



Student Housing Asset Management Planning

PREDICTABILITY IN AN
INCREASINGLY CHAOTIC CONTEXT

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Introductions

PANEL PARTICIPANTS



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Agenda

- 01** National Context
- 02** University Context
- 03** Key Questions
- 04** Process



01

National Context



Evolving Industry Context

P3S/OUTSOURCING IS GROWING AT MOST CAMPUSES

83%

Of college leaders say their campuses are increasing partnerships with private firms

53%

Of college leaders say they are interested in turning to P3s to develop campus facilities and infrastructure

42%

Of college leaders see an opportunity to outsource online program expansion

39%

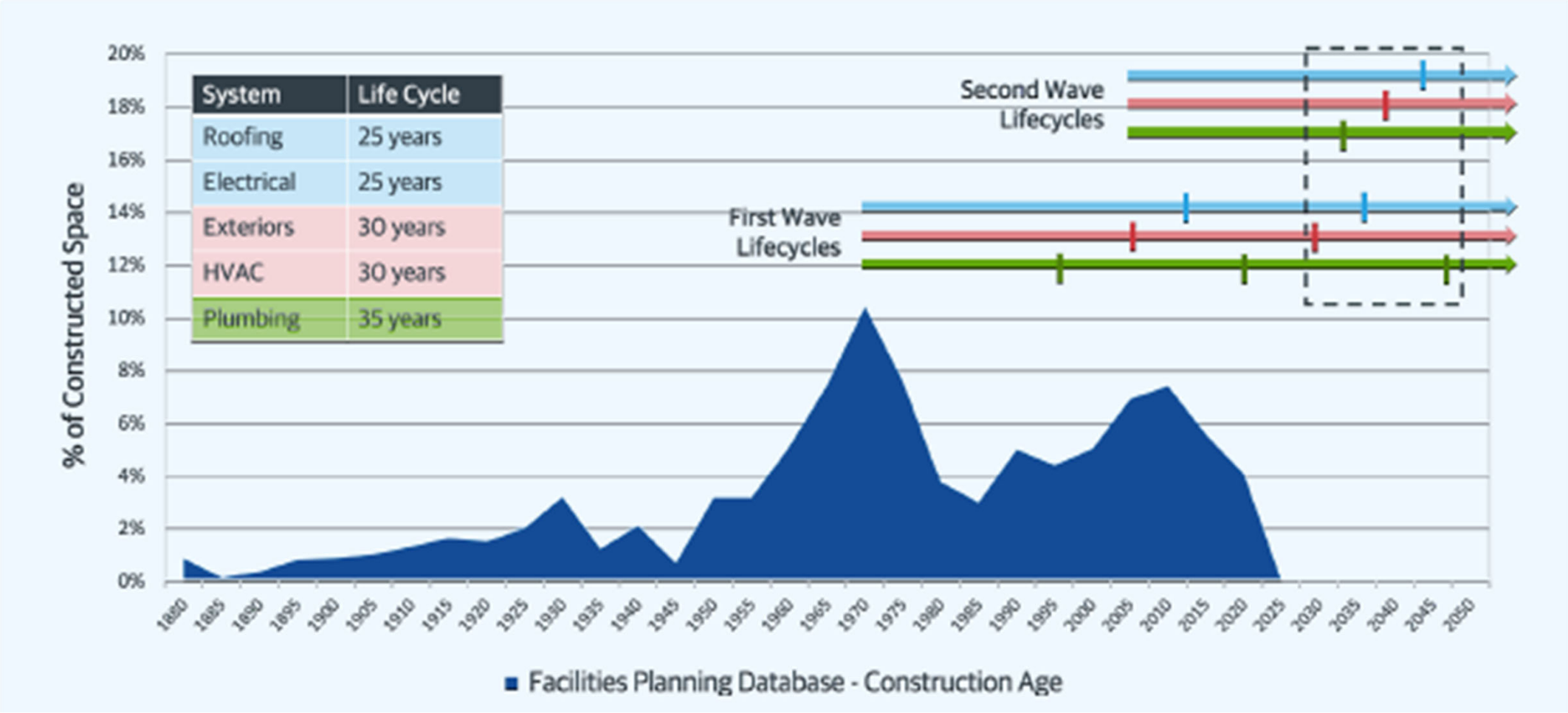
Of college leaders see an opportunity to outsource student housing

(Source: Education Dive, "Outsourcing is growing at most campuses, college leaders say")



Evolving Industry Context

AGING CONTINUES UNABATED



(Source: Gordian)

Why Asset Management Planning?

