

SUBJECT: Facilities Condition Assessments	Effective Date: 08/31/2023	Procedure Number: FS 2022*****	
	Supersedes: New SOP	Page 1	Of 4
	Responsible Authority: Vice President, Facilities and Business Operations		

APPLICABILITY/ACCOUNTABILITY:

This procedure applies to all Facilities and Business Operations (FBO) employees who are actively involved with facility condition assessments. The University’s Facilities Condition Assessment (FCA) program applies to all university Foundation, DSO’s, AUX’s, and E&G facilities.

PROCEDURE STATEMENT:

Facilities Condition Assessments (FCA) is the process of developing a comprehensive picture of physical conditions and the functional performance of buildings and infrastructure; analyzing the results of data and observations collected and reporting and presenting the findings. This procedure provides guidance and direction to ensure the University’s facilities are maintained in a safe and compliant manner as it relates to deferred maintenance planning and prioritization of associated capital expenditure using data driven analysis to assist with informed decision-making processes.

An FCA is a comprehensive evaluation of the facility's components, such as structural, mechanical, electrical, plumbing, and fire protection systems. The assessment also includes a review of the facility's site and exterior features, such as landscaping, parking, and accessibility. The FCA process takes several factors into account including building age, design, assets, materials used and more. Operational teams may use FCA reports to review assets or systems, look into root cause of deterioration, evaluate how well facilities are meeting the needs of occupants and determine a building’s replacement value.

Meeting Schedule with Business Partners

Feb FCA meeting	Parking Services	Business Services	Housing	Caps	Student Union	Rec & Wellness	SSWB	COM/LNCC
Nov FCA meeting	UCFCC	UCFIT	AA	Bennett Incubator	E&G	Partnerships	Rosen Housing	Health Center

DEFINITIONS:

Commissioned Consultants. Specialty consultants with building condition experience hired on a periodic basis to execute facility inspections and provide reports.

Facilities Condition Assessment (FCA). FCA is a detailed inspection of the condition of a facility and all systems therein for the purpose of evaluating all assets in order to effectively plan and prioritize maintenance, repair, and or replacement activities. FCAs are typically prepared for owners or managers of real estate portfolios to help optimize and maintain the physical condition and value of their assets, develop capital budgets, and prioritize resources. A Facility Condition Assessment can also be used to

secure additional funding for renovations. They are a vital tool for owners and managers of real estate portfolios to plan and prioritize short- and long-term investments in their facilities.

Facilities Condition Index (FCI). FCI is an industry standard metric that serves as an objective benchmark following a Facility Condition Assessment. FCI is calculated by taking the total cost of existing renewal/repair costs and dividing this number by the total estimated replacement value. An FCI of 0.1 signifies a 10% deficiency and is generally considered low. On the other hand, an FCI of 0.7 is a 70% deficiency and means the building is in need of major and extensive repairs. The lower an Asset's FCI value, the better the building's overall condition it can be assumed to be.

Current Replacement Value (CRV). CRV is the sum of an assets system replacement value derived from RSMeans construction cost data and localized to the nearest major city. CRV refers to the estimated cost to replace an asset or property with a similar one in the current market, considering factors such as age, condition, and depreciation.

Return on Investment (ROI). ROI is generally defined as a way to calculate net financial gains taking into account all the resources invested and all the amounts gained through increased revenue, reduced costs or both. Incorporating newer technologies can often reduce energy costs, lower water consumption as well as provide ease of serviceability and maintenance over the life of the asset thus reducing operating costs and thus making the ROI payback much more attractive. ROI calculation in project management is

$$\text{ROI} = [\text{Financial Value} - \text{Project Cost}] / \text{Project Cost} \times 100$$

RSMeans. A provider of construction cost estimating data and software tools that are widely used by architects, engineers, contractors, and other construction professionals in the United States. RSMeans is a trusted and widely used resource in the United States, providing reliable and up-to-date information to help construction professionals make informed decisions about their projects.

ASTM E2018. A standard guide for Property Condition Assessments (PCA) that was first published by the American Society for Testing and Materials (ASTM) in 1999. It provides a framework for conducting a PCA of commercial, industrial, and multi-unit residential properties.

ASTM UNIFORMAT ELEMENTAL II. Defines a standard classification for building elements and related sitework. It provides a framework for design and management across a building's lifecycle. See Table 1 on page 3 for example.

GOALS AND OBJECTIVES OF FCA PROGRAM:

- Identify and prioritize facility deficiencies: The FCA program aims to identify all the current and potential future deficiencies of the facility. The assessment prioritizes the deficiencies in terms of severity and urgency.
- Develop a long-term maintenance plan: Based on the results of the FCA, a long-term maintenance plan will be developed to address the identified deficiencies. The plan will include a schedule of repairs and upgrades, as well as estimated costs.
- Enhance the operational efficiency of the facility: The FCA program aims to identify opportunities to enhance the operational efficiency of the facility. This includes upgrading equipment, improving energy efficiency, and implementing sustainable practices.
- Ensure compliance with regulations: The FCA program ensures that the facility is compliant with all relevant regulations and codes. Any deficiencies that may result in non-compliance will be identified and addressed.

- Optimize resource allocation: The FCA program aims to optimize the allocation of resources, including budgets, staff, and equipment. The assessment helps facility managers make informed decisions about where to allocate resources to maximize their impact.
- Provide a comprehensive facility snapshot: The FCA program provides a comprehensive snapshot of the facility's current state, including its strengths, weaknesses, and opportunities for improvement. This information is used to inform strategic planning and decision-making.

