | - |
| 5 | Renovation | Olin Physical Laboratories | - | - | - |
| 6a | Academic | Salem Hall Addition (North) | 14,000 | 2 | 28,000 |
| 6b | Academic | Salem Hall Addition (South) | 14,000 | 2 | 28,000 |
| 7 | Academic | New Academic Building (Science Quad) | 13,000 | 2 | 26,000 |
| 8 | Infrastructure | Gulley Road Realignment (Between Winston and Salem Halls) | - | - | - |
| 9 | Open Space | Science Quad | - | - | - |
| 10 | Renovation | ZSR Library | - | - | - |
| 11 | Renovation | Tribble Hall | - | - | - |
| 12 | Infrastructure | Gulley Drive Improvements (Jasper Memory Ln to Wingate Rd) | - | - | - |
| 13 | Infrastructure | Jasper Memory Road Improvements | - | - | - |
| 14 | Infrastructure | Campus Loop Road | - | - | - |
| 15 | Residential | New Freshman Residence Hall (South of Collins Hall) | 13,300 | 4 | 53,200 |
| 16a | Renovation | Luter Residence Hall | - | - | - |
| 16b | Renovation | Johnson Residence Hall | - | - | - |
| 16c | Renovation | Bostwick Residence Hall | - | - | - |
| 16d | Renovation | Babcock Residence Hall | - | - | - |
| 16e | Renovation | Collins Residence Hall | - | - | - |
| 17 | Residential | New Residence Hall (Lot G) | 10,400 | 4 | 41,600 |
| 18 | Residential | New Residence Hall (Lot F) | 13,800 | 4 | 55,200 |
| 19 | TBD | H.S. Moore Facility Redevelopment | 45,100 | 3 | 135,300 |
| 20a | Renovation | Carswell Hall | - | - | - |
| 20b | Renovation | Greene Hall | - | - | - |
| 20c | Renovation | Manchester Hall | - | - | - |
| 21 | Renovation | Reynolda Hall | - | - | - |
| 22 | Infrastructure | New Entry Road to University Parkway and Reynolda Boulevard | - | - | - |
| 23a | TBD | Piccolo Renovation | 6,475 | 2 | 12,950 |
| 23b | TBD | Palmer Renovation | 6,475 | 2 | 12,950 |
| 24a | TBD | Poteat Field East | 28,500 | 3 | 85,500 |
| 24b | TBD | Poteat Field North | 28,900 | 3 | 86,700 |
| 25 | Open Space | Poteat Field Renewal | - | - | - |
| 26 | Infrastructure | Long Road Improvements | - | - | - |
| 27 | Redevelopment | Redevelop Winston-Salem First Church Property | - | - | - |
| 28 | Redevelopment | Expand Deacon Place Housing | - | - | - |
| 29 | Redevelopment | Redevelop Polo Road Property | - | - | - |
| 30a | Residential | New Upperclass Residence Hall (Lot R2 East) | 13,400 | 4 | 53,600 |
| 30b | Residential | New Upperclass Residence Hall (Lot R2 West) | 13,400 | 4 | 53,600 |
| 31a | Residential | New Upperclass Residence Hall (Lot Q East) | 21,800 | 4 | 87,200 |
| 31b | Residential | New Upperclass Residence Hall (Lot Q West) | 21,800 | 4 | 87,200 |
| 32 | Open Space | North Campus Quad Extension | - | - | - |
| 33 | Renovation | Martin Renovation | - | - | - |
| 34 | Residential | New Upperclass Residence Hall (Lot Z) | 13,400 | 4 | 53,600 |

CAMPUS MASTER PLAN



Proposed Buildings

- University building
- Proposed renovation
- near-term building site
- long-term building site

The areas cited in this chart (left) are recommended based upon appropriate massing established by the master plan. They document the general intent of the master plan and provide a point of reference in planning for the future development of individual building sites. In addition to site capacity, development decisions will also be guided by program needs and financial considerations.