OBJECTIVES

Leadership in higher-education is looking for more effective, predictive, and financially achievable processes to manage existing assets. At this unique moment in time, market-driven volatility and material availability are forcing institutions to re-evaluate master planning initiatives and prioritization of project timelines.

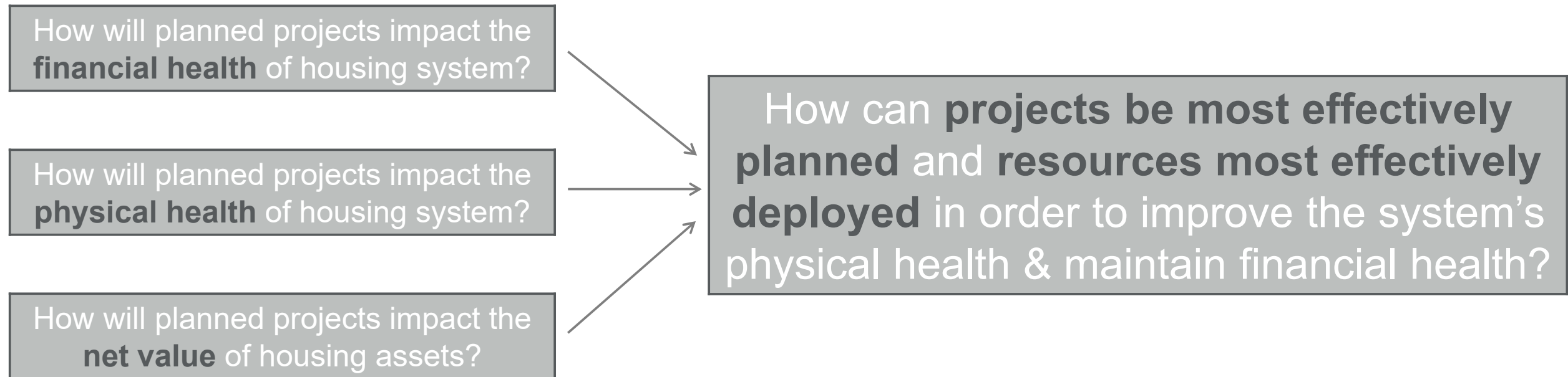
Increasingly, leaders are considering the value of re-investing in existing assets in lieu of demolition and building new facilities. During these considerations, universities face the following primary questions:

- › How can we create a framework for prioritizing capital improvements and system resource decision-making?
- › How can we most effectively communicate system needs and priorities?
- › How can we dynamically plan in the current environment?

Why Asset Management Planning?

MODEL FRAMEWORK & OBJECTIVES

To address these questions, specific to university housing portfolios, B&D has utilized the information from an institution's long term financial model, facility condition index reports (FCI), deferred maintenance logs (DM), and proposed capital planning to transform initially separate questions into a single final guiding question:



Why Asset Management Planning?

OUTCOMES

B&D's Asset Management Planning (AMP) efforts:

- **Is Outcome Focused.** The process is built on utilizing institutional knowledge and any existing FCI's, DM logs, and historic work order requests of the existing facilities. Representatives from the physical plant, facility management, and custodial departments are integral and essential to this process.
- **Is Dynamic.** The AMP tool is not a static report. The purpose of this tool is to provide continuous planning capabilities over a set time period. The university-controlled integrated model allows for changing realities to be updated so information stays relevant over time.
- **Is Tied to Financial Performance.** The tool integrates the university system's financial performance. This integration allows the owner to test scenarios, determine optimal funding strategies and identify the increase or decrease of the portfolios physical and financial performance overtime.
- **Is Owner-controlled.** Once B&D completes the initial effort, the university's trained end-users can update over time. B&D is available to provide ongoing customized support as required by the university.

02

University Context



University Context

UNIVERSITY OF SOUTH CAROLINA – OUTCOMES

- › Develop a dynamic model to analyze facility improvement needs maximizing value of existing housing system resource data.
- › Establish a real-time framework for decision-making related to future asset management investments.
- › Create a prioritized list of capital projects that create synergies between independent deferred maintenance needs.
- › Maximize the efficiency and value of deferred maintenance dollars invested.



