

**IOWA**

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# Integrated and Strategic Building Stewardship

*Building Coordinators, September 2023*



# IOWA

Facilities Management

## A New Approach . . .

### Drivers of a New Approach

They Know the Systems Best

Process Buys Ownership

Believable Data

Accurate Data

Ownership



# IOWA

Facilities Management

## Facilities Renewal Process Principles

**Our Implementation Needs to be . . .**

A Multi Year Strategy

Flexible, Adaptable and Replicable

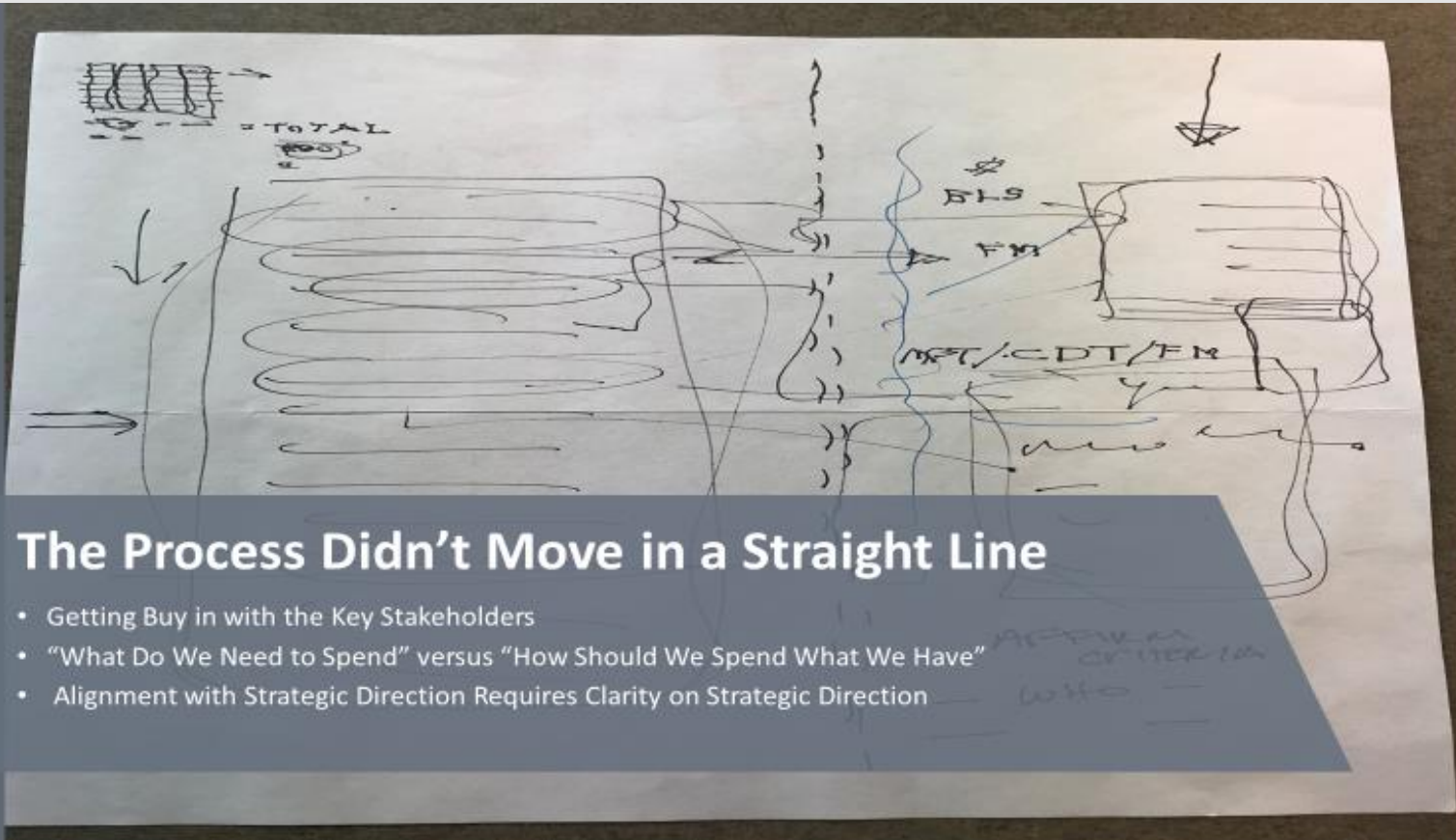
Aligned with Campus Planning and Institutional Priorities and Mission

