

Item Title: Wake Technical Community College Capital Improvement Program FY 2023 Plan Appropriations and Reallocations

Specific Action Requested:
That the Board of Commissioners:

- 1. Appropriates a total of \$83,997,000 for design and construction of new buildings at the new Eastern Wake Campus including General Education Building 1, Public Safety Simulation Complex, and Technology 4.0; and ongoing capital program support for information technology infrastructure, campus infrastructure, renovations, and repairs.**
- 2. Reallocates \$10,718,951.16 in project budgets within the Wake Tech Seven-Year Capital Improvement Program to address escalating costs in campus infrastructure, repair and renovations, and the Eastern Wake Campus construction.**

Item Summary:

Purpose: The Board of Commissioners is statutorily responsible to fund the Community College's capital projects and approves all appropriations and reallocations of funds.

Background: On June 6, 2022, the Board of Commissioners adopted the FY 2023 Budget, which appropriated \$7,500,000 in cash and planned for \$83,997,000 in debt funding for Wake Tech capital projects.

Of the planned \$83.9 million appropriation, \$80.1 million supports design and construction costs for buildings at new Eastern Wake Campus, and the remaining supports ongoing program components for IT and other campus infrastructure, lifecycle replacements, and repairs and renovations.

This item also reallocates \$10.7 million between open projects in the current Seven-Year Capital Improvement Program. More specifically, the item reallocates budgets from projects that have been reprioritized (Cellular Signal Repeaters, Mass Notification Systems, and Card Readers) as well as projects that have had savings (Life Safety Equipment, Eastern Wake Land Acquisition, Eastern Wake Master Plan) to projects which have had cost escalations (Repair and Renovations projects, Campus Infrastructure projects, Eastern Wake General Education, Student Services, and Technology 4.0 buildings).

Board Goal: The action supports Education Goal 4: Maintain a long-term funding plan for capital needs at the Wake County Public School System and Wake Technical Community College.

Fiscal Impact: The item appropriates \$83,997,000 to the Seven-Year Wake Tech Community College CIP, funded through general obligation bonds approved in fall 2018. In addition, the below chart also shows the allocation of the \$7,500,000 funded with cash already appropriated in the FY 2023 Adopted Budget. The associated future debt service is included in the County's financial model.

Additional Information:

Wake Technical Community College is requesting that funds be appropriated as follows:

Wake Tech Seven Year Capital Improvement Program - FY 2023 Projects				
Project	Current Appropriation*	FY23 Adopted	FY23 Proposed	New Proposed Total Budget
<u>New Building Projects</u>				
Eastern Wake Campus: Public Safety Simulation Complex/Fire Training Area	49,004,700		10,807,000	59,811,700
Eastern Wake Campus: General Education & Student Services Building 1	54,200,000		15,552,000	69,752,000
Eastern Wake Campus: Technology 4.0 Building	4,529,000		53,757,000	58,286,000
<u>Minor Capital</u>	-	1,000,000		1,000,000
<u>Facility Alterations</u>	-	1,000,000		1,000,000
<u>Repair & Renovation/Lifecycle Projects</u>				-
HVAC Replacement	-		1,743,000	1,743,000
HVAC Controls	-		638,000	638,000
Electrical Replacement	-		1,250,000	1,250,000
<u>Campus Infrastructure Projects</u>				-
Southern Loop Road and Paving	-		250,000	250,000
<u>IT Infrastructure Projects</u>				-
UPS Replacement	-	300,000		300,000
Smart Classroom A/V Upgrades	-	1,000,000		1,000,000
Network Architecture Master Plan	-	3,335,600		3,335,600
Wireless Access Master Plan	-	614,400		614,400
Servers and Storage	-	250,000		250,000
	107,733,700	7,500,000	83,997,000	199,230,700
*Prior year appropriations are shown for one-time projects only. Other projects are recurring components of the Wake Tech Capital Program. This table reflects only the current year plan and appropriations for these recurring components.				