University Context

UNIVERSITY OF SOUTH CAROLINA



**Columbia,
SC**

Founded in 1801, UofSC University is a public research institution located in Columbia, SC.



**35,364
FT Students**

Total full-time students in Fall 2021 (on the Columbia campus)



**2.80
ACI**

The average condition index across UofSC's housing inventory is 2.80

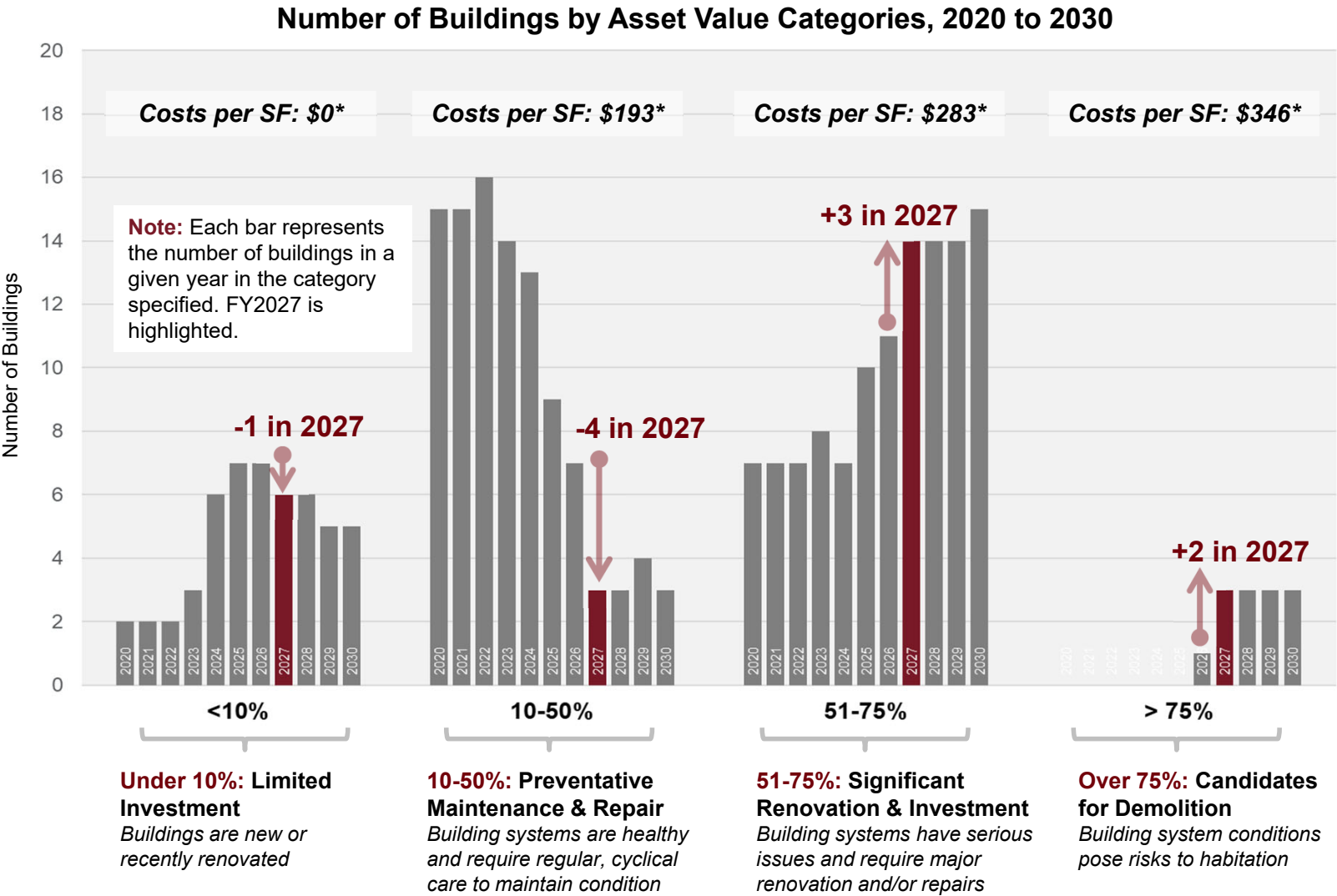


**40.5
Years Old**

Average age of UofSC's 23 owned housing facilities, with the latest development opening 5 years ago (Perper)

University Context

UNIVERSITY OF SOUTH CAROLINA



Critical moment: In **2027**, five buildings will transition from needing preventative maintenance & repair to requiring **significant renovation & investment**, meaning 65% of UofSC's housing inventory will be facing full renovation or demolition at that time.

