

DATE: JANUARY 26, 2018

**TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL
THE HONORABLE RAMEE GENTRY, CHAIR, AND MEMBERS OF
THE ALEXANDRIA CITY SCHOOL BOARD**

**CC: MARK JINKS, CITY MANAGER
DR. LOIS BERLIN, SUPERINTENDENT, ACPS**

**FROM: JOINT CITY-SCHOOLS FACILITY INVESTMENT TASK FORCE
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Smith, Marshall Cook, Dwight Dunton, Amy Liu, Dave Millard, Eric Wagner**

SUBJECT: TASK FORCE FINAL REPORT (DELIVERABLE 2 OF 2)

This second deliverable reflects the findings of the full effort and builds upon the first deliverable that focused on prioritizing existing projects within the Facilities Capital Improvement Plan (“FCIP”). Each Subcommittee’s findings reflect opportunities for examining improved criteria, processes, and policies to ensure the best value is delivered to taxpayers and residents.

The Task Force believes this second deliverable provides an important framework to govern capital planning and decision making going forward. Its purpose is to provide recommendations that will give tools and resources to staff, leadership, and the community to work more effectively in the future.

This document is not meant to be a critique, but a set of recommendations to further empower key staff and leaders so they can continue to do their best to advance the goals of Alexandria. We commend the diligence and productiveness of staff during the course of Joint Task Force meetings, in addition to their day-to-day responsibilities. As we observed, their persistence and hard work has produced many notable accomplishments in our city. Our desire is that the recommendations laid out in this deliverable build upon our past successes and work toward advancing our future.

¹ Mignon Anthony served as Chair of the Alternative Project Delivery Methods Subcommittee until she accepted the position as Chief Operating Officer of Alexandria City Public Schools (ACPS) in late November 2017.

Our report is organized in the following manner:

- Executive Summary
- Table: Key Observations & Recommendations
- Chapter 1: Capital Planning & Implementation
- Chapter 2: Alternative Delivery Methods
- Chapter 3: Maintenance & Operations
- Chapter 4: Proposed Action Plan
- Exhibits

BACKGROUND

On Thursday, May 4, 2017, City Council adopted Resolution 2775 establishing the Ad Hoc Joint City-Schools Facility Investment Task Force (“Task Force”) to oversee the development of a Joint City-Schools Facility Capital Improvement Plan and provide recommendations related to further capital project implementation.

The objective of this work is to provide guidance to City Council to help frame the City and Alexandria City Public Schools (“ACPS”) Facilities Capital Improvement Program for FY 2019 - FY 2027 and beyond. The Task Force is charged with developing a report to include comments and recommendations that will:

- 1) Develop and recommend a long-range Joint City-Schools Facilities Capital Improvement Plan (“FCIP”) with prioritization of 28 identified City and ACPS facility projects utilizing identified available funding for the period FY 2019 – FY 2027.
- 2) Through the work of related subcommittees:
 - a. Determine opportunities for joint facility / site / co-location opportunities for City and ACPS programs;
 - b. Review and recommend municipal facility planning and civic engagement principles, standards and practices;
 - c. Review and recommend alternative capital project delivery methods and project management structures;
 - d. Review and recommend governance of capital planning and project delivery; and
 - e. Review and recommend asset management (i.e., facility maintenance) practices.

EXECUTIVE SUMMARY OF RECOMMENDATIONS

Following our work over the past four months, the Task Force has observed the realities that we face as a city:

- We are a community of growing needs operating in aging and overprescribed facilities;
- We operate in a competitive environment with limited local funds, an outlook of declining state and federal funding, and scarce land options;
- We are one community despite organizational structures, neighborhoods, or interests; and
- We need to collectively look to new ways of doing business and collaborating.

Alexandria has a large portfolio of existing facilities it must maintain with increasing deferred maintenance and growing demands for additional capacity and services. Thus, there is a significant pipeline of capital needs. We are not alone in these needs – many cities like Alexandria confront costly and ongoing infrastructure modernization needs that put pressure on local public resources. The region and nation face a similar infrastructure crisis.

Infrastructure is one local obligation that can attract private partners, which allows cities to diversify their revenue sources in this increasingly fiscally constrained environment. Indeed, not all infrastructure projects are ideal for public-private investments, but these partnerships are an increasingly common vehicle for financing public infrastructure. Alexandria must position itself wisely around these opportunities in ways that protect and advance the public interest.

As local public funds are stretched and federal infrastructure resources continue to decline, regional competition for private investment and partnerships will grow. The cities that stand out will be those that consistently know their needs and priorities and are well-organized to respond. Alexandria should – and can – be one of those cities. For these reasons, the Task Force recommends a comprehensive culture shift to improve the city’s capacity to meet its ambitions, including through innovative partnerships, which will require a series of structural and behavior changes.

This urgent shift is required across all entities: elected bodies, leadership, staff, and community members. We must be smart and proactive about accommodating growth while delivering key services amid public resource constraints. We must be strong stewards of taxpayer funds while competitively positioning ourselves for private investors.

Doing nothing is not an option.

The following are key principles for enacting change and are vital to understanding the recommendations that follow.

- Future facility planning efforts must align with a broader, more cohesive vision for Alexandria. Alexandria – meaning both City and Schools - must define its ‘targeted new reality,’ a defined vision for the future which both celebrates Alexandria’s history and its unique ‘DNA’ and embraces opportunities for innovation and growth.

Joint Task Force Final Deliverable

January 26, 2018

Executive Summary

- Leadership must proactively challenge traditional methods and practices for capital project and service delivery and seek opportunities for joint planning and delivery. No single solution will work.
- Leadership must lead and resist substituting leadership with engagement. This includes strong public education components within citizen engagement practices so Alexandria has a well-informed community that champions key local issues and relates back to the whole.
- Alexandria must conduct the necessary groundwork and establish processes for regular improvements to become an attractive owner, business partner, and employer and gain a competitive edge in the broader resource-constrained development environment.
- Resources for maintenance and operations need to be fully understood and rightsized to the extent possible as underinvesting is irresponsible and defers costs to more expensive capital projects.

#	Key Observations	Recommendations	Page #
Capital Planning and Implementation Subcommittee			
1	Alexandria lacks a unified and distilled vision for the future.	We recommend Alexandria define its “Targeted New Reality” to clarify priorities for decision making when considering how best to deliver capital projects and services.	Pg. 13
2	The City and ACPS have a tendency to jump to capital solutions rather than explore broader options to deliver services (“capabilities”).	We recommend the City and ACPS jointly develop and implement a ‘Capability Delivery Model’ to assist City Council and the School Board with determining how best to deliver services to the residents of Alexandria.	Pg. 14
3	The CIP process lacks joint City and ACPS vision, collaboration, coordination, and execution.	We recommend that a Joint Capital Management Council be formed to oversee the operation of the Capability Delivery Model and capital allocation process.	Pg. 16
4	The CIP process provides a fragmented view of capital needs citywide.	We recommend the City and ACPS develop long-term Joint Facilities Master Plan to provide a comprehensive, integrated, citywide view of Alexandria’s capital needs.	Pg. 17
5	The current budget cycle lacks sufficient time to deliberate on capital needs and proposed project solutions.	We recommend that the City and ACPS consider revising the budget calendar to decouple the annual operating and annual capital budgeting cycles in order to provide adequate time and resources to review, engage, and make capital decisions.	Pg. 19
6	The 10-year duration of the CIP makes it challenging to provide the same rigor of analysis for all projects, apply prioritization criteria equitably and clearly, and manage expectations cycle to cycle.	We recommend that City Council consider changing the way it reflects projects within the CIP. When a certain level of rigor is met, individual projects and their associated funding amounts should be identified. However, when project assumptions are more speculative, projects should be reflected within contingency accounts so that expectations can be more adequately managed.	Pg. 20
7	Implementation practices largely focus on the management of individual projects rather than as programs within a citywide portfolio, therefore limiting the yield of benefits that standardization and interconnectivity could provide.	We recommend the City and ACPS employ “best in class” project, program, and portfolio management practices to maximize the return on investments and meet strategic objectives.	Pg. 20
Alternative Delivery Methods Subcommittee			
8	Traditional practices, a ‘business as usual’ culture, and ‘silos’ within our city have stifled innovation, which we believe has resulted in missed opportunities for high-impact solutions for designing and delivering citywide capabilities and projects.	We recommend that leadership proactively challenge traditional practices and methods for capital project and service delivery by exploring new best practices to keep Alexandria competitive and attractive to potential partners and developers. This includes embracing opportunities such as public private partnerships, joint use, co-location, shared municipal services, adaptive reuse, and others as identified.	Pg. 28

#	Key Observations	Recommendations	Page #
9	Creative and innovative solutions that have occurred are a result of ad hoc and reactive efforts rather than a cohesive, replicable process.	We recommend a framework and process be developed so staff are empowered to pursue alternative delivery of projects in a consistent manner. In order to develop this new framework and process, initiate a pilot project to serve as a model that can be modified and expanded over time.	Pg. 29
10	Existing city and private resources have not been consistently or adequately leveraged, which has limited the return on investment of projects to date or the ability to effectively launch new efforts.	We recommend that adequate resources be identified to support and expand citywide technical expertise so that efforts can be coordinated, informed, and executed strategically. These resources include direction and commitment from leadership, leveraging existing groups such as Alexandria Economic Development Partnership, and new staff, systems, and access to specialized consultants.	Pg. 30
11	Civic engagement is critical, but should not be treated as a substitute for strong leadership by elected representatives.	We recommend leadership ensure that current civic engagement policies and practices focus on the public becoming well-informed champions of citywide issues while providing input on individual projects. Leadership must remain transparent in decision making and feel empowered to choose solutions that are best for all of Alexandria.	Pg. 32
Maintenance and Operations Subcommittee			
12	There is no standardization of capital asset data between the City and ACPS that would allow for a comparison of asset conditions.	We recommend the City and ACPS identify a common set of objectives and requirements for asset data for use in facilities planning, maintenance, and operations.	Pg. 40
13	DGS, ACPS, and AFD have three different work order tracking systems with varying and often limited capabilities for preventive maintenance scheduling, which creates inefficiencies and lacks standard performance outcomes.	We recommend DGS, ACPS, and AFD establish a common, cost-effective approach to track and manage preventive maintenance needs, either by enhancing an existing system(s) or selecting a new system that meets the collective needs.	Pg. 42
14	Existing staffing levels and other resources are strained and rely on vendors to inform and complete the majority of preventive maintenance work.	We recommend the City and ACPS identify optimal staffing levels, structures, and resources for maintenance and operation needs with strategies for how best to provide that capability. Seriously consider and adopt a plan to expedite deferred maintenance, similar to WMATA's SafeTrack program.	Pg. 43
15	There is inconsistency in the level of standards and specifications that inform project design and construction between City and ACPS, which in turn can impact maintenance and operations.	We recommend the City and ACPS develop, implement, and regularly update design guidelines and specifications and standard operating procedures that meet lifecycle goals and objectives.	Pg. 45
16	Procurement manages a broad and diverse workload, which creates challenges in focusing time and efforts on capital project and maintenance and operations actions.	We recommend the City and ACPS identify and implement ways to increase procurement resources and efficiencies, including the feedback loop between procurement and technical staff, expanding best value negotiation options, shared service agreement opportunities, and other new approaches for executing and coordinating procurements.	Pg. 47

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CHAPTER 1:

CAPITAL PLANNING & IMPLEMENTATION

BACKGROUND

The Capital Planning and Implementation Subcommittee (“CPI Subcommittee”) was charged with development of recommendations for project management structures and reviewing and recommending changes in the governance of capital planning and project delivery for the City (“City”, “DGS”), the Schools (“ACPS”), and our community as a whole (“Alexandria”).

