IN THE MATTER OF	*	**BEFORE THE**
	*	
ADVENTIST HEALTHCARE	*	**MARYLAND HEALTH**
	*	
SHADY GROVE MEDICAL CENTER	*	**CARE COMMISSION**
	*	
DOCKET NO. 20-15-2443	*	

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STAFF REPORT
REQUEST FOR PROJECT CHANGE
AFTER CERTIFICATE OF NEED APPROVAL

I. INTRODUCTION

Background

Adventist Health Care Shady Grove Medical Center (SGMC or Shady Grove), the applicant, is part of Adventist Health Care, Inc. (AHC), a faith-based, not for profit health system that is based in Montgomery County. AHC operates health care facilities and programs in the state that include three general acute care hospitals, special rehabilitation hospitals, hospital and outpatient mental health services, a freestanding medical facility, Patriot Urgent Care Centers, home health agency services, physician networks, and imaging centers. AHC's three general hospitals are: SGMC with 371 licensed acute care beds in Rockville (Montgomery County); AHC White Oak Medical Center with 213 beds in Silver Spring (Montgomery County); and AHC Fort Washington Medical Center with 31 beds in Fort Washington (Prince George's County). SGMC is the largest general hospital in Montgomery County, by licensed acute care bed capacity, and the fifth largest hospital in Maryland.[1]

The Commission awarded a certificate of need authorizing the original project on April 15, 2021, which is a major expansion and renovation of AHC Shady Grove Medical Center located at 9901 Medical Center Drive, in Rockville. The project adds a six-floor inpatient care tower with 150,352 square-feet (SF) of service space, and renovation of 25,696 SF of the existing hospital building space. The applicant is pursuing this project because the main hospital building is more than 40 years old, has an insufficient number of private inpatient rooms, an aging and undersized emergency department (ED) and intensive care unit, and a physical layout that does not support efficient operation. The project was approved to be implemented in two phases under a single construction contract at a cost of $180,011,359. The applicant funded the project with a $154 million tax-exempt municipal bond issue, $10 million in cash, and $16 million in philanthropic donations.

Summary of Requested Project Changes

SGMC states that the original project budget of $180.0 million was based on cost estimates

[1] https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_hospital/documents/acute_care/chcf_Acute_Care_Beds_fy2023.pdf.

from contractors based on market conditions at the time the application was submitted in 2020. Subsequently, applicant states that it has experienced dramatic market changes including rising inflation, disruptions in the supply chain, and increased labor costs. The applicant indicates that the increased project budget reflects the current cost estimates for the same work. (Please see **Appendix 1** for Revised Project Budget).

The applicant states that the design of the Project has not changed, but that the total project cost has increased significantly to $247,657,497, an increase of $67,646,138 or approximately 37.6%. SGMC states that most of the project cost increase is a result of inflationary pressures and the volatile market conditions that are a result of the COVID-19 pandemic and the rise in labor costs and global supply chain issues.

SGMC indicates that another factor contributing to the cost increase is the need for unanticipated upgrades to the central utility plant (CUP) due to the age of this equipment. After CON approval, SGMC performed a facility assessment that identified the need for additional cooling capacity and the need to replace the over 35-year-old boiler, pushing the replacement of the boiler to the top of the priority list. The applicant states that the SGMC CUP is over 40 years old and if the facility assessment had been completed prior to the submission of the CON application, the hospital would have included the CUP upgrades with the project. While CUP upgrades were a part of the original CON approval, to meet the facility needs upon project completion, the CUP requires additional, more extensive changes.

The CUP upgrades, including boiler replacement are necessary to bring the CUP up to current code and best practice standards that have developed since the CUP was originally built. The upgrades include the following work:

1. To meet current code requirements and best practice standards:
    a. Installing a Life Safety Automatic Transfer Switch for the generators and emergency lighting,
    b. Installing a Critical Branch Automatic Transfer Switch,
    c. Replacing egress lights with LEDs fixtures,
    d. Installing an equipment branch dedicated to the heating equipment, and
    e. Replacing generator power wiring.
2. Installing 1300-ton chillers to ensure the CUP can serve the new tower and have additional capacity to support future needs.
3. Replacing outdated boilers to serve the new tower and the hospital.

The approved project must now be pursued under multiple contracts, with changes to the project cost and financing. Originally, SGMC expected to complete the project under one contract, in two phases scheduled over 66 months (projected completion in August 2026), including six months for final design and planning. SGMC states that the current market conditions now require three separate construction contracts to complete the project. The first contract will address the construction of the core and shell space, as well as the CUP upgrades; the second contract will complete the tower interior fit out; and the third contract will complete the renovations that connect the new patient tower to the existing hospital. Please see Table I-1 for revised project timeline.

