BOARD OF TRUSTEES
FINANCE & INFRASTRUCTURE COMMITTEE
SEPTEMBER 30, 2015, 1:30PM
KENAN CENTER DINING ROOM

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

OPEN SESSION

FOR ACTION

1. CONSENT AGENDA
    a. 2015-2016 Audit Plan for Approval   (Attachment A)
        Phyllis Petree, Director of Internal Audit

    b. Disposition   (Attachment B)
       - Utility Easement to the Town of Pittsboro
         Gordon Merklein, Executive Director for Real Estate Development

2. Designer Selection   (Attachment C)
    - Parking and Transportation Five Year Plan
      Bruce Runberg, Associate Vice Chancellor for Facilities Services

FOR INFORMATION ONLY   (No formal action is requested at this time)

1. Internal Audit Report   (Attachment D)
    Phyllis Petree, Director of Internal Audit

2. Development Report   (Attachment E)
    David Routh, Vice Chancellor for University Development

3. Financial Update   (Attachment F)
    Matthew Fajack, Vice Chancellor for Finance & Administration

4. Financing Update
    Brian T. Smith, Assistant Vice Chancellor for Financial & Accounting Operations

5. University Master Plan   (Attachment G)
    Anna Wu, Asst. Vice Chancellor for Facilities Ops., Planning and Design
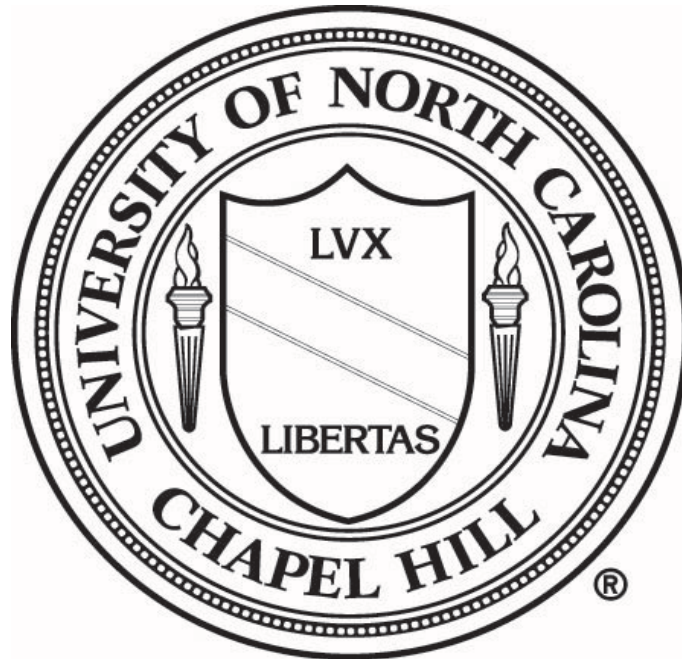
Risk Assessment and Internal Audit Plan
2015/16

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Introduction

Each year, the Internal Audit Department of the University of North Carolina at Chapel Hill develops an audit work plan based on a university-wide assessment of risk. This approach is in keeping with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing* (IIA Standards) and the Internal Audit Act (NCGS § 143-746) which requires internal audit functions in NC State agencies and institutions to comply with the IIA Standards. Also, basing audit work plans on risk helps ensure that audit resources are allocated effectively and efficiently and in a way that best helps manage and the Board of Trustees provide governance and fulfill the University's mission.

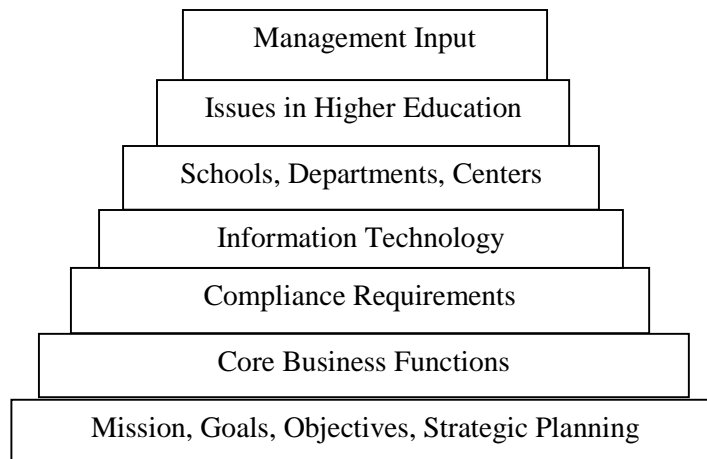The primary objectives of the risk assessment process are to:

- Ensure compliance with IIA Performance Standard 2010 – Planning which states: "The chief audit executive must establish risk-based plan to determine the priorities of the internal audit activity, consistent with the organization's goals" and with North Carolina's Internal Audit Act;

- Gather information about the organizational structure of the University, its operations, and its finances and about trends and recent concerns in higher education;

- Identify expectations and risk concerns of University management and members of the Business and Infrastructure Committee of the Board of Trustees;

- Identify opportunities for sharing audit resources and avoiding duplication of work by coordinating audit efforts;

- Develop an audit work plan based on risks and opportunities identified during the assessment process; and

- Present the work plan and results of the risk assessment to the Chancellor of the University of North Carolina at Chapel Hill and the Business and Infrastructure Committee of its Board of Trustees for review and approval.

While the initial work plan is developed based on a formal risk assessment process, risks change throughout the year. Therefore, we monitor changes at the University and in higher education during the year and make revisions the work plan as needed.

Risk Assessment Process

The risk assessment and audit planning process involves developing an audit universe and considering how different components of risk affect individual auditable units and the University as a whole.

Audit Universe Development Model

| Management Input |
| Issues in Higher Education |
| Schools, Departments, Centers |
| Information Technology |
| Compliance Requirements |
| Core Business Functions |
| Mission, Goals, Objectives, Strategic Planning |

Risk Components

1. Strategic risks – relate to mission and goals of the University
2. Financial risks – relate to stewardship and safeguarding of resources
3. Operational risks – relate to processes used to achieve mission and goals
4. Compliance risks – related to laws, rules, regulations, and other requirements
5. Reputational/service risk – relate to public image and the impact of service failure

Step 1: Update and Create Audit Universe

The risk assessment process begins with a review of the organization structure of the University and the identifying by various missions, functions, and financial activities of individual departments and other units. What these units are here to do and how they seek to accomplish their mission, goals, etc. forms the base of the audit universe.

- While some component units have unique or free-standing activities, they all share the same core business function such as payroll, small order purchasing, travel, etc. Responsibility for these functions is shared by departments and central offices; this shared responsibility affects both the risks associated with the functions and how they are best audited. We choose to audit core business functions university-wide – an approach that includes an assessment of processes in central offices as well as in a sample of individual units. We believe this approach provides a "birth to death" review that can better identify gaps in or redundancies in internal controls.

- While much of the audit universe driven by internal factors, external compliance requirements are major issues in the University's operating environment. The University has overall policies and procedures that govern how to comply with requirements. In many cases, one or more central units has primary responsibility for monitoring compliance. Since most compliance activities are overseen, centrally, we believe that they are best audited as a central function.

- Information technology (IT) supports and enables nearly all functions and activities of the University. IT has unique audit and business risks such as disaster recovery, data and physical security, patching, access controls, change controls, data retrieval and reporting, etc. IT at the University is a hybrid function with central systems and servers managed by Information Technology Services and departmental/school servers and systems managed by those units. The IT portion of our audit universe includes a combination of audits of central systems, governance, and policy. We will assess issues related to departmental/school systems through general controls review done as part of broader audits of these units.

- Some schools, departments, and centers have unique activities or IT systems. In addition, the highly decentralized nature of the University makes it necessary to include individual units in our audit universe. This practice provides a way to assess, on a more granular level, activities and potential risks across the University. The audits will also provide an opportunity to share information with individual units and to keep the University community aware of Internal Audit as a resource for advice and guidance.

- The final steps in developing an audit universe involve tapping into and leveraging the knowledge of colleagues at other universities and of key members of University management. These individuals are a valuable resource for identifying any need to adjust audit units or approaches to better address current and future risks.

Step 2: Assess Risk

- Interview the Chairman of the Business and Infrastructure Committee of the Board of Trustees and key members of University management to identify their views of challenges and opportunities for the University and to get suggestion for items to be included in the audit work plan;

- Consider risk factors:
    - Significance of operations;
    - Impact of a service delay or failure;
    - Sensitivity of information managed;
    - Extent of regulation;
    - Changes in management or the operating environment;
    - Key Performance Indicators calculated each month for the UNC Business Compliance Program;
    - Amount of time since any prior audits (internal of external) and the status of findings from any prior audits;
    - Public or political sensitivity; and
    - Financial characteristics; and likelihood and impact of risks facing an area.

- Assign relative risk to auditable units: high risk, medium risk; moderate, risk.

Step 3: Develop Audit Work Plan

Determine available audit hours based on size of audit staff, available work hours per staff member, and estimates of time for administrative activities such as training, meetings, and leave. Refer to Appendix A for the calculation of available audit hours.

Allocate blocks of time for unplanned audits, investigations, advisory work, and annual projects.

To select items for the rest of the 2015/16 audit work schedule we considered:

- Available audit hours;

- Projects from the 2014/15 audit work plan that needed to be carried forward;

- Specific requests by management or members of the Board of Trustees;

- Nature and timing of any recent or anticipated changes in an area (such as a system conversion, new financial management, extensive process revisions, etc.); and

- Recent events at the University and at other colleges and universities that have raised the visibility and sensitivity of certain activities.

After possible units for the 2015/16 audit work schedule were selected, hours were budgeted for each project based on nature of the area audited and the anticipated audit work in an area. If necessary, possible units were added or dropped in order to have a work plan that fit available hours.

Refer to Appendix B for the 2015/16 Audit Work Plan.

Step 4: Finalize the Work Plan

Submit the risk assessment to the Chancellor and Finance and Infrastructure Committee for review and approval.

Submit the approved plan to General and Administration and the Council of Internal Auditing

Appendix A
2015/16 Risk Assessment and Audit Plan
Calculation of Available Hours

Total Hours Available -1-	14,560
Less: hours due to vacancies -2-	(2,080)
Less: hours due to maternity leave (2 months)	(347)
Adjusted Available Hours	**12,133**

Less: Training and Professional Development -3-	(460)
Less: Leave -4-	(2,000)
Less: Other Administrative Time -5-	(1,300)
Available for projects	**8,373**

-1- = seven staff members at 2080 hours each

-2- = two postions - to be filled by 12/31/15

-3- = allow 80 hours each per year for each staff members -
    pro-rated reduction for vacant postions and employee on leave

-4- = estimate based on actual holidays, leave balances, and leave
    taken in prior years - pro-rated reduction for vacant postions
    and employee on leave

-5- = meetings, professional reading, other office activities
    per week.

