

# Review of Estimating, Forecasting, and Reporting for Capital Projects

April 24, 2026

# Executive Summary



MD Anderson is undertaking a major expansion, committing more than \$10 billion to significantly strengthen its clinical care and research capabilities. The scale and complexity of this investment require robust project controls, prompting a comprehensive review of current estimating, forecasting, and reporting practices against industry standards to highlight existing strengths and identify opportunities for improvement.

## Focus Areas



### Estimating

The process of predicting the time, cost, and resources needed to complete a project, which helps ensure realistic planning, budgeting, and successful project delivery.



### Forecasting

The practice of anticipating future project performance and outcomes based on current data, which helps organizations anticipate risks, make informed decisions, and keep projects on track.



### Reporting

A periodic and structured communication of project status, progress, and performance to stakeholders, to foster transparency, accountability, and informed decision-making.

## Standout Features

- **Demonstrated strategic planning capability** through the development of market-informed long-term capacity targets.
- **Standardized project definition** through a documented process that defines scope and budget.

- **Formalized scope change management and documentation** through established Clinical Project Oversight Committee (CPOC)/Capital Allocation Management Process (CAMP) processes.
- **Standardized cash flow templates**
- **Detailed forecasts with visibility** into project expenditures.

- **Detailed reporting** with a broad range of project data that maintains clear records of project activities, decisions, and transactions.

# Executive Summary (Cont.)

## Key Observations & Recommendations | **Estimating**

### OBSERVATIONS

### RECOMMENDATIONS

1

#### Strategic Plan Alignment

Project Business Cases are not consistently aligned with the institution's strategic plan and portfolio-level tracking of Key Performance Unit (KPU) targets and outcomes is not available.



Align Project Business Cases with the institution's strategic plan and implement tracking of KPUs.

2

#### Contingency Discipline

Contingency is frequently used to absorb scope changes rather than quantified risks and can obscure true cost performance.



Enforce regular contingency reviews and require that justifications are tied to defined and approved risk drivers.

3

#### Risk Management Consistency

Risk is inconsistently managed by projects, with varying levels of detail and completeness of risk registers and documents.



Standardize risk registers, leverage Quantitative Risk Analysis (QRA)s for risk modeling, and conduct ongoing risk and mitigation reviews across all projects.

## Key Observations & Recommendations | Forecasting



### 1 Forecast Discipline

Rephasing, accruals, and real-time contingency usage are applied inconsistently, reducing forecast reliability.



Strengthen forecasting discipline through mandatory rephasing, accrual accuracy, and real-time contingency integration.