Table I-1
SGMC - Revised Project Timeline – November 2022 through 2027

Phase	Scope	Construction Start Date	Completion Date	Activation	Construction Duration
1A	Tower Core & Shell Space	November 2022	December 2024		36 months
	CUP Upgrade	July 2022	April 2024	May 2024	20 months
1B	Tower fitout	June 2024	October 2025	December 2025	18 months
2	Renovations	January 2026	July 2027	September 2027	18 months

SGMC Response to Completeness Questions, March 23, 2023, p. 6,
https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_con/hcfs_con_approved_projects_mod.aspx

SGMC states that the revised project budget reflects the guaranteed maximum price proposals (GMPs) from the contractors for the Phase 1A construction of the core, and shell space for the new patient tower and the CUP upgrades. Phase 1A costs are fixed, however, the Phase 1B fit out of the patient tower costs are not finalized, and there is not yet a GMP. SGMC indicates that the strategy to contain costs by pushing out the contract for fit out, is part of a strategy with the expectation that SGMC "will obtain a more favorable price than what is available on the market currently." While the Phase 1B fit out and Phase 2 completion of renovations are not under contract, SGMC states it has "included a 10% contingency amount to the construction estimates plus an inflation amount through the midpoint of construction."[2] SGMC expects that the delay in signing a Phase 1B and Phase 2 construction contract will "give time for the market to stabilize and for costs to come down."

Originally SGMC's sources of funds for the approved project were approximately $10 million in cash from its operating budget, $16 million in philanthropic donations, and approximately $154 million were to be raised through authorized bonds. SGMC states that it remains committed to raising $16 million in philanthropic donations. According to the applicant, it has raised just under $8 million in charitable contributions to date and fully expects to reach its target. The bonds issued for the Project were completed in October 2021.[3] The applicant stated that the remainder of the cost will be funded by cash from the operations of Adventist Health Care, which is about $77,642,497.

Because of the project budget increase, SGMC has filed a partial rate application request with the Health Services Cost Review Commission (HSCRC)[4] to help offset the cost that will result from the proposed project changes. HSCRC has determined that it will grant partial rate relief to SGMC in response to their rate application request. Please see **Appendix 3** for details on HSCRC's recommendation.

II. APPLICABLE REGULATIONS

[2] SGMC Response to Completeness Questions, March 23, 2023, p. 3.
https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_con/hcfs_con_approved_projects_mod.aspx
[3] The tax-exempt bonds were issued through the Maryland Health and Higher Educational Facilities Authority, consistent with the plan as stated in the approved CON.
[4] SGMC states that the partial rate application (PRA) was submitted to HSCRC on November 28, 2022, requesting $10,077,575.

If an applicant desires to make a permissible change from a project that has received certificate of need approval, it must seek approval from the Commission under COMAR 10.24.01.17. Any of the following changes that would place a project at variance with its CON, requires Commission approval:

(1) Before making a significant change in physical plant design;

(2) Before incurring capital cost increases that exceed the approved capital cost inflated by an amount determined by applying the Building Cost Index published in Health Care Cost Review from the application submission date to the date of the filing of a request for approval of a project change;

(3) When total projected operating expenses or revenue increases exceed the projected expenses or revenues in the approved Certificate of Need Application, inflated by 10 percent per year;

(4) Before changing the financing mechanisms of the project;

(5) Before changing the location or address of the project. [5]

This project requires Commission action because it seeks to make changes that would put the project at variance with its CON. The project changes result in an increase in capital costs under COMAR 10.24.01.17B(2) and changes the financing mechanisms of the project as provided under B(4).

Under COMAR 10.24.01.17D(3), the Commission may approve the requested change, approve the change in part or approve with conditions, not approve the change with explanation, or require a complete CON review due to the scope of the requested change.

The Change in Project Cost Exceeds the Inflation Allowance

SGMC indicates that the project, as changed, would require an additional capital expenditure of $67,646,138. CON regulations provide for an inflation allowance, calculated using the Building Cost Indices published on a quarterly basis by IHS Markit in the *Healthcare Cost Review.*[6] However, project cost increases that exceed this inflation allowance are required to obtain Commission approval.

Using the building cost inflation index noted above, the calculated allowable capital costs after factoring in the inflation allowance is $183,658,610, or an inflationary allowance of $3,647,251 (approximately 2.0% increase from the original CON-approved project costs). This inflationary allowance is well below the estimated capital cost increase projected by SGMC ($67,646,138 or about 37.6% increase) for completion of the project as now configured. In addition, SGMC will increase the portion of cash that will finance the proposed project from approximately $10.0 million to $77.6 million, offsetting a portion of this increase in cost with the submission of a partial rate application to HSCRC. Thus, Paragraphs.17B(2) and .17B(4) of this chapter requires Commission authorization for the proposed cost increases.

III. COST INCREASE AND FINANCIAL IMPACT OF THE REQUEST

[5] COMAR 10.24.01.17B

[6] https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_con/documents/con_cap_cost_index_20210503.pdf.

Current Request Compared with the Original Approved Budget

With the approval of this project on April 15, 2021, the Commission issued the certificate of need with the following two conditions:

1. Prior to its request for first use approval, Adventist HealthCare Shady Grove Medical Center shall identify bed capacity it will retain in operational status, the physical bed capacity it will repurpose but retain as physical bed capacity, and the physical bed capacity it will eliminate. This plan shall specifically address the hospital's assessment of the need for surge bed capacity and its plan to maintain and deploy adequate surge capacity when needed.

