



CONNECT NC BOND PROGRAM

North Carolina General Assembly

Joint Legislative Oversight Committee on Capital

October 11, 2017

Presentation Outline

- **Background and Context**
- **Status of Current Projects**

Background and Context

Background and Context

- **The *Connect NC Bond Act of 2015* provided UNC with 21 bond projects:**
 - **Eleven new STEM buildings**
 - **One new campus (western NCSSM)**
 - **Two new business school buildings**
 - **Seven comprehensive targeted building renovations**
- **All 11 new STEM buildings were the #1 capital priority at each UNC institution.**
- **Total UNC bond funding = \$1,065,000,000.**
 - **Other funds provided by the institutions are over \$200 million (i.e., skin in the game)**

UNC Strategic Plan

- **Access**
- **Affordability and Efficiency**
- **Student Success**
- **Economic Impact and Community Engagement**
- **Excellent and Diverse Institutions**

UNC Institution Example: WCU

- **Each UNC institution developed a 2014-2020 six-year capital improvements plan for the 2015-2017 biennial budget process in the Fall of 2014.**
 - **Western Carolina University identified five priority capital projects for consideration by the UNC Board of Governors.**
 - **WCU's 2014 Campus Masterplan identified the STEM Science Building as the #1 capital priority.**
 - **WCU's Natural Science Building, constructed in 1971, supported enrollment of 6,100 students.**
 - **WCU's enrollment has grown to over 11,000 students.**
 - **Gateway Chemistry and Biology courses are stressed due to physical building limitation.**

WCU Growth of STEM Programs

Environmental Sciences – 118%

Athletic Training – 114%

Nursing – 95%

Emergency Medical Care – 75%

Biology – 69%

New Engineering Program

New Forensic Science Program



WCU STEM Science Building

- **182,200 Gross Square Feet**
- **Construction cost estimated at \$85,000,000**
- **Building cost is approximately \$460/GSF**
- **Chemistry/Biology Departments**
- **Interdisciplinary Teaching and Research Laboratories**
- **Four-acre Science Quad-Outdoor Teaching**
- **Rooftop Observation Deck for Astronomy and Greenhouse**