Data Driven by Credible In-House Expertise





## Establishing Strategic Groupings Frames the Conversation

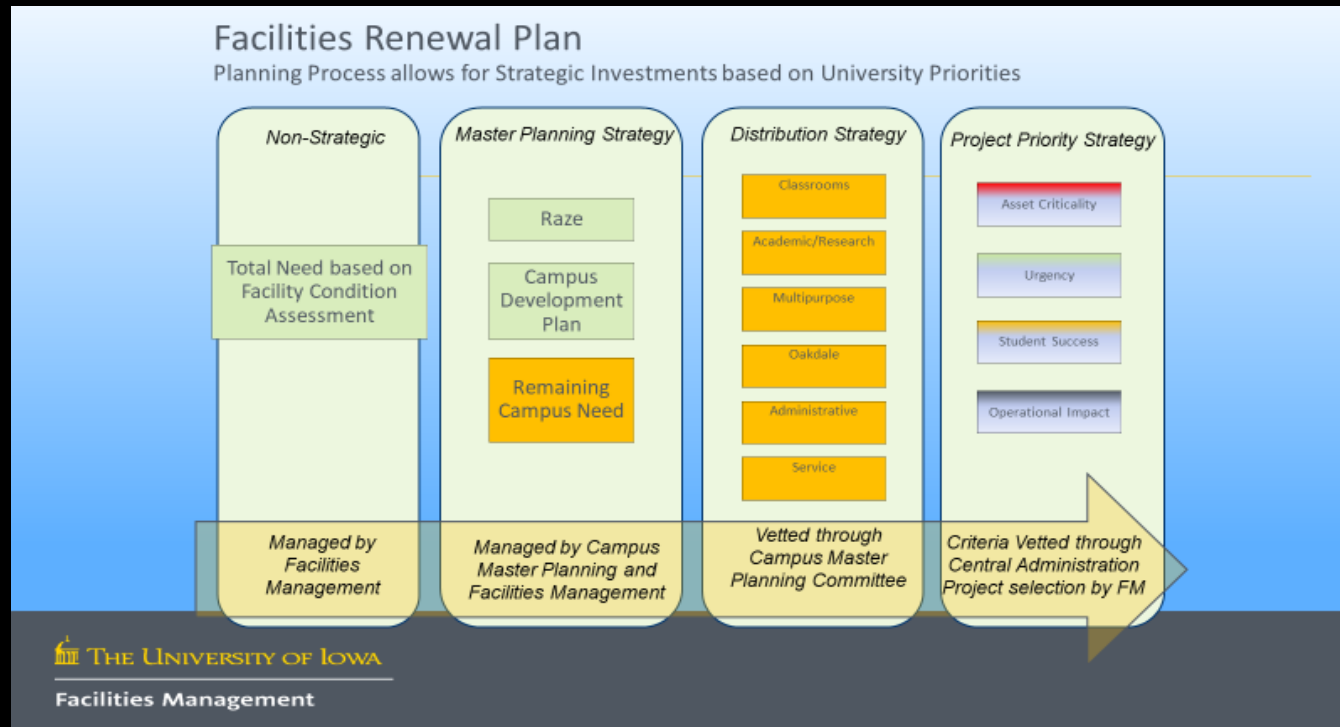


## The Process Didn't Move in a Straight Line

- Getting Buy in with the Key Stakeholders
- "What Do We Need to Spend" versus "How Should We Spend What We Have"
- Alignment with Strategic Direction Requires Clarity on Strategic Direction



## Facilities Management



# A Flexible Data Driven Scoring Matrix

*Always refining and informing the Matrix*



## Iowa Falls Short by \$49.7M to Target in FY22



While below target, Annual Stewardship dollars maintained increased level seen in FY21

Total Capital Investment vs. Funding Target



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You're Never Going to Have Enough Funding

- Need to Establish Additional Factors to Prioritize with
  - Institutional Priorities
  - Operational Costs
  - Student Impact
- Something Today is Better than the Perfect Measure Tomorrow
- Improve Data Over Time

IOWA

Facilities Management



# Net Asset Value (NAV) and what does it mean to us?

NAV Index

Investment Strategy

100%-85%

**Capital Upkeep Stage:** Primarily new or recently renovated buildings with sporadic building repair & life cycle needs; "You pick the projects"

$$\text{NAV Index} = \frac{(\text{Replacement Value} - \text{Building Needs})}{\text{Replacement Value}} \times 100$$

85%-70%

**Repair and Maintain Stage:** Buildings are beginning to show their age and may require more significant investment on a "Sample College"-by-"Sample College" basis

Campus leadership can set different NAV levels for different buildings and portfolios, helping to balance capital investments across campus and prioritize project selection

70%-50%

**Systemic Renovation Stage:** Buildings may require more significant repairs; large capital infusions; "The projects pick you"

$$\text{Iowa NAV Index} = \frac{(\$4,259,767,899 - \$896,240,642)}{\$4,259,767,899} \times 100$$

Below 50%

**Transitional/Gut Renovation/Demo Stage:** Major buildings components are in jeopardy of failure. Reliability issues are widespread throughout the building.

