

July 3, 2018

Kevin McDonald
Chief, Certificate of Need
Maryland Health Care Commission
4160 Patterson Avenue
Baltimore, Maryland 21215

**Re: Johns Hopkins Bayview Medical Center New Inpatient Building –
Matter No. 18-24-2414**

Dear Mr. McDonald:

Please find below Johns Hopkins Bayview Medical Center's response to the Commission's request for additional information in the above-referenced application. This includes the set of questions 1-58, dated April 27, 2018, and the supplemental questions dated May 4, 2018. The supplemental questions have been labeled "59".

PROJECT DESCRIPTION

1. The application speaks about clinical integration that has occurred/is occurring across the Academic Division of Johns Hopkins Medicine, and how a failure to implement this project would limit the ability of the Johns Hopkins Academic Division to optimize JHBMC for specialty services. Please explain the strategy and vision of that integration, and whether and where it centralizes different centers of excellence at one or the other of JHH and JHBMC (p. 20 speaks to such consolidation).

Applicant Response:

For many decades, and in particular, since the acquisition of Baltimore City Hospitals by Johns Hopkins in 1984, there has been two-campus planning to allow Johns Hopkins to provide the best care to our patients and neighbors. Examples of pre-acquisition specialization at Bayview include the Baltimore Regional Burn Center, renal transplantation, the development of geriatric medicine on the campus, and the house staff training program focused on general internal medicine. Since The Johns Hopkins Hospital was established, Johns Hopkins faculty have practiced at Bayview, Johns Hopkins medical students and house officers have trained at Bayview, and for the last 50 years, virtually all physicians practicing at Bayview have been members of the full-time Johns Hopkins faculty.

Over the last 15 years, there has been more specialization on the campus as part of two-campus planning. Programs newly established and expanded at Bayview include: outpatient rheumatology including rheumatoid arthritis, myositis, and Sjogren's centers of excellence; joint replacement therapy which is only now done by Johns Hopkins faculty at Bayview; the Johns Hopkins Lung Cancer program; and the Johns Hopkins Memory & Alzheimer's Center. All of these programs are unique within Johns Hopkins and are located at Bayview, and each center of excellence provides a venue for clinical care, training, and research. This approach to develop programs at Bayview has benefited the region in that the general cost structure on the Bayview campus is less than at Johns Hopkins Hospital, and therefore, world-class care can be achieved on this campus at a lower cost to society.

As part of the planning for this project, all programs currently at Bayview were reviewed and a decision was made whether to continue each one on the Bayview campus. For example, the demand for neurosurgical services at the Johns Hopkins Hospital exceeds current capacity, and therefore, we decided to continue to provide complex and critical-care-level neurosurgical care at Bayview. This decision also means that JHBMC is the third hospital in the city to achieve comprehensive stroke center designation. As interventions for stroke become more specialized, having a comprehensive center located in an easily accessible location via I-895 and I-95 means better access for many regional stroke victims. As another example, we expect the demand for beds for pregnant women needing fetal surgery to increase in coming years, which will make access to the Johns Hopkins Hospital challenging for mothers with normal antepartum needs. Therefore, we decided to continue the OB service at Bayview, and in fact, expand it to the most efficient level for the current number of physician practitioners in-house. Recognizing that

through the deployment of population health strategies some reduction in demand for inpatient acute care bed capacity can be expected, this project included a reduction in the number of licensed acute care beds on the Bayview campus.

2. The application describes Bayview's average age of plant as comparable to peers as measured by Standard and Poor's rating service, but goes on to say that this is due to "several major medical equipment purchases in recent years having shorter useful lives, and not investments in building improvements" (p. 63).
 - a) In order for this rationale to be relevant, Bayview's investments of the described nature would need to be disproportionate to that of other similar hospitals; do you have reason to believe that, and can you document it?
 - b) If the average age of the plant without equipment is 16.1 years and the major clinical building will be 24 years old this June, doesn't it follow that the balance of the plant would be relatively new and not in need of replacement?

Applicant Response:

a.) In the CON application, JHBMC referred to the fact that its average age of plant was 10.6 years and that included in that calculation are several recent major medical equipment purchases which mathematically serves to reduce the calculated average age of plant. The point that JHBMC was trying to make is that if those purchases were removed from the calculation, the average age of plant would be higher than the Standard and Poor's median as the core building structure is relatively aged.

b.) As noted, JHBMC's average of plant for buildings and land improvements is 16.1 years which includes both several old buildings (some dating back to the 1930s) and two new buildings – the North Pavilion and the Sidney Kimmel Comprehensive Cancer Center (SKCCC) which were opened within the past three years. The most modern buildings on campus, the North Pavilion and SKCCC, along with the Bayview Medical Offices, all serve outpatients. The oldest buildings on campus serve inpatients and are in desperate need of replacement and renovation.

3. In discussing the needs of a variety of services and departments the application cites space deficiencies as compared to the FGI (or other) Guidelines. It would be useful to the review to provide a table that summarizes these deficiencies in one place. Example below.

Department or Service	Current space	Benchmark (source)	Proposed space	Benefit(s)

Applicant Response:

Please see Exhibit CQ3.

4. Questions related to the PROJECT SCHEDULE:

- a) What is the expected total elapsed time to complete the project?
- b) It appears that the negative numbers entered into the project schedule indicate an overlap of that step with work related to prior steps in the process; please confirm/explain.

Applicant Response:

a) Measured from CON approval we project the total elapsed time for this multi-phased project to be 79 months.

b) The observation is correct but before proceeding with an explanation please note that in developing this response we found that we improperly reflected the durations for Phase 3 which causes each of the values to change. This does not change the aggregate value for Phase 3 and so the total duration of the project is still 79 months. A screen shot of the change is copied below (for full schedule, see Exhibit CQ4.1):

PHASE 3: FURNISH, EQUIP AND ACTIVATE CLINICAL BUILDING		
Obligation of not less than 51% of capital expenditure for the 3RD Phase of construction within 12 months after completion of immediately preceding phase	8 -11	months
Initiation of Construction on Phase 3 within 4 months of the effective date of binding construction contract for that phase	3 3	months
Completion of Phase 3 within 24 months of the effective date of the binding construction contract	16 13	months

For convenience we have developed Exhibit CQ4.2 which is an adaptation of the Project Schedule from the application into a graphic representation illustrating the relationship of the performance requirement timeframes.

The Project Schedule required in the application serves its purpose to reflect performance requirements but is not an adequate format for overall project scheduling. We developed a precedence-based schedule of basic project activities to determine the logical sequence and duration of the project and respective phases; refer to Exhibit CQ4.3. The critical path of this schedule starts with the approval of the CON and runs through the design, permitting, and construction activities of the Inpatient Building and Garage of Phase 2. Phase 1 activities need to occur first, but in light of the overall schedule these are not on the critical path due to the duration needed for programming and design of the Inpatient Building and Garage. The Power Plant work, a subcomponent of Phase 2, is not on the critical path. As is appropriate, the Inpatient Building and the closely aligned Garage project component is where all effort is emphasized including Phase 3 (Furnish, Equip, and Activate Inpatient Building) and concluding the project with Phase 4 Backfill Renovations and Activation. From this critical path schedule,

we adopt the durations for groupings of activities that align with the scope of each performance requirement. Maintaining focus on the Inpatient Building and a desire to avoid lapses between project phases creates a scheduling phenomenon where the commencement of later phases will occur prior to the completion of an earlier phase.

5. A new power plant is part of phase 2 of the project despite the statement on p. 41 that “[t]he existing steam generation system located in the Power Plant has sufficient capacity to serve the NIB;” please explain, and describe where on the site this new plant will be constructed.

Applicant Response:

A new power plant will not be constructed as a part of this project. Instead, the existing power plants will be significantly renovated to address chilled water capacity needs for the NIB project. As a part of this renovation, the chilled water capacity of the existing power plant must be increased. This expansion of chilled water will provide the necessary capacity to fully and properly service the new square footage for the new inpatient building.

PROJECT BUDGET

6. How was the inflation allowance calculated and what assumptions underlie the calculation?

Applicant Response:

The inflation allowance was calculated using a baseline date of December 31, 2017 and is calculated to the midpoint of each phase of the project. The utilized escalation rate was 2.5% per annum and the calculated escalation rate was compounded in multi-year instances. Escalation was applied to all project costs except for financing costs. The 2.5% rate was utilized despite the fact that current market conditions suggest a more viable rate would be somewhere slightly north of 4%.

7. How much of the \$48M projected philanthropic funds are in-hand, what is pledged, and how was the remaining amount projected? How will any shortfalls in that projection be covered?

Applicant Response:

As of the submission of the CON application, none of the projected philanthropic funds are in hand. Johns Hopkins Medicine (JHM) has a longstanding history of successfully fundraising for large building projects and expects to kick-off a campaign to support this project when the CON application is officially docketed. Grateful patients and non-profit foundations have typically made up the majority of private philanthropy for past JHM projects and the expectation is that will be case for the Project contemplated within this application.

8. How were the permit fees for each project component (new hospital construction, parking garage, and renovations) estimated or allocated?

Applicant Response:

Permit fees were roughly estimated using the permit costs for recent East Baltimore Johns Hopkins Health System projects with budgets in excess of \$10 million. The permit fees include costs such as: building permits, developers agreements, storm water management fees, traffic fees, right of entry fees, Fire Marshall fees, and bond premiums necessary to complete the project. Adjustments were made to consider the significant site work and storm water management efforts attributable to the NIB project.

9. Please submit the calculations for the contingency allowance for each project component (new hospital construction, parking garage, and renovations).

Applicant Response:

	<u>NIB</u>	<u>Garage</u>	<u>Renovation</u>	<u>Totals</u>
Total Current Capital Costs	\$ 360,137,000	\$ 25,906,000	\$ 40,684,000	\$ 426,727,000
Less Contingency	(44,766,000)	(3,220,000)	(6,441,000)	(54,427,000)
Less Interest	(16,933,000)	(1,218,000)	(2,036,000)	(20,187,000)
Subtotal	\$ 298,438,000	\$ 21,468,000	\$ 32,207,000	\$ 352,113,000
Contingency	\$ 44,766,000	\$ 3,220,000	\$ 6,441,000	\$ 54,427,000
Contingency as % Subtotal	15.0%	15.0%	20.0%	15.5%

10. What is included in the “other capital costs,” Line c (4), totaling \$23,666,000?

Applicant Response:

Other capital costs include the following items: JHHS Owner’s Representative Project Management fees, JHHS Architect and Planning internal fees; JHHS related management fees for furniture and equipment management, JHHS Quality Control and Internal Inspection fees, Non Building Related design and consultant fees, and JHHS building activation and equipment commissioning related costs.