2. Any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Review Commission must exclude $21,226,090, which includes the estimated new construction costs that exceed the Marshall Valuation Services guideline cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

SGMC compared the originally approved costs of this project with its current cost estimate. The COVID-19 pandemic related materials and labor shortages, disrupted global supply chain, and increasing global energy costs were identified as factors in this cost inflation. SGMC noted that cost increases have exceeded the inflation index used by the Commission when the project was originally planned and approved by the Commission. As support, SGMC cited the Associated General Contractors of America April 2022 report, which states that the construction industry is experiencing steep cost increases for a variety of materials, compounded by major supply-chain disruptions and worker shortages. Prices for certain construction materials such as steel, gypsum, lumber, electrical and plumbing supplies, and diesel fuel costs have increased between 29% - 300%. SGMC also cites increased shipping costs as a contributing factor to the budget increase. Please see **Appendix 4** for further details.[7] Labor costs have increased across many building trades including concrete contractors, steel erectors, electrical workers, and plumbing and HVAC servicers. These conditions have all contributed to the increased cost of the project.[8] The cost of completing the patient tower portion of the project increased by $49.3 million, or about 29.3%. (See **Appendix 1** for further details).

In addition to the recent changes within the construction market, SGMC referenced additional upgrades needed for the CUP beyond what was approved in the CON. SGMC stated that these upgrades are necessary to bring the CUP up to current code and best practice standards that have evolved since the CUP was originally built and this project was originally approved. The CUP upgrade portion increased the project budget from about $11.8 million to $30.2 million, an increase of about 155.8%.

MVS Analysis

Commission staff and SGMC each calculated the Marshall Valuation Service (MVS)

[7] SGMC Response to Completeness Questions, March 23, 2023, Construction Market Conditions, Oct. 2020 – Present and Supply Chain Issues Affecting Construction Materials
[8] Ibid.

benchmark analysis that compared the project's estimated allowable new construction costs for the 153,002 SF six-story patient tower, derived using the MVS guide. Table III-1 below provides the comparison of both MVS allowable construction costs with the MVS benchmark value.

Table III-1: MHCC and Shady Grove Comparison Table
Calculation of Excess Construction Cost Over MVS Benchmark Value

	MHCC MVS Calculations		Shady Grove MVS Analysis
	With Abnormal Shortage Multiplier @10%		**With Abnormal Shortage Multiplier @10%**
Project Cost for MVS Comparison (SF)	$ 905.03		$ 908.24
Less MVS Benchmark Cost (SF)	$ 566.68		$ 563.25
Less Abnormal Shortage Multiplier (SF)	**$ 56.68**		**$ 56.32**
Over (=Project Cost - MVS Benchmark -Abnormal Shortage Multiplier)	$ 281.53		$ 288.67
Square Footage (Patient Tower)	153,002		153,002
Construction Costs over MVS Benchmark (Total Dollar Amount)[1]	**$ 43,074,653**		**$ 44,166,341**
Percentage Construction Cost over MVS Benchmark*	49.7%		51.3%
Inflation Allowance (Project budget)	$ 6,523,187		
Amount Inflation Allowance excluded[2]	**$ 3,242,024**		
Contingency Allowance (Project budget)	$ 7,347,943		
Amount Contingency Allowance excluded[2]	**$ 3,651,928**		
Total to be excluded from any rate increase proposed by the hospital	**$ 49,968,605**		**$ 44,166,341**

[1]Includes portion capitalized construction interest expenditure
[2]Using Percentage Construction Cost over MVS Benchmark

The purpose of the MVS analysis is to provide a basis for excluding any excess construction costs from any future rate increase by the applicant to cover the cost of the project. See **Appendix 2** for more details on the MVS analysis. In a MVS analysis, MHCC staff compares the project's estimated construction cost, adjusted for specific construction characteristics of the proposed project, with a benchmark derived using the cost-estimating methodology provided by MVS.

MHCC staff and SGMC each calculated allowable new construction cost used in comparison with the MVS benchmark values for the proposed patient tower. MHCC staff calculated an estimated allowable new construction cost of $905.03 per SF and an MVS benchmark of $566.68 per SF. Comparably, the applicant arrived at an estimated allowable new construction cost that is slightly higher at $908.24 per and an MVS benchmark value that is slightly lower at $563.25 per SF.

SGMC employed an abnormal shortage multiplier in its MVS analysis. The hospital increased the calculated MVS benchmark value for the proposed project by an additional 10% to account for the higher costs in construction materials and labor costs due to the COVID -19 pandemic and related supply chain issues. SGMC states that the MVS analysis allows for the inclusion of multipliers such as "Natural Disasters" and "Abnormal Shortages." These factors account for increases in construction materials and labor shortages that result in price disruptions beyond the builder's or hospital's control.