Status of Current Projects

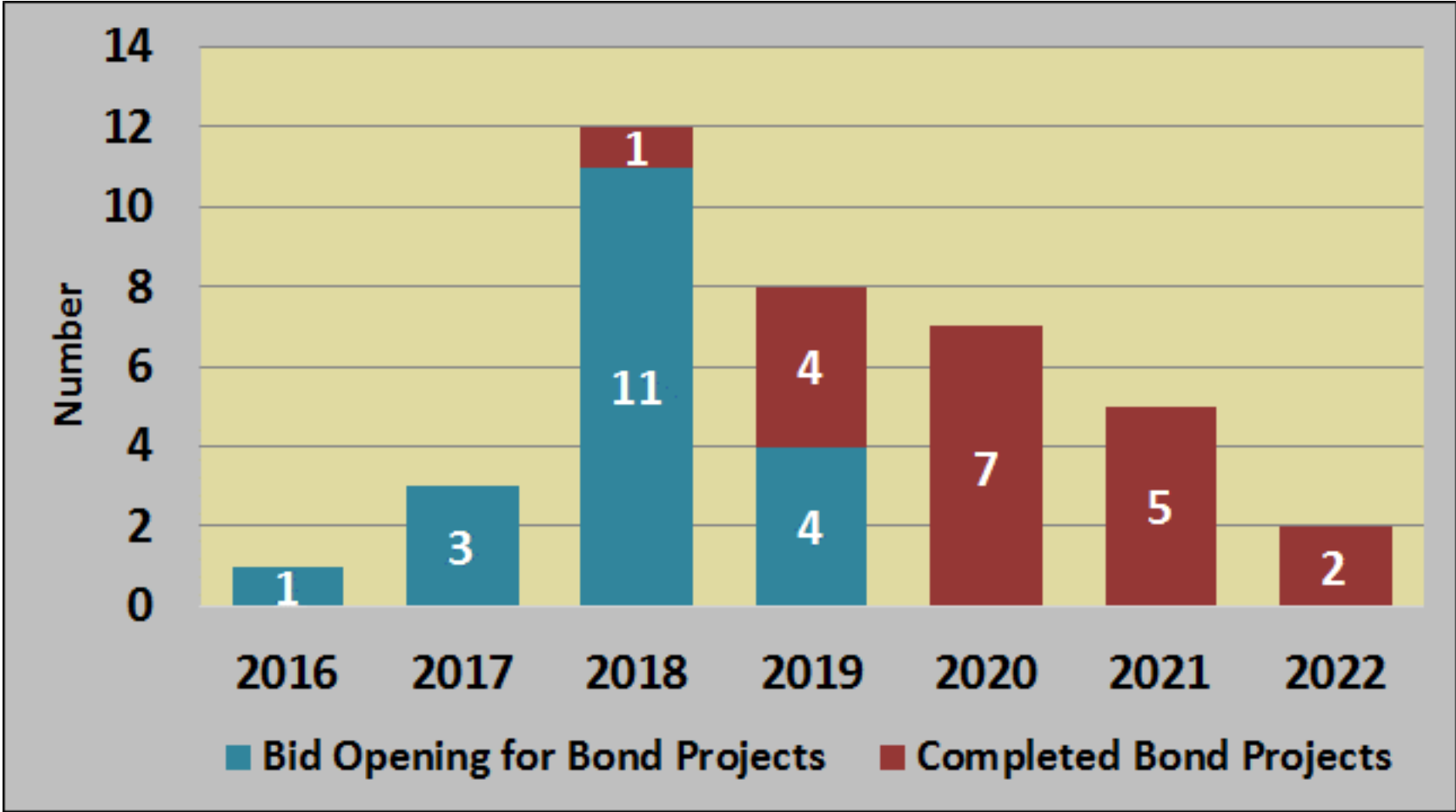
Design and CM at Risk Teams

- Design teams have been selected for all 21 bond projects.
- 20 of the 21 architectural firms are from NC.
- Construction Manager at Risk (CMR) firms have been selected for 14 of the 21 bond projects.
- All 14 of the CMR firms are from NC.