Appendix B
Audit Schedule - 2015/16

Planned Audits	Hours Budgeted
Large Equipment Repair Contract - in process	20
Cost Transfers - Sponsored Awards	400
Historically Underutilized Business Program	400
Clery Act Reporting	350
Title IX Monitoring	400
Select Agents and Hazardous Materials	450
Academic Performance Monitoring	450
Department Audit - TBN	350
Athletics Facilities	400
Total for Routine Audits	**3,220**

Annual Projects	
Follow-up for 2014 OSA Audit - in process	100
Enterprise Resource Planning	500
Risk Assessment and Audit Plan	200
Follow-up for Prior Internal Audit Findings	300
Follow-up for 2015 OSA Audit	150
UNC Business Compliance Program 2016	100
Total for Annual Projects	**1,250**

Audit Related	**1,300**
Requested Reviews, Consulting, and Other Unplanned Projects	**2,700**
Total Hours Scheduled	**8,470**
Total Hours Available	8,373
Under/<Over>Scheduled	(97) *

* = some projects are scheduled to be in process at 06/30/16

UNC Internal Audit
Use of Audit Resources
Summary of Audit Hours Used - FY 2016 as of 08/23/15

	Budgeted	Pro-Rated Budget -1-	Hours Charged	Variance (Over)/Under	
Total Hours Available -2-	12,133				
Less: Training & Professional Development	(460)	(80)	62	18	
Less: Leave	(2,000)	(346)	421	(75)	-2-
Less: Other Administrative Time -3-	(1,300)	(225)	124	101	
Total for Leave & Administrative	(3,760)		607	44	
Hours Available for Projects	**8,373**				
Routine Audits	3,220	557	23	534	
Annual Projects	1,250	216	180	37	
Audit Related	1,300	225	220	5	
Unplanned Projects	2,700	467	490	(23)	
Total Scheduled/Charged	8,470		912	554	
Under/<Over> Scheduled	(97)				

-1- = total hours available based on 4 people at 40 hours/week for 9 weeks - other budget hours pro-rated for 9 weeks

-2- = seven staff members at 2080 hours/year adjusted for vacancies and medical leave

-3- = meetings, professional reading, and other office activities

UNC Internal Audit
2015/16 Audit Schedule as of 08/23/15

Planned Audits

Complete

    Large Equipment Repair Contract

Scheduled

    Cost Transfers - Sponsored Awards
    Historically Underutilized Business Program
    Clery Act Reporting
    Title IX Monitoring
    Select Agents and Hazardous Materials
    Academic Performance Monitoring
    Athletics Facilities
    Department Audit - TBN

Annual Projects

Complete

    2014 Office of the State Auditor A-133 Follow-up (added)

On-Going

    Enterprise Resource Planning

In Process

    Risk Assessment and Audit Plan

Scheduled

    Follow-up for Prior Internal Audit Findings
    Follow-up for 2015 OSA Audit
    UNC Business Compliance Program 2016

Audit Related

On Going

    Continuous Auditing
    Office Systems
    HIPAA Security Liaison
    University Committee on the Protection of Personal Data
    IT Governance Committee & Data Custodian Work
    CERTIF (PCI Standards)
    Audit Committee
    Audit Planning
    Audit Process Improvement
    Etics and Intergrity Task Force
    Policies and Procedures Committee
    Multiple Short-term Advisory Projects

UNC Internal Audit
2015/16 Audit Schedule as of 08/23/15

Special Projects & Management Requests

In Process

Women's Studies - follow-up
School of Law follow-up
Orthodontics
Learn NC
Health Promotion and Disease Prevention
Coal Sorbent Contract
Auxiliary Equipment -1-
Lineberger Cancer Center Grants -1-
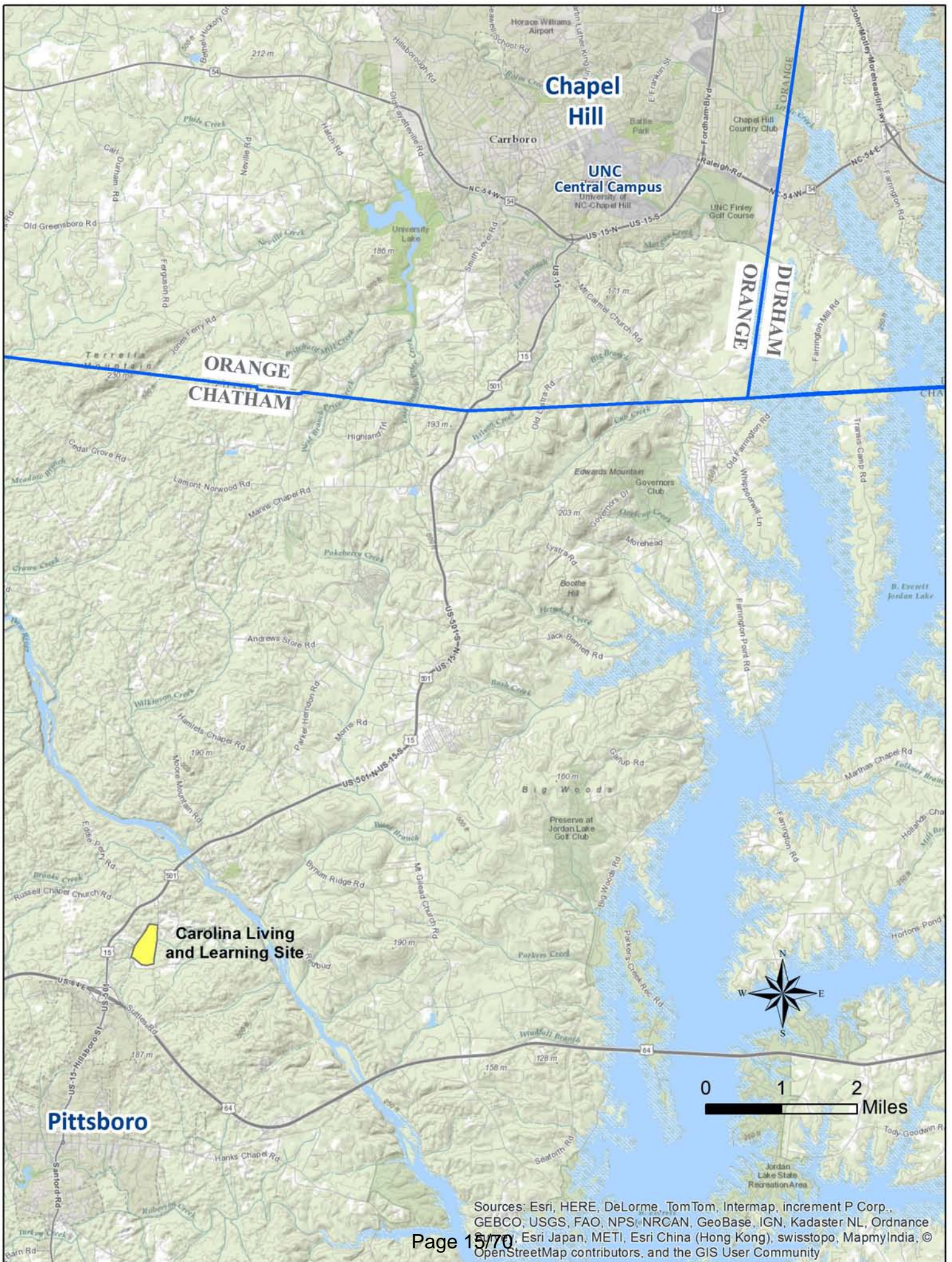Environmental Sciences & Engineering #2

-1 = referral from the Office of the State Auditor

PROPERTY DISPOSITION BY EASEMENT TO THE TOWN OF PITTSBORO

This request is for approval to authorize permanent disposition by easement of approximately 0.27 acres of University property to the Town of Pittsboro. This easement will provide for the ongoing maintenance of a sanitary sewer pump station owned and operated by the Town of Pittsboro and serving the University's Carolina Living and Learning Center. The Carolina Living and Learning Center (CLLC) is an integrated vocational and residential program of the UNC-CH School of Medicine for adults with autism located in Pittsboro. The permanent easement will be in place for as long as the Town of Pittsboro continues to use the property for this purpose.

RECOMMENDED ACTION:

A motion to recommend approval of a permanent easement to the Town of Pittsboro for the purpose of ongoing maintenance of a sanitary sewer utility as described above.

Chapel Hill

Carrboro

UNC
Central Campus
University of
NC-Chapel Hill

UNC Finley
Golf Course

Horace Williams
Airport

Battle
Park

Chapel Hill
Country Club

DURHAM
ORANGE

ORANGE
CHATHAM

CHATHAM

University
Lake

Edwards Mountain

Governors
Club

Morehead

Boothe
Hill

Preserve at
Jordan Lake
Golf Club

Big Woods

B. Everett
Jordan Lake

Jordan
Lake State
Recreation Area

**Carolina Living
and Learning Site**

Pittsboro

US-501
US-15
US-64

0   1   2   Miles

N
W   E
S

Pump Station

Carolina Living and Learning Center

Pump Station Easement
0.274 Acres
11916 Sq. Ft.

RUSSET RUN

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

0   100   200
Feet

Carolina Living and Learing Center

Pump Station Easement

17 September 2015

DESIGNER SELECTION – **PARKING AND TRANSPORTATION FIVE-YEAR PLAN**

The Five-Year Plan will evaluate the University's existing parking and transportation operations and programs, develop plans and strategies to address University and UNC Health Care short-term development and programmatic growth, identify operational efficiencies and opportunities for transportation and parking services, develop financial models to support transportation and parking services and develop programmatic strategies for the next 5-7 years.

The project budget is $150,000 and will be funded by University funds.

This project was advertised on July 27, 2015. Three (3) proposals were received. Three (3) firms were interviewed on August 26, 2015. Members of the Board of Trustees did not participate in the interviews.

The committee recommended the selection of the three firms in the following priority order:

1. XXX   XXX, XX

2. XXX   XXX, XX

3. XXX   XXX, XX

The firms were selected for their past performance on similar projects, strength of their consultant team and experience with campus projects.

RECOMMENDED ACTION:

A motion to approve the three firms in the following priority order:

1. XXX   XXX, XX

2. XXX   XXX, XX

3. XXX   XXX, XX

Report to the Finance and Infrastructure Committee
of the
Board of Trustees

Internal Audit Department

University of North Carolina
at Chapel Hill

September 30, 2015

COMPLETED

Development Travel Follow-up – assessed action taken to resolve governance and internal control issues related to travel costs for and use of corporate credit cards by development officers.

The previously identified issues were fully resolved. However, we found a separate issue related to the University's policy for mobile communication devices (MCD). Development and University management is reviewing and considering revisions to the existing MCD policy.

Electrical Distribution Services – requested by management - a review of processes and transactions related a variety of fiscal areas and of management reports for monitoring these activities.

We found that Energy Services' Central Business Office needed additional management reports to be able to monitor activity in Energy Services divisions. We also identified questioned costs related to vehicle repair, unusual patterns of fuel purchases and use; a need for improved capture of information about fuel pumped by vehicle; frequent sharing of purchasing cards; and incomplete supporting documentation for some purchasing card charges.

Management reports were available for eProcurement purchases in the past but were harder to obtain for purchasing card transactions and other purchases. This issue is a broader, university-wide one.

Management has proposed satisfactory corrective action with appropriate time frames for completion.

2014 A-133 Federal Compliance Audit Follow-up – assessed the adequacy of action taken to resolved three findings from the A-133 (federal compliance) audit done by the Office of the State Auditor. This review is mandatory.

In order to maintain the University's status as Special Responsibility Constituent Institution, University management is required to resolved or made satisfactory progress toward resolving all State Auditor findings within 90 days of the release of a report.

We found that two of the three findings had been corrected and that management has made satisfactory progress toward corrected the third finding. Resolution of the third finding, which related to certification of personnel costs charged to sponsored awards, was delayed by the conversion to ConnectCarolina.