11. What is covered by the \$7,266,000 in non-building related consultant costs?

Applicant Response:

These costs include the following: Program Estimating Consultant, Legal Services throughout the life of the project, Construction Auditing Services, Equipment Planning Services, Artwork Consultants, Information Technology Consultants, Minority Business Enterprise Monitor and Consultant, Furniture and Equipment Planning Consultant, and other miscellaneous consultants as needed during construction.

12. How were the “other capital costs,” and consultant costs referenced in the two preceding questions allocated to the Hospital Building and the Parking Garage?

Applicant Response:

The project is currently in the schematic design phase. As such, project details that enable bidding or negotiation of the services listed above have not yet been completed. As a result, the costs above are allocated consistently between projects using percentages of construction costs. Once the project scope and detail are sufficient to determine cost allocation on a more studied basis, the allocation of costs between Garage, Inpatient Building and Backfill Renovations will be refined.

13. Please explain the basis for construction cost estimates, renovation cost estimates, contingencies, interest during construction period, and inflation in an attachment to the application as called for in the instructions.

Applicant Response:

The construction and renovation cost estimates were prepared by an independent third party construction cost-estimating firm. The estimates were based on schematic design documents. Site and infrastructure development costs were estimated by a civil engineer on early schematic design documents. Contingency percentages, as detailed above, were established given the risks remaining to the project scope at the schematic design phase. Escalation rates and calculation methodology are detailed above in response to question six.

14. Given that 45% of the hospital and all of the parking garage will be funded by bonds why is there no interest income listed as sources of funds?

Applicant Response:

It was assumed that the interest rate on the future debt of 5% was offset by 0.5% interest income. The net 4.5% is used to project gross interest expense during construction. As the projection was prepared in summer 2017, before three of the Federal Reserve rate increases, the treasury based money markets were yielding less than 0.5%.

CONSISTENCY WITH GENERAL REVIEW CRITERIA (COMAR 10.24.01.08G(3))

The State Health Plan

COMAR 10.24.10 - ACUTE HOSPITAL SERVICES standards

Information Re: Charges

15. Excerpt the language from JHBMC's policy that relates to subparts (b) and (c) of this standard, and cite their location in the policy.

Applicant Response:

(b) The procedures for promptly responding to individual requests for current charges for specific services/procedures can be found on page 2, Section IV PROCEDURE, subsection B Management of Inquires Related to Hospital Charges.

“1. Inpatient Prior To/Day of Service

a. Patient can contact Admitting and Registration for a copy of the list of charges. Patients can also request current charges for specific services/procedures from the JHH or the Johns Hopkins Bayview Medical Center (JHBMC) Admitting and Registration offices.

Contact Number	Contact Department
410-955-6056	JHH Admitting & Registration
410-955-9464	JHH Outpatient Services
410-550-0830	JHBMC Admitting Office
410-550-7900	JHBMC Outpatient Services

b. Inquiries regarding hospital charges will be directed to the public website.

2. Post-Day of Service/Discharge

a. Patient can contact Johns Hopkins Patient Financial Services Customer Service:

JHH – 443-997-0100	Toll Free # JHH - 800-757-1700
JHBMC – 443-997-0200	Toll Free # JHBMC – 877-361-8702

b. Inquiries regarding hospital charges will be directed to the public website.

c. A copy will be mailed upon request.”

(c) The requirements for staff training to ensure that inquiries regarding charges for its services are appropriately handled can be found on page 2, Section VI COMMUNICATION AND EDUCATION:

“Each Johns Hopkins entity is responsible for proper training of staff to ensure that they respond appropriately to the request for information regarding charges for specific services and procedures and are aware of the location of this information. This policy will be communicated to the appropriate JHHS personnel via the following channels:

1. Departmental Leadership: Admitting will distribute information concerning the website address and the appropriate information to respond to patient requests.
2. Patient Financial Services: Customer Service staff will be educated concerning the website address and the appropriate information to respond to patient requests.
3. Director of Casemix Information Management: Will assure staff is knowledgeable about the criteria to build the charge report, how to post the report to the appropriate JHHS websites quarterly and will ensure that the charge listing is distributed to the appropriate parties at each of the Hospitals.”

Charity Care Policy

16. Please provide copies of the notices posted in English and Spanish explaining the availability of financial assistance and providing contact information (p.49 of application).

Applicant Response:

Please see Exhibit CQ16.

Adverse Impact

In the response to this standard JHBMC provides a table stating that its rates would be 20% less than its peer group after increasing its currently approved revenue by the 5.6% rate increase that it assumes that the HSCRC will approve. The following questions in this section relate to those rate comparisons.

17. Please provide the detailed calculations for comparison of unit rates to the peer group. Also please provide a comparison of JHBMC's estimated rates including the revenue associated with the requested rate increase to the statewide median. JHBMC's peer group has average rates well above the statewide average. In the detailed calculations please provide the comparisons including and excluding the clinic revenue center. JHBMC has a large number of clinic RVU's generated in its Psychiatric Rehabilitation Clinic that do not appear comparable to other hospitals' clinic RVU's.

Applicant Response:

The detailed calculation of the unit rate comparison included in the CON application are presented in Exhibit CQ17.1. Upon review of Completeness Question #57, a formula error was noted in the mark-up calculation included in the initial rate comparison. Please see Exhibit CQ17.2 for the calculation using the correct mark-up of 9.92%. A summary of the initial and revised rate comparison is provided below in Tables 1 and Table 2 and respectively:

Table 1
Johns Hopkins Bayview Medical Center
Initial - CON Unit Rate Comparison
(\$ in thousands)

Johns Hopkins Bayview Medical FY2017 Pro-Forma Revenue			Approved Rates Compared to Peer Group		Capital-Adjusted Rates Compared to Peer Group	
FY2017 Pro- Forma Revenue	FY2017 Revenue at Capital Adjusted Rates	FY17 Revenue at Peer Group Average Rates	Over/(Under) Average Rates	Percent Variance	Over/(Under) Average Rates	Percent Variance
\$610,192	\$645,332	\$764,517	\$(154,325)	-20.2%	\$(119,185)	-15.6%

Table 2
Johns Hopkins Bayview Medical Center
REVISED - CON Unit Rate Comparison
(\$ in thousands)

Johns Hopkins Bayview Medical FY2017 Pro-Forma Revenue			Approved Rates Compared to Peer Group		Capital-Adjusted Rates Compared to Peer Group	
FY2017 Pro- Forma Revenue	FY2017 Revenue at Capital Adjusted Rates	FY17 Revenue at Peer Group Average Rates	Over/(Under) Average Rates	Percent Variance	Over/(Under) Average Rates	Percent Variance
\$610,192	\$643,508	\$764,517	\$(154,325)	-20.2%	\$(121,010)	-15.8%

After adjusting the calculation to include the correct mark-up, the variance increases from -15.6% to -15.8%

The rate comparison included in the CON application was performed against JHBMC's Inter-hospital Cost Comparison (ICC) peer group as those hospitals are determined by the HSCRC to have cost structures most similar to JHBMC. Comparing JHBMC's unit rates to statewide median unit rates provides little analytical value as JHBMC should be expected to have unit rates higher than the statewide median given its cost structure, its patient population, and the services it provides.

However, per the request, Table 3 below provides a summary of the rate comparison to the statewide median rates, and Table 4 below provides a summary of the rate comparison to the statewide median excluding the clinic rate center. JHBMC's capital adjusted rates are still below the statewide median rates by -2.4% as shown in Table 3. Detailed calculations can be found in Exhibit CQ17.3.

Table 3
Johns Hopkins Bayview Medical Center
Statewide Median Rate Comparison
(\$ in thousands)

Johns Hopkins Bayview Medical FY2017 Pro-Forma Revenue			Approved Rates Compared to Statewide Median		Capital-Adjusted Rates Compared to Statewide Median	
FY2017 Pro-Forma Revenue	FY2017 Revenue at Capital Adjusted Rates	FY17 Revenue at Statewide Median Rates	Over/(Under) SW Median Rates	Percent Variance	Over/(Under) SW Median Rates	Percent Variance
\$610,192	\$643,508	\$659,440	\$(49,248)	-7.5%	\$(15,932)	-2.4%

Table 4
Johns Hopkins Bayview Medical Center
Statewide Median Rate Comparison Excluding Clinic Rate Center
(\$ in thousands)

Johns Hopkins Bayview Medical FY2017 Pro-Forma Revenue (EXCLUDING CL Rate Center)			Approved Rates Compared to Statewide Median		Capital-Adjusted Rates Compared to Statewide Median	
FY2017 Pro-Forma Revenue	FY2017 Revenue at Capital Adjusted Rates	FY17 Revenue at Statewide Median Rates	Over/(Under) SW Median Rates	Percent Variance	Over/(Under) SW Median Rates	Percent Variance
\$545,439	\$575,219	\$559,064	\$(13,625)	-2.4%	\$16,155	2.9%

Excluding the clinic rate center, JHBMC's unit rates are still -2.4% below the statewide median, and the capital adjusted rates are 2.9% above the statewide median. However, isolating variances in individual rates centers is a myopic approach and does not account for the full costs of operating the hospital.

18. How has the fact that JHBMC's overall volumes increased by 4.3% between FY 2013 and FY 2017 while the peer group's combined volumes have decreased by 10.4% between FY 2013 and FY 2017 according to HSCRC information affected the rate comparisons?

Applicant Response:

Under the GBR methodology, increases in volume result in lower unit rates and decreases in volume result in higher unit rates. Accordingly, in part due to the noted volume trends, JHBMC has lower unit rates in comparison to its peers as demonstrated in the unit rate comparisons provided. However, JHBMC's volume increases have been the result of medically necessary utilization as opposed to potentially avoidable utilization (PAU). Please refer to response to Completeness Question #19 for additional information regarding JHBMC's volume trends.

Further, as indicated by the HSCRC, between FY2013 – FY2017 other hospitals in the state have done less with more by shifting services outside the hospital and retaining the revenue in their GBR. Conversely, JHBMC has done more with less, by continuing to serve its patients as well as the patients of other hospitals that have discontinued hospital based programs, without any significant corresponding revenue increases.

Moreover, at the time the CON was submitted, the HSCRC had not yet finalized the ICC methodology to assess hospital charge efficiency on a per volume basis. Using the HSCRC's recently approved Rate Efficiency Methodology (REM), JHBMC still appears to be more efficient than its peers. JHBMC has a REM adjusted charge per Equivalent Case Mix Adjusted Discharge (ECMAD) of \$11,836 which is -0.82% below the Urban Hospital peer group standard of \$11,933, and -11.8% below the AMC Virtual Hospital peer group standard of \$13,236. Please see Exhibit CQ18 summary results.