Deferred Maintenance as % of Replacement Value

* Deferred maintenance costs per SF shown in 2027 dollars.

University Context

UNIVERSITY OF SOUTH CAROLINA

Through 2027 →

2027-Onward →

1

Address large assets
in poor condition;
plan for major renovation
or demolition

- › Capstone - *Immediate*
- › East Quad - *Upcoming*
- › Green Quad - *Upcoming*
- › South Tower - *Upcoming*

2

Create financial capacity
to address building
systems in poor condition

- › Sprinkler Systems
- › Elevators
- › Hazardous Materials
- › Roofs
- › HVAC & Building Controls
- › Finishes
- › Site Work
- › Internet & Security Systems

3

Establish cycles
of preventative
maintenance and repair

10-Year Upkeep Cycles for:

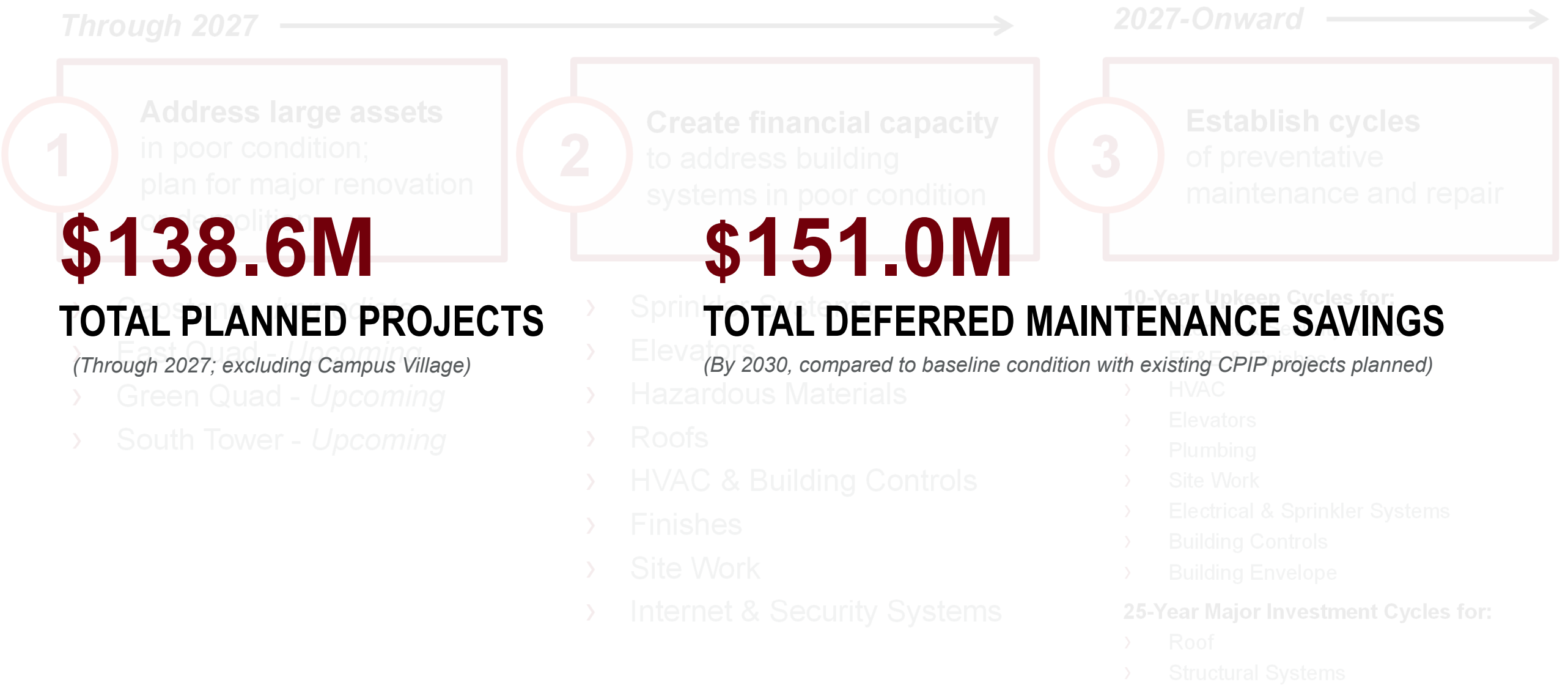
- › Internet & Security Access
- › FF&E & Finishes
- › HVAC
- › Elevators
- › Plumbing
- › Site Work
- › Electrical & Sprinkler Systems
- › Building Controls
- › Building Envelope