Campus Real Estate Opportunities

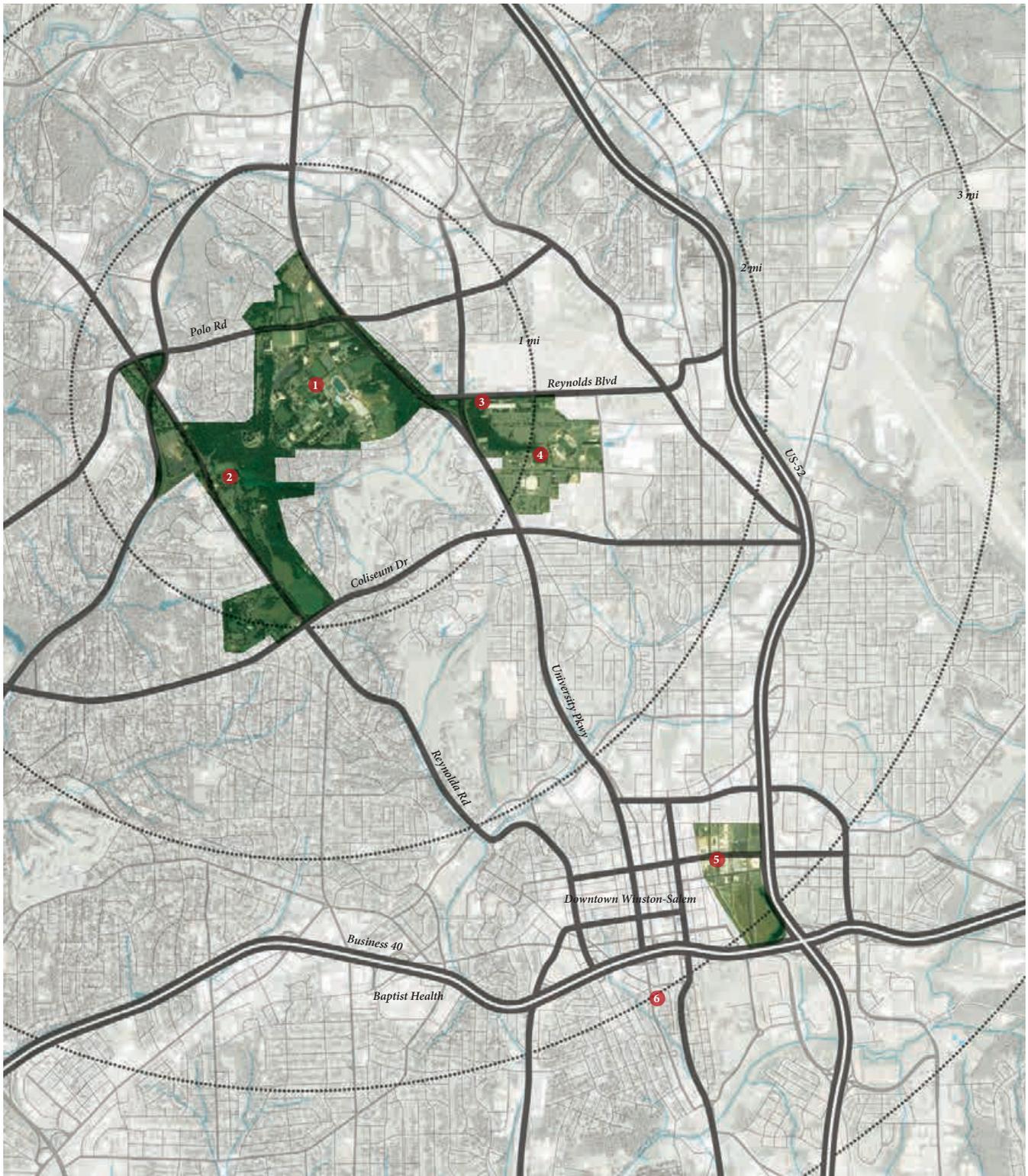
Wake Forest University includes a number of important properties beyond the Reynolda Campus. While the core campus is central to the University's mission, these peripheral land-holdings play an increasingly important role in accommodating the University's broad programmatic needs.