19. Please provide an explanation as to why JHBMC has not responded to the incentives in the HSCRC's GBR methodology in terms of reducing volumes while the other hospitals in its peer group have responded effectively in reducing volumes.

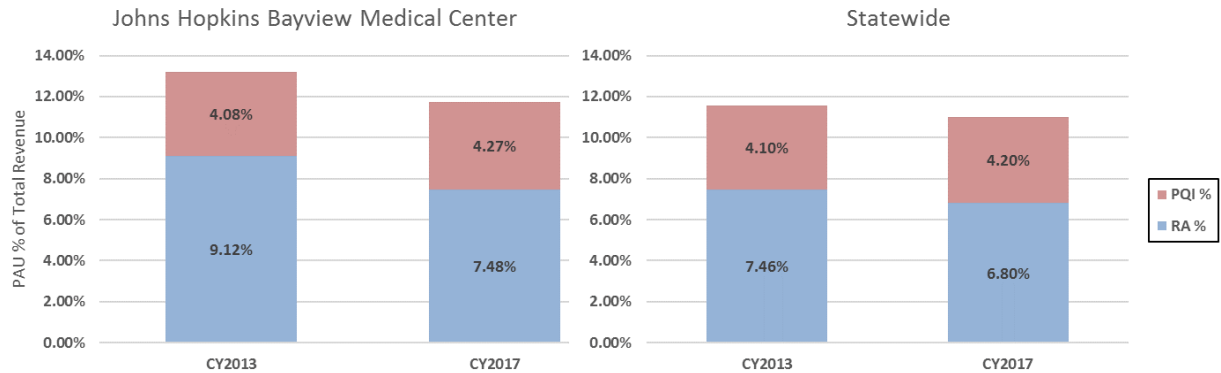
Applicant Response:

JHBMC has indeed responded to the incentives of the GBR methodology (this will be elaborated upon below). That said, the HSCRC's volume policies have the potential to reward hospitals for reducing volumes, regardless of whether hospitals are employing the right strategies to reduce unnecessary utilization and help the State achieve the goals of the Demonstration Model. Likewise, hospitals like Bayview have seen increases in necessary/appropriate volume in service of their community. Since the inception of GBR, ambulance arrivals at JHBMC have gone up 50%; trauma cases have gone up 30%; and most recently, the average daily census on our pediatric service has increased as compared to previous periods. As one of the oldest continuously operating hospital providers in the United States, Bayview has a long tradition of service to the communities of East Baltimore City and County. Under the new payment methodology, Bayview has remained committed to its local community and has been a leader in the development of new approaches to improve population health.

While continuing to serve our community, JHBMC has also taken a leadership role in reducing unnecessary utilization. In 2012, Johns Hopkins Medicine launched the Johns Hopkins Community Health Partnership (J-CHiP), funded through a \$19.9 million, 3-year CMS grant, to improve quality and efficiency of health care delivered to patients in the local community. The partnership was a progressive collaboration of primary care providers, home care providers, SNFs, community-based organizations and community health workers, operating with JHH and JHBMC as population health managers. A significant portion of the population in this 7-zip code "J-CHiP area" is comprised of Medicaid and uninsured residents experiencing healthcare access issues due to various socioeconomic and demographic factors. The area has traditionally experienced high rates of hospital utilization and poor health outcomes. Since 2013, however, ED use rates in the J-CHiP area have declined more rapidly than any other area of Baltimore City. See Exhibit CQ 19.1.¹

JHBMC's population health efforts have also extended beyond the J-CHiP area. Since 2013, JHBMC has reduced Potentially Avoidable Utilization (PAU), measured as charges as a percent of hospital total revenue, by 11% compared to a statewide reduction of 5% during the same period (CY2013 to CY2017). JHBMC has nearly doubled the statewide rate of PAU reduction despite experiencing significant and sustained volume growth.

¹ The region "Baltimore City-East" is comprised of the seven J-CHiP zip codes and so is equal to the "J-CHiP area". Appendix page 6 indicates that the ED use rate in Baltimore City-East declined 13.94%, compared to 9.84% for Baltimore City-West, and 9.12% for Baltimore City-North.



As JHBMC has reduced avoidable volume, it has experienced growth in medically necessary utilization. As other providers have shed medically necessary care (as evidenced by the downsizing or closing of certain programs across the State), JHBMC has stepped in to serve those patients. A significant portion of JHBMC's growth is driven by emergent volume from regions not typically associated with JHBMC's ED service area, such as Northern Baltimore City and Eastern Baltimore County. See Exhibit CQ19.2 - JHBMC ED Growth Profile - January to June 2017, showing that JHBMC ED admission volume has increased most significantly from patients living in Baltimore-East (ECMAD growth of 237 from January-June 2016 to January-June 2017) and Baltimore City-North (growth of 209). Even as Bayview has experienced volume pressures, it has managed to control hospital overutilization in the region, as evidenced by the slowing of use rate growth in the J-CHiP area, 67 compared to the regions noted above. In short, Bayview has shouldered the burden of continuing to provide necessary and appropriate care to patients in the Baltimore community while its peers appear to have capitalized on the undiscerning incentives of the HSCRC's GBR methodology.

20. According to data obtained from the CMS website, Medicare paid for 2,296 patient days per 1,000 Medicare population in Baltimore City in 2015 compared to an average of 1,594 patient days statewide in Maryland, or 2,074 patient days in the District of Columbia. Although there are differences in patient demographics between Baltimore City and the rest of Maryland and the District of Columbia, it would appear that excess hospital capacity in Baltimore City is contributing to much higher than normal Medicare inpatient utilization. Given the current high Medicare utilization in Baltimore City, it would appear that there is significant opportunity for JHBMC to reduce utilization and generate sufficient revenue to fund the additional costs associated with the CON. Please provide an analysis of how much revenue would be available for depreciation and interest on the proposed CON project if JHBMC were able to reduce its volumes at a pace comparable to the other hospitals in its peer group over the last five years.

Applicant Response:

When making any conclusion about Baltimore City's comparative utilization, it is necessary to take into account the various socioeconomic factors influencing utilization patterns as well as the significant variation by region within Baltimore City. JHBMC serves a high-risk population with a high proportion of self-pay/Medicaid patients that have chronic conditions and comorbidities, especially substance abuse, behavioral health issues, and other issues such as poverty and homelessness that act as barriers to achieving good health. No other region in the State, nor in Washington, D.C., has this patient population, and current risk adjustment methodologies do not provide adequate adjustments for these socioeconomic factors. In fact, The Johns Hopkins Hospital and JHBMC look forward to working with MHCC and HSCRC to improve the current methodologies which likely inappropriately reward and penalize Maryland hospitals. CMS's risk-adjustment methodology, the number of HCCs per beneficiary in East and West Baltimore City, is 11-13% higher than the State (see Exhibit CQ20.1). While it is true that use rates in Baltimore City are significantly higher than the statewide average, they have also improved at a much faster pace than the State under GBR. Also, when adjusted for case mix, the average length of stay in East Baltimore City is only slightly higher than the State (see Exhibit CQ20.2). While JHBMC and its affiliated providers take seriously the responsibility they have to provide appropriate care at the appropriate venue to avoid unnecessary utilization of resources, the excess capacity of beds in the region is not something JHBMC can control. JHBMC looks to its partners at the HSCRC and MHCC to create/adopt policies that drive out unused capacity and redirect appropriate resources to the remaining capacity/providers to address the needs of the people in the region

21. How will the assumed 25.8% reduction in JHBMC's outpatient clinic, imaging, and laboratory services between FY 2018 and FY 2021 affect the rate comparisons to other hospitals?

Applicant Response:

As will be discussed in the response to Question # 39, it was determined that an older version of the volume projection was mistakenly included in the CON application. Table F has been updated to reflect current outpatient clinic, laboratory, and imaging services and the expectation that these volumes will remain relatively flat over the projection period. With no change in these volumes, rate comparisons to other hospitals are not affected.

Please see Exhibit CQ21 for updated Table F.

22. Did JHBMC account for the assumed 25.8% reduction in outpatient clinic, imaging, and laboratory services between FY 2018 and FY 2021 when designing the space for these departments when developing the project plan put forward in the CON application?

Applicant Response:

As noted in the response to Question #39, an incorrect version of Table F was included in the original CON application that was submitted. The incorrect information centered around clinic visits and laboratory and imaging volumes. None of these volumes had or has an impact on the project plan or sizing of the building that is contemplated in the CON application.

Please see Exhibit CQ21 for updated Table F.

23. JHBMC is projecting emergency room volume increases of approximately 3% annually throughout the projection period. The most recent US Census information shows that Baltimore City's population decreased by more than 1% between 2015 and 2016. Additionally, according to the CMS website Medicare patients in Baltimore City visited emergency rooms at an average of 985 times per 1,000 population in 2015 compared to an average statewide in Maryland of 672 and an average of 918 in the District of Columbia. If the emergency room volumes do not increase as JHBMC has projected, what will be the impact on the rate comparisons to other hospitals?

Applicant Response:

Under the GBR methodology, increases in volume result in lower unit rates. As the projected emergency room volumes at JHBMC increase, the unit rates charged to patients will decline. If the emergency room volumes do not increase, then the unit rates will remain unchanged, exclusive of annual HSCRC rate increases. Without volume growth, the rate comparisons to other hospitals will remain relatively the same as they are today. As presented in responses to Question #17, JHBMC's rates were 20.2% below those of its Peer Group in FY2017.

24. Under the HSCRC Waiver agreement with CMS the growth in statewide Medicare expenditures is monitored closely and the overall statewide growth is limited to an annual percentage. Because the rate increase requested by Bayview for the CON project will impact the annual allowable growth in Medicare expenditures what other Maryland hospital expenditures does JHBMC believe should be reduced to offset the impact of its CON-generated requested rate increase?

