

Staff Follow-up: Workshop-012720-01
February 21, 2020



Educating Today's Students to
Succeed in Tomorrow's World

From: Office of the Chief Strategy & Operations Officer

Topic: Physical Plant Operations Assessment & Roadmap

Staff Follow Up: Staff to provide a summary response to some of the key elements in the CGCS review. For example, comments regarding District working on municipal sidewalks. **(R. Bartleman) W-012720-01**

Response: Management's approach to identify the root causes of historical Physical Plant Operations (PPO) challenges involved a thorough evaluation of primary and secondary data-gathering techniques. The assessment included interviews and reviews of published research and reports. Management reviewed the Council of the Great City Schools report, national publications, online forums, and other K-12 district plans.

The benefits of this deep-dive analysis resulted in:

- Identification of the underlying "*root causes*" of historical and ongoing challenges in the PPO department.
- Balanced sources of insight and information to help identify "*critical success factors*" and prioritization efforts targeted at addressing root causes.

Attached is a summary response to selected CGCS report findings. By addressing the root causes, management is confident that it will minimize the risk of similar findings in the future as the department continuously improves.

MLW/SB:dsc
Attachment

Below is a snapshot of selected Council of the Great City Schools (CGCS) specific findings identified during its review of the Physical Plant Operations (PPO) Department. For each finding, we included a summary table of management’s roadmap analysis⁽¹⁾ and a summary response to the report findings.

FINDING: Over the past ten years, the department has experienced a 55 percent funding reduction and a 35 percent reduction in department staffing.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
Limited budget planning and alignment	Aligned budget source and funding plan	#2, #5

SUMMARY RESPONSE: Management acknowledges that over the last decade there were significant reductions to both funding and staffing. It is also important to note that part of these reductions occurred during one of the worst recessions in history. Most, if not all, major districts experienced funding cuts. The PPO department has yet to fully recover from those reductions.

Additionally, during the recent internal assessment, management learned that due to various factors including multiple data sources, various assumptions, and different departments reporting the data (e.g., PPO, Capital, Human Resources, etc.) all had implications on the accuracy of the reported numbers.

Collaborative meetings are underway between PPO and the Office of the Chief Financial Officer, to improve expenditure tracking in anticipation of improved multi-year budget planning.

Note:

⁽¹⁾Details presented at the January 27, 2020, Special Meeting (Workshop) and is available online at: [http://bcpsagenda.browardschools.com/agenda/01753/Item%201A%20\(66096\)/index.html](http://bcpsagenda.browardschools.com/agenda/01753/Item%201A%20(66096)/index.html)

FINDING: The team found no evidence of a current long-term facilities maintenance plan, including a facilities condition assessment, a current facilities condition index with deficiencies categorized by priority.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
<ul style="list-style-type: none"> Limited budget planning and alignment Cross-departmental planning and coordination 	Coordinated short- and long-range goals	#7, #13
	Establish decision-making protocols; prioritization	

SUMMARY RESPONSE: Management acknowledges that the last facilities condition assessment was performed rapidly and with a limited budget in 2014, and that a complete Long-Range Facilities Master Plan, based on a comprehensive facility condition assessment and complete with facility condition indices for all buildings, should be developed collaboratively across the District. This long-range plan must incorporate input from Facilities Planning and Real Estate, Facilities Capital Programs, Finance and Capital Budget, and the Academic Departments, in addition to PPO.

As the District continues to execute work in the SMART (Safety, Music and Arts, Athletics, Renovation, Technology) General Obligation Bond, it will become necessary to re-evaluate the condition of all the facilities in the portfolio and to establish clear and unambiguous criteria for making both tactical and strategic decisions concerning repair and replacement of the District's aging schools and facilities, to meet the academic and financial goals of all stakeholders.

FINDING: The newly acquired computerized maintenance management software (CMMS) system had not been fully implemented, integrated, or deployed to field staff and schools.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
Unavailability of consistent and reliable data	Leveraged computer maintenance management system	#6

SUMMARY RESPONSE: Based on guidance from the School Board, a cross-functional leadership team, to include the Chief Strategy & Operations Officer, Chief Information Officer, Chief Financial Officer, and Legal met with the Superintendent to discuss alternatives for rectifying the identified Maximo implementation and integration challenges.