1. **Reynolda Campus** includes approximately 3,483,035 GSF spread across 290 acres. This campus contains the majority of the University's academic, administrative, student-life, and athletics programs. As the University expands use of peripheral facilities, dedicated touch-down space should be provided within the Reynolda Campus, especially for those who work primarily at UCC. As the University continues to leverage peripheral land-holdings, shuttle stops should be well planned to optimize efficient operations and improve the user experience.
2. **Reynolda Village and Estate** includes 180 acres of historically designated lands. The University should explore strategic opportunities to support academic and student life uses.
3. **University Corporate Center** includes over 500,000 square feet of office space on approximately 30 acres adjacent to the Reynolda Campus. As the University increases use of this facility, it should explore opportunities to improve Wake Forest identity and branding within and around the facility, improve multi-modal connectivity to the Reynolda Campus, and ensure that adequate touch-down space is provided at the Reynolda Campus
4. **The Athletics Campus** includes the Joel Memorial Coliseum, BB&T Field, and Groves Stadium which support many of the University's key athletics events. The University should continue to leverage opportunities to support and enhance the game-day experience including improving student access to games and exploring opportunities for premium tailgating. The mater plan recommends a more direct pedestrian route between the Athletics Campus and Reynolda Campus.
5. **Wake Downtown** is comprised of 125,337 GSF of recently renovated space anchored by the University's biomedical sciences and engineering programs and School of Medicine. The facilities have also provided necessary swing space as the University renovates science facilities on the Reynolda Campus. The University should continue to study creative programmatic opportunities for these facilities, capitalize on its adjacency to the Innovation Quarter, and maintain a high level of connectivity to the Reynolda Campus via regular shuttle service.
6. **Brookstown** is a 14,093 GSF facility that supports Wake Forest's graduate and continuing studies programs. The University should continue to provide regular shuttle service to this site and maintain touch-down space on the Reynolda Campus for faculty and staff who may work between these two locations.



Wake Downtown (left) and the University Corporate Center (right) play an expanding role in meeting the University's programmatic needs.

CAMPUS MASTER PLAN



University Land Ownership



Deacon Place provides upper-class housing and a meaningful northward extension of the University

Opportunities from Recent Property Acquisitions

North Campus provides the University with an important asset both today and as the University contemplates future growth. Around 30% of all people access the campus from the Polo Road entry, chief amongst them being visitors to campus. Additionally, a large portion of students live in this area of campus. The recent acquisition of Deacon Place and First Church provides the University with consolidated land holdings north of Polo Road. This also allows the University to expand its upper-class housing, provide additional parking capacity, and better define the campus gateway along Long Road and Polo Road.

1. **Deacon Place** includes 11 acres of property and provides 328 students beds in 146,000 ft². In the near-term, this provides valuable upper-class housing. The University should consider improving the pedestrian experience between Deacon Place and the campus entry along Polo Road to reduce the number of single-occupant vehicle trips between Deacon Place and the Reynolda Campus.
2. **First Church** includes approximately 20 acres. While the Church will maintain a presence here for the next three years, in the mid-term the property can provide additional parking supply and potential swing-space to enable renovations and renewals on campus. In the long-term, the University should explore the highest and best use of this site as its proximity to campus suggests potential use for upper-class housing, non-forward-facing administrative functions, or athletics and recreation.

CAMPUS MASTER PLAN



University property ownership on North Campus





Architectural Design Guidelines



Front to back: Bensor University Center, Reynolda Hall, and Worrell Professional Center

Architectural Design Guidelines

Historic Development of Campus Style

The original campus in Wake Forest, North Carolina, established in the 1830s, was characterized by a rural, agrarian landscape. Moving the entire college nearly 130 years later opened doors to a comprehensive planning effort. Jens Fredrick Larson, an architect well established in American college planning, was hired, and an entirely new Wake Forest campus took form 120 miles west in Winston-Salem.