25-Year Major Investment Cycles for:

- › Roof
- › Structural Systems

University Context

UNIVERSITY OF SOUTH CAROLINA



University Context

UNIVERSITY OF SOUTH CAROLINA – BASE CONDITIONS

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Deferred Maintenance	\$311.72 M	\$291.30 M	\$296.69 M	\$320.73 M	\$336.82 M	\$298.64 M	\$344.42 M	\$369.26 M	\$434.81 M	\$450.33 M	\$466.83 M	\$491.21 M
Def. Maint. YOY % Change	-	-7%	2%	8%	5%	-11%	15%	7%	18%	4%	4%	5%
Def. Maint. as % of Replacement Value	45%	40%	40%	41%	42%	27%	31%	32%	37%	37%	37%	38%
Overall Condition Score	2.55	2.50	2.41	2.42	2.38	2.48	2.46	2.36	2.26	2.16	2.06	1.98
Overall Condition by Hall												
820 Henderson	2.61	2.51	2.51	2.41	2.31	2.21	2.10	2.01	1.91	1.82	1.72	1.64
Bates House	1.71	1.60	1.50	1.39	1.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bates West	2.06	1.95	1.85	1.74	1.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Capstone	1.90	1.79	1.85	1.74	1.63	1.54	1.44	1.35	1.27	1.21	1.14	1.08
Columbia Hall	2.20	2.09	1.99	1.88	1.77	1.67	1.56	1.45	1.35	1.25	1.15	1.06
Cliff	1.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DeSaussure	3.05	2.95	2.85	2.75	2.65	2.55	2.44	2.35	2.25	2.16	2.06	1.97
East Quad	2.50	2.39	2.29	2.18	2.07	1.97	1.86	1.75	1.65	1.56	1.46	1.37
Green Quad	2.65	2.54	2.44	2.33	2.22	2.12	2.01	1.90	1.80	1.70	1.60	1.51
Harper/Elliott	3.17	3.07	2.97	2.87	2.77	2.67	2.56	2.47	2.37	2.28	2.18	2.09
Honors	3.60	3.49	3.39	3.28	3.17	3.07	2.96	2.85	2.75	2.65	2.55	2.46
Maxcy	1.97	1.86	1.76	1.65	1.70	1.60	1.49	1.38	1.28	1.18	1.08	1.00
McBryde	1.57	1.47	1.37	1.42	1.32	1.22	1.11	1.02	0.93	0.85	0.78	0.71
McClintock	2.71	2.60	2.60	2.49	2.38	2.28	2.17	2.06	1.96	1.86	1.76	1.68
Patterson Hall	3.40	3.29	3.19	3.08	2.97	2.87	2.76	2.65	2.55	2.45	2.35	2.26
Pinckney/Legare	2.75	2.65	2.55	2.45	2.35	2.25	2.14	2.05	1.95	1.86	1.76	1.67
Preston	2.50	2.40	2.30	2.20	2.10	2.00	1.89	1.80	1.70	1.61	1.51	1.43
Rutledge	2.68	2.58	2.58	2.48	2.38	2.28	2.17	2.08	1.98	1.89	1.79	1.71
Sims	3.15	3.04	2.94	2.83	2.72	2.62	2.51	2.40	2.30	2.20	2.10	2.02
South Quad	2.45	2.34	2.24	2.13	2.02	1.92	1.81	1.70	1.60	1.50	1.40	1.33
South Tower	2.66	2.55	2.45	2.34	2.23	2.26	2.15	2.04	1.94	1.84	1.74	1.65
Thornwell	2.71	2.61	2.51	2.41	2.31	2.21	4.00	3.89	3.79	3.68	3.57	3.47
Wade Hampton	2.75	2.64	2.54	2.43	2.32	2.22	2.11	2.00	1.90	1.80	1.70	1.62
Woodrow	3.07	2.96	2.86	2.75	4.00	3.89	3.79	3.68	3.57	3.47	3.36	3.25
Campus Village	N/A	N/A	N/A	N/A	N/A	5.00	4.89	4.79	4.68	4.57	4.47	4.36
Honors Expansion	N/A	N/A	N/A	5.00	4.89	4.79	4.68	4.57	4.47	4.36	4.25	4.14