In performing its MVS analysis, MHCC staff accepted SGMC's use of the "abnormal shortage multiplier" to account for the significant increases in project costs. MHCC adopted the use of this same 10% abnormal shortage multiplier in performing the MVS analysis. MHCC considers the impact of the COVID pandemic, and the factors that have caused volatility in the construction market including labor, materials costs, and shipping, among others. MHCC staff has determined that the use of a 10% abnormal shortage multiplier is reasonable and would help to offset the $67,646,138 or about 37.6% increase that SGMC has incurred during the patient tower construction.

With the inclusion of the abnormal shortage multiplier, MHCC's analysis shows that the MVS allowable construction costs exceeded the MVS benchmark value by $49,968,605. SGMC's analysis shows that the allowable construction costs only exceed its calculated MVS benchmark value by $44,166,341. The main difference between the two sets of calculations is that, in accordance with the regulations, MHCC included the proportion of the contingency allowance and inflation allowance in its analysis. COMAR 10.24.10.04B(7), Construction Cost of Hospital Space states that:

> If the projected cost per square foot exceeds the Marshall Valuation Service benchmark cost, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service benchmark and those *portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost.*

While SGMC's analysis includes the capitalized construction cost interest expenditure in its MVS comparison, the hospital did not include the contingency and inflation allowance in its calculations in determining the total construction costs to be excluded from any rate increase proposed by the hospital. This is the primary difference in the MVS analysis and findings. Staff recommends amending the second original condition to exclude the following amount from any partial rate adjustment applications submitted to HSCRC in the future:

> Any future change to the financing of this project involving adjustments in rates set by the HSCRC must exclude **$49,968,605**, which includes the estimated new construction costs that exceed the Marshall Valuation Service guideline cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

Impact on Financial Performance

As previously discussed, the requested project change includes a capital budget increase of $67,646,138, which will increase the amount of cash that will fund the proposed project to $77,642,497.

MHCC requested that the Health Services Cost Review Commission (HSCRC) provide an opinion on the financial viability of the proposed project, taking into consideration cost escalations and the potential for rate adjustments. HSCRC responded on May 4, 2023 stating that they had received a Partial Rate Application (PRA) request from SGMC on November 23, 2022 for capital reflective of the increased cost of the patient tower project. SGMC's subsequent PRA submission requests an increase in gross capital funding in the amount of $10,077,575, with an effective date of August 1, 2026 for the start of this adjustment to its Global Budget Revenue (GBR), an approximate 2 percent increase to SGMC's permanent revenue. The revised timeline for patient tower completion indicates construction started in November 2022 and would be completed around December 2025. The renovation phase of the project is scheduled to begin in January 2026, with the work completed by September 2027.

HSCRC staff reviewed SGMC's audited financial statements from calendar years 2018 through 2022, the information submitted to MHCC with the project change request, and the partial rate application submitted in its review. HSCRC staff prepared a pro forma Profit and Loss (P & L) projection to evaluate the impact of this project change on SGMC's future financial operating performance.

HSCRC indicates that the P & L statements show gross revenue projections for 2026, 2027, and 2028 reflect the potential for an HSCRC award to permanent GBR for incremental capital associated with the patient tower project of $9.2 million. The first payment is scheduled for August 2026 and in proportion to the completion and operation of SGMC's patient service spaces. The maximum award assumed was the product of HSCRC's capital funding policy model and a Marshall Valuation Service (MVS) exclusion value of $49,968,605.[9]

HSCRC states that the project budget, as amended, reflects cash draws of approximately $77.6 million to finance the proposed patient tower. Given the future positive projected cash flow for SGMC, cash is not expected to be depleted during the projected timeframe. However, HSCRC indicates "The Pro forma P & L projections show accrual basis losses for two of the six years between 2022 and 2028, supporting a finding that there may be times when the debt service coverage ration may become uncomfortably modest."

In closing, HSCRC provides the following recommendation, stating:

> (I)t appears that the project may be financially feasible at its initial launch, and it may be financially viable throughout the periods projected. However, the pro forma projections imply that operating performance may at times be uncomfortably stressed, if and when unexpected circumstances may arise to increase the challenge. There appears to be little cushion in the pro forma

[9] $9.2 million for capital was awarded by HSCRC Commission at their public meeting on May 10, 2023.

projections, should project costs continue to rise, and if hospital operations are negatively impacted by market forces. Also, it will be particularly important for SGMC to adapt quickly to changes as they occur.

IV. ANALYSIS

Staff concludes that the project change request is a permissible change under COMAR 10.24.01.17B. There are no material changes to the nature of the project, its location, or the core service capacities. The requested change would not alter the findings that the Commission made in April 2021 concerning the need and the positive long-term impact of the project.

Staff agrees with, and adopts the HSCRC analysis in the Memo dated May 4, 2023. Further, at the May 10, 2023 meeting, the HSCRC awarded a $9.2 million increase to SGMC's Global Budget Revenue (GBR) agreement and finds that the proposed changes to the costs for the new patient tower and CUP portion of the project are financially feasible. Based on these findings, MHCC staff concludes that the new patient tower project is financially feasible.

