

UNIVERSITY OF MARYLAND UPPER CHESAPEAKE HEALTH

**Conversion of University of Maryland
Harford Memorial Hospital to a Freestanding Medical Facility
Matter No. 17-12-004**

Responses to Additional Information Questions Dated November 25, 2019

Applicants' Responses to Additional Information Requests Dated November 25, 2019

Construction Costs

- 1. Please complete the following table, so as to restate the information in Exhibit 1, Table B – New Construction in a form that allows MHCC staff to understand the space allocation by department or services(s) by floor, and the square footage of each.**

Applicant's response: The information in Exhibit 1, Table B is set forth below in the format requested by the Commission staff. The square footage of the departments on the lower level were allocated 51% to UC Behavioral Health and 49% to UC FMF.

Lower Level		First Floor	
12,948 SF		56,395 SF	
Dept./Service	SF	Dept./Service	SF
Biomed	492	Admin	7,574
Circulation	1,709	Behavioral Health Crisis Center	3,408
Dietary	1,148	Emergency Services	15,803
Engineering and Maintenance	1,660	Engineering and Maintenance	1,475
Exterior Walls	865	Exterior Walls	1,585
Housekeeping	632	Imaging	5,573
Mechanical	1,434	Laboratory	1,622
Provider Staff Lounge and Lockers	599	Observation	11,666
Public Dining	724	Pharmacy	1,602
Public Space	1,130	Public Space	4,918
Shared Space	463	Vertical Circulation	1,169
Storage	1,565		
Vertical Circulation	527		
Total	12,948	Total	56,395

2. **Please note that the Marshall Valuation Service updated a number of values in November 2019, which include the construction costs per square foot (\$398.00 base cost for Class A, Good Construction); multiplier values (i.e., Height, Current and Local); and sprinkler add-on costs. The applicant should recalculate its MVS analysis on pp. 57-62 and incorporate these updated values.**

Utilizing Tables C-Construction Characteristics, Table D-Onsite and Offsite Costs Included and Excluded, and Table E-Project Budget as well as the updated values from Marshall Swift, staff calculated the following Marshall Valuation Service benchmark and Project costs per sq.ft. for the proposed UC Behavioral Center:

MVS Benchmark Value	\$356.63 per sq. ft.
New Construction Cost	\$409.68 per sq. ft.
Over MVS Benchmark Value	\$53.05 per sq. ft.

Staff calculates that the applicant’s project costs exceed the MVS benchmark cost by about 14.9%, which is equivalent to around \$3,678,911 of the total cost of New Construction. The applicant needs to provide a rational basis to support the need for the proposed project to exceed MVS project benchmark costs by 14.9%.

Without such a discussion and consistent with COMAR 10.24.19B(5), staff will recommend \$3,678,911 in construction costs, and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure in excess of the MVS construction cost be excluded from consideration in any rate increase proposed should the hospital seek an adjustment related to capital costs.

Applicants’ response: The Applicants disagree with the Commission Staff’s calculation of the MVS benchmark for this project. In calculating its benchmark, the Commission staff subdivided the building into a basement and hospital. The lower level is being constructed to hospital standards and fixtures, and not to hospital basement standards. The application of a \$201/square foot benchmark to the Lower Level is simply unrealistic and inaccurate.

Furthermore, the Applicants object to the inclusion of contingency and inflation being “excluded from consideration in any rate increase proposed should the hospital seek an adjustment related to capital costs.” Contingency should not be included because it may not be used. If the Commission staff considers this to be part of the “Building” or “Site Preparation” costs, it would not include a line for contingency in the Project Budget. Furthermore, contingency applies to all costs, and it might not be needed to meet the costs that are considered in the MVS comparison. Lastly, if the contingency is not used, the Commission staff would not likely remove the amount from the amount excluded by the HSCRC. To include it is simply unfair.

Regarding including the inflation amount, the MVS benchmark is an estimate of current costs. However, inflation is calculated to the midpoint of construction and is, therefore, a future cost. It is unfair to penalize an applicant today by including inflation in any MVS related condition

on approval because it is essentially compares an applicant's estimated future costs to the MVS's current cost benchmark.