Large Equipment Repair Contract – review of procurement and management of a contract for repair services for large equipment. We found that procurement was handled correctly and that an appropriate process was used to allocate work between the two repair providers. The contract in question has expired and repair services are obtained through a central State of North Carolina contract.

North Carolina Institute of Medicine (NCIOM) – assistance to NCIOM with a review of charges to an Institute-owned corporate credit card.

IN PROCESS

2015/16 Risk Assessment and Audit Plan – this project forms the basis for selecting items scheduled for audit in fiscal year 2014/15. The risk assessment process defines auditable units – a combination of core business practices, information technology systems and activities, individual schools and departments, cross-department activities, and current issue in higher education – and evaluates the significance or risk associated with each auditable.

Members of University management provide input in identifying risks and opportunities that the University has making the audit work plan a collaborative product. Discussion with these individuals provide the opportunity to share information about risks and opportunities across the University.

Environmental Sciences and Engineering – a financial, compliance, and operational review of activities related to time-keeping, travel, and procurement.

We performed this review at the request of the Dean of the Gillings School of Global Public Health. Our review disclosed:

- Inadvisable time-keeping practices such as one person frequently entering work time for someone else and employees entering work time at the beginning of a reporting period before the hours were worked;

- Multiple edits to the same time entries; and

- Employees who "clocked in" from a UNC-CH IP address but "closed out" from an off-campus address (or the reverse) which meant that employee was being paid for commute time between home and work.

Each of these issues were also noted in a 2014 audit of the department but were not corrected by the department's business manager.

We also found inappropriate purchases made by and payments to an individual who is no longer with the department. The University is working with UNC Public Safety to recover the funds lost.

Orthodontics – assistance to management with a review of processes and transactions related to acquisition of dental molds and implants for patient care and instructional purposes. Potential issues related to procurement and patient information.

Learn NC – limited review of activity in sponsored awards managed by the School of Education. The review will focus on allocablity of costs and the nature of financial information provided to award principal investigators.

Center for Health Promotion and Disease Prevention – a financial, compliance, and operational review of fiscal processes in the Center particularly those related to retro-active salary changes and other grant management activities. We found issues related to grant management and are working with center management to identify ways to resolve these issues.

Coal Sorbent Contract – review of procurement process related to purchase of limestone and similar materials used to reduce sulfur-dioxide emissions from the University's coal-fired boilers. Also, reviewing monitoring processes related to sorbent quality and performance.

Auxiliary Services Equipment – referral from the Office of the State Auditor – review of equipment acquisition and management related to Dining Services.

Lineberger Cancer Center Grants - referral from the Office of the State Auditor – review of cost management related for sponsored funds.

Follow-up Reviews

- School of Law
- Women's Studies

On-going Advisory Projects and Committee Work

- PeopleSoft conversion
- HIPAA Security Liaisons;
- University-wide Committee on the Protection of Personal Data;
- CERTIF;
- IT Governance Committee;
- Policies and Procedures Audit Working Group;
- Integrity Working Group; and
- Other short-term projects done to assist management with identifying and managing risks.

Other Activities

- Continued to expand use of ACL software to develop more powerful analytics.

- Explored ways to use Infoporte and ConnectCarolina queries for data retrieval and analysis.

UNC Internal Audit
Use of Audit Resources
Summary of Audit Hours Used - FY 2015

	Budgeted	Hours Charged	Variance (Over)/Under	
Total Hours Available	13,520			
Less: Unplanned Vacancies -1-	0	2,080	(2,080)	
Less: Training & Professional Development	(520)	664	(144)	
Less: Leave	(2,192)	2,458	(266)	-2-
Less: Other Administrative Time -3-	(1,533)	1,198	335	-4-
Total for Leave & Administrative	(4,245)	6,400	(2,155)	
Hours Available for Projects	**9,275**			
Routine Audits	2,500	1,648	853	-4-
Annual Projects	1,150	640	510	-4-
Audit Related	1,450	1,453	(3)	
PeopleSoft Training	1,500	560	941	
Unplanned Projects	2,500	3,023	(523)	
Total Scheduled/Charged	9,100	7,323	1,777	
Under/<Over> Scheduled	175			

-1- = anticipated filling one vacant position by January 1, 2015; had an unexpected departure January 2, 2015. Delayed filling these position while reviewing department structure and evaluating positions upgrades.

-2- = primarily due to staff members being out a total of approximately 8 weeks for unanticipated medical leave.

-3- = meetings, professional reading, and other office activities

-4- = variance is primarily due to have fewer available hours due to vacancies

UNC Internal Audit
2014/15 Audit Schedule as of 06/30/15

Planned Audits

Complete

    University-wide Follow Up
    School of Dentistry
    Development Travel Follow-up

In Process

    School of Law

Not Started

Unplanned vacancies affected our ability to start thses projects

    Human Resources
    WUNC - FM -1-
    Grant Close-out Process - Departments -2-
    Friday Center -3-

Annual Projects

Complete

    2013 Office of the State Auditor A-133 Follow-up (added)
    UNC FIT 2015

On-Going

    Enterprise Resource Planning

In Process

    2014 Office of the State Auditor A-133 Follow-up (added)

Audit Related

Complete

    Board of Trustees' ERM Task Force
    SACS 2015

On Going

    Continuous Auditing
    Office Systems
    HIPAA Security Liaison
    University Committee on the Protection of Personal Data
    IT Governance Committee & Data Custodian Work
    CERTIF (PCI Standards)
    Audit Committee
    Audit Planning
    General Administration IT Best Practices
    Audit Process Improvement
    Policies and Procedures Committee
    Multiple Short-term Advisory Projects

Special Projects & Management Requests

Complete

    Neurology
    Public Health - Environmental Sciences & Engineering
    Electrical Distribution Services

Other Special Reviews - four

In Process

Women's Studies
Orthodontics
Learn NC
Health Promotion and Disease Prevention
Large Equipment Repair Contract
Coal Sorbent Contract
Auxiliary Equipment -4-
Lineberger Cancer Center Grants -4-
Environmental Sciences & Engineering #2

-1- = Cancelled due to change in WUNC-FM governance
-2- = Deferred due to conversion to ConnectCarolina
-3- = Deferred due to turnover in the Business Office at the Friday Center
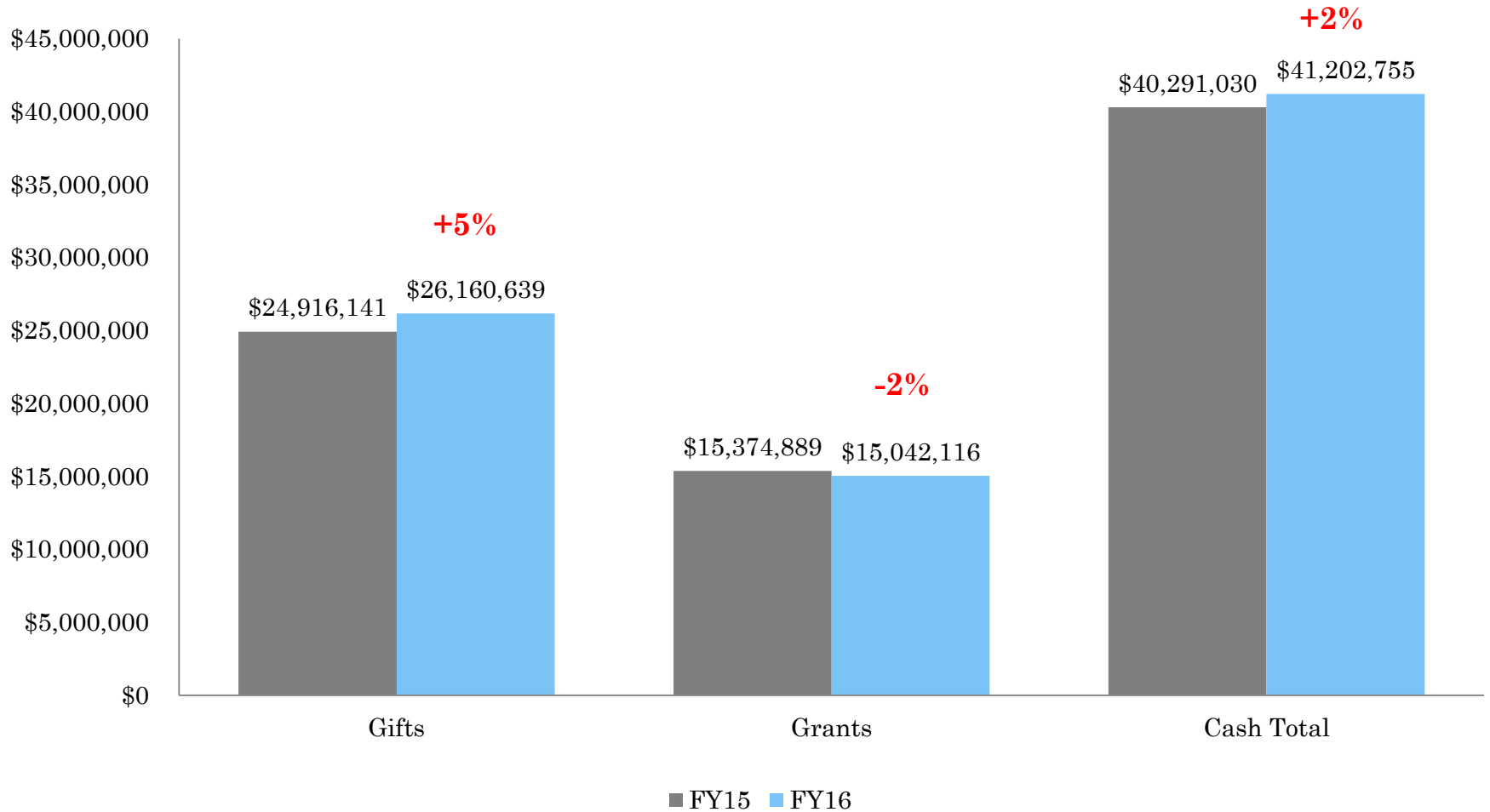-4- = referral from Office of the State Auditor