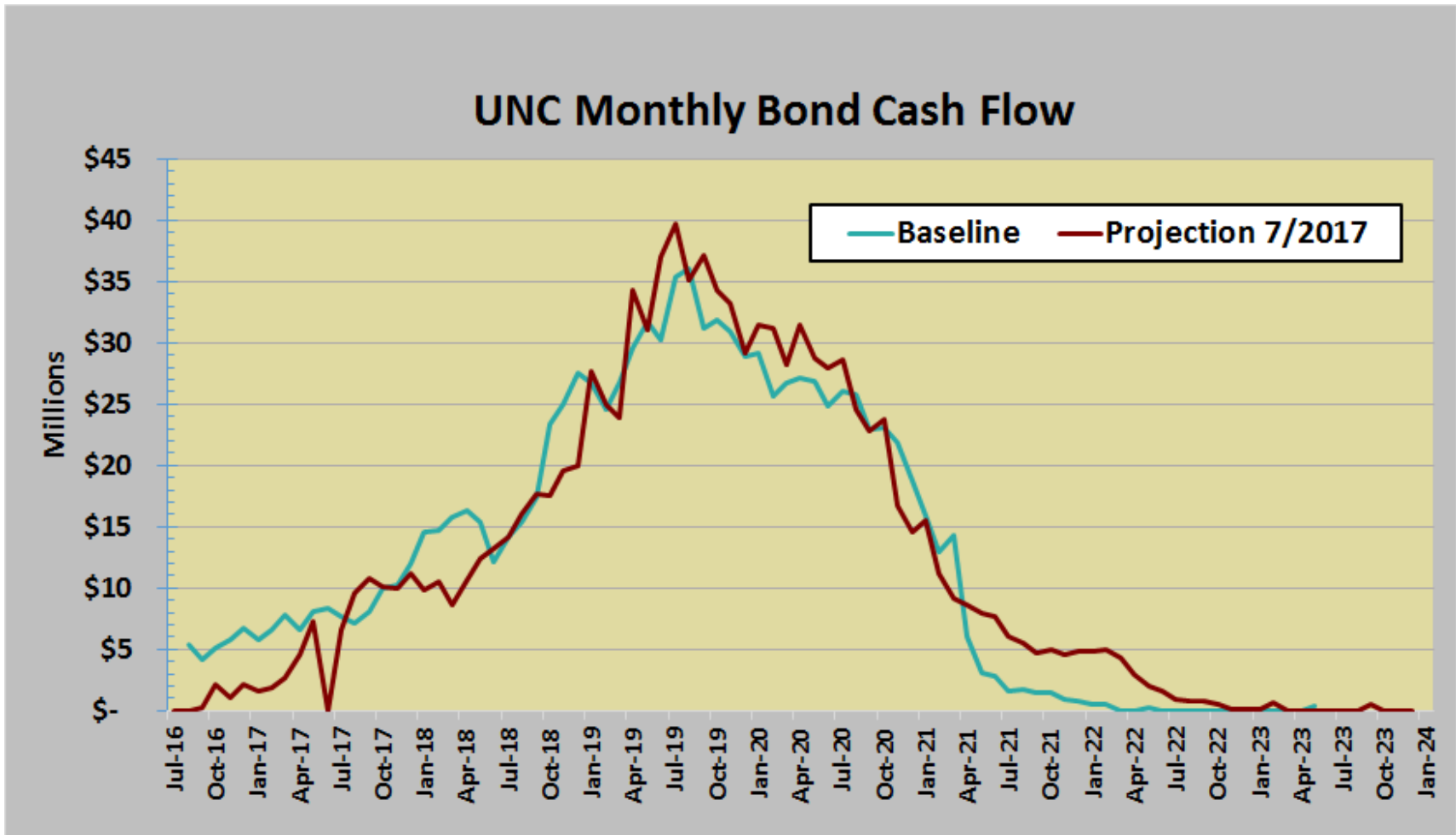
Phase of Bond Projects

Campus	Project	GSF	Total Costs	Adv. Planning	Schematic Design	Design Complete	Bid	Under Constr.
ASU	New Health Sciences Building	203,000	\$ 79,934,450	✓	✓	✓	✓	✓
ECSU	Renovate Moore Hall & G. R. Little Library	64,000	13,000,000	✓				
ECU	Life Sciences & Biotechnology Building	160,000	87,050,000	✓				
FSU	Lyons Science Building Renovation	77,000	10,000,000	✓				
NCA&T	Engineering Research & Innovation Center–ERIC	173,000	90,000,000	✓	✓			
NCCU	Business School	86,200	30,000,000					
NCSSM	Morganton Campus	150,000	58,000,000	✓				
NCSU	Engineering Building-Oval	227,000	130,385,000	✓	✓			
NCSU	Plant Sciences Building	199,000	151,898,800	✓				
UNCA	Renovate Owen & Carmichael Halls	78,807	21,100,000	✓				
UNCC	Sciences Building	150,000	101,000,000	✓				
UNC-CH	Replace Medical Education Building	125,000	90,429,792	✓				
UNCG	Nursing and Instructional Building	182,426	105,000,000	✓	✓			
UNCP	Business School	60,000	35,981,044					
UNCSA	Performance Place Renovation	60,180	7,800,000	✓	✓			
UNCSA	Old Library Renovation	29,633	8,000,000	✓	✓			
UNCW	Allied Health/Human Services/Nursing Building	175,000	66,000,000	✓				
WCU	Sciences Building	185,000	110,000,000	✓	✓			
WSSU	Sciences Building	103,000	53,312,000	✓	✓	✓		

