Virginia DBHDS: Facilities Organizational & Planning Review

Prepared on behalf of Virginia Department of General Services for

Virginia Department of Behavioral Health and Developmental Services (DBHDS)

October 1, 2021

Virginia Department of Behavioral Health & Developmental Services

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A. Executive Summary

The Virginia Department of Behavioral Health & Developmental Services' (DBHDS) mission is to support individuals by promoting recovery, self-determination, and wellness in all aspects of life. To support this mission, DBHDS maintains the below facilities, which provide mental health, training, behavioral rehabilitation, and medical services:

- Catawba Hospital
- Central State Hospital
- Commonwealth Center for Children and Adolescents
- Eastern State Hospital
- Hiram W. Davis Medical Center
- Northern Virginia Mental Health Institute
- Piedmont Geriatric Hospital
- Southern Virginia Mental Health Institute
- Virginia Center for Behavioral Rehabilitation
- Southwest Virginia Mental Health Institute
- Western State Hospital
- Southeast Virginia Training Center

Virginia Acts of Assembly Chapter 552 designates the Department of General Services (DGS) to review the DBHDS capital outlay, maintenance reserve, maintenance and operations, and real estate activities across the DBHDS agency. As part of this review, DGS was required to develop system-wide recommendations that are cost-effective and promote operational efficiency. Findings and recommendations will be reported to the Governor and Chairs of the House Appropriations and Senate Finance and Appropriations Committees.

DGS contracted KPMG LLP to conduct this review and draft the associated report with the assistance of DGS and DBHDS. This interim report will be delivered on October 1, 2021. A subsequent final report will be delivered no later than December 31, 2021.

Assessment Overview

The study is primarily focused on four DBHDS functions: capital outlay, maintenance reserve, maintenance and operations, and real estate activities. KPMG's analysis of DBHDS includes three phases:

1. Qualitative Assessment: Staff interviews and workshops and policies/document review. Findings are summarized in this interim report.
2. Benchmarking: Covering both qualitative and quantitative analysis. Full benchmarking results will be included in the final report.
3. Quantitative Assessment: Review of staffing levels, historic spending, work orders, etc. Quantitative assessment results will be included in the final report.

The interim report and final report include a roadmap of improvement initiatives to address gaps related to the primary focus areas. The improvement initiatives are grouped into short, medium, and long-term initiatives, with completion timescales of one, two, and five years, respectively. The phasing of the improvement initiatives considers both the priority, expected benefits, and sequencing considerations.

Current State Assessment

The initial high-level results of the qualitative assessment are summarized below. These observations will be further refined and will consider the findings from the benchmarking and quantitative assessments for the final report.

Table 1: Current State Assessment Summary

1. DBHDS and Facilities excel in certain areas, including:	2. Practice and Performance Varies Across Facilities
▪ Understanding of stakeholders (internal and external) and population needs ▪ Understanding of risks to service delivery (and plans to manage risks) ▪ Awareness of and adherence to legal, regulatory, and statutory requirements ▪ Understanding and documentation of roles and responsibilities ▪ Planning for development of skills and competencies ▪ Capital expenditure governance	▪ There are many examples of innovation and high performance across the facilities, such as LEED-certified buildings, switchgrass-fired utility plant, high utilization of TMS, etc.; however, practices are generally inconsistent ▪ Structural differences include serving unique populations and different geographies ▪ Rural facilities face significant challenges in attracting and retaining staff, as well as accessing external contractors for skilled trades, recycling programs, etc.
3. DBHDS Should Tell a Data-Driven Story to Justify Additional Resources	**4. Cultural Issues Inhibit the Ability to Change**
There is anecdotal evidence for additional resources. This needs to be more data driven, including the impact on lifecycle cost and service associated with not investing. Examples include, but are not limited to: ▪ Limited understanding of the State of Good Repair Backlog – quantifying the total value of assets beyond their expected useful lives and/or no longer fit for purpose ▪ Inconsistent staffing levels compared to maintenance burden (facilities sq. ft., age/complexity of assets, etc.) ▪ Excess derelict property and related cost burden	The strategy and vision for DBHDS is not clearly defined and communicated to the individual facilities. ▪ There is a general lack of visibility into the overarching DBHDS strategy ▪ The lack of a clear strategy and vision results in an inconsistent view on the future facility needs across the department ▪ There is a general reluctance to adopt changes: Staff see little incentive to adopt changes if they believe the changes will be short-lived (Gubernatorial and Commissioner turnover cited as issue)

Recommendations

Opportunities are available across the facilities to become more effective and efficient in facilities' capital and operating and maintenance practices. If implemented, the improvement initiatives will contribute to delivering further value in DBHDS' capital, O&M, and real estate activities. KPMG recommends a series of improvement initiatives for the short, medium, and long terms. The following is a summary of the recommended short-term improvement initiatives (Note these are not in order of priority at this stage).

Table 2: Recommended short-term improvement initiatives

Initiative	Focus Areas Addressed	Summary
Develop a DBHDS Strategic Plan	Capital Outlay, Maintenance Reserve, O&M, Real Estate	Create a robust strategic plan & associated communications plan
Develop an Asset Information Strategy & Improvement Plan	Capital Outlay, Maintenance Reserve, O&M, Real Estate	Develop a facility/asset information strategy to compliment Data Pinnacle initiative

Initiative	Focus Areas Addressed	Summary
Develop a State of the Infrastructure Report	Capital Outlay, Maintenance Reserve, Real Estate	Create an overview of the physical condition, fitness for purpose, and demand for DBHDS asset portfolio
Utilize DGS for Management of Major/Complex Projects and Define Roles and Responsibilities for DGS, DBHDS, and Facility	Capital Outlay, Real Estate	Develop a Memorandum of Understanding for DGS to manage complex projects with agreed-upon roles and responsibilities for DBHDS and Facility
Assess Maintenance Contracting Mechanisms	Capital Outlay, O&M	Identify more efficient and effective options for alternative contracting mechanisms, such as Job Order Contracting
Assess Building & Grounds Staffing Needs by Facility	O&M	Establish consistent staffing levels based on assets and target service levels by facility
Review Capitalization Policy	Capital Outlay	Review and communicate policy for consistent accounting for capital assets in line with Virginia Department of Accounts (DOA) policy
Revise the Investment Planning Framework	Capital Outlay, Maintenance Reserve, Real Estate	Revise the approach to investment planning to provide further rigor and transparency
Develop Levels of Service (LOS) Framework	Capital Outlay, Maintenance Reserve, O&M	Create a LOS framework including agreed service levels for each facility.
Carry out a Surplus Property/Land Assessment	Real Estate	Carry out a Highest & Best Use Study of excess DBHDS land and facilities to identify revenue and efficiency opportunities

Final Report

Note that this report will be delivered in two stages, an interim report, dated October 1, 2021 and a final report, to be delivered by December 31, 2021. The interim report includes placeholder language throughout the document where additional data and/or information is needed to complete the analysis portion of the report. In addition to any initial feedback received, the final report will address all placeholder language in the interim report. Additionally, the content within the final report will include further quantitiative analysis of DBHDS compared to its peer agencies and will include a roadmap to implement the recommended initiatives, including initiatives' timescales, dependencies, priorities, and resource requirements.

B. Introduction and Current Situation Analysis

Virginia Acts of Assembly Chapter 552 designates the Department of General Services (DGS) to review the DBHDS capital outlay, maintenance reserve, maintenance and operations, and real estate activities across the DBHDS agency. As part of this review, DGS was required to develop system-wide recommendations that are cost-effective and promote operational efficiency. Findings and recommendations are to be reported to the Governor and Chairs of the House Appropriations and Senate Finance and Appropriations Committees.

DGS retained KPMG to perform a study, which commenced in August 2021, which would result in an interim report and final report to be delivered to the Governor and Chairs of the House Appropriations and Senate Finance and Appropriates Committees by October 1, 2021 and December 31, 2021, respectively.

The study includes a review of the DBHDS central office and the individual DBHDS facilities, listed below.

- Catawba Hospital
- Central State Hospital
- Commonwealth Center for Children and Adolescents
- Eastern State Hospital
- Hiram W. Davis Medical Center
- Northern Virginia Mental Health Institute
- Piedmont Geriatric Hospital
- Southern Virginia Mental Health Institute
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- Western State Hospital
- Southeast Virginia Training Center

The study is primarily focused on four DBHDS functions: capital outlay, maintenance reserve, maintenance and operations, and real estate activities. KPMG's analysis of DBHDS includes three phases:

1. Qualitative Assessment: Workshops, staff interviews, and policies/document review. Findings are summarized in this interim report.
2. Benchmarking: Covering both qualitative and quantitative analysis. Full assessment results will be included in the final report
3. Quantitative Assessment: Review of staffing levels, historic spending, work orders etc. Quantitative assessment results will be included in the final report.

The interim report and final report include a roadmap of improvement initiatives to address gaps related to the primary focus areas. The improvement initiatives are grouped into short, medium, and long-term initiatives, with completion timescales of one, two, and five years, respectively. The phasing of the improvement initiatives considers both the priority, expected benefits, and sequencing considerations.

Background

KPMG's methodology includes a combination of both qualitative and quantitative analysis. The findings of the interim report are largely limited to the qualitative analysis, as the quantitative analysis is not yet complete. The final report will include the entirety of KPMG's analysis, both qualitative and quantitative studies.

The qualitative study is centered around a baseline assessment of the DBHDS central office and DBHDS facilities using KPMG's proprietary Asset Management Baseline Review (AMBR) tool, which is described in detail in Appendix B.

Using the AMBR tool, KPMG assessed the maturity level of the different facilities utilizing a consistent approach embedded within the AMBR tool. With a focus on the four primary study considerations, KPMG worked with DGS and DBHDS to identify 39 focus areas along with maturity descriptors that allowed KPMG to determine maturity levels of each facility ranging from Innocence to Excellence. KPMG conducted ten AMBR workshops, each lasting three to four hours, with one workshop for DBHDS central office and nine workshops, covering the DBHDS facilities. Three of the nine workshops included two facilities, as these

facilities share a campus and services. In addition to the workshops, the analysis included a review of documents, policies, and procedures along with staff interviews, and initial benchmarking. The findings to date are summarized in the following sections and serve as the basis for the first draft of the recommended improvement initiatives.

Current Situation Overview

A detailed review of the current state findings can be found in Section C and Appendix C. The following is an overview of general observations, thus far.

DBHDS and Facilities Excel in Certain Areas

DBHDS Facilities generally perform well in the below areas, but performance and practices vary across facilities.

Table 3: DBHDS Facility Strengths

Area	Background
Understanding stakeholders (internal and external) and population needs	▪ Facilities staff understand the needs of their patient populations – frequent audits by governing bodies provide guidance on meeting requirements ▪ Facilities conduct frequent reviews of policies and procedures and update to meet guidance provided by legislative and governing bodies ▪ Facilities regularly meet with external stakeholders to solicit feedback and incorporate the feedback where practicable
Understanding risks to service delivery along with plans to mitigate and manage risks	▪ Facilities have in place robust risk management functions ▪ Risks are documented, evaluated, and mitigation strategies are employed ▪ Tabletop exercises are periodically carried out ▪ The risk frameworks are updated annually
Awareness of and adherence with legal, regulatory, and statutory requirements	▪ Facilities are attuned to and in compliance with legal, regulatory, and statutory requirements
Understanding and documentation of roles and responsibilities	▪ Roles and responsibilities are generally well understood within the facility– Employee Work Profiles (EWPs) are updated frequently to accurately capture staff responsibilities ▪ Intentional cross-training is carried out to allow for flexing staff to meet shifting needs
Planning for development of skills and competencies	▪ EWP's are updated frequently to reflect changes in required skills and competencies ▪ Coordination with trade schools and community colleges takes place to attract skilled trades and other staff
Effective capital governance	▪ Adherence to the Construction and Professional Services Manual (CPSM) allows for effective capital governance of eligible projects

Practices and Performance Varies Across Facilities

There are several examples of innovation and high performance across the facilities, such as LEED-certified buildings, a switchgrass-fired central utility plant, successful utilization of the work order management system (TMS), etc. However, practices are generally inconsistent across facilities.

There are structural differences across facilities, as they serve unique populations in unique geographies. The difference in populations requires differences in care, which in certain cases have resulted in unique facilities and facility components to meet the needs of the patient population. Facilities located away from major population centers face additional challenges. These facilities struggle to attract and retain staff and

access external contractors for skilled trades, recycling programs, etc. However, these differences do not justify the variation in capital planning, and maintenance & operations practices across the Commonwealth.

DBHDS Should Tell a Data-Driven Story to Justify Additional Resources

The feedback from DBHDS staff and facilities staff is that additional funding is needed to address a backlog of facilities' needs and that additional staff and/or external contractors are required to maintain these aging facilities. The largely anecdotal evidence is compelling; however, DBHDS and the facilities have not carried out the analysis to make a data-driven case. In order to justify additional resources, DBHDS and the facilities must improve at collecting and analyzing data to better tell their story. Examples include, but are not limited to:

- Limited understanding of the *State of Good Repair Backlog* – total value of assets beyond their expected useful lives and/or no longer fit for purpose
- Inconsistent staffing levels compared to maintenance burden (e.g., facilities sq. ft., age/complexity of assets, etc.)
- Excess derelict property and related cost burden

Cultural Issues Inhibit Ability to Change

There is not a clear understanding across facilities of the vision and strategy for DBHDS. This carries forward to the management and planning for facilities as there appear to be varying opinions on the facilities required for meeting patient needs today and into the future. General issues include:

- General lack of visibility of the overarching strategy
- Reluctance to adopt changes: Staff see little incentive to adopt changes if they believe the changes will be short-lived
- Reluctance to make significant change: Staff are wary that changes may not be implemented before a change in leadership (e.g., Governor, Commissioner, or both).

Approach to Facilities Organizational & Planning Assessment

As assets fundamentally exist to provide value (i.e., service) to customers, the approach to the assessment was focused on understanding the connection between the assets and the service they provide, with ultimately all investment in the assets linked to either maintaining or enhancing service. Also, people 'do' facilities management and capital planning/delivery and, therefore, good/poor facilities management and capital planning/delivery is reliant on people, their knowledge, competence, motivation and teamwork. To be truly effective, facilities management and capital planning/delivery needs to be multi-disciplinary, involving many parts of the organization, such as Management, Finance, Technical, Engineering, and Operations and Maintenance.

Within the healthcare context, there are expectations of facilities management and capital planning delivery good/best practice from customers, stakeholders, and regulators. The questions are *how to define facilities management and capital planning/delivery, how well is it being practiced*, and *what is "good practice"*?

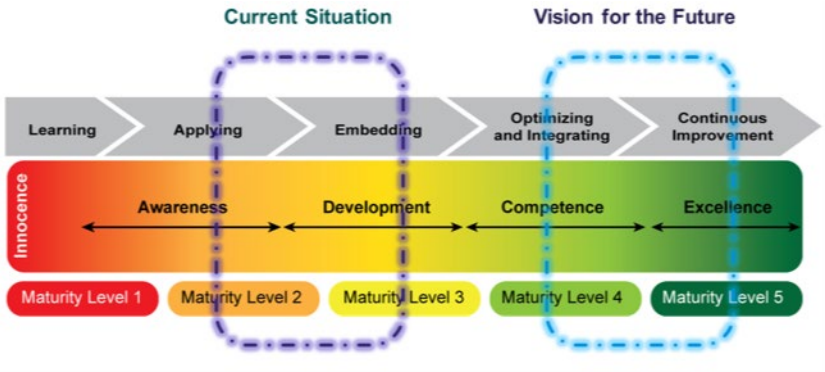
For this project, the KPMG AMBR tool was used to obtain an understanding of the current level of maturity, when assessed against 39 focus areas spread over the following six themes:

1. Organizational Context
2. Investment Planning
3. Investment Delivery
4. Maintenance and Operations
5. Real Estate Management

6. Enablers

The assessment of each of these key building blocks was based on a 5-point Maturity Scale, as shown below.

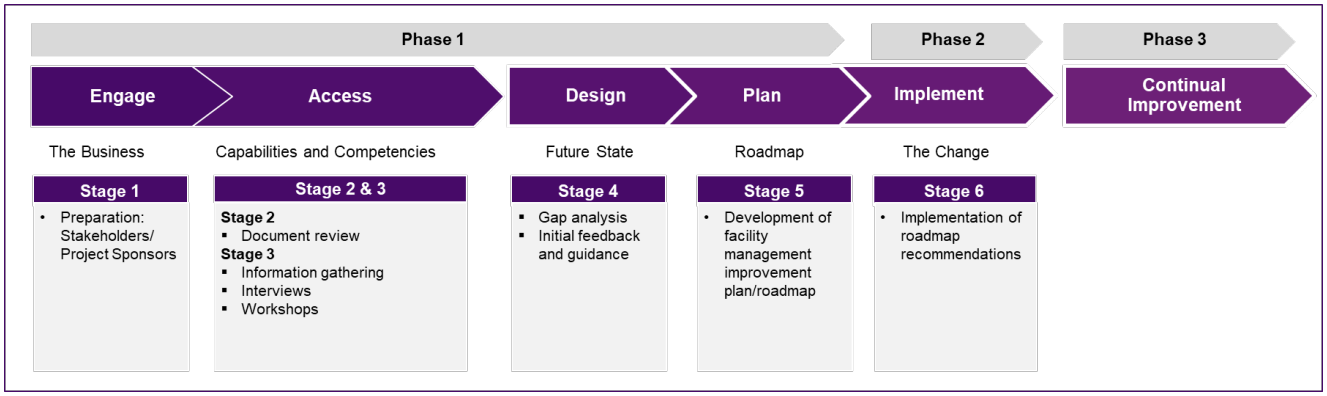
Figure 1: 5-point Maturity Scale



Implementation Methodology

A robust six-stage implementation process serves as the basis for this study and the improvement program. These stages are summarized below.

Figure 2: Implementation Process



Stage 1: Engage the Business

It is important that those staff involved in the assessment understands the process, approach, and methodology associated with the assessment. As such, alignment to a common vision and mission are considered essential for success. A one-page communique was developed and circulated to build awareness of the approaches to be used for the assessment. Obtaining buy-in from all staff who were to be involved was considered key to the success of the project.

Figure 3: One-page communique

Virginia Department of Behavioral Health & Developmental Services

VA Department of Behavioral Health and Development Services
Facilities Organizational & Planning Review
2021

Optimizing decisions on our Facilities Portfolio
Leading Capital Outlay processes, coupled with a lifecycle view of Operations & Maintenance provides the right information needed to allow more informed decisions about where to prioritize limited funding to achieve organizational objectives, resulting in spending the *right amount, on the right asset, at the right time* to capture significant lifecycle savings while providing reliable services

Why is this project important?
This effort will allow us to demonstrate to internal and external stakeholders that we are doing the right thing with our investments. This exercise is mandated by the Legislature and will result in a report to be provided to the Governor and Chairs of the House Appropriations and Senate Finance and Appropriates Committees.

What outcomes can you expect?
Per the requirements of the Legislature, the report will include system-wide findings and recommendations. This will include a Roadmap with a prioritized implementation work plan and benchmarking against peer organizations.

How can you contribute?
The initial stages of the project will consist of a series of workshops, first with Central Office DBHDS and DGS staff then nine additional workshops with facilities across the DBHDS system. As part of the assessment workshops, we will determine current maturity and identify priorities for improvements. Your insights and knowledge are critical to the success of this effort.

Virginia Department of Behavioral Health & Development Services

Facilities Organizational & Planning Review

As part of our vision to improve the lifecycle management of our facilities assets, the Virginia Department of General Services has recently engaged KPMG to undertake an assessment of the Virginia Department of Behavioral Health and Developmental Services existing capabilities across the central office and individual facilities and help us produce a roadmap of improvement initiatives. Areas of focus include: capital outlay, maintenance reserve, maintenance and operations, and real estate management planning and execution. To do this, they will work directly with DBHDS employees to discuss approaches to Capital Planning and Delivery and Operations & Maintenance of our facilities. This assessment is directed to be performed by the Virginia Acts of Assembly, Chapter 552.

This assessment is a key initial stage in further developing our capability in this area. It will give us insight into our current approaches, will set the direction for asset management improvement, and help us identify our strengths, gaps, and opportunities to close gaps.

A key component of this assessment will be a series of exploratory assessment workshops across our facilities, conducted with a broad range of DBHDS staff.

As a participant of the workshops, it is your opportunity to identify what works, what does not, and your improvement ideas to help the organization operate more effectively.

The assessment will result in a roadmap of suggested improvement initiatives, prioritized based on the inputs from the workshops. Staff feedback will feed into how resources, including funding and training, are allocated to enhance our ability to execute on our expected levels of service

The assessment will use KPMG's Baseline Review (AMBR) tool. Workshops will be scheduled for August 2021.

For more information please contact the DBHDS Project Manager, *Mickie Jones*, at (804) 371-0313, DGS Project Manager, *Hugh Hubinger*, at (804) 225-4011, or the KPMG Project Manager, *Blair Trame*, at ptrame@kpmg.com / (202) 533-4207.

KPMG

Stage 2: Facilities Management Capabilities and Competencies

The focus of Stage 2 was the collection and assessment of current polices, processes and procedures associated with the operations and maintenance, investment planning and capital delivery of facility assets.

Stage 3: Information Gathering

Stage 3 focused on the AMBR workshops. KPMG facilitated workshops for the DBHDS central office, eleven DBHDS mental health facilities, and the Southeast Virginia Training Center.

Responses to these questions, provided by the staff to KPMG, were used to evaluate each of the Facilities in the six themes, with scoring based on the 5-point maturity scale (ranging from Innocence to Excellence). Initial AMBR scoring results completed by KPMG were circulated to workshop participants to collectively arrive at the final current situation analysis scores. The AMBR assessment served both to educate facility staff regarding the range of facilities management responsibilities, best practices for these responsibilities, and to identify available approaches to assist the facilities in moving towards more effective and efficient methods of service delivery. Also, the assessment provides a framework for the facilities' long-term strategic planning efforts.

In addition to the AMBR workshops, a number of one-on-one meetings were also held with DGS, DBHGS, and facilities personnel to obtain a further understanding of current work approaches. Additional one-on-one meetings are planned for the remaining review and will be captured in the final report.

In addition to providing the basis for the improvement indicatives, the AMBR review also identified a number of "quick wins" that could be implemented in the short-term to help DBHDS improve in the four primary categories. "Quick wins" provide an immediate benefit for the DBHDS in implementation of the Improvement Plan. The "quick wins" identified for DBHDS include:

1. Develop an organization strategic plan that includes short and long-term strategic goals, as well as the basis for the strategy and goals
2. Develop a State of the Infrastructure Report to better communicate the physical condition, fitness for purpose, and demand for DBHDS facilities and assets
3. Carry out a Surplus Property/Land Assessment
4. Transition accountability for major/complex projects to DGS, but with agreed project roles & responsibilities for DBHDS, and DBHDS Facilities.

Stage 4: Designing the Future State

As part of the AMBR workshops, in addition to scoring the current, or "as-is" maturity of each facility, staff were also asked to identify the areas they wished to progress and at what pace. Timescales for improvement were classified as short-term (to be substantially completed by the end of 2022), medium-term (by the end of 2023) and long-term (by the end of 2026). This was carried out in each of the individual workshops and, therefore, focused only on those initiatives that were considered a priority for the DBHDS central office and each of the facilities.

Following the ten assessment workshops, the initiatives were further aligned from a department-wide perspective, with the aim of identifying those initiatives that would benefit from being implemented department-wide on the same timescale and using a consistent approach across all facilities.

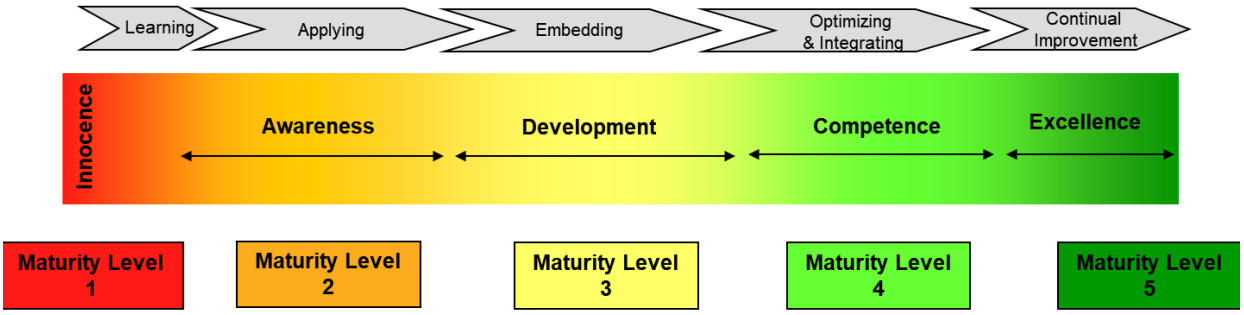
Stage 5: Plan the Roadmap

Following the DGS & DBHDS Steering Team meeting on September 8, 2021, where both the current situation analysis and the proposed improvement initiatives were agreed, a roadmap/improvement plan was developed, which primarily focuses on the initiatives that DBHDS will focus on in the short-term. These initiatives are summarized in Section F: Improvement Initiatives.

C. Facilities & Asset Management Baseline Review

The AMBR tool provides a qualitative evaluation of capital outlay, maintenance reserve, maintenance and operations, and real estate activities across the DBHDS agency based on six focus areas. Within the six focus areas, 39 themes were discussed with facilities staff during workshops conducted between August 9 and August 26. Discussion surrounding these themes were used to evaluate the facilities in each of these 39 areas with scoring based on the maturity scale shown below. For each of the 39 themes, the facilities were assessed against 5 maturity descriptors ranging from Innocence to Excellence.

Figure 4: Maturity Scale



Observations and Conclusions from the AMBR Tool

Overall, the facilities demonstrated a culture of dedication to customer service. With respect to the 39 themes, the facilities, in general, demonstrated a maturity level between 2 (Awareness) and 4 (Competent). The below graphics on the following pages show the detailed scores for the 39 focus areas for each of the facilities.

The figures provide an 'at-a-glance' view of both the current and future capabilities and competencies of the facilities and show how the facilities plan to progress over time in each of the 39 focus areas, with timescales for improvement and taking into account the available resources (both financially and with regard to availability of staff) to progress in the individual areas.

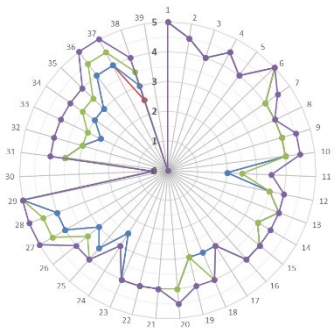
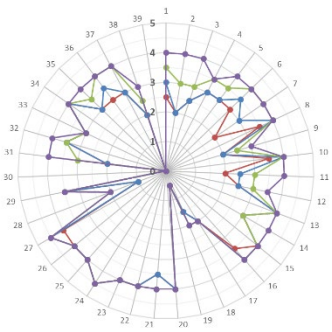
A number of opportunities to further enhance capital outlay, maintenance reserve, maintenance and operations, and real estate activities practices across the DBHDS and to meet desired Levels of Service (LOS) more efficiently have been identified for each of the themes. The discussion following the figures provides a summary of observations, strengths, and opportunities. Many of the opportunities identified in the six categories were common across the facilities.

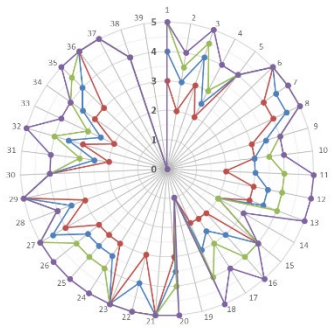
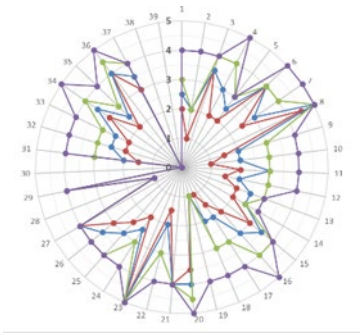
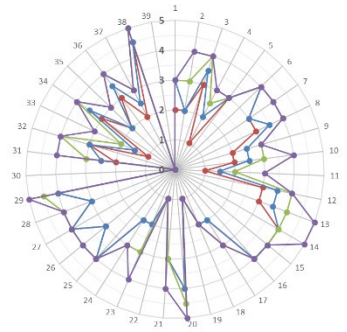
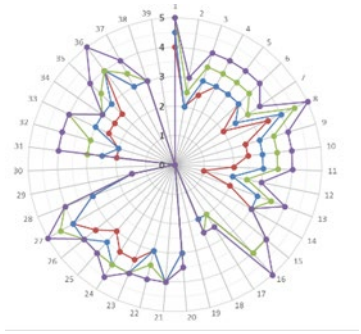
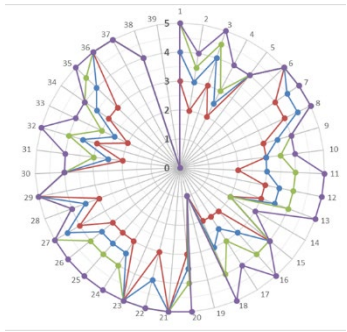
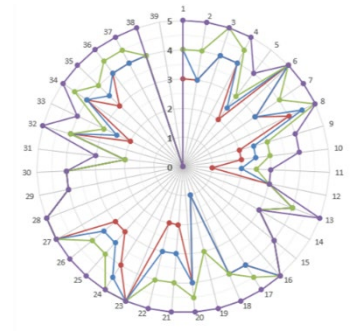
Figure 5: KPMG Tool – Example Asset Management Baseline Review (AMBR)

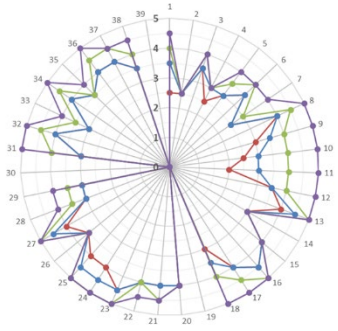
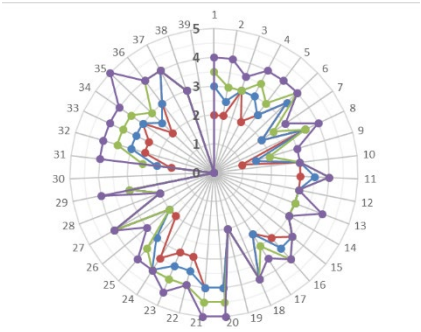
Table 4: Asset Management Baseline Review Radar Plot Legend

Current	Short-Term	Medium-Term	Long-Term

Table 5: Asset Management Baseline Review Workshop Results

Catawba Hospital	Commonwealth Center for Children and Adolescents & Western State Hospital
	

Central Office	Central State Hospital & Hiram Davis Medical Center
	
Eastern State Hospital	**Northern Virginia Mental Health Institute**
	
Piedmont Geriatric Hospital & Virginia Center for Behavioral Rehabilitation	**Southeast Virginia Training Center**
	

Southern Virginia Mental Health Institute	Southwestern Virginia Mental Health Institute
	

Appendix C: Assessment Results & Notes

Organizational Context

Observations and conclusions for the *Organizational Context* category are presented in the following two subsections.

Observations

- There are varying degrees of strategic planning carried out at DBHDS; however, most facilities have not developed short- and/or long-term strategic plans. The plans that exist at the central office appear not to have been explicitly communicated to all facilities, and not all strategic planning is integrated to create a clear line of sight throughout the agency.
- While the facilities are aware of sustainability initiatives emanating from the General Assembly and Governor's Office, the facilities do not have facility wide or agency wide sustainability initiatives, although some facilities have pursued their own initiatives, such as LEED-certified buildings. Occasionally, sustainability initiatives generated outside of DBHDS can cause safety risks for the facilities. For example, Executive Order 77 to decrease the use of single-use plastics in state facilities was problematic for DBHDS facilities who need to use plastic silverware for the safety of patients who could use traditional silverware to potentially harm themselves or others.
- While the facilities understand their stakeholders well, there is no formal process that ensures stakeholder expectations relating to decision-making criteria, or reporting requirements are documented. Further, facilities as a whole and those responsible for the different asset types within each facility may have different approaches as is relates to understanding the needs of stakeholders.
- Facilities largely have a robust risk identification, prioritization, and escalation processes in place for the safety of patients, staff, and visitors, which is communicated to appropriate staff and contractors. Management has a general sense of the trends impacting their communities but do not have this information in a data driven report that can be applied to future planning.

Conclusions

- An organizational strategic plan will help facilities to coalesce around a common view of vision and values with clearly defined outcomes, accountabilities, and performance metrics. A succinct document communicated throughout the organization will help facilities better understand the broader DBHDS strategy and their role in delivering the strategy.
- Similarly, a facilities master plan linked to the organizational strategic plan would capture and prioritize facility and land use requirements.
- A level of service (LOS) framework would provide a consistent and transparent form of measurement and reporting across all facilities. Example level of service metrics could include

safety, reliability, capacity, quality/functionality, sustainability, and compliance with legal/regulatory requirements.

- A sustainability plan would increase DBHDS and facility visibility into and ability to comply with environmental regulations, improve readiness for future grants, increase efficiency and reduce cost.
- Performance reporting across finance, customer/patient, process, organizational capacity etc. will help in aligning facility team members to common goals

Investment Planning

Observations and conclusions for the *Investment Planning* category are presented in the following two subsections.

Observations

- Typically, some lifecycle cost related issues are considered, but this is done in ad hoc manner and is not part of a defined process. A lifecycle costing approach may be used for some/major projects but typically there is no/limited assessment of the operations & maintenance costs associated with capital costs.
- A risk-based approach is carried out for key assets or asset types to identify and prioritize the significant capital maintenance elements of the capital improvement plan, but facility-led priorities appear to be secondary to priorities set by the Central Office and General Assembly.
- Facilities do not have access to a reserve fund. However, several facilities noted that in a crisis (such as a natural disaster) the central office has been effective in providing emergency funding.

[Additional detail to be added as part of Final Report. Diagram and detail of process for identifying and prioritizing needs (at facility level then DBHDS level) and appropriation of funds. This includes a detailed review of M-R Fix It system that is used to identify maintenance reserve needs.]

[Additional detail to be added as part of Final Report. Additional one-on-one interviews to be conducted to identify case studies of sub-optimal lifecycle decisions on assets, such as significant investments in assets near or beyond their useful lives, not funding preventative maintenance for assets, etc.]

Conclusions

- A robust, defendable investment planning framework would demonstrate how each capital project will advance the organization's strategic objectives and improve transparency and consistency to this process. This framework will evaluate how a project will advance a facility's strategic and operational objectives, while considering the cost effectiveness of each project, as projects compete for constrained funds.
- Facilities would benefit from greater transparency into the budgeting process.
- A State of the Infrastructure Report would provide a comprehensive snapshot that would aid short and long-term planning through better understanding of the condition and replacement value of asset groups and improve DBHDS ability to justify budgets/investments. The report would provide an overview of the state of DBHDS infrastructure by asset class and by facility and tie asset condition to DBHDS ability to meet operational and service delivery standards (i.e., Levels of Service).
- A statewide asset risk framework would provide a consistent approach to identifying existing and potential risks, risk mitigation, and management strategies.
- A capitalization policy review would ensure consistent accounting treatment of property additions, repairs, and maintenance. This would include reviewing the existing Virginia Department of Accounts (DOA) policies to determine the thresholds above which qualifying expenditures are

recorded as fixed assets, as opposed to incurred expenses (O&M), and ensure written documentation of asset capitalization qualifications and procedures.

- Grants management professions can be greater leveraged to seek and secure additional sources of funding.
- Asset management plans for facilities would provide a longer-term view of resource requirements at each facility.

Investment Delivery

Observations and conclusions for the *Investment Delivery* category are presented in the following two subsections.

Observations

- Processes that are in place for investment delivery are well documented and communicated to the facilities. However, the facilities expressed frustration with the complexity of certain processes.
- While there is a process in place for the assessment of alternative project delivery mechanisms, the facilities feel constrained by extensive rules and procedures and are generally reluctant to explore commercial project delivery alternatives.
- Funding is a continual challenge for the facilities, as the process of requesting through the central office to the General Assembly can be unclear and because the General Assembly places strict requirements around how the money is spent. Investments that may be considered urgent priorities by the facilities often go unfunded, while perceived lesser priorities are potentially given approval and funding.
- While some facilities have capitalized on alternative sources of funding, most facilities lack the capacity to seek out and compete for additional sources of funding such as grant funding, despite a strong desire for support in this area.
- DGS and its project managers are managing the project to design and build the new Central State Hospital, which is slated to open in Fall 2024. Through interviews of DBHDS, DGS, and Central State Hospital staff, it appears that there is a difference in opinion on certain design decisions and the level of involvement of all parties. While DGS does utilize a general Memorandum of Agreement for projects it manages, there is inadequate documentation on the roles and responsibilities of all parties.

[Additional detail to be added as callout box as part of Final Report. Additional review of PM responsibilities between DBHDS/DGS/Facility: Includes Interview of Central State Hospital and two other facilities where DGS is providing PM support.]

Conclusions

- An Alternative Project Delivery policy and process would help ensure facilities deploy the most efficient and cost-effective project delivery solutions.
- Application of an alternative project delivery policy & process would also increase efficiency in project delivery, expand access to capital, and transfer risk to private sector in project delivery, where appropriate.
- Capital projects authorized in the Virginia Acts of Assembly, Part 2 Capital Project Expenses should be managed by DGS, but DGS and DBHDS need to agree on the criteria for DBHDS projects to be managed by DGS.
- For capital projects managed by DGS, there must be clear, documented expectations, roles, and responsibilities for DGS, DBHGS, and the facilities. For each significant project stage or milestone, there should be sufficient documentation of agreement by all parties.

Maintenance and Operations

Observations and conclusions for the *Maintenance and Operations* category are presented in the following two subsections.

Observations

- Standard operating procedures are well documented and understood throughout the facilities. Staff have a clear understanding of roles and responsibilities. Redundancies are established in certain maintenance areas to ensure the facility has ample capability to handle maintenance and repair activities. For example, facilities will cross-train maintenance staff in additional functional areas (e.g., an electrician may be provided a level of training on HVAC systems).
- Key tasks are appropriately recorded and documented within a work management system (TMS); however, most facilities acknowledge they are not using the full functionality of TMS. Work orders are tracked and recorded providing a history of maintenance on assets. In some instances, separate work management systems are maintained for differing classes of assets. For example, assets below and above a certain value threshold may be captured in different systems. Facilities tend to have some level of insight into where assets are located, but electronic tagging of assets is not widely deployed.
- Most facilities are not making decisions on asset maintenance and replacement based on the lowest lifecycle cost but instead are focused on the continued operation of critical assets, such as HVAC systems long past their expected useful lives.