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Development Update

September 30th, 2015
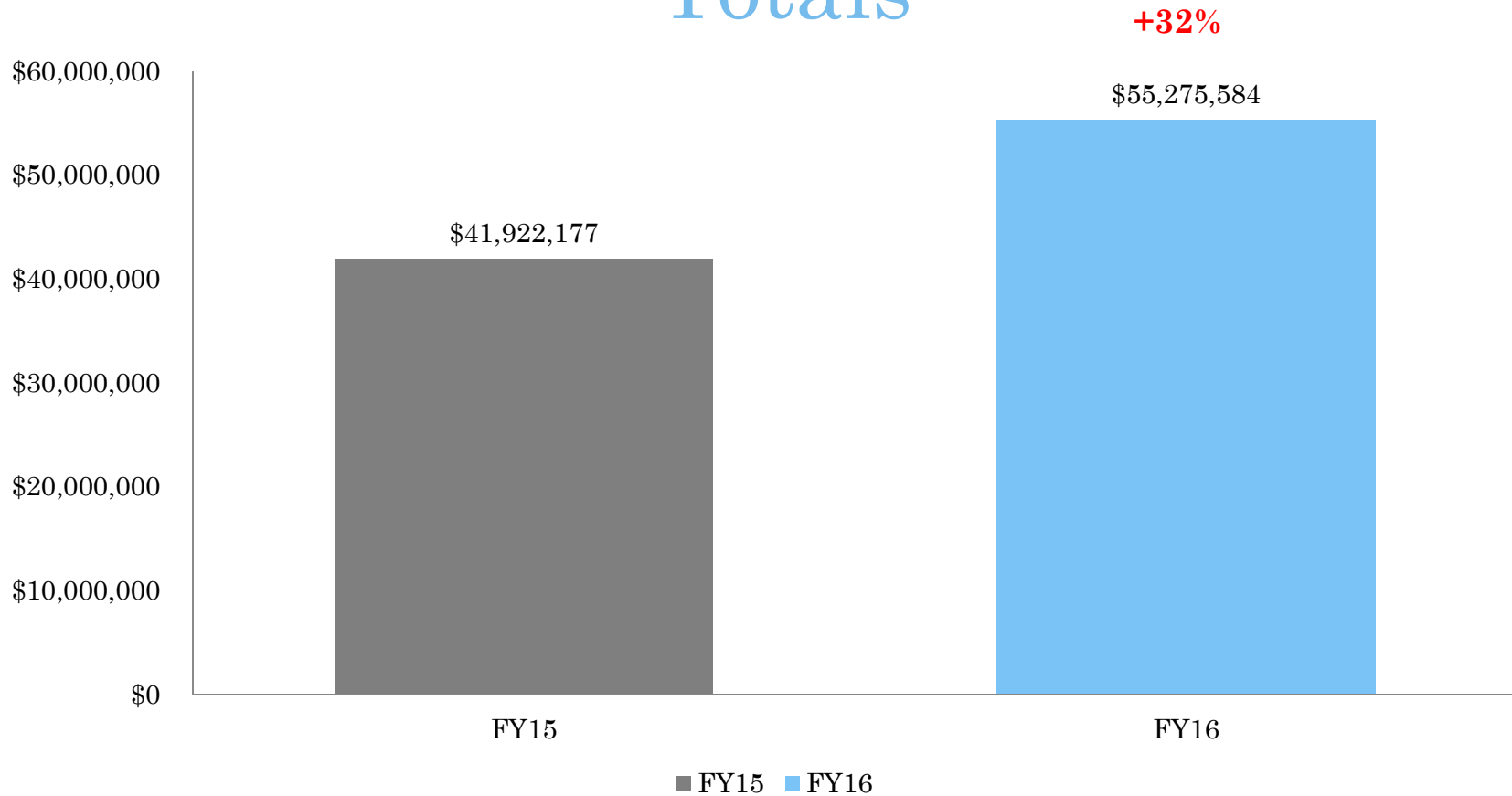Meeting of the UNC-CH Board of Trustees

David S. Routh
Vice Chancellor for Development

Cash Totals

Chart: YTD Comparison as of September 22, 2015 — FY15 vs FY16

Category	FY15	FY16	Change
Gifts	$24,916,141	$26,160,639	+5%
Grants	$15,374,889	$15,042,116	-2%
Cash Total	$40,291,030	$41,202,755	+2%

YTD Comparison as of September 22, 2015

New Cash and Commitments Totals

+32%

FY15: $41,922,177
FY16: $55,275,584

Legend: ■ FY15 ■ FY16

YTD Comparison as of September 22, 2015

The Pipeline
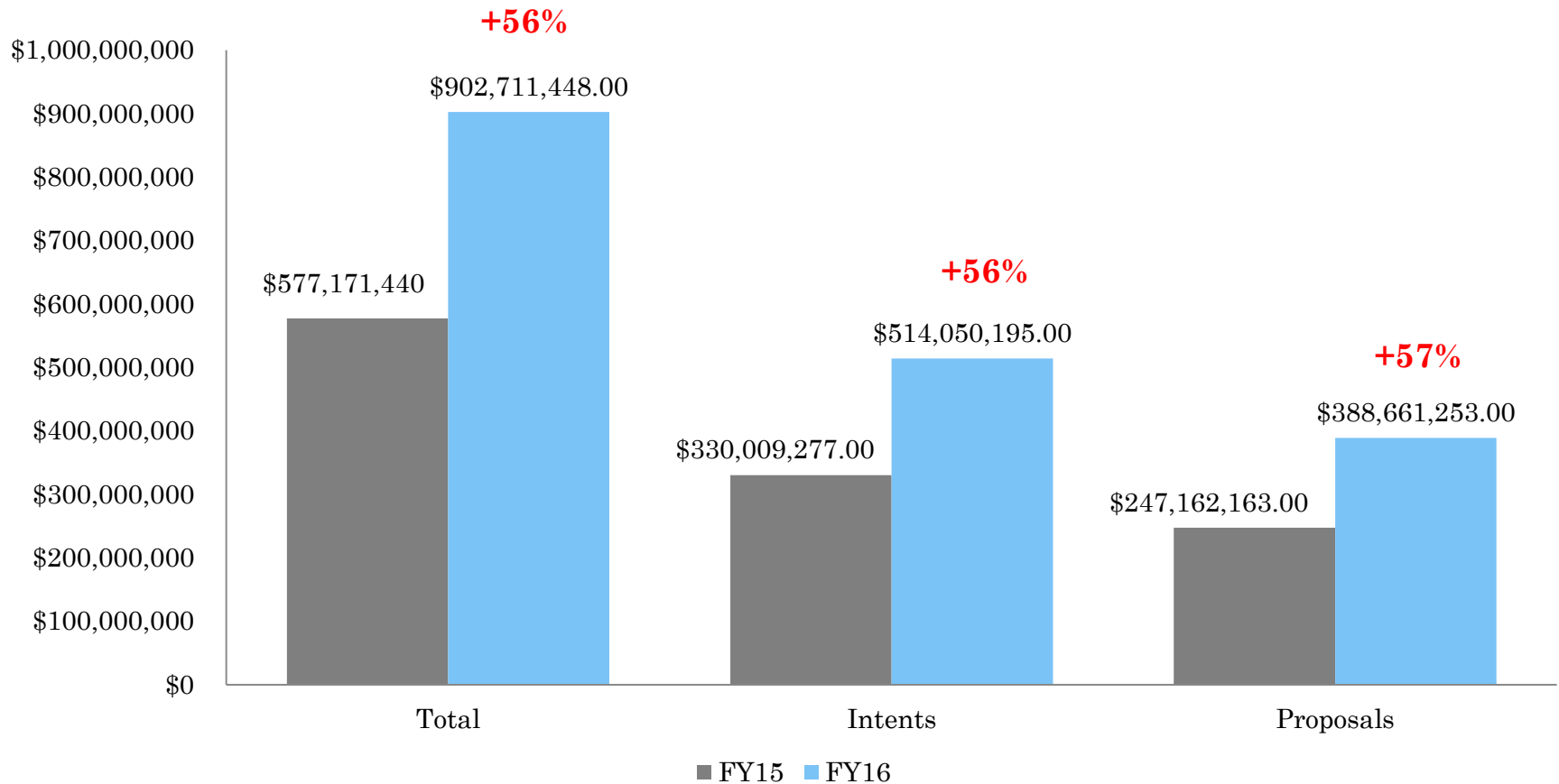
The Best is Yet to Come!

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

The Best is Yet to Come!

Development Update

September 30th, 2015
Meeting of the UNC-CH Board of Trustees

David S. Routh

Vice Chancellor for Development

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Division of Finance and Administration

UNC-Chapel Hill Financial Update

Photo credit: Sam Kittner '85

Matthew M. Fajack
Vice Chancellor for Finance and Administration
September 30, 2015

State Budget Update
Key Provisions

- State budget signed by Governor McCrory on September 18, 2015.

- Provides funding for one-time $750 bonus to State employees (UNC-Chapel Hill would have to fund bonus for employees with salaries covered by non-State funds, which would represent a funding need of about $5.3M).

- Provides recurring $49.3M to fully fund enrollment growth for the UNC System. An additional $31M is also included in the statewide reserves section for projected growth in FY 2016-17.

- Provides $150M for statewide repairs and renovations - to be allocated two-thirds ($100M) to the Office of State Budget and Management for state agencies and one-third ($50M) to the UNC Board of Governors for repairs and renovations at the constituent institutions.

State Budget Update Key Provisions

- Management flexibility reduction for UNC System – reduces recurring funding in the amount of $17.9M in FY 2015-16 and of $43.4M recurring (+ $3M nonrecurring) in FY 2016-17.

- UNC carryforward – raises it from 2.5% to 5% with an expiration date of July 1, 2017. Any amount carried forward in excess of 2.5% can only be used for projects that are eligible to receive funds from the Repair and Renovation Reserve or for advanced planning of capital projects.

- Advancement activity limitations - caps State funds used for university advancement activities to $1M and implements a corresponding $16.3 M cut in FY 2016-17.

- Amends statutes to allow for collateralization of bank deposits while preserving ability to invest non-State operating funds.

State Budget Update
Key Provisions

- Debt Affordability Study:

  ➢ each constituent institution within the UNC System to conduct an annual debt affordability study;
  ➢ the establishment of guidelines for maintaining prudent debt levels;
  ➢ require the establishment of a system for prioritizing University capital needs when the needs exceed the University's capacity for new debt.
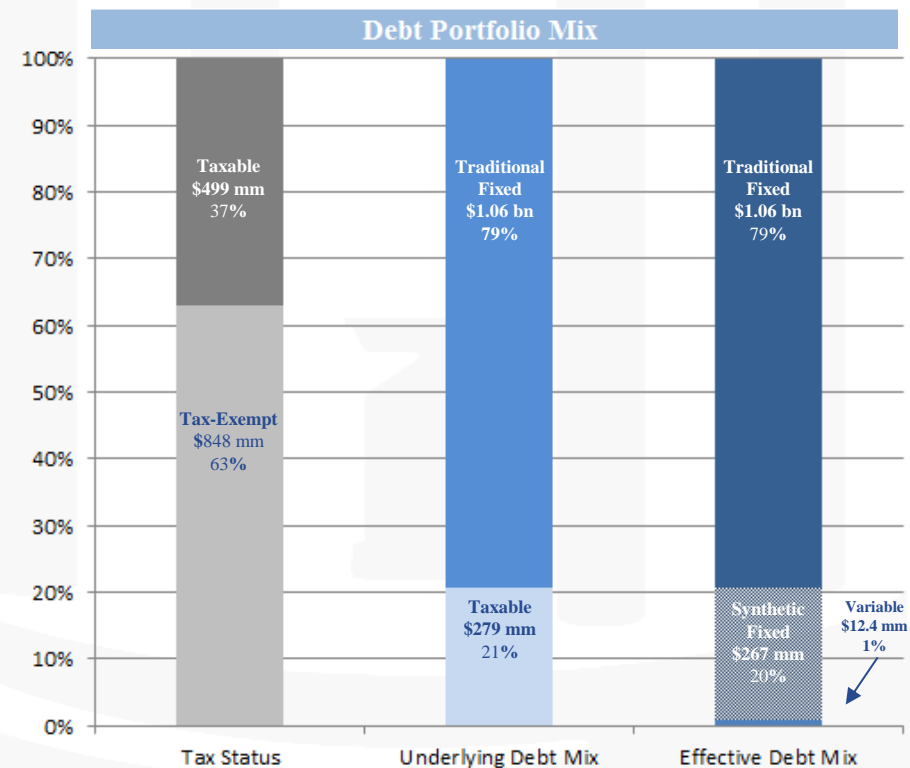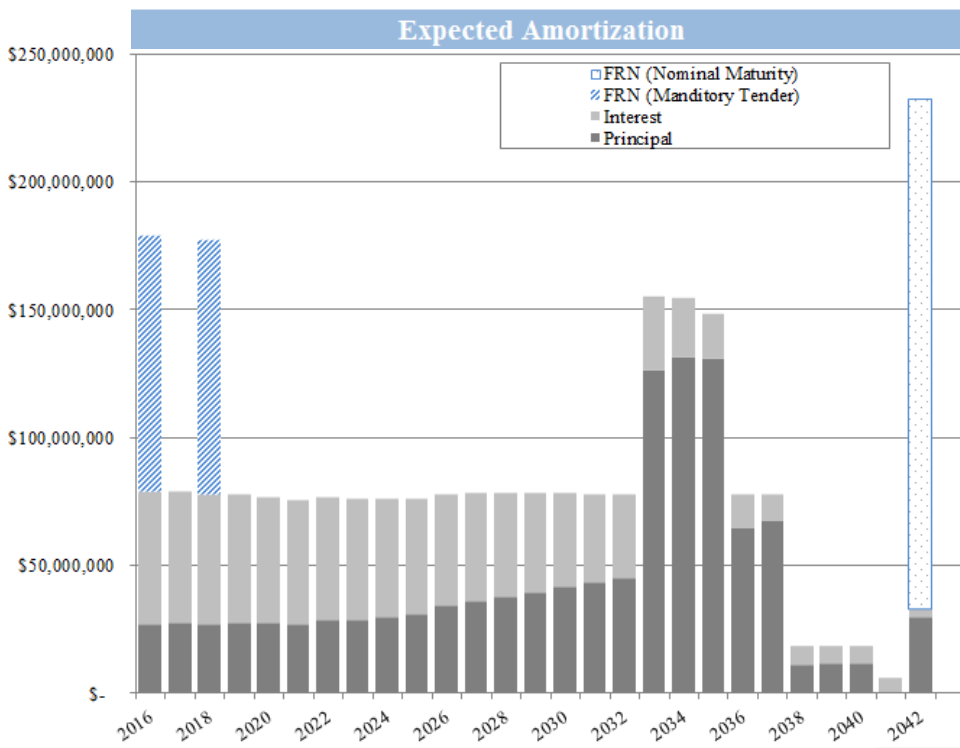
Financing Update