Bid and Completion Projections



UNC Monthly Bond Cash Flow



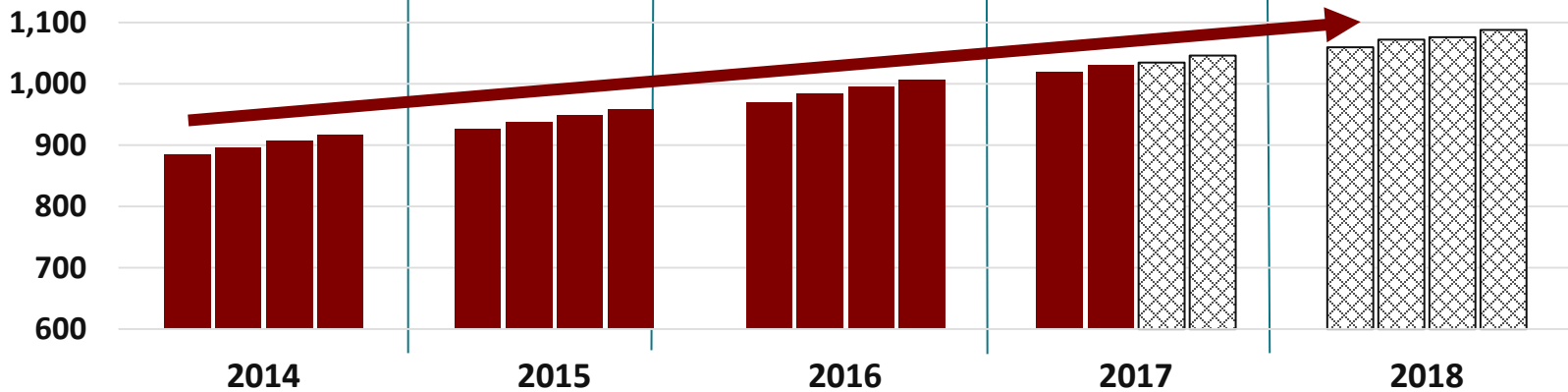
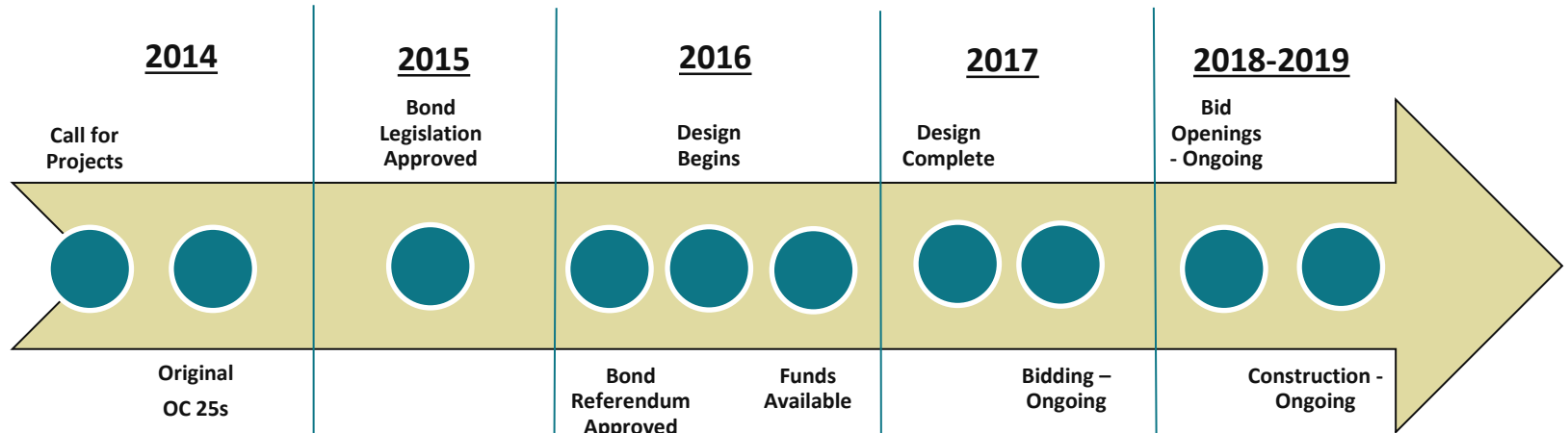
Annual funding for maintenance and operation of new buildings in the bond program is estimated at \$42 to \$45 million when all buildings are occupied by 2022.