1. New Building Project Appropriations

Eastern Wake Campus: Public Safety Simulation Complex

Phase I will construct a reality-based simulation center for training programs based in law enforcement and emergency medical service (EMS). The facility will include a training track to support emergency driver training, CDL training and motorcycle training. The simulation building is programmed to be 77,824 square feet and will provide a 4D Immersive Interior Training Village, including a two-story downtown street replica, along with multi-function and specialty training rooms supporting law enforcement reality-based training, and an EMS ambulance storage facility. Unmanned aerial systems and flight training tied to future Industry 4.0 mechatronics programs supporting high tech student training will also be incorporated into the facility. Completion of phase I is anticipated in January 2024. Phase II will consist of a new fire/rescue training area in the northeast part of the campus. Intended facilities include a fire/burn tower, a drill training tower, and an auxiliary support facility. Completion of Phase II is expected to follow Phase I by approximately 12 to 14 months.

Eastern Wake Campus: General Education and Student Services Building 1

This project is comprised of a 120,810 GSF classroom and student services building, consisting of general education classrooms, labs, student services spaces, library, food services, individualized learning, auditorium and informal learning spaces. The project also includes associated extension of chilled water and heating water piping systems and the extension of roadways and parking. Completion of the projection is currently planned for spring 2024.

Eastern Wake Campus: Technology 4.0

This 80,000 square foot building will house programming around biopharma, biotechnology, mechatronics, computer-aided design (CAD), engineering, geomatics, electronics, digital systems technology, and automation/robotics. Design began in May 2022 and completion is anticipated in spring 2025.

Repair & Renovation/Lifecycle Projects

HVAC Equipment Replacement

This project will replace various HVAC equipment and systems at all county campuses. The Master Plan Update in 2015 identified HVAC equipment, such as chillers, boilers and air handlers, along with plumbing equipment and systems as needing replacement over the next seven years. Many of these systems have reached the end of their useful life and are not functioning as originally designed and installed.

HVAC Controls

This project will add, update, or replace various building automation control systems at all county campuses. HVAC control systems that have reached the end of their useful life, are not functioning as originally designed or are nonexistent are priority targets in this project. Energy efficiency savings are included as a priority in all phases.

Electrical Replacement

This project will upgrade building electrical system components primarily at the Southern Wake and Perry Health Sciences Campuses, but will also include work at other campuses. The Master Plan Update in 2015 identified building electrical system components that, over the next seven years, need major replacement. Replacements will include system components such as interior and exterior lighting systems, electrical switchgear, electrical devices, panelboards, motors, switches, breakers conduit and wiring, lightning protection systems, transformers and generators. In addition, tasking remaining from closed budgets, including cellular signal repeaters and mass notification systems will be merged into this project for a more efficient allocation of workload and funds.

Minor Capital

Recurring funds in this category are used to replace furniture in existing buildings, purchase fleet vehicles, and to purchase equipment items for Facilities Services to ensure continued operation of the academic programs.

Facilities Alteration

Recurring funds in this category are used to update or replace existing campus infrastructure, modernize limited portions of buildings and alter spaces supporting academic programs on all campuses.

Campus Infrastructure Projects

Southern Loop Road & Campus-wide Paving Projects - This project will construct a new road and repave existing roadways and parking lots at the Southern Wake Campus, but may include work at other campuses. The Master Plan Update in 2015 identified a new two-lane road that will connect the recently paved Parking Lot R with Highway 401. The College will be losing one of its entrances on Highway 401 when the new I-540 Toll Road is built, and the new road will provide an additional entrance to make up for this. A new traffic signal will be provided at the intersection with Highway 401. Also identified was 710,000 sf of existing paved parking lots and interior roads that are in disrepair and will be repaved with new asphalt paving utilizing the Full Depth Reclamation (FDR) process to increase life expectancy.

Information Technology and Infrastructure

This project continues to include various campus wide improvement projects to increase the capacity to teach online courses, including the following equipment and systems; new redundant datacenter at the Scott Northern Wake Campus, addition of redundant alternate fiber connectivity at all campuses, campus fiber upgrades, cybersecurity and system monitoring improvements, smart classroom upgrades, augmented and virtual reality pilots, conference room improvements, and infrastructure software upgrades.