ORDER

Based on the Commission staff's analysis of this request for a project change after issuance of a Certificate of Need, it is ordered on this 18th day of May 2023 that:

The request by Adventist Health Care Shady Grove Medical Center for changes to its April 15, 2021 Certificate of Need for the addition of a six-story patient tower has increased to a total cost of $247,657,497 is **APPROVED**, with the following conditions:

1. Prior to its request for first use approval, Adventist HealthCare Shady Grove Medical Center shall identify bed capacity it will retain in operational status, the physical bed capacity it will repurpose but retain as physical bed capacity, and the physical bed capacity it will eliminate. This plan shall specifically address the hospital's assessment of the need for surge bed capacity and its plan to maintain and deploy adequate surge capacity when needed.

2. Any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Review Commission must exclude **$49, 968,605**, which includes the estimated new construction costs that exceed the Marshall Valuation Service guideline cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

APPENDIX 1

REVISED PROJECT BUDGET

PROJECT BUDGET = AHC Shady Grove Medical Center Patient Tower Project
Comparison Original vs. Updated Revised Project Costs

	Hospital Patient Tower			CUP Upgrade			Total Project Cost		
	Hospital - Original	***Hospital - Project Completion***	***% Increase***	***CUP Upgrade Original***	***CUP Upgrade - Project Completion***	***% Increase***	***Total - Original***	***Total - Project Completion***	**% Increase**
USE OF FUNDS									
New Construction									
Building	$73,458,451	$117,915,816	60.5%	$6,752,441	$19,599,250	190.3%	$80,210,892	$137,515,066	71.4%
Fixed Equipment	$3,525,375	$13,877,203	293.6%	$301,922	$6,277,727	1979.3%	$3,827,297	$20,154,930	426.6%
Site and Infrastructure	$10,150,141	$20,892,282	105.8%	$408,005	$477,479	17.0%	$10,558,146	$21,369,761	102.4%
Architect/Engineering Fees	$5,856,282	$9,015,193	53.9%	$501,546	$1,207,365	140.7%	$6,357,828	$10,222,558	60.8%
Permits (Building, Utilities, Etc.)	$2,158,953	$2,159,853	0.0%	$184,898	$191,498	3.6%	$2,343,851	$2,351,351	0.3%
SUBTOTAL	***$95,149,202***	**$163,860,347**	**72.2%**	**$8,148,812**	**$27,753,319**	**240.6%**	**$103,298,014**	**$191,613,667**	**85.5%**
Renovations									
Building	$8,840,236	$8,840,236	0.0%	$0	$0		$8,840,236	$8,840,236	0.0%
Architect/Engineering Fees	$656,620	$665,551	1.4%	$0	$0		$656,620	$665,551	1.4%
Permits (Building, Utilities, Etc.)	$242,067	$242,067	0.0%	$0	$0		$242,067	$242,067	0.0%
SUBTOTAL	***$9,738,923***	**$9,747,854**	**0.1%**	**$0**	**$0**		**$9,738,923**	**$9,747,854**	**0.1%**
Other Capital Costs									
Movable Equipment	$3,629,400	$3,657,963	0.8%	$200,000	$0	-100.0%	$3,829,400	$3,657,963	-4.5%
Contingency Allowance	$11,997,789	$6,557,309	-45.3%	$849,381	$790,634	-6.9%	$12,847,170	$7,347,943	-42.8%
Gross interest during construction period	$13,653,795	$14,202,802	4.0%	$957,801	$1,003,624	4.8%	$14,611,596	$15,206,426	4.1%
a. Furniture	$2,367,000	$2,367,000	0.0%	$25,000	$0	-100.0%	$2,392,000	$2,367,000	-1.0%
b. Interior & Exterior Signage	$723,400	$723,400	0.0%	$15,000	$15,000	0.0%	$738,400	$738,400	0.0%
c. IS/Comm	$6,615,000	$6,680,784	1.0%	$50,000	$228,000	356.0%	$6,665,000	$6,908,784	3.7%
d. Security system	$1,250,000	$1,020,392	-18.4%	$15,000	$52,529	250.2%	$1,265,000	$1,072,921	-15.2%
e. Relocation expense	$315,600	$435,866	38.1%	$15,000	$15,000	0.0%	$330,600	$450,866	36.4%
f. Certifications, inspections, etc.	$189,360	$652,715	244.7%	$25,000	$123,243	393.0%	$214,360	$775,958	262.0%
SUBTOTAL	***$40,741,344***	***$36,298,232***	***-10.9%***	***$2,152,182***	***$2,228,030***	***3.5%***	***$42,893,526***	**$38,526,262**	***-10%***
TOTAL CURRENT CAPITAL COSTS	***$145,629,469***	**$209,906,433**	**44.1%**	**$10,300,994**	**$29,981,349**	**191.1%**	**$155,930,463**	**$239,887,783**	**53.8%**
Inflation Allowance	$13,799,530	$6,422,822	-53.5%	$882,804	$100,365	-88.6%	$14,682,334	$6,523,187	**-55.6%**
TOTAL CAPITAL COSTS	***$159,428,999***	**$216,329,255**	**35.7%**	**$11,183,798**	**$30,081,714**	**169.0%**	**$170,612,797**	**$246,410,970**	**44.4%**
Financing Cost and Other Cash Requirements									
Loan Placement Fees	$1,798,990	$1,092,871	-39.3%	$126,197	$78,855	-37.5%	$1,925,187	$1,171,726	-39.1%
Debt Service Reserve Fund	$6,986,996	$64,505	-99.1%	$486,379	$10,296	-97.9%	$7,473,375	$0	-100.0%
SUBTOTAL	***$8,785,986***	***$1,157,376***	***-86.8%***	***$612,576***	***$89,151***	***-85.4%***	***$9,398,562***	**$1,246,527**	***-86.7%***
TOTAL USES OF FUNDS	***$168,214,985***	***$217,486,631***	***29.3%***	***$11,796,374***	***$30,170,865***	***155.8%***	***$180,011,359***	***$247,657,497***	*37.6%*