While conducting negotiations directly with IBM (intentionally excluded the third-party integrity), a cross-function management team, led by the Strategic Initiative Management team, completed a thorough analysis of the original Maximo implementation. Key findings included:

- The District received all features and functionality expressed in the original contract.
- The District will continue to pay the annual maintenance fee while receiving additional implementation support directly from IBM.
- Multiple functional areas impacted include: Accounting & Financial Reporting, Capital Budget, Information & Technology, Physical Plant Operations, Food and Nutrition Services, Procurement & Warehousing Services, and Student Transportation & Fleet Services.
- Users agree that the product has advanced capabilities and features for work order management, but that the overall implementation, training, and support (from original third-party integrity) was inadequate to meet our needs.
- We are under-utilizing the capabilities and potential benefits of the system due to insufficient business process analysis and inadequate training and current in-house technical expertise.
- Key integrations with SAP (Systems, Applications, and Products in Data Processing) and other tools to fully utilize available functionalities are not in place (i.e., expense tracking, budget reporting).

All findings are currently being addressed. A governance team has been created to oversee the continued deployment of the Maximo software.

FINDING: The team was told of inconsistent service-levels, resource distribution, and the perception of inequity in balancing the maintenance needs of all schools in the District, regardless of location.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
<ul style="list-style-type: none">• Unavailability of consistent and reliable data• Limited budget planning and alignment• Cross-departmental planning and coordination	Incremental organizational structure and staffing modifications	#3, #7, #16
	Identify "transitions": facilities, PPO, safety	
	Increase preventive maintenance activity	

SUMMARY RESPONSE: Management acknowledges the perception of inequity in meeting the maintenance needs of all the schools in the District.

Perceptions of inequity warrant more extensive data analysis, structural and staffing review, and exhaustive collaboration across all departments. Through long-term strategic allocations of the department's budget and resources, and better fidelity in our work order information, we will be able to demonstrate commitment to equitable service.

FINDING: Principals interviewed rated their overall maintenance services as a 7.75 score on a scale of one to ten, with ten being high.

- There was preferential treatment provided to schools in a particular "side" of town, and "newer" schools appeared to receive more attention than "older" schools

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
<ul style="list-style-type: none">• Unavailability of consistent and reliable data• Limited budget planning and alignment	Rebuild the planning and scheduling function	#7, #16
	Optimize organizational structure	

SUMMARY RESPONSE: Management recognizes that the organic growth of Broward County from east to west has created disparity in school age (newer versus older buildings) between different areas of the District, and we believe this naturally leads to a perception of preferential treatment. Historically, our limited data indicates that the maintenance resources expended on older schools are equivalent to, or greater than, the maintenance resources expended on newer schools (as would be expected as assets age and fail).

Going forward, PPO will be able, with greater granularity, to assess the value of resources expended on all District assets. Better alignment of budget/maintenance requirements (including preventive maintenance requirements) and organizational structure, will enable us to improve services to all stakeholders. As PPO begins to regularly and frequently ask for customer feedback, both through dedicated survey instruments and

through automated work order feedback, we will have much greater insight into our customers' perceptions and be better able to address perceived inequities.

FINDING: The ceiling for item purchases and the gross volume of purchases gives one pause about the potential for fraud and abuse.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
<ul style="list-style-type: none">• Unavailability of consistent and reliable data• Limited budget planning and alignment	Categorical expense analysis: by zone	#11

SUMMARY RESPONSE: Management acknowledges the concern about the potential for fraud and abuse. A school district of our size requires a high volume of purchases. At any given time, there could be from 70-80 active contracts that are utilized by the PPO department. Procurement decisions and contract spend amounts are calculated in conjunction with the Procurement & Warehousing Services (PWS) Department. Contracts, purchase orders, and purchase requisition ceilings have been significantly reduced over recent years utilizing better spend data and more conservative forecasting methods.

Historically, blanket purchase orders (framework POs) were one of multiple vehicles used to procure items. PWS has since eliminated the use of these, calling for more controls at the time of the need or demand, prior to the purchases made. By strategically sourcing and leveraging spend, purchase ceilings have been significantly reduced over recent years utilizing better spend data and more conservative forecasting methods. Increased controls and checks and balances implemented by the procurement and budget departments give management an increased level of comfort that potential fraud and abuse risks have been mitigated.