Larson believed regional materials coupled with local craftsmen result in appropriate architectural contexts that by nature enhance the character of the American collegiate campus. For Larson and the new Wake Forest campus, this meant gravitating to a variant of the Georgian revival style, exemplified by Old Virginia brick and stately sited buildings on grand quadrangles.



Future projects should maintain awareness of and work in concert with the existing campus fabric.

Initial phasing of Reynolda Campus construction began in 1951, yielding 1.14 million gross square feet of building space by the end of 1956. Steady addition of new facilities has resulted in the near completion of original planning concepts. Today, the Reynolda campus includes nearly 321 acres of land and 3.5 million gross square feet of building space. An additional 125,000 gross square feet at Wake Downtown and 14,000 gross square feet at Brookstown support the University’s graduate programs and undergraduate programs in engineering and sciences.

Larson’s vision of planning and architectural style at Wake Forest in the 1950s established a strong campus character, now well rooted in the fabric of Winston-Salem. Placements of iconic buildings in the Georgian revival style on open quadrangles anchor and define the campus yet today. This definition of planned order and architectural character is uniquely woven into the physical fabric of Wake Forest and demands that no individual architectural thread should exist apart from a consideration of the whole.

Campus Structure

A distinct fabric has been created over time through the consistency of building-to-open-space relationships, the scale and proportion of the buildings, the complementary use of building materials, and the treatment of the ground plane and landscape. The Reynolda Campus derives its primary organization or pattern from the relationship between buildings and open spaces. The facades or edges of the buildings define the open spaces, and each open space is reinforced by regular axes that relate to building entries.

New buildings will support this pattern on the campus by defining new open spaces. As additions are made to the campus, it is vital that this tradition be continued. Designers should thoroughly study all aspects of the campus core, especially characteristics that make the campus unique. The Reynolda Campus is firmly rooted in the traditions of American campus planning and place making. Simple, enduring elements—Georgian revival buildings, quadrangles, and canopy trees—reference the University’s foundation in Wake Forest, and work together to create a classic example of an American campus. The campus is unique because of its compact core, beautiful landscaping, and consistency of architectural style and scale.



Proposed Open Space Network.

- | | |
|---|--|
| ■ natural area | ■ organizing axis |
| ■ high-quality open space | ■ recreation field |

Reinforcing this fabric is not as much about architectural style as it is about site, proportion and scale, fenestration, and materials. New buildings should have a human scale and encourage student activity. Fenestration of new buildings should have rhythms complementary and harmonious with those around them. The building materials should be consistent. Landscaping and screening can be effective tools in unifying new buildings with existing buildings. A consistent approach to landscaping will also assist in unifying character.

The master plan provides for the expansion of the existing open space network, including four new quadrangles. The first, on the west side of the campus, will be anchored by Z. Smith Reynolds Library and Scales Fine Arts Center. This new formal, academic quadrangle is faithful to Jens Fredrick Larson’s original plan and will bolster the presence of academics on the campus. The second, on the east side of the campus, will be anchored by the new Campus Recreation

Center. The third, on the north side of the campus, will be a double quadrangle, defined by residence halls on the north end, academic buildings on the south end, and bisected by a new student services building.