**Iowa NAV = 78.96%**

**Gordian Database NAV**  
(FY20 / 190 Institutions)  
**REPAIR & MAINTAIN STAGE**  
77.41%

# GEF Capital Fund

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- Projects up to \$100,000
- Cross-functional Committee meets regularly to rate and review new submissions
- Provides transparency and allows for employees and managers to have a voice in raising concerns
- Budget tracking evaluated throughout the year – the number of projects initiated can be adjusted accordingly, but prioritization method ensures largest needs/risks are first to be addressed

**Building**

Search by Building # or Building Name



**Title**

**Project Description**

In this field, provide a brief project statement and potential scope detail if available.

**ROM Cost**

0.00

This is a rough order magnitude value and is only in place for planning purposes.

Attachments

Save

Close

# Flexible, Data-Driven Scoring Matrix

Categories frame the Matrix-**Health, Safety, & Environmental Impact**

## Impact on People

- 3 - Fatality or fatal exposure (roof collapse, falling brick masonry)
- 2 - Major exposure w/ long term effects (lead poisoning)
- 1 - Minor injury or exposure (broken member or laceration, smoke) ADA, HVAC
- 0 - No personal injury

## Impact on Environment

- 2 - Major environment impact (outside walls of bldgs - major contamination or pollution)
- 1 - Minor environmental impact (outside walls of bldgs-small amount of pollution)
- 0 - No impact





# Flexible, Data-Driven Scoring Matrix

Categories frame the Matrix- **Mission Impact**

## Impact on Area

- 4 - No displacement opportunities (more than 250 students)
- 3 - Lab, research or IT area
- 2 - Classroom or Auditorium
- 1 - Office
- 0 - No impact

## Intellectual Property Damage

- 3 - Permanent, irreplaceable damage (long term experiments that cannot be replaced or artifacts, etc)
- 2 - Major interruption of research time (wks, months lost) or damage to artifacts and rare docs
- 1 - Minor loss of research/data (hrs or days lost) or loss of electronic data
- 0 - No intellectual property damage



# Flexible, Data-Driven Scoring Matrix

## Categories frame the Matrix- **Mission Impact**

### Property Damage

- 3 - 5m - 1 b
- 2 - 250k to 5m
- 1 - 5k - 250k
- 0 - no property loss

### Time Disruption

- 3 - One week or longer
- 2 - 3 days to 1 week
- 1 - 1 to 3 days
- 0 - No interruption

### Public Image

- 4 - National Media - (affects university mission to the highest degree)
- 3 - Local Media
- 2 - President's Office (could result in President becoming involved)
- 1 - UI Alumni (results in letters, phone calls from UI alumni or other large organizations associated with UI)
- 0 - No adverse publicity



# Flexible, Data-Driven Scoring Matrix

Categories frame the Matrix- **System Impact**

ROI

- 3 - 0 to 5 yrs
- 2 - 5.1 to 10 yrs
- 1 - > 10 yrs
- 0 - No measurable payback

Probability of Failure

- 5 - Imminent Failure/Failed – the system has failed or we are dealing with the situation on a daily consideration (daily maintenance or patches)
- 4 - Likely to Fail – the system has failing parts and could fail in a short amount of time. Monthly maintenance is required.
- 3 - Could Fail in 1 to 2 yrs – the system shows signs of wear, the possibility to fail in 1 to 2 yrs is a consideration
- 2 - Could Fail in 3 to 5 yrs – the system shows no signs of wear, the system should remain in good condition for another 3 to 5 yrs.
- 1 - Extremely Rare – system is in new, like new or good condition and will not require attention for another 5 to 10 yrs
- 0 - No probability of Failure - grandfathered code