Subcommittee members included Elliott Branch, Chair, Marshall Cook, Member, and Eric Wagner, Member. The Subcommittee began meeting in August 2017 and met a total of six (6) times (a meeting list is provided in the exhibits). The meetings were held parallel to plenary Task Force meetings. While the broader meetings were primarily concerned with the development of the Joint City-Schools Facilities Capital Improvement Plan (“FCIP”), the work done by the Task Force as a whole provided the Subcommittee with an experiential opportunity from which many of the findings and recommendations discussed below resulted.

The iterative review of findings and discussion of key themes resulted in a set of broad and actionable recommendations that are provided herein.

The balance of this chapter is organized as follows:

- 1) Current State
- 2) Themes and Major Discussion Points
- 3) Actionable Recommendations

CURRENT STATE

The adoption of the CIP by the City Council is an indication of its support of both the capital projects that the City intends to pursue, and a plan for the anticipated levels of financing needed to fund these capital projects over the 10-year period.

The adoption of the 10-year CIP is neither a firm commitment to a particular project nor a limitation to a particular cost. As a basic tool for prioritizing and scheduling anticipated capital projects and capital financing, the CIP is a key element in planning and managing future debt service requirements. Only the first year of the CIP (FY 2018) represents a funding commitment for the project to proceed to the next stage, or to be implemented depending on the level of funding provided.

Currently a new 10-year CIP is developed each year through a process that brings both City and School capital projects to the table for funding decisions. The process currently used by each entity is described below.

City

The Department of General Services (“DGS”) manages the planning, design, and construction of all city facilities. DGS develops the CIP budgets and project descriptions for inclusion and discussion in the CIP process outlined below:

Summer

- CIP Budget Kick-Off: Department heads develop and submit initial project requests
- Full project submissions are then developed and submitted by departments

Fall

- Office of Management and Budget (“OMB”) reviews project submissions
- Peer Technical Review Committee¹ and CIP Steering Committee² begin meeting to craft a balanced CIP recommendation for the City Manager and to outline major policy issues facing the CIP

¹ The Peer Technical Review Committee consists of subject matter experts from the more capital project intensive departments in the City, and is chaired by the Director of the Department of Project Implementation. The committee discussed submitted projects, including cost estimates, implementation scheduling, and cross departmental coordination. The members of the Peer Technical Review Committee reported back insights and recommendations to the CIP Steering Committee.

² The CIP Steering Committee is the second body, and recommends the project composition and funding levels of the Proposed CIP to the City Manager. This committee consists of members of the City Manager’s Office and the department heads of the most capital project intensive departments in the City. For the FY 2018 – 2027 CIP Development process, the committee included department heads from the Department of General Services; Recreation, Parks & Cultural Activities; the Department of Transportation & Environmental Services; the Department of Information Technology Services; and the Office of Planning & Zoning.

Winter

- CIP Steering Committee develops and presents recommendation to City Manager
- City Manager finalizes decisions on proposed CIP and presents CIP to City Council

Spring

- City Council and City staff hold budget work sessions
- BFAAC³ and the Planning Commission provide recommendations and guidance
- City Council conducts add/delete process and adopts operating budget simultaneously

Quarterly

City staff compiles a Capital Projects Status Report each quarter to provide an update to City Council on active CIP projects

ACPS

ACPS manages the planning, design, and construction of all school facilities. ACPS develops the CIP budgets and project descriptions for inclusion and discussion in the CIP process outlined below:

Summer

- CIP Budget Kick-Off: Facilities staff begins initial project list using assessments and knowledge of facility needs and consideration for the previously approved 10-year CIP
- Projects are reviewed by additional staff and the Superintendent
- School Board holds a Public Hearing on the CIP
- School Board holds a series of work sessions and passes Budget Process Resolution, Budget Rules of Engagement, and School Board CIP Budget Priorities

Fall

- Superintendent's proposed CIP is finalized and presented to the School Board. Staff holds a Public Forum to receive additional community input
- School Board has a series of work sessions to discuss the CIP

³ The Budget and Fiscal Affairs Advisory Committee (BFAAC) advises and supports the City Council by examining the City's budget procedures and processes; and recommends ways of improving that process, including participation by the public. The Committee typically meets on the third Tuesday of the month at 7 p.m. You can find the Committee's recent reports, resources provided to the committee by staff, as well as meeting agendas, schedules and minutes at the link below.

Winter

- School Board conducts add/delete process, holds a public hearing on the CIP, and adopts a final 10-year CIP
- City Manager finalizes decisions on proposed CIP and presents CIP to City Council (for both ACPS and the City)

Spring

- City Council and City staff hold budget work sessions
- City Council conducts add/delete process – adopts CIP budget, School Board goes through a series of add/deletes to accommodate the City Manager’s approved budget. (Note: City Council approves a 10-year CIP and appropriates for the first year of the 10-year CIP.)

In accordance with Virginia Law, the School Board ultimately decides which projects to fund with appropriated funds each year and may adopt a final 10-year CIP that does not align with the approved budget in the second to tenth year of the City Council approved CIP.

Additionally, the ACPS Budget Advisory Committee (“BAC”) advises and supports the School Board with regards to the budget. The BAC reviews financial policies and regulations and recommends updates as needed and promotes public participation in the budget process for greater transparency between the community and the School Board. The BAC prepares summary reports on numerous budget topics, which are determined each year by the committee.

Quarterly

ACPS staff compile a Quarterly CIP Report to provide an update to the School Board on active CIP projects.

As Needed

For the most significant construction projects, ACPS staff will often provide either standing or as-requested updates at School Board meetings.

CAPITAL PLANNING & IMPLEMENTATION SUBCOMMITTEE KEY OBSERVATIONS & RECOMMENDATIONS

The Capital Planning & Implementation Subcommittee deliberated and challenged existing practices for capital improvement planning and delivery.

Our Subcommittee process resulted in the following seven (7) observations / themes, which provided a platform for the associated recommendations. We envision that these recommendations will help alleviate the concerns in lack of ‘jointness’ and ‘wholeness’ – looking to infuse new structures and processes that will in turn impact behaviors and culture associated with planning and implementing projects.

Theme 1: Alexandria lacks a unified and distilled vision for the future.

During conversations with City and ACPS staff and after reviewing plans adopted by both entities, it became clear that Alexandria lacks a shared joint vision for the future. Each entity has its own strategic plans and vision but not a document that distills them together and that would support understanding priorities and tradeoffs. Without an understanding of the city’s ‘*Targeted New Reality*,’ decisions for capabilities, services, and capital projects cannot be made in a transparent manner.

‘*Targeted New Reality*’ is a well-defined, strategic vision for the future. Its purpose is to outline aspirations and strategic imperatives and express permanent ideals and values. It is not intended to change core values; rather, to better articulate them in order to guide planning and decision making. Establishing a ‘Targeted New Reality’ helps to ensure internal consistency among program priorities and frameworks. It should also be used as a source of innovation, a tool for resource allocation and trades, and a communication framework to stakeholders and the community.

This observation impacts nearly all other recommendations put forth by the Task Force and will be referenced throughout.

Recommendation 1: We recommend Alexandria define its “Targeted New Reality” to clarify priorities for decision making when considering how best to deliver capital projects and services.

Alexandria – encompassing both City and ACPS – must define a ‘targeted new reality.’ Although this new reality is aspirational in quality, it clarifies the factors of importance that Alexandria’s rich history and DNA ascribe towards the future care and protections for its residents.

- Pursue (maximum) three strategic visioning sessions over the next year that connect existing strategic plans with recommendations from the Task Force. The sessions are not intended to modify the existing strategic plans, but instead provide a distilled and focused Alexandria vision.

- A third party should facilitate the sessions and both entities should be active participants. Consider utilizing the Alexandria Economic Development Partnership (AEDP) as the sponsoring entity for the third party facilitator.
- The strategic visioning effort should be performed in concert with the Task Force’s recommended city-wide Facilities Master Plan in a transparent and comprehensive consensus-building process, which includes input from residents, elected officials, City and ACPS leaders, and interested stakeholders.
- The strategic vision should embody the concepts of the Capability Development and Delivery Framework as described in Recommendation 2 and answer questions such as:
 - What are the current / existing conditions in Alexandria?
 - What do we want the future Alexandria to be?
 - How do we position Alexandria to move forward to that future?

The synthesis of the strategic visioning session will identify gaps in existing conditions with the targeted new reality and will be used to help clarify priorities for decision-making when considering how best to deliver capital project capabilities and services.

Theme 2: The City and ACPS have a tendency to jump to capital solutions rather than explore broader options to deliver services (“capabilities” – see below).

Capital projects are not ends in themselves; they are part of the means through which the City and ACPS provide a *capability*. A capability is the set of operational concepts, organizational structure, personnel, training, processes, and facilities required to deliver services or conduct the operations of general government.

For example, with respect to parking control and enforcement, the ability to regulate the amount of time a given vehicle can park at a designated location in the city is a capability. Parking ordinances, parking meters, signage, and parking enforcement personnel are a means to deliver that capability.

The existing planning process for capital projects does not align with this rationale and the Subcommittee feels that the City and ACPS must reorient the capital budgeting and planning process to focus on capabilities rather than projects.

A shift from looking at the capital budgeting process as a means of providing capabilities rather than capital projects being an end in themselves opens the possibility of innovative service delivery models such as outsourcing, privatization, private-public partnerships, and joint ventures between the City and ACPS.

Recommendation 2: Develop and implement a Capability Delivery Model.

The City and ACPS should jointly develop and implement a Capability Delivery Model to assist City Council and the School Board with determining how best to deliver services to the residents

of Alexandria. If the City and ACPS determine a capital project is required, the Model should be used to determine the project strategy, oversee project planning, and monitor and control project execution.

A Capability Delivery Model is a framework that assists decision-makers with deciding how best to deliver a capability that supports service delivery to a consumer or user. The framework consists of five (5) stages in which information is gathered that will assist leaders in deciding on the next course of action.