### 2 EAC Consistency

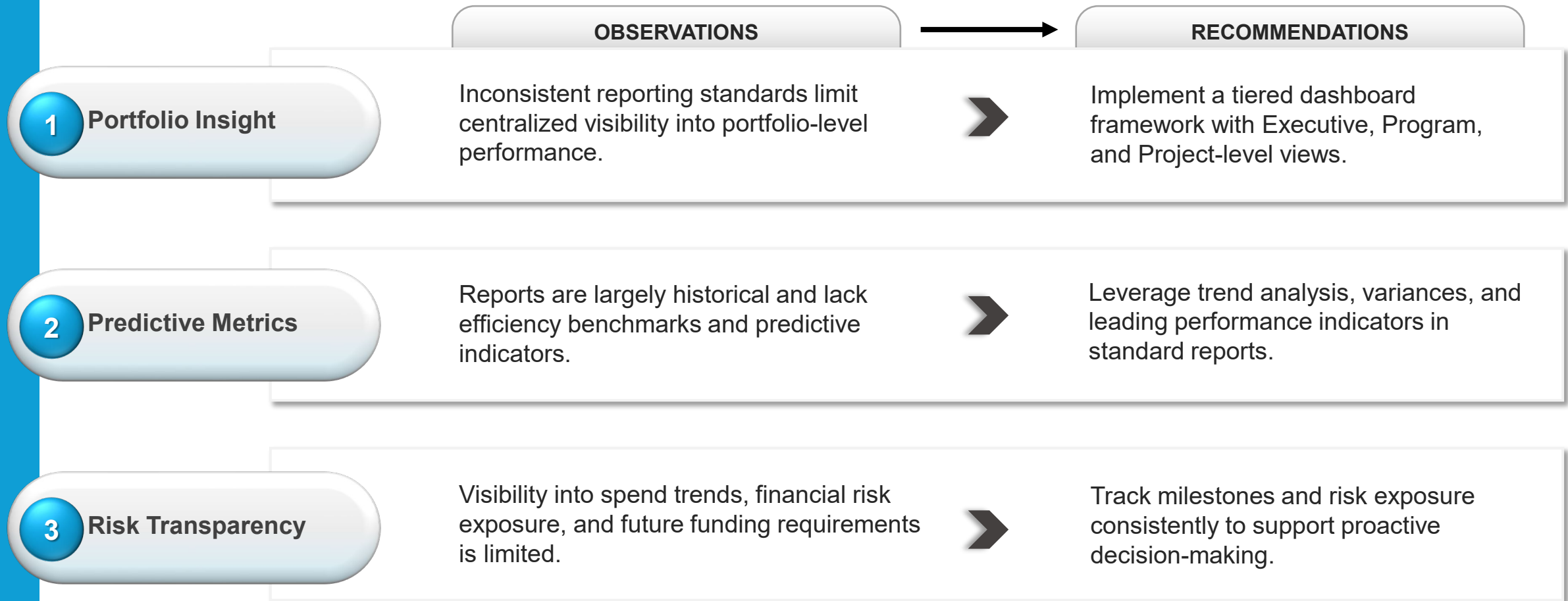
There is not a standardized set of tools or process applied for forecasting a project's estimated cost at completion.



Implement a standard set of forecasting tools and define a single process for forecasting a project's estimated cost at completion.

# Executive Summary (Cont.)

## Key Observations & Recommendations | Reporting



# Executive Summary (Cont.)

MD Anderson has established a solid foundation for managing its capital portfolio through defined governance forums, detailed project reporting, and committed project teams. However, the scale and complexity of the \$10B+ capital expansion require greater consistency, transparency, and predictive insights across estimating, forecasting, and reporting practices.

## Why Does This Matter?

- Improves cost and schedule predictability
- Enables confident, timely decisions
- Reduces late-stage surprises and rework
- Strengthens financial stewardship
- Aligns capital spend to strategy

## Path Ahead...

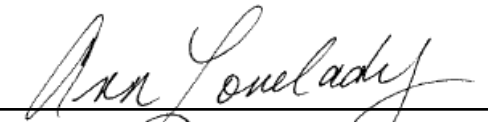
- Standardize estimating, forecasting, and risk practices
- Manage contingency based on quantified risk
- Adopt unified forecasting with monthly best-estimate Estimate at Completion (EACs)
- Enable tiered dashboards with predictive metrics
- Link KPUs to business cases and capital plans

### Management Summary Response:

Management agrees with the observations and recommendations and has developed action plans to be implemented on or before 8/31/2027.

**Appendix A** outlines the objective, scope, and methodology for this project.

The courtesy and cooperation extended by Facilities, Clinical Infrastructure, and Finance are sincerely appreciated.