September 30, 2015

Debt Portfolio Overview

- As of August 2015, the University has $1.4 billion of debt outstanding inclusive of the commercial paper program ($28 million currently outstanding).

- The debt portfolio (excluding swaps) is comprised of 77% fixed rate debt and 23% variable rate debt and effectively 96% fixed when including swaps.

Expected Amortization

Legend:
- FRN (Nominal Maturity)
- FRN (Manditory Tender)
- Interest
- Principal

Debt Portfolio Mix

Tax Status:
- Taxable $499 mm 37%
- Tax-Exempt $848 mm 63%

Underlying Debt Mix:
- Traditional Fixed $1.06 bn 79%
- Taxable $279 mm 21%

Effective Debt Mix:
- Traditional Fixed $1.06 bn 79%
- Synthetic Fixed $267 mm 20%
- Variable $12.4 mm 1%

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Note: Graph on the left excludes outstanding commercial paper and Interest shown excludes Build America Bond subsidy. Assumes 4.00% interest rate on variable rate debt.

1

Swap Portfolio Overview

- The University has three outstanding floating-to-fixed swaps which were intended to hedge variable rate debt and future borrowings.

    » **Lehman Brothers Swap:** Executed in September 2000 to partially hedge the Series 2001B Bonds.

    » **Bank of New York Swap:** Executed in April 2006 as a forward swap to hedge a future borrowing in 2007; subsequently amended to become effective in 2011 and mature in 2041.

    » **Wachovia Swap:** Executed in December 2006 as a forward swap to serve as a hedge beginning in 2007 for the Series 2001B&C and Series 2002A Bonds.

- The University is not required to post collateral with any of its counterparties unless the University's credit ratings fall below AA- or Aa3.   At the A+ or A1 rating, the collateral threshold is $15 million.

| University of North Carolina at Chapel Hill - Swap Portfolio							
Type	Counterparty	Notional	Effective Date	Termination Date	UNC Pays	UNC Receives	Estimated MTM*
Fixed Payer Swap	Lehman Brothers	16,895,000	10/3/2000	11/1/2025	5.24%	100% SIFMA	(3,762,435)
Fixed Payer Swap	Wachovia	100,000,000	12/1/2007	12/1/2036	3.31%	67% 1M LIBOR	(25,071,865)
Fixed Payer Swap	Bank of New York	150,000,000	12/1/2011	12/1/2041	4.38%	67% 1M LIBOR	(72,505,148)
Total:		**266,895,000**					**(101,339,448)**

*As of 6/30/2015

2

Summary of Moody's Public University Ratings

- Moody's currently rates 198 public higher education entities with $235 billion of debt outstanding and a median rating of "A1"

- The University is one of only eight public institutions rated "Aaa" by Moody's.

Moody's Long-Term Rating Distribution of Public Colleges and Universities

Note: Source data is based on information from Moody's Investors Service.

3
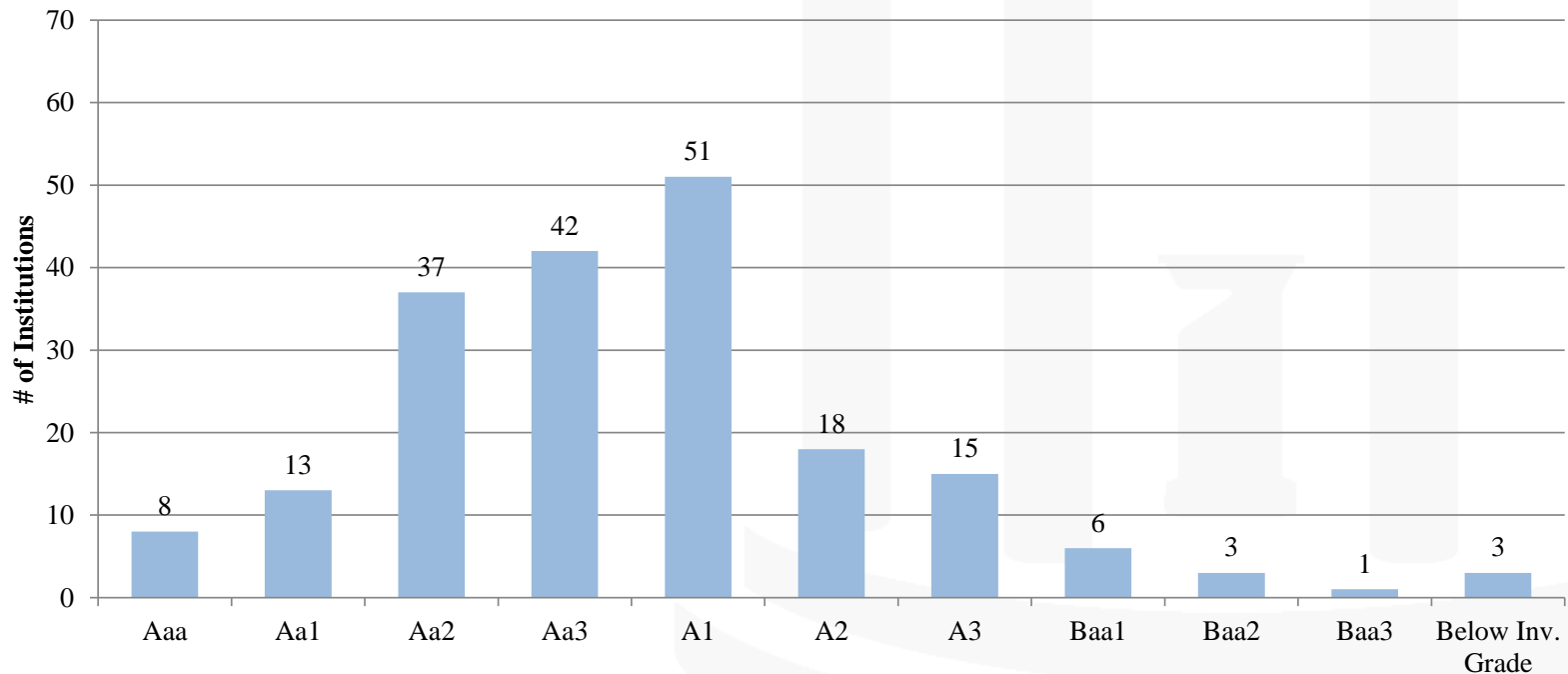
Rating History and Recent Highlights

- The University was upgrade to Aaa by Moody's in 2011, AAA by Fitch in 2012 and AAA by S&P in 2013.

- *Summary of Credit Strengths Identified by Rating Agencies*

  » Substantial cash and investments supporting debt

  » Strong base of expendable financial resources

  » Consistently strong operating margins compared to AAA medians

  » Demonstrated strong student demand

- *Summary of Credit Challenges Identified by Rating Agencies*

  » Unrestricted financial resource bases is below AAA medians

  » Relatively high leverage compared to peer institutions

Historical Credit Spreads

- As an borrower's credit rating declines there is an increase in the borrowing costs as illustrated by the 30-year tax-exempt benchmarks rates below.

	30Yr A	30Yr AA	30Yr AAA
Maximum:	6.94%	6.06%	5.94%
Average:	4.59%	4.17%	3.99%
Minimum:	3.05%	2.67%	2.47%
Current:	3.73%	3.36%	3.12%

30-Year A   30-Year AA   30-Year AAA

Note: Data based on historical MMD

Historical Credit Spreads

- The credit spreads between rating the AAA and AA categories have fluctuated between 6 to 35 basis points over the last 10 years.

	AA to A	AAA to AA
Maximum:	1.14%	0.35%
Average:	0.42%	0.18%
Minimum:	0.11%	0.06%
Current:	0.37%	0.24%

Legend: —— AA to A —— AAA to AA

Note: Data based on historical MMD

Expendable Resources to Debt

- Expendable resources to debt is a measure of an institution's coverage of direct debt by financial resources that are expendable. It is a ratio that encompasses both the financial reserves of the institution as well as debt burden.

Expendable Resources to Debt					
Institution	Rating	2012	2013	2014	Moody's Median
University of Michigan	Aaa	3.2	3.6	4.2	2.4
University of Virginia	Aaa	3.4	3.8	4.1	2.4
Purdue University	Aaa	2.6	2.7	3.2	2.4
Indiana University	Aaa	2.2	2.4	2.7	2.4
Texas A&M University System	Aaa	1.9	2.2	2.1	2.4
University of North Carolina at Chapel Hill	Aaa	1.6	1.6	1.9	2.4
University of Texas System	Aaa	1.5	1.6	1.7	2.4
University of Washington	Aaa	1.5	1.5	1.6	2.4
University of Kansas	Aa1	2.9	3.2	3.2	1.8
University of Nebraska	Aa1	2.5	2.5	2.4	1.8
University of Minnesota	Aa1	2.2	2.1	2.4	1.8
University of Delaware	Aa1	2.0	2.0	2.3	1.8
Michigan State University	Aa1	1.8	1.7	2.0	1.8
University System of Maryland	Aa1	1.8	1.8	1.8	1.8
University of Utah	Aa1	2.2	2.4	1.8	1.8
State University of Iowa	Aa1	1.8	1.6	1.6	1.8
North Carolina State University at Raleigh	Aa1	1.3	1.0	1.4	1.8
Ohio State University	Aa1	0.9	0.9	1.2	1.8
Virginia Polytechnic Institute & State University	Aa1	1.0	1.1	1.2	1.8
University of Missouri System	Aa1	1.3	1.3	1.0	1.8
University of Pittsburgh	Aa1	1.8	1.9	N/A	1.8

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Note: Source data is based on information from Moody's Investors Service.