SOURCES OF FUNDS									
Cash							$9,996,359	$77,642,497	676.7%
Philanthropy							$16,000,000	$16,000,000	0.0%
Authorized Bonds							$154,015,000	$154,015,000	0.0%
TOTAL SOURCES OF FUNDS							***$180,011,359***	**$247,657,497**	***37.6%***

Source: March 3, 2023 response from Andrew Nicklas, Exhibit 2.

APPENDIX 2

MARSHALL VALUATION SERVICE REVIEW

Marshall Valuation Service Review

Marshall Valuation Service – what it is, how it works

In order to compare the cost of a proposed construction project to that of similar projects, as part of a cost-effectiveness analysis, a benchmark cost is typically developed using the Marshall Valuation Service (MVS). MVS cost data includes the base cost per square foot for new construction by type and quality of construction for a wide variety of building uses.

The base cost reported in the MVS guide are based on the actual final costs to the owner and include all material and labor costs, contractor overhead and profit, average architect and engineering fees, nominal building permit costs, and processing fees or service charges and normal interest on building funds during construction. It also includes: normal site preparation costs including grading and excavation for foundations and backfill for the structure; and utilities from the lot line to the structure figured for typical setbacks.

The MVS costs *do not include* costs of buying or assembling land, piling or hillside foundations (these can be priced separately), furnishings and fixtures not found in a general contract, general contingency set aside for some unknown future event such as anticipated labor and material cost increases. Also not included in the base MVS costs are site improvements such as signs, landscaping, paving, walls, and site lighting. Offsite costs such as roads, utilities, and jurisdictional hook-up fees are also excluded from the base costs.[10]

MVS allows staff to develop a benchmark cost using the relevant construction characteristics of the proposed project and the calculator section of the MVS guide. In developing the MVS benchmark costs, the base costs are adjusted for a variety of factors (e.g., an add-on for sprinkler systems, the presence or absence of elevators, number of building stories, the height per story, and the shape of the building. The base cost is also adjusted to the latest month and the locality of the construction project.)

The MVS methodology does not offer data for renovation projects; thus, any effort to compare proposed renovation costs to a benchmark can only be made to the benchmarks for new construction.

[10] Marshall Valuation Service Guidelines, Section 1, p. 3 (January 2016).

Table 1: MHCC and Shady Grove Comparison Table
Calculation of Excess Construction Cost Over MVS Benchmark Value

	MHCC MVS Calculations		Shady Grove MVS Analysis
Project Cost for MVS Comparison (SF)	$ 905.03		$ 908.24
Less MVS Benchmark Cost (SF)	$ 566.68		$ 563.25
Less Abnormal Shortage Multiplier (SF)	**$ 56.68**		**$ 56.32**
Over (=Project Cost - MVS Benchmark -Abnormal Shortage Multiplier)	$ 281.53		$ 288.67
Square Footage (Patient Tower)	153,002		153,002
Construction Costs over MVS Benchmark (Total Dollar Amount)[1]	**$ 43,074,653**		**$ 44,166,341**
Percentage Construction Cost over MVS Benchmark*	49.7%		51.3%
Inflation Allowance (Project budget)	$ 6,523,187		
Amount Inflation Allowance excluded[2]	**$ 3,242,024**		
Contingency Allowance (Project budget)	$ 7,347,943		
Amount Contingency Allowance excluded[2]	**$ 3,651,928**		
Total to be excluded from any rate increase proposed by the hospital	**$ 49,968,605**		**$ 44,166,341**

[1]Includes portion capitalized construction interest expenditure
[2]Using Percentage Construction Cost over MVS Benchmark

MHCC staff and SGMC each calculated an allowable new construction cost that would be used in comparison with the MVS benchmark values for the proposed 153,002 SF patient tower. Table 1 provides a comparison of the MVS analysis by MHCC staff and SGMC for the revised proposed patient tower. MHCC staff calculated an estimated allowable new construction cost of $905.03 per SF and an MVS benchmark of $566.68 per SF. The applicant arrived at an estimated allowable new construction cost that is slightly higher at $908.24 per SF (as compared to the MHCC value), and an MVS benchmark value that is slightly lower at $563.25 per SF.