The five stages are:

1. Capability Need Validation
2. Demand Management
3. Project Strategy
4. Project Planning
5. Project Execution

1. *'Capability Need Validation'* helps decision-makers answer the question, "In order to sustain general government and deliver resident services, what capabilities must I have?" For example, do I need to plan for snow removal? The answer will be very different for a community in Florida versus one in Maine. Capability Need Validation drives decision-makers to state explicitly what they need to provide to make government work.
2. *'Demand Management'* answers the question, "How do I define and express the solution that will provide a capability." For example, ridesharing services such as Lyft and Uber, Dash, and Red Top cab all provide the same capability, but they do it in different ways. Demand management drives the decision-maker to conduct an analysis of alternative means to meet the need. The link of the capability to the organization's strategic plan is a powerful consideration during this stage because it is where constraints and necessary conditions arise. This stage is usually the beginning of stakeholder engagement. Funding for feasibility studies and further solution definition is usually required.
3. During the *'Project Strategy'* stage, the "who, what when, where, and how" of the project are being defined. Questions include whether the project is a traditional capital undertaking, an intergovernmental collaboration, or a public-private venture; where is the project sited; when will the project be undertaken; and who will operate it. This stage involves heavy stakeholder engagement. It is at this stage that the first significant amount of funding in the CIP is authorized.
4. During the *'Project Planning'* stage, outputs of the Project Strategy stage are integrated into a comprehensive project plan. The project gains increased definition in terms of cost, schedule, scope and quality. The Project Planning stage typically ends with a contract award.

5. The final stage is '*Project Execution.*' The project work scope is monitored and controlled and collateral work such as enabling projects are undertaken to deploy the desired capability.

Capital projects fall roughly into three categories:

- Life extension of existing assets
- Modernization of existing assets
- New construction

Because of the varying scope and complexity of these three categories, not all projects must start at Capability Needs Validation. The appropriate stage of entry is project dependent. For example:

- Replacing a roof on an asset is considered a life extension of that asset and would likely begin at the *Project Strategy* stage of the Model. The scale of the investment may not be large enough to warrant a pause to examine if the capabilities being provided within the building are being done optimally. Therefore, we would begin the project by defining how best to replace the roof. Who should be involved, what should the scope entail and strive to achieve, when should this work occur, etc.
- Renovating or replacing an existing asset is a large investment and warrants a pause to better understand the capabilities being provided. These projects would start with *Capability Need Validation* and *Demand Management* to validate that the continued investment in that asset and its life extension is a sound pursuit. Alternatives for providing and/or housing those services would be explored before it is assumed that the asset is in fact needed in some new physical state.
- A new construction project typically begins at the first stage, *Capability Needs Validation*, as the means to deliver a capability would be studied for any new or expanded capability.

Development and deployment of a Capability Delivery Model that is consistent with the scope and complexity of the City and ACPS' capability needs will provide information at each stage of the model to help decision-makers determine whether a project is required, what the nature of that project should be, and the project's timing and location. Further, the rigor imposed by the Model should ensure that those projects which proceed through all the stages will be executed with a high degree of confidence that the project will be delivered at or below cost, on schedule, with the required scope.

Theme 3: The CIP process lacks joint City and ACPS vision, collaboration, coordination, and execution.

During conversations with City and ACPS to better understand the existing state of budget planning, it became clear that the existing CIP process brings together two entirely independent capital budgets to compete for limited funding. City Council, therefore, does not have the ability

to consider a truly integrated set of priorities and common vision for future capital spending across all capital needs.

The Subcommittee believes this lack of “jointness” leads to a suboptimal allocation of capital resources on behalf of the residents of Alexandria as it limits opportunities for jointly delivering projects. Projects are often developed in silos and come to the CIP negotiating table without much room for collaboration on alternative solutions for providing the project while meeting the timeline of the current CIP process. The timing of the CIP process also limits this cross collaboration. In effect, it becomes a zero-sum game with winners and losers.

Recommendation 3: Create a Joint Capital Management Council (“JCMC”).

City and ACPS should create a Joint Capital Management Council (“JCMC”) to oversee the operation of the Capability Delivery Model by:

- Elevating the membership of the City’s Capital Improvement Program Steering Committee to the Deputy Manager/City Manager level.
- Expanding its membership to include equivalent levels of ACPS leadership.
- Giving the JCMC the authority to determine what projects are recommended to the City Council and School Board for inclusion in the CIP.

The Capability Delivery Model is most effective when the decision makers are credible and empowered to make determinations. The JCMC would work on a consensus basis under the overall leadership of the City Manager and the ACPS Superintendent. It is assumed that the JCMC would be co-chaired and meet on a regular basis.

The JCMC would be responsible for determining which projects should not be pursued based on the information available at each stage of the Capability Delivery Model, which projects need further development before proceeding, and which projects should proceed to the next stage. Their work would constitute a recommendation to City and ACPS on which projects hold the most promise in providing capabilities for delivery services to the residents of Alexandria and which projects have a high probability of delivering at cost, on schedule, and with the planned scope. It is anticipated that the JCMC will consult with appropriate departments and stakeholders such as housing, parks, public safety, and others.

This group can serve as the glue between each entity to develop a unified strategic vision and oversee development of the joint facilities master plan (see Recommendation 4).

Theme 4: The CIP process provides a fragmented view of capital needs citywide.

During development of the FCIP, the Task Force was limited to considering a specific subset of projects as well as a limited set of funding, including the funding Council plans to add as resources to the existing CIP. The Task Force questioned if this facilities list truly encompasses the full universe of facility needs. Additionally, the Task Force expressed concern that framing the prioritization exercise for facilities only was extremely limiting and that all capital projects

should be part of the prioritization conversation. This lack of “wholeness” presents issues to prioritization and making funding decisions.

The Task Force concluded that all of the projects it reviewed represented valid requirements for capabilities, which are needed for the operation of general government or to provide services to the community. We declined to recommend funding for some projects due to funding constraints and the timeframe given for the exercise, but the list of unfunded projects should not be considered as items that are not needed in some manner. The Task Force could not conclude whether these unfunded projects were more or less worthy than projects in the broader CIP, which was not within the Task Force’s consideration.

In general, the unfunded list represented projects that appeared to be less ready for construction or presented an opportunity for alternative delivery analysis. Recognizing the need represented by each of the projects in our charge, we recommend that projects left unfunded in this FCIP process be considered for funding alongside all projects within the broader CIP for this CIP cycle.

The Task Force concludes that Council, assisted by the City Manager and the School Board, will have to continue to set priorities on an ad hoc basis until the City and ACPS develop a joint prioritization and governance process that results in proposing a unified, balanced CIP that represents the combined needs of the City and ACPS. The process must begin with both political bodies identifying the need to deliver capabilities and provide services until those capabilities are delivered through a capital project or other means. For context, the following represent the unfunded list from the FCIP:

- Gadsby’s Tavern
- Fire Station 206
- Chinquapin Aquatics Center (50-meter pool)
- Indoor Firing Range (closed)
- New Pre-K Center
- New Elementary School
- The Task Force also recommended a reduced level of funding for the Health Department CFMP.
- The Task Force recommended consolidated funding for Swing Space and a New Middle School so that the swing space can be built out for immediate use as a temporary location for an elementary school and can transition in future years to a permanent use as either an elementary or middle school.

Recommendation 4: Develop a joint facilities master plan.

The City and ACPS should develop a joint facilities master plan that:

- Determines a facilities baseline for the City and ACPS;
- Reviews existing assumptions about the need for capital projects to support service delivery now and in the future;

- Develops a strategic vision for facilities development for the City and ACPS; and
- Synthesizes the facilities baseline, assumptions, and the strategic vision into a roadmap that addresses the City and ACPS' highest needs and biggest risks first, optimizes the use of swing space, and formulates a smart strategy for land acquisition and use.

A joint facilities master plan serves as the road map for reaching Alexandria's targeted new reality. The plan would identify opportunities for collaborative projects between the City and ACPS and allow both entities the ability to engage in smart project design and project planning. It would permit both entities to take advantage of opportunities to bundle projects for efficiency in execution, which was the rationale for the Task Force recommendation for the Witter / Wheeler campus.

A joint facilities master plan would provide ongoing context and guidance to the CIP. The typical duration of a master plan is longer (e.g., 20 to 30 years) than a funding plan to allow for the full universe of needs to be identified and addressed. It would allow for a better understanding of opportunity costs of prioritizing and sequencing projects ahead of others when balancing for known funding levels.

Finally, and perhaps most importantly, it would allow both the City and ACPS to maximize the use of one of Alexandria's scarcest resources: real estate.

Theme 5: The current budget cycle lacks sufficient time to deliberate on capital needs and proposed project solutions.

The Subcommittee concluded that while the City and ACPS have relatively well-defined processes for developing their capital budget, most of the discussions of needed capabilities and project strategies is relatively unstructured and ad hoc. Those discussions need the time, space, and structure to occur and be fruitful.

The quantity of projects and complexity of needs has grown over time, making discussions about capabilities even more critical. The CIP process itself has a limited window of time to include an in-depth discussion of capabilities and broader needs.

Recommendation 5: Revise the budget calendar to decouple the annual operating budgeting and annual capital budgeting cycles.

Governments by their nature work three budgets simultaneously – the current budget, next year's budget, and the budget after next. When the budget is split into an operating and a capital budget, six separate budgets are in various stages of execution, consideration, and development. This level of budget activity places a strain on staff, who must support all six. It also forces City Council and the School Board to consider matters of great consequence within a highly compressed timeframe.

Given the growing complexity of the CIP, the Task Force recommends that consideration of the CIP be decoupled from the annual operating budget. Given the long-term nature of the CIP and

the recommendations to institute a Capability Delivery Model and a governance structure, the CIP could be effectively decoupled from the operating budget, giving Council and School Board more time to deliberate over long-term priorities. This process can be enabled by Recommendation Six.

Theme 6: The 10-year duration of the CIP makes it challenging to provide the same rigor of analysis for all projects, apply prioritization criteria equitably and clearly, and manage expectations cycle to cycle.

Project plans are developed based on a set of assumptions. In order to properly study and explore project assumptions in more detail, planning or “seed” money must be allocated to the project. Each year the CIP reflects projects in later years that have highly speculative project assumptions. To community members or casual observers, the budget reflected in the CIP may be taken as a reliable cost estimate, which can lead to incorrect expectations despite qualifying statements within the body of the CIP document.

Currently, projects are placed in the CIP before a full analysis of alternatives can occur. Thus, if an analysis of project alternatives reveals that the capability should be delivered via a method other than the identified project, the community’s expectations are misaligned.

Recommendation 6: Consider changing the way projects are reflected in the CIP.

The Task Force understands and appreciates the need for the City and ACPS to make a ten-year policy statement with respect to its capital priorities. In practice, the most concrete priorities exist in the first three years of the CIP, where project needs are reasonably well identified, there is a reasonable forecast of economic conditions (absent an unexpected and highly impactful event), and the necessary conditions for project execution are set. Years four through six are less certain; years seven through ten are highly speculative.

The Task Force recommends that the City and ACPS provide less specificity for capital project definition in years four through six and only an aggregate target for years seven through ten. As the Capability Delivery Model identifies those projects that are increasingly ready to proceed and whose cost and schedule estimates become firmer, City Council and the School Board can allocate the undistributed CIP to specific projects.