APPROACH:

- The university will take a variety of approaches which are detailed below for its FCA program annually. Using these approaches will help validate that all aspects and methods for assessing the university portfolio are renewed.
- Visual Inspection Approach: This approach involves a visual inspection of the facility to identify any visible deficiencies, such as cracked walls, leaky roofs, or malfunctioning HVAC systems. The visual inspection will be conducted by a team of experienced inspectors.
- Component-based Approach: This approach involves breaking down the facility into its individual components, such as roofing systems, electrical systems, plumbing systems, etc. Each component is then assessed based on its current condition, remaining useful life, and estimated replacement cost.
- Risk-based Approach: This approach involves assessing the facility based on the level of risk associated with each component or system. High-risk components, such as critical infrastructure or safety systems, are given priority for inspection and maintenance.
- Performance-based Approach: This approach involves assessing the facility based on its performance metrics, such as energy efficiency, indoor air quality, and occupant comfort.
- Life-cycle Cost Approach: This approach involves assessing the facility based on its life-cycle cost, which includes the initial construction cost, maintenance cost, and replacement cost over the facility's lifespan. This approach is used in conjunction with the component-based approach to develop a long-term maintenance plan.

Meeting Schedule with Business Partners

Table 1.

Feb FCA meeting	Parking Services	Business Services	Housing	Caps	Student Union	Rec & Wellness	SSWB	COM/LNCC
Nov FCA meeting	UCFCC	UCFIT	AA	Bennett Incubator	E&G	Partnerships	Rosen Housing	Health Center

PROCEDURE:

1. FCA will be performed either in-house or by a hired and qualified FCA provider. Facilities shall generally be inspected every two years, or as needed to validate the data and/or to identify deferred maintenance and capital improvement needs.

2. Prior to the FCA, the university facilities are accessible to the assessors and relevant documentation, such as maintenance records and warranties, is available.
3. The FCA provider will conduct a physical assessment of the facility, including visual inspections, testing, and data collection. The provider may also review documentation and interview staff.
4. Building interior finishes are also being evaluated as part of the FCA program. Industry standard average lifespan for interior finishes such as flooring, wall finishes, chair rails, fixed seating, etc. is approximately 15 years. Many of the interior finishes at the university have exceeded this average lifespan. Any finishes deemed in need of replacement will be documented. However, they will be prioritized at a lower priority level and will only be addressed as deferred maintenance funding allows it. Any funding allocations will be utilized to address systems and components in the following priority.
 - i. Life safety, i.e. fire alarm, fire sprinklers, fire pumps, fire suppression.
 - ii. building envelop integrity, ie roofs, windows, doors, exterior wall systems.
 - iii. HVAC, Electrical, plumbing systems.
 - iv. Interior finishes, flooring, fixed seating etc.
5. After the FCA is complete, the provider will analyze the data and prepare a report detailing the condition of the facility, including any deficiencies and recommended repairs or upgrades.
6. The FCA data is compiled into a single document that prioritizes current and future needs of the University to establish planned improvements on a three, five, and ten-year capital improvement plan. Cost estimates to be developed using the latest RSMeans construction cost data. Base cost estimates using RSMeans to include material and labor to renew repair upgrade install at prevailing contractor rates.
7. The data collected is cross referenced with facilities project management and work order software (eBuilder, AIM) to maintain and update the data, which provides a roadmap for field inspections.
8. Based on the FCA results, the provider will develop a long-term maintenance plan to address the identified deficiencies. The plan will include a schedule of repairs and upgrades, as well as estimated costs.
9. Approval process for the FCA reports will be presented to each fiscally responsible area. The FCA report shall include a forecast of the building asset's effective age and estimated lifespan. Cost analyses and timelines will also be provided to assist in building capital budgets along with a Facilities Condition Index (FCI). The report may also include any code related deficiencies or compliance concerns as well as life safety violations observed during site inspections. Meetings with stakeholders will be scheduled in October and in April of each year. See **Table 1** below for meeting schedule.
10. Upon approval of FCA report, UES Engineering will create and submit Minor Project (MP) request to PDC. Funding account will need to be provided and included with the MP request.
11. An example of the detailed reporting is shown below.

Example 1:

Level 1	Level 2	Level 3	Total Cost	Backlog cost	2023

A-Substructure	A10-Foundations	A1033- Slab on Grade	\$1,650,000	\$0	\$0
B- Shell	B10-Superstructure	B1013- Floor Construction	\$1,557,261	\$325,949	\$116,000
B- Shell	B20- Exterior Enclosure	B2023- Exterior Windows	\$16,451,000	\$745,788	\$622,000
B-Shell	B30- Roofing	B3013- Roof Covering	\$91,541,484	\$7,090,160	\$8,058,000
C-Interiors	C10-Interior Construction	C1013- Partitions	\$1,841,682	\$223,968	\$23,905
C-Interiors	C20-Stairs	C1023-Stair Finishes	\$2,024,480	\$101,223	\$0
C-Interiors	C30-Interior Finishes	C1033- Fittings	\$0	\$0	\$0
D-Services	D20-Plumbing	D2023- Domestic water distribution	\$7,281,830	\$917,641	\$128,904

RELATED DOCUMENTS:

UCF Policy 3-106 Maintenance, Repair, and Housekeeping
<https://www.policies.ucf.edu/documents/3-106.pdf>

APPA Book of Knowledge (BOK)
<https://www.appa.org/bok/>

Approved By:	Date Approved:
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