Additionally, due to recent P-card audit findings, PWS has increased controls related to emergency P-cards used mostly during natural disasters. Management can make those controls available upon request.

Improved transparency, accountability, and monitoring are anticipated as processes, and system enhancements will automate many of the existing manual processes.

FINDING: For the safety of District students, PPO repaired city/county sidewalks around schools.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
Cross-departmental planning and coordination	Enforced processes and Standard Operating Procedures	#9

SUMMARY RESPONSE: Management has identified a total of ten sidewalk repairs made in the last five years by zone maintenance staff to satisfy work orders generated by the District's safety department. It is

noteworthy that in every one of these repairs, the sidewalk is adjacent to District property, located in the right-of-way or easement, and was broken by trees on District property or by District vehicles crossing the sidewalks. These ten repairs combined, total less than one percent of the total expenditure for this work for the period in question.

As PPO collaborates more closely with the Facility Planning & Real Estate Department, and as we resurrect our planning and scheduling function, we will be working more closely with the local governmental entities to ensure that the District never pays for an offsite repair that the local community should be funding.

FINDING: Several internal systems, controls, and processes were lacking or needed strengthening. For example:

- The team heard that a division was contracting out work without the procurement department's knowledge or required bidding.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
<ul style="list-style-type: none">• Unavailability of consistent and reliable data• Limited budget planning and alignment• Cross-departmental planning and coordination	Create training and cross-training opportunities	#11, #12, #14
	Categorical expense analysis: by zone	

SUMMARY RESPONSE: Management acknowledges but cannot identify this event since purchase orders require collaboration between PWS and PPO and all purchases are made via purchase order or P-card.

Given the value-add and procurement expertise of PWS, the PPO department appreciates the support and services available from the department.

FINDING: Comparisons of Broward County Public Schools (BCPS) self-reported maintenance and custodial operations KPI (key performance indicators) data with CGCS member districts' median scores.

REALIGNMENT ROADMAP

Identified Root Cause	Critical Success Factor(s)	CGCS Recommendation
Unavailability of consistent and reliable data	Accountability via performance based KPIs/Metrics	#15

SUMMARY RESPONSE: The overall results of the 2017/18 KPIs comparison, tells a story of mixed results of the operations of the PPO department. Evidence of efficiencies exists in the custodial work and routine maintenance areas. In contrast, concerns in the areas of grounds work and work orders (routine maintenance and completion time) demand more attention and analysis from management. Management's confidence in

the consistency and reliability of the data leads to integrity concerns for both the positive and negative KPIs.⁽²⁾

KPI Family	PPO % At or Above Median	Comments
Custodial Work: 6 KPIs	67%	High workloads for custodial staff with low-medium cost indicate some level of efficiency.
Grounds Work: 6 KPIs	16%	Significant differences in BCPS versus benchmark data, highlights this “family” as an area of concern. Steps are being taken to validate data sources and calculations and to identify factors that we can influence to improve these KPIs. <i>Note: This “family” of KPIs are not included in the CGCS published report.</i>
Routine Maintenance: 7 KPIs	57%	Cost calculations for a district of our size (square footage and number of students) is competitive. Concerns related to cost per work orders further emphasize the importance of reliable data and more accountability.
Work Order: 2 KPIs	0%	Completion time and cancel/void rates are concerning, supporting the need for enhanced visibility related to the improvement of the Maximo system deployment.

Notes:

⁽²⁾Data integrity challenges:

- The BCPS Maintenance & Operations source data, reported to the CGCS, comes from disparate systems and multiple departments, including finance, demographics, real estate & planning, procurement, construction, Environmental Health & Safety, as well as PPO.
- In reviewing the data, it is essential to note that in some instances, the CGCS’ taxonomy for calculating maintenance and operations KPIs differs from PPO’s.
- Over the years at PPO, changes to the systems where data reside and the changes to the staff pulling it has occurred. How items are coded, and individual interpretations of the data being requested—and subsequent approaches to collecting it—have not been consistent.
- The published KPIs are 12 months old or more and leveraged data from the end-of-life COMPASS software.