Theme 7: Implementation practices largely focus on the management of individual projects rather than as programs and a citywide portfolio, therefore limiting the yield of benefits that standardization and interconnectivity could provide.

The Subcommittee observed that capital projects have grown in complexity and scope in recent years. The process and quality of project delivery does not currently align across the City and ACPS. As a relatively small city, Alexandria could benefit from standardizing project management processes and introducing economies into the execution of projects via program and

portfolio management. In addition, standardization would allow for stakeholders to better engage throughout the process.

Recommendation 7: The City and ACPS must employ “best in class” project, program, and portfolio management practices.

Projects in the CIP have grown in scope and complexity over the past several years. To successfully manage the CIP effectively and optimize resources, the City and ACPS must employ “best in class” project, program, and portfolio management practices. This should start with identifying current capabilities and a means to close any gaps and align resources. This includes the way projects are directly managed and levels of oversight.

Immediate tasks that can be conducted include interviewing staff and plotting current implementation practices. There may be areas of collaboration or shared resources between DGS and ACPS implementation staff.

An example of an industry standard that could be followed is the Project Management Institute’s Organizational Project Management Maturity Model (“OPM3”):

... is a globally recognized best-practice standard for assessing and developing capabilities in executing strategy through projects via Portfolio Management, Program Management, and Project Management. It is published by the Project Management Institute (PMI). OPM3 provides a method for organizations to understand their Organizational Project Management processes and practices, and to make these processes capable of performing successfully, consistently, and predictably. *OPM3* helps organizations develop a roadmap that the company will follow to improve performance. The Second Edition (2008) was recognized by the American National Standards Institute (ANSI) as an American National Standard (ANSI/PMI 08-004-2008). The Third Edition was published in 2013.⁴

The OPM3 represents the industry standard for organizations for which project management must be a strategic competency. The OPM3 will assist the City and ACPS in determining whether they have the organizational structure, people, processes and technology to effectively manage a CIP of this scope and complexity, and if not it will assist City and ACPS in developing a roadmap to building a highly professional project management competency.

⁴ Wikipedia, OPM3, <https://en.wikipedia.org/wiki/OPM3>, accessed December 10, 2017

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CHAPTER 2:

ALTERNATIVE DELIVERY METHODS

BACKGROUND

The Alternative Project Delivery Methods Subcommittee (the “Subcommittee”) was charged to determine opportunities for joint facility/site/co-location and recommend alternative capital project delivery and operation strategies for the City (“City”, “DGS”), the Schools (“ACPS”), and our community as a whole (“Alexandria”).

Subcommittee members included Dwight Dunton and David Millard. Mignon Anthony served as Chair of the Subcommittee until she accepted the position as Chief Operating Officer of Alexandria City Public Schools (ACPS) in late November 2017. The Subcommittee met a total of seven (7) times (a meeting list is provided in the exhibits).

Each Subcommittee meeting explored themes and concepts, industry best practices, and examples of where successful joint facility/site/co-location efforts might be applicable to Alexandria’s needs and growth projections. B&D facilitated meetings and provided technical support as needed to Subcommittee members and related stakeholders.

The balance of this chapter is organized as follows:

- 1) Defining Alternative Delivery
- 2) Current Statutory Environment
- 3) Key Observations & Recommendations

DEFINING ALTERNATIVE DELIVERY

A public building or property owner (“Owner”) may identify several areas of risk when embarking on project delivery. As such, Alternative Delivery Methods are constantly evolving in the project space as the need for creative financing and risk transfer become necessary. In a sense, Alternative Delivery is when an Owner takes advantage of the natural strengths of a potential partner by transferring risk to deliver a mutually beneficial asset or service. Partners could be another public agency or department or a private sector entity such as a developer, program manager, construction manager, non-profit, or service provider.

Risks, generally identified in project delivery, include the following:

- Design and Construction Risks
 - Site
 - Design
 - Construction
 - Environmental and Social
- Operations Risk
 - Operating Costs
 - Maintenance
 - Performance

- Financing and Project Budget
- Political and Macro Risk
 - Macroeconomic
 - Regulatory
 - Political
 - Force Majeure

Public Private Partnerships (“P3” or “P3s”) is the commonly used term to indicate an agreement between two or more entities to develop, build, finance, operate, and/or maintain an asset or provide a service. For example, strategies for P3s can include co-location, collaborative operations, and shared resources. The National Council for Public Private Partnerships currently recognizes as many as 18 different variations of P3 structures.¹ In every scenario, the partnership structure is determined by the Owner’s transfer of risk and control. Examples of commonly used P3s in the public sector include:

- O&M: Operations and Maintenance
- OMM: Operations, Maintenance, and Management
- DB: Design Build
- DBM: Design Build Maintain
- DBO: Design Build Operate
- DBOM: Design Build Operate Maintain
- Developer Finance
- DBFOM: Design Build Finance Operate Maintain

Other alternative deliveries relate more directly to how a construction project is procured. Alexandria, similar to most public owners has traditionally procured projects using the Design Bid Build model. This approach is referred to within the construction industry as “traditional.” In this delivery model, the Owner hires a design team to produce a set of biddable construction documents. The Owner then invites general contractors to bid, selects a preferred contractor based upon Owner defined criteria (low bid, best value, etc.) and then contracts directly with the selected builder to construct the project.

This approach in the public sector was driven by goals to obtain the lowest price. In the mid-twentieth century it became law in nearly every state.² Over the last two decades, public procurement has seen an increased use of alternative delivery methods such as Construction Manager at Risk and Design Build. As of 2012, all 50 states and Washington, D.C. allow some form of alternative delivery, though the Design Bid Build is still the most widely used method.³

Construction Manager at Risk and Design Build differ from the Design Bid Build approach in that some risks are transferred to a Construction Manager or other third party. Construction Management at Risk introduces pre-construction expertise during the design process with earlier guarantees for cost and delivery. Design Build provides a single contract for both

¹ <https://www.ncppp.org/ppp-basics/types-of-partnerships/>

² <http://americancityandcounty.com/contracts/growth-and-growing-pains-design-build-construction>

³ <http://americancityandcounty.com/contracts/growth-and-growing-pains-design-build-construction>

architectural/engineering design and construction. Both methods suggest an accelerated process whereby design and construction merge at earlier stages and project control must be more tightly managed to maximize results. Overall, owners evaluate each project's opportunities, challenges, and constraints to decide which approach best meets the needs of the project.

CURRENT STATUTORY ENVIRONMENT

Alternative Delivery Methods allow owners the flexibility to provide capabilities utilizing and leveraging non-public resources through partnerships with third parties. There are many forms of alternative delivery for consideration and it is important to understand the approaches a jurisdiction and the community have at their disposal. Our Subcommittee analyzed applicable precedent and legislative authority for use of alternative construction procurement and P3s in City and ACPS project efforts.

Alexandria is an independent city in the Commonwealth of Virginia and receives its governing authority from the Code of Virginia⁴. Similar to other local governments in Virginia, Alexandria has limited powers – powers that are specifically conferred on them by the Virginia General Assembly that are essential to the purposes of government.

In 2006, the Virginia Design Build / Construction Management Review Board certified Alexandria⁵ to deliver construction projects utilizing both Construction Manager at Risk and Design Build methods. The board was subsequently abolished and now the Code of Virginia § 2.2-4382 states:

Design Build or construction management contracts for local public bodies authorized.

A. Any local public body may enter into a contract for construction on a fixed price or not-to-exceed price construction management or Design Build basis, provided that the local public body (i) complies with the requirements of this article and (ii) has by ordinance or resolution implemented procedures consistent with the procedures adopted by the Secretary of Administration for utilizing construction management or Design Build contracts.⁶

Alexandria utilizes these methods depending on the nature and constraints of a project. Construction of the DASH Operations and Maintenance Facility utilized a Design Build delivery method. Fire Station 210 at Eisenhower Avenue and Patrick Henry Elementary School and Recreation Center were delivered utilizing Construction Manager at Risk.

Regarding “P3s”, Virginia’s Public-Private Education Facilities and Infrastructure Act of 2002, amended in 2008⁷, defined ‘qualifying projects’ for public entities to engage in Public Private Partnerships and stipulated, “While substantial private sector involvement is encouraged,

⁴ <https://law.lis.virginia.gov/vacode>

⁵ <https://law.lis.virginia.gov/admincode/title1/agency17/preface/>

⁶ <https://law.lis.virginia.gov/vacode/title2.2/chapter43.1/section2.2-4380/>

⁷ <https://law.lis.virginia.gov/vacodepopularnames/the-public-private-education-facilities-and-infrastructure-act-of-2002/>

qualifying facilities must be devoted primarily to public use, typically involving facilities critical to public health, safety and welfare.”

Only a few examples of Public Private Partnerships have occurred to date in Alexandria. Most notable is The Station at Potomac Yard, a fire station constructed as part of a residential and commercial building that also included affordable housing. The City also uses longstanding partnerships to deliver affordable housing and other essential services including animal control.

Accordingly, we believe Alexandria has the ability and legal authority to implement the recommendations that are outlined below.

ALTERNATIVE DELIVERY METHODS SUBCOMMITTEE KEY OBSERVATIONS & RECOMMENDATIONS

The Alternative Delivery Methods Subcommittee explored and evaluated best practices and considerations for alternative delivery of projects and services. Initial meetings focused on using alternative delivery methods for discrete or particular combinations of ACPS and City projects. However, our Subcommittee concluded that in order to advance delivery methods, decision-making for future capital projects will require that the City, ACPS, civic leaders, elected officials, and community embrace and embody an evolved mindset valuing interdependency, risk-taking and innovative solutions.

Rather than provide recommendations for individual projects in the short-term, we recognize a holistic approach is necessary to ensure Alexandria continues to grow strategically. This will set the stage for sustainable success over the long-term.

Key to the recommendations in this section is the visioning process and Joint Facilities Master Plan and the resulting ‘Targeted New Reality’ for Alexandria, as recommended in Chapter 1 (see Themes 1 and 4 and associated recommendations). Many of the themes and recommendations presented here provide expanded guidance on what that vision should aim to achieve.

The following provides an overview of the key observations made during Subcommittee discussions and the related recommendations inclusive of related action items.

Theme 8: Traditional practices, a ‘business as usual’ culture, and ‘silos’ within our city have stifled innovation, which we believe has resulted in missed opportunities for high-impact solutions for designing and delivering citywide capabilities and projects.

It is often said, “Perfect is the enemy of good.” It has been our observation that the City and ACPS often attempt to find the perfect solution rather than accept an optimal solution. We believe that staff are not emboldened to lift up creative ideas for both capital projects and ongoing repair and maintenance. In this regard, the Task Force observed that the City and ACPS often attempt to find the perfect solution or settle for short-term solutions to long-term problems due to financial constraints (capital and operating), timing constraints, staff/resource constraints, community pressures, and lack of political will to upset the status quo.