Applicant Response:

Bayview and JHHS are strong supporters of the waiver and the goals embedded in the current and the recently approved enhanced model. Nevertheless, we also believe that the manner in which it has been implemented through various policies and methodologies of the HSCRC need continued improvement. For example, the lack of a policy to address needed capital funding in the system is a significant shortfall in the current GBR construct. While it has been the HSCRC's stated aim since the implementation of hospital GBRs to "allow the revenue to follow the patient," actual volume methodologies have allowed hospitals with volume declines to retain over 70% of the associated revenue while hospitals with volume growth receive funding closer to 30%, resulting in price compression at growing hospitals and price inefficiencies at declining hospitals that translate directly to higher costs for the patient. The HSCRC has thus far not conducted a wide scale rebasing of hospital GBRs to correct this imbalance. Even without a clear policy in place, the HSCRC has produced several efficiency metrics that begin to identify hospitals with excess revenue. According to the HSCRC's proposed Relative Efficiency Model, JHBMC is more than 10% more efficient compared to its urban, teaching peer group and more than 4% more efficient compared to the State. Also, the "excess capacity" calculation introduced in the HSCRC's proposed Inter-Hospital Cost Comparison methodology demonstrates that among its peers, JHBMC is the only hospital not deemed to have excess fixed cost due to unused inpatient bed space. A capital policy under GBR should include a mechanism to ensure that enough funding is available in the system to fund capital projects that are deemed necessary for hospitals to continue to serve the needs of their communities, and there is more than sufficient funding capacity available if the policy targets hospitals considered to have inefficiency and excess fixed cost related to unused bed space.

Construction Cost of Hospital and Non-Hospital Space

25. Why did you classify the mechanical penthouse as excellent quality (\$92 per sq. ft.) instead good quality (\$82 per sq. ft.)?

Applicant Response:

Section 15, page 19 of the MVS book shows the distinctions between classes of Mechanical Penthouses. The following image is taken of the page.

MECHANICAL PENTHOUSES (585)								
A	Excellent (Full floor)	Louvers, best curtain wall panels, matching spandrel	Intermediate full mechanical floor, utility space, some storage	Adequate lighting, utility outlets and drains	None	990.28	7.66	92.00
	Good	Good curtain panels, masonry, louvers, concrete roof	Mechanical and storage, some finish and partitions	Adequate lighting, utility outlets and drains	None	893.40	6.91	83.00

The definition of Excellent shows that it is the only level of quality that states that it is “Full floor.” Table C of the CON Application Table Package, located in CON Application Exhibit 1-C, shows JHBMC’s mechanical penthouse is 47,603 square feet in size and comprises nearly the entire roof. (The sixth floor below the penthouse is 59,948 square feet.) In addition, the exterior walls for excellent quality are described as “Louvers, best curtain wall panels, matching spandrel,” which is consistent with JHBMC’s plans.

26. How did you calculate the elevator add-on for the mechanical penthouse? Why was no elevator add-on calculated for the basement? Specify the number and types of elevators that will stop at the basement and number and type of elevators that will stop at the mechanical penthouse.

Applicant Response:

The building will have four public passenger elevators, two transport freight elevators, and two material handling freight elevators. The four public passenger elevators serve floors 1 through six. The two transport elevators serve all floors from the basement through the mechanical penthouse and also proceed to the helipad. The two material handling elevators serve all floors from the basement through the mechanical penthouse. A re-evaluation of elevator costs results in the following:

	<u>Freight - Transport</u>	<u>Freight - Materials</u>	<u>Totals</u>
Elevators	2	2	4
Base Cost	\$108,000	\$108,000	\$432,000
Stops	8	7	15
Base Cost per Floor	13,500	15,429	
Cost/Stop	\$18,000	\$18,000	\$540,000
Base and Stop Cost per Floor	\$31,500	\$33,429	\$972,000
 Basement Elevator Cost	 \$ 63,000	 \$ 66,857	 \$ 129,857
Basement SF			54,938
Elevator Cost per SF for Basement			\$2.36
 Penthouse Cost Calculation	 \$ 63,000	 \$ 66,857	 \$ 129,857
Penthouse SF			47,603
Elevator Cost per SF for Penthouse			\$2.73

27. Explain why separate sprinkler add-ons were calculated for each component of new construction (basement, upper floors, and penthouse) instead of calculating a common add-on based on the total square footage of new construction, especially given the statement in Marshall in Section 15, page 37 that the square foot costs listed are based on the total sprinkler system installation on a single main connection.

Applicant Response:

Since everything else is calculated for each component in calculating the MVS benchmark for that component, JHBMC took a consistent approach with the sprinkler add-on.

28. Explain how the capitalized interest was estimated and how the adjustments for capitalized interest detailed on pages 80, 81, 89, and 96 were calculated and why the adjustments are only made for building costs and not site costs.

Applicant Response:

Capitalized Interest is calculated on estimated cash flows and using a weighted average cost of capital of 4.5%.

As shown on page 84 of the application, the amount of capitalized interest and financing fees that is included in the comparison of comparable project costs to the MVS benchmark was calculated as follows:

Hospital Building Costs from Table E:	New	
Item 1. Capital Costs a. New Construction (1) - Building	\$182,241,000	A
Subtotal Item 1. Capital Costs a. New Construction Items 1-5	\$214,390,000	B
Total New Inpatient Building Gross Interest During the Construction Period Item 1. c. (3)	\$16,557,000	C
Building Cost Line/Subtotal	85.00%	$D = A / B$
Building Cap Interest & Loan Place.	\$14,074,184	$E = D * C$
Associated with Extraordinary Costs (from the Extraordinary Costs calculations)	\$3,382,378	$F = C - E$
Applicable Cap Interest & Loan Place.	\$10,691,806	$G = E - F$

Section 1, page 3 of the MVS book states that the costs contain:

(3) Normal interest on only the actual building funds during period of construction and processing fee or service charge is included. Typically, this will average half of the going rate over the time period plus the service fee. For average construction times, see Section 85.

MHCC Staff have historically interpreted this to mean that only the capitalized interest and financing fees associated with the costs in the “Building” line in the CON Project Budget should be included. JHBMC was simply following MHCC Staff’s historical practice.

29. What is included d in the \$1,485,158 in Site Demolition costs and the \$846,268 for the demolition of adjacent structures and the \$846,268 for building demolition at NIB connections? Detail the calculations of these adjustments. Regarding this last adjustment to the new hospital building costs, you also made a \$2,261,475 adjustment to the renovation costs for demolition and abatement. Where in the project budget are the costs of demolition at the NIB building connections?

Applicant Response:

Site Demolition Costs

- The site demolition costs are as follows:
 - Civil Phase I – Establish temporary parking - \$0
 - Civil Phase II – Relocate utilities in footprint of parking garage and NIB - \$70,834 – removal of existing road, curb and gutter including all contractor contingency and general conditions.
 - Civil Phase III – Run key utilities to new parking garage and NIB - \$ 909,382 – removal of road, sidewalks, misc sanitary sewer lines, removal of debris, clear and grub including contractor contingency and general conditions.
 - Civil Phase IV – Complete final road/civil and stormwater management improvements and - \$454,719 - clear and grub, removal of existing roads, curb and gutter, removal of debris, including contractor contingency and general conditions.
- These three amounts total the \$1,434,936 that are included in table D for offsite costs for the NIB. IN order to calculate the extraordinary amounts for the demolition costs, allocations were included as detailed below. The site demolition costs are included in the site and infrastructure line item within the NIB budget.

Item Name	Amounts
Site Demolition Costs	1,434,936
Permit, Estimating Contingency, Etc. .	50,222
Total Extraordinary Amount	1,485,158

Demolition of Adjacent Structures - \$846, 268

- This item pertains to the removal of windows and block openings where the NIB will connect to the FSK pavilion and is calculation as listed below. The FSK demolition costs are included in the New Construction – Building line item within the NIB budget.

Item Name	Amounts
Building Demolition at NIB Connections	818,024
Permit, Estimating Contingency, Etc.	28,631
Total Extraordinary Amount	846,655

Demolition of NIB Connections - \$846,655

- This item is a duplicate of the Demolition of Adjacent Structures and should be removed from the extraordinary cost analysis.

30. Adjustment has been made in both the hospital building and the garage for additional cost of the foundations and columns under the hospital attributable to the decision to locate the parking garage under the NIB. Shouldn't all these additional costs be included in the garage budget and; therefore, all necessary adjustments be made to parking garage MVS benchmark comparison? Explain how these costs and the adjustments was capitalized and allocated between the hospital building budget and the parking garage.

Applicant Response:

The premium costs for the foundations and structure related to the garage under the NIB are all carried in the garage project budget. The extraordinary item included on the NIB related to the garage foundation premium should be removed from consideration.

31. Adjustments were made in both new construction and renovation costs for extraordinary basement costs based on the rationale that the proposed based occupancies are atypical for hospital basements. However, in calculating the benchmarks for basements of both new construction and renovations departmental differential cost factors were used to account for such differences in occupancy. Submit a detailed explanation of how your estimated cost per square foot of \$329.80 for the new basement and \$218.22 for renovations. Describe the nature and extent of basement renovations.

Applicant Response:

Please see Exhibit CQ31.1 and Exhibit CQ31.2.

32. Explain how the urban construction premium of \$5,658,583 was calculated?

Applicant Response:

The urban construction premium was calculated as listed below. The methodology is consistent with similar large projects, like the New Clinical Building at the Johns Hopkins Hospital that we have previously performed in an urban setting.