Ann Lovelady, CIA, CHIAP, CFE, CRMA, CCSA  
AVP and Chief Audit Officer Ad Interim  
April 24, 2026

# Estimating

*Strong estimating practices build a defensible baseline for confident decisions turning uncertainty into measurable work and realistic commitments. They keep teams aligned on effort and timing, so progress stays predictable and course-corrections happen early.*

**Align Projects to  
Strategic Plan**



**Improve Scope  
Governance During  
Execution**



**Strengthen Contingency  
Utilization**



**Strengthen Project Risk  
Management Practices**





# 1. Align Projects to Strategic Plan

Ranking: **High**

*The institution's strategic goals should be the foundation to support the scope of the capital projects. Without strategic direction to anchor projects, scopes become susceptible to significant changes and can impede accurate cost estimation*

## What We Observed:

- Project definition does not **align top-down KPU targets with bottom-up estimates** in project business cases.
- Enterprise KPU targets and guidance exist, but **portfolio-level tracking and upkeep are not evident**.
- A **dashboard/report has not yet been established** showing progress against enterprise KPUs, target updates, or **how projects contribute to enterprise needs**.
- Current documentation focuses more on **building-level KPUs and financial/space metrics** than enterprise KPUs.

## Recommendation:

- **Project definitions and business cases should be based on ability to meet KPU targets** to assess scope and budget guardrails.
- **Management should maintain a set of enterprise KPUs** that are reviewed and updated at least annually, as well as ensure they are readily accessible.
- **Management should implement a portfolio-level dashboard/report** that clearly shows:
  - Enterprise KPU targets
  - KPUs already delivered
  - KPUs planned to be delivered through ongoing projects to support identification of **which KPUs still require scoping in future projects** and to enable standard, goal-oriented management of long-term capital efforts.

### **Management's Action Plan:**

Executive Leadership Team Member: Rosanna Morris / Omer Sultan

Division/Department Executive: Kent Postma / Jim Incalcaterra

Owners: Samir Patel / Usman Khaderi

Implementation Date: August 31, 2026

**Clinical Infrastructure:** Management will develop guidelines to assess the ability of submitted business cases to help meet KPU targets and realize the strategic plan.

**Finance:** CAMP Planning Team will explore incorporating KPU target alignment into the CAMP project submission template to ensure that projects demonstrate strategic justification as part of the intake process.



## 2. Improve Scope Governance During Execution

*Clear, consistent scope governance enables accurate forecasts; without it, scope changes may distort cashflow projections and approval decisions.*

### What We Observed:

- Governance documents (such as the CPOC Charter) list criteria for evaluating scope changes, but the **weighting of each factor is unclear**.
- It is unclear how cost-benefit analysis is currently employed in the evaluation of scope changes.
- External stakeholders requesting changes **cannot predict how their proposal will score** across criteria such as strategic fit, cost/schedule impact, or funding.
- Approval decisions **do not always clearly document** whether the expected benefits justify the associated costs.

### Recommendation:

Management should develop a **quantitative, transparent scorecard** jointly with CPOC.

This scorecard should assess scope changes including but not limited to:

- Cost and schedule impact
- Strategic alignment
- Patient experience/safety impact
- Operational workflow implications
- Maintenance cost and return on investment

This approach **improves consistency in evaluations** and helps stakeholders gauge the likelihood of approval.

### **Management's Action Plan:**

Executive Leadership Team Member: Rosanna Morris / Omer Sultan

Division/Department Executive: Kent Postma / Jim Incalcaterra

Owners: Samir Patel / Usman Khaderi

Implementation Date: August 31, 2026

*Clinical Infrastructure: Committee members will jointly develop and implement a weighted scorecard for evaluating potential scope change requests. The scorecard will be used in the approval process for scope changes. Once agreed upon, this scorecard is to be made readily available to all potential scope change requests.*

*Finance: CAMP currently has a charter and a mission-aligned quantitative scorecard for evaluating investment requests. CAMP management will review and identify opportunities to revitalize the scorecard as a required submission element and establish updated guidance for submitters. Relevant committees (CPOC, ITEC, TTF) will be expected to align their evaluation criteria to CAMP's framework accordingly.*



### 3. Strengthen Contingency Utilization

Ranking: **High**

*Disciplined, risk-based contingency use improves estimate reliability; inconsistent application obscures true cost performance and funding needs.*

#### What We Observed:

- **Contingency usage varies widely**, indicating an inconsistent approach to its application. Across 14 recently closed projects (3 projects budget >\$50M): 1 used little/no contingency; 2 used contingency of  $\geq 8\%$  of budget.
- Usage is often not tied to risk exposure and is used to absorb scope changes rather than defined risks.
- A bi-modal usage pattern distorts true performance vs. baseline budgets and suggests top-downsizing.
- Late scope and budget changes continue to drive redesign, cost escalation, construction inflation, and delayed facility delivery.