University Context

LYNN UNIVERSITY – OUTCOMES

- › Determine if Lynn should continue to invest in aging assets versus replacement.
- › Improve operating costs across all campus facilities to minimize additional future campus infrastructure investments.
- › Enhance the efficiency of campus land use given ongoing enrollment growth.
- › Improved business intelligence based on past and future facility operations and maintenance costs.



University Context

LYNN UNIVERSITY



Boca Raton, FL

Founded in 1962, Lynn University is a private institution located in Boca Raton, FL.



2,825 FT Students

Total full-time students in Fall 2021, with record first-year enrollment in Fall 2021 and 2022



30% Of Facilities

On-campus housing accounts for 30% of Lynn’s total facilities on its campus, with expectations of adding at least 3 new housing facilities as part of Housing Master Plan

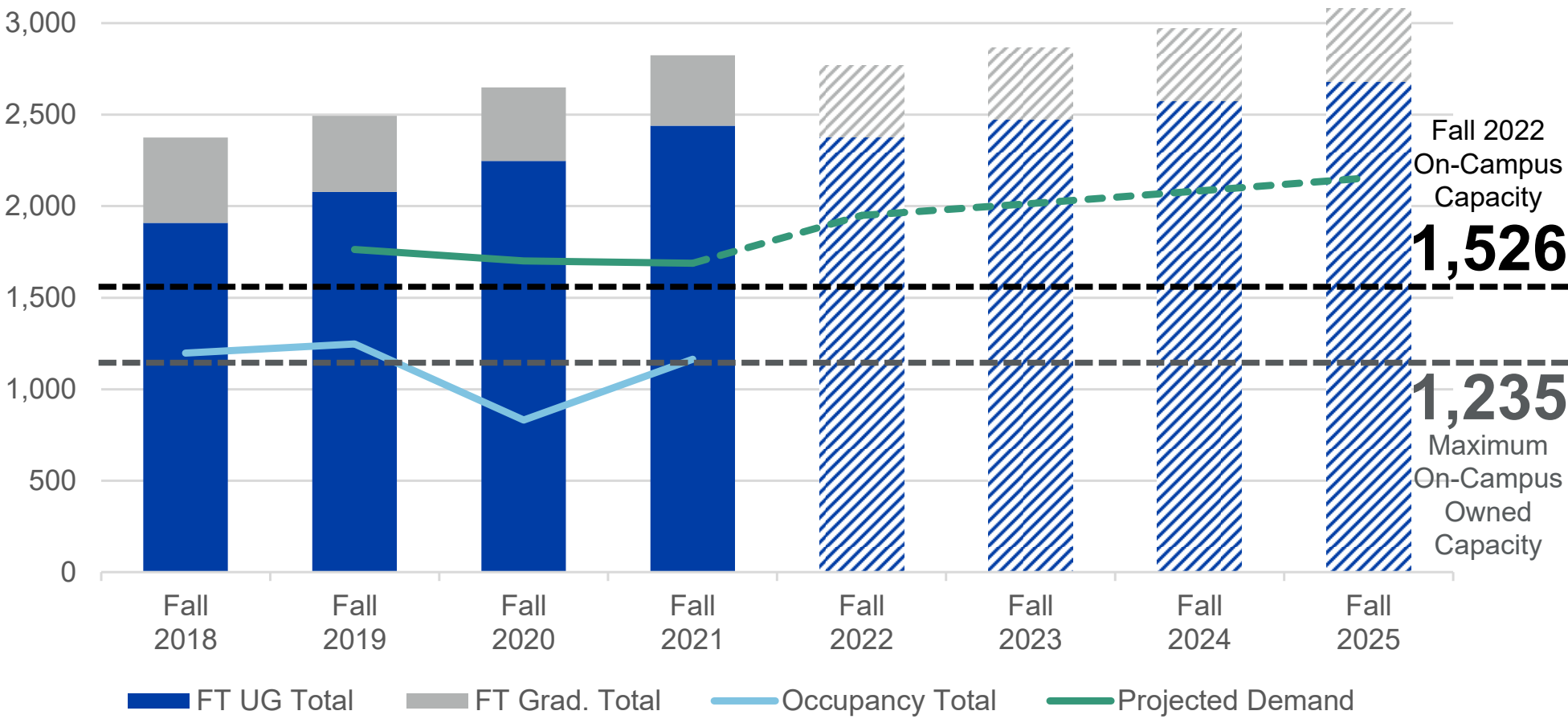


38 Years Old

Average age of Lynn’s 6 oldest housing facilities, with the latest development opening 5 years ago (Perper)

University Context

LYNN UNIVERSITY



20%

Increase in
Non-Local FT
UG Students
since 2019

89%

On-Campus
Capture Rate of
Non-Local FT
UG in Fall 2021

1,233

Projected Demand
Total from First- +
Second-Year Students
in Fall 2025

University Context

LYNN UNIVERSITY

Why an Asset Management Plan for Lynn?

- › Large percentage of Lynn-owned beds are over 55 years old, with many facility systems nearing the end of their useful life.
- › All of Lynn's oldest housing facilities are designed for first- and second-year students, which is a critical target market for on-campus housing.
- › Outdated data and information for past and future planned capital reinvestments, limiting Lynn's ability to plan future capital reinvestment spending.

1,235

On-Campus Beds
Owned by Lynn

41.7%

Of Lynn's Owned-
Beds are **Over 55**
Years Old

\$1.5M+

Estimated Deferred
Maintenance for
Lynn's Owned-Beds
Through 2025

University Context

LYNN UNIVERSITY – SUMMARY OF CONDITIONS



Perper



Trinity



EML



de Hoernle



Freiburger



Lynn Res.

	Perper	Trinity	EML	de Hoernle	Freiburger	Lynn Res.
Building Information	Built: 2017 Total Beds: 170 Unit-Types: Full Suites	Built: 1961 Total Beds: 140 Unit-Types: Traditional	Built: 2002 Total Beds: 375 Unit-Types: Semi-Suites	Built: 1966 Total Beds: 196 Unit-Types: Traditional	Built: 1965 Total Beds: 179 Unit-Types: Traditional	Built: 1991 Total Beds: 175 Unit-Types: Semi-Suites