Debt Service to Operations

- Debt service as a percentage of total expenses is a measure of income statement leverage. It is an important metric to understand how much of total expenses is attributed to debt service.

Debt Service to Operations					
Institution	Rating	2012	2013	2014	Moody's Median
University of Michigan	Aaa	1.76	2.15	1.89	3.64
University of North Carolina at Chapel Hill	Aaa	3.65	3.87	3.32	3.64
Indiana University	Aaa	3.59	3.50	3.52	3.64
University of Virginia	Aaa	3.39	4.02	3.62	3.64
University of Washington	Aaa	2.70	2.72	3.66	3.64
University of Texas System	Aaa	4.21	3.96	4.24	3.64
Purdue University	Aaa	4.56	5.48	6.15	3.64
Texas A&M University System	Aaa	8.99	6.56	6.69	3.64
North Carolina State University at Raleigh	Aa1	2.66	2.31	2.02	3.23
University of Utah	Aa1	2.29	1.99	2.54	3.23
Michigan State University	Aa1	2.85	2.68	2.86	3.23
University System of Maryland	Aa1	3.32	3.27	2.97	3.23
State University of Iowa	Aa1	3.20	3.07	3.17	3.23
Ohio State University	Aa1	3.54	3.44	3.20	3.23
University of Missouri System	Aa1	3.04	3.01	3.25	3.23
University of Delaware	Aa1	2.92	2.93	3.30	3.23
University of Minnesota	Aa1	3.60	3.76	3.62	3.23
University of Kansas	Aa1	3.25	3.40	3.85	3.23
Virginia Polytechnic Institute & State University	Aa1	3.83	3.98	4.09	3.23
University of Nebraska	Aa1	4.38	3.42	4.41	3.23
University of Pittsburgh	Aa1	3.39	3.98	N/A	3.23

Note: Source data is based on information from Moody's Investors Service.

8

FOR INFORMATION – UNIVERSITY MASTER PLAN

This presentation will review the planning process and summarize the key drivers identified through the initial program definition phase. The presentation outlines the planning components and summarizes the initiatives that will be incorporated in the planning process.

The information is presented to the Board of Trustees for review and comment.

No formal action is requested at this time.

Board of Trustees
Finance and Infrastructure Committee

September 30, 2015

2016 UNIVERSITY MASTER PLAN

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

AYERS
SAINT
GROSS

Agenda

Master Plan Process

Program Workshop Themes

Define. Assess. Envision. Test. Synthesize.

1 — Program Drivers
2 — Physical Drivers
3 — Space Needs
4 — Campus Analysis Summary
5 — Principles & Strategies
6 — Campus Framework Plan
7 — Precinct Plan
8 — Precinct Plan
9 — Precinct Plan
10 — Precinct Synthesis
11 — Draft Plan Development
12 — Phasing & Implementation Workshop

AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC
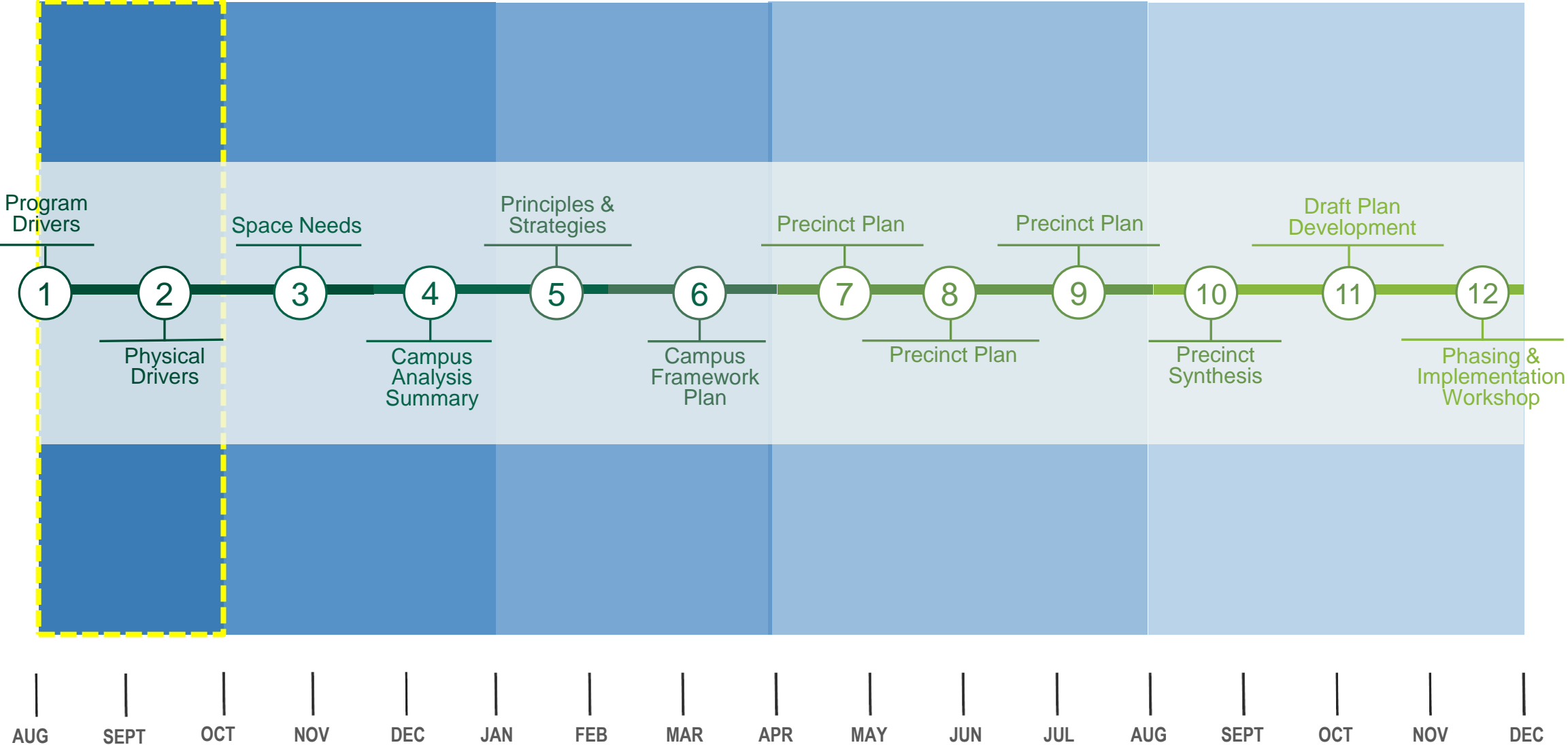
2015   2016

Program Workshop Themes

Key Drivers Workshop
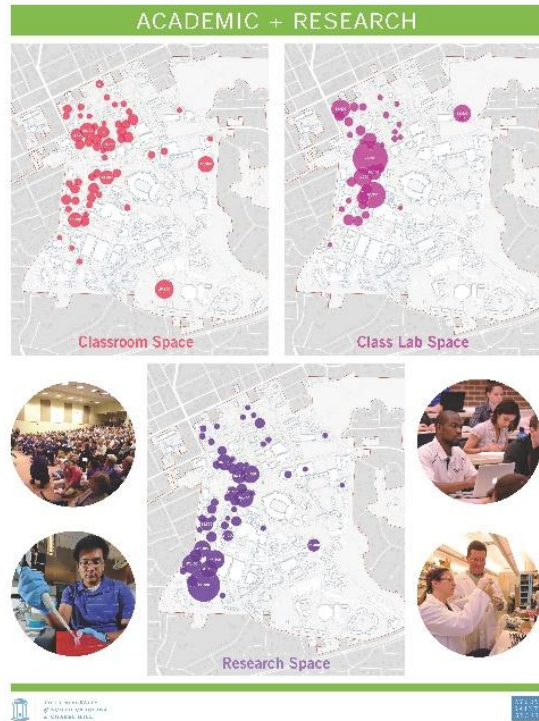
Academic + Research
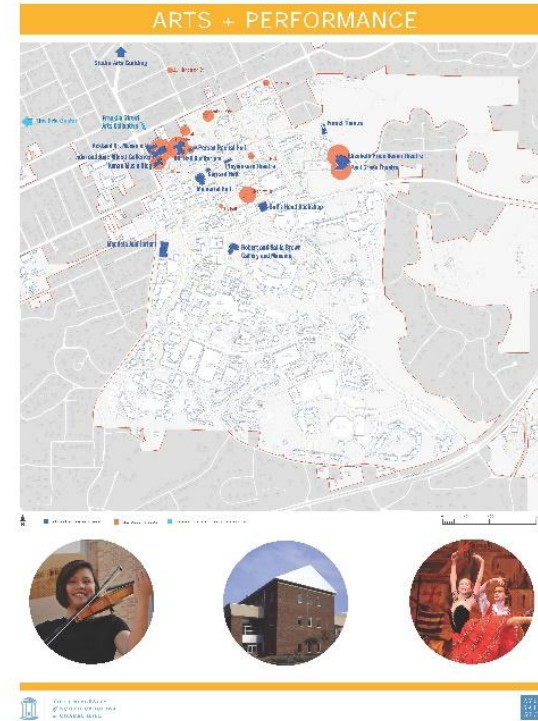
Arts + Performance
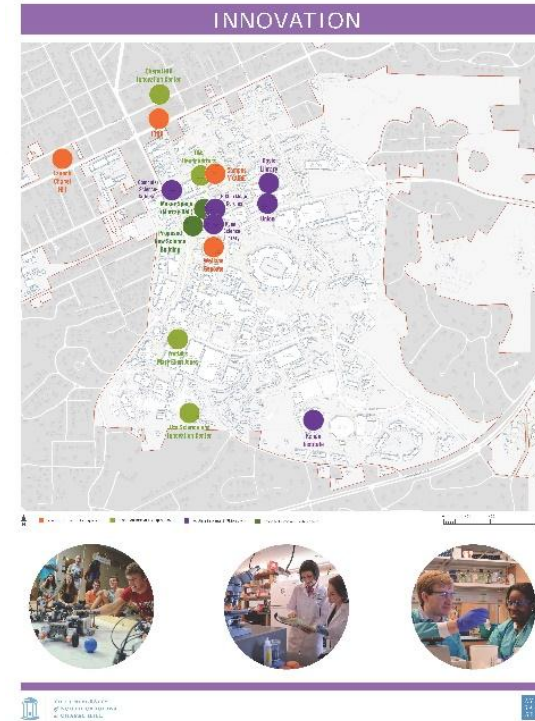
Innovation + Entrepreneurship
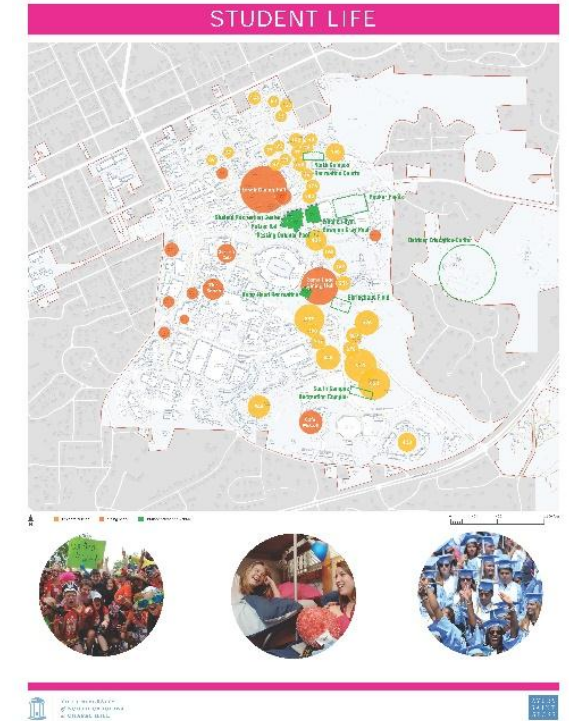
Student Life

Sense of place is integral to our campus.

