

# BOARD of GOVERNORS State University System of Florida

# Facilities Renovation/Upgrade Priorities University of Florida

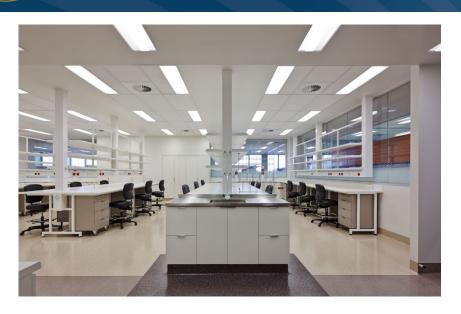
Charlie Lane
UF Senior Vice President and Chief Operating Officer
BOG Facilities Committee
October 8, 2014

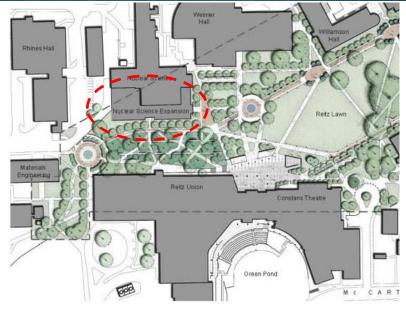
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- Nuclear Sciences Building (Engineering)
- Norman Hall (Education)
- Academic Building (IFAS)
- P.K. Yonge Developmental Research School Phase 2
- SUS High-Density Library Storage Facility



# **UF Engineering Innovation NEXUS Renovation & Addition to Nuclear Sciences Building \$25 M**









- ✓ Will double engineering startup companies from 5 to 10 per year
- ✓ Five-year forecast of \$4 million increase in industry research funding
- √ \$10 million increase in multidisciplinary research funding
- ✓ Will provide necessary infrastructure and focus to recruit and support high-tech companies in Florida (Engineering Experiment Station)
- ✓ Will improve state economic competitiveness
- ✓ Renovations to 50-year old facility and new utility infrastructure core will increase efficiencies and reduce costs.



#### **DEMAND METRICS**

- ✓ Projected five-year increase of 300 engineering degrees through retention and recruiting
- ✓ Will increase STEM research in Biotechnology and Advanced Manufacturing
- ✓ Facilities to transform engineering education, involving Global Innovation Network of alumni, experts and student/faculty teams in pursuing real-world team approach to innovation
- ✓ Updating the university's 50-year old facility will re-purpose existing space, providing for cutting-edge education and research opportunities and increasing the number of students earning engineering degrees

#### **REQUEST**

Total project budget: \$45M

Request for 2015-16 \$25M

Request for 2016-17 \$20M

- ✓ Anticipated construction start date: August 2015
- ✓ Estimated completion date: December 2016



# NORMAN HALL REMODELING/CONFERENCE CENTER **ADDITION \$24.4 M**













- ✓ UF COE currently ranked #1 among COEs in Florida; #1 among public institutions in the SEC; UF's highest-ranked graduate college; #21 among public universities in the nation (top 2% nationally); 5 academic programs ranked in the top 20
- ✓ College has \$74.4M in active externally-funded research projects
- ✓ Reprogramed space will boost capacity for externally-funded research and training
- ✓ Renovation to support college in improving national ranking and impact
- ✓ Facility would enhance ability to host speakers for research and training seminars/workshops
- ✓ Listed on the National Historic Registry, Norman Hall is a cornerstone of UF, and restoration and upgrades will continue legacy and usefulness

#### **RETURN ON INVESTMENT (ROI) CONTINUED**

- ✓ Cost savings from renovation rather than new construction, with existing facility transformed into modern, efficient teaching space
- ✓ Significant critical deferred maintenance backlog for 82-yearold facility to be eliminated, with renovated facility to comply with all fire code and ADA standards
- ✓ By virtue of upgraded building envelope roof, windows, brick repairs, etc. – and mechanical systems, facility will gain significant energy efficiencies and reduced operational costs

#### **DEMAND METRICS**

- ✓ Constructed as K-12 school in 1934, facility is outdated and hazardous unsuitable for preparing educators, innovators, and leaders to meet Florida's educational needs
- ✓ The College of Education develops innovations in STEM education and advances technology-assisted instruction to address the needs of all learners across the state
- ✓ Current enrollment: 2,800 across 28 undergraduate and graduate academic programs
- ✓ Projected enrollment growth: 20% in five years
- ✓ Continued growth in externally-funded research measuring 50% increase over past 5 years
- ✓ Home to national centers including: Lastinger Center for Learning, Center for Excellence in Early Childhood Studies, Online Learning Institute, Center for Disability Studies & Outreach, Institute for Higher Education, Center for **Community Outreach**