[Additional detail to be added as callout box as part of Final Report. Additional review of TMS work order data and DBHDS performance metrics around O&M activities. To include estimate of distribution of proactive/reactive maintenance.]

Conclusions

- Assessing alternative contracting mechanisms will help to deepen the availability of skilled and regulated trades, especially for those facilities having trouble finding contractors. This assessment will analyze contracting alternatives.
- Asset lifecycle strategies for major asset groups would identify optimal lifecycle strategies for similar assets across all facilities.
- A further assessment of current and future building and grounds staffing needs and benchmarking to industry peers would support DBHDS ability to justify budgets and investments in staffing in the future.

Real Estate Management

Observations and conclusions for the *Real Estate Management* category are presented in the following two subsections.

Observations

- Facilities have a strong understanding of their space allocation and the rules and regulations related to space allocation for their staff and clients. While the facilities meet these requirements, staff report the design and space constraints of facilities can create a challenging environment for staff and clients. For example, staff report that space constraints may require mismatched patients to share rooms. Additionally, narrow hallways can present situations where patients and staff are confined to tight areas.
- Facilities are aware of master plans maintained by the central office; however, they do not regularly access these master plans. In many instances, facilities report that it has been several years since a master plan has been reviewed at a facility level.

[Additional detail to be added as part of Final Report. Further analysis of DBHDS real estate management practices to be conducted, including: Interview DBHDS to understand their strategy for land and facilities and Interview DGS to identify other state agencies who are leaders in right-sizing their real estate portfolio for current and future needs.]

Conclusions

- A surplus property and land assessment could lead to potential cost savings from discharging assets and create transparency across facilities and DBHDS on future plans for assets. The assessments would identify costs associated with ongoing maintenance of surplus assets and document plans for unused assets. Plans for unused assets could include potential revenue opportunities including leasing or selling unused facilities or repurposing to fit the facility's current and future needs. Current legislation directs the proceeds of all surplus sales to the DBHDS revolving trust fund for the purpose of restructuring facilities and continuing services for patients in such facilities.[1] The objective of the plans would be to identify the highest and best use for unused assets.

Enablers

Observations and conclusions for the *Enablers* category are presented in the following two subsections.

Observations

- Current information management systems do not meet the needs of facilities' staff.
- While the facilities do use some business applications to track maintenance & operations, finance, services, etc., these systems are often unable to communicate with one another and require staff and management to switch between applications for tasks. These systems also inhibit the deployment of facility wide performance dashboards.
- The training and development of staff is monitored and supported to ensure that staff meet requirements to serve clients and meet regulatory and professional requirements. While there are clear organizational structures, there is limited ability for maintenance staff to advance and facilities struggle to recruit talent due to inability to pay competitive wages.
- Asset valuations are not undertaken for most assets.
- Facilities do maintain inventories of assets, and assets are recorded in the TMS system. Some facilities assign barcodes to assets and tie the assets to a physical location (e.g., a room).
- Asset age is inventoried and recorded in TMS, and the facilities also maintain histories of all work order activities on the assets, including preventive and corrective maintenance. Condition ratings are not captured in TMS. Instead, the facilities use expected useful life and work order history to understand the assets' conditions.

Conclusions

- An asset information strategy and improvement plan to standardize and improve asset and facility information for selected asset classes across the facilities would document missing information and develop an action plan to fill gaps. This would drive data improvements that will be foundational to capital investment planning initiatives and lifecycle planning.

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[1] C. Notwithstanding § 4-5.09 of this act and paragraph C of § 2.2-1156, Code of Virginia, the Department of Behavioral Health and Developmental Services is hereby authorized to deposit the entire proceeds of the sales of surplus land at state-owned behavioral health and intellectual disability facilities into a revolving trust fund. The trust fund may initially be used for expenses associated with restructuring such facilities. Remaining proceeds after such expenses shall be dedicated to continuing services for current patients as facility services are restructured.

- Development of an IT functional requirements plan would more effectively capture and prioritize business user requirements. This would complement the DBHDS Data Pinnacle initiative with a specific focus on facilities management and capital planning.

Quantitative Analysis

[Additional detail to be added as part of Final Report. KPMG to review staffing and contractor levels compared to maintenance needs at each facility]

[Additional detail to be added as part of Final Report. KPMG to review historic spending to measure spending across facilities and how spending addressed needs.]

D. Benchmarking

The purpose of the benchmarking analysis was to compare DBHDS to similar organizations and assess DBHDS competencies, capabilities, and selected metrics against peers. Through benchmarking, DBHDS will gain insights into how the management and operation of its facilities compares with peers and where best practices from other facilities could potentially be leveraged to enhance the management and planning of DBHDS facilities. It is also intended that the benchmarking analysis will provide insight into how peers have addressed similar organizational challenges for DBHDS to consider in future planning.

[Additional detail to be added as part of final report. KPMG to conduct peer interviews and include any additional relevant insights.]

Objectives of Benchmarking

The benchmarking analysis compares DBHDS to peers in areas central to this review. The types of facilities included in the benchmarking include those operated by government, healthcare, and academia organizations. While no one organization perfectly mirrors DBHDS unique operating asset base and operating environment, each organization faces relevant facilities and organizational challenges including managing multiple facilities with aging assets across a large area, often while adhering to government rules and regulations around funding and budget. The areas analyzed through the benchmarking analysis will include the focus areas analyzed in the DBHDS facilities workshops, including:

- **Organizational context:** Strategic planning, sustainability planning, and performance reporting.
- **Investment planning and delivery:** Commercial focus for project delivery and capital projects planning, design, construction, and commissioning.
- **Maintenance and operations:** Operations management procedures, operations management staffing and scheduling and demand management, maintenance management strategy, and contracted operations and maintenance.
- **Real estate management:** Facility and land needs and space allocation.
- **Enablers:** Business applications, asset inventory and information, information management, data analytics, development of skills and competencies, and capital governance.

In addition to discussing practices, benchmarking will address quantitative metrics such as total sq ft of facilities, number of facilities staff broken down by trade, typical annual capital spend on capital maintenance/lifecycle, annual O&M spend broken down by O&M and outsourced services, percent reactive/corrective work orders, typical work order backlog, etc.

Benchmarking will allow DBHDS to leverage the insights on how these organizations addressed similar challenges, as well as prioritize improvement initiatives based on the experiences of peers.

Benchmarking Peers Overview

Like DBHDS, many state departments, healthcare providers, and universities face similar challenges due to their size, scope, and purpose. The peers included in this report are Michigan Department of Health and Human Services (MDHHS), North Carolina Department of Health and Human Services (NCDHHS), Louisiana State University (LSU), The City of Sugar Land Texas, and Thomas Jefferson University (TJU).

Table 6: Peer Benchmarking Comparison

Peer Name	Mission	Facility Portfolio Overview
Michigan Department of Health and Human Services (MDHHS)	MDHHS provides opportunities, services, and programs that promote a healthy, safe, and stable environment for residents to be self-sufficient.	12 total facilities: ▪ 2 state operated Juvenile facilities and 10 nursing facilities

Peer Name	Mission	Facility Portfolio Overview
North Carolina Department of Health and Human Services (NCDHHS)	In collaboration with its' partners, DHHS provides essential services to improve the health, safety, and well-being of all North Carolinians.	14 total facilities: ▪ 3 developmental centers, 3 neuro-medical treatment centers, 3 psychiatric hospitals, 3 alcohol and drug abuse treatment centers, 2 residential programs for children with emotional and behavioral health needs
Louisiana State University (LSU)	Generation, preservation, dissemination, and application of knowledge and cultivation of the arts.	546 total facilities: ▪ Dormitories, academic buildings, athletic facilities, administrative buildings, etc.
The City of Sugar Land, TX	Continuing to provide the highest quality of affordable services to meet the needs of its residents.	60 total facilities: ▪ Recreational parks, community centers, utilities, police department building, municipal court, Sugar Land Regional Airport, etc.
Thomas Jefferson University (TJU)	Improve lives.	83 total facilities: ▪ 4 schools, 10 colleges, 14 hospitals, 5 urgent care centers, 1 cancer center, 19 outpatient centers, and 30 testing and imaging centers

Refer to Appendix D for additional detail on peers.

Insights

The following areas have been identified as potential sources of insight for the benchmarking exercise unique to each organization being assessed. Insights from these assessments will be expanded upon in the final report.

Michigan Department of Health and Human Services

- Strategies for maintaining, upgrading, and disposing of aging assets and facilities.
- Options and strategies for consolidating facilities and disposing of excess land and real estate.
- Best practices in designing and commissioning new facilities to enable modern treatment approaches.
- Best practices in financial analysis of existing property and assets.

North Carolina Department of Health & Human Services

- Examining alternative funding and payment structures.
- Supporting rural health centers, including through contracts designed to expand access to high quality health care for rural and undeserved areas.
- Partnering with other state agencies on workforce needs.
- Project management roles and responsibilities.

The City of Sugar Land, Texas

- Addressing a large infrastructure backlog caused by aging buildings and assets.
- Developing and deploying a risk-based approach to identify and prioritize investments needed for assets.
- Innovative uses for unused facilities and real estate.

Louisiana State University

- Leveraging a data-driven approach to track assets and inform capital and maintenance strategy.
- Standardization of work order prioritization across departments and facilities.
- Adhering to state regulation and guidance on facility maintenance.

Thomas Jefferson University

- Enterprise-wide capital planning strategy and a standardized approach to standardized to prioritizing investments.
- Addressing capital planning needs while considering significant funding constraints.

E. Gap Analysis

Based on the feedback received from the DBHDS facility workshops as to the current levels of maturity, and compared to peer organizations both within Virginia agencies and industry peers nationwide, gaps exist between DBHDS' current state and its desired states for capital outlay, maintenance reserve, operations and maintenance, and real estate management practices. The following section summarizes the current states within each category, observations on industry good practice and workshop participants' desired outcomes in each category, observed differences between the current and desired levels of maturity, and conclusions on where improvements are needed. This section includes both qualitative and quantitative factors in the assessment, leveraging workshop participants' feedback, insights gathered from industry good practice, and data and performance measures gathered during the peer benchmarking analysis.

Capital Outlay

Table 7: Capital Outlay Gap Analysis Assessment

DBHDS Current State Overview
▪ DBHDS has a 6-year rolling annual capital program, and facilities receive bi-annual funding. Facilities receive funding directly from the central office, which is given funding from the General Assembly. Facilities provide minimal input into the annual funding allocation process, and the criteria used to determine funding allocations across the facilities is not clearly defined, nor is it consistently applied. ▪ DBHDS has agreed organizational Strategic Initiatives but it does not have defined processes for the monitoring and tracking against the objectives. There is no direct linkage between capital investments and how they will help achieve DBHDS' strategic objectives and/or meet service levels. ▪ Some lifecycle investment planning has been conducted on the assets; however, assets are often maintained past their expected useful lives, and decisions are not made based on lowest lifecycle cost. ▪ There is a basic framework applied that defines how capital investment decisions are supported by facilities' asset-level data (e.g., condition of the assets, expected useful lives, risk, etc.). Asset data can be located across disparate locations and varies by facility. ▪ DBHDS has robust processes in place for the management of capital projects, documented within the Construction and Professional Services Manual (CPSM). However, when large or complex capital projects require engagement across multiple stakeholders (e.g., DGS, DBHDS, facilities), roles and responsibilities for the overall management of the project are not fully defined.
Industry Good Practice
▪ An organization-wide strategic plan is in place, with a clearly defined process to monitor and track progress against the objectives identified in the plan. There is a clear 'line of sight' between the Strategic Plan, organizational objectives, and how capital investments support the strategic objectives. ▪ A Levels of Service (LOS) framework is in place that defines both customer and technical LOS and how these align to the organizational strategic objectives. Cost implications associated with achieving these LOS are understood and are used to justify investment decision-making, and assets are monitored according to defined performance metrics aligned to the LOS. ▪ An organization-wide framework is in place for the identification of capital needs and projects are identified and prioritized according to clearly defined needs, aligned to the organization's objectives. The framework is supported by a capital governance process, and facilities provide input into the annual capital call (e.g., through business case evaluations). ▪ Lifecycle investment planning of the assets has been performed to identify the appropriate sequencing of treatments on the assets at the lowest lifecycle cost. Lifecycle costing incorporates both capital and O&M treatments and considers the appropriate treatments required on the assets to maintain service levels. ▪ Data-driven decision-making is used to identify capital investment needs, supported by robust data on the asset inventory, conditions, expected useful lives, planned treatments, known costs, etc. Asset data is centrally

managed, and data requirements and processes for information management and data governance are documented to support data-driven lifecycle planning and investment decisions. ▪ Documented processes and procedures are in place for the management of capital projects throughout all stages of the capital project lifecycle. Roles, responsibilities, and accountabilities have been clearly defined and are well known when multiple stakeholders are involved in the management of large/complex capital projects.

Benchmarking Statistics	
DBHDS	**Industry Standard**
▪ [Placeholders for any DBHDS statistics, data points to compare] ▪ Data point ▪ Data point	▪ [Placeholders for any DBHDS statistics, data points to compare] ▪ Data point ▪ Data point

Identified Gaps	Conclusions
▪ Lack of a formalized strategic plan that provides clearly defined, time-bound initiatives, metrics to measure success, and assigned accountabilities ▪ Lack of a LOS framework that defines the customer and technical LOS, against which to plan and measure asset performance ▪ Lack of standardized data on the assets' conditions and useful lives to support data-driven decision-making in capital investment needs ▪ A basic framework defining how capital projects are allocated funding is in place which only allows minimal insight from facilities into the capital allocation process ▪ Unclear roles and responsibilities across major stakeholders over which group is responsible for, accountable for, informed, and consulted in the management of large/complex capital projects ▪ Asset inventory data is not standardized, nor is it centrally managed or located	▪ A strategic plan, supported by a LOS framework, will help justify how investments in capital projects help meet service level needs and achieve DBHDS' strategic goals and objectives ▪ A comprehensive view of facilities' states of the infrastructure will help justify future funding requests to address the deficit between the infrastructure needs and available funding ▪ There is a need to implement a robust framework for how capital projects are identified, prioritized, and allocated funding to help justify future funding requests and improve the level of coordination between the facilities and central office ▪ There is a need to improve the level of coordination and communication amongst DGS, DBHDS, and the facilities in the management of large/complex capital projects ▪ A coordinated approach to DBHDS' asset information requirements will support lifecycle and investment decision-making for both capital and O&M activities

Maintenance Reserve

Table 8: Maintenance Reserve Gap Analysis Assessment

DBHDS Current State Overview
▪ Facilities receive bi-annual funding directly from the central office, who, in turn, receive funding from the General Assembly. Allocations for funding vary by facility and are inconsistent per cycle. Facilities provide minimal input into the annual funding allocation process. ▪ The General Assembly places strict parameters around how funding must be expended by the facilities, and, as such, facilities have less agency when preparing their annual budgets.

- Facilities are not permitted to set aside funding as a maintenance reserve fund. In most circumstances, money cannot be rolled over to another year.
- Confidence in condition data varies by asset and facility location, and facilities' maintenance needs are determined based on the preventive maintenance schedules documented in the facility work management system (TMS) or are need-based (e.g., based on findings from previous Joint Commission reviews).

Industry Good Practice

- Facilities provide input into an annual budgeting process, and both capital and operating funds are allocated based on facilities' defined needs, supported by data-driven decisions based on the assets' conditions, expected useful lives, levels of risk, etc.
- Maintenance needs are aligned to lifecycle investment planning of the assets that considers both capital and O&M costs. A maintenance strategy is in place that has a clear line of sight to how planned maintenance activities meet the technical LOS required to maintain customer LOS.
- A maintenance reserve fund is in place. Documented processes and procedures are in place for how contributions are made to the fund, funding eligibility, how projects are identified for maintenance reserve activities, and how funding is allocated and monitored. Reserve studies are carried out to determine the necessity and appropriate amount of the reserve funds required to repair, replace, and restore the assets.

Benchmarking Statistics	
DBHDS	**Industry Standard**
▪ [Placeholders for any DBHDS statistics, data points to compare]	▪ [Placeholders for any DBHDS statistics, data points to compare]
▪ Data point	▪ Data point
▪ Data point	▪ Data point

Identified Gaps	Conclusions
▪ No maintenance reserve fund exists	▪ There is a need to improve the level of coordination and communication in how funding is allocated to the facilities
▪ Maintenance funding needs do not have a clear line of sight to a LOS framework	▪ A LOS framework will help justify future funding requests by identifying how maintenance needs support organizational goals and objectives
▪ Lack of transparency between the facilities and central office in the annual funding process	▪ A comprehensive view of facilities' states of the infrastructure will help justify future funding requests to address the infrastructure deficit between the maintenance backlog and available funding
▪ Lack of standardized data on the assets' conditions and useful lives to support data-driven decision-making in facilities' maintenance needs	

Maintenance and Operations

Table 9: Maintenance and Operations Gap Analysis Assessment

DBHDS Current State Overview

- DBHDS maintains work orders in a centralized work order management system that documents work orders at the facility level. The work order management system tracks work order activities and prioritizes work orders based on such factors as level of risk, safety, etc., and resources are assigned to the highest priority work order.

- There is a lack of integration between the work order management and DBHDS' various other enterprise IT systems, and asset inventory records are in disparate locations (e.g., TMS, the financial system, etc.). IT system configurations vary amongst the facilities, and no consolidated asset data strategy, nor data requirements, exists.
- Some lifecycle planning has been conducted on the assets; however, assets are often maintained past their expected useful lives, and decisions are not made based on lowest lifecycle cost. Preventive maintenance schedules have been developed based on manufacturers' recommendations for certain assets and are maintained in the work order management system.
- Documented processes and procedures are in place on how to operate and maintain the assets, maintained in TMS.
- Staff are well aware of their roles and responsibilities through the Employee Work Profiles (EWPs); however, staffing levels do not meet customer demands, and staff are required to take on multiple roles or perform multiple job functions to compensate for staff shortages.
- Contracted services are managed at the facility level, and various approaches exist across the facilities to determine which services will be contracted. Some facilities are challenged obtaining and/or retaining contractors.

Industry Good Practice

- A maintenance strategy has been documented and is in place that justifies the appropriate mix of corrective versus preventive maintenance on the assets, based on manufacturers' recommendations, condition based, asset level of risk, etc. Preventive maintenance schedules for the assets are aligned to the overarching maintenance strategy.
- A centralized work management system is in place that documents work orders across the organization. The work management system tracks work order activities, and work order data is tied to the asset inventory data and is integrated with other enterprise IT systems (e.g., asset inventory database, financial system, etc.). Clearly defined asset and work order data requirements have been documented, and processes are in place for data governance.
- Documented processes and procedures are in place for the operations and maintenance of the assets. Work orders are prioritized based on the asset level of risk, and staffing levels are aligned to work demand.
- Lifecycle investment planning of the assets has been performed to identify the appropriate sequencing of treatments on the assets at the lowest lifecycle cost. Lifecycle costing incorporates both capital and O&M treatments and considers the appropriate treatments required on the assets to maintain the technical LOS.
- A cost-benefit analysis has been conducted to determine the appropriate mix of in-house versus outsourced maintenance, and adequate controls are in place to manage contracted resources. Contracted maintenance activities are monitored through the work management system. The organization has a coordinated approach to the management of contracted services.
- An organizational assessment has been performed to determine the appropriate human capital needs within the organization. Roles and responsibilities are well defined and documented and include who is accountable, responsible, consulted, or informed. Staffing levels adequately meet service level demands to maintain the organization's customer and technical LOS.

Benchmarking Statistics	
DBHDS	**Industry Standard**
[Placeholders for any DBHDS statistics, data points to compare]	[Placeholders for any DBHDS statistics, data points to compare]
Data point	Data point
Data point	Data point

Identified Gaps	Conclusions
▪ Lack of a LOS framework that defines the Customer and Technical LOS, against which to plan and measure asset performance ▪ Lack of integration between the work management system and other supporting systems ▪ Asset inventory and work order data is not standardized, nor is it centrally managed / located ▪ Staffing levels do not meet current service level needs ▪ No coordinated, DBHDS-wide approach to contracted operations and maintenance	▪ There is a need for a DBHDS LOS framework that defines customer and technical LOS ▪ A coordinated approach to asset information requirements will support lifecycle and investment decision-making for both capital and O&M activities and is essential for data governance ▪ DBHDS may benefit from an organization-wide approach to managing contracted services ▪ Given resource limitations, there is a need to improve how staff are allocated to ensure their activities meet the greatest priority needs

Real Estate Management

Table 10: Real Estate Management Gap Analysis Assessment

DBHDS Current State Overview
▪ Facility master plans are in place and managed by the central office. However, stakeholders at the facility level have not been informed of DBHDS' long-term real estate plans for the facilities. ▪ Facilities meet the design standard requirements outlined within the CPSM and as required by regulatory bodies (e.g., Joint Commission standards), but facility configurations are not in line with industry best practice. For example, some facilities have shared dorms and bathrooms (which can be a safety risk for violent patients), and staff do not have adequate office space to meet their current needs. ▪ DBHDS has surplus property/real estate assets but does not have a strategy in place for the disposition of the assets. DBHDS continues to pay ongoing costs to 'keep the lights on' for its surplus assets.
Industry Good Practice
▪ Facility master plans are in place for major facilities and/or real estate locations within the organization, and relevant stakeholders at the facility level are well aware of the facility master plans and their impacts on the facilities and have provided feedback into the plans, when necessary. The facility master plan(s) describes the organization's long-term real estate needs and facility plans and is aligned to the organization's strategic goals. ▪ Facilities within the organization have clearly defined design and space standards, and the allocated space and/or configuration of the physical location adequately meets service level needs, aligned to the organization's customer LOS. ▪ Space allocation meets the needs of both external stakeholders (e.g., customers) and internal stakeholders (e.g., staff). ▪ An assessment has been undertaken to 'right-size' the organization's real estate needs and considers both current and future needs based on trends. ▪ In instances where there exist surplus assets, the organization has a clear strategy in place for the disposition of the assets that considers best and highest use of the assets based on valuations, market analysis, etc.

Benchmarking Statistics	
DBHDS	Industry Standard
▪ [Placeholders for any DBHDS statistics, data points to compare]	▪ [Placeholders for any DBHDS statistics, data points to compare]

▪ Data point ▪ Data point	▪ Data point ▪ Data point

Identified Gaps	Conclusions
▪ Minimal coordination and communication between the facilities and central office over facilities' long-term real estate strategies ▪ Space allocation does not meet current service level needs ▪ Lack of a plan for the best and highest use of surplus property and assets	▪ Need to improve the level of communication between the facilities and central office as to facilities' real estate strategies ▪ Opportunities exist to reassess DBHDS' current real estate footprint

F. Improvement Initiatives

Opportunities are available across the facilities to become more effective and efficient in facilities' existing capital and operating and maintenance practices. If implemented, the improvement initiatives will contribute to delivering further value in DBHDS' capital, maintenance and operations, and real estate activities.

During the facilities' assessment workshops, workshop attendees identified not only current maturity scores in each of the themes, but also their target improvement scores that, if implemented successfully and assuming adequate human capital and financial resources to implement, would be achieved within the short-term (substantially completed by the end of 2022), medium-term (up to the end of 2024) and long-term (up to the end of 2026). The facilities' current and target maturity scores across the themes are summarized in Appendix C.

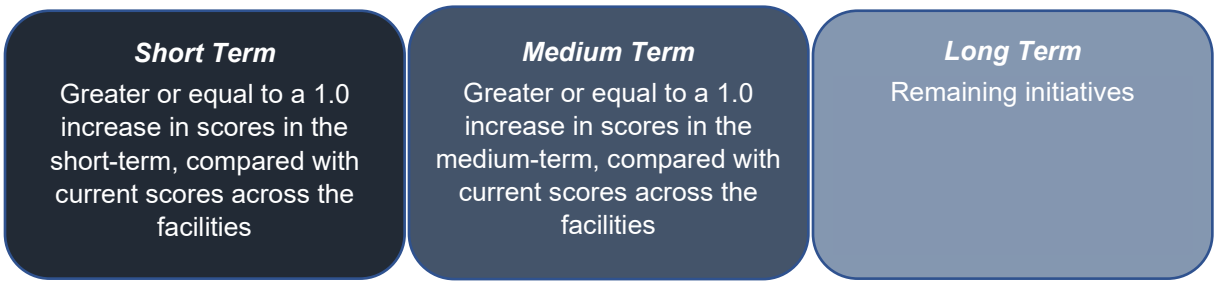
Based on the facilities' desired levels of maturity in the above themes, a number of improvement initiatives are proposed to help the facilities achieve their vision for leading capital outlay, maintenance reserve, maintenance and operations, and real estate practices. A phased approach to implementation is recommended based on the feedback obtained during the workshops as to the facilities' collective priorities, as well as based on the logical sequencing of the improvement initiatives.

Recommended Improvement Initiatives

Based on the feedback received at the workshops, along with follow-up meetings, a number of areas were identified as key improvement areas in the short, medium, and long-term timeframes. The criteria used to further define the phasing of the initiatives were as follows:

- Output of the assessment workshops, leveraging the following framework to assess the initiatives' priorities:

Figure 6: Framework to Identify Initial Sequencing based on Workshop Outputs



- Ongoing/already planned initiatives within DBHDS (e.g., Data Pinnacle initiative)
- Alignment to enable a DBHDS-wide approach to progressing initiatives
- Logical sequencing of improvement initiatives
- Likely availability of resources to progress initiatives

The following table lists the recommendations that are proposed for advancement in the short-term (i.e., 12-month) timeframe. Individual facilities may advance other initiatives on their own timescales as those facilities deem appropriate. However, these short-term initiatives reflect a unified, department-wide implementation approach. The initiatives are not currently ordered by priority.

Table 11: Recommended Short-Term Improvement Initiatives

No.	Improvement Name	Key Area(s) of Focus			
		Capital Outlay	Maintenance Reserve	O&M	Real Estate Activities
S1	Develop a DBHDS Strategic Plan	✓	✓	✓	✓
S2	Develop an Asset Information Strategy & Improvement Plan	✓	✓	✓	✓
S3	Develop a State of the Infrastructure Report	✓	✓		✓
S4	Utilize DGS for Management of Major/Complex Projects and Define Roles and Responsibilities for DGS, DBHDS, and Facility	✓			✓
S5	Assess Contracting Mechanisms	✓		✓	
S6	Assess Current and Future Building & Grounds Staffing Needs by Facility			✓	
S7	Review Capitalization Policy Review	✓			
S8	Revise Investment Planning Framework	✓	✓		✓
S9	Develop Levels of Service Framework	✓	✓	✓	
S10	Carry out a Surplus Property / Land Assessment				✓

Short Term Improvement Initiatives

The following subsections provide more detailed summaries of the recommended short-term improvement initiatives. It is intended that these initiatives would be advanced department-wide across the facilities and the central office.

Initiative S1: Develop a DBHDS Strategic Plan

Table 12: Initiative S1 Overview

Recommendation	Potential Benefits
Develop a DBHDS-wide Strategic Plan and associated communication s plan	✓ Help enhance the organization's culture ✓ Agreed view on future trends, goals, and priorities ✓ Action plan that has clearly defined (time bound) goals and objectives and accountabilities assigned ✓ Enables broader stakeholder engagement and buy-in

Description of Initiative
This initiative will build off the DBHDS Strategic Initiatives FY21-23 already under development, consolidating the existing goals and objectives into a broader, comprehensive, organization-wide strategic plan. The plan will coalesce around a common view of DBHDS' future challenges and opportunities, consider future trends and their impacts on the organization, and will include not only the strategic initiatives, but also an action plan that addresses their implementation. The plan would include the DBHDS Mission, Vision, and Values; overview of DBHDS' strategic goals and initiatives; levels of priority; clearly defined outcomes; timescales for implementation; KPIs for monitoring achievement; and responsibilities and accountabilities for each strategic initiative. The strategic plan would be developed using organization-wide feedback across DBHDS and the facilities and would be consolidated into a succinct document that would be communicated throughout the organization and be made publicly available for both internal and external stakeholders.
Proposed Scope of Work and Deliverables
▪ Workshops with DBHDS and facility staff to review of existing DBHDS strategic priorities ▪ Identification of strengths, weaknesses, opportunities, and threats over the planning horizon ▪ Proposed updates to DBHDS strategic priorities ▪ Broader staff engagement ▪ Development of a Strategic Plan document ▪ Develop and implement a communication and change management plan to communicate the Strategic Plan to all relevant internal and external stakeholders

Initiative S2: Develop an Asset Information Strategy & Improvement Plan

Table 13: Initiative S2 Overview

Recommendation	Potential Benefits
Develop an Asset Information Strategy and Improvement Plan that builds off the Data Pinnacle initiative's priorities	✓ Foundational in lifecycle planning and investment decision-making ✓ More accurate and complete data will help DBHDS make data-driven decisions in its facility assets ✓ Standardized data across the facilities ✓ Provide a tactical approach for how to achieve the data objectives already identified in the Data Pinnacle initiative ✓ Justify DBHDS' data collection needs and determine the appropriate data to collect
Description of Initiative	
An Asset Information Strategy and Improvement Plan is a document that would describe DBHDS' short and long-term approaches to managing facilities' asset data and information to achieve its strategic, capital planning, and maintenance goals. The asset information strategy would not only focus on improving data to support maintenance planning but would also set the foundation for DBHDS' lifecycle and investment planning in facilities assets. The strategy would include an overview of existing facility asset information and information management processes across DBHDS; future asset information requirements for facilities assets; future information management processes, data governance, data standards, data maintenance, etc. to support data needs; and an improvement plan to identify key areas for improvement in DBHDS' current state facility asset information management practices.	
Proposed Scope of Work and Deliverables	
▪ Workshops to review existing Path to the Data Pinnacle priorities ▪ Current state assessment of facilities' asset data, data hierarchy structure, and information management ▪ Identification of essential versus desirable data for facilities' assets	

- Documentation of missing asset data and information
- Development of improvement initiatives related to information management, roles and responsibilities, asset data needs, asset hierarchy framework, data governance, processes, etc.
- Consolidation of the previous activities into an Asset Information Strategy and Improvement Plan that identifies the current state, future state of asset data, supporting processes for information management, and an improvement roadmap to address gaps

Initiative S3: Develop a State of the Infrastructure Report

Table 14: Initiative S3 Overview

Recommendation	Potential Benefits
Develop a State of the Infrastructure Report, to include an inventory of facilities' assets and their conditions/replacement values	✓ Provides a comprehensive view of the current state of the assets ✓ Aids in facilities' short and long-term planning efforts ✓ Enables a complete and consistent understanding of the condition and replacement values of asset groups ✓ Helps DBHDS make data-driven investment decisions in assets ✓ Identifies gaps and/or improvement areas in asset data
Description of Initiative	
This initiative would include the development of a State of the Infrastructure Report that would provide an overview of the state of DBHDS' infrastructure by asset class and facility. The report would include an overview of the asset inventory, physical asset condition and replacement values, and maintenance backlog needs and would tie asset condition to DBHDS' ability to meet operational and service delivery standards. Further, the State of the Infrastructure Report would include assigned confidence levels to the reliability and accuracy of the asset inventory data that may be leveraged for future data improvement planning. Development of the report would include a combination of existing inventory data, where available, and DBHDS/facility staff knowledge to create a comprehensive overview of the assets' conditions across the facilities.	
Proposed Scope of Work and Deliverables	
▪ Workshops with DBHDS staff to develop asset condition framework, aligned to levels of service ▪ Documentation of facilities' asset conditions across asset types based on established condition framework ▪ Assign data confidence levels to asset condition data ▪ Consolidate data within a State of the Infrastructure Report across the facilities	

Initiative S4: Utilize DGS for Management of Major/Complex Projects and Define Roles and Responsibilities for DGS, DBHDS, and Facility

Table 15: Initiative S4 Overview

Recommendation	Potential Benefits
Utilize DGS for Management of Major/Complex Projects and Define Roles and Responsibilities for DGS, DBHDS, and Facility	✓ Utilize DGS project managers, whose primary responsibly is managing major capital projects ✓ Process improvements and organizational efficiencies by identifying, allocating, and documenting roles and responsibilities ✓ Minimizes instances of unassigned responsibilities ✓ Ensures stakeholders' responsibilities to which they are assigned best suit their appropriate skillsets, perspectives, and incentives ✓ Improves coordination and communication

	✓ Helps ensure project delivery

Description of Initiative

This initiative focuses on transitioning the accountability for delivery of major projects to DGS project management staff along with identifying and documenting roles and responsibilities for DBHDS, and the facilities throughout the capital project lifecycle, with active involvement and coordination from the facilities and DBHDS. This initiative would complement the processes and procedures already documented in the Construction and Professional Services Manual (CPSM) and may be incorporated as an addendum to the CPSM. The purpose of this effort would be to help key stakeholders understand each party's objectives and incentives, understand who are the 'customers' across the project lifecycle, and determine who is responsible and accountable for key activities during the design, planning, execution, and closeout of capital projects. This initiative may include interviews with staff to better understand their roles and responsibilities; peer benchmarking assessment to gather best practices; documentation of activities and responsible parties throughout capital project stages; and a RACI exercise to identify stakeholders responsible, accountable, consulted, and informed per activity.

Proposed Scope of Work and Deliverables

- Interviews with DGS, DBHDS, and facilities staff to identify documented and/or perceived roles and responsibilities across each stakeholder group
- Conduct peer review of roles and responsibilities across organizations to gather lessons learned
- Document key project stages throughout the capital project lifecycle
- Conduct RACI exercise to document roles and responsibilities for each stakeholder
- Develop process map to document the flow of stakeholder responsibilities across the capital project lifecycle
- Document and/or develop policies and procedures to be set out in a Memorandum of Understanding.

Initiative S5: Assess of Contracting Mechanisms

Table 16: Initiative S5 Overview

Recommendation	Potential Benefits
Assess the use of alternative maintenance contracting mechanisms	✓ Identifies contracting needs across the entire department ✓ Process efficiencies associated with more cost-effective and efficient procurement of vendors and/or contracting mechanisms ✓ Identifies opportunities to 'bundle' multiple types of maintenance activities and/or facilities under larger contracts ✓ Provides a consolidated approach to contracting state-wide ✓ Deepens the pool of vendors for facilities that may experience challenges finding or maintaining contractors in their regions

Description of Initiative

The purpose of this initiative is to assess alternative maintenance contracting mechanisms for use across the Facilities. This would include further assessing DBHDS' current contracting processes, procedures, and practices for capital and maintenance activities and evaluate whether efficiencies could exist through alternative contracting mechanisms (e.g., Job Order Contracting), new processes, etc. This initiative is intended to address facilities' challenges securing sufficient contracted support because of regional factors, current procurement policies and structures in place, etc. Additionally, this initiative would include development of an overarching contract management process and supporting documentation, tracking and analysis elements to further standardize the contract management process across the facilities. This effort would leverage a combination of existing data and staff knowledge in developing a more detailed overview of DBHDS' current contracting mechanisms, vendors, and processes.

Proposed Scope of Work and Deliverables

- Desktop review of existing data and interviews with DBHDS staff to develop current state assessment of existing contracting mechanisms, vendors, and processes
- Workshops and/or interviews with facilities representatives to identify contractor needs across the department
- Assessment of contracting alternatives (e.g., JOC)
- Development of overarching contract management process to incorporate existing contracting mechanisms, vendors, processes, requirements (e.g., Executive Order 77), and contracting alternatives
- Implement documentation, tracking and analysis elements into the contract management system

Initiative S6: Assess Current and Future Building & Grounds Staffing Needs by Facility

Table 17: Initiative S6 Overview

Recommendation	Potential Benefits
Conduct a more in-depth assessment of current and future building & grounds staffing needs by facility and develop/implement a prioritization approach to allocate resources according to where facilities' greatest staffing needs exist	✓ Improves and enhances current staffing processes and resourcing allocations to maximize how current resources are assigned ✓ Enables a better understanding of staffing needs and where gaps exist between needs and available resources ✓ Helps justify future investments in human capital

Description of Initiative

This initiative would include a further assessment of facilities' current staffing levels compared to staffing needs to determine whether gaps exist and identify potential improvements to existing staff allocations, as well as additional staffing needs. This initiative is aimed at addressing challenges facilities are facing related to recruitment and retention of employees and the need for staff to take on multiple roles and perform multiple job functions when faced with resource shortages. This initiative would leverage the data collected from the peer benchmarking assessment conducted under the current assessment to evaluate DBHDS' facility staffing against other Virginia agencies' and industry peers' staffing levels. This initiative would also develop a methodology to prioritize activities that facilities could implement to reallocate staffing towards their greatest needs. This effort would also consider opportunities to optimize staffing utilization by identifying cross-trainable positions that best align to existing staff members' skillsets.

Proposed Scope of Work and Deliverables

- Develop master staffing list of facilities based on current data provided by staff and similar institutions
- Evaluate DBHDS staffing levels against other Virginia agencies and industry peers nationwide
- Workshops with DBHDS and facility staff to develop priority ranking system to assess where greatest staffing needs exist
- Prioritize staffing needs at facilities based on established prioritization approach
- Develop overlap tracker to identify cross-trainable positions

Initiative S7: Review Capitalization Policy

Table 18: Initiative S7 Overview

Recommendation	Potential Benefits
Develop a document outlining the DOA policy and prepare a plan that addresses how to communicate the policies to the facilities	✓ Standardizes recording of capital assets across the facilities ✓ Ensures consistent accounting treatment towards property additions, repairs, and maintenance

	✓ Understanding which assets are capitalized provides the basis for the facilities' capital budgets

Description of Initiative

The purpose of this initiative is to review the DOA policy and DBHDS' procedures around the capitalization of assets and develop supporting documentation, communications, and materials to supplement existing policies and disseminate to the facilities. This initiative is intended to help standardize the recording of capital assets across the facilities, help mitigate inconsistencies in the facilities regarding what constitutes a capital asset, and address facilities' limited knowledge DOA's capitalization policy. This effort would result in a document that would consolidate relevant DBHDS, Virginia statewide, or other written documentation of asset capitalization qualifications and procedures, which could then be distributed and adopted across the facilities.