What makes it special?
- Scale
- Mix of buildings and open space
- Materials
- Landscape palette
- Views

Fabulous feel on north campus

Physical beauty – history and tradition

Balance of built-up space and open space

Students want the UNC experience

Continue to create memorable places as we grow.

"Beautiful grounds – transformation in health sciences area has been amazing."

Higher education is changing.

- Collaboration
  "Not enough space for collaboration"

- Active learning and teaching
  "Classrooms to support modern teaching"

- Technology
  "New technologies enable us to reimagine classrooms"

- Entrepreneurship
  "Lack of office [and] wet lab space for UNC spin-off companies"

We need adaptable campus spaces.

"Classrooms are not conducive to the way students learn and the faculty need to teach. [They are] not designed for interaction and use of technology."   "Old school classrooms"

We need well utilized campus space.

"Design spaces to promote interdisciplinary collaboration."

"Move to open configuration faculty and staff office spaces."

We need flexible spaces.

"More flexible classroom and lab spaces."   *"Modular/flexible space"*

"Create spaces that can be repurposed as research changes."

Togetherness matters.

Classroom space clustered

Proximity of academic teaching and research

Diverse library and research spaces in close proximity

Close proximity to College and Professional Schools

Proximity of all health affairs schools

Close proximity of health affairs and academic affairs

Many arts and performance spaces are close to downtown

Main dining hall convenient to peak traffic

Walkable and many activities in close proximity

- Classrooms
- Class Labs
- Research
- Office
- Dining
- Student Housing
- Recreation

*Circles sized by amount of space
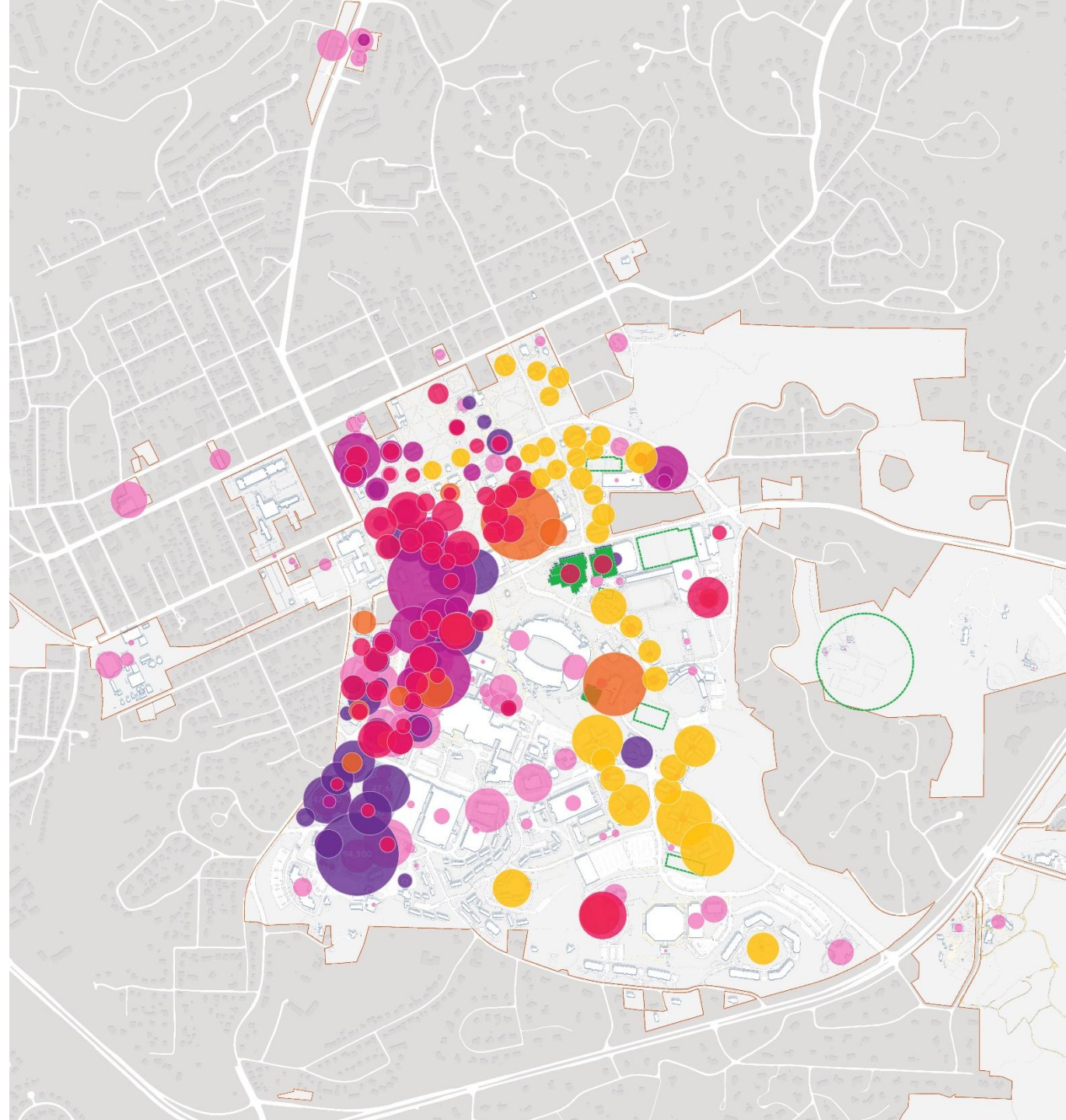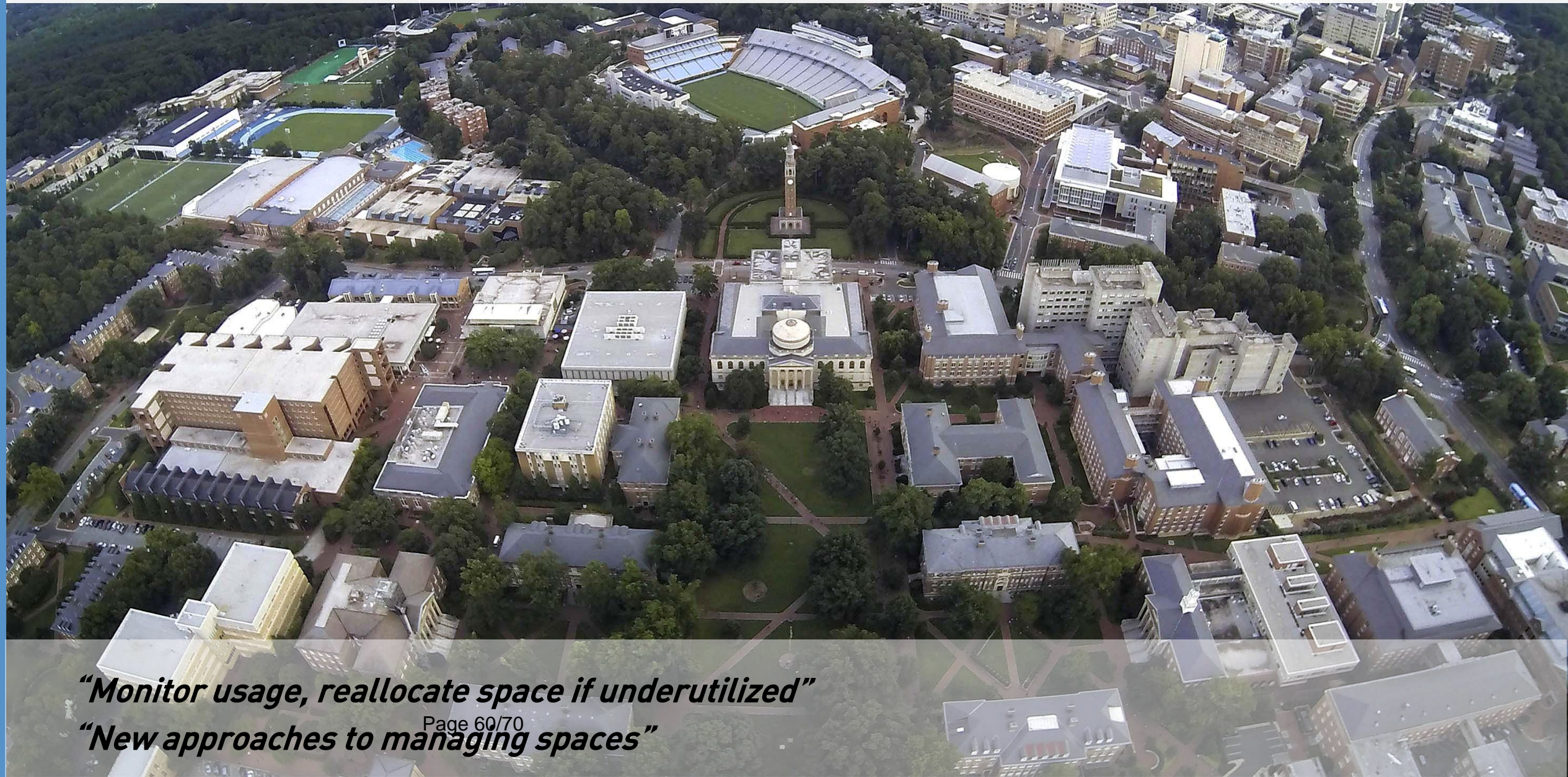
Proximity makes us productive.

Campus Advantages:

Top 50 most frequently used words other than campus, space, student, and a set of common words.