NIB New Construction Building Amount	\$ 182,241,000
Estimated Urban Premium Percentage	<u>3.0%</u>
Urban Premium Amount	\$ 5,467,230
Permit, Estimating Contingency, Etc	<u>191,353</u>
Total Estimated Amount - Urban Premium	\$ 5,658,583

33. Explain the basis for Hopkins' estimate that the MBE inclusion program adds 4% to building costs. Submit documentation to support this estimate. Submit the calculation for the is adjustment for the new building and the renovations,

Applicant Response:

The MBE Premium is calculated as follows:

New Construction - Building	182,241,000
New Construction - Site and Infrastructure	16,530,000
Subtotal	198,771,000
Less Construction Cost Credits for Extraordinary Items	
Site Demolition Costs	(1,434,936)
Storm Drains	(1,509,630)
Rough Grading	(1,796,945)
Hillside Foundation	(222,901)
Paving	(2,278,200)
Landscaping	(652,798)
Yard Lighting	(1,209,628)
Temporary ED Drop Off Circle During Construction	(184,656)
Offsite Costs Excluded from the MVS - Utilities	(6,369,827)
Garage Connection	(724,500)
Bridge to Burton Pavilion	(2,210,000)
Parking Garage (Under NIB)	(699,000)
Arrival Plaza - Drop-off with Canopy	(370,000)
Green Roof Premium	(606,475)
Temporary ED Entrance	(862,500)
Building Demolition at NIB Connections	(818,024)
Extraordinary Basement program cost	(7,689,233)
Tight lot line / Urban construction premium	(5,467,230)
Helipad (get spray foam system)	(1,640,000)
Reverse Osmosis H2O System due to water quality issues	(115,000)
Extraordinary Costs for Burn Unit AHU	(917,700)
Concrete Structure in lieu of Steel Structure	(1,355,231)
Demolition of Adjacent Structures	(817,650)
Pneumatic Tube Infrastructure	(805,000)
Sheeting and Shoring Premium	(1,932,000)
Mat Foundation Premium	(703,110)
Exterior Skin Premium	(2,351,443)
Seimsmic Reinforcement	(600,407)
Subtotal	(46,344,023)
Adjusted New Building and Site/Infrastructure Costs	152,426,977
MBE Inclusion Program Premium	4%
Total Estimated MBE Inclusion Program Premium	6,097,079

The Johns Hopkins Health System has employed an effective minority business inclusion program for more than ten years. In recent years, the state and federal government emphasis on increased MBE spending has placed a tremendous of pressure on the bidding market. The MBE demands in the market are greater than ever and we now see increased instances where the most qualified MBE firms are either selectively bidding projects or increasing the cost of their services due to the growing demand. The size and nature of this hospital construction project requires more experienced and knowledgeable MBE firms. After reviewing our prior MBE buyouts, and consulting with local Construction Management firms, we believe that a 4% premium is reasonable. This 4% includes but is not limited to the following costs attributable to the successful management of an MBE program:

- Construction manager resources required to conduct MBE job fairs
- Subcontractor, general contractor and construction manager time required to prepare and compile MBE reports and statistics on a monthly basis, and
- Bid premiums paid to MBE contractors due to the market conditions and limited number of MBE contractors capable of meeting requirements to work on this project.

Please see Exhibit CQ33. This report provides an analysis of the impact of prevailing wage and MBE regulatory requirements specifically on the costs of school construction, with many of the factors also applicable to health care construction projects.

34. Regarding the calculation of the applicable capitalized construction interest and financing costs as appears on page 84, it appears that the use of \$16,557,000 for the total capital interest and financing when the project budget (Table E) indicates that the total is \$18,969,000 is the allocation of \$2,412,000 to the renovations. Please detail how this allocation between new construction and renovation was calculated.

Applicant Response:

As noted above, capitalized interest was calculated on estimated cash flows by project component (NIB and power plant, garage and renovations) using a weighted average cost of capital of 4.5%.

The amounts apportioned to each project component are as follows:

New Inpatient Building	\$ 16,557,000
Power Plant Upgrades	<u>\$ 376,000</u>
Subtotal NIB and Power Plant	\$ 16,933,000
Garage	\$ 1,218,000
Renovations	<u>\$ 2,036,000</u>
Total Capitalized Interest	<u><u>\$ 20,187,000</u></u>

35. Regarding the calculation of the MVS benchmark for the renovations on pages 85 through 89, please respond to the following:
- a. Complete the construction characteristics (Table C) for the NIB with the perimeter and wall height for the renovation component of this project.
 - b. Explain or correct the discrepancy between the square footage used in the calculation of the basement (27,791) and the upper floors (21,563) and the square footage reported in Table C, 34,739 for the basement and a total of 26,954 for the upper floors.
 - c. Explain or correct the discrepancy between the number of upper floors identified as 3 on page 86 and the square footage reported on Table C construction characteristics for only two floors above the basement.
 - d. A departmental differential cost factors of 1.37 was used in calculation of the basement benchmark and .97 for the renovation of the upper floors but supporting calculations detailing how these factors were calculated were not provided. Please submit calculations similar to those provided for the new construction on pages 75 through 78. Submission on excel spreadsheets would be greatly appreciated.
 - e. Submit the calculations of the perimeter and height multipliers for both the basement and upper floors renovations.
 - f. Will the sprinkler system components be replaced as part of the renovations? If yes, specify the square footage that will be covered by floor for the renovated portion of the system and submit the calculations for add-on for the upper floors (page 87 indicates an add-on of \$3.92 per sq. ft.).

Applicant Response:

- a.) Please see Exhibit CQ35.1.
- b.) The square footage numbers used in the MVS calculations are incorrect and need to be adjusted. The correct square footage amounts were included in Table C (Exhibit CQ35.1). A revised MVS analysis is included to reflect this change. Please see Exhibit CQ35.2.
- c.) The number of upper floors included in the renovation is two. The MVS should be updated to reflect this.
- d.)

A Departmental Cost Differential Factor of 1.37 for renovation of the basement was calculated as follows:

Department/Function	BGSF	MVS Department Name	MVS Differential Cost Factor	Cost Factor X SF
Level 01				
EVS	1,028	Housekeeping	1.31	1,347
Catering and Kitchen Storage	1,624	Dietary	1.52	2,468
Linen	2,357	Laundry	1.68	3,960
Tray Prep	2,138	Dietary	1.52	3,250
Food Service - Dry and Cold Storage	4,314	Storage and Refrigeration	1.6	6,902
Receiving	4,267	Storage and Refrigeration	1.6	6,827
MM Storage	5,307	Storage and Refrigeration	1.6	8,491
Office/Admin	1,307	Offices	0.96	1,255
Staff Amenities	1,511	Employee Facilities	0.8	1,209
Circulation	3,938	Internal Circulation, Corridors	0.6	2,363
Total	27,791		1.37	38,072

A Departmental Cost Differential Factor of .97 for renovation of the upper floors was calculated as follows:

Department/Function	BGSF	MVS Department Name	MVS Differential Cost Factor	Cost Factor X SF
ACUTE PATIENT CARE				
Level 1				
Imaging	3,882	Radiology	1.22	4,736
Circulation	1,919	Internal Circulation, Corridors	0.6	1,151
Level 3				
Surgical Intensive Care	11,675	Inpatient Unit	1.06	12,376
Clean Core Connection	403	Central Sterile Supply	1.54	621
TBD	890	Unassigned Areas	0.5	445
Circulation	2,794	Internal Circulation, Corridors	0.6	1,676
Total	21,563		0.97	21,005

e.)

Basement:

		Perimeter					
		1200	1225	1400	1200	1225	1400
Area	30,000	0.934		0.949	0.934		0.949
	34,739				0.9235742	0.92521225	0.9366786
	35,000	0.923		0.936	0.923		0.936

Area Interpolation

1	0.934	-	0.923	=	0.011
2	34739	-	30000	=	4739
3	35000	-	30000	=	5000
4	4739	/	5000	=	0.9478
5	0.011	*	0.9478	=	0.010426
6	0.934	-	0.010426	=	0.923574
7	0.949	-	0.936	=	0.013
8	0.013	*	0.9478	=	0.012321
9	0.949	-	0.012321	=	0.936679

Sprinkler Interpolation

50,000	3.38		
34,739	3.5204012		
75,000	3.15	0	0

Perimeter Interpolation

10	1400	-	1200	=	200	1	3.38	-	3.15	=	0.23
11	1225	-	1200	=	25	2	34,739	-	50000	=	-15261
12	25	/	200	=	0.125	3	75000	-	50000	=	25000
13	0.9366786	-	0.923574	=	0.013104	4	-15261	/	25000	=	-0.61044
14	0.0131044	*	0.125	=	0.001638	5	0.23	*	-0.61044	=	-0.1404
15	0.9235742	+	0.001638	=	0.925212	6	3.38	-	-0.1404	=	3.520401

Upper Floors:

		Perimeter					
		500	582	600	500	582	600
Area	12,000	0.952		0.975	0.952		0.975
	13,477				0.941661	0.9574932	0.9609685
	14,000	0.938		0.956	0.938		0.956

Area Interpolation

1	0.952	-	0.938	=	0.014
2	13477	-	12000	=	1477
3	14000	-	12000	=	2000

4	1477	/	2000	=	0.7385
5	0.014	*	0.7385	=	0.010339
6	0.952	-	0.010339	=	0.941661
7	0.975	-	0.956	=	0.019
8	0.019	*	0.7385	=	0.0140315
9	0.975	-	0.0140315	=	0.9609685

Perimeter Interpolation

10	600	-	500	=	100
11	582	-	500	=	82
12	82	/	100	=	0.82
13	0.9609685	-	0.941661	=	0.0193075
14	0.0193075	*	0.82	=	0.01583215
15	0.941661	+	0.0158322	=	0.95749315

f.)

At present, Bayview does intend to replace the sprinkler systems for the buildings being renovated, although the sequencing and logistics of this effort need to be determined during the design process. Since the renovations included in the CON are not comprehensive on a floor by floor basis, Bayview may need to pair the CON renovations with a group of smaller infrastructure upgrade projects that are not included in the CON application.

36. Regarding the utility building, please respond to the following:

- a. Why is the utility building included in the calculation of the MVS benchmark for the renovation portion of the project when the Table C, construction characteristics, for the power plant indicates that the power plant project space will be new construction? Please explain or correct.
- b. Why was no departmental differential cost factor applied to the MVS base costs for the utility building given that such a factor was applied to all other portions of the project? What departmental cost factor should be used and why?
- c. Explain how the sprinkler add-on was calculated and submit the calculations.

Applicant Response:

a.) See the response to Question #5 which details the nature of the power plant construction.

b.) The Departmental Cost Differential Factor Adjustment appears to have been left out of the template that JHBMC was using. JHBMC suggests that the 0.7 factor for Mechanical Equipment and Shops be applied. The revised renovation MVS includes this factor.

c.)

No sprinkler add-on was included for the Basement renovations.

Upper Floors

Sprinkler Interpolation	20,000	3.96
	26,954	3.77
	30,000	3.69

1	3.96	-	3.69	=	0.27
2	26,954	-	20000	=	6954
3	30000	-	20000	=	10000
4	6954	/	10000	=	0.6954
5	0.27	*	0.6954	=	0.187758
6	3.96	-	0.187758	=	3.772242

Utility Building

Sprinkler Interpolation	
20,000	4.22

24,530	4.08863
30,000	3.93

1	4.22	-	3.93	=	0.29
2	24,530	-	20000	=	4530
3	30000	-	20000	=	10000
4	4530	/	10000	=	0.453
5	0.29	*	0.453	=	0.13137
6	4.22	-	0.13137	=	4.08863

Inpatient Nursing Unit Space

37. You have explained why the space allocated to the new Burn Center ICU/IMC and Surgical ICU exceeds 500 square feet per bed, and stated that JHBMC does not propose any rate relief related to the construction cost of this additional space. Please calculate:

- The amount and construction cost of the “excess space” (i.e., that amount that exceeds the per bed square footage limitation in this standard attributed to these units; and
- The portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess space.