Proposed Scope of Work and Deliverables

- Review the DOA policy to determine the thresholds above which qualifying expenditures are recorded as fixed assets compared to incurred expenses (O&M)
- Review DOA policy to ensure written documentation of asset capitalization qualifications and procedures existing and identify missing documentation
- Conduct workshops with facility and DBHDS staff to determine the level of communication and understanding of existing capitalization policy and procedures
- Propose recommendations to improve communication and promote consistent adoption of the capitalization policy across the facilities
- Develop and implement proposed communication plan for the capitalization policy

Initiative S8: Revise Investment Planning Framework

Table 19: Initiative S8 Overview

Recommendation	Potential Benefits
Review and improve the capital project prioritization framework for use across DBHDS and communicate the approach / outputs to the facilities	✓ Consistency in how investments are identified, prioritized, and selected across the facilities ✓ Adds transparency to the capital allocation process and ✓ Promotes communication and coordination from the central office to the facilities ✓ Provides more rigor to how DBHDS prepares, evaluates, and selects business cases for investments ✓ Demonstrates how selected capital projects advance the organization's strategic objectives ✓ More certainty that the right project is being delivered at the right cost and the right time

Description of Initiative

With an understanding that DBHDS' capital projects must compete for funding because of resource constraints, an investment planning framework would be implemented to evaluate how a capital project will advance facilities' strategic and operational objectives, while considering the cost effectiveness of each project. This initiative would include not only the development of a framework, but also a supporting prioritization model that would rank capital projects by a consistent set of weighted benefit criteria against their costs. The framework could also incorporate risk and levels of service into the prioritization. The prioritization framework and model would therefore provide an objective approach to the capital allocation process. By documenting and applying a consistent prioritization framework, this will help give clarity to the facilities and DBHDS on the process for identifying, prioritizing, and selecting capital projects across the facilities.

Proposed Scope of Work and Deliverables

- Develop an overarching framework to evaluate capital projects by benefits against known and/or anticipated costs
- Conduct workshops with DBHDS staff to identify and weight a set of criteria to evaluate capital projects across the facilities
- Implement capital prioritization framework across the facilities
- Develop and implement a framework by which to communicate the investment planning framework and its outputs to the facilities

Initiative S9: Develop Levels of Service Framework

Table 20: Initiative S9 Overview

Recommendation	Potential Benefits
Establish a Levels of Service (LOS) framework for the facilities that identifies Customer and Technical LOS	✓ Consistent and transparent form of measurement and reporting across the facilities ✓ Can be used to improve performance management by monitoring the facilities against standardized LOS ✓ Helps facilities implement a data-driven approach when identifying funding needs and justifying funding requests by aligning costs to LOS expectations.
Description of Initiative	
Levels of Service (LOS) are statements of desired service provision for the facilities, supported by a qualitative and quantitative understanding of performance objectives. A LOS framework would therefore create a system that would define and align service delivery to DBHDS' organizational goals to help ensure the efficiency of service delivery. The framework would consider DBHDS' customer LOS and how these align to the technical LOS for the facilities' assets. Additionally, the framework would identify metrics based on key performance criteria (e.g., Safety, Reliability, Capacity, Quality/Functionality, Sustainability, Compliance with Regulatory and/or Legal Requirements, etc.). This initiative would include not only development of the LOS framework, but also a gap analysis of the current to desired LOS to identify future improvement areas and supporting resource needs to attain the desired LOS.	
Proposed Scope of Work and Deliverables	
▪ Conduct workshops with DBHDS staff to prepare a framework to assess facilities' service delivery at both the qualitative and quantitative level ▪ Identify and document relevant customer and technical LOS, based on strategic priorities ▪ Determine metrics by which to evaluate LOS based on key performance criteria ▪ Assess current customer and technical LOS based on established metrics ▪ Assign confidence intervals to current LOS to assess reliability and accuracy of data ▪ Conduct gap analysis of current to desired LOS and determine resource needs to close gaps (e.g., funding needs, human capital needs, etc.)	

Initiative S10: Carry out Surplus Property/Land Assessment

Table 21: Initiative S10 Overview

Recommendation	Potential Benefits
Carry out a surplus property/Land assessment to assess the best and highest uses for potential surplus properties across the facilities and	✓ Potential cost savings from discharging unused assets ✓ Potential revenue generation from the sale(s)/lease of the assets

develop go-to-market strategies for key properties	✓ Increased coordination amongst the facilities and central office on future for facilities' land and associated assets

Description of Initiative

Understanding that DBHDS has surplus land, buildings, and other assets across the facilities, with associated ongoing costs for the assets, this initiative would focus on developing a more complete understanding of DBHDS' surplus land assets and their values and preparing a strategy for the best use of its unused assets. This effort would first conduct a surplus land appraisal that inventories its potential surplus property and values its properties. Given the breadth of surplus property and variable market conditions, this effort would then include a selection and/or prioritization process to categorize tiers of potential surplus property based on defined criteria. An analysis would then be performed for each tiered grouping to determine the highest and best use for the assets, followed by a go-to-market strategy for key property based on market analysis and their valuations. The go-to-market strategy can then provide insights into how best DBHDS may benefit from the disposition (e.g., long-term lease, sale of the assets, co-development, etc.). This analysis and go-to-market strategy exercise would then be undertaken for each tier of assets.

Proposed Scope of Work and Deliverables

- Perform a Surplus Land appraisal of the facilities to inventory and value potential surplus property
- Identify costs associated with ongoing maintenance of surplus assets per facility
- Define criteria by which to group potential surplus property into tiers
- Evaluate potential surplus property against pre-established criteria to categorize assets into tiered groupings
- Consider best and highest uses for the potential surplus properties per tier
- Develop go-to-market strategies for key properties within each tiered grouping of assets, considering market analysis and valuations

Medium to Long-Term Initiatives

In addition to the short-term priority improvement initiatives listed above, the following draft improvement initiatives are recommended for implementation in the medium-term and long-term timeframes (i.e., by CY 2024 and CY 2026, respectively). The below initiatives are intended to address the remaining capital outlay, maintenance reserve, maintenance and operations, and real estate activity practices that the facilities also expressed interest in improving their current maturity scores, based on the outputs of the workshops and increase in maturity scores over the medium and long-term timescales. The following table lists the suggested improvement initiatives.

Table 22: Recommended Medium and Long-Term Initiatives

No.	Initiative	Description
Medium-Term Initiatives		
M1	Develop a Sustainability Plan	Develop a DBHDS-wide sustainability plan to help increase visibility into and the ability to comply with regulations, promote readiness for future sustainability grants, and increase environmental efficiency and reduce costs.
M2	Create a Performance Reporting framework	Develop and implement a performance reporting framework across DBHDS to provide insights into the overall performance of the facilities.
M3	Develop an IT Functional Requirements Plan	Develop and document a plan that captures and prioritizes business user requirements for DBHDS' enterprise IT systems.

No.	Initiative	Description
M4	Further develop Facilities Master Plans	Further develop facilities master plans across all facilities to capture future facility needs and land planning, as aligned to the strategic priorities captured in the Strategic Plan.
M5	Develop Asset Management Plans for Facilities	Develop a framework for and implement standardized asset management plans for each facility to create a longer-term view of resource requirements at each facility.
M6	Create Asset Lifecycle Strategies for Major Asset Groups	Identify and document optimal lifecycle strategies for similar assets across all facilities' practices across common assets.
M7	Carry out an Outsourcing Study	Conduct an outsourcing study (e.g., Central Utility Plant) to help deploy the most efficient and cost-effective delivery solutions for facilities.
M8	Carry out an Alternative Delivery (Capital) Study & develop a Policy	Develop and implement an alternative delivery policy that considers alternative project delivery options for capital projects to increase efficiency in project delivery, expand facilities' access to capital, and transfer risk to the private sector in project delivery.
M9	Assign Grants Management Responsibilities	Identify roles and responsibilities for grants management at the DBHDS and/or facility level and consider opportunities to leverage additional sources of funding.
M10	Develop and populate an Asset Risk Framework	Prepare a consistent approach to identify existing and potential risks, risk mitigation, and management strategies for facilities assets.
M11	Review the Budgeting Process	Develop and implement a budgeting process that helps increase facilities' input and transparency into the process.
Long-Term Initiatives		
L1	Create a Maintenance Reserve	Develop policies and processes to set aside capital maintenance funding as a maintenance reserve.

The above initiatives should be reevaluated within their recommended timeframes to confirm the appropriate sequencing and levels of priority. Additionally, other improvement initiatives may be identified in the medium and/or long-term timeframes through further research or as DBHDS reassesses its progress towards implementing the recommended improvement initiatives and their priorities.

G. Further Recommendations

The proposed initiatives in this report guides DBHDS' journey to leading capital outlay, maintenance reserve, maintenance and operations, and real estate activities practices. The current situation analysis forms the starting point and paints the picture for the future, when best practices are well entrenched in the culture at the department. The milestones in the journey are defined by the targets for the short, medium, and long-term as identified by the workshop attendees.

Draft Roadmap

[To be developed for Final Report]

Implementation Approach/Methodology

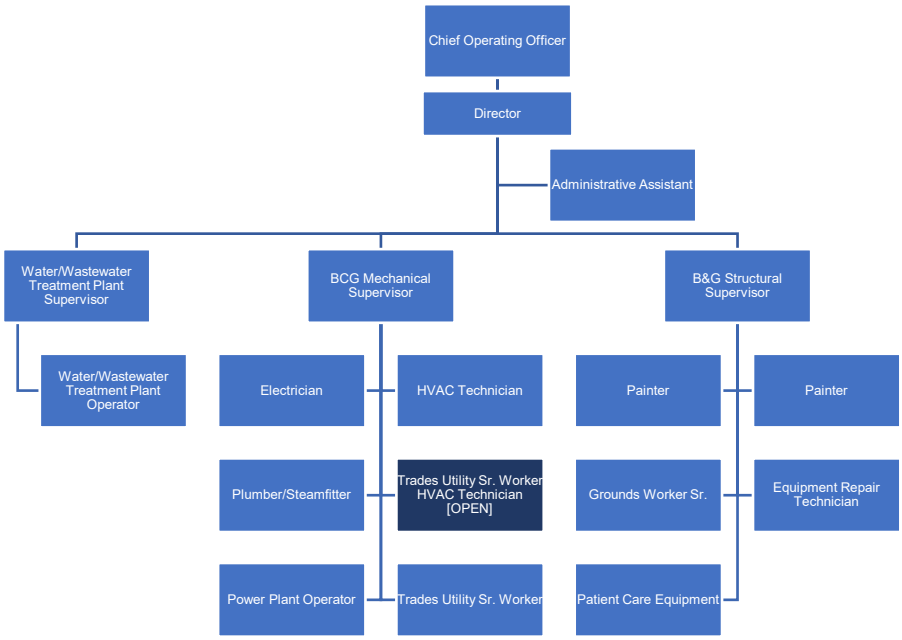
The roadmap and supporting initiatives will continue to guide the overall implementation of best practices across the Facilities. There will be a higher likelihood of success in the program implementation stage by adopting the following implementation concepts:

1. **Project Management –** Consider the use of a Steering Team to guide delivery of the initiatives and, in addition, set up a Facility Management Network (Practitioners) to manage implementation initiatives, where focus is on resources, scope, schedule and budget.
2. **Leading Change –** Ensure new concepts and practices are fully understood and embraced by the Facilities.
3. **Communications –** Ensure that relevant messages on asset management are communicated to all stakeholders in a timely manner, using the most appropriate mediums.
4. **Team-based Approach (Steering Team and supporting Facility Management Network focused on specific initiatives) –** To maximize benefits and effectiveness, integrate asset management practices into existing operations, while minimizing disruptions.
5. **Performance Tracking –** Document and respond to key performance indicators, which will support benefits realized from the improvement program, as well as the overall improvement of organizational capabilities and capacity.
6. **Knowledge Transfer –** Conduct transfer of knowledge between facility staff to ensure sustainability of concepts and practices.
7. **Quality Control and Quality Assurance –** A good quality assurance process is essential to creating good deliverables and eliminating the risk of sub-standard work and loss of buy-in from staff.
8. **Managing Disruption to Ongoing Operations** – Implementation of initiatives can be disruptive to the organization, especially if the goal of using in-house resources and knowledge transfer are to be achieved. This must be carefully managed in terms of planning and logistics. At times, it may be necessary to adjust the schedule to accommodate ongoing business needs.

H. Appendix A: Facilities Profiles

Facility 1: Catawba Hospital

Table 23: Catawba Hospital Facility Profile

Location	5525 Catawba Hospital Drive, Catawba, Virginia 24070
Buildings	Total number of buildings: **36 (287,576 sqft)** ▪ Buildings in Use: **29 (263,972 sqft)** ▪ Vacant Buildings: **7 (25,462 sqft)** Acreage: **672.23 acres**
Building & Grounds Staff	Total current staff: **17** Open positions: **1** 
Utilities	▪ Steam for heating and domestic hot water is provided on the main campus from a central boiler plant that is gas-fired with fuel oil back-up ▪ Appalachian Power Company provides electrical service ▪ The main hospital has a stand-by emergency generator ▪ Verizon provides telecommunications services
Environmental Considerations	▪ Operate own in-house water plant and have double redundancy pumps ▪ ESCO Plan ▪ Upgraded lighting, pumps, motor capacities ▪ Efforts to remove invasive species in forests
Key Considerations	Annual O&M: [●] Annual CAPEX: [●] Two municipal electric feeds to the hospital plus 20 generators at 80 percent load capacity. Operates own in-house water plant and has double redundancy pumps, brand new roofs,

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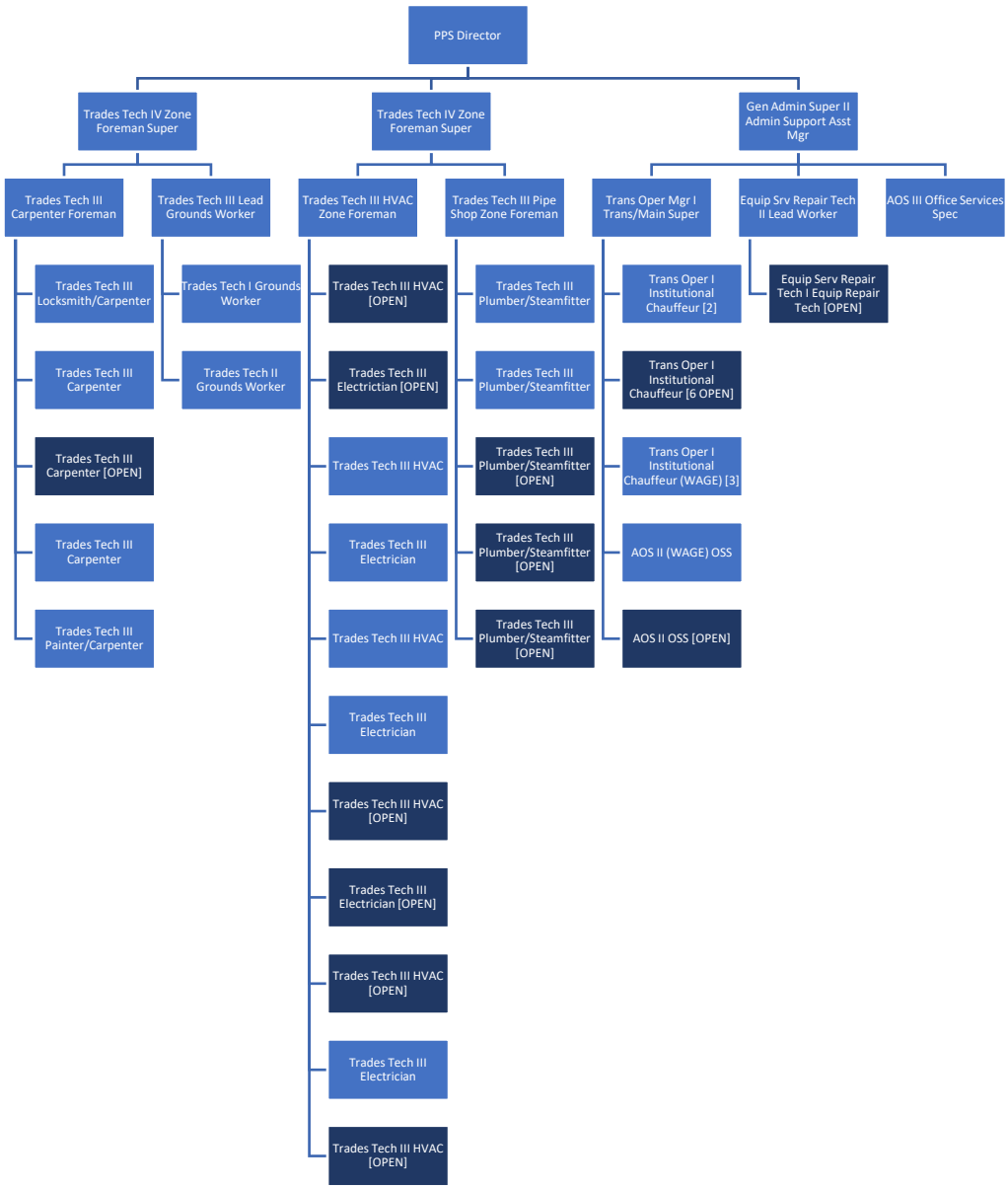
Facility 2: Central State Hospital and Hiram W. Davis Medical Center

Table 24: Central State Hospital and Hiram W. David Medical Center Facility Profiles

Location	CSH: 26317 W Washington St, Petersburg, VA 23803 HDMC: 26317 W Washington Street, Petersburg, Virginia
Buildings	Total number of buildings: **73 (1,320,738 sqft)** ▪ Buildings in Use: **24 (642,854sqft)** ▪ Vacant Buildings: **49 (599,346 sqft)**
	Acreage: **650 acres**
Building & Grounds Staff	**CSH:** Total current staff: **29** Open positions: **18**

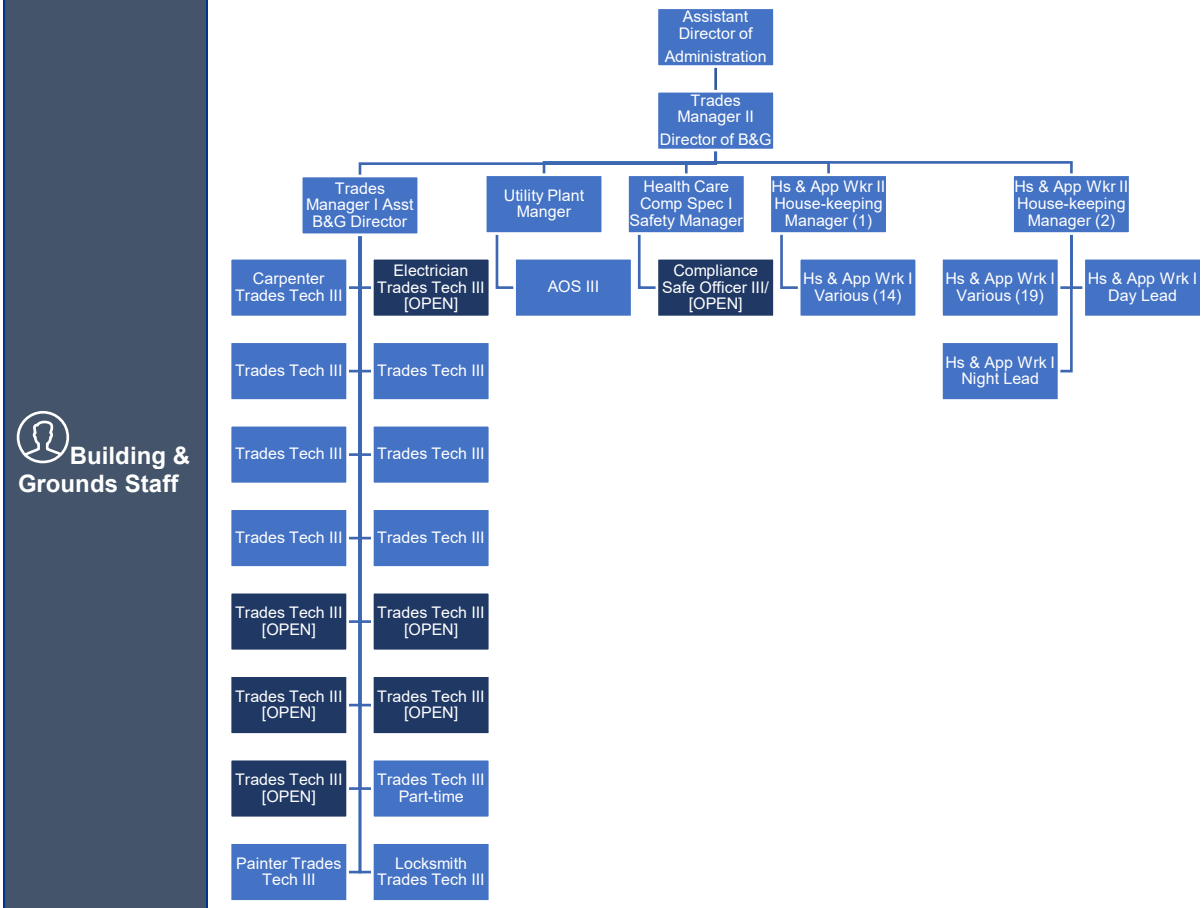


Building & Grounds Staff	**HDMC:** Total current staff: [●] Open positions: [●] [Org chart to be added – issue with file provided by facility]
Utilities	▪ Domestic water is received through the Dinwiddie County Water Authority ▪ Sanitary Sewer is served by the City of Petersburg Public Sewer System ▪ Natural Gas is served by Commonwealth Gas, Inc ▪ Electrical service is from Dominion Virginia ▪ Site lighting is provided by Dominion Virginia ▪ Storm water is conveyed through open channel drainage structures ▪ Steam is provided by a central boiler plant that serves a large portion of the south campus
Environmental Considerations	▪ Executive Order 77 - reduction of single-use plastics
Key Considerations	Annual O&M: [●] Annual CAPEX: [●] Initial construction began on new Central State Hospital – estimated opening date is 2024

Facility 3: Eastern State Hospital

Table 25: Eastern State Hospital Facility Profile

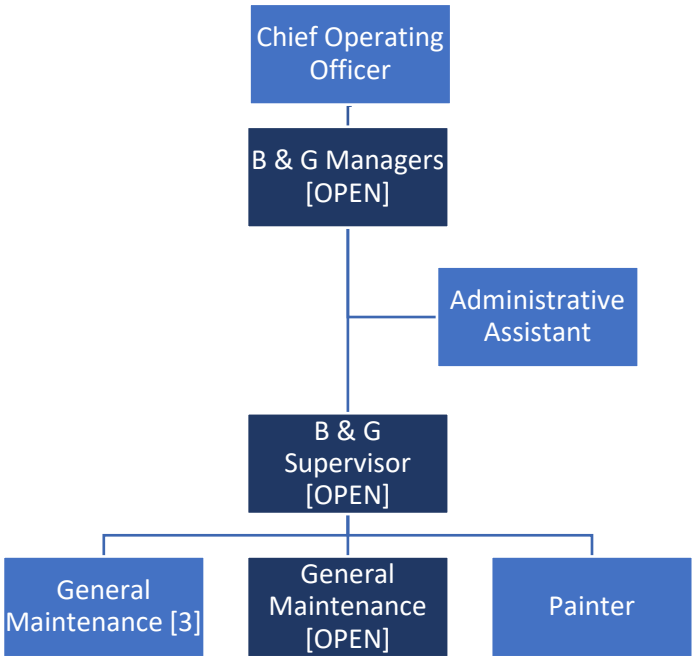
Location	4601 Ironbound Road, Williamsburg, Virginia 23188
Buildings	Total number of buildings: **20 (766,002 sqft)** ▪ Buildings in Use: **6 (417,527 sqft)** ▪ Vacant Buildings: **14 (335,238 sqft)**
	Acreage: **506.1 acres**

Building & Grounds Staff	Total current staff: **54** Open positions: **7** 
Utilities	▪ Contract out for HVAC, Generator and Boiler Maintenance, and Water Treatment ▪ Served by Virginia Dominion Power for electrical power ▪ Served by James City County Service Authority for water and sewer
Environmental Considerations	▪ [•]
Key Considerations	Annual O&M: [•] Annual CAPEX: [•] Facility built under Design-Build arrangement. Numerous issues cited around facility components (toilets, showers, drywall, oak doors, etc.) not being fit for current patient population.

Facility 4: Northern Virginia Mental Health Institute

Table 26: Northern Virginia Mental Health Institute Facility Profile

Location	3302 Gallows Road, Falls Church, Virginia 22042

Buildings	Total number of buildings: **2 (87,733 sqft)** ▪ Buildings in Use: **2 (87,733 sqft)** ▪ Vacant Buildings: **0 (0 sqft)**
	Acreage: **10 acres**
Building & Grounds Staff	Total current staff: **6** Open positions: **3** 
Utilities	▪ The site is served by the County of Fairfax water system, sanitary sewer system and storm sewer system ▪ Natural gas and electrical power system are provided by Dominion Power ▪ The main building has a stand-by emergency diesel-generator mounted on an above ground storage tank.
Environmental Considerations	▪ Some environmental initiatives including recycling, sustainable light bulbs, etc.
Key Considerations	Annual O&M: [●] Annual CAPEX: [●] The facility is planning for a new facility in five years because the hospital is underserving the community. The facility had a Joint Commission finding pertaining to ligature risks, and NVMHI has not received funding to address this safety hazard.

Facility 5: Piedmont Geriatric Hospital and Virginia Center for Behavioral Rehabilitation

Table 27: Piedmont Geriatric Hospital and Virginia Center for Behavioral Rehabilitation Facility Profiles

Location	PGH: 5001 E. Patrick Henry Highway, Burkeville, Virginia 23922 VCBR: 4901 E. Patrick Henry Highway, Burkeville, Virginia 23922
Buildings	▪ Total number of buildings: **44 (398,228 sqft)** ▪ Buildings in Use: **34 (375,395 sqft)** ▪ Vacant Buildings: **10 (22,833 sqft)**
	Acreage: **156 acres**

Building & Grounds Staff	**PGH:** Total current staff: [●] Open positions: [●] [Org chart to be added]
Building & Grounds Staff	**VCBR:** Total current staff: [●] Open positions: [●] [Org chart to be added]
Utilities	▪ The Town of Crewe provides water and sanitary sewer service to the site. ▪ Southside Electric Cooperative provides electrical power ▪ Verizon provides telecommunications service ▪ Steam for heating and domestic hot water is provided by a central boiler plant serving the entire site
Environmental Considerations	▪ Switchgrass has been used to generate steam power ▪ In certain cases, rainwater is used to flush toilets ▪ Working with local schools on recycling programs ▪ Food service improvements to reduce single use plastics
Key Considerations	Annual O&M: [●] Annual CAPEX: [●] VCBR expansion to be completed in Fall 2021. Cited significant issues regarding access to labor and contractors, due to rural location.

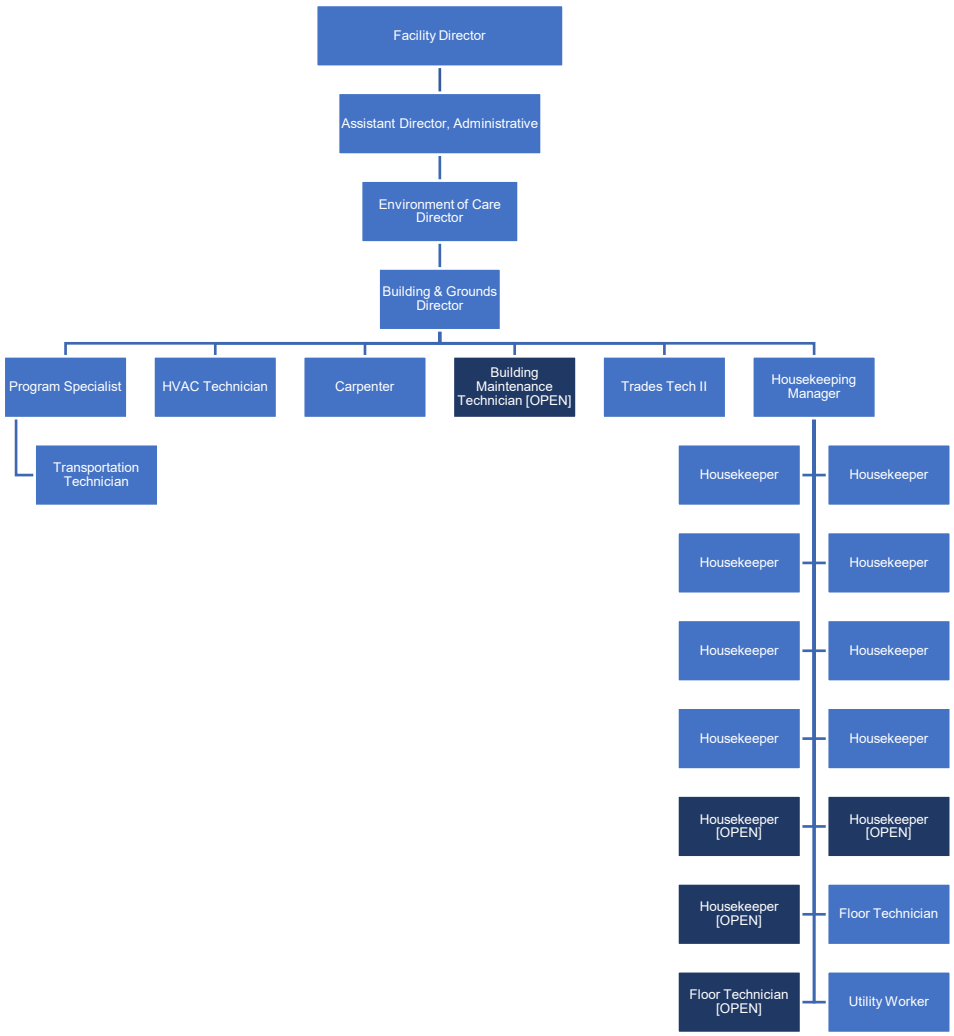
Facility 6: Southeastern Virginia Training Center

Table 28: Southeastern Virginia Training Center Facility Profile

Location	2100 Steppingstone Square, Chesapeake, Virginia 23320
Buildings	Total number of buildings: **20 (174,220 sqft)** ▪ Buildings in Use: **20 (174,220 sqft)** ▪ Vacant Buildings: **0 (0 sqft)**
	Acreage: **25 acres**

Building & Grounds Staff

Total current staff: **20** Open positions: **5**



Utilities

- In 2010, implemented geothermal HVAC systems
- The City of Chesapeake provides water and sanitary sewer service
- Natural gas is provided by Virginia Natural Gas
- Storm water is discharged via a detention pond on the site into the open drainage structure in Chesapeake
- Street lighting and electrical power is provided by Dominion Virginia

Environmental Considerations

- Executive Order 77 - reduction of single-use plastics
- Geothermal HVAC system cut energy consumption compared to standard units
- All homes are LEED certified, as well as Building 1

Key Considerations

Annual O&M: [●] Annual CAPEX: [●]

Facility acreage significantly reduced.
Facility completed under Design-Build arrangement.
Project management of facility construction was done by DGS.

Facility 7: Southern Virginia Mental Health Institute

Table 29: Southern Virginia Mental Health Institute Facility Profile

Location	382 Taylor Drive, Danville Virginia 24541
Buildings	Total number of buildings: **2 (71,400 sqft)** ▪ Buildings in Use: **2 (71,400 sqft)** ▪ Vacant Buildings: **0 (0 sqft)**
	Acreage: **19.3 acres**
Building & Grounds Staff	Total current staff: [●] Open positions: [●] [Org chart to be added]
Utilities	▪ The site is served by City of Danville's water system, sanitary sewer system, natural gas system and electrical power system ▪ The main building has a stand-by emergency diesel-generator mounted on an above ground storage tank ▪ Recent improvements include interior renovations for greater efficiency in operation and the completion of an energy performance contract that replaced
Environmental Considerations	▪ Use LED lights ▪ Transitioning away from paper products ▪ HVAC was updated 10 years ago to be more sustainable
Key Considerations	Annual O&M: [●] Annual CAPEX: [●] [To be added, as necessary]

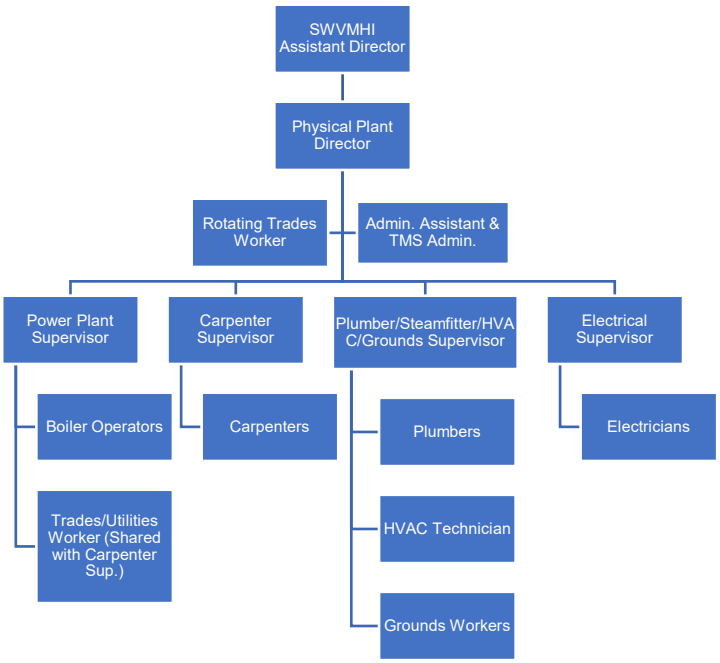
Facility 8: Southwestern Virginia Mental Health Institute

Table 30: Southwestern Virginia Mental Health Institute Facility Profile

Location	340 Bagley Circle, Marion Virginia 24354
Buildings	Total number of buildings: **22 (414,076 sqft)** ▪ Buildings in Use: **16 (315,466 sqft)** ▪ Vacant Buildings: **6 (98,610 sqft)**
	Acreage: **110 acres**

Building & Grounds Staff

Total current staff: [●] Open positions: [●]



Utilities

- The power plant provides central steam for heating and domestic hot water
- The power plant is gas fired with fuel oil back up
- Electrical distribution on the site is provided by Appalachian Power Company
- The Town of Marion serves the water and sanitary sewer needs of the site
- Telecommunication services are provided by Sprint

Environmental Considerations

- Southwestern had an ESG group that reviewed sustainability from a water, electrical, lighting perspective
- The facility also has a recycling process for plastics and metals
- Southwestern was part of a comprehensive energy efficiency study in 2005 and 2006 that reviewed sustainability and the facility implemented these recommendations

Key Considerations

Annual O&M: [●] Annual CAPEX: [●]

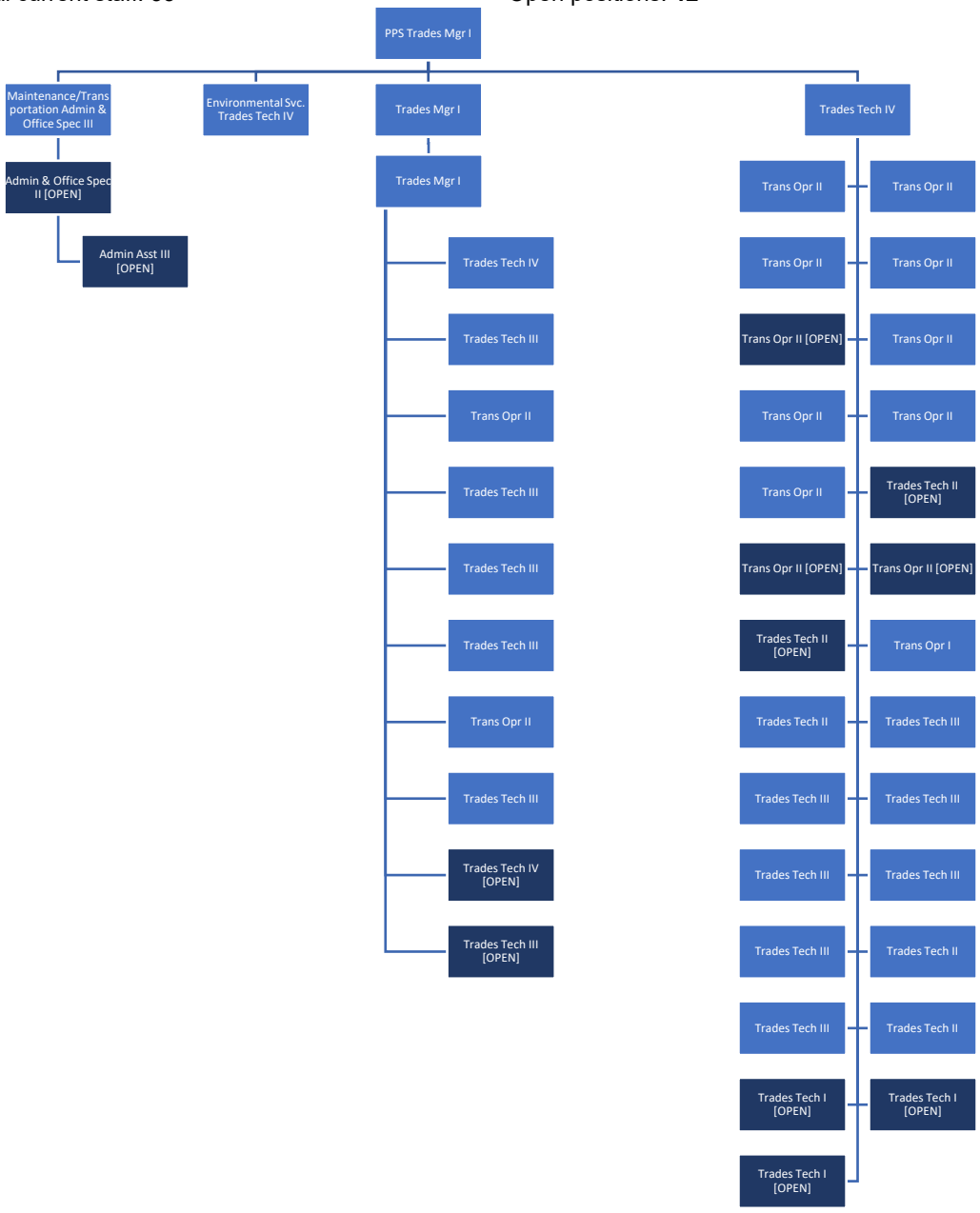
Southwestern has an ESG group that reviews sustainability from a water, electrical, lighting perspective. The facility also has a recycling process for plastics and metals.