The Main Campus is Finite – Maximize opportunities
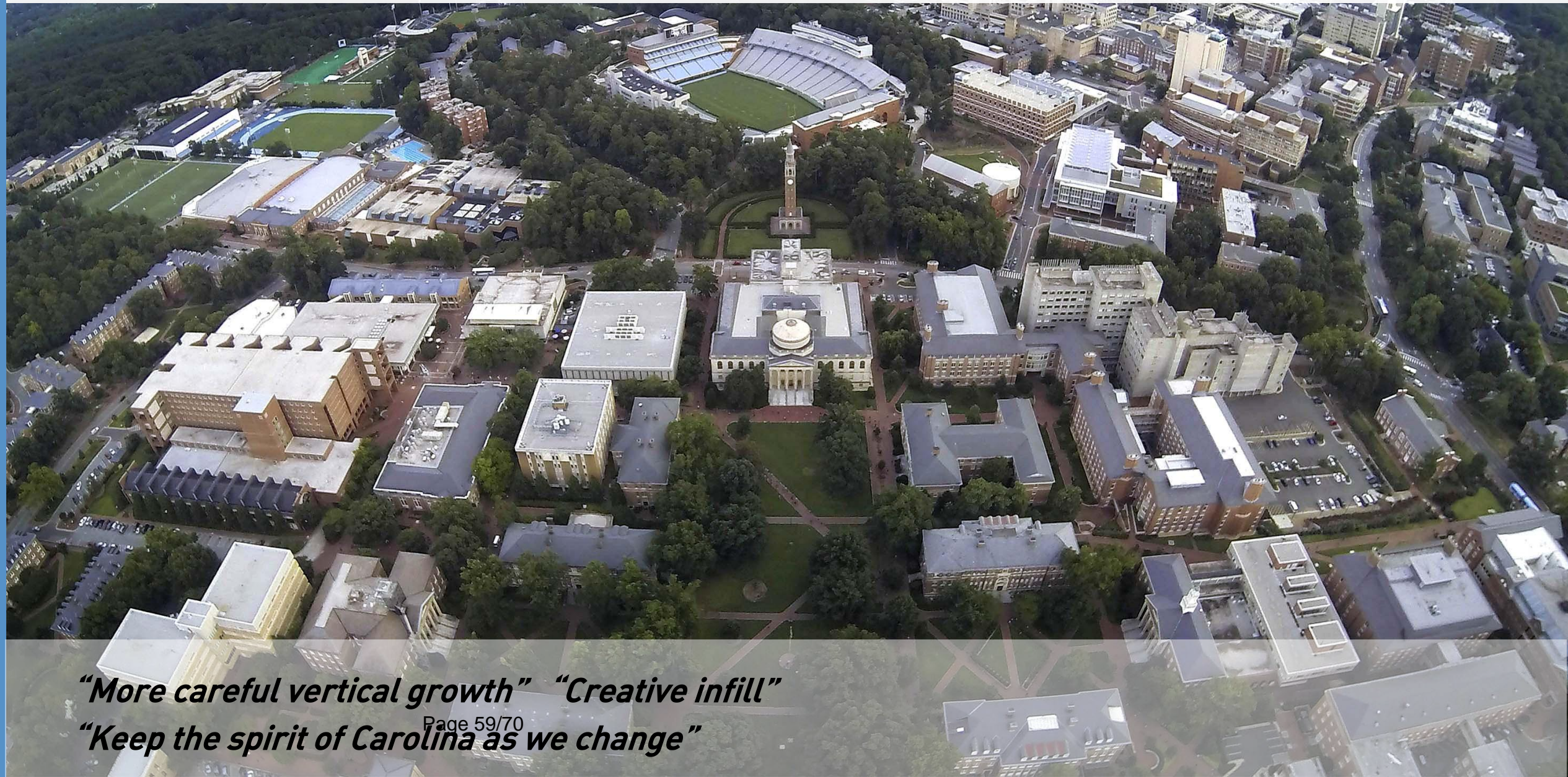
"More careful vertical growth" *"Creative infill"*

"Keep the spirit of Carolina as we change"

Increase space utilization, break down silos.

"Monitor usage, reallocate space if underutilized"

"New approaches to managing spaces"

Renew and repurpose outdated buildings to optimize space.

- Active learning classrooms

- Collaboration and innovation

- Open office

"Smart repurposing of spaces"

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Safety

- Well-lit paths

- Pedestrians and vehicular conflicts

- Support a cycling culture

Arboretum safety

Safe rides

Traffic and pedestrian safety at certain times of day

Too little lighting – Bell Tower, Stadium Drive

Not bike-friendly

There is momentum around innovation and entrepreneurship.

Campus Opportunities:

Top 50 most frequently used words other than campus, space, student, and a set of common words.

The physical campus should support entrepreneurship.

An ecosystem of diverse spaces is needed:

- Wet lab and office space for spin-outs
- Maker space
- Informal collaborative spaces
- Visible innovation hub

Where and how?

- University land and/or off-campus
- Renovation and renewal opportunities
- Partnerships

Harvard iLab

Need more incubation space *More maker spaces*

No current statement location for innovation/entrepreneurship

Spaces for industry to collaborate with campus researchers

Create a holistic ecosystem for innovation and entrepreneurship – spaces for the life cycle

Integrate art everywhere.

Across campus:

Art is not visible on campus

[The arts are] too focused geographically – integrate

Connecting Arts with all parts of campus/learning

Have art everywhere

Need art in health affairs campus

Infusing arts in residence halls

In the community:

Connect … to towns – Chapel Hill and Carrboro
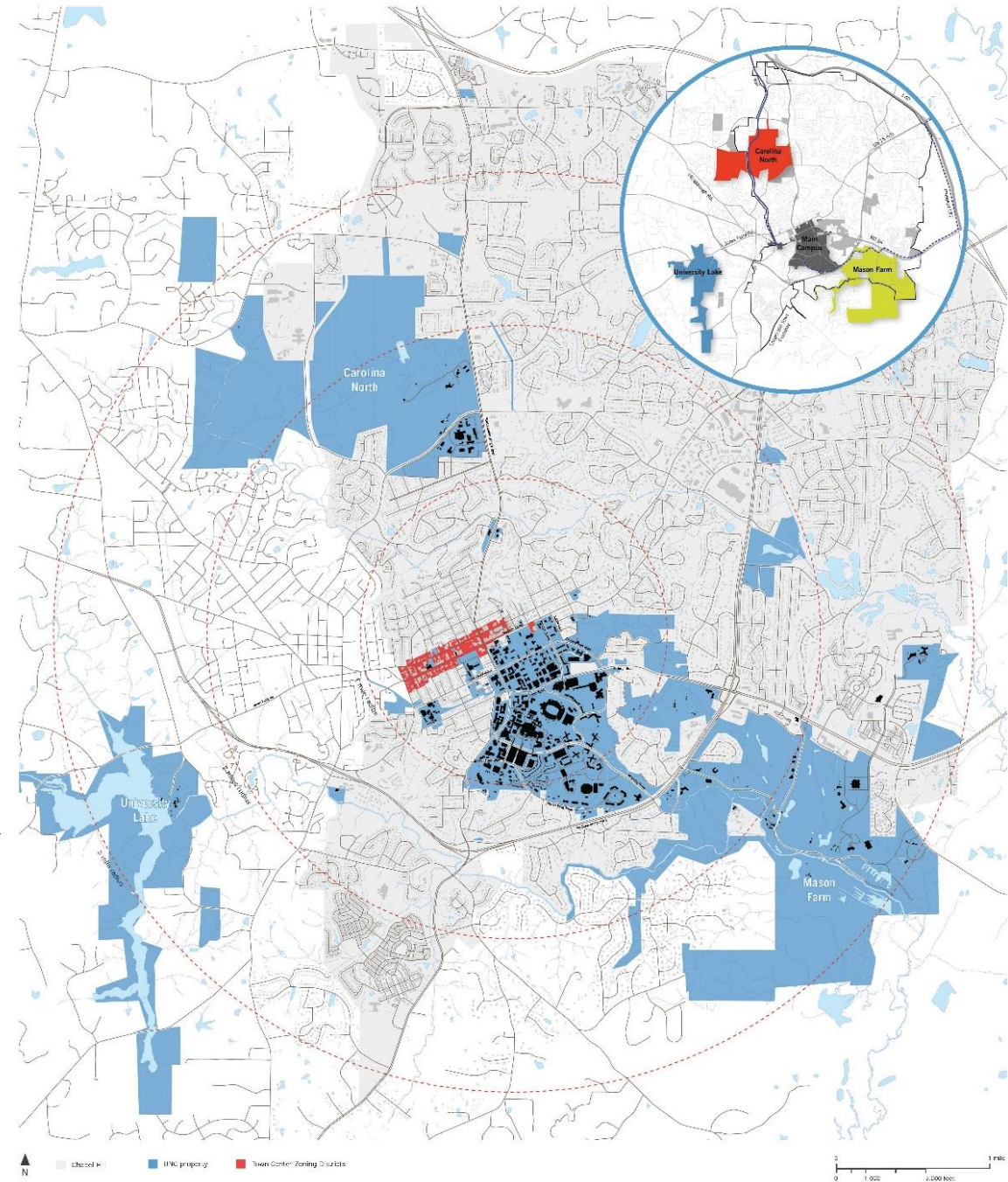
Use Franklin Street to showcase art
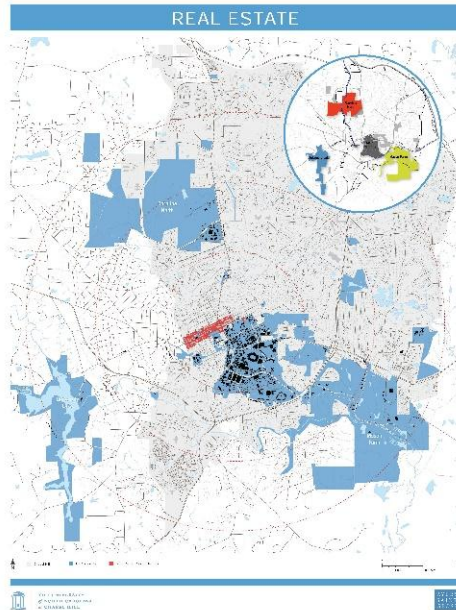

FedEx Global Education Building

Leverage land resources.

- Carolina North, Mason Farm, University Lake

- Partnerships

- Appropriate uses

- Connections to Main Campus

- Development strategies

Assess where growth areas will be and plan accordingly
Carolina North and Mason Farm – we have room to grow
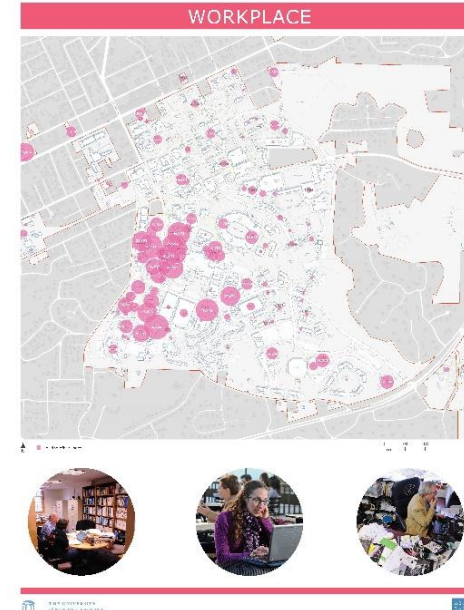
Physical Planning Drivers

Real Estate

Landscape

Mobility, Transportation + Safety

Sustainability

Workplace

Proximity creates challenges.

Campus Disadvantages:

Top 50 most frequently used words other than campus, space, student, and a set of common words.

Welcome a broader community.

The University community includes corporate partners and community members in addition to students, faculty, and staff.

To be welcoming:
- Visitor experience
- Wayfinding and signage
- Access and parking

Campus is off-putting and confusing to guests
Barriers to access by non-university … groups
Need the external world to be at home on our campus
Bring outside world in

Today

New issues. New focus. Reaffirmed values.

- Encourage creative and high use of resources
- Foster nodes of activity
- Develop scales of community
- Increase partnerships, grow ideas and promote interaction
- Balance proximity needs with impacts of development
- Leverage land holdings to support our immediate and long-term needs