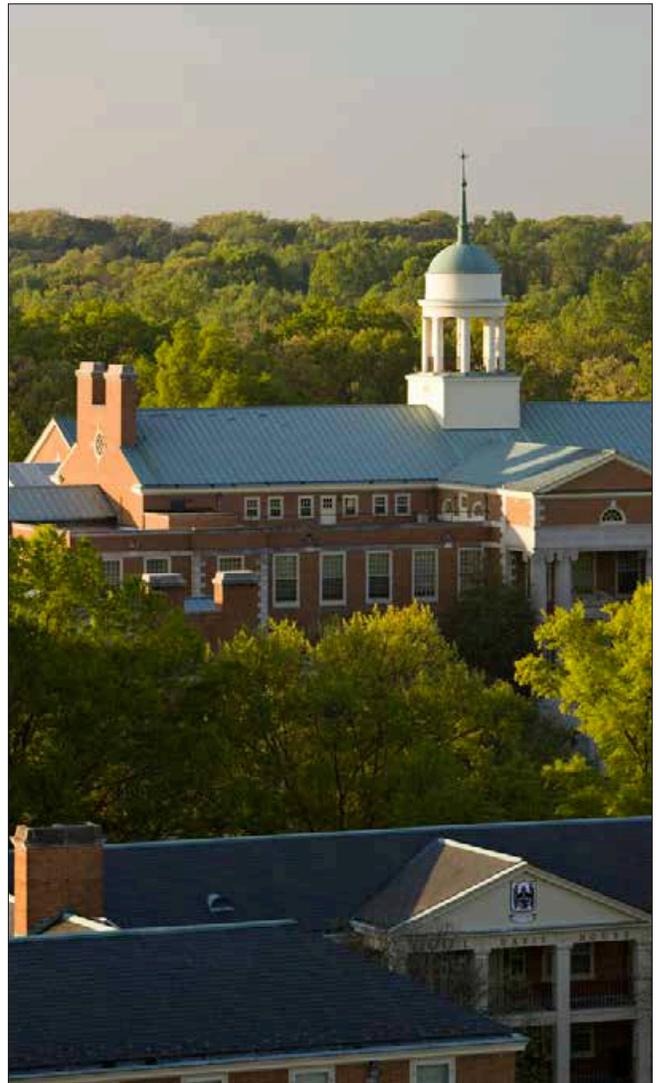
Wake Forest University is committed to making its new buildings and gathering areas physically accessible to all faculty, staff, students, and visitors through universal design principles. Today, many buildings and areas on the campus are accessed via steps. In that same spirit, renovation projects shall seek to improve physical accessibility to create a more welcoming campus. This will be achieved by balancing technical access and design aesthetics. These changes may accommodate the campus design aesthetic by utilizing internal modifications to improve accessibility to external areas of community.

Materials

The Reynolda Campus is characterized by consistent building materials and architectural elements across campus. Flexible application of these materials and elements can create desirable variety through respect of each individual building's relationship to the original campus core.

The building materials palette is dominated by:

- a. Slate roofs on residence halls.
- b. Standing seam copper metal roofs on academic and administrative buildings.
- c. Old Virginia brick veneer for all Reynolda Campus facades.
- d. Oyster white painted wood trim.
- e. Limestone for building details such as water tables and wall caps.
- f. Cast stone for finishing details on site walls.
- g. Wrought iron is used decoratively in lanterns and light poles, emblems, and railings.
- h. Clear glass.



a. & b. Slate and standing seam metal roofs

CAMPUS MASTER PLAN



c. Old Virginia brick



d. Oyster white painted wood trim



e. Limestone details



f. Cast stone on walls



g. Decorative wrought iron



h. Clear glass

ARCHITECTURAL DESIGN GUIDELINES



Covered porches and passages



Columns



Layered roofscapes



Welcoming entries

Buildings on the Reynolda Campus employ common architectural elements to create a unique Wake Forest vocabulary:

- Covered porches and passages are common on campus. These areas provide shelter from the weather, create opportunities for interaction and impromptu gatherings, and add visual articulation to the campus fabric.
- Columns go hand in hand with the many covered porches and passages on the campus. For the most part, columns are round or square, typically fluted, and finished with simple capitals. Knowledge of classical proportioning when employing these elements is paramount to successful implementation.
- Layered roofscapes, generally more hipped than gabled, add depth and interest to campus architecture. Gabled ends, when used, commonly have centered chimneys.
- Integral gutters.
- Windows are primarily large, wide, tall and double-hung, opening up interiors to vast amounts of natural light. They are in most cases proportional. Most fenestration is clear or slightly colored as in Wait Chapel. Mullions are employed in nearly all applications and painted oyster white.
- Welcoming entries dominate campus.
- Granite ground course on monumental structures or a concrete grade beam are commonly employed at the base of buildings. Height varies in response to context and slope functionally to keep the soft old Virginia brick from wicking ground moisture and provide an aesthetic band on which buildings sit.