Virginia Department of Behavioral Health & Developmental Services

Facility 9: Western State Hospital and Commonwealth Center for Children and Adolescents

Table 31: Western State Hospital and Commonwealth Center for Children and Adolescents Facility Profiles

Location	WSH: 103 Valley Center Drive, Staunton, Virginia 24401 CCCA: 1355 Richmond Rd, Staunton, Virginia 24401
Buildings	Total number of buildings: **2 (462,229 sqft)** ▪ Buildings in Use: **2 (462,229 sqft)** ▪ Vacant Buildings: **0 (0 sqft)**
	Acreage: **96 acres**
Building & Grounds Staff	**WSH:** Total current staff: **33** Open positions: **12**



Appendix A: Facilities Profiles

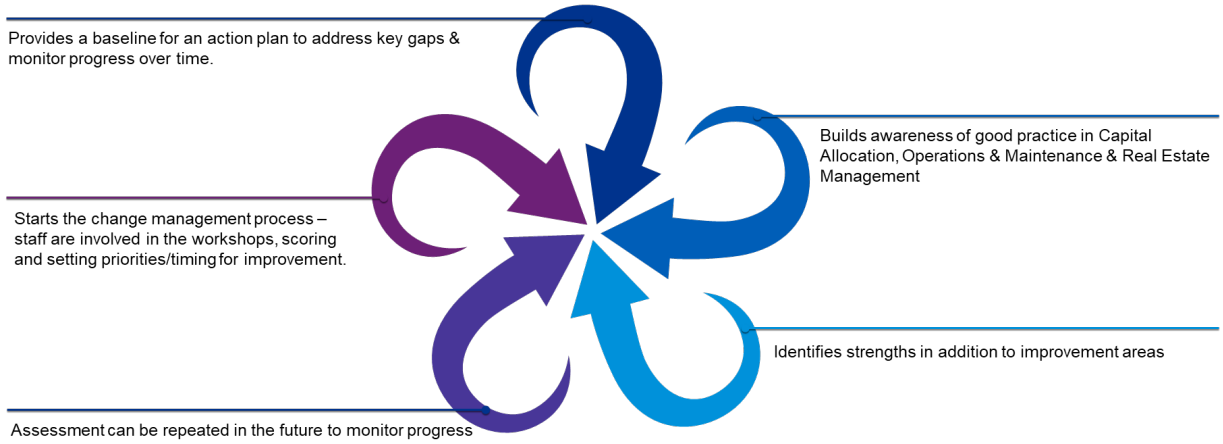
Building & Grounds Staff	**CCCA:** Total current staff: [●] Open positions: [●] [Org chart to be added]
Utilities	▪ The site is served by the Augusta County Service Authority provides for their water service ▪ The Augusta County Service Authority provides sanitary sewer ▪ Commonwealth Gas provides natural gas service ▪ Dominion Power provides electrical service ▪ The main building has a stand-by emergency diesel-generator mounted on an above ground storage tank.
Environmental Considerations	▪ WSH is a newer construction and has sustainability factored into the design of the building
Key Considerations	Annual O&M: [●] Annual CAPEX: [●] WSH is a newer construction and has sustainability factored into the design of the building.

I. Appendix B: AMBR Tool

Assessment Overview

The AMBR assessment analyzes each facility's current and desired future state across DBHDS facilities to identify strengths and areas for improvement across the six focus areas and 39 themes of the facilities and organization planning review. KPMG worked with DGS and DBHDS to tailor the AMBR tool themes and focus areas to fit the engagement objectives outlined by DGS and DBHDS as well as the requirements set forth by the Virginia General Assembly. The assessment is based on the assessment of planning and practices, not assets.

Figure 7: Assessment Features



Approach

The AMBR assessment analyzed each facility's current situation ("As-Is") and desired future state ("To-Be") across the following timescales:

- Short Term - 12 months (Fall 2022)
- Medium Term - 2 years (Fall 2023)
- Long Term - 5 years (Fall 2026)

The facilities are rated across six focus areas and 39 themes, analyzing a facilities level of maturity across each theme. A maturity level of five indicates the facility represents a leading in class interpretation of a specific theme. The AMBR tool focuses on policies and processes to provide the foundation for a roadmap and improvement plan. The current and future situations are visualized in a maturity scale and radar graph.

Figure 8: Assessment Maturity Scale

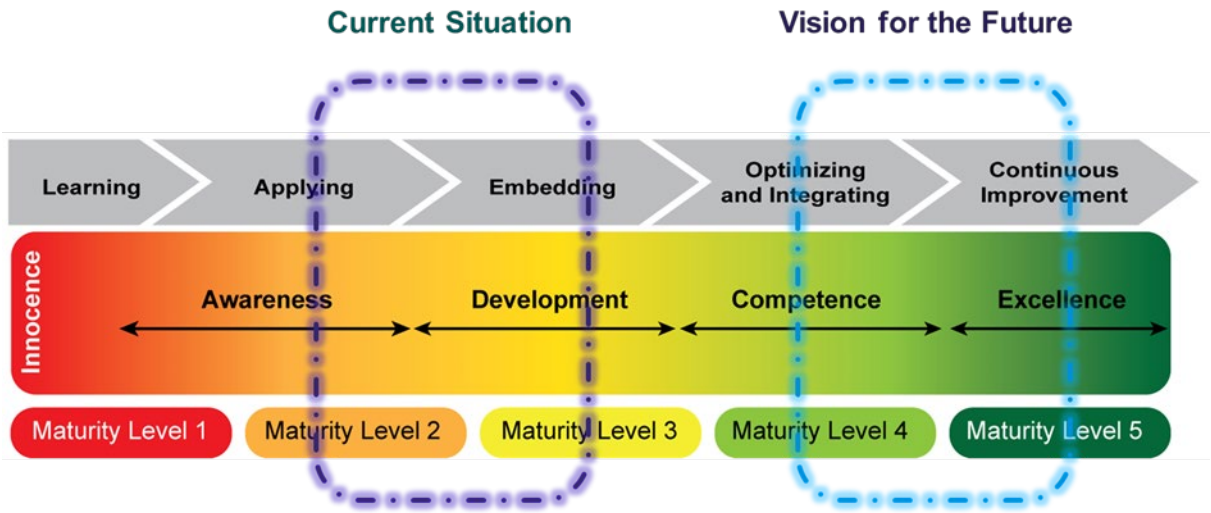


Figure 9: Focus Areas and Themes

Organization Context	1	Organizational Strategic Plan & Organizational Objectives
	2	Sustainability
	3	Understanding Stakeholder strategy and needs by population and facility
	4	Performance Reporting
	5	Objectives - Performance Metrics/Levels of Service
Investment Planning	6	Risk to Service Delivery
	7	Future Trends (Impact Of Growth, Climate Change, etc.)
	8	Legal, Regulatory & Statutory Requirements
	9	Optimized Asset Intervention Planning
	10	Asset Strategies
	11	Asset Management Plans
	12	Capital Investment Plan Development
	13	Risk - program level
Investment Delivery	14	Commercial Focus (Project Delivery.)
	15	Capital Projects - Planning, Design, Construction & Commissioning
	16	Post Implementation Review
	17	Financial - Budgeting
	18	Funding

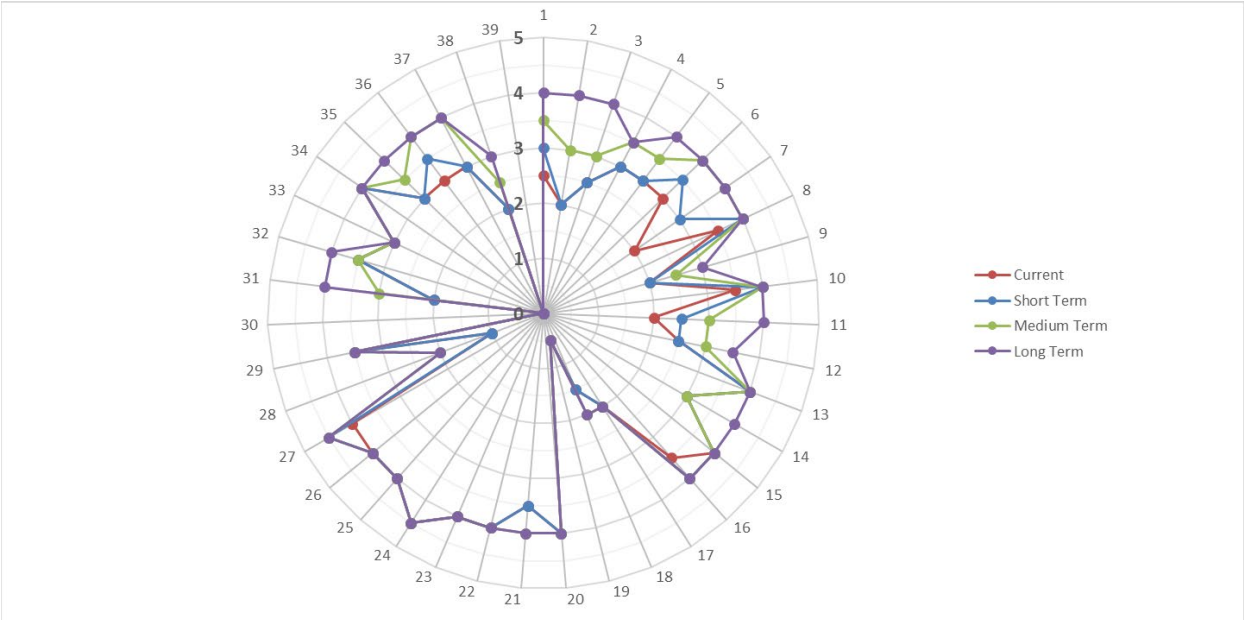
Maintenance & Operations	19	Maintenance Reserve Funds Management
	20	Operations Management – Procedures
	21	Org Design and Roles & Responsibilities
	22	Operations Management - Staffing & Scheduling
	23	Operations Management - Demand Management
	24	Maintenance Management - Strategy
	25	Investigation and Recording of Routine Asset Failures & Reactive Work
	26	Commercial Focus (Ops & Maint.)
	27	Contracted Operations & Maintenance
Real Estate Management	28	Facility & Land Needs
	29	Space Allocation & Changes
	30	Lease Management
Enablers	31	Business Applications
	32	Asset Inventory
	33	Asset Information
	34	Information Management
	35	Data analytics
	36	Quality Assurance & Management Review
	37	Prioritized Plan for the Development of Skills & Competences
	38	Capital Governance
	39	Asset Accounting, Valuation, and Cost Capture

KPMG facilitated ten workshops encompassing thirteen DBHDS facilities to review and assess the current state and desired future state of each of the 39 themes identified with DGS and DBHDS. The workshops included representation from the DBHDS Central Office and facilities management and staff responsible for the six themes including organization context, investment planning, investment delivery, maintenance and operations, real estate management, and enablers. Each theme was presented to the workshop participants through KPMG's AMBR tool to assess facility maturity with each identified theme. A screen shot of the AMBR tool is provided in the below figure.

Figure 10: KPMG Tool – Example Asset Management Baseline Review (AMBR)

Following the completion of each workshop, the facilities participants were provided with a radar graph visualizing the current and desired future states of each facility across all 39 themes. An example radar graph is shown in the below figure, and all facility radar graphs can be found in Appendix C.

Figure 11: Example Radar Chart

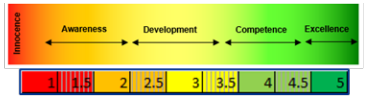


Virginia Department of Behavioral Health & Developmental Services

J. Appendix C: Assessment Results & Notes

Current (As-is) Maturity

Figure 12: Summary of Current Maturity Scores, All Facilities



	Theme	Current: Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	2	5	3	2	3	2.5	3	2.5	2	4
2	Sustainability	2	4.5	3	2	2	2	2	2.5	1	2
3	Understanding Stakeholder strategy and needs by population and facility	3	4	4	3	3	2.5	5	3.5	3.5	2.5
4	Performance Reporting	1	4.5	4	2	2	3	1	2.5	2	3
5	Objectives - Performance Metrics/Levels of Service	3	4	2	2.5	4	3	3	3	2	3
6	Risk to Service Delivery	4	5	5	3.5	5	3	5	3.5	4	3
7	Future Trends (Impact Of Growth, Climate Change, etc.)	3	4	3	2	4	2	4	2.5	2.5	2
8	Legal, Regulatory & Statutory Requirements	3	4	4	3.5	4	3.5	5	4	4.5	3.5
9	Optimized Asset Intervention Planning	2	4	2	1	3	2	2	3	1.5	2.5
10	Asset Strategies	2	4	2	3	3	3.5	2	2.5	1	2.5
11	Asset Management Plans	1	2	1	3	2	2	1	2	2	2
12	Capital Investment Plan Development	3	3.5	3	3	3	2.5	3	3.5	1.5	1
13	Risk - program level	3	4	4	3	3	4	4	4	2	2
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	2	3	2	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4	4	3	4
16	Post Implementation Review	4	4	5	3	2	3.5	2	4.5	2	4
17	Financial - Budgeting	2	3	4	2.5	2	2	3	4	1.5	2
18	Funding	2	3	4	4	2	1.5	2	3	1	2
19	Reserve Funds Management	1	3	1	2	1	0.5	1	0	1	1
20	Operations Management - Procedures	4	4	4	4	3	4	4	4	3.5	3
21	Org Design and Roles & Responsibilities	3	4	2	4	5	3.5	4	4	4	4
22	Operations Management - Staffing & Scheduling	1	4	2	3	3	4	3	4	1.5	3
23	Operations Management - Demand Management	2	4	5	3	5	4	0	4.5	5	3.5
24	Maintenance Management - Strategy	2	2.5	4	3.5	3	4.5	3	4	2	3.5
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	3.5	3	2	3	4	3	4	2.5	3
26	Commercial Focus (Ops & Maint.)	3	3	3	2	3	4	3	3.5	3	3.5
27	Contracted Operations & Maintenance	4	4	5	4	4	4	3	4	4	4
28	Facility & Land Needs	3	4	5	2	3	1	2	3	1	3
29	Space Allocation & Changes	4	5	4	3	5	3.5	2	3	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	2	3.5	2	1.5	2	2	2	3	1.5	2
32	Asset Inventory	3	3	4	2.5	3	3.5	2	4	2	2
33	Asset Information	1	2.5	2	2.5	2	3	2	3	2	2.5
34	Information Management	3	3	4	3	3	4	3	4	3	2.5
35	Data analytics	2	3	3	2	3	3	1	3.5	2	2.5
36	Quality Assurance & Management Review	3	4	4	3	5	3	4	4	4	4
37	Prioritized Plan for the Development of Skills & Competences	2	4	4	4	5	3	5	4	3	3
38	Capital Governance	4.5	2.5	4	3	4	2	5	3.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	2	3	3	2	2	2	3	3	3	2

Appendix C: Assessment Results & Notes

Virginia Department of Behavioral Health & Developmental Services

Current Scores: Organizational Context

Figure 13: Current Maturity Scores, Organizational Context

		Current									
	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	2	5	3	2	3	2.5	3	2.5	2	4
2	Sustainability	2	4.5	3	2	2	2	2	2.5	1	2
3	Understanding Stakeholder strategy and needs by population and facility	3	4	4	3	3	2.5	5	3.5	3.5	2.5

Current Scores: Key Metrics

Figure 14: Current Maturity Scores, Key Metrics

		Current									
	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
4	Performance Reporting	1	4.5	4	2	2	3	1	2.5	2	3
5	Objectives - Performance Metrics/Levels of Service	3	4	2	2.5	4	3	3	3	2	3

Current Scores: Investment Planning

Figure 15: Current Maturity Scores, Investment Planning

		Current									
	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
6	Risk to Service Delivery	4	5	5	3.5	5	3	5	3.5	4	3
7	Future Trends (Impact Of Growth, Climate Change, etc.)	3	4	3	2	4	2	4	2.5	2.5	2
8	Legal, Regulatory & Statutory Requirements	3	4	4	3.5	4	3.5	5	4	4.5	3.5
9	Optimized Asset Intervention Planning	2	4	2	1	3	2	2	3	1.5	2.5
10	Asset Strategies	2	4	2	3	3	3.5	2	2.5	1	2.5
11	Asset Management Plans	1	2	1	3	2	2	1	2	2	2
12	Capital Investment Plan Development	3	3.5	3	3	3	2.5	3	3.5	1.5	1
13	Risk - program level	3	4	4	3	3	4	4	4	2	2

Current Scores: Investment Delivery

Figure 16: Current Maturity Scores, Investment Delivery

	Theme	Current									
		Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	2	3	2	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4	4	3	4
16	Post Implementation Review	4	4	5	3	2	3.5	2	4.5	2	4

Current Scores: Funding

Figure 17: Current Maturity Scores, Funding

	Theme	Current									
		Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
17	Financial - Budgeting	2	3	4	2.5	2	2	3	4	1.5	2
18	Funding	2	3	4	4	2	1.5	2	3	1	2

Current Scores: Maintenance Reserve

Figure 18: Current Maturity Scores, Maintenance Reserve

	Theme	Current									
		Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
19	Reserve Funds Management	1	3	1	2	1	0.5	1	0	1	1

Current Scores: Operations & Maintenance

Figure 19: Current Maturity Scores, Operations & Maintenance

		Current									
	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
20	Operations Management - Procedures	4	4	4	4	3	4	4	4	3.5	3
21	Org Design and Roles & Responsibilities	3	4	2	4	5	3.5	4	4	4	4
22	Operations Management - Staffing & Scheduling	1	4	2	3	3	4	3	4	1.5	3
23	Operations Management - Demand Management	2	4	5	3	5	4	0	4.5	5	3.5
24	Maintenance Management - Strategy	2	2.5	4	3.5	3	4.5	3	4	2	3.5
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	3.5	3	2	3	4	3	4	2.5	3
26	Commercial Focus (Ops & Maint.)	3	3	3	2	3	4	3	3.5	3	3.5
27	Contracted Operations & Maintenance	4	4	5	4	4	4	3	4	4	4

Current Scores: Real Estate Management

Figure 20: Current Maturity Scores, Real Estate Management

		Current									
	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
28	Facility & Land Needs	3	4	5	2	3	1	2	3	1	3
29	Space Allocation & Changes	4	5	4	3	5	3.5	2	3	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0

Appendix C: Assessment Results & Notes

Virginia Department of Behavioral Health & Developmental Services

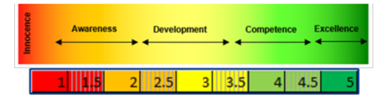
Current Scores: Enablers

Figure 21: Current Maturity Scores, Enablers

	Theme	Current									
		Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
31	Business Applications	2	3.5	2	1.5	2	2	2	3	1.5	2
32	Asset Inventory	3	3	4	2.5	3	3.5	2	4	2	2
33	Asset Information	1	2.5	2	2.5	2	3	2	3	2	2.5
34	Information Management	3	3	4	3	3	4	3	4	3	2.5
35	Data analytics	2	3	3	2	3	3	1	3.5	2	2.5
36	Quality Assurance & Management Review	3	4	4	3	5	3	4	4	4	4
37	Prioritized Plan for the Development of Skills & Competences	2	4	4	4	5	3	5	4	3	3
38	Capital Governance	4.5	2.5	4	3	4	2	5	3.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	2	3	3	2	2	2	3	3	3	2

Improvement Planning

Figure 22: Summary of Desired Maturity Scores in the Short, Medium, and Long-Terms, All Facilities



Short

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	3	5	4	3	4	3	4	3.5	2.5	4.5
2	Sustainability	2	4.5	3	2.5	3	2	2.5	2.5	2	2
3	Understanding Stakeholder strategy and needs by population and facility	3.5	4	4	3	4	2.5	5	3.5	3.5	3
4	Performance Reporting	2	4.5	4	3	2.5	3	2	3	3	3
5	Objectives - Performance Metrics/Levels of Service	3	4	2.5	2.5	4	3	3	3	2.5	3
6	Risk to Service Delivery	4	5	5	3.5	5	3.5	5	3.5	4	3
7	Future Trends (Impact Of Growth, Climate Change, etc.)	3	4	3	2	4.5	3	4	2.5	3	2.5
8	Legal, Regulatory & Statutory Requirements	3.5	4	4.5	3.5	4.5	4	5	4	5	4
9	Optimized Asset Intervention Planning	2.5	4	2.5	1.5	3.5	2	3	3.5	2	3
10	Asset Strategies	2.5	4	2.5	3	3	4	2.5	3	2	3
11	Asset Management Plans	1.5	2	2	3.5	3	2.5	2	3	3	3
12	Capital Investment Plan Development	3.5	3.5	3	3	3.5	2.5	3.5	3.5	2	2
13	Risk - program level	3.5	4	4	3	3.5	4	4	4.5	2.5	3
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	2.5	3	2.5	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4	4	3.5	4
16	Post Implementation Review	4	4	5	3.5	3	4	3	4.5	3	4
17	Financial - Budgeting	2	3	4	2.5	2.5	2	3.5	4	2	2
18	Funding	2	3	4	4	3	1.5	2	3.5	2	2
19	Reserve Funds Management	1	3	1	2	1	0.5	2	0	1	1
20	Operations Management - Procedures	4	4	4	4	3.5	4	4	4	4	3

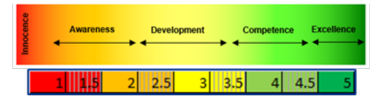
Med

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	3	5	4	3.5	5	3.5	4.5	4	3	5
2	Sustainability	3	4.5	4	3	3.5	3	3	2.5	2	2.5
3	Understanding Stakeholder strategy and needs by population and facility	4	4	5	3	4.5	3	5	4	4	3.5
4	Performance Reporting	2.5	4.5	4.5	3.5	3	3.5	3	3	4	3.5
5	Objectives - Performance Metrics/Levels of Service	3	4	3	3	4	3.5	3	3.5	3	3.5
6	Risk to Service Delivery	4	5	5	4	5	4	5	4	4	3.5
7	Future Trends (Impact Of Growth, Climate Change, etc.)	4	4	4	2.5	5	4	4	3	4	3
8	Legal, Regulatory & Statutory Requirements	4	4	5	3.5	5	4	5	4.5	5	4.5
9	Optimized Asset Intervention Planning	3	4	3	2	4	2.5	4	4	3	3.5
10	Asset Strategies	3	4	3	3	3.5	4	3	4	3	3.5
11	Asset Management Plans	2	2.5	2.5	4	4	3	3	4	3	3.5
12	Capital Investment Plan Development	4	3.5	3	3	4	3	4	4	3	2.5
13	Risk - program level	4	4	4	3	4	4	4.5	5	3	3.5
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	3	3	2.5	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4.5	4	4	4
16	Post Implementation Review	4	4	5	4	4	4	4	5	4	4
17	Financial - Budgeting	3	3	4.5	3	3	2	4	4.5	3	2
18	Funding	2	4	4	4	4	2	2	4	3	2.5
19	Reserve Funds Management	1	3	3	2	1	0.5	2	0	1	1
20	Operations Management - Procedures	4.5	4	4.5	4.5	4	4	4.5	4	4.5	3.5

Long

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	3	5	5	4	5	4	5	4.5	4	5
2	Sustainability	4	4.5	5	4	4	4	5	2.5	4	3
3	Understanding Stakeholder strategy and needs by population and facility	4	4	5	3.5	5	4	5	4	4	4
4	Performance Reporting	3	4.5	5	4	4	3.5	4	3	5	4
5	Objectives - Performance Metrics/Levels of Service	3	4	4	4	4	4	3	4	3	4
6	Risk to Service Delivery	4	5	5	4	5	4	5	4	5	4
7	Future Trends (Impact Of Growth, Climate Change, etc.)	4	4.5	5	3	5	4	5	4	5	3.5
8	Legal, Regulatory & Statutory Requirements	4	4	5	4	5	4	5	5	5	5
9	Optimized Asset Intervention Planning	3	4.5	4	3	4	3	5	5	4	4
10	Asset Strategies	4	4.5	4	3	4	4	4	5	4	4
11	Asset Management Plans	3	3.5	3	4	5	4	4	5	4	4
12	Capital Investment Plan Development	4	4	3	3	5	3.5	4	5	4	3
13	Risk - program level	5	4	5	4	5	4	5	5	3	4
14	Commercial Focus (Project Delivery.)	5	4	3	3	3	4	4	3	3	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	5	4	4	4
16	Post Implementation Review	4	4	5	4	5	4	5	5	5	5
17	Financial - Budgeting	3	3	5	3.5	4	2	5	5	4	2.5
18	Funding	2	4	5	4	5	2	2	5	4	2.5
19	Reserve Funds Management	1	4	5	2	1	0.5	2	0	4	1
20	Operations Management - Procedures	5	4.5	5	5	5	4	5	4	5	3.5

Figure 23: Summary of Desired Maturity Scores, All Facilities (continued)



Short

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
21	Org Design and Roles & Responsibilities	3	4	3	4	5	3.5	4	4	4	4
22	Operations Management - Staffing & Scheduling	1	4	3	3.5	4	4	3.5	4	2	3
23	Operations Management - Demand Management	2	4	5	3.5	5	4	0	4.5	5	4
24	Maintenance Management - Strategy	2	2.5	4.5	4	3.5	4.5	3.5	4.5	2.5	4
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	3.5	3.5	3	3.5	4	3.5	4.5	3	3.5
26	Commercial Focus (Ops & Maint.)	3	3	3.5	2	3.5	4	3.5	3.5	3.5	4
27	Contracted Operations & Maintenance	4	4	5	4	4.5	4.5	3.5	4.5	4	4
28	Facility & Land Needs	3	4	5	2	3.5	1	3	3	1	3
29	Space Allocation & Changes	4	5	4	3	5	3.5	2	3	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	2.5	3.5	2	2	2.5	2	2.5	3	2	2.5
32	Asset Inventory	3	3	4	3	3.5	3.5	3	4	2.5	2
33	Asset Information	1.5	2.5	2.5	3	2.5	3	2.5	3	2.5	3
34	Information Management	3.5	3	4	3	3.5	4	3.5	4	3.5	3
35	Data analytics	2	3	3.5	2.5	4	3	2	3.5	2.5	3
36	Quality Assurance & Management Review	3.5	4	4	3	5	3.5	4	4	4	4
37	Prioritized Plan for the Development of Skills & Competences	2.5	4	4	4	5	3	5	4	3.5	3
38	Capital Governance	4.5	3	4	3	4	2	5	3.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	2.5	3	3.5	2	2.5	2	3	3.5	3.5	3

Med

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
21	Org Design and Roles & Responsibilities	3	4	4	4.5	5	4	4	4.5	4	4
22	Operations Management - Staffing & Scheduling	1	4	4	4	5	4	4	4	3	3.5
23	Operations Management - Demand Management	3	4	5	4	5	4	0	5	5	4
24	Maintenance Management - Strategy	3	3	5	4	4	4.5	4	5	3	4
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	4	4	3.5	4	4	4	5	4	4
26	Commercial Focus (Ops & Maint.)	4	3.5	4	2	4	4	4	3.5	4	4
27	Contracted Operations & Maintenance	4	4.5	5	4	5	4.5	4	5	4	4.5
28	Facility & Land Needs	4	4.5	5	2	4	2	3.5	3.5	1	4
29	Space Allocation & Changes	4.5	5	4	3	5	3.5	3	3.5	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	3	3.5	2	2.5	3	3	3	4	3	3
32	Asset Inventory	4	3	4	3.5	4	3.5	4	4.5	3	3
33	Asset Information	2	3	3	3.5	3	3	3	3.5	3	4
34	Information Management	4	3.5	4.5	3.5	4	4	4	4.5	4	3
35	Data analytics	3	3.5	4	3	4.5	3.5	3	3.5	3	3.5
36	Quality Assurance & Management Review	4	4.5	4.5	4	5	4	4	4.5	4.5	4
37	Prioritized Plan for the Development of Skills & Competences	3	4.5	4.5	4	5	4	5	4.5	4	3.5
38	Capital Governance	5	3	4	3	4	2.5	5	4	0	3
39	Asset Accounting, Valuation, and Cost Capture	3	3	4	2	3	2.5	3.5	4	4	3.5

Long

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
21	Org Design and Roles & Responsibilities	4	4	5	5	5	4	4	4.5	4	4
22	Operations Management - Staffing & Scheduling	1	4	5	4	5	4	4	4.5	4	4
23	Operations Management - Demand Management	4	4	5	4.5	5	4	0	5	5	4
24	Maintenance Management - Strategy	3	3	5	4	5	4.5	5	5	4	4.5
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	4	5	4	5	4	5	5	4	4
26	Commercial Focus (Ops & Maint.)	4	4	5	3	5	4	5	3.5	4	4
27	Contracted Operations & Maintenance	4	5	5	4	5	4.5	5	5	4	5
28	Facility & Land Needs	4	5	5	2	4	2	4	4	1	4
29	Space Allocation & Changes	5	5	4	4	5	3.5	5	4	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	4	4	3	4	4	4	5	5	4	4
32	Asset Inventory	4	4	5	4	5	4	5	5	4	4
33	Asset Information	3	4	4	4	4	3	4	4	4	4
34	Information Management	4	4	5	4	4	4	5	5	5	3
35	Data analytics	3	4	5	5	5	4	4	4	4	4
36	Quality Assurance & Management Review	4	5	5	4	5	4	4	5	5	5
37	Prioritized Plan for the Development of Skills & Competences	3	5	5	4	5	4	5	4.5	4	4
38	Capital Governance	5	4	5	3	4	3	5	4.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	4	3.5	5	2	4	3	4	4	4	4

Virginia Department of Behavioral Health & Developmental Services

Current (As-Is) Maturity + Improvement Planning

Figure 24: Summary of Current and Desired Future Maturity Scores, All Facilities

Current

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	2	5	3	2	3	2.5	3	2.5	2	4
2	Sustainability	2	4.5	3	2	2	2	2	2.5	1	2
3	Understanding Stakeholder strategy and needs by population and facility	3	4	4	3	3	2.5	5	3.5	3.5	2.5
4	Performance Reporting	1	4.5	4	2	2	3	1	2.5	2	3
5	Objectives - Performance Metrics/Levels of Service	3	4	2	2.5	4	3	3	3	2	3
6	Risk to Service Delivery	4	5	5	3.5	5	3	5	3.5	4	3
7	Future Trends (Impact Of Growth, Climate Change, etc.)	3	4	3	2	4	2	4	2.5	2.5	2
8	Legal, Regulatory & Statutory Requirements	3	4	4	3.5	4	3.5	5	4	4.5	3.5
9	Optimized Asset Intervention Planning	2	4	2	1	3	2	2	3	1.5	2.5
10	Asset Strategies	2	4	2	3	3	3.5	2	2.5	1	2.5
11	Asset Management Plans	1	2	1	3	2	2	1	2	2	2
12	Capital Investment Plan Development	3	3.5	3	3	3	2.5	3	3.5	1.5	1
13	Risk - program level	3	4	4	3	3	4	4	4	2	2
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	2	3	2	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4	4	3	4
16	Post Implementation Review	4	4	5	3	2	3.5	2	4.5	2	4
17	Financial - Budgeting	2	3	4	2.5	2	2	3	4	1.5	2
18	Funding	2	3	4	4	2	1.5	2	3	1	2
19	Reserve Funds Management	1	3	1	2	1	0.5	1	0	1	1
20	Operations Management - Procedures	4	4	4	4	3	4	4	4	3.5	3
21	Org Design and Roles & Responsibilities	3	4	2	4	5	3.5	4	4	4	4
22	Operations Management - Staffing & Scheduling	1	4	2	3	3	4	3	4	1.5	3
23	Operations Management - Demand Management	2	4	5	3	5	4	0	4.5	5	3.5
24	Maintenance Management - Strategy	2	2.5	4	3.5	3	4.5	3	4	2	3.5
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	3.5	3	2	3	4	3	4	2.5	3
26	Commercial Focus (Ops & Maint.)	3	3	3	2	3	4	3	3.5	3	3.5
27	Contracted Operations & Maintenance	4	4	5	4	4	4	3	4	4	4
28	Facility & Land Needs	3	4	5	2	3	1	2	3	1	3
29	Space Allocation & Changes	4	5	4	3	5	3.5	2	3	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	2	3.5	2	1.5	2	2	2	3	1.5	2
32	Asset Inventory	3	3	4	2.5	3	3.5	2	4	2	2
33	Asset Information	1	2.5	2	2.5	2	3	2	3	2	2.5
34	Information Management	3	3	4	3	3	4	3	4	3	2.5
35	Data analytics	2	3	3	2	3	3	1	3.5	2	2.5
36	Quality Assurance & Management Review	3	4	4	3	5	3	4	4	4	4
37	Prioritized Plan for the Development of Skills & Competences	2	4	4	4	5	3	5	4	3	3
38	Capital Governance	4.5	2.5	4	3	4	2	5	3.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	2	3	3	2	2	2	3	3	3	2

Short

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	3	5	4	3	4	3	4	3.5	2.5	4.5
2	Sustainability	2	4.5	3	2.5	3	2	2.5	2.5	2	2
3	Understanding Stakeholder strategy and needs by population and facility	3.5	4	4	3	4	2.5	5	3.5	3.5	3
4	Performance Reporting	2	4.5	4	3	2.5	3	2	3	3	3
5	Objectives - Performance Metrics/Levels of Service	3	4	2.5	2.5	4	3	3	3	2.5	3
6	Risk to Service Delivery	4	5	5	3.5	5	3.5	5	3.5	4	3
7	Future Trends (Impact Of Growth, Climate Change, etc.)	3	4	3	2	4.5	3	4	2.5	3	2.5
8	Legal, Regulatory & Statutory Requirements	3.5	4	4.5	3.5	4.5	4	5	4	5	4
9	Optimized Asset Intervention Planning	2.5	4	2.5	1.5	3.5	2	3	3.5	2	3
10	Asset Strategies	2.5	4	2.5	3	3	4	2.5	3	2	3
11	Asset Management Plans	1.5	2	2	3.5	3	2.5	2	3	3	3
12	Capital Investment Plan Development	3.5	3.5	3	3	3.5	2.5	3.5	3.5	2	2
13	Risk - program level	3.5	4	4	3	3.5	4	4	4.5	2.5	3
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	2.5	3	2.5	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4	4	3.5	4
16	Post Implementation Review	4	4	5	3.5	3	4	3	4.5	3	4
17	Financial - Budgeting	2	3	4	2.5	2.5	2	3.5	4	2	2
18	Funding	2	3	4	4	3	1.5	2	3.5	2	2
19	Reserve Funds Management	1	3	1	2	1	0.5	2	0	1	1
20	Operations Management - Procedures	4	4	4	4	3.5	4	4	4	4	3
21	Org Design and Roles & Responsibilities	3	4	3	4	5	3.5	4	4	4	4
22	Operations Management - Staffing & Scheduling	1	4	3	3.5	4	4	3.5	4	2	3
23	Operations Management - Demand Management	2	4	5	3.5	5	4	0	4.5	5	4
24	Maintenance Management - Strategy	2	2.5	4.5	4	3.5	4.5	3.5	4.5	2.5	4
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	3.5	3.5	3	3.5	4	3.5	4.5	3	3.5
26	Commercial Focus (Ops & Maint.)	3	3	3.5	2	3.5	4	3.5	3.5	3.5	4
27	Contracted Operations & Maintenance	4	4	5	4	4.5	4.5	3.5	4.5	4	4
28	Facility & Land Needs	3	4	5	2	3.5	1	3	3	1	3
29	Space Allocation & Changes	4	5	4	3	5	3.5	2	3	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	2.5	3.5	2	2	2.5	2	2.5	3	2	2.5
32	Asset Inventory	3	3	4	3	3.5	3.5	3	4	2.5	2
33	Asset Information	1.5	2.5	2.5	3	2.5	3	2.5	3	2.5	3
34	Information Management	3.5	3	4	3	3.5	4	3.5	4	3.5	3
35	Data analytics	2	3	3.5	2.5	4	3	2	3.5	2.5	3
36	Quality Assurance & Management Review	3.5	4	4	3	5	3.5	4	4	4	4
37	Prioritized Plan for the Development of Skills & Competences	2.5	4	4	4	5	3	5	4	3.5	3
38	Capital Governance	4.5	3	4	3	4	2	5	3.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	2.5	3	3.5	2	2.5	2	3	3.5	3.5	3

Med

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	3	5	4	3.5	5	3.5	4.5	4	3	5
2	Sustainability	3	4.5	4	3	3.5	3	3	2.5	2	2.5
3	Understanding Stakeholder strategy and needs by population and facility	4	4	5	3	4.5	3	5	4	4	3.5
4	Performance Reporting	2.5	4.5	4.5	3.5	3	3.5	3	3	4	3.5
5	Objectives - Performance Metrics/Levels of Service	3	4	3	3	4	3.5	3	3.5	3	3.5
6	Risk to Service Delivery	4	5	5	4	5	4	5	4	4	3.5
7	Future Trends (Impact Of Growth, Climate Change, etc.)	4	4	4	2.5	5	4	4	3	4	3
8	Legal, Regulatory & Statutory Requirements	4	4	5	3.5	5	4	5	4.5	5	4.5
9	Optimized Asset Intervention Planning	3	4	3	2	4	2.5	4	4	3	3.5
10	Asset Strategies	3	4	3	3	3.5	4	3	4	3	3.5
11	Asset Management Plans	2	2.5	2.5	4	4	3	3	4	3	3.5
12	Capital Investment Plan Development	4	3.5	3	3	4	3	4	4	3	2.5
13	Risk - program level	4	4	4	3	4	4	4.5	5	3	3.5
14	Commercial Focus (Project Delivery.)	4	3.5	3	3	2	3	3	3	2.5	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	4.5	4	4	4
16	Post Implementation Review	4	4	5	4	4	4	4	5	4	4
17	Financial - Budgeting	3	3	4.5	3	3	2	4	4.5	3	2
18	Funding	2	4	4	4	4	2	2	4	3	2.5
19	Reserve Funds Management	1	3	3	2	1	0.5	2	0	1	1
20	Operations Management - Procedures	4.5	4	4.5	4.5	4	4	4.5	4	4.5	3.5
21	Org Design and Roles & Responsibilities	3	4	4	4.5	5	4	4	4.5	4	4
22	Operations Management - Staffing & Scheduling	1	4	4	4	5	4	4	4	3	3.5
23	Operations Management - Demand Management	3	4	5	4	5	4	0	5	5	4
24	Maintenance Management - Strategy	3	3	5	4	4	4.5	4	5	3	4
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	4	4	3.5	4	4	4	5	4	4
26	Commercial Focus (Ops & Maint.)	4	3.5	4	2	4	4	4	3.5	4	4
27	Contracted Operations & Maintenance	4	4.5	5	4	5	4.5	4	5	4	4.5
28	Facility & Land Needs	4	4.5	5	2	4	2	3.5	3.5	1	4
29	Space Allocation & Changes	4.5	5	4	3	5	3.5	3	3.5	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	3	3.5	2	2.5	3	3	3	4	3	3
32	Asset Inventory	4	3	4	3.5	4	3.5	4	4.5	3	3
33	Asset Information	2	3	3	3.5	3	3	3	3.5	3	4
34	Information Management	4	3.5	4.5	3.5	4	4	4	4.5	4	3
35	Data analytics	3	3.5	4	3	4.5	3.5	3	3.5	3	3.5
36	Quality Assurance & Management Review	4	4.5	4.5	4	5	4	4	4.5	4.5	4
37	Prioritized Plan for the Development of Skills & Competences	3	4.5	4.5	4	5	4	5	4.5	4	3.5
38	Capital Governance	5	3	4	3	4	2.5	5	4	0	3
39	Asset Accounting, Valuation, and Cost Capture	3	3	4	2	3	2.5	3.5	4	4	3.5