#### REQUEST

Total project budget: \$24.4M Request for 2015-16 \$8M

- ✓ Anticipated construction start date: April 2016
- ✓ Estimated completion date: August 2017



# **IFAS ACADEMIC BUILDING \$15.8 M**





- ✓ Recovery of more than 3,200 credit hours lost each year due to teaching lab and classroom deficiencies
- ✓ Creation of quality and efficient research space will greatly enhance competitive recruitment of preeminence faculty
- ✓ Projected 5-year increase of 200 degrees through increased credit hours, faculty retention, and recruiting
- ✓ Re-purpose of existing space will providing for cutting-edge education and research opportunities, increasing the number of successful degree-earning students

#### **DEMAND METRICS**

- ✓ Space quality issues including a need for larger lecturestyle classrooms and modern teaching laboratories – limit the type and number of classes now offered
- ✓ UF departments of horticulture, plant pathology, and environmental horticulture have outgrown space, restricting class selection options, reducing class curriculums, and limiting available class times
- ✓ Competitive recruitment of preeminence research faculty is severely limited due to lack of quality laboratory space

#### REQUEST

Total project budget: \$15.8M Request for 2015-16 \$8M

- ✓ Anticipated construction start date: November 2015
- ✓ Estimated completion date: February 2017



# P.K. Yonge Developmental Research School – Phase 2- Middle/High School Facility-\$18.7 M









# P.K. Yonge Developmental Research School - Current Problems Caused by Erosion









- ✓ 21<sup>st</sup> Century classroom design concepts combine teaching and collaboration spaces with building circulation, movable walls and furniture, creating optimum space utilization, thereby reducing total building GSF requirements and project cost
- ✓ A 3-story building which will reduce circulation area by 50%, thus saving. construction costs
- ✓ Contemporary design reduces square footage per student by 34% (from 150 to 99) and also reduces cost per student station by an estimated 28% (from \$26,500 average cost to \$19,000)
- ✓ Major fire code, ADA, and space quality issues will be remedied by construction of the new facility
- √ 56 inefficient individual HVAC units will be replaced with one chiller, decreasing operations/maintenance costs by approximately 25%

- ✓ Phase 2 design similar to Phase 1 (K-5 facility) completed 1½ years ago which has become a model for the future, receiving statewide and national recognition (Florida counties, Harvard University, George Lucas Foundation Edutopia.org)
- ✓ New technology-based, integrated, and collaborative learning environment provides opportunities to document, measure, and analyze how changes in architecture and instructional models shift how students think, what they know, and what they can do
- ✓ Demonstration/training site for Florida educators from over 35 school districts; quickly becoming a national/international destination for those interested in new approaches
- ✓ Multi-purpose first floor circulation space will host workshops for 500+ educators annually (now held in 15 year old portable)

#### **DEMAND METRICS**

- ✓ The campus provides education opportunities for approximately 1,200 students
- ✓ Located on 31 acres; 19 buildings/11 portables; site elevations range from 120 –90 feet above sea level from one end to the other; Tumblin Creek runs west to east through the campus causing erosion issues
- ✓ October 2007, Department of Education concurred in the need to replace 13 buildings on the campus; Phase 1 addressed some of those facilities; Phase 2 will address other facilities approved by DOE
- ✓ As the world changes, the pervasive K-12 educational model is outdated and fails to meet the needs of today's students

#### **DEMAND METRICS:**

- ✓ P.K. Yonge @ UF is designing and testing *transformative* approaches to K-12 education
- ✓ 21<sup>st</sup> century design concept utilizes flexible neighborhoods each anchored by a highly visible Science, Technology, Engineering and Mathematics (STEM) lab allowing for exploratory learning experiences
- ✓ Will facilitate technology-enabled academic learning opportunities
- ✓ Sustainable outdoor learning opportunities by incorporating. environmental classrooms with "Tumblin Creek" wetlands throughout the site
- ✓ PK Yonge is becoming one of Florida's 1<sup>st</sup> nationally-ranked high. schools with 100% of students graduating STEM college and career ready

#### REQUEST

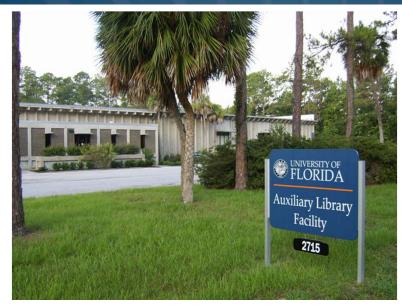
Total project budget: \$18.7M \$18.7M Current request

- ✓ Anticipated construction start date: November 2015
- ✓ Project design scope is currently limited to Design Development; CM has not been selected
- ✓ Estimated completion date: April 2017