For example, our Subcommittee and the broader Joint Task Force had numerous discussions about swing space and the siting of schools. It became apparent that in some cases, the new Patrick Henry Elementary School and Recreation Center and Jefferson Houston School notwithstanding, the temporary use of City-owned fields and green space for swing or construction staging was avoided early on in project planning analysis due to short-term concerns about displacing the users of those spaces. However, there may be benefits realized in using that space temporarily, such as avoiding capital costs for elongated construction schedules

from phasing work on a smaller footprint or transporting students to a swing space. A full analysis should be completed to examine the full range of costs and benefits, including any existing programming that may be displaced.

As a result of this thinking and behavior, we feel that many opportunities for collaboration and projects with enhanced returns on investments are not realized and may impact Alexandria's competitive position in the market to potential partners and developers.

Recommendation 8: We recommend that leadership proactively challenge traditional practices and methods for capital project and service delivery by exploring new best practices to keep Alexandria competitive and attractive to potential partners and developers. This includes embracing opportunities such as public private partnerships, joint use, co-location, adaptable reuse, and others as identified.

At the core of challenging existing practices and embracing alternative methods is a systematic shift in thinking. Risk-taking should be rewarded and not stymied. We must take risks in order to reap the benefits of innovation, as innovating processes and procedures could greatly improve efficiency and outcomes.

We believe a systematic shift in thinking that challenges traditional methods and practices while seeking optimal solutions is needed. For example:

- We believe the city should reevaluate and actively take on any 'sacred cows' – facilities, processes, programs, and/or policies that no longer meet our needs.
- We believe the private sector should be leveraged more in developing public facilities and providing public services.
- Greater community accessibility to public services should be prioritized in a city with the transportation resources of Alexandria. We believe the land surrounding Metro stations in Alexandria is highly underutilized. The City and ACPS should centralize essential city services and functions at available sites near Metro stations wherever possible.
- We believe the short-term and temporary uses of space must be evaluated against our long-term goals.
- We believe innovative, out-of-the-box thinking should be encouraged and supported among staff.

To support implementing the new vision and this shift in thinking, we believe that staff should be encouraged to think creatively to lift up ideas that would promote collaborative facility efforts both with capital projects as well as ongoing repair and maintenance. For example: The City and ACPS should consider awards (annual if appropriate) to staff who exhibit creativity in approach to eliminating silos or identifying alternative delivery methods.

Overall this shift in thinking and related actions should help propel Alexandria into becoming an attractive and competitive partner to the private sector. The balance of recommendations provide specific actions to put this thinking into motion.

Theme 9: Creative and innovative solutions that have occurred are a result of ad hoc and reactive efforts rather than a cohesive, replicable process.

Current city-wide facility planning efforts are tailored to individual agency needs. This has caused silos and competition between agencies versus a more comprehensive approach to planning. While silos are necessary for government operations to some degree, there must be mechanisms in place and a process to transcend them so that individuals – elected officials, leaders, staff, and community members – can work to accomplish broader goals for the benefit of the entire city.

In addition to silos that inhibit collaboration, the lack of a structured process and framework makes it challenging for staff to elevate and pursue alternative delivery of projects, particularly with private partners. It may be perceived that there is not a means to advance projects of more complexity since there is not a process that allows for their complexity to be more easily understood and navigated. The few projects that have been successful may be deemed to have worked due to special circumstances. We believe the perceived ‘easier’ solutions are sought despite the return on investment and value a more complex project may ultimately provide.

Recommendation 9: We recommend a framework and process be developed so staff are empowered to pursue alternative delivery of projects in a consistent manner. In order to develop this new framework and process, initiate a pilot project to serve as a model that can be modified, adapted, and expanded over time.

Establishing a structured process to guide the use of alternative delivery will help accelerate it into a more prevalent solution. The established process should align with the broader capabilities framework outlined by the Capital Planning and Implementation Subcommittee. The associated planning and project decision rights and information flow should be transparent and clear to all stakeholders.

Suggested elements of the process are:

- Clearly define ‘*projects*’ and their strategic objectives and goals for service delivery, including the transfer of risk across the design, build, finance, operate, maintain spectrum.
- Utilize a formal selection process for partners that seek responses that are in alignment with the strategic objectives as well as acknowledge how to review and process unsolicited proposals (e.g., Request for Qualifications or Request for Proposals).
- Support negotiations and engagement with partners for services and/or capabilities.
- Provide oversight of project initiation, construction, project management, and close out.

Note: 'Projects' in this case may not necessarily be the building of a capital asset but the mechanism to deliver a capability - for example, outsourcing an operation.

To be successful, frameworks and processes must have the appropriate resources behind them. The topic of resources is more specifically discussed in Theme and Recommendation 10. We recommend that Alexandria seek external advice in how to properly set up this process.

We also recommend that a pilot project be utilized to develop, illustrate, and refine this process. We recommend that an appropriate pilot project be the Firing Range – due to its recent closure. Please see the end of this section for other alternative project ideas.

Overall, these steps will support the development and implementation of a transparent, sustainable, replicable, and collaborative process for exploring, selecting, negotiating, and executing projects with alternatives to the traditional planning and delivery of projects.

Theme 10: Existing city and private resources have not been consistently or adequately leveraged, which has limited the return on investment of projects to date or the ability to effectively launch new efforts.

In the same vein as the previous themes, it became our observation that the easiest way to pursue a project was often taken. One reason for this we believe is the perceived availability of, and access to, appropriate resources. Alternative projects are complex and require sophisticated support.

For example, one resource we believe that could be more regularly utilized by City and ACPS is the Alexandria Economic Development Partnership (AEDP). We view AEDP as the city's best link to the private sector and its resources.

Other resources that could be made available include supporting policies and guidelines, "champions" and technical experts, and a clear decision making process. "Champions" can play a significant role in implementing change and new processes and practices. The role was defined within a Project Management Institute article as:

A champion is a person within the organization who uses power entrepreneurially to enhance project success. This definition implies four characteristics of champions:

- *First, they have some personal or positional power in the organization.*
- *Second, they are willing to use that power to benefit the project.*
- *Third, they use their power somewhat non-traditionally or entrepreneurially.*
- *Fourth, they do not have to do what they do to aid the project; they go well beyond their expected and traditional job responsibilities.⁸*

⁸ <https://www.pmi.org/learning/library/project-champion-key-implementation-success-2135>

Overall, we believe staff have creative ideas, but they get stifled by the perception that they cannot find the means to further develop them from a technical perspective or gain enough traction and support for ideas to be advanced. Having appropriate resources can help these ideas be properly explored early in the process and advanced when appropriate.

Recommendation 10: We recommend that adequate resources be identified to support and expand citywide technical expertise so that efforts can be coordinated, informed, and executed strategically. This includes buy-in and direction from leadership for their use. These resources should include existing ones, such as the Alexandria Economic Development Partnership as well as new ones, including staff, systems, and access to specialized consultants.

The following categories of resources should be considered in supporting the alternative delivery process, particularly as one size does not fit all and transactions are often complex in nature:

- Policy audit and guidelines
- Decision making body and champion
- Internal and external experts
- Other written supporting materials

An initial review and refinement of related existing policies should be conducted so that they can be easily referenced and understood by staff and decision makers. These can inform the establishment of specific guidelines that condense the applicable information and readily support the established process. An example to consider is the City of Falls Church’s adopted “Guidelines for Implementation of the Public-Private Education Facilities and Infrastructure Act of 2002.”⁹ Having this sound understanding will help inform which additional resources will be needed to support internal staff.

Establish who the applicable decision-making body should be and identify and empower an impartial champion with decision-making authority to lead this effort. This may mean creating a new entity or utilizing the JCMC recommended in Chapter 1 with appropriate supporting staff such as project planners as well as staff who can take on a leadership role for the effort. The individual champion should have credibility among elected bodies and be able to provide executive oversight and implement the strategic visioning.

Specific criteria for determining whether an opportunity exists for alternative delivery of a service or capital project should be developed, including key performance indicators that hold the City and ACPS accountable. The criteria should align with the Capability Development and Delivery Framework, outlined by the Capital Planning and Implementation Subcommittee and with the city’s targeted new reality.

⁹ <http://www.fallschurchva.gov/documentcenter/view/4578>

The decision-making body and/or champion should refine and review existing standardized written agreements, develop new templates that support project strategy development and negotiations, and monitor compliance and adherence to those standards, which include:

- Facility design standards
- Physical parameters and guidelines for capabilities and services
- Co-location guidelines and agreements
- Financing strategies

The decision-making body and/or champion should identify the means and methods for regularly and consistently collaborating with other partners and existing and new resources, including but not limited to:

- Planning & Zoning (P&Z), Department of General Services (DGS), Office of Housing (OH), and Recreation, Parks & Cultural Activities (RPCA)
- Alexandria City Public Schools (ACPS)
- Alexandria Economic Development Partnership (AEDP)
- Industrial Development Authority of Alexandria (IDA)
- Alexandria Chamber of Commerce
- City Budget and Fiscal Affairs Advisory Committee (BFAAC)
- ACPS Budget Advisory Committee (BAC)
- Peer and neighboring municipalities
- Legal counsel and other external experts and advisors

Utilizing these resources to execute the newly established process, the city can make timely, vision-aligned decisions regarding capital needs without the risk of projects getting stymied by political forces or being thought to be too complex to implement. Overall the resources needed to support the recommendations here as well as in Chapter 1 should be evaluated together, as both impact capital project planning and development.

Theme 11: Civic engagement is critical, but should not be treated as a substitute for strong leadership by elected representatives.

Civic engagement is important to having informed leadership. In our discussions about projects in the FCIP, we observed that options for projects are sometimes removed based solely on community feedback or political leadership rather than thoroughly analyzed in the ways in which they deliver the strategic vision. This theme was brought to light during our Subcommittee discussions due to its relationship to engaging around challenging traditional ways of doing business and delivery projects.

- Community members sometimes use engagement meetings to discuss their individual concerns, even if the matter falls outside of the meeting topic. This hinders useful feedback for staff analysis and decision-making.
- Community engagement practices heavily influence policies and decisions, often prioritizing political motivations over longer-term sustainable solutions.

Leaders must be careful to represent the greater community interest rather than let strong-minded individuals or tenacious groups drive decision-making. Leaders should carefully weigh the short- and long-term tradeoffs a project provides and understand the impact and cost of each option. Proactive, not reactive, leadership by elected officials will produce better long-term results.

Leadership should also consider the impact to staff. Our observation is that staff are overextended by the number of working meetings and community meetings in addition to their day-to-day responsibilities.

Recommendation 11: We recommend that leadership ensure that current civic engagement policies and practices resist the substitution of engagement alone for leadership. The public should be informed champions of what is important to all of Alexandria rather than advocates for individual projects.

Community engagement is critical in determining the future for Alexandria. However, it is important to distinguish that engagement should be used to inform policy decisions, but not to manipulate them.

- We recommend community engagement meetings have defined parameters for what will be discussed and the type of feedback that is desired. Expectations for success should be set along with other goals.
- We recommend leadership weigh the feedback provided during engagement and to support and empower staff to facilitate and provide expertise rather than appease stakeholders in decision-making.