Long

#	Theme	Eastern State Hospital	Catawba Hospital	SE Virginia Training Ctr.	SW Virginia Mental Health Institute	DBHDS Central Office	WSH and CCCA	PGH & VCBR	Southern VA Mental Health Institute	CSH & HDMC	Northern VA Mental Health Institute
1	Organizational Strategic Plan & Organizational Objectives	3	5	5	4	5	4	5	4.5	4	5
2	Sustainability	4	4.5	5	4	4	4	5	2.5	4	3
3	Understanding Stakeholder strategy and needs by population and facility	4	4	5	3.5	5	4	5	4	4	4
4	Performance Reporting	3	4.5	5	4	4	3.5	4	3	5	4
5	Objectives - Performance Metrics/Levels of Service	3	4	4	4	4	4	3	4	3	4
6	Risk to Service Delivery	4	5	5	4	5	4	5	4	5	4
7	Future Trends (Impact Of Growth, Climate Change, etc.)	4	4.5	5	3	5	4	5	4	5	3.5
8	Legal, Regulatory & Statutory Requirements	4	4	5	4	5	4	5	5	5	5
9	Optimized Asset Intervention Planning	3	4.5	4	3	4	3	5	5	4	4
10	Asset Strategies	4	4.5	4	3	4	4	4	5	4	4
11	Asset Management Plans	3	3.5	3	4	5	4	4	5	4	4
12	Capital Investment Plan Development	4	4	3	3	5	3.5	4	5	4	3
13	Risk - program level	5	4	5	4	5	4	5	5	3	4
14	Commercial Focus (Project Delivery.)	5	4	3	3	3	4	4	3	3	3
15	Capital Projects - Planning, Design, Construction & Commissioning	4	4	4	3.5	4	4	5	4	4	4
16	Post Implementation Review	4	4	5	4	5	4	5	5	5	5
17	Financial - Budgeting	3	3	5	3.5	4	2	5	5	4	2.5
18	Funding	2	4	5	4	5	2	2	5	4	2.5
19	Reserve Funds Management	1	4	5	2	1	0.5	2	0	4	1
20	Operations Management - Procedures	5	4.5	5	5	5	4	5	4	5	3.5
21	Org Design and Roles & Responsibilities	4	4	5	5	5	4	4	4.5	4	4
22	Operations Management - Staffing & Scheduling	1	4	5	4	5	4	4	4.5	4	4
23	Operations Management - Demand Management	4	4	5	4.5	5	4	0	5	5	4
24	Maintenance Management - Strategy	3	3	5	4	5	4.5	5	5	4	4.5
25	Investigation and Recording of Routine Asset Failures & Reactive Work	4	4	5	4	5	4	5	5	4	4
26	Commercial Focus (Ops & Maint.)	4	4	5	3	5	4	5	3.5	4	4
27	Contracted Operations & Maintenance	4	5	5	4	5	4.5	5	5	4	5
28	Facility & Land Needs	4	5	5	2	4	2	4	4	1	4
29	Space Allocation & Changes	5	5	4	4	5	3.5	5	4	4	1.5
30	Lease Management	0	0	4	0	4	0	0	0	0	0
31	Business Applications	4	4	3	4	4	4	5	5	4	4
32	Asset Inventory	4	4	5	4	5	4	5	5	4	4
33	Asset Information	3	4	4	4	4	3	4	4	4	4
34	Information Management	4	4	5	4	4	4	5	5	5	3
35	Data analytics	3	4	5	5	5	4	4	4	4	4
36	Quality Assurance & Management Review	4	5	5	4	5	4	4	5	5	5
37	Prioritized Plan for the Development of Skills & Competences	3	5	5	4	5	4	5	4.5	4	4
38	Capital Governance	5	4	5	3	4	3	5	4.5	0	3
39	Asset Accounting, Valuation, and Cost Capture	4	3.5	5	2	4	3	4	4	4	4

Facility Assessment Notes

Catawba Hospital

Table 32: Catawba Hospital Workshop Notes

DBHDS Asset Management Assessment Catawba Hospital		08/09/2021 9:00 AM – 12:30 PM			
Attendees Cindy McDaniel, COO Kevin Smith, B&G Director Johnny Cross, B&G Structural Supervisor Rob Johnston, A&E Services Charles Law, CEO Cecil Hardin, CFO Robyn Wright, Purchasing Director		Facilitators Linnea Musselman Jeff Phillips			
	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ Catawba has short range maintenance plans. ▪ Catawba has long range system strategic flows, but they adjust every four years, providing challenges ▪ Catawba is expecting an immediate influx of staff (first one in 20 years) because of ARPA funding, but this may not be sustainable long term.	5	5	5	5
2	**Sustainability** ▪ Catawba considers itself a highly sustainable hospital, with examples of sustainable efforts listed below: ▪ Two municipal feeds to hospital plus 20 generators at 80 percent load capacity; operate own in-house water plant and have double redundancy pumps; an ESCO Plan, upgraded lighting, pumps, motor capacities; brand new roofs; efforts to remove invasive species in forests, etc. ▪ Catawba noted challenges achieving a score 5 because of the age of hospital	4.5	4.5	4.5	4.5
3	**Understanding Stakeholder Strategy and Needs by Population and Facility** ▪ As an example of understanding stakeholder needs, the hospital is making a big shift moving some patients to Western. ▪ Catawba undergoes efforts to respond to the communities' needs	4	4	4	4

	▪ There are three workgroups that review stakeholder needs and have set timelines				
4	**Performance Reporting** ▪ Multiple outside structures to follow for performance reporting. ▪ Catawba provides dashboards to executive board, looks at multi-year trends, and run facilities and maintenance activities through a computerized system. ▪ The hospital is not at a 5 because of lack of staffing to achieve full performance reporting.	4.5	4.5	4.5	4.5
5	**Objectives – Performance metric/levels of service** ▪ The facility conducts customer satisfaction surveys and analyzes these. ▪ Catawba uses an online tool to respond to customer surveys and responses. ▪ Catawba's goal is to have 0% downtime in its assets. ▪ Lack of staffing prevents the facility from achieving a 5	4	4	4	4
6	**Risk to Service Delivery** ▪ Risks to service delivery include environmental, cyber risks, patient violence, etc. ▪ Catawba collects data regularly to monitor its risks. ▪ Commonwealth sends in a risk analysis group and makes recommendation ▪ There is regular communication to staff on risks to service delivery and mitigation strategies.	5	5	5	5
7	**Future Trends (Impacts of Growth, Climate Change, etc.)** ▪ The facility is reaching out to difference organizations to review future trends, for example USGS. ▪ Double redundancy of systems ▪ The facility noted that political changes, e.g., the Governor, can result in shifting priorities on future trends	4	4	4	4.5
8	**Legal, Regulatory and Statutory Requirements** ▪ Have assigned people to look into regulations at the facility level ▪ Central office also works closely with the Governor and state legislature and disseminates information to the facilities	4	4	4	4
9	**Optimized Asset Intervention Planning** ▪ Every two years the facility performs an inventory of assets, during which they look at life expectancy of assets. ▪ The facility has an extensive preventative maintenance process, which incorporates PM treatments over the lifecycle of the assets.	4	4	4	4.5
10	**Asset Strategies** ▪ The facility has a plan to completely rebuild the hospital and one for major upgrades.	4	4	4	4.5
11	**Asset Management Plans**	2	2	2.5	3.5

	▪ Have an asset management plan with DBHDS; however, the facility does not have an asset management plan at the facility level because DBHDS provides this ▪ Recently put in request for a TMS coordinator, who could assist with developing AMPs, if needed.				
12	**Capital investment plan development** ▪ There is a rolling six-year capital investment plan ▪ The facility noted that changes in political appointees can change priorities in the capital investment plan.	3.5	3.5	3.5	4
13	**Risk – Program Level** ▪ The facility has adequate processes in place to assess program-level risks, as further described in #6.	4	4	4	4
14	**Commercial Focus (project delivery)** ▪ Alternative delivery is not often an approach that makes sense because of rules imposed on the hospital, but there is an approach in place dictated within the CPSM. The facilities can assess delivery models before going to the street for bid.	3.5	3.5	3.5	4
15	**Capital projects – planning, design, construction, and commissioning** ▪ A master contract administrator is in place, although the facility recognized the need for a PMO. ▪ The CPSM provides capital project procedures and governance processes throughout the full project lifecycle.	4	4	4	4
16	**Post Implementation Review** ▪ The facility is required to do a capital management plan, and required to do a review of projects post implementation ▪ Results of the post implementation review are shared with various committees and board, including across the facilities.	4	4	4	4
17	**Financial budgeting** ▪ The facility prepares a biennial budget request for DBHDS, as required department wide.	3	3	3	3
18	**Funding** ▪ Most funding is provided from the General Assembly, which is distributed by DBHDS across the facilities. ▪ However, the facility acknowledged ~50 sources of funding, and the facility reviews new sources of funding, as needed.	3	3	4	4
19	**Reserve Funds Management** ▪ DBHDS has a maintenance reserve fund in place, although facilities do not keep facility-level reserve funds. While the facility manages the maintenance reserve	3	3	3	3

	funds budgeted for the facilities by DBHDS, the facility acknowledged the need to improve upon this area at the department-wide level.				
20	**O&M - Procedures** ▪ The facility has adequate processes and procedures in place for its O&M practices, located within the TMS system. Supervisors assign duties to staff daily based on their competencies, and staff follow standard O&M procedures based on the processes outlined in TMS.	4	4	4	4.5
21	**Org Design and Roles and Responsibilities** ▪ Staff are well aware of their roles and responsibilities, and each technician has a backup who is also trained in the same skillset to ensure adequate resourcing of tasks if higher priority work is assigned. There is little/no duplication of activities.	4	4	4	4
22	**O&M Staffing and scheduling** ▪ There is a challenge achieving a score 5 without additional resources. However, as described in #21, staff are assigned to tasks daily by a supervisor based on skillsets. Catawba stated that the extraordinary work ethic of its staff contributes to the efficiency in the facility. ▪ With more labor, more preventative maintenance can be performed, leading to less downtime in the assets.	4	4	4	4
23	**O&M Demand Management** ▪ There are processes to prioritize work orders, standardized in TMS, and Catawba has an emergency management system in place. ▪ Work orders are manually recorded on site and then entered into TMS after the fact	4	4	4	4
24	**Maintenance Management Strategy** ▪ All maintenance work is given a risk assessment and assigned a corresponding work order. ▪ The facility's maintenance strategy is not asset risk based but is based on manufacturers' recommendations. ▪ The facility stated that regulatory requirements around maintenance already identify high risk assets, therefore a further risk assessment of the assets to determine the maintenance strategy is not needed.	2.5	3	3	3
25	**Investigations and Recordings of Routine Asset Failures and Reactive Work** ▪ There is an assigned person at the facility responsible for capturing and categorizing root cause of asset failures, although root cause analysis is not performed for all assets, only higher priority assets. ▪ The TMS system does flag re-occurring problems with the assets for maintenance	3.5	3.5	4	4
26	**Commercial Focus (ops & Main)** ▪ The facility has documented what the hospital can and can't do as far as the skillsets of its people, and contracted labor is used for work outside of the	3	3	3.5	4

	facility's core skillsets. However, a formal strategy for 'right-sourcing' is not documented. ▪ The facility sees value in developing a strategy but would require additional funding and resources to document.				
27	**Contracted Operations Maintenance** ▪ The facility defines and ranks performance of contractors, has reporting on its contractors, with staff inputs ▪ This area could be improved by having contractors more engaged	4	4	4.5	5
28	**Facility and Land Needs** ▪ There exist several master plans at the facility level, such as external maintenance/landscaping. This area could be improved by incorporating the real estate component. ▪ The sub-plans all inform each other; however, no master facility plan is in place at the facility level. ▪ These plans are posted on electronic bulletin boards to communicate with staff.	4	4	4.5	5
29	**Space Allocation Management** ▪ With the resources they have, the facility maintains high standards for space allocation. However, the facility acknowledged that a newer facility would most likely have higher quality standards.	5	5	5	5
30	**Lease Management** ▪ This area is not applicable for the facility, as the facility does not maintain a lease.	.5	.5	.5	.5
31	**Business Applications** ▪ The facility maintains a data warehouse across its business applications. ▪ Evolving toward a data sharing/health information exchange sharing across the facilities. ▪ There has been an effort to rationalize IT applications across DBHDS, and, to date, 297 disparate apps have been rationalized down to 27 applications. ▪ IT Systems could be improved by promoting integration of the systems.	3.5	3.5	3.5	4
32	**Asset Inventory** ▪ There is an inventory for assets valued at $5,000 or more or for assets that need to be controlled (firearms). The facility reviews the inventory every two years to ensure relevance. ▪ For assets valued below $5,000, these assets are maintained within the TMS system. ▪ The facility acknowledged the need to integrate the two systems to improve the asset inventory. However, the facility is mandated to use a separate procurement system that prevents integration. ▪ IT systems are managed by VITA, which has caused challenges across the facilities.	3	3	3	4

33	**Asset Information** ▪ The facility collects age and inventory data on its fixed assets. Condition ratings are not always tracked at the facility level but by the central office because central office manages funding allocations across the facilities and is aware of priorities. ▪ Data is collected but not always shared. ▪ The facility acknowledged the need for additional resources to obtain better data on its assets. ▪ Health and safety data are prioritized over asset data.	2.5	2.5	3	4
34	**Information Management** ▪ For critical assets and health and safety data, the facility is confident in the accuracy and currency of the data. However, with additional resources, the facility acknowledged there could be improvements.	3	3	3.5	4
35	**Data Analytics** ▪ Data is shared at committee levels across the facilities, and the facility performs data analytics and conducts reporting across multiple levels (e.g., internally, for committees, for DBHDS)	3	3	3.5	4
36	**Quality Assurance and Management Review** ▪ There is a board that provides management level reviews and audits. ▪ Additional auditing occurs both at the internal and external level, such as through the Joint Commission, financial auditing, etc. ▪ The level of review considers level of risk ▪ With more resources, the facility could improve upon its level of management reviews and audits.	4	4	4.5	5
37	**Prioritized Plan for the Development of Skills and Competencies** ▪ Competencies are written into every job description through the Employee Work Profile (EWP) and is managed by HR. ▪ The facility conducts annual performance evaluations, reports on employees' skills and competencies, and identifies future skills and training needs. ▪ Catawba had 11 people participate in professional development training and certification courses. Certification is a new initiative and is achieving more leadership support.	4	4	4.5	5
38	**Capital Governance** ▪ Department heads submit budget requests every year to DBHDS, who has a process in place to prioritize projects department-wide and allocate funds. ▪ DBHDS recently implemented an IT investment board as a governing body for IT projects. The facility suggested implementing a similar governance board for other capital projects beyond IT.	2.5	3	3.5	4

39	**Asset Accounting, Valuation, and Cost Capture** ▪ The facility conducts asset valuations every two years for assets over $5,000 ▪ The facility acknowledged that asset accounting and cost capture across all fixed assets would have a large resource implication to fully implement and may not be necessary as a state-owned facility.	3	3	3.5	3.5

Central State Hospital and Hiram W. David Medical Center

Table 33: Central State Hospital and Hiram W. David Medical Center Workshop Notes

DBHDS Asset Management Assessment Central State Hospital and Hiram W. Davis Medical Center		August 18, 2021 9:00 AM – 12:30 PM			
Attendees Brandi Justice Meghan Rene Susan Alabanza Ann Bailey Jarvis Griffin Andrew Conti, Jhonny Trejos		Facilitators Gareth Lifton Blair Trame Ingrid Waung			
	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ The facilities are aware of a DBHDS strategic perspective; there was a townhall meeting in which the Commissioner presented several documents such as the DBHDS Strategic Priorities ▪ Facilities were not consulted for input in this plan ▪ Former Commissioner, Dr. Melton, actively engaged facilities for feedback, but this new strategic plan was simply rolled out (With Dr. Melton, there was a lot of grassroots and local level participation / input) ▪ The new plan consists of a list of priorities and focus areas rather than concrete goals ▪ There is no short- and long-term plan, and the Strategic Plan does not include operationalization of the plan ▪ The refresh rate for such plans is typically every four years with each new administration	2	2.5	3	4

2	**Sustainability** ▪ Must follow EO77 - Single-use plastics ▪ Sustainability is a rich man's game; the facility has not had the budget to support continued sustainability efforts ▪ Sustainability was factored into the facility's previous strategic plan, but efforts tapered off as they did not have the budget ▪ Sustainability will be included in the new CSH facility's plan (implementation of recycling program) ▪ The facilities would find it helpful to have a framework with some structure/parameters to guide their efforts ▪ Sustainability with the power plant - there is a plan, but nothing detailed ▪ With the plant, sustainability is a structural problem rather than an emissions control issue ▪ New facility will have built-in monitoring and tracking for sustainability / carbon footprint	1	2	2	CSH – 4 HWDMC – 2
3	**Understanding Stakeholder strategy and needs by population and facility** ▪ Meet with stakeholders as needed; some to a greater extent than others ▪ There is a list identifying all stakeholders, particularly those who have a fiscal concern (there is ad-hoc communication with these stakeholders, and they are evaluated on an annual basis) ▪ The facility is engaged with clinical patients, courts, CSBs ▪ Region 4 has a business agreement about roles and expectations with hospitals and CSBs ▪ A lot of stakeholder participation – the facilities share stormwater management plans, environmental programs; reports issued to the community as well as community scorecards ▪ Stakeholders are generally known and there is documentation for various stakeholders – however, all stakeholders are not documented in one central document ▪ Different stakeholders have different deadlines and priorities ▪ Not sure if it is possible or whether it would add value to have a document prioritizing stakeholder needs	3.5	3.5	4	4
4	**Performance Reporting** ▪ KPIs reviewed monthly ▪ KPIs do align to organizational goals and priorities ▪ KPIs can be used toward capital investment (new facility) ▪ HWDMC is not a score 4; there is no dashboard, but there is talk of creating one ▪ Part of the dashboard challenge is not having the IT infrastructure	2	3	4	5

	▪ Have requested business intelligence solutions – this is a need from a departmental level ▪ From a Central Office perspective, there is a need to refresh KPIs to see what is and is not relevant				
5	**Objectives - Performance Metrics/Levels of Service** ▪ Assets are in such poor condition that they compromise the ability to provide customers with services ▪ Even if the facility looks at efficiency to respond to needs, they are extremely effective; they are in the 90th percentile when it comes to response; staff are technically adept ▪ High frequency of occurrence of asset outage (higher than industry averages), but they have quick response times ▪ No linkage between technical LOS	2	2.5	3	3
6	**Risk to Service Delivery** ▪ Proactive risk assessments, emergency contingency plans, backups ▪ A lot of the risk documentation is required by law ▪ Track events and care; frequency of events ▪ Condition assessments are performed through the preventive maintenance review ▪ Lots of risk assessments to operations (emergency planning and risk assessment / mitigation) ▪ There is no common risk framework used to assess assets ▪ If there was input from all stakeholders, then they can hit a 5 ▪ If the Central Office publishes a framework, oftentimes that solution is for the Office rather than the facility itself; one-size fits all systems often necessitates a duplicate system needed for the individual facility ▪ It would require significant amount of work to get to 5	4	4	4	5
7	**Future Trends (Impact of Growth, Climate Change, etc.)** ▪ Growth projections are performed by the Central Office looking at overall needs of the state ▪ Because the facility is part of the Municipal Separate Storm Sewer System (MS4), it has access to more knowledge regarding the impact of climate change because it needs to monitor stormwater impact ▪ Difficult to manage future trends due to gubernatorial turnover every four years ▪ Planning for the future is a luxury because they are currently trying to put out fires rather than looking forward and being proactive ▪ The whole system only responds to broken, not preventive maintenance; not looking at future planning	2.5	3	4	5

8	**Legal, Regulatory & Statutory Requirements** ▪ There are procedures assigned for accountability ▪ Inspections are scheduled via the work order management system ▪ There are mechanisms to submit requests to Central Office, which then fights for things on a legislative level ▪ Stronger mechanisms in place for clinical than in facilities ▪ Everyone is certified or accredited	4.5	5	5	5
9	**Optimized Asset Intervention Planning** ▪ Lease vehicles, cheaper upfront costs, low maintenance costs ▪ Current vehicle fleet barely meets needs ▪ Little say on maintenance and intervals of maintenance ▪ Lifecycle tracking is not useful here because everything is way beyond useful life; everything is run to failure; when things do fail, they have a contingency plan ▪ There are lots of business constraints, including requirement to take the lowest bid ▪ Need policy and infrastructure changes; need to be able to automate and log miles, and for resources to follow behind ▪ For specific assets, the facility is tracking the lifecycle, but it is not a functional approach to how they do business ▪ Show trends over time, but not included in general fund dollars (may remain static)	1.5	2	3	4
10	**Asset Strategies** ▪ There is an approach for routine maintenance and lifecycle management ▪ With the new facility, there will be brand new assets and they will be able to implement strategies ▪ Score of '5' may not be achievable because the lowest and best bids are different – getting to level '5' would require policy change	1	2	3	4
11	**Asset Management Plans** ▪ Part of preventive maintenance documentation ▪ Know what the equipment is, where it is, useful life expectancy, and components ▪ The cumulative effect of the components is the building and grounds ▪ All items are monitored and tracked in the maintenance management system (TMS) ▪ Have ongoing TMS training (there was turnover in staff), so they are training new staff and using TMS as a tool to start making projections in plans ▪ New staff will be designated for using the TMS	2	3	3	4
12	**Capital Investment Plan Development** ▪ Response to requests is low ▪ Inconsistent capital – it is on an as-needed basis	1.5	2	3	4

	▪ Competing priorities across the state with subjective elements influencing decisions for capital allocation ▪ No calculation of the infrastructure deficit ▪ CSH has a backlog (value of new facility) ▪ There was an Envelope project to invest in windows, doors, exteriors, and roof, but they did not receive any funding allocations; anticipate HWDMC is worth $300-500M ▪ There is no framework for capital investment ▪ Capital investment is a very political process ▪ Unsure how things are prioritized among the Central Office, but things coming from the General Assembly can be allocated to specific facilities				
13	**Risk - program level** ▪ Most of the program level risk would be considered by the Central Office ▪ New Central State Hospital will be delivered with a different approach – Facility will work directly with DGS rather than with the Central Office	2	2.5	3	3
14	**Commercial Focus (Project Delivery.)** ▪ There is no alternative delivery option; they do not have that luxury ▪ There are different delivery options available for larger facilities, but for the most part, Central Office sticks with DBB approach ▪ Early in the facility funding options, they had briefly discussed PPP options, but it was quickly dismissed ▪ Pilot program for dementia patients – working with private companies to open additional beds ▪ Alternative funding options are considered for other processes, but not for capital projects	2	2.5	2.5	3
15	**Capital Projects - Planning, Design, Construction & Commissioning** ▪ Managed by Central Office, guided by CPSM ▪ Not aligned to relevant lifecycle stages; lack of adherence of lifecycle stages	3	3.5	4	4
16	**Post Implementation Review** ▪ There is no formal review performed, but there are ad-hoc discussions on lessons learned ▪ However, if feedback is provided, there is no guarantee that there will be a change in process or how projects are managed in the future ▪ Went through a boiler control review at the steam plant, looked at condition and equipment utilization; The facility had requested a reliable engineering assessment but did not get the requested service from Central Office	2	3	4	5

	▪ There is no real guideline for how to handle when the Central Office does not respond with what was asked for				
17	**Financial – Budgeting** ▪ No capital expenditure budgets ▪ Facility also does not create their operational budget ▪ They are given funding and must make the most of it ▪ Pharmacy costs trends saw a dramatic increase, so they tried to advocate for more funding ▪ Expenses fluctuate from fiscal year to fiscal year, so it is difficult to use data to support action down the road ▪ Western State performed an assessment on expected savings from the new facility ▪ The assessment had identified financial risks, but no feedback was provided ▪ The funding the facility gets is what it historically receives, or maybe less in some cases ▪ Even with the new facility, they will still be responsible for the entire grounds, including security of derelict buildings	1.5	2	3	4
18	**Funding** ▪ No alternative funding options to explore at the facility level; this is held at the Central Office	1	2	3	4
19	**Maintenance Reserve Funds Management** ▪ There is a trust and emergency reserve fund at the Central Office level (rainy day funds) ▪ The idea is of interest to the group, but a lot would have to change for it to come to reality ▪ HVAC is all from operating budget, not capital budget ▪ Capital project is distinguished by a financial (dollar) threshold, not asset useful life	1	1	1	4
20	**Operations Management – Procedures** ▪ Significant documentation for all assets and O&M materials to remain in compliance ▪ Adequate training for staff – established timeframes and capture completion of training	3.5	4	4.5	5
21	**Org Design and Roles & Responsibilities** ▪ There is intentional overlap and cross training for mechanical trades ▪ There are contractors who know what they need to do ▪ Electrical, masonry, and plumbing contractors are used for supplemental work	4	4	4	4

	▪ Facility relies heavily on contractual work ▪ Roles are well understood and separated by specific disciplines ▪ Facility takes full ownership of assets for O&M				
22	**Operations Management - Staffing & Scheduling** ▪ Great difficulty in recruitment; historically low-paid compared to the market ▪ Adjust staffing for usage trends, but difficult to be proactive ▪ Workload has increased because of the conditions of the facility, which is why they rely heavily on contractors ▪ Staffing is not aligned to workload ▪ Try to adjust the mix of staffing based on what is needed, but cannot fill the positions because they cannot fund increases in pay unless they sacrifice other roles; losing positions in order to fill other positions because there is a flat budget ▪ Freeze positions and do what they can to create space in the budget ▪ Anticipate better alignment with the new hospital despite having the same budget	1.5	2	3	4
23	**Operations Management - Demand Management** ▪ There is a policy and process for triage and prioritization of needs ▪ Workflows exist for what happens off-shift ▪ Staff that operate the system are well-aware of the process/policy ▪ This is developed by PPS and implemented across CSH and HDMC ▪ Utilization of the process is well documented and executed ▪ External vendors/contractors are limited in area; Central Office uses the same people/providers (Wiley Wilson and Virginia A&E)	5	5	5	5
24	**Maintenance Management – Strategy** ▪ Majority of work is reactive ▪ There is a PM process, but the failure rate is very high ▪ Running assets to failure ▪ Try to have routine maintenance, but hard to meet staffing levels	2	2.5	3	4
25	**Investigation and Recording of Routine Asset Failures & Reactive Work** ▪ All costs, repairs, and maintenance are recorded in TMS ▪ Looking at building-to-building repair ratios ▪ No pick list/drop-down menu in TMS; enter freeform text manually in comments section ▪ Patient abuse is minor cause of reactive work compared to age-related root causes	2.5	3	4	4
26	**Commercial Focus (Ops & Maint.)** ▪ Try to get quotes on costs if they were doing things in-house versus using contracting services	3	3.5	4	4

	▪ Job order contracts exist; utilize contract maintenance (outsource drivers contractually), but not always feasible ▪ Have not performed a full CBA ▪ Narrow procurement process only allows them to use certain vendors ▪ Need to use a bid process for jobs that are not regularly performed, but difficult to get people out to perform the job too				
27	**Contracted Operations & Maintenance** ▪ There is a procurement process in which they review contractors ▪ Contractor must still provide a quote and the facility measures the deliverables on the quote as well as the warrantee on the work ▪ Direct supervisor is involved to assess the job was performed correctly and contractor provides description of the job performed in the report ▪ Wish they did not have such a narrow procurement policy to allow for more competitive bidding ▪ Had the right controls to manage the work and whether the contractor can deliver what is needed in the quote ▪ Contractor required to submit a written completion report ▪ There is a process to blackball vendors who cannot perform, but only after repeated failures or if there was a large-scale project failure	4	4	4	4
28	**Facility & Land Needs** ▪ Yes, there is a clear plan with respect to the new facility and knowing which buildings will be decommissioned ▪ However, there is no plan for what to do with the buildings that have been designated to be decommissioned; will have to see what opportunities arise ▪ Portfolio of buildings and facilities managed by Central Office ▪ The facility is still responsible for making sure the decommissioned buildings are not a safety hazard, must also provide security	1	1	1	1
29	**Space Allocation & Changes** ▪ Specific requirements for how to use spaces ▪ If they want to change how a space is used, requires approval ▪ HWDMC is unique because its patients are unique; designed for long-term care	4	4	4	4
30	**Lease Management** ▪ The facility leases vehicles but no buildings/real estate are leased ▪ State manages title documents	N/A	N/A	N/A	N/A
31	**Business Applications** ▪ Have a lot of homegrown systems ▪ Systems are not integrated	1.5	2	3	4

	▪ There is a push from Central Office to develop Enterprise Management System, but it is in its infancy				
32	**Asset Inventory** ▪ Asset Inventory is not centralized and there is no single complete system; there are some items in TMS, but multiple other systems are used to track items ▪ There is asset tracking for some items such as phone inventory ▪ Use TMS, OMNY	2	2.5	3	4
33	**Asset Information** ▪ Only have asset information for a portion of assets ▪ Consistent naming convention and modules; try not to use their own descriptors	2	2.5	3	4
34	**Information Management** ▪ Do not manage information for all assets, but rather only the critical assets are well documented (HVAC, steam plant, emergency generators)	3	3.5	4	5
35	**Data analytics** ▪ Data are being collected, but KPIs and ad-hoc metrics must be manually generated ▪ They are analyzing the data, but there is nothing automated ▪ There is no one who looks at, calculates, and trends the data	2	2.5	3	4
36	**Quality Assurance & Management Review** ▪ More audits and feedback than the facility needs ▪ Facility looks to make sure PPS policies and procedures are consistent and in compliance ▪ Evaluation of staff to make sure they have all necessary licenses and certifications ▪ Opportunities for more internal audit to have peer firms audit one another ▪ There is a lot of financial auditing, but not much auditing for asset management besides inventory reviews of assets above X value	4	4	4.5	5
37	**Prioritized Plan for the Development of Skills & Competences** ▪ EWPs exist, they include job descriptions and are updated annually ▪ Work with HR and use numerous recruiting tools with trade schools/organizations ▪ Oftentimes, the hiring pool has the skillset but not the experience ▪ Facility updates the EWP as they go into the hiring process ▪ No central document that lays this out ▪ Combination of HR processes and industry standards ▪ Using all resources available at the regional level ▪ To progress further, needs involvement from the Central Office	3	3.5	4	4

38	**Capital Governance** ▪ This is largely handled at the central office level and governed by CPSM	N/A	N/A	N/A	N/A
39	**Asset Accounting, Valuation, and Cost Capture** ▪ Must review all assets, there is an AMP from Central Office that includes contents of a building ▪ They do not actively depreciate assets, but they indicate what has been changed to the asset ▪ Insurance is managed by the Dept. of Treasury – coordinate with them for building and vehicle damage; also work with the Department of Risk Management ▪ Track labor and materials in TMS ▪ Work orders capture amount used toward labor and materials, which is tagged to specific assets	3	3.5	4	4

Eastern State Hospital

Table 34: Eastern State Hospital Workshop Notes

DBHDS Asset Management Assessment ***Eastern State Hospital***		**9 August 2021** **1:00 – 4:30pm**			
Attendees Dewey Jennings, Kevin Howard, David Pratt, Ron Davia, and Steve White		**Facilitators** Blair Trame and Ingrid Waung			
	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	**Current**	**Short Term (within 1 year)**	**Med. Term (within 2 years)**	**Long Term (within 5 years)**
1	**Organizational Strategic Plan & Organizational Objectives** ▪ There was a committee of 100 people (including Dewey and Kevin) that provided input for a strategic plan ▪ The commissioner was working on reorganizing the structure and strategic plan back in March ▪ The agency has a reorganization plan/vision, but this is not well communicated to the facility ▪ The Central Office has meetings with facility directors – this is a fairly new communication channel	2	3	3	3

	▪ Mission and core values are fleshed out in the strategy document, but these also aren't well communicated to the facilities ▪ There's a broader strategic plan, but Dewey hasn't seen it ▪ There are metrics to manage the staff/patience care ratio				
2	**Sustainability** ▪ Currently, there is no facilities sustainability plan ▪ In 2015, facility entered into energy performance contract ▪ This was an attempt to 'go green' as well as achieve savings ▪ Facility is actively swapping in LED lighting ▪ The agency is trying to reduce its carbon footprint (belief that there is a document in place at the Central Office) ▪ Executive Order 77 – reduce single use plastics	2	2	3	4
3	**Understanding Stakeholder strategy and needs by population and facility** ▪ Strategy is essentially dictated to facility by legislation, executive orders, etc. ▪ Facility has identified external and internal stakeholders and engages them on population needs ▪ Developing a plan will help move to 3.5 then identifying and addressing gaps will bring to level 4 ▪ Change of governor every four years makes long-term planning challenging due to shifts in leadership and priorities	3	3.5	4	4
4	**Performance Reporting** ▪ There are no current KPIs or performance metrics, with the exception of count of outstanding work orders ▪ Currently, a fair amount of data is captured in TMS, but this data is not analyzed or turned into metrics or KPI's ▪ Facility sees value in KPI's and would like to improve in this area ▪ Upgrade of work order management system (TMS) or provision of additional analytics support would help facility achieve these goals	1	2	2.5	3
5	**Objectives - Performance Metrics/Levels of Service** ▪ Customer LOS are well understood ▪ Technical LOS for assets are less defined and measured ▪ Facility does daily monitoring, including tracking external contractors ▪ The biggest challenge for levels of service and asset performance is asset age and fitness for purpose	3	3	3	3
6	**Risk to Service Delivery** ▪ 2-3 assessments completed on physical risk (ligature risks and self-harm); drive a lot of credentialling with the joint facilities ▪ Anti-ligature bathroom doors being installed	4	4	4	4

	▪ Facility would like to perform a bottom-up risk assessment, however the capital funds have not been there, so need to carve out funding elsewhere ▪ They currently have a good system to identify what needs to be replaced or what are potential risks. If they can't replace the item, then they'll take steps to mitigate risk				
7	**Future Trends (Impact of Growth, Climate Change, etc.)** ▪ They do a lot of extensive work on trends to estimate the size and type of population the facility will serve going forward ▪ The forensic population will most likely continue to grow for at least 5 years ▪ As for trends, they only look at hard-trending data. They've done scenario planning/analysis for revenue, but not on patient populations ▪ The prisons and jails have become the new asylum in the US, and they don't see a change coming ▪ Currently, staff turnover is a challenge – the facility is on modified admissions, because they can't hire the staff to care for these forensic patients ▪ The "Silver Wave" can affect DBHDS as a whole even if it doesn't affect ESH ▪ A potential risk is that state/federal policies may change, which presents a challenge to the facility to adapt to meet these new policies	3	3	4	4
8	**Legal, Regulatory & Statutory Requirements** ▪ The agency as a whole keeps up to date – it is a high priority given the industry and heavy regulation ▪ They do not account for future legislation ▪ Getting ready to rebuild Central State Hospital – if they know the population in 8 years, they may be at a score of 5. Otherwise, they won't.	3	3.5	4	4
9	**Optimized Asset Intervention Planning** ▪ No R&R budget ▪ No long-term planning for HVAC systems ▪ They perform lifecycle work for the units, but they don't set money aside for assets outside of lifecycle replacement ▪ Generally, they run assets to failure and replace ▪ Asset replacement is largely driven by replacing assets to avoid risk/respond to incident (e.g. replacing construction-grade toilet with 'hardened' asset) ▪ For items less than $50k, they'll take the lowest bid. Otherwise, they'll take the lowest responsible bid ▪ Policies in place to encourage use of SWAM vendors, which may add premium ▪ The aim is to perform EVM study before making major replacements	2	2.5	3	3

	▪ Limited accounting or consideration of lifecycle costs when evaluating options for new assets ▪ For vehicles, leases come from DGS. If the facility buys a vehicle outside of the DGS enterprise system, they must explain why they couldn't lease it from DGS ▪ Since they lease from DGS, they don't perform maintenance on the leased vehicles				
10	**Asset Strategies** ▪ Perform standard planning. Focus is on older assets, so they can forecast interventions as the assets age ▪ Maintenance staff is adept at maintaining assets, as there is limited budget for asset replacement/new assets ▪ Several years ago, there was a plan to consolidate the campus. $70M was requested to execute the plan. Only $12.5M was provided, thus a remodel was done instead of the campus consolidation	2	2.5	3	4
11	**Asset Management Plans** ▪ At current, there are no asset management plans ▪ Facility staff perform some of the elements of AMP's, but not codified in one central document ▪ Track assets by class (land, buildings, equipment, infrastructure) – but largely driven for financial purposes, i.e. depreciation ▪ They inventory assets every year, but there is no replacement plan ▪ The group sees value in developing asset management plans, but will need support and resources from State/DBHDS to do so	1	1.5	2	3
12	**Capital Investment Plan Development** ▪ A&E staff rank/prioritize capital needs and raise annual budget requests (follow process outlined by Dept. of Planning & Budget, which includes elements of business case) ▪ This is a structured and orderly process performed annually ▪ They do have long-range plans, including the six-year capital outlay plan	3	3.5	4	4
13	**Risk - program level** ▪ Part of the capital budget process ▪ Also addressed through elements of the Construction and Professional Services Manual ▪ There is interest in continuing to improve in this area with support from Central Office and other relevant state agencies	3	3.5	4	5
14	**Commercial Focus (Project Delivery)**	4	4	4	5