In questioning why the project costs might still exceed the MVS benchmark, the Applicants have identified three additional "extraordinary costs" that should have been included in the original MVS calculation.

1. Seismic Site Construction Premium - One of the criteria for the design is to classify the soils as it relates movement should there be an earthquake. The site's soils class is low, and, therefore, UM UCH is required to provide additional structural bracing of the building and additional foundation support. The connection points on the steel were increased in both size and quantity, the footing sizes and steel reinforcement were also increased.
2. LEED Construction Premium – The building is being constructed to LEED Silver standards. This is identified as a potential premium by MVS in Section 99, page 1.
3. Excellent Quality Premium – The Applicants are including finishes and fixtures. Because this building is replacing an existing hospital, the Applicants have included higher design and finishes for patient satisfaction. In all public areas, the Applicants have included higher grade finishes and more architectural treatments than simply drywall. The flooring is a high grade ceramic as opposed to commercial vinyl composition tile or vinyl sheet goods, cabinetry and trim carpentry are of an excellent character and material.

A revised MVS comparison is included in **Exhibit 9**. As a result of these additions, the project costs are within 1.08% of the MVS benchmark.

Table of Exhibits

Exhibit	Description
9	Revised MVS Analysis

I hereby declare and affirm under the penalties of perjury that the facts stated in
HMH's and UCMC's Responses to Additional Information Requests dated November 25,
2019 are true and correct to the best of my knowledge, information, and belief.

12/11/19
Date



Phillip D. Crocker
Project Manager
University of Maryland Upper
Chesapeake Health System

I hereby declare and affirm under the penalties of perjury that the facts stated in
HMH's and UCMC's Responses to Additional Information Requests dated November 25,
2019 are true and correct to the best of my knowledge, information, and belief.

12/12/2019

Date

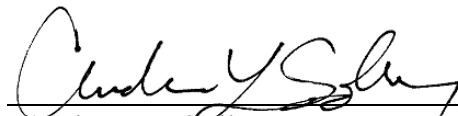
Jay Wall

Jay Wall
Project Executive
ERDMAN

I hereby declare and affirm under the penalties of perjury that the facts stated in
HMH's and UCMC's Responses to Additional Information Requests dated November 25,
2019 are true and correct to the best of my knowledge, information, and belief.

12/11/2019

Date



Andrew L. Solberg

A.L.S. Healthcare Consultant Services

EXHIBIT 9

Standard .04B(7) – Construction Cost of Hospital Space

(a) The cost per square foot of hospital construction projects shall be no greater than the cost of good quality Class A hospital construction given in the Marshall and Swift Valuation Quarterly, updated to the nearest quarter using the Marshall and Swift update multipliers, and adjusted as shown in the Marshall and Swift guide as necessary for terrain of the site, number of levels, geographic locality, and other listed factors.

(b) Each Certificate of Need applicant proposing costs per square foot above the limitations set forth in the Marshall and Swift Guide must demonstrate that the higher costs are reasonable.

The following compares the project costs to the Marshall Valuation Service (“MVS”) benchmark.

**I. Marshall Valuation Service
Valuation Benchmark**

Type	Hospital
Construction Quality/Class	Good/A
Stories	2
Perimeter	813
Average Floor to Floor Height	14.8
Square Feet	69,343
f.1 Average floor Area	34,672

A. Base Costs

Basic Structure	\$398.00
Elimination of HVAC cost for adjustment	0
HVAC Add-on for Mild Climate	0
HVAC Add-on for Extreme Climate	0

Total Base Cost \$398.00

Adjustment for Departmental Differential Cost Factors 1.03

Adjusted Total Base Cost \$411.30

B. Additions

Elevator (If not in base)	\$0.00
Other	\$0.00

Subtotal		\$0.00
Total		\$411.30
C. Multipliers		
Perimeter Multiplier		0.896362245
	Product	\$368.67
Height Multiplier		1.06
	Product	\$392.53
Multi-story Multiplier		1.000
	Product	\$392.53
D. Sprinklers		
	Sprinkler Amount	\$3.20
Subtotal		\$395.73
E. Update/Location Multipliers		
Update Multiplier		1.02
	Product	\$403.64
Location Multiplier		1.01
	Product	\$407.68
Calculated Square Foot Cost Standard		\$407.68

The MVS estimate for this project is impacted by the Adjustment for Departmental Differential Cost Factor. In Section 87 on page 8 of the Valuation Service, MVS provides the cost differential by department compared to the average cost for an entire hospital. The calculation of the average factor is shown below.