Alexandria must ensure that its communication strategy is aligned with a comprehensive focus on the city's targeted new reality and finding the appropriate balance and rigor of community engagement, staff expertise, leadership, and elected bodies.

- This effort should educate all stakeholders about the need for a paradigm shift to be solutions-minded – 'business as usual' will no longer suffice.
- The champion identified for the decision-making body should lead and implement this comprehensive community-wide communication and engagement effort.
- Ongoing efforts may need to be right-sized and the engagement plan updated. Meetings, councils, and work groups across the City and Schools should be streamlined and their purpose clearly stated in order to be more efficient with staff time and effective with community engagement.

- Engagement should promote transparency through active outreach and manage expectations by informing community members of the levels and timing of participation.

Efforts and tasks supporting this paradigm shift should support innovation in the delivery of projects that strive for the best value to Alexandria residents.

CURRENT OPPORTUNITIES

Our Subcommittee believes the recommendations above set the stage for holistic change for how Alexandria approaches capital projects. In conjunction with the Capital Planning and Implementation Subcommittee, it is our desire that these observations and recommendations lead to long-term improvements and progress.

Throughout the course of our Subcommittee meetings, there was a great deal of discussion regarding potential opportunities with existing properties or assets throughout the city that may have been overlooked or assumed unapproachable, which could be capitalized on to address current needs. Some of these ideas are listed below for your consideration. They all warrant thorough analysis and engagement to determine their feasibility and implications for existing programming.

Swing Space and alternative sites for future school projects/use:

- Recognizing that school swing space is an immediate need, we believe that, wherever possible, permanent structures should be built for swing space that can be later transitioned to a permanent school.
- As stated earlier, where possible, the City and ACPS should consider/study the option of swing space on site – even though, for instance, it may require the temporary use of an adjacent park. As fellow residents, we understand the importance of parks and open space for Alexandria, but as a city we must balance the short-term and temporary uses of space against our long-term goals.
- We believe there are more sites available throughout the city that can house a school than realized, particularly on broader City- or ACPS-owned/controlled land.
 - While some of these sites may be appropriate for building new facilities, others may be repurposed to accommodate a critical need as identified by the City/ACPS (e.g., an early childhood education center).
 - Several smaller schools may be a better option than a few larger schools and may provide more flexibility, especially if designed for alternative uses in the future. As recommended in the Long Range Educational Facilities Plan, an urban school model is better suited to the land constraints of our city.

Alternative Sites for City Use:

Given the costly repairs needed in City Hall and that City staff is dispersed throughout Alexandria, an alternative could be to consolidate City and/or ACPS employees in other currently available and empty locations, such as the Victory Center or Carlyle area.

City-Owned Assets for Alternative Use:

We believe there is an opportunity for the City to re-examine current assets for alternative, enhanced, or shared uses to address funding issues. The recommended decision-making body

and/or champion for an alternative delivery process can investigate available revenue-generating avenues for these facilities.

Alternative Delivery Opportunities

As has been mentioned in the Task Force's first deliverable and this report, we believe that there is a great opportunity for alternative delivery of the following FCIP projects:

- The new Firing Range could be used as a pilot project for alternative project delivery (e.g., a public private partnership).
- Instead of constructing a new Burn Building solely for use by AFD, consider the opportunity for shared use with neighboring jurisdictions.
- The Witter-Wheeler Campus could combine City and ACPS services as well as incorporate the potential for privatizing some facilities.

Regulatory Framework

In order to accommodate urgent needs, the City should reconsider certain regulations, e.g., zoning and height requirements.

Opportunities with AEDP

As mentioned, we believe that the City and ACPS should take more advantage of AEDP as a resource. They are in the best position to offer support in the identification of private sector partners and/or sites, and can assist in determining opportunities to use the Industrial Development Authority.

Associated Exhibits:

- Subcommittee Meeting List
- AEDP Memo of October 31, 2017

CHAPTER 3:

MAINTENANCE & OPERATIONS

BACKGROUND

The Facility Maintenance and Operations (“M&O”) Subcommittee was primarily charged to review and recommend improved policies and practices related to asset management (i.e., facility maintenance).

Subcommittee members included Amy Liu, Chair, Micheline Castan-Smith, Member, and Lynn Hampton, Member. The Subcommittee began meeting in September 2017 and met a total of five times (a meeting list is provided in the exhibits).

The Subcommittee benefited from the continued facilitation and support of B&D with reinforcement by A2 Services (“A2”), a sub-consultant with expertise in the subject of maintenance and operations. A2 provided maintenance and operations best practices, examples, research, and analysis to inform Subcommittee discussions surrounding facility maintenance practices and standards that led to recommendations on process improvements.

A2 also performed an extensive review of existing City, Fire, and ACPS maintenance work order processes and preventive maintenance activities. This ‘discovery phase’ was unique to this Subcommittee.

The iterative review of findings and discussion of key themes resulted in a set of broad and actionable recommendations that are provided herein.

The balance of this chapter is organized as follows:

- 1) Discovery Phase:
 - a. Overview
 - b. Goals of the Subcommittee
 - c. Work Plan
- 2) Key Observations & Recommendations
- 3) Exhibits:
 - a. Facility Surveys
 - i. City Hall (City, DGS)
 - ii. City Public Safety Center (City, DGS)
 - iii. Fire Station #208 (City, AFD)
 - iv. Cora Kelly Elementary School (Schools, ACPS)
 - b. Preventive Maintenance Full Time Equivalent Calculations

DISCOVERY PHASE

Overview

A2 Services provided support to this Subcommittee by conducting a Discovery Phase that included a high-level review of existing maintenance and operations practices across several city entities. This included reviews of practices related to work order management, preventive maintenance, and turnover activities following a capital project. As a rule, work orders are often reactive maintenance while repair activities and preventive maintenance are proactively scheduled activities.

In this role, A2 engaged with maintenance and facilities staff and reviewed related materials with three entities: City of Alexandria Department of General Services (“DGS”), Alexandria Fire Department (“AFD”), and Alexandria City Public Schools (“ACPS”). AFD was included since it maintains and operates the fire stations (DGS maintains and operates the other AFD facilities (non-stations)).

Goals of the Subcommittee

At the outset, our Subcommittee determined it would focus on recommendations that advance the following four (4) goals:

- 1) Extend the lifecycle of new, modernized facilities, such as those proposed in the CIP, by adopting new practices and technologies to manage the new portfolio.
- 2) Enhance the performance of existing buildings so that maintenance needs are not backlogged, reactive, or neglected.
- 3) Address cost-efficiencies and fiduciary responsibility for maintaining investments across city entities and in all processes, to maximize capital investments.
- 4) Create an aligned process in which anticipated needs from all entities inform future plans and budget cycles.

The industry broadly accepts that preventive maintenance can help prolong the life of facilities and their systems, lessens unplanned downtime caused by equipment failure, and reduces expensive repairs caused by unexpected equipment failure that must be fixed quickly. Overall, these goals recognize that underinvesting in maintenance and operations is irresponsible. Alexandria needs an urgent cultural and structural shift towards proactive planning and rightsizing of resources.

Work Plan

The Discovery Phase work plan was organized into three phases:

- 1) Staff interviews
- 2) Facility surveys
- 3) Additional data and document review and analysis (as available)

During the interviews, staff described their current maintenance policies and procedures, opportunities and constraints they face, and how they manage and perform maintenance including resources such as staff, vendors, and software tools.

Each entity selected a building(s) to be assessed (“facility survey”) as part of the effort to collect facility data in support of the anecdotal evidence provided in discovery interviews with staff. The facility survey is intended to be representative of the broader maintenance and operational issues facing each entity and not a formal Facility Condition Assessment (“FCA”).

The following building(s) were selected for operational and maintenance reviews:

- City Hall (City, DGS)
- City Public Safety Center (City, DGS)
- Fire Station #8 (City, AFD)
- Cora Kelly Elementary School (Schools, ACPS)

Findings from the facility survey highlight the accomplishments of preventive maintenance as well as areas where greater levels of support is needed. A report for each facility is located in Attachments 1 – 4.

In addition to the facility surveys and interviews, staff provided four (4) pieces of data and documentation for review by A2:

- Profiles of selected facilities
- A listing of mechanical, electrical, and plumbing equipment within selected facilities;
- A facility condition assessment (“FCA”) report
- Ongoing preventive maintenance activities

Additionally, A2 performed a Work Breakdown Structure (“WBS”) analysis on AFD’s fire stations. AFD was selected for this supplementary analysis because the scale of data and equipment information was manageable during the Discovery Phase timeframe. The WBS organizes preventive maintenance work into a hierarchical structure by equipment and task. The output is a projection of person-hours required to support the manufacturer-recommended preventive maintenance on an ongoing basis. The WBS can be compared to budgeted resources, either for an internal and/or outsourced workforce.

The following sections summarize key themes from introductory and deep-dive interviews with staff, review and analysis of the data and documentation provided by staff, and the facility surveys conducted by A2. A more detailed summary of observations from each entity is provided in the exhibits.

The review performed by A2 was not conducted as a formal audit. As such, some findings are anecdotal in nature and should be further explored during any implementation. The observations and recommendations were developed collaboratively with staff and Task Force members.

MAINTENANCE & OPERATIONS SUBCOMMITTEE: KEY OBSERVATIONS & RECOMMENDATIONS

Alexandria is challenged with two distinct owners of property and assets (City and ACPS) and three distinct maintenance providers (City, ACPS, and AFD). The following describes key observations and major discussion points for each of these entities and provides a platform from which recommendations were formed.

In order to accomplish a comprehensive paradigm shift to advance Alexandria, our Subcommittee came to the conclusion that the following key principles are critical to enacting change:

- Maintenance and operations must be adequately resourced and rightsized as underinvesting is irresponsible and defers costs to more expensive capital projects.
- Groundwork and regular improvements must occur to ensure Alexandria is a strong asset manager and owner as well as an attractive business partner and employer.

Our Subcommittee's assessment and observations yielded five (5) actionable recommendations. It is envisioned that these recommendations will help inform future operating and capital budget planning decisions using asset data that considers the lifetime cost of ownership.

Theme 12: There is no standardization of capital asset data between City and ACPS that would allow for a comparison of asset conditions.

Capital asset data serve as a record of owned assets, their condition, and the investments needed to maintain and extend their lifespans. This data is important for two reasons:

- The data helps predict the remaining life and associated costs for replacing systems to inform capital funding and timing decisions.
- The data provides an objective means to compare one facility's condition to another, enabling leaders and staff to better plan and prioritize limited capital resources.

In the first phase of work developing the FCIP, the Joint Task Force observed a lack of comparable facility or maintenance data for projects under consideration such as a standard Facility Condition Indices of DGS and ACPS facilities. For example, DGS maintains asset data in a database and is able to run reports that provide an FCI score for each building as well as building system. ACPS did not have the ability to provide this information in a form to allow a comparison. This impeded the Subcommittee's ability to make prioritization decisions for a recommended FCIP.