	▪ Follow the Capital Outlay Manual ▪ A comparative analysis of approaches is performed at the budget office ▪ Most projects are DBB				
15	**Capital Projects - Planning, Design, Construction & Commissioning** ▪ Capital Outlay Manual and Construction and Professional Services Manual provide guidance for these activities ▪ Both documents are updated regularly	4	4	4	4
16	**Post Implementation Review** ▪ Construction and Professional Services Manual provides guidance for these activities ▪ DBHDS develops projects with the facilities staff and there is process for gathering feedback after project completion ▪ There is documentation on project close out	4	4	4	4
17	**Financial – Budgeting** ▪ Currently, there is no zero-based budget in place ▪ There is methodology to estimate needs (again covered in documents listed in previous notes) - Finance tries to build in contingency for B&G since things pop up	2	2	3	3
18	**Funding** ▪ Most funding comes from the Central Office ▪ Occasionally, the facility can raise the white flag and the Central Office will provide additional funding if it's available ▪ Limited funding channels based on appropriations and allotments given ▪ There are some federal funds, but money mostly comes from the state and revenue generated at the facility	2	2	2	2
19	**Maintenance Reserve Funds Management** ▪ There is no maintenance reserve fund - If there was a regime like this in place, the facility would be an advocate ▪ Process for maintenance reserve (as in practice at DBHDS/facilities) outlined in Capital Outlay Manual	1	1	1	1
20	**Operations Management – Procedures** ▪ There are O&M manuals with high adherence ▪ Procedures are all in place at the facilities, but they're not constantly sustainable and effective due to limited staffing resources ▪ From an asset/resource management outlook, resources must be pulled from one activity to focus/support another activity. The first activity would no longer be	4	4	4.5	5

	maintainable, so there's not an effective level of staffing to maintain all working parts ▪ Agency is not fully automated, but wants to start utilizing automation systems ▪ Belief that implementation of new work order management system (replacement or upgrade of TMS) will help the Facility progress to level 5 – Once implementation begins, a key goal of Central Office is to make sure facilities adopt and are brought up to speed at the same pace. Want to ensure 100% utilization of the system by all facilities				
21	**Org Design and Roles & Responsibilities** ▪ The Facility is structured appropriately for their new population. Previously, they had clinical care and geriatric patients and were built as a full-scale nursing home. They became a hospital of last resort and started taking in inmates. Now, the facility is doing almost exclusively forensic work and taking in inmates. ▪ Because the customer base/patients have changed, patients are now destroying the physical property (doors, toilets, fire extinguishers, etc.) This has become incredibly expensive and the facility can't afford to harden all the assets at once – instead, they replace when they can ▪ Patching/fixing takes maintenance staff away from performing preventive maintenance ▪ Important consideration for this assessment is to distinguish how the facility/culture was functioning vs. how well the facility is able to handle this emergency that was dropped on them to take in offenders ▪ Previously, forensic patients would be given medication before being sent to the hospital. But now, the hospital must take them in within 10 days, or the inmate will come directly. Then they'll stabilize the patient and keep them for 60 days. ▪ Back in 2009, only 100 offenders would come a year. Now, it's about 100/month. There's a much quicker churn, folks are in and out fairly quickly ▪ With the Creigh Deeds law, is someone in the community must be admitted to a facility and there are no beds available anywhere else, the state must take them. Previously, they would just be let go. ▪ In 2009, projects included replacing HVAC and upgrading. Now, it's more like anti-ligature projects, switching from wood to metal doors, hardening all assets, and crisis management ▪ You can build your staff up to care for patients, but then the environment will be so unsafe because they can't perform the necessary repairs ▪ Until they can relieve the pressure from fragile infrastructure, they won't ever progress	3	3	3	4
22	**Operations Management - Staffing & Scheduling**	1	1	1	2

	▪ Right now, the facility is trying to hold it together, but a lot of the day-to-day is spent on repairing things, which takes away from preventive maintenance (see note above) ▪ There are a core B&G staff of ten people, working seven days a week. There are also some contractors ▪ If things don't change in the next 2-3 years (significant influx of funding to harden assets), the facility will implode on itself. ▪ For example, if repairs cannot be made, indoor air quality will drop, and the facility will not be suitable for 24/7 habitation ▪ The facility cannot score a 2 until more funding is provided for additional staff/contractors				
23	**Operations Management - Demand Management** ▪ There are procedures for triaging ▪ TMS is used to manage physical plant and operations ▪ A score of 4 is attainable once the new TMS system is implemented and adopted. Assumes training, change management support from DBHDS for new system	2	2	3	4
24	**Maintenance Management – Strategy** ▪ Majority of the work is reactive ▪ B&G includes housekeeping and safety, so it's hard to do anything but respond to critical needs ▪ Progress will depend on funding and resources (money for assets/asset hardening and staff) ▪ With the number of beds shut down, the team hopes they'll be able to catch up on maintenance. However, even with beds shut down, they won't be able to conduct the repairs without funding/resources/manpower, so assets would remain in the same condition	2	2.5	3	3
25	**Investigation and Recording of Routine Asset Failures & Reactive Work** ▪ Doing more root cause and tracking failure than they've ever done before ▪ Track in TMS – track toilet failures, bed failures, medical equipment failures/replacements, safe, shower, water, HVAC, etc. ▪ For any big/major failure, they perform a root cause analysis ▪ They can track everything; they just don't have the resources to address the failures ▪ The team is happy to sustain a score of 4. The goal is to not let that slip	4	4	4	4
26	**Commercial Focus (Ops & Maint.)** ▪ Hiring more contractors has been helpful ▪ Explored outsourcing landscaping, but that was too expensive	3	3	4	4

	▪ Contract with CII for HVAC maintenance – if funding doesn't come through to outsource maintenance and establish a contract, then in-house maintenance expenses will continue to rise				
27	**Contracted Operations & Maintenance** ▪ Currently have 20+ contracts at over $1M/year ▪ Maintain sign-in and sign-out sheets, invoices must be approved ▪ The current process is good and stable, hope that it will stay as is – Internal controls are tested annually ▪ Team effort between Kevin, David, and procurement to catch a lot of items through internal controls; they're actively checking for errors (There are four departments that work in tandem and communicate well to make internal controls effective)	4	4	4	4
28	**Facility & Land Needs** ▪ Facilities assessment on what we need was sent to the general assembly, but it got turned down; it was focused on buildings, square footage, and accommodating staff needs ▪ Needs are not listed in the facilities master plan ▪ Portion(s) of Facility's land is up for sale now – 10 acres has been set aside through surplus property process to be turned over to another entity	3	3	4	4
29	**Space Allocation & Changes** ▪ Standards and guidelines exist ▪ State has clear square footage requirements for everything – the facility is complying ▪ Joint commission and other regulatory commissions have strict requirements too, of which the facility is also in compliance	4	4	4.5	5
30	**Lease Management** ▪ N/A	N/A	N/A	N/A	N/A
31	**Business Applications** ▪ Use TMS as well as EHR (electronic health record system, and in-house (FMS) and state-wide financial systems ▪ The state-wide system is not an enterprise system and it's newly implemented ▪ They inventory computer assets, but cannot add/remove items from the system without approval ▪ The Central Office uses AIM to manage financial info and track construction projects ▪ Money invested in the in-house system is more on the maintenance side rather than adding new interfaces	2	2.5	3	4

	▪ The state is not keen to give money on developing the in-house system since the state-side one was newly implemented				
32	**Asset Inventory** ▪ Maintain an asset inventory (fixed and total assets) in a work management system (TMS) ▪ Inventory once a year (one year they'll do one that's internally financed and then have one externally performed in the off years) ▪ Track inventory, movements, what's in-service and out-of-service. Then put into the state-wide FACTS system (fixed assets tracking system) ▪ Room for improvement – add RFID barcodes to everything and track things better, but also would only be worthwhile if the new system can talk to FACTS ▪ Slow on loss-control tracking; probably only find out once inventory is completed	3	3	4	4
33	**Asset Information** ▪ It's been a while for a facilities condition assessment – need to revisit this question with Central Office ▪ Central Office did an assessment with the energy survey ▪ Track everything purchased and used for $500+ assets ▪ But for fixed assets (e.g. HVAC), conditions, longevity – have not done a condition assessment in the last 3 years	1	1.5	2	3
34	**Information Management** ▪ Information is reliable (accurate and current) for the most part; especially for bigger/more expensive items	3	3.5	4	4
35	**Data analytics** ▪ For real estate, buildings, and assets, Facility does not have data analysis capabilities ▪ Data collected using TMS and data from DGS (buildings, facilities, and land use/surplus); however, there is limited analyzing of collected data ▪ Need systems that talk to each other, so people have access to data and help with the decision making	2	2	3	3
36	**Quality Assurance & Management Review** ▪ They have external auditors that visit and review facility ▪ Audit every 3 years with joint commissioner of American Hospitals ▪ Auditor on-site too, but mostly along the lines with patient care	3	3.5	4	4

	▪ Quarterly reports through TMS that track compliance; gives percentage of how well they're meeting regulatory requirements ▪ Audit is not for space				
37	**Prioritized Plan for the Development of Skills & Competences** ▪ No plan currently in place ▪ Want to establish a community college pipeline ▪ There's a pipeline for clinical/patient care staff – pay for their tuition, certifications, and training, but not for B&G	2	2.5	3	3
38	**Capital Governance** ▪ Follow policies and procedures outlined in Construction and Professional Services Manual ▪ Work closely with DGS to collect and log as-built drawings and manuals ▪ Expenses have been keyed to the wrong project in the past, but caught with internal controls	4.5	5	5	5
39	**Asset Accounting, Valuation, and Cost Capture** ▪ Struggle with communication and projects in the works (CIP), making sure that info is communicated effectively and in a timely manner ▪ Not tracking costs to specific assets or lifecycle costs ▪ Goal is for the new TMS system to track asset maintenance/lifecycle costs	2	2.5	3	4

Northern Virginia Mental Health Institute

Table 35: Northern Virginia Mental Health Institute Workshop Notes

DBHDS Asset Management Assessment CCCA and WSH Hospital	08/26/2021 10:30 PM – 2:00 PM
Attendees Savneet Brar, CFO Glynis Laborde, COO Amy Smiley, CEO (by phone) Steve White, Central Office (by phone) Ron Davia, Central Office	Facilitators Linnea Musselman Jeff Phillips

Appendix C: Assessment Results & Notes

Virginia Department of Behavioral Health & Developmental Services

	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ Central office recently underwent an effort to develop a strategic plan and provided facilities with the opportunity to give feedback into the plan. ▪ NVMHI is developing its own strategic plan at the facility level to align with the central office plan.	4	4.5	5	5
2	**Sustainability** ▪ The facility does not have a centralized sustainability plan but does have some initiatives in place on an ad hoc basis, including recycling, sustainable light bulbs, etc. ▪ The facility noted that recycling efforts are challenging because of how Fairfax County uses one waste management service for both trash collection and recycling pickup. ▪ The facility would like more guidance from the central office level as to statewide sustainable efforts. ▪ Executive Order 71 has been challenging because of safety issues and, as such, the facility has only been able to implement marginally and has spent significant effort writing up waiver requests.	2	2	2.5	3
3	**Understanding Stakeholder Strategy and Needs by Population and Facility** ▪ The facility has a general understanding of their internal and external stakeholder needs but does not have this documented in a formalized manner. ▪ The facility would like to increase its stakeholder engagement and level of documentation.	2.5	3	3.5	4
4	**Performance Reporting** ▪ The facility has KPIs on core measures, but there is no dashboard in place. ▪ Facilities are required to submit a monthly dashboard report to central office. While there is a new effort at the central office to collect performance measures from the facilities, the metrics collected are at a high level, and NVMHI would like to see performance metrics tracked at a more granular level. ▪ For facilities, there is minimal performance reporting. ▪ Have captured all the key drivers but have not reached a level of full organizational transparency.	3	3	3.5	4
5	**Objectives – Performance metric/levels of service** ▪ NVMHI has a good understanding of what its desired outcomes are and customer levels of service and what measures are required to maintain these customer levels of service.	3	3	3.5	4

	▪ However, there are challenges maintaining these levels of service due to issues with the physical plant, staffing, and capital resourcing.				
6	**Risk to Service Delivery** ▪ NVMHI conducts high-level risk assessments but does not use a proactive approach to managing and monitoring risks. ▪ The facility would like to take a more proactive approach to risk management but believes lack of adequate resources is a challenge in this area. Currently, one FTE was approved in this area, but the open requisition for this position has not been filled in over a year because of competition from private sector. ▪ The facility believes this area as a key improvement area and acknowledges that data systems and supporting IT infrastructure is critical to grow in this area.	3	3	3.5	4
7	**Future Trends (Impacts of Growth, Climate Change, etc.)** ▪ The facility has a general understanding of future regional trends. Some individuals have an awareness of future trends from prior experience. ▪ Currently, the facility is at or over capacity and will continue to remain so. The facility generally believes that it responds to trends in a reactive manner because of the urgency of the environment. ▪ The facility has not been engaged in conversations on future trends. ▪ The facility would like more formal documentation from experts on this; however, this would require leadership and support from the central office coupled with enhanced IT resources. ▪ The facility is planning for a new facility in five years because the central office understands the facility is underserving the community.	2	2.5	3	3.5
8	**Legal, Regulatory and Statutory Requirements** ▪ There is a high level of expertise in this area; however, from an implementation perspective, due to a shortage of resources, the facility acknowledges challenges fully documenting and proactively monitoring requirements. ▪ Much of the staff has significant Joint Commission experience and the facility recently requested a supplemental in-depth audit to occur on the facility. ▪ Would like more staffing and resources to execute better in this area.	3.5	4	4.5	5
9	**Optimized Asset Intervention Planning** ▪ Asset intervention planning is not linked to the budgeting process. ▪ Assets exist that are not currently tracked/maintained in their inventory and, as such, asset planning does not consider these assets. Assets that are inventoried are maintained in disparate locations, including central office and some maintained in TMS. ▪ Many siloed systems within the organization prevent creation of a dashboard and executive level oversight, which, if integrated, could help improve the level of asset intervention planning.	2.5	3	3.5	4

	▪ Overall, the facility would like to see improvements in this area to help aid in its investment decision-making.				
10	**Asset Strategies** ▪ NVMHI does not have a long-term asset strategy in place, citing lack of staffing and IT resources to implement a strategy. ▪ The facility is in the process of organizational planning and enhancing the line of sight from the central office's strategic plan to the facility-level strategic plan.	2.5	3	3.5	4
11	**Asset Management Plans** ▪ The facility has sufficient information to create an asset management plan but does not have a formalized, central document. ▪ The facility has a strong desire to develop an asset management plan. ▪ The facility would like improvements in the supporting IT systems/integration to help aid in the development of asset management plans and to make data-driven decisions in the assets.	2	3	3.5	4
12	**Capital investment plan development** ▪ The Central office sends annual requests for lists of improvements, which are selected by the central office on priority level, such as whether the improvements address safety needs. ▪ The facility does not make detailed capital investment plans, as the central office is responsible for prioritizing the capital plan. ▪ The facility noted that highest risk areas, from a safety perspective, are not always the areas that are first replaced, such as ligature risks, for which the facility has been flagged for by the Joint Commission and for which they have not received funding, causing a safety incident at the facility. ▪ Improvements to capital investment plan development are dependent improvements to the process at the central office level.	1	2	2.5	3
13	**Risk – Program Level** ▪ For major capital projects there is a risk assessment, but for smaller projects there is variance in how risks are managed and mitigation from project to project. ▪ Turnover has affected the ability to provide a consistent approach to risk management, and the facility is currently building out a strong team.	2	3	3.5	4
14	**Commercial Focus (project delivery)** ▪ Very defined processes are in place through CPSM. ▪ At the facility level, there is no ability to look at alternative delivery models beyond those identified in the CPSM.	3	3	3	3
15	**Capital projects – planning, design, construction, and commissioning** ▪ Documented processes are in place through the CPSM. The central office manages the CPSM, which is updated annually.	4	4	4	4
16	**Post Implementation Review**	4	4	4	5

	▪ DBHDS hosts meetings across the facilities to review capital projects. The facility participates in progress meetings throughout the capital project's lifecycle, including at the project closeout. Action items, final punch list items, and lessons learned are tracked as an output of these meetings. ▪ Documented processes are in place for closing out projects, documented in the CPSM.				
17	**Financial budgeting** ▪ The facility can develop operational budgets but noted challenges developing budgets because of the dependencies on the funding levels, determined by central office. ▪ The facility does not develop a zero-based budget. ▪ The facility is not optimistic that it could reach a score 3 because of system-wide processes around funding. Ideally, the facility would like a process in place whereby it proposes a budget and receives the proposed budget.	2	2	2	2.5
18	**Funding** ▪ The facility is not aware of alternative sources of funding beyond Coronavirus related grant funding. ▪ Medical Services receive alternative funding for some minimal clerical work. ▪ Have MOUs with a few different medical schools. ▪ Have had discussions around hiring a grant writer; however, the facility was told that central office is responsible for grant writing. ▪ The facility would like increased levels of communication from the central office as to alternative sources of funding that may be available.	2	2	2.5	2.5
19	**Reserve Funds Management** ▪ Cannot carry over funding	N/A	N/A	N/A	N/A
20	**O&M - Procedures** ▪ O&M procedures and SOPs are in place for the facility's assets. ▪ Overall, the facility does not have automated processes in place; however, their new generator system is computerized. The facility is moving toward an automated access control, using a badging system for payroll, etc. However, these systems are not tied together and are on proprietary networks. ▪ Some of the access is controlled by VITA. ▪ These limitations are typical for older buildings.	3	3	3.5	3.5
21	**Org Design and Roles and Responsibilities** ▪ The facility maintains employee work profiles (EWPs), which are incorporated into employees' annual reviews. Additionally, the facility conducts interim reviews, constantly revises individual EWP to capture what people are responsible for, etc. ▪ The facility is working toward implementing electronic signatures.	4	4	4	4

	▪ The facility conducts orientation and safety assessments not only for its employees, but also for contractors.				
22	**O&M Staffing and scheduling** ▪ The facility has a good understanding of its staffing and scheduling needs. Although the facility schedules its staff in an efficient manner, maintaining this current score is difficult because of staffing issues around employee retention. ▪ Strategies for staffing people are challenging because people are being pulled from everywhere to fill what is missing. ▪ The facility is challenged with staffing shortages and filling open requisitions because of private sector healthcare facilities competing for similar talent in the region. ▪ Optimizing schedules is dependent on obtaining additional resources. ▪ There are systemic challenges in this area caused by payroll and benefits.	3	3	3.5	4
23	**O&M Demand Management** ▪ The TMS work management system has a process to prioritize work orders. With full implementation and training around TMS, the facility expects to see an increased score here.	3.5	4	4	4
24	**Maintenance Management Strategy** ▪ There is a plan in place to improve maintenance strategies with the rollout of the enhanced TMS system capabilities. ▪ Measuring the assets' useful lives and asset intervention planning based on expected useful lives is an improvement area recognized by the facility. ▪ The facility has been successful in extending assets far beyond their useful lives, when needed. ▪ The facility recognizes that having a maintenance strategy in place will help support future investment decisions.	3.5	4	4	4.5
25	**Investigations and Recordings of Routine Asset Failures and Reactive Work** ▪ The facility is working to ensure that assets are recorded and tracked, including corrective maintenance. TMS has this capability to monitor reactive work, but capabilities are not being fully utilized. The facility understands the value of this in projecting future asset failure risk. ▪ Obtaining a B&G manager will drive significant improvement in this area.	3	3.5	4	4
26	**Commercial Focus (ops & Main)** ▪ The facility has a smaller number of staff and larger number of contractors and would like to right-size the number of in-house vs. outsourced maintenance in a cost-effective manner. ▪ The facility would like to leverage more in-house resources, rather than relying on contractors. ▪ Staffing continues to be a challenge at the facility. The facility has three B&G positions, and two are needing to be filled.	3.5	4	4	4

27	**Contracted Operations Maintenance** ▪ Onboarding processes and background checks are in place for contractors. ▪ Have added an extra layer of contractor evaluations to gauge the quality of service and when looking at a new vendor. These new processes have been beneficial and rely on input directly from managers. ▪ Staff within the facility are responsible for uploading contractor information into TMS.	4	4	4.5	5
28	**Facility and Land Needs** ▪ All facilities have a master plan from central office. ▪ A few years ago, there was someone at DBHDS who regularly provided assessments to facility directors; however, it has been two and a half to three years since regular updates have been provided. ▪ Microsoft Teams could be better utilized to share these plans with facilities. ▪ The facility is aware of the need to replace the facility with a new structure in the upcoming years.	3	3	4	4
29	**Space Allocation Management** ▪ The facility has significant space allocation issues that make it challenging to fit staff in safely for staff. ▪ Major problems with a lack of space for patients – no private rooms and hallways are too narrow. All patients are required to share quarters in double-rooms. ▪ Have design guidelines in the CPSM but cannot improve with this current facility.	1.5	1.5	1.5	1.5
30	**Lease Management** ▪ Land is leased for $1. The lease is documented by DBHDS. ▪ DBHDS is sending the deed to the Attorney General's Office because there is language about giving the land back to Fairfax if the land is not to be used as a mental health facility.	N/A	N/A	N/A	N/A
31	**Business Applications** ▪ The facility is not fully using the functionality of TMS but will be increasing capabilities with the new system rollout. ▪ Facilities rely on VITA guidelines and are not allowed to provide input into the IT procurement processes. ▪ Central office has developed an IT team and are researching and testing applications to develop streamlined IT infrastructure. But at the service level input is not being given. ▪ The facility is hopeful there will be future improvements to system capabilities and the level of integration.	2	2.5	3	4
32	**Asset Inventory** ▪ Have systems in place but lack the staffing to get everything caught up. ▪ The current asset inventory is spread across multiple sources.	2	2	3	4

	▪ The facility noted that some assets have been missing from their inventory systems. ▪ The facility would like to see a more centralized and formalized asset inventory.				
33	**Asset Information** ▪ The facility does not have information on its assets beyond useful life and some information on condition in TMS. ▪ With new system expect to see significant improvement.	2.5	3	4	4
34	**Information Management** ▪ The facility is not consistently applying its information management processes. ▪ Planning to expand use of TMS to help address this. ▪ Making efforts to improve information management, but the facility does not have full control over this and does not believe can move past a score three.	2.5	3	3	3
35	**Data Analytics** ▪ Have the sources and reporting capabilities in many areas like on the expense side. ▪ On revenue side have no data analytics. ▪ Some efforts in place from central office to improve data analysis. However, this is currently at a high level, and the facility would like to see data analytics leveraged at a more granular level. ▪ Central office could make a score four possible in the long run.	2.5	3	3.5	4
36	**Quality Assurance and Management Review** ▪ Did APAS and Joint Commission reviews all in the last month or two. ▪ Quality manager within the facility is responsible for reviews. ▪ The facility undergoes many audits by many organizations throughout the year and uses those results to improve decision making and improvement.	4	4	4	5
37	**Prioritized Plan for the Development of Skills and Competencies** ▪ The facility maintains employee work profiles that identify the necessary skills and competencies of employees and conducts interim and annual reviews to assess employees against these skills. ▪ The facility has employee competencies established across all departments and has developed career ladders across some departments. ▪ NVMHI would like to provide additional developmental and training opportunities for its staff and noted challenges with employee recruitment and retention because of pay and competition with private healthcare systems in the region competing for similar talent.	3	3	3.5	4
38	**Capital Governance** ▪ NVMHI does not have a formal governance body at the facility level responsible for capital governance.	3	3	3	3

	▪ Capital project governance is maintained out of the central office across the facilities. Facilities provide an annual request to central office on desired capital projects but otherwise provide minimal input into capital governance. ▪ Stage gating is used for major capital projects but not across all facility projects. ▪ Overall, NVMHI acknowledges that the existing capital governance process is managed by the central office and would require a coordinated approach across the facilities to improve in this area.				
39	**Asset Accounting, Valuation, and Cost Capture** ▪ Asset valuations are undertaken for only some assets. ▪ NVMHI believes this area can be advance to a score 3 within a year with the appropriate resources in place.	2	3	3.5	4

Piedmont Geriatric Hospital and Virginia Center for Behavioral Rehabilitation

Table 36: Piedmont Geriatric Hospital and Virginia Center for Behavioral Rehabilitation Workshop Notes

DBHDS Asset Management Assessment PGH and VCBR	August 13, 2021 9pm – 12:30pm
Attendees Mickie Jones (DBHDS) Jason Wilson (VCBR) Stephen Bowen (PGH) Emma Lowry (PGH) Jeremy Nicholson (PGH/VCBR) Stephanie Pechura (VCBR) Laura Barnard (PGH/VCBR) Cindy Arthur (PGH)	Facilitators Blair Trame Caroline O'Grady

	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ In 2019, strategic plans for each facility were developed – usually, these documents are updated every 1-2 years, but COVID-19 has diverted attention from this effort ▪ Plans include both short- and long-term goals	3	4	4.5	5

	▪ Amble opportunities have been given to staff and stakeholders to participate in discussions regarding the changes to the strategic plan. ▪ The key priorities and major updates are documented and communicated with staff at both facilities but there are varying levels of consumption at the different levels. Full awareness of the strategy and details of the plan across the organization is not part of the culture. ▪ DBHDS's strategic plan has a longer view approach than the facility level plan. ▪ PGH and VCBR are currently more focused on the new expansion than the upkeep and maintenance of the facilities. Construction should be complete on VCBR expansion in October. ▪ PGH and VCBR share finance, maintenance, plant (boiler, steam power, some electrical), and grounds services				
2	**Sustainability** ▪ PGH and VCBR have completed sustainability projects, such as generating steam power with switchgrass ▪ Additional sustainability initiatives such as using rainwater to flush toilets, working with local schools on recycling programs, and food service improvements to reduce single use plastics. ▪ Sustainable options require significant additional funds that are not available. ▪ Recycling efforts have been stifled because there are limited market/contractors in the region ▪ Group sees value in codifying various initiatives into one coherent sustainability plan	2	2.5	3	5
3	**Understanding Stakeholder strategy and needs by population and facility** ▪ Stakeholders are known, documented, and consistently communicated with. Partnerships are in place with the local community service boards across the state which occurs at multiple levels. ▪ There is a local advisory group comprised of community members and other indirect stakeholders. ▪ Given the nature of VCBR, relations with local community is more difficult than PGH	5	5	5	5
4	**Performance Reporting** ▪ Key clinical and staffing metrics for assets and operations are kept at PGH and VCBR, however data in other areas is not as well documented or organized. ▪ The asset categories are land, building, infrastructure, and equipment. ▪ The current analysis of data is weak because of the procurement of the new TMS system.	1	2	3	4

	▪ There has not been enough of a technological leap to meet the needs of the facilities and operate most efficiently. More resources are welcomed to both track and look forward.				
5	**Objectives - Performance Metrics/Levels of Service** ▪ Limited performance metrics are kept at the facilities ▪ Improvements to the current infrastructure around levels of service at both PGH and VCBR are needed, but because client comfort always comes first, maintenance and other services are often deprioritized. ▪ The facilities have recently received more money for these systems, but majority of funds go to client care ▪ Staff understand the day to day requirements but creating awareness around the long-term goals would take more resources. It is difficult to carve out funds for infrastructure and maintenance from the direct care funds.	3	3	3	3
6	**Risk to Service Delivery** ▪ Risk management is incredibly important and crucial to day to day operations for PGH and VCBR, so staff and management frequently conduct risk analyses and mitigation strategies – documents exist outlining the risk management approach and framework ▪ Management has a strong understanding of how risk will affect patients and staff and feel confident in their current capabilities to address this.	5	5	5	5
7	**Future Trends (Impact of Growth, Climate Change, etc.)** ▪ PGH and VCBR do meet as a campus to discuss future trends and there is some documentation in the risk management plan, however reviews are generally performed after the fact, not proactively. Review of future trends are performed and updated every other year. ▪ There is interest in a system that would rate the likelihood and impact of events proactively and analyze steps to mitigate events.	4	4	4	5
8	**Legal, Regulatory & Statutory Requirements** ▪ Staff at both PGH and VCBR understand their responsibilities and requirements when it comes to monitoring and meeting requirements. ▪ Facilities are up to date on legislation and requirements – awareness is high due to effective communication	5	5	5	5
9	**Optimized Asset Intervention Planning** ▪ There is no life cycle costing being performed at the facility level due to current limitations in data, analytics capabilities, and policy. ▪ PGH and VCBR do track the life of the assets but no further analysis done on the data. Analysis is only performed when there is a failure during the useful life of an asset.	2	3	4	5

10	**Asset Strategies** ▪ There is no document of asset or lifecycle strategies for PGH or VCBR other than the broad DBHDS's strategic plan. ▪ PGH and VCBR are forced to work reactionarily due to the nature of the work and because they are government entities. They have a method that they follow but there is no set way of storing it.	2	2.5	3	4
11	**Asset Management Plans** ▪ There are elements of asset management plans but no central asset management plan documents for the various groups of assets ▪ Concrete data on asset management would increase funding and would create better organization, thus PGH and VCBR see value in improving this capability.	1	2	3	4
12	**Capital Investment Plan Development** ▪ Reviews are performed annually and there is a risk-based priority system. No consistent metrics are used which creates confusion and inefficiency. ▪ Patient or resident related issues are always prioritized so the limited funds are usually unevenly distributed toward those issues – facilities find it difficult to justify funding maintenance projects when there is so much patient need still unfulfilled.	3	3.5	4	4
13	**Risk - program level** ▪ Schedules are produced on each project, followed by a risk assessment ▪ Weekly meetings are conducted to discuss and track project schedule. ▪ Third party contractors are leveraged for project management purposes, i.e. to mitigate risk on projects	4	4	4.5	5
14	**Commercial Focus (Project Delivery.)** ▪ Work is often contracted out to small, third party vendors and there is experimentation with new methods of delivery to find more efficient and price effective strategies. ▪ Delivery method is decided on case-by-case basis ▪ Rural location presents a challenge as there is limited pool of contractors – e.g. there are limited options available locally for recycling and compliance with E.O. 77	2	2.5	3	4
15	**Capital Projects - Planning, Design, Construction & Commissioning** ▪ All capital projects are handled by DBHDS, other than some small projects – PGH and VCBR generally have some representation at the table. ▪ There is recognized room for improvement, particularly around project close-out	4	4	4.5	5
16	**Post Implementation Review** ▪ After projects are complete, there is little review done to properly evaluate and collect data on the project.	2	3	4	5

	▪ There is appetite for a more formal system and the transfer of institutional knowledge to future projects. ▪ Lessons learned are generally limited to those individuals who experienced the project – documentation is limited				
17	**Financial – Budgeting** ▪ Budgeting is mostly based on top-down or historic levels ▪ Limited / ad hoc use of zero-based budgeting	3	3.5	4	5
18	**Funding** ▪ Funding from Legislature has generally lagged needs ▪ General reliance on the Legislature for appropriations ▪ Ad hoc approach to identifying non-traditional funding sources or grants	2	2	2	2
19	**Reserve Funds Management** ▪ Current policy/law prohibits this practice ▪ Facilities see value in this approach and would be interested in utilizing if policy changes	1	2	2	2
20	**Operations Management – Procedures** ▪ Operations practices are discussed at the facility-level frequently and updated annually to be more efficient and effective ▪ Best practices are beginning to be shared across DBHDS facilities through monthly calls and through networking.	4	4	4.5	5
21	**Org Design and Roles & Responsibilities** ▪ The shortage of staff at both PGH and VCBR does allows for limited redundancy ▪ There is little overlap of responsibilities – cross-training is utilized for intentional overlap ▪ Delegated levels of responsibility are effective ▪ There is documentation on who is responsible, accountable, consulted, and informed	4	4	4	4
22	**Operations Management - Staffing & Scheduling** ▪ PGH and VCBR perform a load assessment annually. ▪ Although the current workload is manageable, overtime is used regularly, and burnout is an issue – There is a sense that little can be done to improve this. ▪ There will always be a reactive element to work due to the nature of residents ▪ Often facilities contract out to third parties for more difficult positions.	3	3.5	4	4
23	**Operations Management - Demand Management** ▪ Work orders are handled at the facility level, utilizing TMS ▪ There are priority rankings and the highest-ranking orders are performed first	4	4	4	4
24	**Maintenance Management – Strategy**	3	3.5	4	5

	▪ There are work orders for everything including corrective maintenance. ▪ There is a mixture of proactive and corrective maintenance requests that come through TMS – Majority of work is thought to be reactive ▪ TMS replacement is expected to improve maintenance system				
25	**Investigation and Recording of Routine Asset Failures & Reactive Work** ▪ There are success stories related to tracking routine asset failures and reactive work and making investment decisions based on data/analysis ▪ Practice is not consistent across the asset base ▪ General reliance on free-form text ▪ Replacement of TMS system may help improve in this area	3	3.5	4	5
26	**Commercial Focus (Ops & Maint.)** ▪ PGH and VCBR contract out to third parties, often due to shortage in staff. ▪ Full cost benefit analyses are limited and/or done on ad hoc basis ▪ Again, limited regional market of contractors is an issue for PGH and VCBR	3	3.5	4	5
27	**Contracted Operations & Maintenance** ▪ Performance of third-party contractors are evaluated by PGH, VCBR, and DBHDS. ▪ Contractors do not have access to TMS. ▪ There is desire campus-wide for greater levels of accountability of the contractors and more formal review processes on their performance.	3	3.5	4	5
28	**Facility & Land Needs** ▪ PGH and VCBR have plans documenting surplus of land. ▪ There is a master plan of the campus, but it does not relate much to the strategic plan or DBHDS master plan as a whole – addressing this gap is the basis for desired improvement	2	3	3.5	4
29	**Space Allocation & Changes** ▪ At PGH, standards are clear and applied consistently throughout the facility, coming from CPSM. ▪ VCBR has no certifying agency so the standards are different than hospitals. The codes and standards are very unclear and confusing. ▪ VCBR could benefit from (the Legislature and other governing bodies) codifying codes and standards	PGH 5/VCBR 2	PGH 5/VCBR 2	PGH 5/VCBR 3	PGH 5/VCBR 5
30	**Lease Management** ▪ No leases.	N/A	N/A	N/A	N/A
31	**Business Applications** ▪ Systems, such as TMS, are due for an upgrade/replacement ▪ Integration between systems is major hurdle – limited integration currently	2	2.5	3	5

	▪ Facilities would benefit from documentation of needs and improvement plan from DBHDS/VITA				
32	**Asset Inventory** ▪ PGH and VCBR have a central asset inventory system in TMS with a structural hierarchy of inventory, although not at a granular level yet. ▪ VCBR is less organized, but that is due to the growth. As it comes online, they will be uploading more data.	2	3	4	5
33	**Asset Information** ▪ Some assets predate TMS or digital systems, but all new inventory is entered into the system. ▪ Performing a condition assessment of assets against current code would be more helpful than general physical condition assessment	2	2.5	3	4
34	**Information Management** ▪ Data for critical assets is up to date but the lower cost items and older assets are not as well documented. ▪ Laura Barnard manages data input into TMS and is a good resource to learn more about practice/current state of data	3	3.5	4	5
35	**Data analytics** ▪ PGH and VCBR have limited capacity (systems, data, and human capital) to perform data analytics ▪ Analytics to inform decision making have benefited both facilities, but these were largely the produce of DBHDS contributions ▪ With more human capital and resources, there is potential for significant value in this practice.	1	2	3	4
36	**Quality Assurance & Management Review** ▪ PGH is constantly being reviewed, audited, and inspected. Being a government entity, there is little room for any changes in this area. ▪ VCBR is not accredited so they received fewer outside perspectives.	4	4	4	4
37	**Prioritized Plan for the Development of Skills & Competences** ▪ EWP (Employee Work Profile) competencies are well defined, very structured, and annually updated. ▪ Recruiting strategies are discussed often but nature of work at VCBR is a challenge ▪ Competition for staff is challenging, particularly given recent labor trends	5	5	5	5
38	**Capital Governance** ▪ Capital governance is spelled out in CPSM and is very structured – this is seen as an area of strength across the department and facilities	5	5	5	5

	▪ As built documents in both hard copy and digital form are turned over as part of project closeout				
39	**Asset Accounting, Valuation, and Cost Capture** ▪ The FACs system (for buildings) calculates some costs, uses CCI index, and it reviewed annually. ▪ Equipment is usually procured for a flat cost (varies upon the asset type). ▪ More of an estimation which reduces confidence in the content.	3	3	3.5	4

Southeast Virginia Training Center

Table 37: Southeast Virginia Training Center Workshop Notes

DBHDS Asset Management Assessment Southeast Virginia Training Center		11 August 2021 1:00pm – 4:30pm			
Attendees Walter Day Martin Johnson Heather Fisher Denise Webb Abbey Dowler Steve White		Facilitators Blair Trame Ingrid Waung			
	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ Heather Fisher aware of a DBHDS strategic plan – Commissioner had a town hall and presented a plan in May/June ▪ Pandemic slowed development and implementation of plan (pandemic has generally complicated all matters – operations are not normal, borderline crisis management) ▪ Strategic plan not expected to change the direction of the facility much ▪ Over last couple years, change in strategy resulted in all other state training centers closing – Southeast Virginia Training Center is only remaining training center	3	4	4	5

2	**Sustainability**
	▪ Executive Order 77 executed in March 2021 – reduction of single-use plastics
	  ▪ Initiative to reduce items that aren't compostable, recyclable, reusable
	  ▪ Resulted in a big hit on food service and the medical side – still trying to find appropriate replacement
	  ▪ Under EO77, each facility must submit a plan and then DBHDS will set benchmarks for the future
	▪ The only fuel sources used at the facility are natural gas boilers and number 2 diesel
	▪ In 2010, implemented geothermal HVAC systems; cut energy consumption compared to standard units
	▪ All homes are LEED certified, as well as Building 1
	▪ These designs were result of an administrative directive to be more sustainable
	▪ DBHDS worked with DGS to see that homes are LEED certified; Training Center has seen significant lifecycle cost savings
	▪ While they see value in implementing more sustainable plans, need to know where the funding is coming from
		3	3	4	5

3	**Understanding Stakeholder strategy and needs by population and facility** ▪ The facility has regular consultations with internal and external stakeholders; these discussions are documented (meeting minutes) ▪ Engaged regularly – there are set meetings for internal and external stakeholders ▪ The facility has an internal wish-list for when funding is feasible ▪ Stakeholders include management, families, CSBs ▪ There are meeting minutes, but otherwise no formal reporting process	4	4	5	5

4	**Performance Reporting**
	▪ Metrics are tracked around assets (KPMG to follow up on metrics tracked)
	▪ Monthly, there is a report to track work orders that are remaining or in progress
	  ▪ The work orders are listed and itemized by the tradespeople
	  ▪ There's a priority rating and time frame they must complete the job
	  ▪ Any employee can input a work order if they see something wrong
		4	4	4.5	5

5	**Objectives - Performance Metrics/Levels of Service** ▪ There are limited documented Levels of Service (Customer and Technical) ▪ Performance metrics / LOS are not in a strategic plan ▪ The facility can monitor the performance of assets – there is a sophisticated, automated system for HVAC monitoring and there's weekly testing of generators ▪ Asset failures do occur, and the facility knows exactly when a unit goes in and out of service	2	2.5	3	4

