
Meeting Minutes



Architecture Engineering Planning Interiors

1650 Spruce Street, Suite 300
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Meeting Date	01.24.2022
To	Mehran Mohtasham
From	DLR Group
Location	via ZOOM
Project	RCCD: Sustainability and Climate Action Plan / IEMP / TCO
Project No.	N/A
Attendees	Mehran Mohtasham, Hussain Agah, Myra Nava, Prem Sundharam, Dr. Collins, Bart Doering, Majd Askar, Chip West
Purpose	Total Cost of Ownership (TCO) model and framework

Goal for the discussion

Developing a holistic TCO model for RCCD is part of the deliverable with the Sustainability and Climate Action Plan effort. The goal for the discussion were as follows:

- Review Timeline for TCO deliverable
- Review current practices around TCO at each college
- Clarify goals for the overall TCO model
- Define use case scenarios for various planning purposes
- Review next steps

General Overview

TCO model is intended to support planning for new construction, existing building deferred maintenance, infrastructure needs, and academic program and policy planning. The model is intended to be holistic and offer historical and projected costs on all aspects of on-time and ongoing expenditures related to any planning decision. The data model for TCO is only as good as the data, so a lot of emphasis on data is required in this effort.

APPA guidelines offer recommendation on data rigor, data integrity and decision-making governance.

1. Review of timeline for deliverables

- a. 2021
 - i. Using the APPA guidelines for TCO the following efforts were completed and/or in progress
 1. Asset Inventory – in progress
 1. Building assets – complete
 2. Infrastructure assets, Fleet, Technology Assets, Human Resources – in progress
 3. Utility data - done
 2. Asset Classification – done
 3. Global Location Hierarchy – done
- b. 2022 – Jan/Feb
 - i. Goal to set TCO baseline set for building the model.
 - ii. Additional data requested to the district.
 1. Instructional Equipment past 5 years budget requests vs spending
 2. Custodial, Grounds and Facilities team count per college
 3. Deadline for data – Feb 28, 2022
- c. 2022 – March
 - i. TCO Model Final DRAFT ready to review
- d. 2022 – April
 - i. Review Feedback of Model and make changes
- e. 2022 – May

- i. Final Approval of TCO model
- f. 2022 – June
 - i. TCO model published

2. Current Best Practices around TCO

- a. RCC's TCO model has been a priority as part of the strategic planning every year. The goal is to develop a TCO for every facility that includes one-time project delivery costs, ongoing maintenance costs, utility costs, custodial/grounds etc. There are a few TCO's developed thus far. TCOs are developed by the Physical Resources Advisory Group (PRAG) and submitted to the Resources Development and Administrative Services Leadership Council (RDAS&LC) for acceptance. Thereafter, the results are provided as information to the Strategic Planning Executive Council (SPEC).
- b. In addition, RCC has also developed SIX databases they maintain for building equipment, furniture (grouped by classroom), technology in offices, technology in classrooms/labs, academic equipment that is grant funded and/or discipline specific, and athletic equipment. These databases were developed about 3.5 years ago and are used during program review, air handling equipment replacements, technology replacements etc. The college departments don't have to come in with a request to upgrade, these databases already track the useful life and helps to allocate resources as needed. The college departments only need to carry a request for new equipment, new buildings etc. on their resource request list. These databases align with and inform the 5-year capital construction plan, 5-year schedule maintenance plan submitted to the State Chancellor's office based on the priorities identified by the colleges and the 5-year instructional support plan. Robert (director of facilities), Liz and Gabriel – oversee all the databases collectively. For example, Liz is working with academic deans toward executing an allocation of funds for athletic equipment as part of the program review. RCC intends to collate all these databases into ONE single source of information to be able to query, update and leverage.
- c. Norco's TCO model is based on Program Review. It is used for estimating costs during program review when there is a request for facility upgrades and resources needed. There is a need for a holistic tool with facilities for physical planning. Currently, college departments initiate the need. The VP of Business' office then takes the construction cost, utility cost, technology cost, personnel cost (fully loaded cost with benefits) and for cleaning, instructional support needs. It is currently not focused deep into the new construction aspects as well as ongoing expenses for building maintenance. The TCO is primarily used for internal planning and budget allocation/resourcing. It is required by accreditation. Norco's goal is to appropriately allocate resources for all the needs – new construction, maintenance, instructional support etc.
- d. MVC's TCO model is focused on new construction as well. MVC intends to leverage the best practices from Norco and RCC.