#### Recommendation:

**Reassess current contingency management and methodology and consider the following:**

- Perform iterative bottom-up risk assessments during execution to estimate contingency required to complete a given project,
- Prohibit the use of contingency for scope changes, and limit its use to realization of project risks,
- Establish a separate allowance for project scope changes, and
- Require root cause analysis for any contingency drawdowns.

#### **Management's Action Plan:**

Executive Leadership Team Member: Shibu Varghese / Rosanna Morris  
Division/Department Executive: Spencer Moore / Kent Postma  
Owners: Jay Miranti, Pam Brink, Layne Slavin, and Samir Patel  
Implementation Date: August 31, 2026

*Facilities: Management will reevaluate the current contingency governance and will develop a methodology.*

*Clinical Infrastructure: Management will align on criteria with Facilities for when contingency may and may not be used, as well as what allowances for scope changes should be. Additionally, we will develop requirements for a root cause analysis to approve any contingency drawdowns.*



## 4. Strengthen Project Risk Management Practices

Ranking: **High**

*Consistent, project risk management enables accurate cost forecasting; uneven practices increase the risk of unplanned funding needs.*

### What We Observed:

- Risk management practices are inconsistently applied **across projects** and **do not fully align with industry standards, limiting early risk identification and mitigation.**
- Risks are **not consistently captured**, and risk lists are often **qualitative and incomplete**, leaving room for interpretation.
- Limited use of detailed project-level risk registers (with timing, probability, and cost impacts) makes it **difficult to assess whether contingencies are sufficient.** While Unifier could capture this data, it is not required and is inconsistently used.

### Recommendation:

- Maintain a **standard risk register template** and pre-populate it with common portfolio risks as is a typical industry practice.
- **Conduct Quantitative Risk Assessments (QRA)** at a regular cadence, using probabilities and cost impacts in a Monte Carlo simulation to estimate the likelihood of **completing within available funding.**

#### **Management's Action Plan:**

Executive Leadership Team Member: Shibu Varghese

Division/Department Executive: Spencer Moore

Owners: Karen Mooney

Implementation Date: October 31, 2026

*Facilities: Management to develop and maintain a standard risk register template to be utilized for all capital projects. Risks common to the portfolio are to be pre-populated in it as a starting point. Management to develop a risk management process and identify the cadence and frequency for updates for projects .*

# Forecasting

*Strong forecasting practices support project accuracy, control, and timely decision-making. This slide highlights the core elements that drive reliable forecasts - governance during execution, regular forecast maintenance, effective contingency tracking, and consistency in forecasting methods.*



## **Standardize Forecasting Methods Across Projects**



## 5. Standardize Forecasting Methods Across Projects

Ranking: **High**

*Standardized forecasting ensures consistent, comparable project performance; inconsistent methods mask cost issues and weaken decision-making.*

### What We Observed:

- Multiple tools are leveraged for forecasting, but there is a lack of **formal procedure** for consistent application across projects.
- Some forecasts are forced to always equal the budget which could **mask emerging cost issues** and gives a false sense of control.
- This practice **hides overruns until late in the project**, reduces EAC reliability, and weakens proactive cost management and executive decision-making.

### Recommendation:

Management should ensure a standard methodology is utilized for forecasting across all projects that allows for project estimates to reflect realistic cost performance.