6	**Risk to Service Delivery** ▪ Emergency management plan documents risks and risk mitigation strategies ▪ Plans are well communicated ▪ Policies and plans are reviewed regularly to ensure they are up to date ▪ The facility conducts tabletop exercises with other stakeholders to plan for emergencies	5	5	5	5
7	**Future Trends (Impact of Growth, Climate Change, etc.)** ▪ They do consider future demand trends, but there are lots of parameters outside of the facility's control – Demand is managed by the DOJ ▪ Demand on facility is consistent because they don't have transient patients; most patients have lived or do live here for all their lives ▪ The infrastructure here is new and includes protections against 100-year storms – e.g. stormwater systems ▪ Worked with city to build new facility to address climate risks to region	3	3	4	5
8	**Legal, Regulatory & Statutory Requirements** ▪ Procedures are in place to document who oversees monitoring requirements ▪ The facility is active in conversations around policies that will affect their facility	4	4.5	5	5
9	**Optimized Asset Intervention Planning** ▪ Facility must choose lowest bids that meet procurement guidelines (including SWAM requirements) and fit specifications ▪ Specs/funding are incorporated into the project plan themselves ▪ The purchasing system is dictated to them – eVA is the procurement agency/system for the whole state ▪ Lifecycle monitoring is conducted for medical equipment only ▪ Improvement in this area will require policy/increased flexibility from the current procurement policy	2	2.5	3	4
10	**Asset Strategies** ▪ Asset strategy has mostly been developed from an operations and maintenance perspective at this facility ▪ Strategy is mostly reliant on asset managers who know the assets and understand the component needs; however, there is no current asset strategy document	2	2.5	3	4
11	**Asset Management Plans** ▪ No asset management plans/documents currently exist ▪ Recognize benefit of documents and interested in pursuing if additional support/resources provided	1	2	2.5	3

12	**Capital Investment Plan Development** ▪ Standardized CIP development based on state mandates ▪ Not a lot of input at the local level; the facility sends a wish-list to Central Office, but the facility doesn't have much control beyond that ▪ Central A&E office develops a ranking of projects and decides which projects get funded (group is unaware of approach/rubric for prioritization)	3	3	3	3
13	**Risk - program level** ▪ Everything is project-based ▪ Consistent in approach, must validate/justify that they need the requested item/amount ▪ Contingencies are put into the project for overruns based on what construction would involve at that time; there's always some unforeseen circumstance	4	4	4	5
14	**Commercial Focus (Project Delivery.)** ▪ Historically, used Design-Bid-Build approach almost exclusively for projects ▪ Must follow strict guidelines from DGS and DBP (state policy)	3	3	3	3
15	**Capital Projects - Planning, Design, Construction & Commissioning** ▪ CPSM serves as project management manual ▪ Each facility is assigned a manager and inspectors from Central Office who liaises between the facility and construction project	4	4	4	4
16	**Post Implementation Review** ▪ Post project review on contracts are performed annually ▪ Contract performance evaluations done quarterly (scored) ▪ When a construction project is completed, there's a yearly follow-up (at least for one year); then the facility checks if there's anything else that needs to be addressed just before the warranty period ends ▪ They share best practices between the facilities and Central Office ▪ There's communication among B&G directors	5	5	5	5
17	**Financial – Budgeting** ▪ Facility develops its own budget and funding requests – actual funding levels decided by Legislature through appropriations process ▪ Labor is single biggest cost line-item ▪ A lot of budgeting is based on historical funding and what they hear is coming their way – limited to no use of zero-based budget practices ▪ There are some efforts to see if they can internally reallocate funding or share with other facilities	4	4	4.5	5

	▪ Departments have a good idea of their costs and needs don't vary much year over year				
18	**Funding** ▪ Federal and state funding; there are some facility-level funding options ▪ Identify sources on an ad-hoc basis ▪ Most funding comes from Medicaid	4	4	4	5
19	**Maintenance Reserve Funds Management** ▪ Dedicated trust fund or endowment not in use at facility ▪ If given the option, group sees benefit of setting up fund to cover ongoing maintenance of facility	1	1	3	5
20	**Operations Management – Procedures** ▪ Staff is qualified, O&M manuals exists, and they have SOPs ▪ Feel they have the necessary procedures and documents to meet demands, but acknowledge there is room for improvement	4	4	4.5	5
21	**Org Design and Roles & Responsibilities** ▪ Roles and responsibilities are well-defined ▪ There's some crossover in departments; cross-train in all areas ▪ No assessment in organizational effectiveness ▪ B&G is very sophisticated and there's cross-training, but there's no documentation to show the effectiveness	2	3	4	5
22	**Operations Management - Staffing & Scheduling** ▪ B&G has been understaffed ▪ The facility is relatively new but has aged to the point where maintenance burden is becoming too much for existing staff to handle; however, no formal workload assessment has been performed ▪ Staffing level is set to workload demands and will use contractors when needed ▪ While they are short-staffed, it doesn't mean the work isn't getting done (the department isn't underperforming)	2	3	4	5
23	**Operations Management - Demand Management** ▪ There is a strategy and policy for prioritizing work orders ▪ Anything that's life-safety is an automatic priority 1	5	5	5	5
24	**Maintenance Management – Strategy** ▪ Work that should be documented as a PM is being documented as PM in TMS ▪ Reactive work depends on clientele and population ▪ There are reports to track work order activities ▪ Add-ons to new TMS system will enhance the operation	4	4.5	5	5
25	**Investigation and Recording of Routine Asset Failures & Reactive Work**	3	3.5	4	5

	▪ Constantly tracking reactive work and asset failures				
26	**Commercial Focus (Ops & Maint.)** ▪ Closely monitor contractors and performance ▪ Perform cost-analysis on whether performing work in-house or hiring contractors provides better value	3	3.5	4	5
27	**Contracted Operations & Maintenance** ▪ Each B&G director keeps a "book" on its operations, including documentation of contractors and instructions for managing contractors ▪ B&G directors collaborate across facilities and share information – in some cases when a B&G director must step away, a person from another facility can be brought on to manage B&G operations (this happened recently)	5	5	5	5
28	**Facility & Land Needs** ▪ DGS has a master facilities plan that looks out 5-10 years ▪ Central Office sends a report on land use ▪ The plan is in line with the general strategy and trying to forecast funding, needs, and population	5	5	5	5
29	**Space Allocation & Changes** ▪ There is a process to change the use of a space – the policy and process is generally inflexible ▪ Many agencies typically want to use space for storage	4	4	4	4
30	**Lease Management** ▪ Facility leases its administration building ▪ DGS and Central Office maintain copies of lease agreement ▪ DGS and Central office set up the lease, and the facility makes the payments	4	4	4	4
31	**Business Applications** ▪ Chisel, Stone, TMS, and Cardinal are some applications used ▪ Sometimes, there exist multiple systems for one process; they are working on streamlining and integration ▪ Systems are mandated by Virginia IT Agency (VITA) programs ▪ Central Office advocates what the facilities need, but there's no guarantee; trying to solicit a process that must be approved by VITA	2	2	2	3
32	**Asset Inventory** ▪ There is an asset inventory for the homes on FMS (i.e. consumables) ▪ There is an asset inventory that records all physical assets on FACS (vehicles, buildings, etc.) ▪ Asset hierarchy used in FACS	4	4	4	5

	▪ Assets are sold in Gov Deals and the funds are allocated to either the facility or Central Office; once sold, the asset comes off the record ▪ Perform a manual reconciliation monthly ▪ The right level of access is afforded to staff				
33	**Asset Information** ▪ They know the condition of assets (buildings); the facility monitors and maintains when units are installed ▪ Tracked through TMS ▪ Track maintenance activities on vehicles – all vehicle maintenance performed by external contractors ▪ Some vehicles are leased but most are purchased ▪ When looking at expected life expectancy, in general, the facility will note when assets are 2-3 years from the end of their expected useful lives, then they'll start requesting funding ▪ Purchase a new vehicle every year; fleet is new ▪ Dynex – funding is there, but it's not been released yet ▪ Most recent condition assessment performed in 2018 – should be due for DBHDS-sponsored assessment	2	2.5	3	4
34	**Information Management** ▪ Maintain a lot of information on specific assets and information is reliable and generally current ▪ IT at each facility does communicate with Central Office IT	4	4	4.5	5
35	**Data analytics** ▪ Some analytics done using TMS, but mostly on an ad-hoc basis ▪ Will rely on TMS replacement/upgrade to boost analytics capabilities	3	3.5	4	5
36	**Quality Assurance & Management Review** ▪ High number of external audits performed at facilities, providing adequate feedback ▪ Lots of audits in the finance dept; there's a compliance dept that oversees policies; there's also a quality improvement dept ▪ If there are any deficiencies, they develop corrective procedures ▪ The facility can determine whether the corrective action is working if/when deficiencies go down	4	4	4.5	5
37	**Prioritized Plan for the Development of Skills & Competences** ▪ No plan in writing, but that's the goal/objective	4	4	4.5	5

	▪ Environmental care dept is new (only a few months old); need to develop an environmental care policy and would incorporate skills and competencies ▪ There exist employee work profiles that are updated; there are competencies built around functions and roles ▪ Employee Work Plans (EWP's) include job descriptions and are updated annually ▪ Maintaining licensures and certifications; HR checks to verify licenses ▪ Workforce development with community college				
38	**Capital Governance** ▪ For large capital projects, they follow policies in the CPSM ▪ Otherwise, for smaller projects not subject to CPSM, management and release of funds is done on ad hoc basis	4	4	4	5
39	**Asset Accounting, Valuation, and Cost Capture** ▪ Unsure of total value of assets, limited documentation of current replacement value of assets ▪ Cost capture (labor and materials) is generally strong – successful case study around management of water tanks, including identifying issue and addressing before issue spiraled	3	3.5	4	4

Southern Virginia Mental Health Institute

Table 38: Southern Virginia Mental Health Institute Workshop Notes

DBHDS Asset Management Assessment Southern VA Mental Health Institute		08/16/2021 9:00 AM – 12:00 PM			
Attendees Robin D Crews, CEO Ron Harris, ADA Brian Isom, B&G Director Steve White, Central Office		Facilitators Linnea Musselman Jeff Phillips			
	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives**	2.5	3.5	4	4.5

	▪ The facility is somewhat aware of a strategic planning effort from DBHDS. The facility CEO has been involved in the updates to the strategic priorities. However, other members of the facility have not been involved in this initiative, nor were they aware of how the strategic plan impacts the facility level.				
2	**Sustainability** ▪ Sustainability is not encompassed in one plan but is spread across several plans ▪ The facility has some sustainable initiatives, done at an ad hoc level. For instance, the facility is looking at upgrading windows, upgraded HVAC about 10 years ago, have transitioned to paper products, use LED lights, etc. ▪ The facility did not believe a master sustainable plan across the facility is necessary because of the small size of the facility and resource requirement to develop a plan.	2.5	2.5	2.5	2.5
3	**Understanding Stakeholder Strategy and Needs by Population and Facility** ▪ Southern performs patient and staff surveys, including safety surveys, and is generally aware of patient stakeholder needs. ▪ The facility would like to have a dashboard developed to better capture the results of patient surveys and document additional stakeholder needs.	3.5	3.5	4	4
4	**Performance Reporting** ▪ Performance reporting is conducted and available, but not consolidated. The facility uses multiple dashboards but does not have a performance management framework in place across the dashboards. ▪ Dashboards help drive decision making at the facility. ▪ Southern believes there is room for improvement relative to LOS	2.5	3	3	3
5	**Objectives – Performance metric/levels of service** ▪ Southern has a reporting mechanism that it leverages when reporting safety metrics and has established safety levels of service. ▪ The facility has an ongoing monitoring process to monitor different aspects of the facility (safety, environment, etc.) ▪ Southern has a general understanding of the costs of maintaining service levels and have fail-safe electricity through generator	3	3	3.5	4
6	**Risk to Service Delivery** ▪ Have performed FMA and HVA, which is done annually through the safety committee, going from line staff to medical director. ▪ The facility is currently conducting a risk utility assessment	3.5	3.5	4	4
7	**Future Trends (Impacts of Growth, Climate Change, etc.)** ▪ Much of the planning around future trends is coming from state level initiatives, such as green initiatives.	2.5	2.5	3	4

	▪ Southern is expecting an upcoming boom in the local economy because of local initiatives, which is expected to increase patient numbers ▪ COVID has presented significant unpredictability in trends and impacts to staffing. ▪ The facility sees great value in standardizing and compiling assessments of future trends, notably if coming from the central office / state level.				
8	**Legal, Regulatory and Statutory Requirements** ▪ Southern is aware of applicable standards and regulations and keeps its staff updated through internal webpage and emails ▪ Southern tries to be proactive about future potential changes to regulations. ▪ The facility saw room for improvement by increasing staff's level of exposure into these initiatives and committees	4	4	4.5	5
9	**Optimized Asset Intervention Planning** ▪ Southern has a general understanding of the lifecycles of their assets and is given direction on assets' lifecycles from central office. ▪ While the facility does not perform optimized asset intervention planning, assets' planned maintenance schedules are logged in TMS. ▪ IT assets are refreshed on a routine basis ▪ All assets over $5,000 are entered into one system and smaller assets are also tagged and tracked according to internal policy ▪ While there is limited ability to improve in this area without strong support from Central Office and additional resources, the facility would be interested in improving its asset intervention planning if given the appropriate resources.	3	3.5	4	5
10	**Asset Strategies** ▪ Southern has internal strategies for its facility but is challenged with developing asset strategies because of funding uncertainties. The budget is provided from central office and is not guaranteed at the requested levels. ▪ Southern believes asset strategies are critical but acknowledged that DBHDS sets the department's priorities across the facilities	2.5	3	4	5
11	**Asset Management Plans** ▪ There are some policies and plans in place to look at costs to repair vs. replace ▪ The facility has elements of an asset management plan, but these are not consolidated into one document ▪ The facility would like to create a formal plan for facility assets, but this would require support from DBHDS	2	3	4	5
12	**Capital investment plan development** ▪ Southern prepares its capital request on an annual basis as part of the rolling 6-year capital plan ▪ Could come out of a FMA or HVA ▪ Have an after-action plan for HVA	3.5	3.5	4	5

	▪ Projects within the capital outlay requests are ranked by priority				
13	**Risk – Program Level** ▪ Southern manages its risks to the best of its ability, given limited resources. As an example, Southern uses contracted maintenance for critical system facilities to mitigate risks. ▪ The facility is expecting more program level controls will be in place following the TMS upgrade	4	4.5	5	5
14	**Commercial Focus (project delivery)** ▪ Southern has considered whether it would be possible to not use VITA for its IT but is unable to change this ▪ DBHDS has set guidelines in place for delivery models, set forth in the CPSM. ▪ The facilities must adhere to the guidelines within the CPSM, which hinders the facilities from achieving a higher score and exploring alternative delivery models.	3	3	3	3
15	**Capital projects – planning, design, construction, and commissioning** ▪ The CPSM sets the department's standards for capital project delivery throughout the project lifecycle. Facilities must adhere to the CPSM's guidelines. ▪ While there is a robust process for capital projects identified in the CPSM, the facility acknowledged lack of flexibility in the manual. ▪ However, in times of emergencies, facilities are given permission to take emergency measures that may bypass the guidelines of the CPSM. No red tape in emergency situations – an example of this is support received in hurricane Michael	4	4	4	4
16	**Post Implementation Review** ▪ Southern has robust feedback in place to review both positive and negative aspects of projects post-implementation ▪ Feedback given drives the course of future work ▪ Minutes, plans of action, and timeframes come out of post implementation review process ▪ Southern participates in knowledge sharing across facilities to share lessons learned	4.5	4.5	5	5
17	**Financial budgeting** ▪ Budget is budgeted from day one, but have overages because vacancies, COVID, etc. ▪ The facilities must have an end of year zero budget ▪ The facilities provide their requests to DBHDS, and DBHDS allocates money across the facilities based on safety, risk, and other priorities	4	4	4.5	5
18	**Funding** ▪ Southern is a recipient for COVID relief funds and ARPA funds ▪ Southern does not often explore grants because of resource constraints but would like to do this if a grant writer could be onboarded	3	3.5	4	5

	▪ Southern has a Hospital Welfare Fund through a canteen run for clients and staff – 25 percent allotment of that goes toward team-building activities ▪ Have looked at some community recovery funding ▪ The facility would like increased support from Central Office on this				
19	**Reserve Funds Management** ▪ Southern is not allowed to have a reserve fund other than carrying over hospital welfare funds which can potentially be tapped for urgent issues ▪ Central Office previously had $25 million in reserve funding but that has been tapped.	.5	.5	.5	.5
20	**O&M - Procedures** ▪ Procedures are maintained through VITA and TMS, and the facility has SOPs, manuals, etc. on its assets. ▪ The facility uses a building automation system.	4	4	4	4
21	**Org Design and Roles and Responsibilities** ▪ Evaluation of roles and responsibilities is performed on an annual basis and incorporated into employee work profiles. ▪ Employees are aware of their responsibilities and any duplication of activities is purposeful (e.g., by cross-training staff). ▪ Southern does an evaluation like a RACI analysis, typically performed after audits. ▪ TMS directs workorders to employees based on skillset ▪ Contractors are given performance evaluations	4	4	4.5	4.5
22	**O&M Staffing and scheduling** ▪ The TMS work order system has the capability to prioritize work orders, e.g., for corrective maintenance ▪ Staffing and scheduling is also prioritized within the clinical area ▪ Because Southern is a 24-hr facility, the facility has on-call staff for the weekends and is working to make improvements in staffing during the off-hours.	4	4	4	4.5
23	**O&M Demand Management** ▪ The TMS work management system prioritizes work orders and has preventive maintenance schedules maintained in the system for fixed assets. ▪ Every employee in O&M has demand management on their computer to ensure all tasks are taken care of ▪ The facility is confident in the data entered into TMS – work order data is reviewed by management to ensure accuracy, especially for critical assets. ▪ Upgrades to TMS will allow for enhanced work order management, such as the use of mobile devices - working with VITA on this and aiming to have contract in place by January 2022.	4.5	4.5	5	5
24	**Maintenance Management Strategy**	4	4.5	5	5

	▪ Southern categorizes its critical assets and knows which PMs need to be done on assets and employs a proactive approach to maintenance. ▪ Southern believes it can improve to 5 with the upcoming TMS upgrades ▪ Central office will be looking at work order management / TMS at an enterprise level and the central office has created a council for this purpose				
25	**Investigations and Recordings of Routine Asset Failures and Reactive Work** ▪ Southern performs after action reports following asset failures and reactive work. ▪ Southern collaborates with other facilities to share lessons learned following asset failures and would like to see this collaboration formalized further	4	4.5	5	5
26	**Commercial Focus (ops & Main)** ▪ Much of the decision whether to contract vs. use in-house maintenance is driven by staffing levels and expertise. In general, Southern tends to use in-house maintenance because of the costs associated with contracted support. ▪ Southern brings in contractors only when facility cannot or should not perform a task because of risk. ▪ A decision-making process is leveraged where the costs and benefits of contracting are assessed. ▪ Executive team also considers qualitative issues associated with contracting like staff morale – For instance, bringing in contractors in instances where it would help morale to not have staff perform the work. ▪ Southern does not often use contracted work and therefore does not see a great need for improvement.	3.5	3.5	3.5	3.5
27	**Contracted Operations Maintenance** ▪ Southern provides evaluations on all contractors and conducts robust vetting and oversight, including background checks, orientations, etc. ▪ Staff at the facility level upload work orders performed by contracted maintenance into TMS ▪ Upgraded TMS will have enhanced visibility into contractor work ▪ Southern sets clear expectations for contract work	4	4	5	5
28	**Facility and Land Needs** ▪ All facilities have a master plan, which is revisited every five years. Facilities provide some input to DBHDS on an annual basis ▪ Southern would like to add another wing to this facility. ▪ Southern would like to see facility plan better communicated with the facility from central office and have more opportunity to provide input.	3	3	3.5	4
29	**Space Allocation Management** ▪ The facility has a clear understanding of its design guidelines and needs ▪ Other facilities are making improvements in this area and Southern is very interested in doing this, too	3	3	3.5	4

30	**Lease Management** ▪ This question is not applicable to the facility.				
31	**Business Applications** ▪ IT systems do not adequately meet business needs; however, there is a TMS enterprise-wide upgrade that will be in place, which may improve business operations. ▪ There is an IT governance body in place enterprise wide. This governance body has a representative facility director participate in the group as a voting member, and other facility directors provide input to the body through this representative ▪ There are documented processes for IT systems vetted through the governance body	3	3	4	5
32	**Asset Inventory** ▪ FAACS is the facility's asset inventory system ▪ Every asset is required to be entered into FAACS and inventoried on an annual basis through one global asset inventory ▪ All appropriate staff have access ▪ Inventory is used for financial reporting ▪ Fixed assets are tied to geographic locations (e.g., by room). ▪ The facility suggested that improvements could be made through integrating the FAACS system with other asset management systems (e.g., TMS).	4	4	4.5	5
33	**Asset Information** ▪ The facility uses a good, fair, poor condition rating scale for its assets. Conditioned ratings are standardized for all assets $5,000 or more, or anything susceptible to loss, like handheld radios (but these go to another system, not FAACS) ▪ Resource requirements constrict the ability to improve in the level of data collected on the assets.	3	3	3.5	4
34	**Information Management** ▪ For fixed assets, updates are made annually to asset data, and data captured is consistent across all assets ▪ The inventory date field in FAACS is monitored ▪ Report from FAACS used for inventory is provided in both physical and digital formats	4	4	4.5	5
35	**Data Analytics** ▪ The facility primarily conducts a visual assessment of the assets. Data analytics is not frequently performed on the assets. ▪ As a small facility, formal reporting and data analysis may not be as useful for decision-making.	3.5	3.5	3.5	4
36	**Quality Assurance and Management Review**	4	4	4.5	5

	▪ Quality assurance and management review includes fiscal audit, procurement through DGS every three years, and safety reporting for the facility ▪ Executive team deploys annual ARMICS review to ensure compliant across the board for fraud, waste, abuse ▪ State fire marshal frequently reviews the facility ▪ Southern shares results of audits with peer facilities.				
37	**Prioritized Plan for the Development of Skills and Competencies** ▪ Training includes new hire training and competency assessments, annual training, onboarding for contractors, credentialling of medical and nursing staff ▪ Professional development plans are in place ▪ Southern would like to see more promotional opportunities and thinks DBHDS could capitalize on opportunities to move throughout DBHDS system. ▪ Southern would like to explore Virginia executive management program, but staffing shortages have prohibited progress on this	4	4	4.5	4.5
38	**Capital Governance** ▪ Much of capital project prioritization is being done outside of the facility and is driven by the central office. ▪ The facility would like greater visibility into the capital governance processes at the central office level.	3.5	3.5	4	4
39	**Asset Accounting, Valuation, and Cost Capture** ▪ Southern is aware of the costs of its assets, and the CFO monitors these costs ▪ The facility would like to work towards fully documenting life cycle costs ▪ Achieving a score of 5 would be difficult because of the current capital planning processes, conducted across DBHDS	3	3.5	4	4

Southwestern Virginia Mental Health Institute

Table 39: Southwestern Virginia Mental Health Institute Workshop Notes

DBHDS Asset Management Assessment Southwestern Hospital	08/11/2021 1:00 PM – 4:30 PM
Attendees Shaun May, Physical Plant Services Director Bob Williams, COO Rob Johnston, A&E Services Cynthia McClaskey, Director/CEO	Facilitators Linnea Musselman Jeff Phillips

Appendix C: Assessment Results & Notes

Virginia Department of Behavioral Health & Developmental Services

	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ DBHDS has had many strategic plans over the years. The most recent strategic plan is two years old. ▪ Continuity between plans is inconsistent because of shifting political priorities between administrations. ▪ Southwestern expressed interest in being included in the development of future strategic plans and would like to be more involved in the process, as there can be a disconnect between central office's priorities and the facilities' priorities, notably those in the southwestern part of the state.	2	3	3.5	4
2	**Sustainability** ▪ Southwestern had an ESG group that reviews sustainability from a water, electrical, lighting perspective. The facility also has a recycling process for plastics and metals. ▪ Sustainability initiatives are not fully documented, nor are they located in an all-encompassing sustainability plan. ▪ The facility stated that the hospital and other state institutions can lead the way in sustainability and serve as a catalyst for the community. The facility would be very interested in expanding on sustainability with the right resources. ▪ Southwestern was part of a comprehensive energy efficiency study in 2005 and 2006 that reviewed sustainability and the facility implemented these recommendations.	2	2.5	3	4
3	**Understanding Stakeholder Strategy and Needs by Population and Facility** ▪ The facility has assessed critical patient safety issues. ▪ The facility does not have a facility management plan. While the hospital does not have documentation in a global sense, it does have individual plans to meet the needs of its stakeholders. ▪ Often, facilities' stakeholder strategies derive from the Commissioner's office, General Assembly, and governor and their priorities. ▪ The facility does report on stakeholder needs/inquiries and has an overall understanding of their issues (like how single bedrooms are better than double bed occupancies) ▪ May not be able to improve because of where priorities are driven from, but the facility expressed interest in being more involved in stakeholder engagement. ▪ The facility has conducted regular assessments of critical patient safety issues.	3	3	3	3.5
4	**Performance Reporting**	2	3	3.5	4

	▪ The facility has robust performance reporting and a performance management framework in clinical and safety areas but not in the maintenance areas. ▪ There is an awareness that the central office would like the facility to conduct more formal performance reporting at the asset level; however, this would require additional resources to implement. The facility collects data but is not analyzing it, nor are they using it to drive performance.				
5	**Objectives – Performance metric/levels of service** ▪ The facility uses its Time Management System (TMS) for managing preventive maintenance, but maintenance activities are not tracked using a scorecard metric. ▪ While there are levels of service identified, there is no clear line of sight up to the organizational level. ▪ Overall, the facility is providing a good level of service to its patients, as supported by the assets, but is not assessing it through a formalized level of service framework. ▪ TMS system has more functions than Southwestern is utilizing and, with more labor/staffing, the facility could generate additional performance reports on the assets. SWVMHI is on an old version of TMS and awaits the DBHDS contract to ensure enhanced functionality.	2.5	2.5	3	4
6	**Risk to Service Delivery** ▪ The facility has emergency operations and develops risk evaluation plans for weather, interstate closure, etc. ▪ In emergency situations, Southwestern does after action reports to make improvements ▪ There is an annual assessment on what assets are likely to fail. Additionally, HVAC, water, electrical, etc. risks are captured but could have a more granular level of reporting.	3.5	3.5	4	4
7	**Future Trends (Impacts of Growth, Climate Change, etc.)** ▪ The need for mental health services continues to grow, notably within the region. ▪ The facility is also aware that the elderly population is growing at a faster rate in Southwest VA than the rest of the state. ▪ Southwestern understands the pandemic has impacted mental health, as will warming temperatures from climate change. ▪ Other trends in the Appalachia region include the ongoing high levels of substance abuse. ▪ While the facility has a general understanding of these environmental trends, no formal study has been conducted on their impacts to the facility.	2	2	2.5	3
8	**Legal, Regulatory and Statutory Requirements** ▪ The facility is aware of these requirements, documents requirements, and makes requests when changes in the legal/regulatory environment occur.	3.5	3.5	3.5	4

	▪ Lack of funding and resources to implement safety changes inhibits a better score.				
9	**Optimized Asset Intervention Planning** ▪ The facility expressed challenges in assessing asset lifecycle costs because the Commonwealth prevents hospitals from setting aside reserve funds for maintenance. As such, it would be difficult to implement an 'optimized' asset intervention plan. ▪ While the facility expressed interest in optimized asset intervention planning and lifecycle costing, there is a challenge in planning for/ implementing this without adequate funding.	1	1.5	2	3
10	**Asset Strategies** ▪ The facility expressed difficulties executing on an asset strategy because of funding uncertainties in future years. ▪ However, the facility is good at using the most cost-effective way to maintain its assets with limited resources. The facility noted that there can be challenges securing funding, citing instances when funding was allocated to other facilities that had greater issues with their assets/ higher priority needs. As such, it disincentivizes facilities from managing their assets effectively because of the implication that funding may be reallocated to other facilities with greater needs or possible poorer management of assets.	3	3	3	3
11	**Asset Management Plans** ▪ The facility has a 1, 3, and 5-year facility plan and keep these plans updated; however, these plans are not at the asset level, nor is it a consolidated asset management plan. ▪ The facility sees great value in documenting a more detailed asset management plan at the facility and/or asset class level.	3	3.5	4	4
12	**Capital investment plan development** ▪ The facility has identified its higher risk assets and its asset investment needs. ▪ The facility develops a facility-level capital investment plan but is constrained, as prioritizing and allocating funding ultimately is the decision of the central office. ▪ The facility's level of input into Commonwealth level planning can vary considerably from year to year. ▪ The facility expressed interest in improving capital investment planning and the level of coordination and transparency between the facilities and state. ▪ The facility would like more transparency from central office into how projects submitted in the capital request are selected in the central office's prioritization process.	3	3	3	3
13	**Risk – Program Level**	3	3	3	4

	▪ There is a consistent approach to managing program level risks, but the capital program varies significantly from year to year, and, as such, it can be challenging to actively manage opportunities because of funding uncertainties. ▪ The facility would like more flexibility managing and maintaining its property to help mitigate program-level risks.				
14	**Commercial Focus (project delivery)** ▪ There is a standardized approach for project delivery statewide. Facilities must follow the guidelines. ▪ Low bidders have been a challenge in Design Bid Build (DBB) contracts. ▪ Facilities are not given the flexibility to explore alternative delivery approaches because of the guidelines set forth in the CPSM.	3	3	3	3
15	**Capital projects – planning, design, construction, and commissioning** ▪ The CPSM is a 350+ page document that sets forth DBHDS' capital project guidelines across the project lifecycle. ▪ The facility expressed interest in having an abridged version that could provide targeted key guidance. ▪ The CPSM does not give project managers flexibility in project management. ▪ Project re-forecasting is beyond what the facility does.	3.5	3.5	3.5	3.5
16	**Post Implementation Review** ▪ The facility conducts a post-implementation review following capital projects but does not apply this consistently across all projects. The facility expressed interest in standardizing its post-implementation review process.	3	3.5	4	4
17	**Financial budgeting** ▪ Financial budgeting is based on prior years' history and incorporates projections and future needs. ▪ The facilities' budgets ultimately derive from the funding provided by DBHDS, as allocated by the General Assembly through the central office.	2.5	2.5	3	3.5
18	**Funding** ▪ This facility looks into additional funding sources through special funds, earning and collects revenue beyond general funding received from the General Assembly. The facility has been able to keep its Medicare and Medicaid certification which enable it to collect these funds. This is no small feat during these times. Approximately one third of budget is derived from special funding. SVMHI attempts to maximize special fund revenue through regular meetings with providers, utilization review, and reimbursement. ▪ The facility has an agreement with central office where if Southwestern can increase its revenue above projections, Southwestern gets to keep a portion of the revenue.	4	4	4	4
19	**Reserve Funds Management** ▪ Facilities are not permitting to set aside reserve funding.	2	2	2	2

	▪ However, they do prepay certain costs – IT bills, medications – which puts hospital in a better shape for next fiscal year. ▪ The facility noted that there is a great incentive for the private sector not to take patients with complicated needs including medical conditions into their hospitals and, instead, refer them to the Commonwealth mental health facilities, who are then required to pay the unexpected costs associated with patients' underlying medical conditions. This is an unpredictable unbudgeted cost.				
20	**O&M - Procedures** ▪ The facility uses the Time Management System (TMS) to manage all maintenance activities. TMS maintains O&M procedures. Policies are updated annually. ▪ The facility is required to operate its assets according to safety codes, as per the Joint Commission standards. ▪ Have some building automation systems. ▪ Have systems that are outdated	4	4	4.5	5
21	**Org Design and Roles and Responsibilities** ▪ Everyone has a clearly defined role in the organization, and roles are communicated and well documented in Employee Work Profiles (EWPs), which are updated each year. ▪ When Southwestern contracts maintenance work, the contractors are brought through an orientation program for both safety and security. ▪ Roles are matrixed to different parts of the organization.	4	4	4.5	5
22	**O&M Staffing and scheduling** ▪ The facility assigns and schedules work across its departments and cross-trains staff to create additional expertise in case of scheduling issues or lack of resources. ▪ The facility undertook an initial assessment of its staffing needs and has reviewed historic trends related to staffing. ▪ The facility would like to improve on a few areas in its staffing efficiencies, such as HVAC, where expertise is limited and specialized. ▪ Additionally, the facility would like a green energy specialist	3	3.5	4	4
23	**O&M Demand Management** ▪ There are preventative maintenance orders weekly, monthly, and quarterly, managed through TMS ▪ The facility has an administrative assistant responsible for assigning work orders to a specific trade. If urgent, she will update the priority of the work order. Work orders are prioritized on a 1-4 rating. ▪ The facility benchmarks its work order management compared to other facilities in the state.	3	3.5	4	4.5

	▪ The facility noted some challenges with staff inputting and reporting work orders in TMS and noted that additional resources could improve the efficiency of data entry for work orders. ▪ Just in time delivery is hard on much of their equipment, so enhanced monitoring and reporting will be extremely valuable with more resources.				
24	**Maintenance Management Strategy** ▪ The facility has different levels of maintenance needs based on asset criticality. For example, fire/life safety equipment have a set preventive maintenance schedule, defined in TMS. The facility has a different level of maintenance for lower critical assets (e.g. lightbulbs). ▪ There is sufficient documentation for higher risk assets' maintenance needs, although the facility expressed interest in working towards grouping its maintenance activities to improve efficiencies. ▪ The facility has adjusted its maintenance strategies to account for COVID, so that maintenance is a mix of corrective and preventive maintenance. The strategies are adjustable based on changes in needs.	3.5	4	4	4
25	**Investigations and Recordings of Routine Asset Failures and Reactive Work** ▪ Following asset failures and reactive work, there is an after-action meeting to discuss how to prevent asset failures in the future. However, this is not formally documented in a report. ▪ After action meetings are more common in clinical operations than administrative/maintenance operations, noting that asset failures are rare occurrences.	2	3	3.5	4
26	**Commercial Focus (ops & Main)** ▪ No formalized assessment has been taken to 'right-source' in-house vs. outsource maintenance. The facility typically first determines whether in-house resources have the right skillset to perform work and then determine whether contracted support is needed. ▪ The facility has done limited outsourcing, typically for specialized tasks. ▪ Typically, the facility finds that it is less costly to perform maintenance in-house and noted qualitative challenges bringing on contracted labor (e.g., how bringing in outside labor can be unfamiliar/ difficult for patients timing issues with work and patient care areas). ▪ Long-term, there may be value in documenting a formal approach to how /when contracted labor is determined.	2	2	2	3
27	**Contracted Operations Maintenance** ▪ To manage risks, the facility typically leverages the same contractors who are familiar with the facility and its operations. The facility also conducts background checks on all contractors and requires contractors undergo orientation and reviews.	4	4	4	4

28	**Facility and Land Needs** ▪ No facility master plan is in place ▪ Facility and land needs are mostly determined on an ad hoc basis. ▪ The facility noted that Southwestern does not own its land and, as such, does not have long-term real estate considerations.	2	2	2	2
29	**Space Allocation Management** ▪ Design standards for patients are well documented and have been built into the design of hospital. ▪ There is enough space for patients according to requirements; however, bedrooms are for two patients while bathrooms support 2 to 4 patients. New hospitals are being built with single bedrooms with a bathroom for each that can be closed and locked off. There are also inadequate treatment rooms, therapy rooms, patient care units, and quiet spaces on the patient care units. ▪ While patient space allocation needs are well defined, the facility could improve on its office /administrative space.	3	3	3	4
30	**Lease Management** ▪ This is not applicable.	N/A	N/A	N/A	N/A
31	**Business Applications** ▪ VITA creates challenges for the facilities in the management of IT assets. ▪ Some business applications exist at the enterprise level. While all facilities have TMS, each facility has a different version of the system. ▪ Every facility should use CBORD for patient meals, but every facility has a different version of the system ▪ Minimal integration exists between IT systems as facility efforts to develop integrated systems have been halted by DNHDS IT and alternatives have not been put into place. ▪ There is a significant business need to improve IT systems across the facilities.	1.5	2	2.5	4
32	**Asset Inventory** ▪ An asset inventory exists. While the facility has a record of its assets, these are checked manually (not electronically). The facility went through an effort a few years ago to put barcodes on its assets but did not complete this initiative. The facility is considering whether to reimplement an electronic system again to record its assets. ▪ An asset hierarchy is not in place.	2.5	3	3.5	4
33	**Asset Information** ▪ The facility does have pass/fail records on some critical assets, e.g., fire alarms. However, no formal condition rating scale is in place, nor are assets' conditions reported.	2.5	3	3.5	4
34	**Information Management**	3	3	3.5	4

	▪ The facility generally believes information on its assets is accurate but do not have data on condition. Data is annually assessed.				
35	**Data Analytics** ▪ The facility has asset data, but data is located across many different places and business platforms. ▪ An enterprise wide program to improve data and the supporting IT systems could help improve the ability to perform data analytics.	2	2.5	3	5
36	**Quality Assurance and Management Review** ▪ There exists a management level review on the clinical and staff/patient safety side – ways that manage quality of clinical care, hours of active treatment, overtime hours, etc. ▪ There is an audit program, just not implemented across the entire facility. ▪ There is a commitment to quality assurance at the executive level. ▪ The facility also has numerous outside accreditation agencies/auditors that assess the facility.	3	3	4	4
37	**Prioritized Plan for the Development of Skills and Competencies** ▪ The facility reviews and updates its core competencies annually. ▪ Look at potential training as part of its annual budgeting and leverages a training committee to review skills and competencies needs.	4	4	4	4
38	**Capital Governance** ▪ Capital governance processes are in place internally at the facility level; however, there is a separate process for prioritizing projects across the facilities at the central office level, and, as such, there can be a misalignment in facilities' priorities and central office's priorities. ▪ The facility recognizes the need to improve capital governance and contributes to the capital request process but noted this as a larger department-wide improvement need.	3	3	3	3
39	**Asset Accounting, Valuation, and Cost Capture** ▪ The facility does not perform a full cost capture on its assets. The facility performs an annual asset evaluation but not a true asset evaluation ▪ The central office makes the determination of what the value of the assets is. ▪ The state also does do some depreciation of assets in accounting for furniture-type assets. ▪ Note that DBHDS facilities are self-insured.	2	2	2	2

Virginia Department of Behavioral Health & Developmental Services

Commonwealth Center for Children and Adolescents and Western State Hospital

Table 40: Commonwealth Center for Children and Adolescents and Western State Hospital Workshop Notes

DBHDS Asset Management Assessment CCCA and WSH Hospital	08/13/2021 1:00 PM – 4:30 PM
Attendees Don Byers, CCCA B&G Manager Jeff Mohr, WSH Gail Burford, WSH QM Deb Shipman, WSH CFO Jon Chapman, WSH B&D Jim Stevens, WSH Rob Johnston, CO A&E Jhonny Trejos, CO A&E Jaime Bamford, CCCA Director Jon Anderson, WSH Director Fairly Fenton, WSH Director of IT Services Vickie Coyner, CCCA ADA	Facilitators Linnea Musselman Jeff Phillips Brendan Davis