Student Experience	Doors create barriers to community; small staff; poor cell reception; high temperatures in bedrooms	Students request this building; community engagement highest; house first-year students; good staff to student ratio; Downside: community	Private bathroom drives demand; spacious as doubles, tight as triples; Res Life spaces now offices; laundry on every floor	No laundry; unit layout barrier to community; tight fit for furniture in some units; small staff; no common space (all offices now); no elevator causes accessibility problems	Very similar experience to de Hoernle. Student experience reputation is especially poor	Private bathroom drives demand; spacious as doubles, tight as triples
Maintenance	Ongoing concerns: bedframes, exterior communal spaces/ hallways require, fire pit broken, paint building exterior (original paint- 2017)	Roof renovated (2004); walls resurfaced with EFFIS and & Painted in 2006- deferred maintenance; elevator updated in 2018; fan coils for chilled water loop at end of useful life	Relatively newer systems with less repair concerns than other Lynn facilities, but a specific focus on floor drains and IT conduits in coming years	Mold when A/C is off & window open; some mechanical system are original (update= remove roof); Roof 2006; Paint 2011; Floor replacement; Original HVAC system	Similar timelines for life cycles as de Hoernle, but many of the systems are in worse conditions	Older facility that has received updates to its systems – similar to EML in terms of future investments.
Capital Projects	Bedframe repair/replacement	All furniture from 2004- replacement needed; roof; fan coils; EFFIS repair	Replace dorm furniture; roof and paint; galvanized steel casing for each room; update hallway on every floor & elevator; update lighting	Replace carpet; upgrade furniture; HVAC; roof repair upcoming	Replace carpet; upgrade furniture; HVAC; roof repair upcoming	Replace dorm furniture; roof and paint; galvanized steel casing for each room; update hallway on every floor & elevator; update lighting
Projected Outcome	Reinvest Capital into Asset	Undecided	Reinvest Capital into Asset	Replace	Replace	Undecided

03

Key Questions



Q&A

QUESTION 1

What challenges have you faced in the planning and implementing of capital projects that address deferred maintenance?