Applicant Response:

See Calculations below:

Burn Center			
Square Footage Per Room		693	
Allowable Square Footage per Room		500	
Excess Square Footage		193	
Number of Room		16	
Total Unallowable Square Footage		3,088	
Surgical Intensive Care Unit			
NSF Per Room		699	
Allowable NSF per Room 500		500	
Excess NSF		199	
Number of Room		10	
Total Unallowable NSF		1,990	
Total Unallowable Square Footage		5,078	
Total Capital Costs	\$	393,238,000	
Less Contingency		(44,766,000)	15.0%
Less Interest		(16,933,000)	5.7%
Less Escalation		(33,101,000)	11.1%
Adjusted Capital Cost	\$	298,438,000	
Less Equipment w/ 9% Consultant Fee Allocation		(56,532,850)	
Less Site & Infrastructure with 9% AE Fee Allocation		(18,017,700)	
Allocable New Construction and Renovation Costs	\$	223,887,450	
NIB Total Square Footage		407,885	
Cost Per SF	\$	548.90	
Plus Contingency		82.34	
Plus Interest		31.14	
Plus Inflation		60.88	

Fully Loaded Cost Per SF	\$	723.26
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Calculated Unallowable Amount	\$	3,672,705
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Efficiency

38. In the discussion on pp.101-105 the application speaks to a variety of efficiency gains to be realized primarily by improving adjacencies and eliminating the need to transfer inpatients (to accommodate gender, infection control, and other issues) – yet despite the multiple examples cited, an FTE increase of almost 85 (2.6%) is attributed to the project. Given that this project is a renovation and modernization project that does not add service capacity, please explain the apparent incompatibility between efficiency improvements and increased staffing.

Applicant Response:

The increase in FTEs is related to the following factors:

- Expansion of Medical Center footprint where services/programs are offered (square footage)
- Increased volumes in the Division of OB, L&D and NICU (nursing and support FTES)

After the NIB is fully operational, opportunities to improve efficiency will continue to be assessed and optimized. This includes review and potential changes in staff workflows, shift times and job descriptions, as well as use of technology.

A breakdown of the proposed 85 FTEs with rationale is as follows:

Office/clerical = 4.8 FTEs

- 24/7 registrar in the Obstetrics department will be needed to greet visitors and support the overall safety and customer service plans for the department.

Nursing = 26.1 FTEs

- Most of these positions are related to the OB/L&D and NICU units (18 FTEs).
- The remaining FTEs are to support emergency response teams (Rapid Response and Code) to address patients that are in need of immediate resuscitation or life sustaining medical care. Due to the increase square footage, additional resources are required to cover the entire medical center.

Pharmacy = 2.8 FTEs

- These positions are needed for pharmacy technicians to cover the increased square footage of the Medical Center, to assure safe and timely drug dispensing.

Respiratory Therapy = 1.8 FTEs

- These positions are needed for respiratory therapists to cover the increased square footage of the Medical Center, to assure safe and timely respiratory therapy services, as well as participate in Rapid Response and Code Teams.

Environmental Services = 24.0 FTEs

- These positions are required due to the increased square footage of services extended across the Medical Center footprint. The calculation to determine staffing needs is based on industry standards for types of services provided and square footage allocations (office vs. clinical space).

Facilities = 10.0 FTEs

- Same as Environmental services.

Food Services = 3.0 FTEs

- These positions are needed for timely delivery of meals throughout a larger Medical Center footprint (increased square footage).

Materials Management = 3.0 FTEs

- These positions are needed for timely delivery of supplies/materials throughout a larger Medical Center footprint (increased square footage).

Other- Patient Transport = 4.0 FTEs

- These positions are needed for timely and safe patient transportation throughout Medical Center footprint (increased square footage).

Security = 5.2 FTEs

- Additional security positions needed to support a safe and secure environment and assistance with wayfinding at entry points to the Medical Center (increased square footage).

Financial Feasibility

39. In the projected statistics on Table F, Bayview has projected a reduction in outpatient clinic visits from 216,661 in FY 2017 to 163,192 visits in FY 2021, a reduction of 25%. Similar decreases were projected for outpatient laboratory services and outpatient imaging services. However, in the uninflated projections Bayview's total outpatient revenue was projected to decrease by only 0.2%. Please explain why large volume decreases were projected for outpatient clinic, laboratory, and imaging services and why projected outpatient revenue was not reduced to reflect the decrease in these volumes.

Applicant Response:

Upon further review of the projected outpatient volumes, it was determined that an older version of the volume projection was mistakenly included in the CON application. Table F has been updated to reflect current outpatient clinic, laboratory, and imaging services and the expectation that these volumes will remain relatively flat over the projection period.

Please see Exhibit CQ21 for updated Table F.

Please see Exhibit 39.1 for updated Table G and Table H.

Please see Exhibit CQ39.2 for updated financial projection assumptions.

40. In the projected FTE's in Table L, Bayview projects that ancillary FTE's will decrease from 240.9 currently to 237.1 FTE's after the CON project is complete. Given that the volumes in outpatient clinic, imaging and laboratory are projected to decrease by over 25% why are ancillary FTE's projected to decrease by only 3.8 FTE's, or about 1.6%?

Applicant Response:

Table F has been updated to reflect current outpatient clinic, laboratory, and imaging services and the expectation that these volumes will remain relatively flat over the projection period.

As part of the Academic integrated model, Laboratory FTE's are managed through Johns Hopkins Hospital payroll. Thus, laboratory FTES are not represented in Table L. However, the costs associated with any volume change have been considered in the projected expenses.

Any volume related reductions in Table L would not only be reflected in the direct clinical categories (ancillary & clinic), rather, the reduction assumptions would span across other categories in addition to ancillary and direct clinical care. For example, office/clerical, registration, environmental services, management.

The remaining (and majority of) reductions reflect operational efficiencies that are expected to take place over the course of the next several years (as part of ongoing financial performance improvement initiatives). These changes will be necessary to maintain a cost structure consistent with the GBR rate system and satisfy some of the expected industry changes for outpatient venue of care.

Please see Exhibit CQ21 for updated Table F.

41. According to Wage and Salary Survey information provided to the HSCRC, Johns Hopkins increased its number of FTE's from approximately 9,200 in FY 2012 prior to the opening of their new facility to 10,018 in FY 2013 after the opening of their new facility. In the CON Bayview's projected total FTE's are assumed to change from the current 3,252 to 3,282 after Bayview's project is completed, less than a 1% increase. Please explain how Bayview will be able to maintain staffing at approximately the same level after the CON project is completed while Johns Hopkins had to increase its staffing by about 9% after their CON project was completed.

Applicant Response:

As shown in Table L, 84.7 FTEs were added, a 2.6% increase, as a direct result of the project. To meet the financial projections necessary for funding of the project and to provide continued reductions to meet the demands of the GBR, a performance improvement was included in the financial projections. It was assumed that approximately 50 FTEs or 1.5% would be eliminated throughout the last year of the CON projection to achieve the desired financial results. As the identification of FTE reductions will unfold over time, the 50 FTE's were distributed proportionally across the labor categories in Table L.

Clinical departments were highly engaged in the design phase of the project, working closely with Medical Center administration and contracted architect firm. This involvement allowed for staff to share the vision of a physical environment designed to support their workflows and minimize waste. These perspectives were considered during all aspects of the design phase.

Staffing needs were vetted through a rigorous process that included formal justification by management staff in discussions with executive leaders.

JHBMC has a successful history of managing human capital and achieving financial performance improvement goals. Examples of how this is operationalized includes a formal vacancy review process and effective use of technology solutions.

COMAR 10.24.11 GENERAL SURGICAL SERVICES standards

Transfer Agreement

42. Health-General Article §19-308.2 provides, in part, that transfers of patients between hospitals are accomplished in a medically appropriate manner and in accordance with the health care policies of the State that, at a minimum, require:
- a) Notification to the receiving hospital before the transfer and confirmation by that hospital that the patient meets that hospital's admissions criteria relating to appropriate bed, physician, and other services necessary to treat the patient;
 - b) The use of medically appropriate life-support measures that a reasonable and prudent physician exercising ordinary care would use to stabilize the patient before transfer and to sustain the patient during the transfer;
 - c) The provision of appropriate personnel and equipment that a reasonable and prudent physician exercising ordinary care would use for the transfer; and
 - d) The transfer of all necessary records for continuing the care for the patient.

Please provide JHBMC's policies and procedures guiding inter-hospital transfer of patients and a copy of the form that would be completed and sent with a transferred patient.

Applicant Response:

Please see Exhibit CQ42.1 for JHBMC's policies and procedures guiding inter-hospital transfers of patients.

Please see Exhibit CQ42.2 for copies of the forms that would be completed and sent with a transferred patient; listed as Appendix A and Appendix B in the table of contents of Exhibit CQ42.1.

- a) Please see Exhibit CQ42.1, section VII Procedure, part C, which reads:

“C. The treating physician will contact the receiving hospital/provider and obtain acceptance of the transfer.”

- b) Please see Exhibit CQ42.1, section II Policy, part B5, which reads:

“5. The patient will be transported by qualified personnel and transportation equipment, as required, including the use of necessary and medically appropriate life support measures.”

c) Please see Exhibit CQ42.1, section VII Procedure, part D, which reads:

“D. Once the receiving provider has agreed to accept the patient, the charge nurse will contact the admissions office of the receiving facility, confirm there is a bed available, obtain the bed number, and obtain the contact information for the receiving nursing unit.”

d) Please see Exhibit CQ42.1, section II Policy, part B4, which reads:

“4. The receiving facility will be provided with appropriate medical records of the examination and treatment of the patient (including all pertinent events, actions, diagnosis, and treatment).”

Design Requirements

43. This standard requires consistency with the “current Facility Guidelines Institute’s Guidelines for Design and Construction of Health Care Facilities (FGI Guidelines).” While Exhibit 17 confirms that the architectural design of the operating rooms suite complies with Section 2.2 of the 2014 version of the FGI Guidelines, the applicant should provide documentation with the 2018 guidelines.

Applicant Response:

The design of the New Inpatient Building at the Johns Hopkins Bayview Medical Center occurred during 2017 and 2018 in preparation for the CON submission on February 2, 2018. At that point, the 2014 version of the FGI Guidelines was still in effect and the design meets that criteria. Any further development of the building design, including the operating rooms, will meet the 2018 FGI criteria.