- **Consider migration to a single environment:** Ideally, large capital projects should be forecasted in a single environment, when possible.
- **Forecast using best current information:** Monthly forecasts should reflect the most realistic estimate and not be constrained by the original budget.

### **Management's Action Plan:**

Executive Leadership Team Member: Shibu Varghese

Division/Department Executive: Spencer Moore

Owners: Jay Miranti and Samantha Harris

Implementation Date:

Plan A: October 31, 2026

Plan B: August 31, 2027

*Facilities Plan A: For projects that cannot be migrated into Unifier a standard template is to be developed that mirrors the Unifier process, so that a given set of inputs will generate the same results.*

*Facilities Plan B: Management is to facilitate migration of selected capital project management into the PMIS software Unifier (dependent on funding to do so) and create a user guide for executing the forecasting process within it.*

# Reporting

*Clear and consistent reporting provides timely visibility into project performance, enabling informed decision-making, transparency, and proactive management across the portfolio.*



**Enhance Project &  
Portfolio  
Performance  
Visibility**



## 6. Enhance Project & Portfolio Performance Visibility

Ranking: **Moderate**

*Clear, consistent performance visibility enables timely decisions; gaps in reporting limit insight into risks, trends, and corrective actions.*

### What We Observed:

- **PM Dashboard** provides a strong central view but does not include key industry-standard performance indicators, limiting a comprehensive performance assessment for project teams.
- **Facilities Long Term Capital Plan (FLTCP)** delivers a solid snapshot on the quantity of capital spent against plan, yet offers limited context on spending efficiency context, reducing clarity on whether the investment is achieving its intended purpose.
- **The Project Information Form (PIF)** functions as a historical financial report and misses predictive metrics, potentially allowing budget alignment to date to mask lagging progress and the need for additional funding.

### Recommendation:

- **Enhance the PM dashboard** to include industry-standard performance indicators when feasible, to provide more comprehensive information to management.
- **Consider establishing a three-tier progress dashboard**, with each tier targeted for a particular audience, to provide each audience with the appropriate data visibility and granularity, such as:
  - Executive level
  - Program level
  - Project level

#### **Management's Action Plan:**

Executive Leadership Team Member: Shibu Varghese

Division/Department Executive: Spencer Moore

Owners: Karen Mooney

Implementation Date: October 31, 2026

*Facilities: FPDC will work with finance stakeholders to develop performance dashboards. However, provisioning of this reporting for all projects is contingent upon their migration to Unifier. Currently, funding above what is currently available is required to fully implement this action by the target date*

*In the interim, Facilities will develop an executive level dashboard and work with stakeholders on identifying key metrics to be presented for the portfolio of projects.*

# Appendix A

## **Objective, Scope, and Methodology:**

The objective was to assess the effectiveness of Facilities' processes for estimating, forecasting, and reporting. The audit period covered (November 2025 to March 2026).

Our procedures included, but were not limited to, the following:

- Interviews with key stakeholders within Facilities, Clinical Infrastructure, and Finance
- Review of strategic planning documentation and enterprise goals
- Sampling of reports measuring project progress
- Analysis of financial forecasting practices across sample projects
- Evaluation of contingency usage on recently completed projects
- Examination of governance charters and procedures

Our Internal Audit was conducted in accordance with the *Global Internal Audit Standards*. The Internal Audit function at MD Anderson Cancer Center is independent per the *Generally Accepted Government Auditing Standards* (GAGAS) requirements for internal auditors.

Audit Team: Lienna Tieh - KPMG, Nico Koniski - KPMG, Roland Bisio - KPMG, Victoria Armstrong - KPMG, Muhammad Javed - KPMG

## **Number of Priority Findings to be monitored by UT System: (None)**

A Priority Finding is defined as “an issue identified by an Internal Audit that, if not addressed timely, could directly impact achievement of a strategic or important operational objective of a UT institution or the UT System as a whole.”