	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	Current	Short Term (within 1 year)	Med. Term (within 2 years)	Long Term (within 5 years)
1	**Organizational Strategic Plan & Organizational Objectives** ▪ WSH has been developing strategic priorities around facility level planning and actively track strategic objectives at the facility level. ▪ There have been challenges with changes in gubernatorial administrations and the impacts they have on strategic priorities. ▪ There is a need for consistent leadership to develop effective plans. ▪ The group suggested that WSH is slightly more advanced on organizational strategic planning and objectives than CCCA because it is a newer facility	2.5	3	3.5	4

2	**Sustainability** ▪ WSH is a newer construction and has sustainability factored into the design of the building. However, no formal sustainability plan exists at the facility level. ▪ While CCCA has no formal sustainability plan in place, it conducts sustainable initiatives on an ad hoc basis. ▪ The group discussed how there is a need for additional funding and department-wide sustainability goals from DBHDS to advance this initiative. For example, there is a significant impact of no plastic policy from the State – while DBHDS appreciates the vision, it creates significant challenges for DBHDS to find options that are safe for patients	2	2	3	4
3	**Understanding Stakeholder Strategy and Needs by Population and Facility** ▪ WSH conducts safety surveys for staff and patients and measures patient satisfaction surveys. This data gets added as an element of WSH's strategic priorities ▪ Overall, both facilities agreed in the need for additional documentation around stakeholder needs. ▪ Census increase has made facilities more reactive than proactive	2.5	2.5	3	4
4	**Performance Reporting** ▪ Both CCCA and WSH are reporting assets through Time Management System (TMS) and maintain histories of the assets. ▪ Both facilities can pull reports and do annual inventories ▪ Both facilities consider themselves leaders in using TMS and report back to the safety commission on asset performance.	3	3	3.5	3.5
5	**Objectives – Performance metric/levels of service** ▪ Levels of service are required through such accreditation agencies as the Joint Commission, CMS, etc. and the facilities must meet the levels of service to maintain their accreditation status. ▪ Onsite inspections are conducted every three years to evaluate levels of service. ▪ The facilities believe they score high on performance from a physical assets' perspective but low on the clinical aspect because of COVID and impacts to service levels. ▪ The facilities are aware of customer needs and how facility assets must be maintained to meet standards. For example, WSH knows the life expectancy of 99 percent of equipment and looks at maintenance plans several years out. ▪ The facilities acknowledged that additional resources would be required to improve this area.	3	3	3.5	4
6	**Risk to Service Delivery** ▪ CCCA does not believe that this is a robust practice ▪ WSH has risk assessments in place but looks mainly at safety risk factors for employees and clients. WSH has its risks identified.	3	3.5	4	4

	▪ WSH has a risk manager and conducts annual risk assessments				
7	**Future Trends (Impacts of Growth, Climate Change, etc.)** ▪ Climate change policies come from the gubernatorial administration and are influenced by the political environment. ▪ The facilities have a general idea of future trends, but it is not documented. ▪ Climate change impacts have not been assessed for WSH, nor CCCA. ▪ The facilities would like to see an overarching strategy from central office and suggested that central office conduct a deeper review of population utilization at facilities. ▪ Facilities noted that hiring staff is a trending challenge because of the economy and that the hospitals do not have a full understanding of this future trend and the direct impacts on the hospitals.	2	3	4	4
8	**Legal, Regulatory and Statutory Requirements** ▪ WSH feels slightly more competent in this area than CCCA, but both facilities are highly confident in their ability to monitor legal, regulatory, and statutory requirements. ▪ Clinical requirements are monitored at a high level, but administrative requirements are not monitored as robustly (for example, the facilities missed the Virginia Overtime Act) ▪ CCCA recently brought on a quality manager, who may assist in this area.	3.5	4	4	4
9	**Optimized Asset Intervention Planning** ▪ Asset intervention planning goes back to Central Office and is used in central office's investment decisions. ▪ Because WSH is a newer facility, WSH has a greater awareness of its fixed assets' life expectancies ▪ Although facilities have plans and can conduct analysis on the assets, additional funding and resources would be required to implement full asset lifecycle costing and optimize interventions. ▪ The facilities expressed an interested in leveraging lifecycle cost analyses in future asset planning.	2	2	2.5	3
10	**Asset Strategies** ▪ The TMS management system has incorporated documents on maintenance strategies for the facilities assets. These strategies provide the foundation for the facilities' asset strategies. ▪ WSH and CCCA collect documentation on their assets and capture documentation digitally within TMS, beginning at procurement	3.5	4	4	4
11	**Asset Management Plans** ▪ The facilities have elements of an asset management plan, although these are not tied together in one formalized document	2	2.5	3	4

	▪ Both facilities values developing an asset management plan to support their capital requests but are unsure whether it would help secure additional funding/funding for the appropriate needs because of the way funding is allocated through the central office.				
12	**Capital investment plan development** ▪ The facilities develop a six-year rolling plan, which rolls up to the central office's capital plan. The central office understands what the priorities of the individual facilities are and supports to the extent allowable by the General Assembly ▪ There is little expectation this process can change	2.5	2.5	3	3.5
13	**Risk – Program Level** ▪ Program level risk depends heavily on outside influences and can change regularly. ▪ The facilities have designated responsibilities for managing program level risks, including a risk manager/risk management department at WSH. Risks are identified and prioritized and escalated, as needed.	4	4	4	4
14	**Commercial Focus (project delivery)** ▪ The CPSM sets clear guidelines for project delivery approaches, and all facilities must adhere to these standards. ▪ There are procedures outlined in the CPSM for considering delivery methods, but innovation is not driven at the facility level ▪ There is a "rigid" process that prevents facilities from optimizing a delivery approach.	3	3	3	4
15	**Capital projects – planning, design, construction, and commissioning** ▪ The CPSM provides a robust plan for capital projects that the facilities use as guidebook for all projects. ▪ The CPSM is updated annually at the central office.	4	4	4	4
16	**Post Implementation Review** ▪ Both facilities perform regular reviews of their projects and document meeting minutes ▪ Post implementation review is applied consistently across projects ▪ Both facilities would like some type of formalized lessons learned program that could be shared across facilities ▪ Would like an ability to influence change for optimization	3	4	4	4
17	**Financial budgeting** ▪ Budgeting is need based and top down from General Assembly, distributed by the central office to the facilities. ▪ Both facilities expressed that financial budgeting is a challenge because of the current funding process. ▪ A financial budgeting process is in place but is largely out of facilities' control, as funds are determined by central office.	2	2	2	2

	▪ The facilities understand their facilities needs but have challenges securing the funds.				
18	**Funding** ▪ WSH and CCCA do not have grant writers, nor are responsible parties assigned to monitor for additional sources of potential funding. ▪ On rare occasions, the facilities will receive federal funding (e.g., COVID relief funding) ▪ The facilities like better insight from the central office into what additional funding options are available	1.5	1.5	2	2
19	**Reserve Funds Management** ▪ This area is not applicable for the facilities, as reserve funds are not permitted.	N/A	N/A	N/A	N/A
20	**O&M - Procedures** ▪ The facilities each have detailed operations procedures and SOPs documented and maintained in TMS. ▪ Procedures meet requirements of the Joint Commission and other safety, regulatory requirements.	4	4	4	4
21	**Org Design and Roles and Responsibilities** ▪ All staff are given assigned roles and responsibilities which are documented through Employee Work Profiles (EWPs) and included in the organizational structure ▪ Because of staffing, CCCA and WSH staff "wear many hats" that would normally require a full-time position and would like to have this more standardized. ▪ The facilities are effective with organization design and roles and responsibilities because of the flexibility and commitment of the staff	3.5	3.5	4	4
22	**O&M Staffing and scheduling** ▪ All tradesmen are licensed (electric, plumbing, etc.), and staff are cross trained across positions to help ensure adequate staffing and scheduling. ▪ WSH is currently undertaking an organizational restructuring to further improve staffing. ▪ The facilities discussed how the current staffing levels assume an 8-hour workday for its administrative staff; however, the facilities provide 24-hr service.	4	4	4.5	4.5
23	**O&M Demand Management** ▪ Staff are assigned to work orders based on priority, with safety issues being highest priority level. ▪ Priorities are also based on the skillsets required to complete the work orders. ▪ Work orders are managed and maintained in TMS.	4	4	4	4
24	**Maintenance Management Strategy** ▪ TMS automatically produces recommended maintenance / preventive maintenance schedules for fixed assets.	4.5	4.5	4.5	4.5

	▪ WSH and CCCA are very proactive in repairs and believe most work orders are preventive, rather than corrective. ▪ Maintenance strategies have been identified across the board for all fixed assets at the facilities.				
25	**Investigations and Recordings of Routine Asset Failures and Reactive Work** ▪ TMS provides a full history of work orders on the assets and can include root causes of asset failures, when needed. ▪ Facilities have an office administrator assigned to complete and manage the TMS database. This resource monitors asset failures.	4	4	4	4
26	**Commercial Focus (ops & Main)** ▪ As a risk management effort, the facilities use third party contractors for activities that have a high liability. All other work is done in-house, according to code ▪ The facilities have done a high-level cost benefit analysis on use of contractors and found it most cost effective to do most work in-house	4	4	4	4
27	**Contracted Operations Maintenance** ▪ The facilities require that all contractors go through an orientation, which covers the facility policies. Contractors must also go through background checks. ▪ Additionally, the facilities receive performance reports from contractors, document the status of work orders from contractors, and have annual contract evaluations ▪ Knowledge sharing of contractor usage exists with other facilities but in an unstructured way (although meeting minutes are kept)	4	4.5	4.5	4.5
28	**Facility and Land Needs** ▪ Central office maintains facility master plans, but the facilities do not maintain facility-level master plans. ▪ Land is owned by the state, not the facilities ▪ The facilities see value in having their facility master plans and real estate priorities better communicated from Central Office	1	1	2	2
29	**Space Allocation Management** ▪ Space allocation and design standards are set by the guidelines within the CPSM, Joint Commission's standards, etc. and facilities must comply with them. ▪ Facilities are aware of what space is available and when more space is needed	3.5	3.5	3.5	3.5
30	**Lease Management** ▪ The facilities are not leased; therefore, this question is not applicable.	N/A	N/A	N/A	N/A
31	**Business Applications** ▪ There is ongoing work to improve some enterprise applications ▪ The biggest obstacle is VITA, which can often prevent progress on improving business applications ▪ The facilities are moving forward with developing their own applications because of silos across the facilities and lack of an enterprise-wide strategy.	2	2	3	4

	▪ Facilities expressed that is can be challenging to get the right equipment and applications and are often directed to use insufficient applications ▪ The facilities understand IT business and functional requirements but are unable to get what is needed. ▪ There are opportunities for Central Office to look at best practices across the facilities and help implement these best practices, standardize applications, and increase the level of integration across the systems.				
32	**Asset Inventory** ▪ An asset inventory is in place, and assets are recorded in the TMS system. Assets have barcodes assigned to them and are tied to a physical location (e.g., a room). ▪ While an asset hierarchy is not organized by asset class/type, assets are tied to a geographic location at the facility.	3.5	3.5	3.5	4
33	**Asset Information** ▪ Asset age is inventoried and recorded in TMS. ▪ The facilities also maintain full histories of all work order activities on the assets, including preventive and corrective maintenance. ▪ Condition ratings are not captured in TMS. Instead, the facilities use expected useful life and work order history to understand the assets' conditions.	3	3	3	3
34	**Information Management** ▪ The facilities believe that data on their assets is current and up to date ▪ The facilities have one designated person responsible for uploading information to TMS from procurement to retirement	4	4	4	4
35	**Data Analytics** ▪ Data analytics are conducted by the facilities. ▪ Data is reported to the safety committee ▪ Building automated system trend logs can be produced at any time ▪ The facilities noted that developing the capital funding request tends to be based more on lifecycle / expected useful life of the assets than data-driven by condition. ▪ While data is internal looking, there is a data warehouse across the facilities that could be leveraged to gain additional insights into the facilities, if additional resources were available. Many at facility level don't know this warehouse exists.	3	3	3.5	4
36	**Quality Assurance and Management Review** ▪ There is a department assigned at WSH that focuses on quality assurance. WSH currently rates itself at a 3.5. ▪ At CCCA, a staff member has recently been hired to serve in a QA/QC role and is still onboarding. CCCA rates itself at a 3.0 to account for this.	3.5	3.5	4	4
37	**Prioritized Plan for the Development of Skills and Competencies**	3	3	4	4

	▪ The facilities have robust professional development opportunities through training and continuing education ▪ HR ensures that everyone's licenses are up to date and identifies which staff need training to meet requirements. ▪ CCCA has fewer resources to manage professional developing and rated themselves at a 3.0, lower than WSH (3.5). ▪ A skills and competencies framework exists. ▪ Both facilities would like a better tool for assessing and maintaining compliance with licensing and required trainings.				
38	**Capital Governance** ▪ Capital governance is handled primarily at the Central Office ▪ The capital budget process is well documented in the CPSM ▪ Within the facilities, different departments determine their departments' wants and needs, which is then prioritized by the facility, which then goes to central office in the capital request. ▪ Central office serves as the portfolio owner across the facilities.	2	2	2.5	3
39	**Asset Accounting, Valuation, and Cost Capture** ▪ The facilities are not factoring depreciation costs, in part because of the unpredictability. ▪ The facilities were usure if this information would have value in their decision-making. ▪ Could have use to understand asset accounting and cost capture across all facilities	2	2	2.5	3

DBHDS Central Office

Table 41: DBHDS Central Office Workshop Notes

DBHDS Asset Management Assessment ***Central Office, Richmond***	**August 12, 2021** **2pm – 5pm**
Attendees Hugh Hubinger (DGS) Angela Harvell (DBHDS) Walton Mitchell (DBHDS) Karl Saimre (DGS)	**Facilitators** Blair Trame, Linnea Musselman, Tricia Harper, Caroline O'Grady

Holly Eve (DGS) Mickie Jones (DBHDS) Joe Damico (DGS) Steve White (DBHDS)					
	Notes Each bullet point reflects a different person's comment and/or the general opinion of most of the group.	**Currse nt**	**Short Term (within 1 year)**	**Med. Term (within 2 years)**	**Long Term (within 5 years)**
1	**Organizational Strategic Plan & Organizational Objectives** ▪ In 2021 DBHDS held an interactive town hall with the entire agency and a separate town hall specifically with supervisors and managers from the individual facilities to identify their strategic goals/objectives. ▪ The latest Strategic Plan was developed in 2021 and incorporated feedback from the facilities as to their needs; a previous version was dated a few years ago. ▪ At the facility level, some representatives are aware of DBHDS' strategic objectives, whereas others were unaware of the plan. ▪ Two townhalls were held, one with supervisors and managers, one town hall with all employees, to discuss changes to the Strategic Plan. ▪ There exists some 'line of sight' between the strategic and facility level. Other KPIs/metrics (e.g., for IT) are still underway, with more specific objectives to be developed before next year. DBHDS is targeting to develop a full framework for objectives by the end of the fiscal year but acknowledged higher priority items. ▪ The group acknowledged that strategic priorities change based on political factors.	3	4	5	5
2	**Sustainability** ▪ For new capital projects, DBHDS works towards LEED Silver level and also considers sustainability efforts for their construction projects, e.g., carbon footprint is considered in projects. ▪ No centralized sustainability plan exists at DBHDS; however, sustainability is considered for their facilities. ▪ At the facility level, some facilities will undertake their own sustainability efforts, e.g., using switchgrass vs. fossil fuels ▪ The level of sustainability that can be achieved may vary based on the environment of the individual facility (e.g., facility age, local resources, etc.). ▪ Facilities have an appetite for a recycling initiative. ▪ Some guidelines are in place within the CPSM.	2	3	3.5	4
3	**Understanding Stakeholder strategy and needs by population and facility**	3	4	4.5	5

	▪ Patients are primary stakeholders, and staff who work in the facilities are DBHDS' secondary stakeholders. DBHDS' projects are primarily aimed to provide quality service to patients and ensure safety. ▪ DBHDS' external stakeholders (e.g., patients, families of patients) are factored. For example, architects are required to visit facilities and monitor client/staff interactions and how these interactions would impact facility and space needs. ▪ Joint Commission and CMMS are other external stakeholders that must be considered. ▪ DBHDS' vendors (e.g., legal personnel, maintenance contractors) also have processes and procedures in place to address their needs. ▪ DBHDS also has processes and procedures in place as guidance for patient interaction, families of patients. ▪ However, no overarching policy exists for stakeholder needs.				
4	**Performance Reporting** ▪ DBHDS has maintenance metrics in place, as well as metrics for the assets. Some dashboarding capabilities in place but not an overarching performance management framework. ▪ The group acknowledged funding as a challenge that prevents improvement in performance reporting. ▪ TMS is used to monitor metrics at the facility level, and DBHDS monitors trends provided from TMS. Asset performance data is obtained both from TMS and field knowledge. ▪ The group noted that resource and personnel needs are dependent on funding. DBHDS is also subject to/governed by legislation. ▪ State salary structure makes it difficult to find skilled and qualified workers. ▪ The group noted that there has been a shift in the past few years to centralize processes/policies and some initiatives would require further centralization, e.g., performance reporting.	2	2.5	3	4
5	**Objectives - Performance Metrics/Levels of Service** ▪ Customer levels of service are driven by the Joint Commission's standards for health/safety for patients and are required for accreditation. Facilities are well aware of these standards. Customer levels of service tie to the strategic plan's goals and objectives (e.g., safety). ▪ Maintenance manuals at the facility level set asset-level standards (technical levels of service), and technical requirements are well documented. ▪ DBHDS noted that fully understanding the costs of technical levels of service may change based on the requirements (e.g., as specified by the Joint Commission).	4	4	4	4
6	**Risk to Service Delivery**	5	5	5	5

	▪ Risk assessments are conducted at the facility level, e.g., hazard risk assessments as part of facilities' emergency management response procedures. ▪ Facilities also have risk management committees in place. ▪ The hazard risk assessment is a standard tool used across the facilities and is a requirement for their accreditation. Risks are prioritized and escalated, as needed.				
7	**Future Trends (Impact of Growth, Climate Change, etc.)** ▪ Although DBHDS has considered future patient needs / expanded beds, DBHDS acknowledged that facility capacity can be impacted by political factors. ▪ DBHDS reviews future trends related to demographics, increases in mental health needs, and how this impacts their real estate footprint. ▪ DBHDS looks for innovative approaches in architectural design to account for future needs. DBHDS has conducted some scenario analyses to determine how best to maximize space to address changes in patient needs, and this is a collaborative process that incorporates the facilities' inputs.	4	4.5	5	5
8	**Legal, Regulatory & Statutory Requirements** ▪ Maintenance documentation exists in TMS for legal and regulatory standards, e.g., from the Joint Commission, and are tied to work orders and inspections that demonstrate the facilities are addressing legal/regulatory requirements. ▪ DBHDS has defined responsibilities for reviewing laws/regulations and considers new and emerging changes in legislation or other requirements. DBHDS considers the impacts of these potential changes. DBHDS holds centralizing trainings for B&G staff to discuss changes in regulations. ▪ DBHDS stays up to date on current legislation and requirements and communicates with other agencies to stay proactive.	4	4.5	5	5
9	**Optimized Asset Intervention Planning** ▪ Once an asset starts failing, DBHDS replaces the asset because of the risk of reliability. ▪ DBHDS conducts frequent and rigorous maintenance treatments to extend the lives of the assets, often past their useful life. ▪ When an asset is replaced, DBHDS looks at the maintenance requirements from the maintenance manual and enters the maintenance requirements into the maintenance management system, and DBHDS follows manufacturers' recommendations. ▪ DBHDS does lifecycle analysis/projections for major systems but is not consistently applied across the asset base.	3	3.5	4	4
10	**Asset Strategies**	3	3	3.5	4

	▪ DBHDS uses its rolling 6-year capital plan as the basis for its asset strategies for facilities. The capital plan includes a list of projects with justification, that is then submitted to the Commissioner and Executive Team to review strategically, who then provide it to the Secretary. Office of Planning and Budget then evaluates the full 6-year plan package which then is reviewed and approved by the General Assembly. ▪ Note that the asset strategies are dependent on the availability of funds over the 6-year timeframe, and asset priorities can change based on political changes.				
11	**Asset Management Plans** ▪ DBHDS has elements of asset management plans but no single document. Reporting formats on various elements is dependent on state reporting requirements. ▪ DBHDS has an overview of its asset inventory and basic asset information (e.g., # of facilities, size, age, occupancy, etc.), and facilities are also required to maintain this information.	2	3	4	5
12	**Capital Investment Plan Development** ▪ DBHDS submits a rolling 6-year plan. The capital plan is comprised of a list of projects with justification, that is then submitted to the Commissioner and Executive Team to review strategically, who then provide it to the Secretary. Office of Planning and Budget then evaluates the full 6-year plan package which then is reviewed and approved by the General Assembly. ▪ A full risk-based analysis is inconsistently used for the development of the capital plan; for example, higher risk assets are prioritized for the plan (e.g., roof). ▪ When developing the capital plan request, DBHDS prioritizes safety, staff, and projects that maintain certification. DBHDS will bundle projects (e.g., for life and safety) when developing the capital plan. ▪ DBHDS uses standardized criteria to prioritize projects for the capital request.	3	3.5	4	5
13	**Risk - program level** ▪ DBHDS leverages third parties (e.g., project management assistance, third party inspectors, commissioning agents) as a risk mitigation approach in delivering the capital program. This is consistently applied across the facilities. ▪ A formal risk management plan has not been documented.	3	3.5	4	5
14	**Commercial Focus (Project Delivery.)** ▪ Standards for Design-Bid-Build (DBB) and Design-Build (DB) have been documented in the CPSM and are standards applied across the facilities. DBHDS typically uses DBB contracts.	2	2	2	3

	▪ Because of funding constraints, DBHDS does not have a guaranteed funding stream that would incentivize using alternative delivery methods. ▪ DBHDS considered using a PPEA for operating one of its facilities. ▪ Innovative methods may be reviewed by DBHDS but may be challenging to implement in the long-term due to funding constraints.				
15	**Capital Projects - Planning, Design, Construction & Commissioning** ▪ DBHDS uses the CPSM as its project management manual, which all facilities are required to follow. This document is updated on an annual basis. ▪ Additionally, some DBHDS staff are encouraged to participate in project management courses through local universities. ▪ DBHDS central office participants are required to attend a CPSM training course every other year.	4	4	4	4
16	**Post Implementation Review** ▪ No formal post-project review reports are developed; however, issues that occur on site are raised during meetings on an ad hoc basis. ▪ DBHDS recognizes the need to develop a formal reporting method for documenting lessons learned following projects.	2	3	4	5
17	**Financial – Budgeting** ▪ DBHDS Central Office occasionally will allocate funding for multiple projects at one facility when ancillary issues may arise following a primary issue; however, DBHDS tries to equitably distribute funding to the facilities. ▪ Facility funding is need-based. DBHDS is considering zero-based funding for maintenance funding at the facilities with the implementation of TMS, but this would require training at the facility level to implement.	2	2.5	3	4
18	**Funding** ▪ DBHDS monitors potential grants/other sources of funding. Most facilities have had at least one ESCO project, and some facilities have leveraged grants (e.g., alternate fuel). Other funding channels beyond energy efficiencies have been identified on an ad hoc basis. ▪ Bonds have been used for capital facilities but have constraints around terms of usage.	2	3	4	5
19	**Reserve Funds Management** • "Maintenance Reserve" is an account that the General Assembly contributes to every year, acts like a rolling checking account. • Developing a maintenance reserve fund would require changes from the General Assembly and would be a political discussion.	1	1	1	1

	• Agencies' backlog of maintenance is already significant and, as such, setting aside additional funding for future needs would be challenging. • If there is any available capital, then it goes to the priority list. The current model for allocation of funds is a "Mr. Fix It" method.				
20	**Operations Management – Procedures** ▪ DBHDS has an agency-wide operating manual, and facilities also maintain operating manuals specific to the facilities. Facility-level manuals are reviewed by the facilities, and the central office manual is reviewed annually or bi-annually. ▪ Best practices from the facilities are shared amongst the facilities during monthly calls and at an annual conference.	3	3.5	4	5
21	**Org Design and Roles & Responsibilities** ▪ Roles and responsibilities of asset owners at the facilities are generally well understood. Some responsibilities may change based on changes in customer needs; however, staff at facilities have been cross-trained to address changes in responsibilities, as they occur. ▪ Plans are in place (Employee Work Profiles or EWP's) that identify each person's responsibilities	5	5	5	5
22	**Operations Management - Staffing & Scheduling** ▪ Clinical issues / incident responses or changes in priorities following the Joint Commission may cause changes to staffing and scheduling; however, staff are generally aware of these changes and address them, as they occur. ▪ Contractors are brought in to address specialty projects where the facility may not have the expertise. ▪ Assessments have occurred to address changes in staffing needs based on demand.	3	4	4	4
23	**Operations Management - Demand Management** ▪ TMS is managed by a work order director at the facility level, and as work orders are directed staff are assigned to the highest priority work order. ▪ Work orders are ranked based on set priorities.	5	5	5	5
24	**Maintenance Management – Strategy** ▪ Work orders are typically more reactive over proactive due to patient needs. Corrective work typically takes priority over planned preventive maintenance because of customer service expectations. ▪ More critical assets have preventive maintenance schedules entered into TMS.	3	3.5	4	5
25	**Investigation and Recording of Routine Asset Failures & Reactive Work** ▪ Trends and history of the assets are used to assess how close assets are to failing. ▪ Some root cause analysis is performed (e.g., for HVAC). ▪ Knowledge sharing occurs across the facilities to discuss root cause.	3	3.5	4	5

26	**Commercial Focus (Ops & Maint.)** ▪ DBHDS has contracted third parties. Facilities contract out specialty services and are aware of what services require contracted resources. ▪ Often, resources are contracted due to staffing needs. ▪ Facilities generally are aware of their staffing needs and which services require third party support.	3	3.5	4	5
27	**Contracted Operations & Maintenance** ▪ DBHDS has controls in place to monitor contracted labor. All contracted resources must undergo a background check and must participate in an orientation and briefing with DBHDS. ▪ Contracted labor (i.e., hours worked) is monitored in TMS. ▪ Best practices related to contracted operations and maintenance is shared at their annual conference.	4	4.5	5	5
28	**Facility & Land Needs** ▪ Every facility is required to maintain a real estate master plan; however, because updates to the strategic plan are underway, there is still an unclear line of sight from the master plans to the strategic plan. ▪ Master plans are generally static and lack a strategic component.	3	3.5	4	4
29	**Space Allocation & Changes** ▪ Space allocation standards are identified in the CPSM and must be followed at the facility level. ▪ Facilities can submit requests to DBHDS if changes need to be made to the guidelines to account for changes in patient need. ▪ Any changes to space allocation require active coordination with other third parties (e.g., fire marshal).	5	5	5	5
30	**Lease Management** ▪ Only one lease exists agency-wide, and all leases go through a real estate management system and the Real Estate department. ▪ No leases handled at the facility level.	4	4	4	4
31	**Business Applications** ▪ VITA must approve the IT systems that DBHDS and the facilities use. ▪ VITA is responsible for the project management oversight when an agency selects an IT system and they establish the statewide contracts and are responsible for providing the oversight to ensure IT systems are aligned to statewide enterprise architecture standards. ▪ Overall, facilities have challenges with the existing enterprise systems and the level of integration amongst the systems.	2	2.5	3	4
32	**Asset Inventory**	3	3.5	4	5

	▪ An asset inventory is maintained in TMS and all assets should be identified TMS. There is an asset hierarchy in TMS that goes to the component level of detail.				
33	**Asset Information** ▪ Age is collected for the assets at the facility level. ▪ Condition assessments have been performed on the facility assets on an ad hoc basis. A condition assessment was last mandated in 2010 and evaluated the condition of the assets as-built, not current code compliance.	2	2.5	3	4
34	**Information Management** ▪ DBHDS is generally confident in the accuracy and currency of their facility asset data. ▪ Data is maintained and reviewed for accuracy. ▪ As TMS is implemented, this could include a review of the data governance	3	3.5	4	4
35	**Data analytics** ▪ TMS will enable DBHDS to conduct trend analyses and valuation on the assets and will improve data analytics capabilities with the system upgrade. ▪ Some reporting has been put in place based on data analytics. ▪ Data Pinnacle is an agency-wide initiative to improve data analytics. Currently, there is a working group / steering committee to develop this.	3	4	4.5	5
36	**Quality Assurance & Management Review** ▪ DBHDS receives adequate feedback from accreditation agencies, the Joint Commission, etc. DBHDS takes feedback from the audit findings and shares with the facilities.	5	5	5	5
37	**Prioritized Plan for the Development of Skills & Competences** ▪ Employee Work Profiles are in place that establish the defined skillsets for staff. DBHDS has partnerships with local colleges and runs internal training courses for development. ▪ Staff are required to undergo an annual evaluation, and one aspect of the annual review addresses training needs. ▪ DBHDS works with HR to identify new training needs and refreshes these plans, as appropriate.	5	5	5	5
38	**Capital Governance** ▪ The CPSM serves as the guiding document for capital governance throughout the capital project lifecycle, and the CPSM is updated annually. ▪ At the central office level, DBHDS leverages criteria to evaluate capital needs from the facilities. Business case justifications are developed when developing the capital plan.	4	4	4	4

	▪ Maintenance reserve controls may be less robust than other capital projects. ▪ Reporting requirements are in place across the capital project.				
39	**Asset Accounting, Valuation, and Cost Capture** ▪ DBHDS captures costs of capital. Costs of facilities are based on Treasury evaluations. ▪ TMS (or replacement system) could be used in the future to better capture lifecycle costs.	2	2.5	3	4

K. Appendix D: Benchmarking Background

Michigan Department of Health and Human Services (MDHHS)

Table 42: Overview of Michigan Department of Health and Human Services

Organizational Overview	Function	MDHHS is a principal Department of State of Michigan focused on public assistance, Child and Adults welfare services and overseeing health policy and management.
	Mission	MDHHS provides opportunities, services, and programs that promote a healthy, safe, and stable environment for residents to be self sufficient
	Vision	Develop and encourage measurable health, safety, and self-sufficiency outcomes that reduce and prevent risks, promote equity, foster healthy habits, and transform the health and human services system to improve the lives of Michigan families
Facilities Portfolio Overview	# of Facilities	12
	Types of Facilities	2 state operated Juvenile facilities and 10 nursing facilities
Relevance to DBHDS	Reasons	As with VDBHDS, MDHHS is a state governmental health and human services agency that operates facilities across a variety of geographic regions across the State of Michigan.
		Except for its new center for forensic psychiatry, most of its facilities are aging and have a significant level of deferred maintenance needs to address the infrastructure backlog.
		MDHHS has considered options to consolidate some of its facilities, potentially disposing of excess land and real estate and building new facilities to enable modern treatment approaches.
	KPMG Solutions	Through KPMG, MDHHS undertook a facility assessment to assess the physical condition of its assets, evaluation of strategic options to consolidate inpatient care facilities, funding assessment for replacement of select facilities with a new facility, preliminary program and cost development (including delivery model assessment), financial analysis and valuation of the existing property, and asset stabilization approach for the replacement hospitals.

North Carolina Department of Health and Human Services (NCDHHS)

Table 43: Overview of North Carolina Department of Health and Human Services

Organizational Overview	Function	NCDHHS manages the delivery of health- and human-related services for all North Carolinians. NCDHHS is divided into 33 divisions and offices within four services areas: health, human services, administrative, and support functions.
	Mission	In collaboration with its' partners, DHHS provides essential services to improve the health, safety, and well-being of all North Carolinians
	Vision	Advancing innovative solutions that foster independence, improve health, and promote well-being for all North Carolinians
Facilities Portfolio Overview	# of Facilities	14
	Types of Facilities	3 developmental centers, 3 neuro-medical treatment centers, 3 psychiatric hospitals, 3 alcohol and drug abuse treatment centers, 2 residential programs for children with emotional and behavioral health needs
Relevance to DBHDS	Reasons	Like VDBHDS, NCDHHS is a large, statewide government agency, and NCDHHS' facilities are state operated. NCDHHS manages facilities dispersed across the state, with a central office based in Raleigh.
		Initiative 1: Launch of Medicaid Managed Care to enable access to nearly 1.6 million Medicaid beneficiaries in North Carolina to a health plan. The state's program includes establishing a payment structure that rewards better health outcomes, integrating physical and behavioral health, and investing in non-medical interventions aimed at reducing costs and improving the health of Medicaid beneficiaries.
		Initiative 2: NCDHHS announced it has expanded its COVID-19 wastewater surveillance program from 10 to 19 sites to better identify areas where virus is spreading.
		Initiative 3: NCDHHS administered more than USD23.7 million in contracts designed to expand access to high quality health care for rural and undeserved areas. They also partner with other state agencies to prepare the workforce needed to support rural communities.

Louisiana State University

Table 44: Overview of Louisiana State University

Organizational Overview	Function	Louisiana State University (LSU) is a public land-grant research university with its main campus based in Baton Rouge, Louisiana.
	Mission	Generation, preservation, dissemination, and application of knowledge and cultivation of the arts.
	Vision	To be a leading research-extensive university, challenging undergraduate and graduate students to achieve the highest levels of intellectual and personal development.
Facilities Portfolio Overview	# of Facilities	546
	Types of Facilities	Dormitories, academic buildings, athletic and aquatic facilities, sports stadiums, fraternity and sorority houses, administrative buildings, maintenance, engineering, facility services buildings, agricultural buildings, student services, student health facilities, utilities buildings, warehouses, and campus streets
Relevance to DBHDS	Reasons	LSU maintains a large portfolio of facilities assets across a variety of departments and divisions and across numerous geographic locations. Like many universities, LSU faces a significant infrastructure backlog and must prioritize its investments.
		Like many large universities, LSU's maintenance activities face limited resources and competing priorities. There exists a need to standardize how work orders are prioritized and improve collaboration across departments for how work orders are managed and by whom (e.g., outsourced vs. in-house).
		Like state agencies, LSU must adhere to state regulations for its facility maintenance. Facility management and maintenance in LSU is governed by a permanent memorandum, where LSU is required to maintain proper inventory of its' facilities, and a means for determining that such facilities are appropriately used. LSU must provide an annual report to the Louisiana Board of Regents on its asset inventory.
		The LSU System has planned $46.7 million in fiscal year 2020-2021 for emergency and new projects. For the emergency fund, $2 million has been used to address safety and compliances, $5.1 million for renovations, and $1.4 million for disaster recovery. For new projects, $20 million has been used for new construction, and $11 million towards repair and upgrades.

	KPMG Solutions	With KPMG, LSU is undergoing efforts to improve the quality of data on its facilities assets to help inform its capital and maintenance decision-making. Currently, the completeness of the asset inventory and maintenance data in its work management system varies by facility, and data is not standardized.

The City of Sugar Land, TX

Table 45: Overview of the City of Sugar Land, Texas

Organizational Overview	Function	The City of Sugar Land, Texas is located in eastern Fort Bend County and has a population of approximately 118,500 residents. The City of Sugar Land is a full-service municipality and provides the highest quality of affordable services to meet the needs of its residents. The City's FY22 proposed budget totals $298M, including $239M operations and $59M in capital projects.
Facilities Portfolio Overview	# of Facilities	60
	Types of Facilities	Recreational parks and pavilions, community centers, conference centers, recreation rooms, utilities, public works, police department building, municipal court, administrative offices, City Hall and annex, and Sugar Land Regional Airport
Relevance to DBHDS	Reasons	The City of Sugar Land maintains a large number of assets within its facilities portfolio, spanning across a range of facility types.
		The City of Sugar Land, like many municipalities and/or governmental agencies, is challenged with a large infrastructure backlog caused by aging buildings and infrastructure.
		The City is actively looking for innovative ways to address unused property within the City. As an example, the City, Texas General Land Office, Johnson Development and Cherokee Investments have partnered to develop 686 acres of property on the site of the former Imperial Sugar Refinery and adjoining undeveloped land. The district is now a commerce park, mixed-use residential/retail, commercial retail, and traditional neighborhood development.
	KPMG Solutions	With KPMG, the City of Sugar Land developed a risk-based approach to identify and prioritize investment needs for its vertical assets. This included developing an asset hierarchy, likelihood and consequence matrix tailored to the City's operating environment and challenges, and risk methodology to determine risk scoring processes. The outputs of the risk assessment were used to prepare an investment planning model that can prioritize the City's deferred maintenance for facilities based on the assets' levels of risk.

Thomas Jefferson University (Hospital and University)

Table 46: Overview of Thomas Jefferson University

Organizational Overview	Function	Thomas Jefferson University (TJU) is an independent, non-profit corporation organized under the laws of the Commonwealth of Pennsylvania. TJU is comprised of both a university and health system, the latter of which services the greater Philadelphia region and southern part of New Jersey.
	Mission	Improve lives.
	Vision	Reimagining health, education, and discovery to create unparalleled value.
Facilities Portfolio Overview	# of Facilities	83
	Types of Facilities	4 schools, 10 colleges, 14 hospitals, 5 urgent care centers, 1 cancer center, 19 outpatient centers, and 30 testing and imaging centers
Relevance to DBHDS	Reasons	Like DBHDS, TJU has a large real estate footprint that includes a variety of healthcare-related facilities, spanning across numerous locations.
		TJU has experienced large growth in its portfolio of facilities assets through a series of recent expansions and mergers. This rate of expansion highlighted the need for improvements to the enterprise-wide capital planning strategy.
		TJU's wide portfolio of assets across multiple aspects of the university (e.g., academic, clinical, corporate) demonstrated the need to develop a standardized approach to prioritizing its investments when faced with competing stakeholders.
		Like many universities and healthcare systems, TJU's number of previously committed projects in future fiscal years and known funding constraints limited available funds for capital projects in its facilities.
		To address its capital planning needs, TJU recently implemented a capital project prioritization model with KPMG to assess and prioritize its capital improvement projects for facilities within a 5-year investment timeframe.
		Facilities management varies by campus and/or healthcare location. For example, the facilities at TJU, Center City campus is managed by the Facilities and Real Estate Services department that manages the sale/acquisition of real estate, lease administration, property management and any other real estate functions required by Jefferson. The JU, East fall campus' facilities

		management leverages a hybrid approach, using over two dozen University employees, as well as contracted services

Virginia Department of Corrections

Table 47: Overview of the Virginia Department of Corrections

Organizational Overview	Function	[Additional detail to be added as part of final report.]
	Mission	
	Vision	
Facilities Portfolio Overview	# of Facilities	
	Types of Facilities	
Relevance to DBHDS	Reasons	
	KPMG Solutions	