Patient Safety

44. Please provide a response to subpart (a) of this standard, which requires an applicant to:
Document the manner in which the planning of the project took patient safety into account.
-

Applicant Response:

Patient safety was of major importance throughout the planning and design of the NIB. From a planning perspective, there are several adjacencies that were established for patient safety purposes, as follows:

- **Level 01:** The Imaging Department was located directly adjacent to the Emergency Department (ED) for quick and easy access from the ED to the various modalities. The suite includes a CT and two Interventional Radiology (IR) rooms so the suspected stroke patients can be scanned by CT within minutes of coming in the door and then into an interventional procedure immediately from there. The two adjacent IR rooms are essential so that two simultaneous intra-arterial stroke cases can occur, which is necessary for JHBMC to maintain its current Joint Commission certification as a Comprehensive Stroke Center (one of three in the State of MD). The door to groin puncture time is a critical outcome measure that is closely scrutinized to assess the hospital's quality of stroke care.
- **Level 3:** One of the new Operating Rooms will be used specifically for burn patients, equipped with special humidity and temperature controls and located directly adjacent to the Burn Critical Care Unit. Burn patients often require multiple trips to the OR and can lose body heat during this transport so this adjacency is critical. A procedure room is planned to be on the inpatient unit, so that procedures currently done at the bedside can now occur in a more sterile environment, minimizing the risk of infection.
- **Level 4:** The NICU, Labor & Delivery (L&D), and Obstetrics units will be contiguous on the same floor allowing quick and easy access to the L&D ORs for the NICU staff in an emergency and to reduce transport time of newborns to the appropriate care environment. The L&D ORs have been designed with a dedicated infant resuscitation area for the safety of the neonates. The entire floor can be monitored and areas with babies will have a security system that prevents anyone from leaving the floor through an unattended door without setting off an alarm and having doors on the exit route lock down. Properly sized medication rooms and nutrition/formula preparation rooms will ensure that the staff can focus on their tasks, minimizing the chance of errors.

Patient Safety was also taken into account throughout all aspects of the design including, but not limited to:

- All inpatient rooms have been designed with:
 - Enough space to accommodate all required medical equipment
 - Family space to encourage loved ones to advocate for the patient and participate in their care
 - Dedicated staff documentation space both in and outside of the room; nurses can observe and document without disturbing the patient.
 - Standardization of headwall configuration in all like-kind patient rooms

- Utilization of IT & electronics to improve staff communication and also reduce noise (i.e. Ascom phones instead of overhead paging, etc.).
- Provision of appropriately sized medication rooms with use of Pyxis machines and dedicated medication preparation areas to prevent medication errors.
- Infection control precautions throughout entire facility to reduce infection, contamination, etc.
 - All privates rooms
 - Hand washing sinks and waterless hand disinfectants
 - Adequate number of isolation rooms
- Provision of adequate staff interaction space for improved collaboration and communication.
- Decentralized nursing stations, supplies & medications to increase patient “touch time” and eliminate unnecessary steps. These are designed as alcoves along the hall to prevent sound from traveling down corridors, both a safety and privacy issue.
- Acoustical treatment in patient care areas to reduce sound and promote healing (reduced fatigue, less interruptions, better sleep) and less distraction/stress for staff.
- Rubber flooring in the NICU which improves acoustics within the unit.
- Lounges, respites for staff for stress relief and increased staff morale.
- Lighting within each patient room to provide three levels of adjustment, one for general illumination, one for patient reading and one for exam purposes. Each setting can be operated individually or in conjunction with the others.
- Use of mock ups and simulations during design phase to identify potential safety issues (i.e. appropriate clearances in rooms, space for emergency response). Patients and families were invited to provide feedback.
- All bathrooms handicapped accessible to prevent falls or other injuries during transfers and other care.
- Access to patient bathrooms direct and unencumbered, minimizing the fall risk.
- Family respite & education spaces and in room family space, to encourage families to participate in patient care.
- Interior design that promotes healing through positive distraction, such as soothing interior schemes and artwork.
- The location of helipad on the roof of the building to allow for easy access to central elevators for more efficient transfer of patients to the Burn Critical Care Unit and Emergency Department.

45. Provide a listing of safety features that the proposed surgical facilities will bring, contrasted with current conditions.

Applicant Response:

The following items will be incorporated into the new four room OR suite, and will improve the ability of the staff to do their work:

- Level 01: Central Sterile Processing (CSP) is being replaced and will now accommodate all aspects of surgical instrumentation, and case cart pack and prep at one location. Currently these functions are split between Levels 01 and 3 and “workarounds” are required. The CSP will be vertically connected to the OR clean core by a cart elevator; the existing elevators are old and in need of replacement.
- As described in the original CON submission, on page 17, many of the existing ORs are too small to accommodate the equipment that is required for complex surgeries, specifically Orthopedic and Neurosurgical. Currently rooms are cluttered and do not easily accommodate all activities. The increased size of the new rooms will accommodate the required staff and also allow dedicated and properly sized areas for nursing documentation and anesthesiologists. Adequately sized rooms will allow clinical activities to occur more safely.
- Current and improved technology will be incorporated into the new rooms including medical gas/utility surgical booms, eliminating the need for power cords or cables on the floor, a tripping hazard, or cords being draped over equipment. The booms also allow easy reconfiguration of the rooms and/or the equipment that they hold.
- Improved LED lighting will be included.
- Nonporous wall and floor finishes will be used that are hygienic, durable and easily cleanable. Currently wall protection has been added in rooms and there are many ledges that have the potential to collect dust.

Need

46. Please provide a source for the data displayed on p. 144.

Applicant Response:

The source of the market data displayed on page 144 is the HSCRC Inpatient Dataset. This includes the following columns: Zip Code, ZIP City Name, 2016 Market Total, and JHBMC Total

The source of the population data displayed on page 144 is Truven Health Analytics/Claritas. This includes the following columns: 2016 POP and 2025 POP.

47. JHBMC expects a recapture amounting to about 28% of its OB volume, based on improving birthing facilities. Is there any data-based evidence to back up the statement on p. 147 that: “JHBMC can document patients who start their care with JHU faculty, but switch to a different provider and hospital once they make an initial visit to JHBMC’s L&D and assess the facilities”?

Applicant Response:

Patient Loss Data

July 1, 2016 – June 30, 2017

	Deliveries lost after initial visit	Total FY2107 Deliveries
Lost to JHH	108	1264
Lost to non-JHM Hospital	11	1264
TOTAL	119	1264

Methodology:

JHBMC examined the medical record numbers of all OB patients who had at least one prenatal visit with a JHM obstetrician, but who never delivered at JHBMC and did not miscarry. Patients were separated into two groups: those who subsequently delivered at JHH and those who delivered at hospitals outside of JHM.

Staffing

48. Please explain the need for the projected staff increases in the OB division: 9% (2.43/27.03) in the *OB Inpatient Unit* (while the OB bed count decreases from 22 to 18); 23% (12.9/56.76) in L & D; and 21% (10.81/51.78) in NICU (while NICU bassinets decrease from 25 to 22). MHCC staff realizes that you are projecting a 28% volume increase in the department, but is not convinced that that should translate into a roughly similar staffing increase.

Applicant Response:

The staffing plan for the OB inpatient unit, L&D and NICU were projected based on the understanding that the total delivery volume would increase to 1,800 deliveries. Based on the 1,800 deliveries, hours of care were identified by assuming the historic cesarean section rate of 28%, an average LOS of either 3 days for C-Sections and 2 days for vaginal deliveries, as well as an antepartum rate of 6% with a LOS of 2.7. Furthermore, the NICU hours of care were derived based on a decreased historic inborn rate. The historic inborn rate was 22.58%, however, there is an anticipated slight decrease in complexity of OB patients, therefore a 17% inborn rate as well as an average daily census of 20 was used to calculate the hours of care.

In respect to the OB inpatient unit, while the current unit is being renovated and will ultimately have 22 inpatient beds, the unit is not staffed for 22 open beds. It is currently staffed for 1,400 deliveries, which is 17.11 RN FTEs. These RN FTEs include 10.83 clinical RNs, a charge nurse, a portion of a unit educator and 1 FTE of a lactation nurse. In order to staff for 1,800 deliveries based on hours of care, there is a need to increase the total number of clinical RNs by 1.53, as well as expand our lactation services by an incremental 0.9, thereby increasing the RN FTE by 2.43.

In terms of the L&D request, in order to maintain AWHONN (Association of Women's Health, Obstetric and Neonatal Nurses) staffing ratios, which include having a mother and baby nurse, as well as providing 1:1 care for a subset of patients, the RN base staffing was increased to 7 RNs during the weekdays as well as 6 RNs in the base staffing on weekends. This again is based on the expected 1,800 deliveries. Additionally, this unit will require a front desk registrar staffing 24/7 which increased the support FTE request by 4.80. The reasoning behind this is the fact that when patients arrive to L&D at all hours they require a registration to occur. As a result, an in-person registrar will be present in order to ensure the admission process is conducted timely, which is critical to initiating care and treatment, and allow for prompt electronic medical record documentation.

Lastly, in terms of the NICU increase in staffing, this again is a derivative of historical trends of admissions to the unit based on number of L&D deliveries. Due to the fact that the delivery volume is anticipated to increase, the respective hours of care will increase as well, driving the incremental 10.14 RN FTEs. Furthermore, due to the increased deliveries, an incremental 2.71 NICU nurse practitioner FTEs are being requested in order to provide 2 NICU nurse practitioners to support the unit around the clock.

Additionally, based on the guidelines set forth in 2011 by the Academy of Nutrition and Dietetics, there is support for a dedicated formula clerk. The need for prepared formula/breast milk has increased over the past two decades as the NICU population at JHBMC has increased in both volume and acuity with approximately 75% of babies receiving some type of breast milk or prepared formula. Nutrition for premature infants has become increasingly complex and breast milk fortification has become prescriptive, requiring exact amount of fortification in every feeding. This requires strict attention to details, monitoring available milk, measuring tools, strong math skills and time. Without dedicated and adequate resources, errors in fortification measurement are more likely to occur and can lead to poor tolerance, discomfort, additional medical workups and increased length of stay for these infants. As a result, a 0.58 formula clerk was added into the staffing model.

Viability of the Proposal

49. Has Bayview filed a partial rate application with the HSCRC requesting approval for the projected annual rate increase of \$35,140,256? Would the project be feasible if the HSCRC were to deny Bayview's request to increase revenue for the additional interest and depreciation expense?

Applicant Response:

JHBMC has not filed a partial rate application with the HSCRC for the projected annual rate increase of \$35,140,256. The project as currently planned, would not be feasible without a rate increase to cover the Project's projected depreciation and interest cost.