Department/Function	BGSF	MVS Department Name	MVS Differential Cost Factor	Cost Factor X SF
ACUTE PATIENT CARE				
Emergency Department (ED)	15,803	Emergency Suite	1.18	18,648
Imaging	5,573	Radiology	1.22	6,799
Observation	11,666	Inpatient Unit	1.06	12,366
Lab	1,622	Laboratories	1.15	1,865
Pharmacy	1,602	Pharmacy	1.33	2,131

Administration	7,574	Offices	0.96	7,271
Behavioral Health (BH) ED Crisis Unit	3,408	Emergency Suite	1.18	4,021
Public	4,918	Public Space	0.8	3,934
Engineering and Maintenance	1,475	Mechanical Equipment and Shops	0.7	1,033
Vertical Circulation	1,169	Internal Circulation	0.6	701
Dietary	1,148	Dietary	1.52	1,745
Engineering and Maintenance	1,660	Mechanical Equipment and Shops	0.7	1,162
Biomed	492	Laboratory	1.15	566
Shared Space	463	Offices	0.96	444
Provider Staff Lounge and Lockers	599	Employee Facilities	0.8	479
Housekeeping	632	Housekeeping	1.31	828
Storage	1,565	Storage and Refrigeration	1.6	2,504
Mechanical	1,434	Mechanical Equipment and Shops	0.7	1,004
Public Dining	724	Dining Room	0.95	688
Public Space	1,130	Public Space	0.8	904
Shared Vertical Circulation	527	Internal Circulation	0.6	316
Shared Exterior Walls	865	Unassigned	0.5	433
Shared Circulation	1,709	Internal Circulation	0.6	1,025
Exterior Walls	1,585	Unassigned	0.5	793
Total	69,343		1.03	71,660

Cost of New Construction

A. Base Calculations	Actual	Per Sq. Foot
Building	\$24,080,085	\$347.26
Fixed Equipment		\$0.00
Site Preparation	\$1,628,964	\$23.49
Architectural Fees	\$2,430,586	\$35.05
Permits	\$946,453	\$13.65
Capitalized Construction Interest	Calculated Below	Calculated Below
Subtotal	\$29,086,088	\$404.20

However, as related below, this project includes expenditures for items not included in the MVS average.

B. Extraordinary Cost Adjustments

	Project Costs		Associated Cap Interest & Financing
Site Demolition Costs	\$76,603	Site	
Storm Drains	\$33,389	Site	
Rough Grading	\$19,363	Site	
Paving	\$242,202	Site	
Dewatering	\$134,400	Site	
Exterior Signs on building	\$11,059	Site	
Landscaping	\$196,800	Site	
Walls	\$91,920	Site	
Yard Lighting	\$44,050	Site	
Dewatering	\$69,266	Site	
Sediment Control & Stabilization	\$16,070	Site	
Seismic Premium	\$120,000	Site	
Helipad	\$33,926	Site	
Premium for Minority Business Enterprise Requirement	\$65,159	Site	
Canopy (two)	\$386,080	Building	\$85,062
Loading Dock Canopy	\$89,856	Building	\$19,797
Bullet Resistant Sheathing	\$52,800	Building	\$11,633
Bullet Resistant Glazing	\$105,600	Building	\$23,266
Fully Audible Fire Alarm System	\$48,480	Building	\$10,681
Fire Pump	\$36,000	Building	\$7,932
Pneumatic Tube System	\$133,965	Building	\$29,515
Leed Building Costs	\$480,000	Building	\$105,754
"Excellent Quality" Premium	\$295,200	Building	\$65,039
Premium for Minority Business Enterprise Requirement	\$963,203	Building	\$198,768
Jurisdictional Hook-up Fees	\$600,000	Permits	
Total Cost Adjustments	\$4,345,391		\$557,448

Associated Capitalized Interest and Loan Placement Fees should be excluded from the comparison for those items which are also excluded from the comparison. Since only Capitalized Interest and Loan Placement fees relating to the Building costs are included in the MVS analysis, we have only eliminated them for the Extraordinary Costs that are in the Building cost item. This was calculated as follows, using the Canopy as an example:

(Cost of the Canopy/Building Cost) X (Building related Capitalized Interest and Loan

Placement Fees).