Construction Cost Drivers

- **Past: Post-recession inflation of labor and materials**
- **Present: Volume of both public bond construction at state/county levels and private-sector construction in NC**
- **Future: The summer of hurricanes**

Schedule and Cost Relationship



Turner Construction Cost Index – 15.9% increase Q2 2014 to Q2 2017



Construction Cost Inflation

Second Quarter 2017 Building Cost Index

Q3 2016: 1.22%

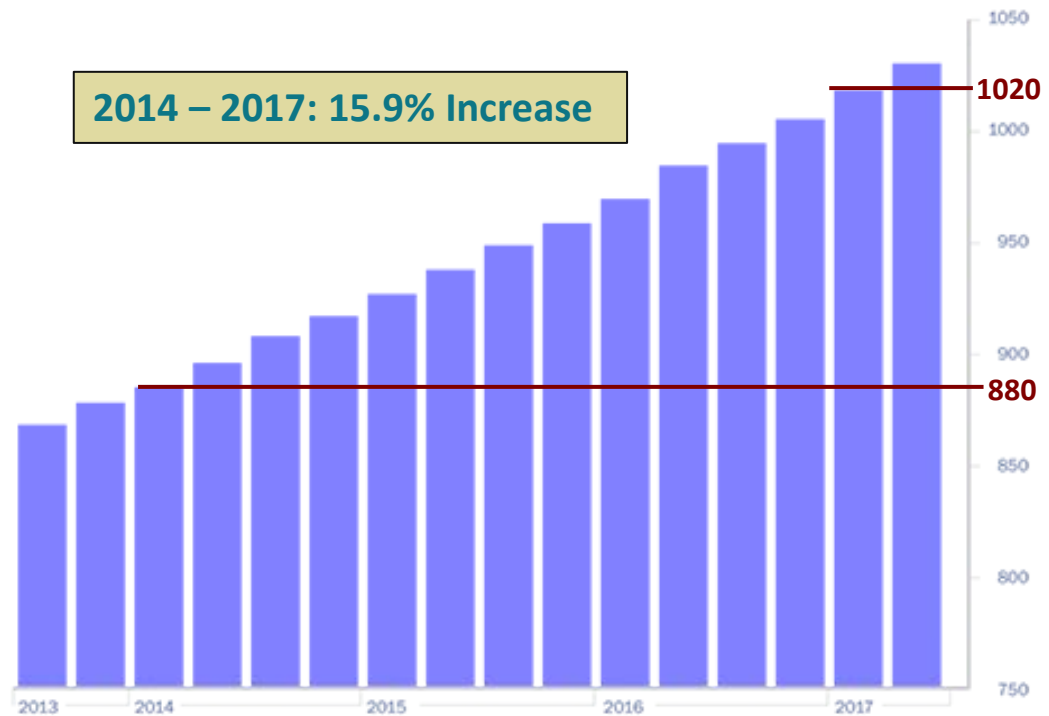
Q4 2016: 1.11%

Q1 2017: 1.29%

Q2 2017: 1.18%

“The steady pace of construction starts across the country is continuing to have an impact on the skilled labor workforce. As a result, we are seeing subcontractors exercise greater caution in their pursuits. Their selective approach to bidding also contributes to increased prices.”