50. JHBMC stated that it will implement performance improvements of \$36,075,000 by FY 2023, the same year as the opening of the CON project, and the same year when the \$30,309,000 of new interest and depreciation expense associated with the CON project begins to be charged to Bayview's expenses. Since the assumed performance improvements of \$36,075,000 are greater than the new depreciation and interest expense of \$30,309,000 why couldn't Bayview offset the performance improvements against the new depreciation and interest expense leaving no additional costs to patients and third parties including Medicare and Medicaid?

Applicant Response:

In order for JHBMC to maintain a sustainable financial operating model, the performance improvement plan would be implemented in addition to the requested rate increase. The performance improvement plan would enable JHBMC to cover new incremental costs associated with the Project that are not covered by the requested rate increase such as additional FTEs, utility expense, etc.

51. Over the last five years, the Johns Hopkins Hospital has requested substantial rate increases above what other hospitals in the State have received. What assurances can Bayview provide that it will not need to request additional revenue above what has been projected in the CON as The Johns Hopkins Hospital has done since The Johns Hopkins Hospital opened its new facility, particularly given the fact that there are \$36,075,000 in performance improvements in the projected financial statements for Bayview?

Applicant Response:

Just prior to GBR, JHH embarked on the largest MHCC-approved capital project in the state. The CON assumed certain volume and reimbursement incentives that were no longer in place under GBR, a matter of unfortunate timing. While JHH identified this as a significant issue in its original GBR negotiations, HSCRC provided funding of \$11 million, well below the \$40 million that JHH calculated would be necessary to overcome this significant shift in incentives and funding methodology. As JHH's volume projections materialized and JHH experienced more than \$200 million volume growth under GBR, the methodologies in place were insufficient to overcome this significant underfunding, just as JHH had predicted. As a result, JHH undertook meaningful negotiations with the HSCRC to address this issue. JHBMC has experienced similar volume pressures related to HSCRC refusal to grant funding for its MHCC-approved ED expansion and oncology program, two areas which have driven Bayview's significant volume growth. The inability of the HSCRC's methodologies to right-size hospital GBRs under the current incentive system can result in distortions to hospital rate structures that place hospitals at a disadvantage as it shifts towards a focus on controlling total cost of care. As a result, JHBMC reserves the right permitted under the HSCRC's enabling statute to request additional funding related to this capital project as well as other underfunding within the GBR methodology.

52. As part of its assumptions, Bayview projected reduced expenses related to performance improvements of \$6,200,000 in FY 2018. However total expenses are projected to increase by \$21,873,000 between FY 2017 and FY 2018. Please explain why expenses increased so much while \$6,200,000 in performance improvements occurred in FY 2018.

Applicant Response:

The \$22M expense increase primarily reflects the cost of inflation (approximately \$15M or 2.4%). Other material cost represent a 1.2% increase and includes items like: EPIC infrastructure, central shared service costs, labor market demands, etc. The total growth as a percent of total expense represents approximately 3.6%.

In order to manage within the constraints of the FY18 GBR and achieve the Board-approved profit target of \$10M, a performance improvement of \$6.2M was required. The need for a performance improvement is expected to continue throughout the duration of this project, as an operational requirement to achieve appropriate profitability targets, meet the demands of the Waiver, operate within the limits of GBR and respond to the changing needs of our payer community.

53. Please explain the *service line incremental investment expenses* included in the projected financial statements.

Applicant Response:

Beginning in FY 2020, JHBMC expects to make incremental investment in different services lines. With the exception of FY 2023 when the New Inpatient Building opens, there are amounts that are available to spend on service line investments to be identified each year while still maintaining a strong positive financial operating performance. In addition to investments in clinical service lines, these expenses could also include human resource training, recruitment and retention bonuses, marketing, etc.

54. Please explain the assumptions for the non-operating income line that fluctuates from (\$16,299,000) in FY 2019 to \$10,709,000 in FY 2025, a swing of \$27,007,000. Will the proposed project be feasible if non-operating income does not improve as projected?

Applicant Response:

Non-operating income is comprised of interest expense on swap agreements, change in market value of swaps, gains and losses on investments, and pension. The primary driver for the fluctuation of non-operating income from FY 2019 to FY2025 is the projected return on pension assets of approximately (\$12.6M) in FY 2019 growing to \$9.8M in FY 2025.

55. Why is interest on current debt projected to increase from \$3,332,000 in FY 2022 to \$6,094,000 in FY 2023?

Applicant Response:

The increase in current debt from FY 2022 to FY 2024 is related to the proposed new 540-car garage on the northern end of the Mid-Campus Lot. While the parking garage is included as part of the project, it will be funded by Johns Hopkins Medical Institutions Parking System and will not be the responsibility of JHBMC. Therefore the costs associated with this portion of the project are included in the current debt projections rather than the project debt.

56. In the audited financial statements, Bayview's long-term pension liability increased from \$129,760,000 at June 30, 2016 to \$179,434,000 at June 30, 2017, an increase of approximately \$50,000,000 in one year. How does Bayview plan to fund future pension liabilities given that profits in the projected inflated financial statements in the CON average less than \$25 million per year?

Applicant Response:

Presented in the JHHS audited financial statements (please see Exhibit CQ56) are the following details related to JHBMC's net pension obligation. Contrary to the MHCC's statement above, JHBMC's net pension liability declined from \$179,484,000 in FY 2016 to \$161,234,000 in FY2017. The assets went up and the liability went down.

**Johns Hopkins Bayview Medical Center
Net Pension Liability**

	Fiscal Year Ended (\$ in 000s)		
	6/30/2016	6/30/2017	Variance
Fair value of plan assets	\$ 227,487	\$ 244,041	\$ 16,554
Benefit obligation	406,971	405,275	(1,696)
Net pension liability	<u>\$ (179,484)</u>	<u>\$ (161,234)</u>	<u>\$ 18,250</u>

The JHBMC financial plan includes annual pension expense and contributions to its defined benefit plan that meet the IRS funding requirements so the funding does not come from operating margins as it is already included as part of fringe benefit expense.

57. According to the HSCRC, Bayview's current mark-up is 9.9% versus the 15.94% included in the CON assumptions. Please explain the difference.

Applicant Response:

Upon review of the Completeness Question #57, an error was noted in the mark-up formula included in the initial submission. JHBMC has revised the formula and financial projection to include the correct mark-up of 9.92%.

Other

58. In the course of MHCC's projections of need for acute rehabilitation beds, MHCC learned that JHBMC was admitting and treating acute rehabilitation beds in beds licensed as special hospital chronic care bed capacity. JHBMC reported an average daily census of 17.7 acute rehabilitation patients in CY 2016 and a licensed inventory of 12 special rehabilitation hospital beds. (See the April 13, 2018 edition of the Maryland Register.)

This is incompatible with Maryland's regulatory policy with respect to CON regulation, given that all hospital bed supply is regulated and "rehabilitation" and "chronic care" are separately and categorically regulated as distinct types of "medical service." Additionally, based on previous determinations by the Office of Health Care Quality, this use of licensed special hospital chronic care beds is not consistent with hospital licensure policy. Please outline the steps that JHBMC will take to bring its use of chronic care beds and/or its supply of special rehabilitation hospital beds into conformance with state requirements.

Applicant Response:

JHBMC will submit a separate CON application during the next Special Hospital CON review cycle (application deadline in September 2018) seeking changes in licensed bed capacity that will address this issue.

Supplemental:

59. Regarding the MVS benchmark calculation for the parking garage, please respond to the following:

- a. Describe the location and type of temporary parking and specify where these costs are accounted for in the project budget.
- b. Specify the sections and pages of the MVS base costs used to calculate the MVS benchmark for the parking garage. Also specify the date these sections were updated.
- c. Submit and explain the calculation of height multiplier of 1.04 for the underground portion of the parking structure.
- d. Submit the calculation of the sprinkler add-ons. Explain why separate sprinkler add-ons were calculated for each component of the parking garage construction (basement and upper floors) instead of calculating a common add-on based on the total square footage of parking garage square footage, especially given the statement in Marshall in Section 14, page 37 that the square foot costs listed are based on the total area of sprinkler system installation on a single main connection.
- e. Complete your comparison of your estimated costs of constructing the garage to the MVS benchmark that you calculated (\$70.90/SF as indicated on page 95). On pages 95 through 97 presents details on the extraordinary cost adjustments that you claim, but stops short of summarizing the impact as presented on pages 84 and 85 for new construction and page 92 for renovations.

Applicant Response:

- a.) See Exhibit CQ59.1 which details both the location and the type of temporary parking lot.
- b.) JHBMC used the base cost for “Underground Parking Structures” for the underground component of the parking garage. JHBMC believes that the MVS base cost was on Section 14, Page 34. However, Section 14 was updated in February 2018, and JHBMC did not retain the outdated version of the Section. In the updated Section, the relevant base cost is on Page 34. JHBMC used the base cost for “Parking (Parkade) Structures” for the above ground floors of the garage. Similarly, JHBMC believes that the MVS base cost was on Section 14, Page 34. In the updated Section, the relevant base cost is on Page 34. JHBMC does not know the date of the previous update of that Section.

c.)

Wall Height Interpolation

13	1.023
13.75	1.04025
14	1.046

1.023	-	1.046	=	-0.023
14	-	13	=	0.75
14	-	13	=	1
0.75	/	1	=	0.75
-0.023	*	0.75	=	-0.01725
1.023	-	-0.01725	=	1.04025

d.)

Sprinkler Interpolation

50,000	3.29
52,322	3.2695664
75,000	3.07

1	3.29	-	3.07	=	0.22
2	52,322	-	50000	=	2322
3	75000	-	50000	=	25000
4	2322	/	25000	=	0.09288
5	0.22	*	0.09288	=	0.020434
6	3.29	-	0.020434	=	3.269566

Since everything else is calculated for each component in calculating the MVS benchmark for that component, JHBMC took a consistent approach with the sprinkler add-on. (See response to Question 27.)

e.)

	Adjusted Project Costs	Per Square Foot
Building	\$10,918,906	\$57.45
Fixed Equipment	\$0	\$0.00
Site Preparation	\$0	\$0.00
Architectural Fees	\$757,157	\$3.98
Permits	\$193,000	\$1.02
Subtotal	\$11,869,063	\$62.45
Capitalized Construction Interest	\$682,012	\$3.59
Total	\$12,551,075	\$66.04
MVS Benchmark	\$70.90	
The Project	\$66.04	
Difference	-\$4.86	

Thank you for the opportunity to provide additional information in support of this application. We look forward to continuing to work with you and your staff during the review process.

Sincerely,

Anne Langley

cc: Leana Wen, MD, Health Officer, Baltimore City