Explanation of Extraordinary Costs

Below are the explanations of the Extraordinary Costs that are not specifically mentioned as not being in contained in the MVS average costs in the MVS Guide (at Section 1, Page 3) but that are specific to this project and would not be in the average cost of a hospital project.

1. Bullet Resistant Sheathing, Bullet Resistant Glazing, and Fully Audible Fire Alarm System – Because the FMF is attached to the Behavioral Health Hospital, UMMS has determined that it should install these items throughout the building. These are not usually found in the average hospital.

2. Fire Pump - Fire pump is on an as needed basis. Because the water pressure is might be insufficient to meet the fire code, the fire pump is required. One would not normally expect one for a two-story building, but the demand required by the existing MOB diminishes performance. These are not usually found in the average hospital.

3. Seismic Site Construction Premium - One of the criteria for the design is to classify the soils as it relates movement should there be an earthquake. The site's soils class is low, and, therefore, UM UCH is required to provide additional structural bracing of the building and additional foundation support. The connection points on the steel were increased in both size and quantity, the footing sizes and steel reinforcement were increased.

4. LEED Construction Premium – The building is being constructed to LEED Silver standards. This is identified as a potential premium by MVS in Section 99, page 1.

5. Excellent Quality Premium – UM UCH is including finishes and fixtures. Because this building is replacing an existing hospital, UM UCH has included higher design and finishes for patient satisfaction. In all public areas, UM UCH has included higher grade finishes and more architectural treatments than simply drywall. The flooring is a high grade ceramic as opposed to commercial VCT or vinyl sheet goods, cabinetry and trim carpentry are of an excellent character and material.

6. Premium for Minority Business Enterprise Requirement – UMMS projects include a premium for Minority Business Enterprises that would not be in the average cost of hospital construction. This premium was projected to be 4%. UMMS consulted with its cost estimators/construction managers on the impact on project budgets of targeting 25% inclusion of MBE subcontractors or suppliers as part of its projects, and their conservative estimate is that it adds 3-4% to the costs, compared to projects that do not include MBE subcontractors or suppliers. This estimate has been confirmed through UMMS' experience with past construction jobs. UMMS now uses this percentage in all of its construction cost estimates.

Eliminating all of the extraordinary costs reduces the project costs that should be compared to the MVS benchmark.

C. Adjusted Project Cost	Per Square Foot	
Building	\$21,488,900	\$309.89
Fixed Equipment	\$0	\$0.00
Site Preparation	\$474,758	\$6.85
Architectural Fees	\$2,430,586	\$35.05
Permits	\$346,453	\$5.00
Subtotal	\$24,740,697	\$356.79
Capitalized Construction Interest	\$3,834,808	\$55.30
Total	\$28,575,505	\$412.09

Building associated Capitalized Interest and Loan Placement Fees were calculated as follows:

Hospital	New	Renovation	Total			
Building Cost	\$24,080,085					
Subtotal Cost (w/o Cap Interest)	\$29,086,088			\$29,086,088		
Subtotal/Total	100.0%	0.0%		Net Interest	Financing	Total
Total Project Cap Interest & Financing [(Subtotal Cost/Total Cost) X Total Cap Interest & Financing]	\$5,305,361	\$0		\$4,764,777	\$540,584	\$5,305,361
Building/Subtotal	82.8%	#DIV/0!				
Building Cap Interest & Financing	\$4,392,256	#DIV/0!				
Associated with Extraordinary Costs	\$557,448					
Applicable Cap Interest & Loan Place.	\$3,834,808					

As noted below, the project's cost per square foot is slightly above the MVS benchmark.

MVS Benchmark	\$407.68
The Project	\$412.09
Difference	\$4.41
	1.08%