# GEF Capital Fund Matrix

IOWA Facilities Management O&M Project Prioritization Matrix									
Search									Export To Excel
Building	Abbr.	Title	Project Description	ROM Cost	Request Source	Proposed Funding Source	Status	Priority Score	Created Date
0204	BSB	Building control air compressor	Replacement of one Building control air compressor. We are running on one compressor as the second unit imploded. If the second compressor goes down for any reason the building will be without BAC. Attached are quotes from Compressed Air as they had the PM contract for these units. Scope is for spaces that have not yet been remodeled. Safety score is a nod to fume hood controls (damper at exhaust fan) as well as potential impact for OAR spaces. For likelihood of failure we are putting scope at designed for redundancy which has failed.	\$16,000.00	SHOP 205	GEF CAPITAL PROJECTS	Matrix Recommended	0.6192	8/9/23
0022	SC	AHU 3 Replace single preheat steam valve with a 1/3 & 2/3 valve arrangement	Seamans Center AHU 3 is a 100% outside air unit that serves lab spaces. The steam preheat valve is to large to get consistent temperature control. This causes the steam valve and the air temperature in the AHU to "porpoise". This in-lum shortens the life of the control valve and actuator and wastes energy due to poor temperature control. FDD assigned a value as high as \$53 in one day that this was occurring.	\$70,000.00	FDD	GEF ENERGY REBATE FUND	Matrix Recommended	0.4098	12/21/22
0068	CRVC	Transition Lutron servers/application from physical to virtual setup	CRVC currently has a standalone system in place for lighting with a "fail in place" failure mode. This entry is to capture the need to transition to a virtual setup similar to other buildings on campus. (Note--multi-sources of funding, pre-alignment will be needed with Athletics/Rac Services). Note: would likely want to get results of lighting study prior to moving forward. For scoring purposes, we assumed that lights could fail not in place...thus the higher safety score. Also learned in on large events for the Ho Displacement score (swimming competitions, etc.)	\$0.00	SHOP 214	GEF CAPITAL PROJECTS	Matrix Recommended	0.4013	2/15/22
0022	SC	The roof top is loose and flashing has a gap above top row of siding	The roof top is loose and may possibly catch the wind which would cause further damage. There is also a gap between the top row of siding and the roof flashing. Please see enclosed photos and video. Scope of work will need to be two-fold: temporary/emergency repair paired with a design consultation (AWS) and evaluation around root cause and permanent fix options. Coordination will need to take place so that the lift access to repair happens at the same time that AWS can do a longer-term evaluation. Jeff Harney has explored warranty options with AWS without response.	\$20,000.00	SHOP 203	GEF CAPITAL PROJECTS	Matrix Recommended	0.3666	6/16/23
0435	MTF	Execute 0909201 for Remediation of the heat exhaust from Room D200	Please see attached email string for details. This project was initiated for \$10,000 against the building fund but after scope refinement, has an estimate of \$37,000 and will need to be prioritized for GEF capital funds. This is the space that is leased by IDT, but there's no additional funding avenue. Balancing will be required if exhaust is added.	\$37,000.00	SHOP 226	GEF CAPITAL PROJECTS	Matrix Recommended	0.3273	8/23/22
0025	PBDB	Execute proposal from WT-012 PBDB CONTROL OF 4TH FLOOR DI WATER SYSTEM UNIVERSITY OF IOWA PROJECT # 0902301	PBDB has experienced two failures of the DI water piping over the last two years. Work Task 12 was initiated on BUJ #0902301 to engage DE in identifying potential solutions (attached). Three potential solutions were identified. This matrix entry is to identify and prioritize a proposed solution. ROM ranges from \$45,000-\$240,000 depending on the solution. \$60,000 is captured for this entry. Historical data over the last two years totals \$21,000 in damage. Feb 2023 AJR #20-855708, \$5,000 Feb 2022 AJM #22-727264, \$14,000 BUJ #09058701, \$2,000	\$45,000.00	SHOP 205	GEF CAPITAL PROJECTS	Matrix Recommended	0.2988	9/15/22
0630	PPRB	Replace AHU	The AHU serving this facility is antiquated and past it's useful life. FM Technicians have made multiple repairs to it. The unit is original to the Mercy Hospital Pediatric Clinic so it does not align to UI Standards. Shop 203 and 212 have done significant work to the equipment and it's currently functioning but does need to be on our radar for renewal.	\$250,000.00	SHOP 203	GEF ENERGY REBATE FUND	Matrix Recommended	0.2627	2/2/23
0008	MH	MHADa restrooms	Macbride Hall-add additional restrooms in the building and remodel the existing restrooms for ADA compliance. 1/29/2021--Tom, Jeff, Dan, Julie		SHOP 201	ADA BLOCK ALLOCATION	Matrix Recommended	0.2537	1/9/20



# GEF Capital Fund Example

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0.6192: BSB Replace building control air compressor

0.5177: TB Mabie Theater fire curtain replacement

- Handshake with block allocation

0.4976: IATL Distribution panel replacement

0.2247: MERF Expansion joint repairs

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0.1268: UCC Millwork repairs

0.0773: TB Repair coil door