Comparing Estimated Project Cost to the MVS Benchmark

Included with this MVS analysis, SGMC employed an "abnormal shortage multiplier.' The applicant indicates that the MVS Guide makes provisions that take into account certain unusual circumstances. The hospital indicates that the MVS Guide identifies such incidences as "natural disasters'[11] and "abnormal shortages"[12] as

[11] The MVS Guide defines "natural disaster" as widespread major natural disasters that can create materials and/or labor shortages requiring some upward adjustment to the multipliers. (Section 99, p. 1, Jan. 2023).
[12] The MVS Guide defines "abnormal shortages" as temporary supply-demand imbalances caused by

circumstances when a MVS benchmark value can be modified. As previously discussed, the applicant states that the COVID-19 pandemic and supply chain issues are the causes for the majority of the $67.7 million cost increase. In support of these observations, SGMC submitted tables from the U.S. Department of Transportation which identified supply chain disruption issues for the period January 2020 through January 2022, and the U.S. Bureau of Labor Statistics showing the increase in construction material costs and construction labor costs during the period October 2020 through present.[13]

In performing its MVS analysis, SGMC employed an abnormal shortage multiplier in its MVS analysis; as a result, the hospital increased the calculated MVS benchmark value for the proposed project by an additional 10% to account for the higher costs in construction materials and labor costs. In performing its MVS analysis, MHCC staff accepted SGMC's use of the "abnormal shortage multiplier" to account for the significant increases in project costs and adopted the use of this same 10% abnormal shortage multiplier in performing the MVS analysis.

With the inclusion of the abnormal shortage multiplier by both the MHCC staff and SGMC, Table 1 indicates that MHCC shows that the MVS allowable construction costs exceeded the MVS benchmark value by $49,968,605. SGMC's analysis shows that the allowable construction costs only exceed its calculated MVS benchmark value by $44,166,341. In documenting some of the difference in the MVS analysis, staff notes that the difference in allowable MVS costs is due to the applicant using a lower new construction cost ($190.1 million) than it reported in its revised project budget ($191.1 million); as for the MVS benchmark values, MHCC staff used cost multipliers that as of the time of the staff's review were more current in date than those used by the hospital.

The main difference between MHCC staff and SGMC is in the inclusion of the contingency allowance and inflation allowance in the MVS analysis. State Health Plan Chapter for Acute Care Hospitals, at COMAR 10.24.10.B(7), Construction Cost of Hospital Space standard states that:

> If the projected cost per square foot exceeds the Marshall Valuation Service benchmark cost, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost.

While SGMC's analysis includes the capitalized construction cost interest in its MVS comparison, the hospital did not include the portions of the contingency allowance and inflation allowance in its calculations in determining the total construction costs

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events other than major catastrophes, such as factory closures, strikes, inadequate inventories, environmental legislation, trade embargoes, commodities speculation, etc., may require upward adjustment to the multipliers. (Section 99, p. 1, Jan. 2023).

[13] Andrew Nicklas, Response to Questions, March 3, 2023.

excluded from any rate increase proposed by the hospital, and the difference with MHCC's MVS analysis and findings. Please see Table 2 below for Commission's calculation of excluded dollar amounts from HSCRC rate increases.

Table 2 –
MHCC Staff Calculation of Excess Cost - Cost Modification 2023
Includes Abnormal Shortage Multiplier

Construction cost exceeding benchmark ($281.53 x 153,002 SF)	$ 43,074,653
The portion of future inflation that should be excluded ($6,523,187 x 49.7 %)	$ 3,242,024
The portion of the contingencies that should be excluded ($7,347,943 x 49.7 %)	$ 3,651,928
Total to be excluded from any rate increase proposed by the hospital related to the capital cost of the project	**$ 49,968,605**

Therefore, MHCC staff is amending the second condition issued with the April 2021 approval of AHC's SGMC patient tower project to exclude **$49,968,605** from any partial rate adjustment application submitted to HSCRC in the future:

> Any future change to the financing of this project involving adjustments in rates set by the HSCRC must exclude **$49,968,605**, which includes the estimated new construction costs that exceed the Marshall Valuation Service guideline cost and portions of the contingency allowance and inflation allowance that are based on the excess construction cost.

APPENDIX 3

HEALTH SERVICES COST REVIEW COMMISSION
MEMO

REQUEST FOR OPINION ON FINANCIAL VIABILITY – POST APPROVAL PROJECT CHANGE

APPENDIX 4

CONSTRUCTION MARKET CONDITIONS
OCT. 2020 – PRESENT

AND

SUPPLY CHAIN ISSUES AFFECTING
CONSTRUCTION MATERIALS

Supply Chain Issues Affecting Construction Materials

(* - Source U.S. Department of Transportation, Supply Chain Disruptions Task Force)

Ⓐ Number of containerships awaiting berths at U.S. ports began to decrease in Jan. 2022. Change mainly due to improvements at Port of LA – Long Beach, not at East Coast ports.