Reynolda Hall



Salem Hall

Massing

The Reynolda Campus is residential in scale; buildings are typically no more than four stories tall. A building's scale and massing is defined by a combination of its footprint, height, and overall shape (stepbacks, setbacks, roof form). Massing reflects and reinforces the overall scale of the open space that a building fronts and steps up or steps down to adjust to context and topography. For example, Reynolda Hall is one of the larger buildings on campus, but is approachable because of the articulation of its form. Stepbacks on the south side ease the height of the building while creating public spaces and terraces.

Generally, building footprints will be simple, efficient, and rectangular; they will respond to adjacent open spaces and buildings. Salem and Olin Halls define the edges of the Science Quad in different ways. Salem Hall responds to the quad with windows and a primary building entrance. While Olin Hall interacts in a straightforward way with Wake Forest Road, the side of Olin that addresses the quad lacks an entrance, and windows are too high for a passerby to see in. Salem's relationship to the quad is more desirable.

To accommodate a wide range of program needs, the master plan provides room for a variety of building footprint sizes. Extremely large buildings should break down mass into a composition of well-scaled parts.

By articulating the lower portion of a building's vertical surface, such that it appears to be distinct from the rest of the building, the perceived scale of a building can be made more comfortable. Building design should be clearly articulated in the first one to two stories to establish human scale at the ground level. Hearn Plaza is delineated by arcades and active

public uses, which create a lively civic space. The number of stories before a building steps back will vary with its composition, including overall height.

Buildings will have a variety of roof forms—pitched or flat. While there is wide variety in examples on campus, buildings with small footprints are most appropriate to have pitched roofs, while larger buildings are more apt to have flat roofs. Many buildings skillfully incorporate both flat and pitched roof areas in concert with massing, height, and overall composition. High performance features such as green roofs and solar collectors should be carefully integrated to maximize efficiency and enhance building appearance.

Articulating a building's roofline helps to provide a visual termination to a façade and further helps to control its overall scale. Buildings should incorporate clearly articulated eaves, cornices, or parapets into their design. This can be achieved by a change in plane and/or a change in material.



Hearn Plaza



The guidelines are intended to be a mirror that reflects the finest examples of campus architecture.

Composition

Composition of most campus buildings is characterized by many multi-paned windows and gracious entries and porches that combine to create collegial gathering spaces. This traditional vocabulary is rooted in the heritage of the Old Campus and reflects the basic five-part order of the Georgian revival style. This architectural style values symmetry, scale, and proportion, typically resulting in a composition of a central door flanked by two windows on the first floor and five evenly spaced windows in each upper story. The central door is usually given prominence by its placement and ornament. These features are in evidence across the campus. For example, the north elevation of Reynolda Hall faithfully expresses the symmetry of this composition with eleven evenly spaced openings, and the central door of Manchester Hall is embellished with an open pediment.

Well-designed elevations have hierarchical patterns and rhythms that are visually stimulating and contribute to the liveliness of the campus. Openings (doors, windows, and loggia) can help to reduce the perceived scale of a building by dividing a continuous wall surface into smaller, more comprehensible parts. For example, the Central Heating Plant

is a building with a utilitarian use, but thoughtful design. Windows and louvers are regularly placed to create rhythm and pattern in the building's elevations. These features are practical, functional, and attractive.

Composition should respond to the adjacent buildings and open spaces. Entries should be clearly expressed and created by a hierarchy of openings. Terraces, porches, and other transitional devices should be considered. Main entrances should be proportional to the entire facade. Consideration should be given to shade and overhead cover. Buildings may have multiple primary entries, and all must accommodate universal access. Doors should be wood or metal with glazing.

Program and design of operations performance should be meaningfully integrated into building design and never dominate. Proportion of the overall building, the façade, or an individual component (sunscreen, window, door, cornice, etc.) should be fully integrated.