The current state of asset data and systems for each entity is as follows:

- DGS (including all AFD facilities):

- Facility Condition Assessments data are collected by a third party on a rolling basis for all assets.
- The data are stored and managed within a software system called VFA, which allows reports to be readily run by building and building system.
- As capital project work is completed (i.e., a major renovation), updated asset data are collected from the design and construction team to upload into VFA.
- The VFA database does not integrate with the system used to manage maintenance work; thus, manual updates are needed when major system level work is completed that extends its lifespan.
- ACPS
 - Facility Condition Assessments were conducted by a vendor in 2014, but this information is not currently stored in a database.
 - Additional system-specific assessments have occurred and are provided within stand-alone reports.
 - Available ACPS asset data exist in different formats and have not been updated to provide a system-wide outlook of asset lifespans in one comprehensive location.

Furthermore, the City and ACPS need resources to ensure a process for quality assurance and quality control is performed on collected data, in addition to maintaining the data and database system. For example, reviews of FCA report drafts by staff can be time consuming, but are necessary to validate findings.

Recommendation 12: Identify a common set of objectives and requirements for asset data for use in facilities planning, maintenance, and operations.

As the process for developing a Joint City-Schools CIP is further defined, we recommend staff collect and curate asset data for use in a capital planning software. A means to integrate with a Computerized maintenance management system should be explored (See Recommendation 2). This data can then be utilized in evaluating and prioritizing projects in the CIP.

The following standardizations could be made for linking data to a capital improvement program:

- Establish and track regular cycles for asset data updates and protocols for updating the data when work is completed (e.g., DGS's rolling cycle of facility condition assessments).
- Establish and maintain metrics for use of the data in facilities master planning that align with strategic objectives (e.g., Facility Condition Index, net present value analysis, etc.).
- Establish database reporting requirements so that no matter the software system used, the same level of reports can be created.

To support this recommendation, resource needs should be identified (such as staff, software, funding) to support quality assurance measures and coordination.

Theme 13: DGS, ACPS, and AFD have three different work order tracking systems with varying and often limited capabilities for preventive maintenance scheduling, which creates inefficiencies and lacks standard performance outcomes.

Computerized maintenance management systems (“CMMS”) are used to schedule and record operational and preventive maintenance activities associated with facilities and their equipment. The three entities use systems with varying capabilities. All three entities have the baseline capability of managing and tracking work orders as they arise within three different software systems. However, capabilities vary in regards to preventive maintenance. Preventive maintenance should be planned and scheduled according to manufacturer or industry recommendations for individual systems and equipment.

DGS utilizes Cityworks to manage and track both work orders and preventive maintenance activities for all City facilities and AFD facilities that are not fire stations. This CMMS package is based on work orders and does not readily plan and schedule the activities based upon asset data. That information must be manually entered and informed from other sources such as facility condition assessments. There is no integration between work order systems and the asset database.

ACPS and AFD (fire stations) utilize two discrete order request systems, SchoolDude and Alloy, respectively, to track work orders. These work orders are requested by building users and completed by employees. Preventive maintenance is identified, scheduled, and completed by outside vendors, which are typically trade-specific. For example, in the case of ACPS’s HVAC preventive maintenance contractor, an assessment is conducted annually to determine the schedule for the year. Coordination meetings are held monthly to address issues and update preventive maintenance activities.

For ACPS and AFD, understanding the comprehensive preventive maintenance needs relies heavily on contractors and their assessments. While this information has historically been comprehensive and credible, without a database of asset data to compare to, there is some risk in preventive maintenance or other needs not being captured as well as challenges in integrating activities from multiple contractors.

Recommendation 13: DGS, ACPS, and AFD should establish a common, cost-effective approach to track and manage preventive maintenance needs, either by enhancing an existing system(s) or selecting a new system that meets the collective needs.

DGS, AFD, and ACPS have made great strides over the past few years in expanding the systems they use for maintenance and operations management. All recognize that there are opportunities for increasing the capabilities of what they currently use.

It is recommended that the three agencies move toward a common, cost-effective approach and/or set of systems for tracking repairs and preventive maintenance needs. Coupled with stronger asset data (as mentioned in Recommendation 1), such a system(s) could greatly improve

capital planning and maintenance and operations decisions. In addition, a common approach would help dissolve the silos created by having three discrete systems.

For example, a common CMMS system would provide the following abilities:

- Prioritization of maintenance tasks to inform staffing schedules in order to support calls and to perform periodic or planned equipment maintenance.
- Tracking information provided at completion of work, such as the date of work performed, supply and inventory, and person-hours expended, can be added to the database to support future planning, budgeting, and operating.
- Integration with asset data so that work can be planned according to life cycle information, which can be updated once work is complete to reflect a real-time depiction of the asset.
- Run reports that align with Key Performance Indicators
- Run reports that show deferred maintenance and capital renewals.
- Project resources and person-hours needed to maintain assets.

As a first step, DGS, AFD, and ACPS should identify the performance requirements for delivering an improved, common approach so that each entity can procure the appropriate new systems or add modules to existing systems to provide these capabilities.

Any preventive maintenance module implementation will most likely require additional staffing, including implementation and maintenance of the CMMS as well as training end users to ensure high quality data inputted. A quality assurance position and a regular training program is needed. Once a CMMS is implemented, new buildings should be addressed and recorded first.

Theme 14: Existing staffing levels and other resources are strained and rely on vendors to inform and complete the majority of preventive maintenance work.

Across the three agencies, there are a large number of buildings/facilities to monitor. As facilities age, there is more demand on staffing to monitor the repair and preventive needs across the facilities. In the absence of adequate data, systems, and staffing, the City, ACPS, and AFD experience more triage situations where reactive prioritization results in deferred maintenance and replacement as preferred solutions, which adds costs. In some cases, capital interventions such as replacement are the preferred solution. However, replacement of systems is sometimes left unfunded due to constraints on the capital budget or anticipation of a larger capital project slated for the coming years.

ACPS is experiencing added challenges: its schools and facilities are utilized more, due to increases in enrollment, placing demand on existing staff. For instance, school building engineers are often requested for operational support (e.g., moving furniture), which diverts their focus from building maintenance.

The current staffing for building maintenance for each entity is as follows:

- DGS utilizes a combination of in-house staff and contractors to perform preventive maintenance activities and work orders. Reports regularly run from CityWorks indicate that most but not all planned or requested activities are completed each month. These reports allow DGS to monitor deferred maintenance.
- AFD facilities maintenance staff is limited and handles only minor and simple repairs. Individual station staff performs very simple preventive maintenance activities. The majority of involved preventive maintenance and complex work order efforts are performed by contractors.
- Not all ACPS buildings have dedicated building engineers. Where present, building engineers report to the principals, not centralized facilities staff, which strains resources for completing and overseeing maintenance work.

Recommendation 14: Identify optimal staffing levels, structures, and resources for maintenance and operation needs with strategies for how best to provide that capability.

There are two typical ways to check if resources are adequate: forecasting and analyzing the Work Breakdown Structure¹ (“WBS”) or comparing costs per square foot to identified benchmarks (other districts and municipalities). Both methods of analysis can help inform projected budgets and ‘right size’ them to more adequate levels. Both methods require data to be tracked and collected in a manner that supports the analysis. WBS analysis requires a dataset of building and related system and equipment information. The square foot analysis requires costs be accounted for by building and by activity.

This detailed resource analysis was not within the scope of the discovery effort, thus not performed in detail. AFD was selected for this supplementary analysis because the scale of data and equipment information was manageable during the Discovery Phase timeframe.

The preliminary results of the AFD Work Breakdown Structure analysis reflects that the required full time equivalents do not align with the current contract value for preventive maintenance. Work may still be completed, but the analysis suggests there is a strain on resources that may in turn lead to issues in quality, timeliness, staff retention, etc. Additional personnel are needed for oversight of the preventive maintenance portfolio.

The following additional actions should be taken using an outside expert to support Recommendation 14:

- Review overall staffing needs and assess what is best performed by internal staff versus external resources such as contractors.

¹ A Work Breakdown Structure (“WBS”) organizes preventive maintenance work into a hierarchical structure by equipment and task. This allows for the projection of person-hours required to support the manufacturer’s recommended preventive maintenance effort on an ongoing basis for comparison to budgeted resources, either for an internal and/or outsourced workforce.

- Review and identify oversight needs for external resources and the work performed.
- Review structure and organization of staff to ensure reporting structures meet maintenance needs.
- Review and identify tools needed to help inform decisions and work plans (i.e., expanded capabilities of current CMMS packages and asset data).

Additionally, a plan to expedite deferred maintenance, similar to WMATA's SafeTrack, should be seriously considered and adopted. SafeTrack is an accelerated work plan to rehabilitate the Metrorail system in Washington, D.C.

Theme 15: There is inconsistency in the level of standards and specifications that inform project design and construction between City and ACPS, which in turn can impact maintenance and operations.

DGS has a library of detailed design standards and specifications while ACPS lacks many of these documents. Design guidelines and specifications provide a clear, comprehensive document articulating the level of design quality and performance expected by design and engineering professionals, stakeholders, and others. They can be developed for different scales, including those specific to a project or overarching for an asset type or entire neighborhood. Developing them in advance ensures that there is consensus in what they intend for future operations and longevity of a building and its systems. They can also inform budgeting exercises as they provide a set of assumptions for planning purposes.

Regular updates to these guidelines and specifications ensure the asset owner maintains control of the outcomes of construction projects as well as future repairs, upgrades, or renovations. It also ensures that new technologies and lessons learned can be incorporated in a timely manner. Updates and tracking of detail can also support integration with maintenance and operation systems and preventive maintenance.

These standards and specifications should touch upon the needs of the project closeout process to ensure a seamless transition to operations and maintenance. Contract closeout formally ends the construction phase of a capital development project. During this final phase of construction, DGS and ACPS can request capital project documentation in specific formats to provide building-level information in a useable format. A standardized capital project closeout process will improve the efficiency and effectiveness of each entity in future maintenance and operations activities.

The current level of standards and specifications for each entity is as follows:

- DGS has standard procedures and design specifications that inform design, construction, and project closeout. These documents help link capital projects to maintenance and operation needs.

- DGS is in the process of adjusting their project closeout specifications so that at project closeout, an electronic listing of mechanical, electrical, and plumbing (MEP) equipment with product details (i.e. model #; serial #; voltage; etc.) is provided in a format that would allow it to be readily uploaded into the VFA software.
- ACPS does not have design standards or specifications for all buildings to guide the design and construction team and their associated contracts with the exception of Educational Specifications. This is an area of improvement.
- ACPS does have a contract closeout form to ensure warranty information, systems lists, etc. have been collected per the contract and a closeout signoff by school administrators at the completion of work to ensure satisfaction. Per ACPS, this requirement does not currently include ‘as-built’ drawings. This is an area of improvement.
- Interviews with DGS staff indicated a need for third party commissioning services for existing buildings, not simply related to major renovation or new construction activities as currently occur as part of LEED certification, but to serve as an ongoing asset management practice. For example, Existing Building Commissioning (EBCx) supports making building systems perform interactively to meet a facility’s current requirements and provides the tools to support the continuous improvement of system performance over time.