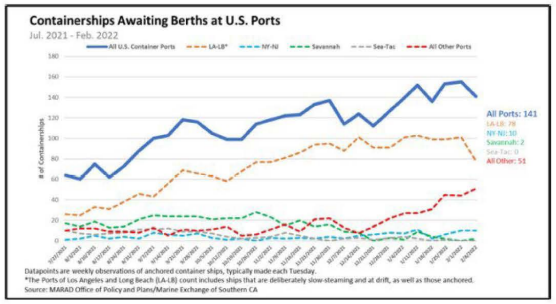


Chart depicts the total number of container ships waiting for an available dock at U.S. ports overall (solid line) and select major port complexes (dashed lines).

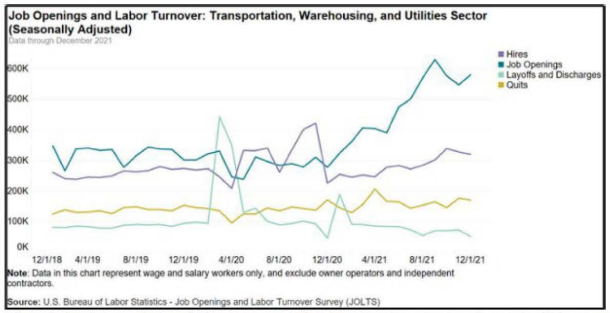


Chart depicts job openings and labor turnover in the Transportation, Warehousing, and Utilities sector of the economy, by month.

Ⓑ New monthly job openings in the Transportation, Warehousing, & Utility Sector increased approx. 60% between Jan. 2020 to Jan. 2022. Most went unfilled.

Ⓒ Number of intermodal containers shipped in U.S. decreased approximately 15% during Q3 & Q4, 2021.

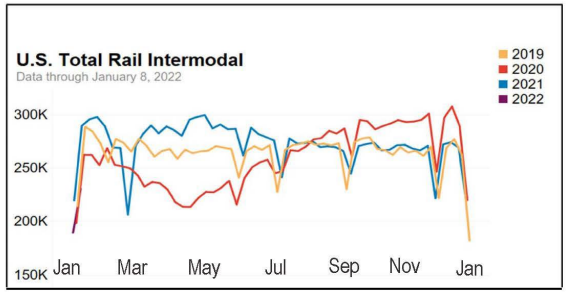


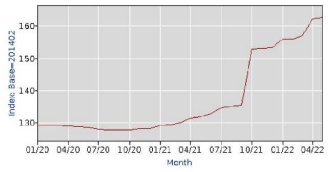
Chart depicts how many shipping containers and truck trailers are moved on rail cars in a given week on U.S. Class I Railroads. Approximately half of all railroad carloads are intermodal.

Adventist HealthCare
Shady Grove Medical Center

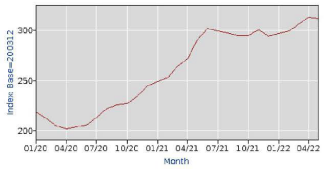
Construction Market Conditions, Oct. 2020 – Present*

(* - Source U.S. Bureau of Labor Statistics)

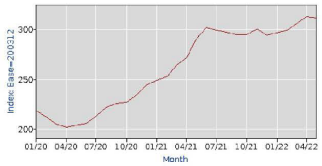
MATERIALS COSTS



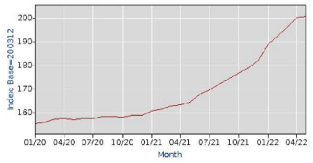
Concrete
+ 27.26%



Fabricated Steel
+ 79.46%

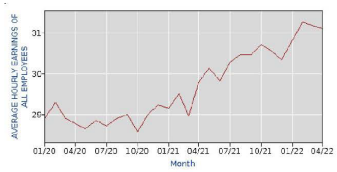


Copper Wire
+ 37.43%

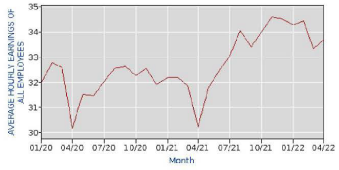


HVAC Equip.
+ 26.91%

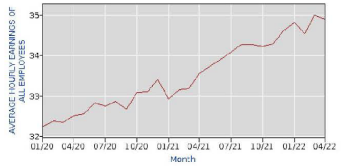
WAGES BY TRADE



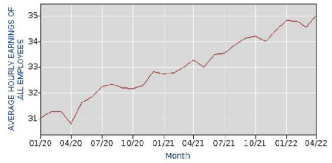
Concrete Contractor
+ 8.89%



Steel Erector
+ 4.34%



Electrical
+ 5.47%



Plumbing & HVAC
+ 8.86%

Adventist HealthCare
Shady Grove Medical Center