Attilio Rivetti
Vice President

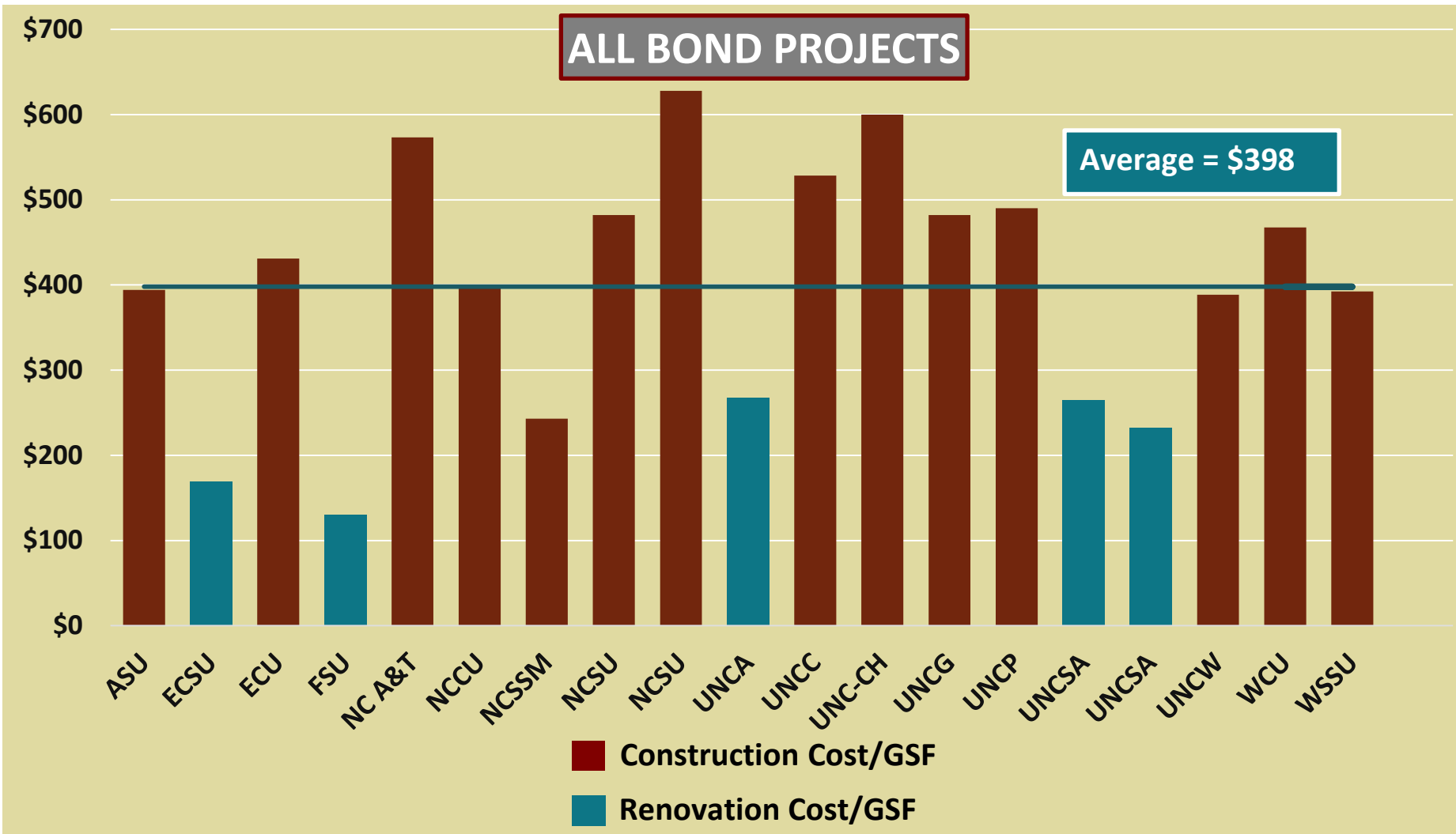


Base Year: 1967, Index 100

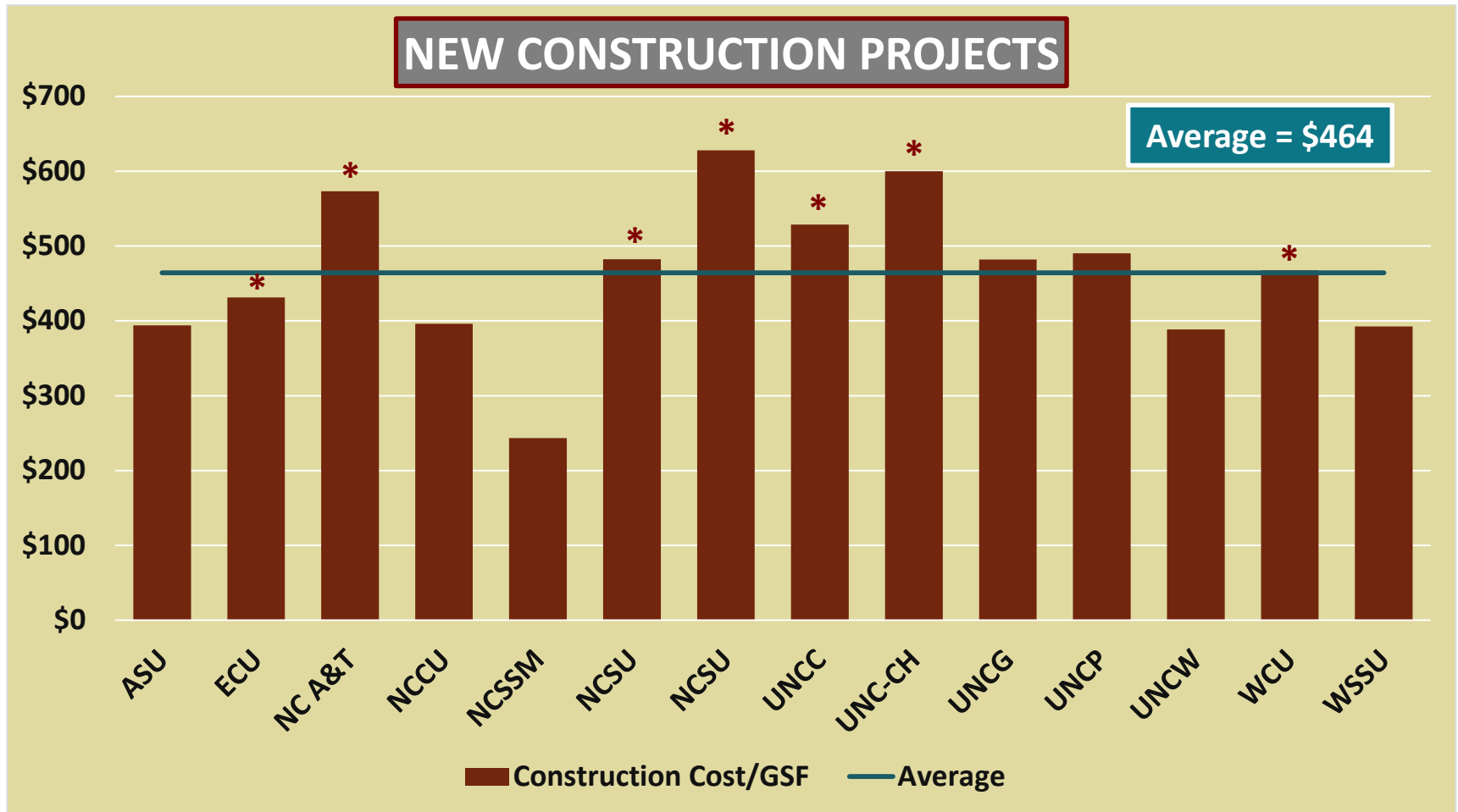
Source: Turner Construction Company



Current Projected GSF Construction Cost



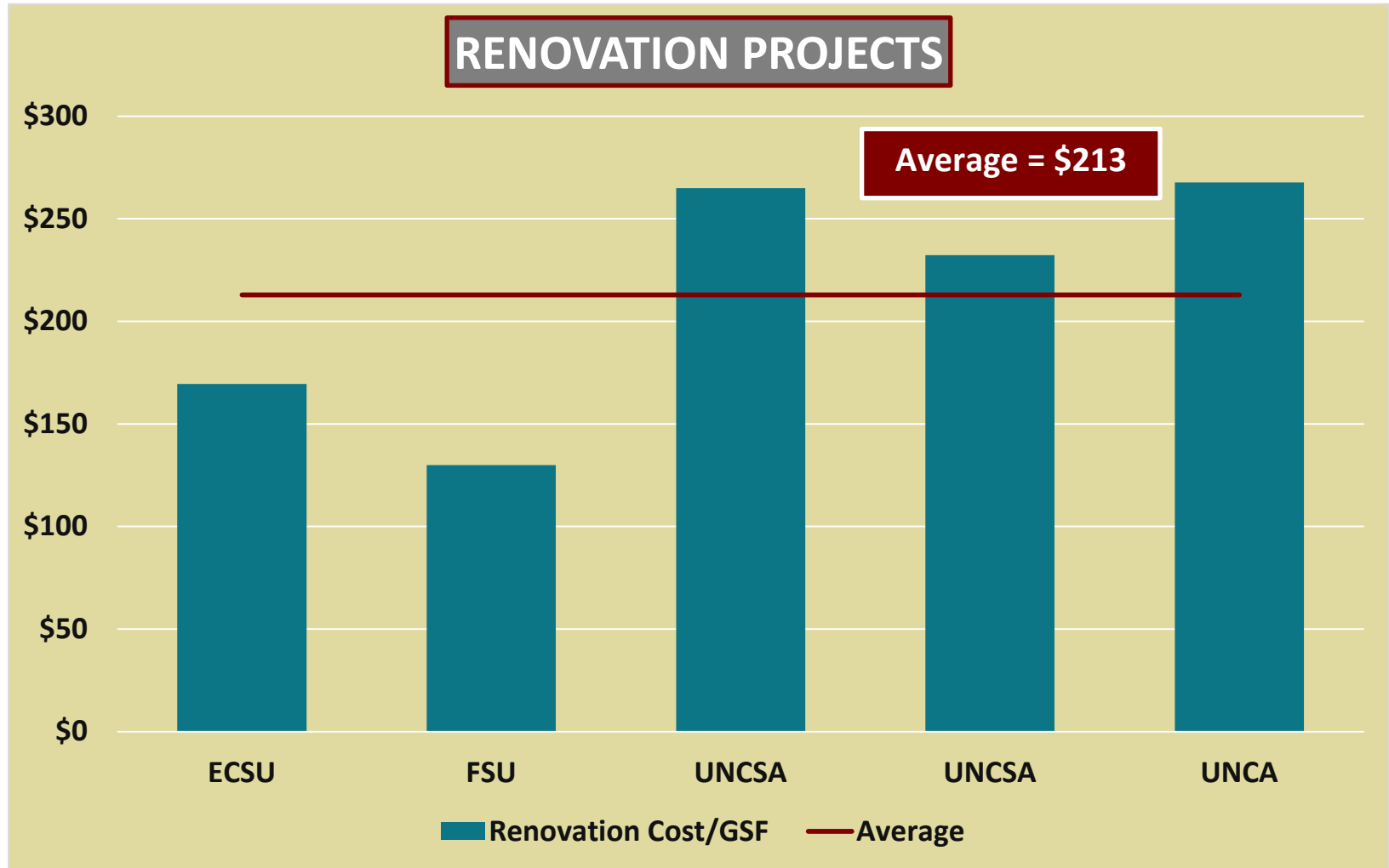
Current Projected GSF Construction Cost



**Indicates research-intensive projects*



Current Projected GSF Construction Cost



Way Forward

- Advance Planning design refinements reduced eight projects by 134,590 gross square feet (9.27%)
- Construction Managers at Risk firms added to owner/design teams
- Benchmark construction cost drivers and constructability to reduce \$/GSF
- Hold the line on project completion dates

THANK YOU

CONNECT



www.northcarolina.edu



UNC_System



@UNC_system

QUESTIONS?

CONNECT



www.northcarolina.edu



UNC_System



@UNC_system