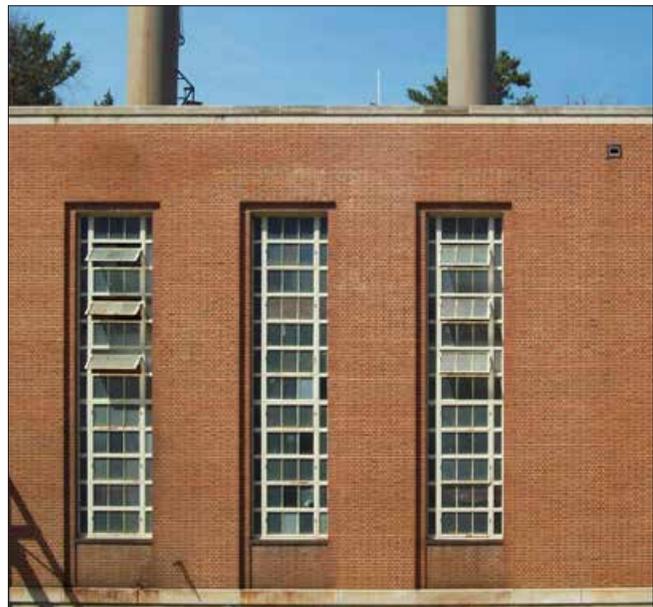
Many multi-paned windows and gracious entries and porches combine to create collegial gathering spaces.



The Worrell Professional Center has multiple prominent entries.



The central door of Manchester Hall is embellished with an open pediment.



The Central Heating Plant is a building with a utilitarian use, but thoughtful design.

Component elements of building facades should be straightforward and legible. Building elements should balance innovation and function, and excessive aesthetic delineations should not be achieved at the expense of practical concerns such as maintenance and renovation.

Windows should be operable where technically feasible and integrated into the building's energy strategy. Window frames should be wood or metal, and colored to be compatible with other exterior materials. Clear glass is preferred; any use of colored glass should be subtle. No reflective glass should be used.

These guidelines establish a framework for future designers so that the beauty of the campus core will be extended to the entire campus. To encourage this, the guidelines recommend that future design decisions reflect the best architectural traditions now evident on the campus. The guidelines are intended to be a mirror that reflects the finest examples of campus architecture and a lamp that lights the way for future designs to foster the architectural heritage and innovative spirit of the University. In this regard, Wake Forest's buildings and grounds should resemble a good academic curriculum, combining tradition and innovation, preserving what is best about Wake Forest while moving forward.