Q&A

QUESTION 2

How have COVID-19, current political context, and construction market realities further highlighted the importance of asset management planning?

Q&A

QUESTION 3

Can you describe what campus collaboration challenges your campus is seeking to mitigate through asset management planning?

Q&A

QUESTION 4

What suggestions do you have to other institutions facing similar challenges related to addressing deferred maintenance?

04

Process



Why Asset Management Planning?

PROCESS

- › **Step 1: Success Criteria and Strategic Framework Definition**
- › **Step 2: Data Collection**
 - *Facility Condition by System (e.g., MEP, Roof, FF&E, IT, etc.)*
 - *Financial Performance Data by Asset Type*
 - *Currently Planned Capital Reinvestment Projects*
- › **Step 3: Model Development**
 - *Housing System Financial Model (for the Division)*
 - *Facilities Condition Module (Current & Future Condition)*
 - *Demand / Supply Reconciliation (Optional)*
- › **Step 4: Concept Development for an AMP**
 - *Prioritization of Facility Needs Across the Entire System*
 - *Identification of Defined Projects to Most Efficiently Address Priority Needs*
 - *Development of a Feasible Funding and Phasing Strategy for Identified Projects*

Model Inputs & Outputs

ANALYSIS

AMP Model Inputs
<div>Planned Projects</div> <div><i>Planned Year</i> <i>Building(s) & Building System(s)</i> <i>Estimated and/or Contracted Costs</i> <i>Method of Funding (Cash / Debt)</i> <i>Improved Condition</i></div>
<div>Baseline Facility Conditions</div> <div><i>Condition Scores by Building & Building System</i> <i>Building Size (GSF, Perimeter, Number of Floors)</i> <i>Historic Designations</i></div>
<div>Project Cost Assumptions</div> <div><i>Hard Costs by Building System</i> <i>Hard Costs for Full Renovations</i> <i>Soft Costs as % of Hard Costs</i> <i>Condition Multipliers by Building System</i> <i>Replacement Schedules by Building System</i> <i>Expected Inflation</i></div>
<div>System Financials</div> <div><i>Housing Supply by Building</i> <i>Rental Rates by Building</i> <i>Other Revenue by Type</i> <i>Operating Expenses by Type</i> <i>Existing Debt Schedule</i> <i>Expected Inflation</i></div>
<div>System Demand</div> <div><i>Demand Projections for On-Campus Housing</i></div>



AMP Model Outputs
<div>Projected Facility Condition (15-Year)</div> <div><i>By Building & Building System</i></div>
<div>Projected Deferred Maintenance (15-Year)</div> <div><i>By Building & Building System</i> <i>Deferred Maintenance as % of Replacement Value</i></div>
<div>Projected Financials (15-Year)</div> <div><i>Revenues, Expenses, & Net Operating Income</i> <i>Debt Service, Debt Coverage, & Debt Capacity</i> <i>Fund Balance</i> <i>Required Draws from Fund Balance</i></div>
<div>Projected Supply & Demand</div> <div><i>Housing Supply by Type & Building</i> <i>Net (Unmet) Demand</i></div>

- How will we **prioritize projects**?
- How to distribute resources to have the **greatest impact**?
- How will we effectively communicate reinvestment **needs**?
- What **housing system changes** may be needed to maximize efficiency?

Why Asset Management Planning?

AFTER THE INITIAL PLANNING IS COMPLETE

- › The university determines, and B&D trains, the university champion of the tool
- › The university incorporates the tool into day-to-day decisions and operations
- › The university collaboratively engages campus leadership in asset planning to proactively guide campus-wide strategic prioritization and resource allocation
- › The university regularly refines inputs & assumptions
- › B&D partners, as needed, with the university on ongoing asset management which may include regular tool enhancements, new construction, project implementation, socialization, and operational planning

Thank you.

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