2. Project Reallocations

Wake Technical Community College is requesting that funds be reallocated as follows:

Projects	Current Budget (after proposed FY23 Appropriations)	Current Expenses	Proposed Reallocation	New Budget	Proposed	Remaining after Reallocations
Wake Tech Seven-Year Capital Improvement Program						
Repair and Renovations/Lifecycle Projects						
HVAC Equipment Replacement	\$12,707,508.00	\$5,617,674.51	\$1,250,000.00	\$13,957,508.00		\$8,339,833.49
HVAC Controls	\$4,207,765.00	\$2,846,270.44	\$750,000.00	\$4,957,765.00		\$2,111,494.56
Elevator Modernization	\$1,675,630.00	\$907,962.55	\$750,000.00	\$2,425,630.00		\$1,517,667.45
Building Envelope Upgrades	\$4,217,971.00	\$1,315,202.95	\$644,027.00	\$4,861,998.00		\$3,546,795.05
Electrical Replacement	\$6,163,555.00	\$1,921,813.09	\$1,250,000.00	\$7,413,555.00		\$5,491,741.91
Life Safety Equipment	\$1,684,729.00	\$421,717.56	(\$750,000.00)	\$934,729.00		\$513,011.44
Campus Infrastructure Projects						
Security Cameras	\$2,572,300.00	\$1,811,836.53	\$500,000.00	\$3,072,300.00		\$1,260,463.47
Cellular Signal Repeaters	\$1,846,857.00	\$173,522.00	(\$1,673,335.00)	\$173,522.00		\$0.00
Signage Upgrades	\$1,224,700.00	\$1,068,524.54	\$500,000.00	\$1,724,700.00		\$656,175.46
Accessibility Upgrades	\$3,158,031.00	\$2,432,749.71	\$300,000.00	\$3,458,031.00		\$1,025,281.29
Mass Notification Systems	\$3,479,000.00	\$308.36	(\$3,478,691.64)	\$308.36		\$0.00
Card Readers	\$1,742,000.00	\$0.00	(\$1,742,000.00)	\$0.00		\$0.00
Eastern Wake Campus Projects						
EWC Land Acquisition	\$10,900,000.00	\$10,834,219.27	(\$65,780.73)	\$10,834,219.27		\$0.00
EWC Master Plan	\$3,588,494.72	\$579,350.93	(\$3,009,143.79)	\$579,350.93		\$0.00
EWC General Education & Student Services	\$69,752,000.00	\$3,805,756.83	\$2,700,000.00	\$72,452,000.00		\$68,646,243.17
EWC Technology 4.0 Building	\$58,286,000.00	\$215,080.15	\$2,074,924.16	\$60,360,924.16		\$60,145,844.01
Total All Program	\$187,206,540.72	\$33,951,989.42	\$0.00	\$187,206,540.72		\$153,254,551.30

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Description of Cost Escalations

Current market conditions in the Triangle area are proving to have a drastic effect on the recent bidding climate. Material, equipment, and manpower shortages have plagued nearly everyone of Wake Tech's ongoing construction/renovation projects. Roofing material and lumber had delays of eight or more months and some electrical/HVAC equipment procurement lead times are stretching out more than a year. All of these issues are contributing to an overall escalation

in construction costs. The opening quote from the July 2022 Associated General Contractors of America (AGC) Construction Inflation Alert states *“For more than two years the U. S. construction industry has been buffeted by unprecedented increases in materials costs, supply-chain bottlenecks, and a tight labor market.”*

Wake Tech has been steadfast regarding control of scope creep in its construction program by limiting the size of buildings and associated equipment, yet timing of the program puts the bidding of projects at a significant disadvantage. Overall inflation is running at 40-year highs and a recession is not a certainty, thus the cost of goods and services is likely to remain elevated. Current economic predictions do not favor a reduction in CIP costs over the next few years.

Description of Reprioritizations/Savings

When building, operating, and maintaining campus buildings and infrastructure that is diverse and geographically widespread, constant assessment of the overall program is vital to preserving the College’s fiduciary responsibilities. To maximize efficiency in the Wake Tech Facilities Operations program, the Facilities Management Team has reassessed the need for programs and equipment originally specified in the 2018 Bond program. Systems such as cellular signal repeaters and mass notification have proven to be a lower priority than previously imagined. Other systems, such as new security card readers and life safety equipment needs are better managed when combined with upgrades in the overall building electrical systems. By reallocating savings from these projects and projects that are now complete, efficiencies in the program can be increased and cost overruns in critical equipment replacement and the strategic expansion program can be compensated for.

Attachments:

1. Presentation
2. Resolution