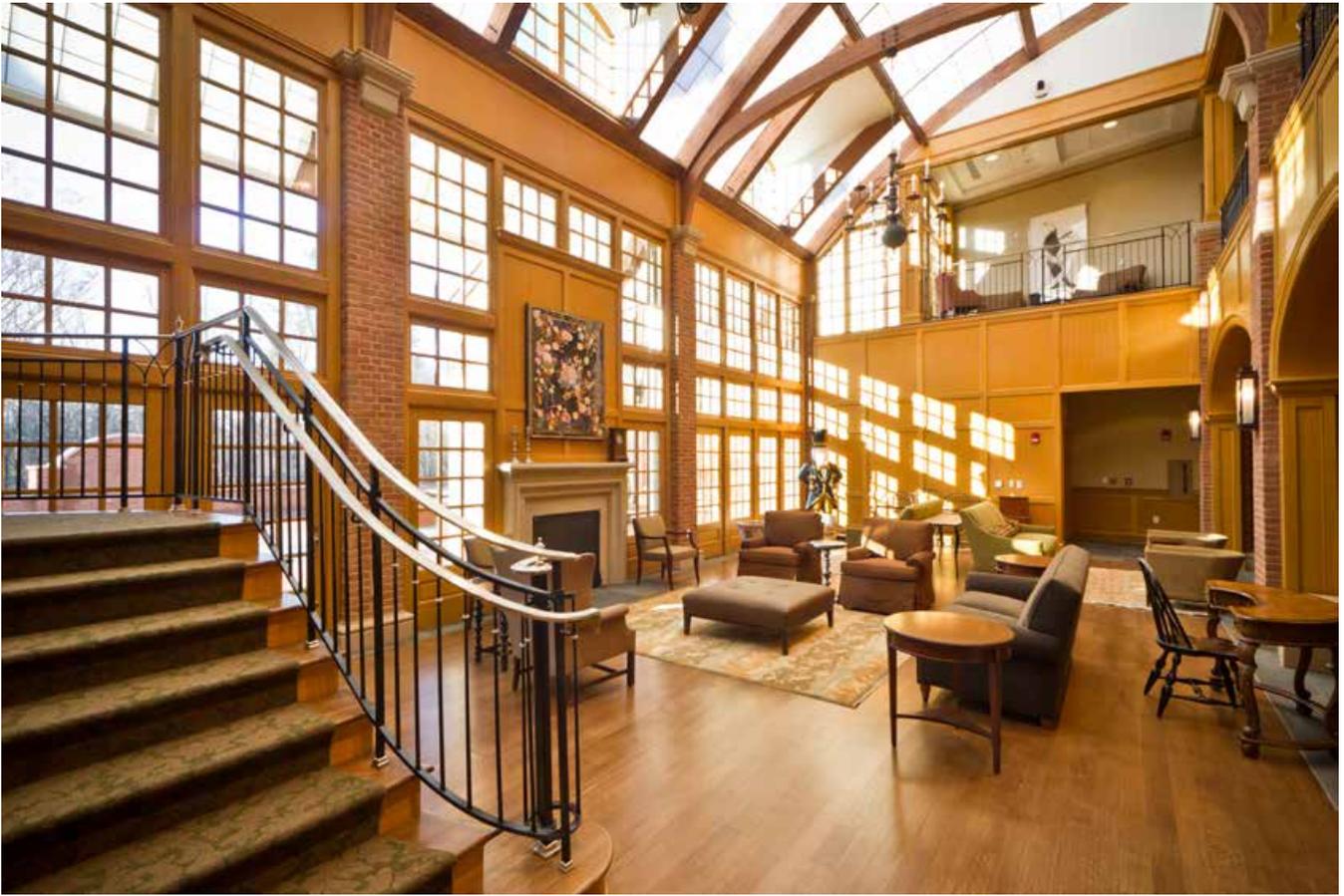
Farrell Hall, the University's new home for the School of Business, provides a blend of traditional Georgian architecture with subtle, modern influences

A Modified Georgian Style

Since adopting the 2009 Campus Master Plan, the University has gradually moved towards a modified Georgian architectural style. This style maintains the symmetrical design, classic proportions, and decorative elements commonly associated with the original Larsson buildings. It enhances them, however, with the addition of transparency, multi-story volumes, and a subtle but noteworthy emphasis on verticality. These characteristics are perhaps nowhere more apparent than at Farrell Hall, the University's new Business School. While the northeast, east, and southeast facades provide a restrained and regular facade towards Poteat Field,

the curved west facade incorporates soaring brick columns, a large porch space, and generously glazed public interior spaces.

While the University should continue to elevate its facilities at the campus core through traditional Georgian design, it should find opportunities to include increased transparency and connectivity to the exterior. These architectural elements improve connectivity across campus and help showcase interior programmatic functions



The University's new Admissions and Welcome Center demonstrate how grand scaled interior spaces can relate to a more intimate interior and the overall campus environment through sensitive implementation of transparency



1956 2006
FOREST UNIVERSITY

PRO HUMANITATE



Acknowledgments



View of Wait Chapel from Taylor Residence Hall

Acknowledgments

During the course of the planning process, the design team traveled to campus eight times. On campus, the project team hosted five campus tours and about forty meetings with more than eighty individuals, including the members of two committees and three work groups. The University hosted six public forums and welcomed more than two hundred participants including students, staff, faculty, neighbors, and alumni. The University is grateful to every person who participated in the process, preserving traditions and outcomes that have long distinguished Wake Forest.

Steering Committee

The Steering Committee served as the principal working group for the Master Planning process.

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The Advisory Committee captured the views, input, and feedback of a broad range of campus constituencies.

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