There are opportunities to improve coordination between design and construction and maintenance and operations as it relates to these detailed standards and specifications. These documents relate directly to the buildings’ future required maintenance and operations activities and lifecycle needs. Thus it is important that there is active coordination between design and construction and maintenance and operations staff so that the standards and specifications reflect the most current needs.

Recommendation 15: Develop, implement, and regularly update design guidelines and specifications and standard operating procedures that meet lifecycle goals and objectives.

Inventory and review existing standards and specifications across each entity and asset type in order to understand what currently exists and the gaps that need filled in relation to each. We recommended the following be considered when developing design guidelines and specifications:

- Establish clear goals and objectives for asset lifecycle costs and performance. For example, specifications and standards to achieve LEED certification or other metrics such as Energy Star.
- To the extent possible, standardize mechanical, electrical, and plumbing equipment types so that preventive maintenance tasks are streamlined.
- Establish a common Work Breakdown Structure, as appropriate, that defines frequency and annual scheduling for maintenance of equipment.
- Design standardizations should consider finishes, windows, roofs, and major systems.

- Explore opportunities to share design standards and specifications across each entity and asset type to streamline resources needed to develop and maintain them (i.e., between City and ACPS, with other regional entities performing similar work).

We recommend the following be developed to support an improved capital project closeout process:

- At substantial completion, require submission of the mechanical, electrical, and plumbing equipment lists in an appropriate format that can be easily uploaded into a CMMS alongside preventive maintenance requirements.
- Perform post-occupancy reviews of newly constructed or renovated buildings at regular intervals. Findings from these reviews should be used to:
 - Inform updates to design specifications and standards.
 - Ensure maintenance and operations activities are occurring as intended.

Theme 16: Procurement manages a broad and diverse workload, which creates challenges in focusing time and efforts on capital project and maintenance and operations actions.

Procurement departments aspire to maintain expertise in both the required contracting practices of a public entity as well as the best practices and strategies related specifically to asset management and design and construction. Much of what happens to an asset over its lifespan is not self-performed by a public entity but by outside vendors. Thus the contracting vehicles that purchase these services must be well-informed with well-written requirements that can adequately address the nuances and complexities of Alexandria's diverse portfolio of buildings and services.

Areas of improvement for the procurement of contractors for both preventive maintenance as well as other needs such as capital projects are related to a few factors: the volume of procurements and contracts, communication and coordination with program staff, and data availability to inform scopes of work.

The procurement departments for both City and ACPS experience large, varied volumes of procurement activities. Technical program guidance is provided by the respective facility and construction departments to procurement staff. Both sets of staff have limitations on their time, which can strain the transfer of knowledge and timely development and completion of procurement actions. Overall, this appears to result in procurement strategies that lean towards the fastest and/or simplest approach. For example:

- DGS makes use of several regional contract vehicle riders, which allows them to be responsive to the City's needs but sometimes impose limitations as the scopes were not directly developed for DGS facilities. DGS often makes use of contracts from Fairfax County, an entity known for the quality and quantity of their procurements. However, these contracts are written specifically for the needs of Fairfax County and not Alexandria.

- ACPS currently has shared services agreements with the City in the form of Memorandums of Understanding (MOU).
- DGS and ACPS have jointly procured construction insurance. Depending on the case, the City or ACPS will take the lead in posting. This has been successful for both parties in sharing in the selection process and the resulting contract.

Procurements also can be limited by the funding value they are trying to meet. For example:

- In many instances, contracts are negotiated in comparison to available budget versus projected need.
- Independent government estimates (“IGE”) act as a benchmark for budgeting funds and informing procurements. For building maintenance needs, there are challenges in estimating needs due to the level of data available. Stronger asset data and supporting systems can improve this.
- Some staff expressed a preference for best value approach to contract award over low-cost bidding to help ensure more responses as some vendors may be dissuaded from low-cost procurements. Due to the volume of procurements, best value can be challenging to coordinate while meeting schedule needs.
- ACPS often uses a best value approach when issuing an RFP, They include quality and performance information as part of the review, especially for operation and maintenance contracts. These scope negotiations are done in comparison with budgeted values, thus the scope’s adequacy relies on budgets to be informed by actual costs.

Recommendation 16: The City and ACPS should identify and implement ways to increase procurement resources and efficiencies, including the feedback loop between procurement and technical staff, expanding best value negotiation options, shared service agreement opportunities, and other new approaches for executing and coordinating procurements

To align with the culture shift towards planning and exploring non-traditional methods, the current strains between procurement and project staff in capturing the latest and greatest lessons learned and innovative practices must be combatted. Improved standards and specifications will support, as they serve as contract attachments as well as deliberate work sessions to capture and transfer technical expertise and lessons learned.

New approaches for executing and coordinating procurements should also be explored that improve timelines and volume such as:

- Identify opportunities for pre-qualifying vendors and establishing IDIQ (indefinite duration, indefinite quantity) contract vehicles.
- Build upon existing efforts to develop an annual procurement plan and scan for opportunities for improved coordination between procurement and program staff.

Another opportunity is to expand upon shared service agreements to eliminate redundancy among agencies, reduce risk to purchasers, and leverage buying power to deliver administrative

services while creating a more effective government. Procurement departments play a critical role in delivering shared savings across the government.

We recommend the following considerations when exploring new opportunities for shared service agreements and innovative procurement practices:

- Establish feedback loops between project and procurement staff to ensure the sharing of lessons learned, new technical knowledge, and ideas for innovation.
- Increase collaboration between ACPS and DGS procurement departments through sharing of best practices and exploration of new procurement methods.
- Consider past performance of contracts to determine if awarding to the best value is an optimal approach. The best value contract procurement process is used to choose the bid that is most advantageous to a department or agency.
- Improve Statement of Work (SOW) requirements to ensure that work is being performed according to specifications and expectations.
- Improve Independent Government Estimate (IGE) process to serve as objective basis for budgeting and reserving funds for future needs.

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CHAPTER 4:

PROPOSED ACTION PLAN

The following organizes a summary of recommendations from across the three Subcommittees into timeframes to help support implementation. These are subject to further review for feasibility, but provide the City and ACPS a starting point for discussion.

The suggested timeframes are as follows:

- Immediate (February to May 2018): This timeframe focuses on the three steps we believe to be the most important to initiating this urgent shift in our city. Actions recommended in this timeframe should begin immediately.
- Short term (June to December 2018): This timeframe focuses on absorbing the recommendations in full and performing due diligence to successfully implement the remainder of the recommendations. This includes reviewing and outlining existing resources, implementing pilot projects, and establishing objectives for future actions.
- Intermediate Term (January to June 2019): Actions within this timeframe focus on developing plans and protocols and establishing processes to launch all recommendations.
- Long term (June 2019 and beyond): During this timeframe, all recommendations and proposed actions should be underway.

The order within each timeframe does not reflect priority. Items are generally in order by topic and recommendation number. The precise months associated with each timeframe can be reevaluated.

IMMEDIATE (February – May 2018)

1. Create a Joint Capital Management Council (CP&I)
2. Identify a champion for alternative delivery and engage with internal and external resources to obtain advice on drafting a process that can be replicated and criteria for identifying applicable projects (ADM)
3. Determine shared objectives and requirements for asset data and supporting computerized maintenance management systems and procure as appropriate (M&O)

Additionally, we recommend City Council and School Board initiate visioning sessions for a joint “targeted new reality.” As discussed in Chapter 1, these sessions should result in a well-defined, strategic vision for the future of Alexandria – both City and Schools – and should be facilitated by a third party.

SHORT TERM (June – December 2018)

1. Develop first draft of Capability Delivery Model framework (CP&I)
2. Identify scope and resources needed for Joint Facilities Master Plan and initiate procurement (CP&I)
3. Identify steps necessary to adjust the CIP process and budget calendar and implement as recommended (decouple from operating budget and redefine how projects are shown) (CP&I)

4. Interview staff and review current practices for project, program, and portfolio management (CP&I)
5. Implement a pilot project (e.g. Firing Range) as a means to test and refine the process to employ for future alternative delivery (ADM)
6. Outline and review existing resources for alternative delivery (e.g. existing policies, experts, case studies) (ADM)
7. Determine if a separate decision making body for alternative delivery is needed or if that capability can be provided from existing resources by redefining responsibilities (ADM)
8. Audit current engagement meetings that staff are required to attend (ADM)
9. Develop a communications strategy to inform the community of Task Force findings and build momentum to shift thinking towards challenging traditional methods, innovation, and risk-taking (ADM)
10. Identify scope needed and procure a third-party expert to determine optimal staffing and resource levels for maintenance and operations of buildings (M&O)
11. Establish objectives of design guidelines and specification document for buildings, including level of documentation needed readily available and performance and lifecycle goals of specifications (M&O)
12. Identify opportunities for pre-qualifying vendors and establishing IDIQ (indefinite duration, indefinite quantity) contract vehicles (M&O)
13. Build upon existing efforts to develop an annual procurement plan and scan for opportunities for improved coordination between procurement and program staff (M&O)

INTERMEDIATE TERM (January – June 2019)

1. Refine Capability Delivery Model framework through JCMC (CP&I)
2. Kick off Joint Facilities Master Plan effort, including the collection of asset data to inform it (CP&I)
3. Identify means to improve current project, program, and portfolio management practices towards “best in class” (CP&I)
4. Establish alternative delivery process and set up initial resources such as guidelines, agreements, written documentation, etc. (ADM)
5. Set up a means to obtain additional resources needed to support advancement of alternative delivery of projects, such as AEDP (ADM)
6. Review draft project ideas presented by Task Force (ADM)
7. Review and refine current civic engagement policies and practices to develop a new plan that streamlines meetings and ensures the new strategy is embraced (ADM)
8. Review existing design guidelines and specification document for buildings against set objectives and gaps that need to be filled and start process to close gaps (M&O)
9. Initiate post-occupancy review of new buildings and renovations and retro commissioning protocols for existing buildings (M&O)
10. Develop a formal feedback loop process between project and procurement staff as well as across City and ACPS to share lessons learned, new technical information, and discuss new innovative approaches (M&O)

LONG TERM (June 2019 and beyond)

1. Deploy Capability Delivery Model framework (CP&I)
2. Complete Joint Facilities Master Plan effort and set up process for a regular cycle of updates (CP&I)
3. Continued deployment of revised budget calendar (CP&I)
4. Deploy new “best in class” project, program, and portfolio management practices (CP&I)
5. Continue culture shift towards challenging traditional methods and embracing alternative methods and opportunities (ADM)
6. Deploy new engagement strategy towards community becoming informed champions of Alexandria’s targeted new reality (ADM)
7. Maintain asset data and supporting computerized maintenance management systems, including continued training of staff (M&O)
8. Take measures to provide optimal staffing and resource levels for maintenance and operations of buildings as identified (M&O)
9. Develop and maintain design guidelines and specification documents (M&O)

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