3. Goals for TCO model

- a. TCO model to address the following so it will be tied to the strategic plan for accreditation and new general obligation bond planning as required by the CBOC (Citizens' Bond Oversight Committee).
 - i. Cost for Facilities– from acquisition to demolition including maintenance.
 - ii. Cost for Programs – including new or renovated facilities, technology, instructional equipment, staff, and faculty.
 - iii. Cost for Infrastructure – including transportation, central plant, landscape management, telecommunications, technology, fleet, and underground utilities.
 - iv. Cost for Policy – including facilities, infrastructure, and programs.
- b. **Goal #1** - Use ONE consistent TCO model across the district.
- c. **Goal #2** - Be flexible TCO model to address cost management for facilities, program, infrastructure, and policy.
- d. **Goal #3** - Provide a historic baseline from which future costs can be predicted with reasonable confidence.
- e. Everyone agreed on the goals.

- f. Chip recommended that we develop rules associated with the databases used for the TCO model, so it is clear on what is included and what is not as well as enables easy maintenance. For example, with Classroom Technology database, RCC had three rules (parameters): it had to be over \$500, at least 3 years lifecycle, electrical mechanical in nature. This might initially exclude certain assets, but once there is a good handle on the data that aligns with these rules, then the college will have the opportunity to expand the definition of the rules to be more inclusive. Norco has similar rules around technology inventory.

4. APPA TCO guideline data integrity review

- a. RCC updates regularly and annually for program review – VP plans are due in May, to be finalized during the summer, final priorities identified by December and the cycle repeats.
- b. Specific to Technology, Norco updates the data year-round and the final request for budget is developed by November and approves the expenditure for the upcoming year by December.
- c. The Facility Condition Assessment will produce FCI (Facility Condition Index) at the district level and will be done every three to five years. The foundation of FCCC performs this assessment.
- d. Both RCC and Norco both have fleet on an inventory and gets regular maintenance.

5. Suggestions on developing the TCO model

- a. Dr. Collins: It would be helpful to have a historical baseline of costs to make informed decisions of the future. However, the database should be consistent across the college and the district. For example, not all buildings have sub-meters, so we will not be able to predict utility costs for new construction based on historic data. We can start at a high level and as new data is available consistently across all campuses then go in-depth into the data for future prediction. In addition, the data needs to be consistent for equity across all three colleges to allow for comparison. New Construction will have a different set of consistency compared to existing buildings due to the differences in the age of the building.
- b. There is certainly a disconnect between the budget allocated from the state vs what this TCO model could predict as needed costs for a new building or renovation, However, similar to developing capital plans that the district may not identify a funding source at the development of the plan, this TCO model will offer an opportunity to provide a comprehensive database as a backup for the needed cost and look for funding and resources accordingly at a higher level.
- c. Majd: Used experience from RCC on custodial needs, utility costs etc. and used into the planning of the new building several years ago.
- d. Prem: What if we construct the TCO model for a new building construction first, test it and validate it and then dive into existing building maintenance, etc.
- e. Dr. Collins: Agrees with starting with the new building construction for TCO model and apply that to current facilities to see what type of data all three colleges would need to collect to be consistent. Keep it high level and valuable. Do not overdo it to a point where it becomes difficult to maintain and be consistent. Also, leverage the experience RCC has with their TCO model for facilities and databases for ongoing maintenance

6. ACTION:

- a. DLR Group to prototype a TCO model for new building construction and leverage the historical data and APPA guideline data to offer informed planning.
- b. The district and the colleges to review that TCO model and make suggestions for its application toward existing building maintenance and program review needs.