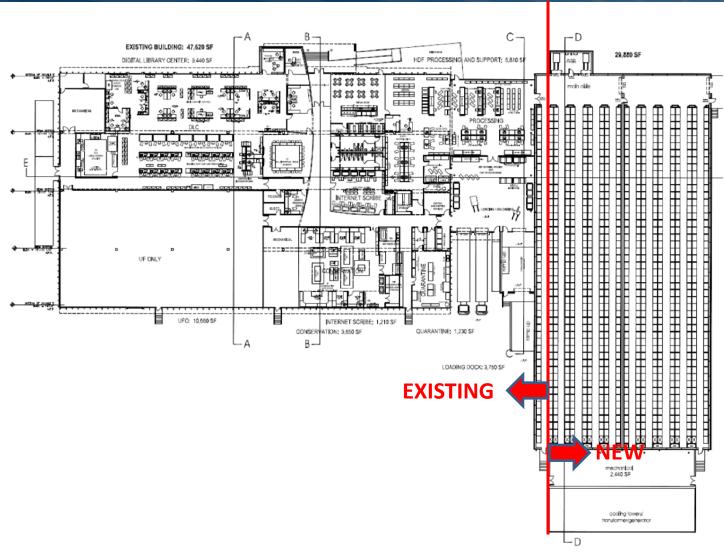














- ✓ One of the greatest efficiencies the SUS could achieve is the construction of a Joint-Use Library Storage Facility to provide for the **de-duplication** of certain library holdings across the SUS while **freeing up much-needed space** on campus for other purposes.
  - Example: UF's Marston Science Library emptied one floor of low-use materials, with 26,000 square feet of valuable space converted to student-study space that serves over 700 students. This has been a top priority for students.
  - Example: FAU is currently weeding its print journals based on volumes in the shared collection to provide for additional seating space for students.
  - Example: As additional materials are moved to the storage facility, and as renovation funds become available, UF plans to repurpose space in other library facilities for student study space, as will other SUS libraries.
- ✓ This project is a high-density "Shared Services" facility which will provide archival storage for 5.2M volumes of library materials for benefit of all state universities (12) and state colleges (28).
- √ This project creates opportunities for removal of <u>low circulation books</u> and journals from all SUS libraries while ensuring continued access through the Statewide Library Ground Delivery Service.
- ✓ Savings are realized because the SUS would need to retain only **one hard copy** of an item to ensure availability to users throughout the SUS and State College system.



- ✓ Operational efficiency is realized per volume due to moving from open stacks to HDF storage (an 80% cost reduction from a national average of \$4.26 per volume to \$.86 per volume).
- ✓ Ten years ago, UF spent \$30.5M to renovate/increase square footage for Library West, using traditional compact shelving to house a total of 1.7M volumes at a cost of \$18 per volume.
- ✓ By comparison, \$26M is requested for the High-Density Joint-Use Library Facility to house 5.2M volumes at a cost of \$5 per volume; a 72% improved efficiency in the expenditure of state dollars for facilities.
- ✓ FSU is currently leasing offsite storage. Once the high-density facility is completed, FSU could transfer some material to the shared collection, resulting in a cost savings for the university.
- ✓ UCF already eliminated offsite storage at Iron Mountain and it has begun to transfer on campus library materials to the interim storage facility at UF.
- ✓ USF recently invested in additional compact library shelving which is now completely filled. USF will benefit from the high density storage offered by the new facility.
- ✓ Over 5.8 million books in SUS campus libraries could be relocated to storage or discarded based on volumes already in storage, allowing an estimated 230,000 square feet to be repurposed for other high demand library services.
- ✓ Efficiencies result from operating a single shared storage facility versus multiple individual facilities.



#### **DEMAND METRICS**

- The **SUS shared collection** is officially created as the **FL**orida **A**cademic **RE**pository **(FLARE)**.
- For some books, federal copyright law requires that one print copy must be maintained in order for an electronic copy to be shared across the SUS; this facility would store those print copies.
- Managing relatively low-use, but valuable, print items centrally is consistent with Best Practices developing regionally and nationally.
- An important benefit is that FLARE is an active participant in a regional print archiving initiative with the Association of Southeastern Research Libraries (ASERL) whereby procedures have been implemented to ensure members access to titles retained by other libraries in the Southeast, thus eliminating the need for the SUS to retain every journal.
- The Joint-Use Facility consists of 2 parts: 42,000 GSF of renovated space and 40,000 GSF of new space.
- Originally funded in 2010, design is complete through 100% Construction Documents and all internal and external (GRU, SFM) reviews are complete.
- Anticipated construction start date: August 2015.
- Estimated completion: 18 to 24 months after construction begins.



#### **REQUEST**

\$26.7M Total project budget:

Prior funding \$2M

**Current Request** \$18M

Remaining Need \$6.7M

✓ This project is "Shovel Ready."



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