

BELMONT CONFERENCE CENTER FACILITIES MASTER PLAN

Acknowledgements

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Preface

*Howard Community College's Vision:****Belmont Conference Center:*****An Educational and Cultural Resource
for the Entire Community**

Since 1964, when the Belmont estate in Elkridge, Maryland was acquired by the Smithsonian Institution and re-cast as a conference center, Belmont has served two important, if parallel, roles in the Howard County community: first, dating from 1738, it has offered a unique glimpse into Maryland's rich architectural history; and second, it has served as an educational and cultural center for the community—helping to enrich the professional and personal growth of citizens through conferences and special events.

Today, Belmont's dual roles are fully intertwined. Historic Belmont serves as an attraction for citizens throughout central Maryland, while the educational and cultural center that Belmont has become helps to ensure the continued preservation of Belmont.

As Belmont's new manager since 2004, Howard Community College (HCC) is committed to sustaining and enhancing both of Belmont's legacies along with offering academic programs that are best suited to build on Belmont's strengths.

To accomplish this, HCC initiated a master planning process that invited input from community leaders, historic preservationists, residents, clients, college faculty and students, and other interested parties.

The Master Plan presented in this document seeks the following objectives, which will serve to sustain the economic viability of Belmont as an historic site and enable the larger community to enjoy the estate's resources:

- Provide academic opportunities for students and the community consistent with activities of the conference center and the environs of Belmont.
- Continue to operate a conference center for businesses, organizations, and the local community seeking an intimate, bucolic environment for retreats, conferences, and community gatherings;

- Add amenities critical to the success of a conference center, including additional guest rooms, conference space, event space and a wellness or spa component.
- Capitalize on the history of Belmont, comply with the Maryland Historic Trust, and incorporate new ideas for sustainable design and development.

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Chapter 1 Introduction and Overview

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I. Purpose

When the Howard Community College Educational Foundation, Inc. (HCCEF) purchased the Belmont property for the college in 2004, Howard Community College (HCC) embarked upon a planning process to assess the condition of the facilities, review plans that had been made by The American Chemical Society (ACS), integrate academic activities into the existing business, and make Belmont more accessible to the community.

The master plan for Belmont, according to the easement on the property, should assure the economic viability of the property and its historic buildings. This plan should be reviewed and updated periodically to be sure that Belmont is preserved for all time.

The plan must also assure that the facilities will provide enough space in safe and excellent condition to support the stated mission and generate enough revenue to preserve Belmont.

II. Scope

The general scope of research for this master plan included:

1. Documentation and analysis of existing facilities, current programs, and strategic initiatives;
2. Market analysis and academic needs assessment;
3. An inventory and analysis of the existing site and facilities, including a review of the site's historic easement;
4. Review and analysis of a building conditions, including independent evaluation and recommendations;
5. Assessment of facility needs and identification of proposed facility and capital projects; and,
6. Preparation of the facilities master plan with respect to these considerations.

Various consultant reports were reviewed as the basis of this plan. Generally, the process consisted of the following steps:

STEP ONE – INVENTORY AND ANALYSIS: Review and evaluation of the site's historical easement. Inventory and analysis of current programs, trends, and strategic initiatives; existing site, civil, environmental, traffic, parking, and pedestrian and vehicular circulation patterns and conflicts; and, facilities assessment, including site, infrastructure, buildings, and building systems;

STEP TWO – IDENTIFICATION OF NEEDS: Assessment of academic, conference and space needs to support the economic viability, vision and mission of Belmont;

STEP THREE – MASTER PLAN AND REPORT: Preparation of master plan alternatives and optional layout, placement, and configuration of new buildings on campus; evaluation of plan alternatives and necessary infrastructure and circulation needs; and, preparation of the final facilities master plan report and illustrative plans and drawings.

III. Vision and Mission

The Belmont Inn and Conference Center has become a place where educational opportunities can be fostered cultural events can be shared, and the historical environment can be appreciated. In order for Belmont to be successful in the future, therefore, all of these facets of Belmont must be addressed and nurtured.

As its new manager, Howard Community College (HCC) is seeking to sustain the economic viability of Belmont as an historic site and enable the larger community to enjoy the estate's resources:

1. Provide academic opportunities for students and the community consistent with activities of the conference center and the environs of Belmont.
2. Continue to operate a conference center for businesses, organizations, and the local community seeking an intimate, bucolic environment for retreats, conferences, and community gatherings.
3. Add amenities critical to the success of a conference center and academic offerings, including additional guest rooms, conference space, event space and a wellness or spa component.
4. Capitalize on the history of Belmont, comply with the Maryland Historic Trust, and incorporate new ideas for sustainable design and development.

The Belmont Inn and Conference Center is unique to both HCC and the community and serves two, important, but parallel roles in Howard County: first, as an educational and cultural center for the community – helping to enrich the professional and personal growth of citizens through educational programs, conferences, and special events; and second, as an important historical resource and glimpse into Maryland's rich architectural history. The historic preservation of Belmont is dependent upon the continued success of its education, conference, meeting, and special events business. Howard Community College is committed to sustaining Belmont's parallel roles in the community.

As an educational and cultural center for the community, Belmont will serve the needs of both students and citizens. The vision for Belmont includes the use of existing and renovated structures for students enrolled in hospitality and culinary management and other academic programs relevant to the environment of a unique, full-service conference business. Future programs in green construction and landscape management are also envisioned at Belmont. Importantly, citizens of Elkridge and Howard County will also benefit from Belmont; existing facilities, grounds, and gardens will accommodate a variety of educational, cultural, and community-oriented programs, community activities, weddings and receptions, continuing education, and special events.

IV. HCCEF, Inc. and HCC

The Howard Community College Educational Foundation, Inc. purchased Belmont on behalf of Howard Community College. The foundation provides a vehicle for borrowing funds, but managing the property is the purview of the college per an agreement with the Foundation.

The Foundation Board focuses on raising private funds for the college; the college focuses on the business and the integration of the educational components into the business.

At some point, in the future, when there is no debt at Belmont, the Foundation will transfer ownership to the college.

V. History and Character

Background

Built in 1738, the Belmont estate in Elkridge, Maryland remained a private home until 1964 when the Smithsonian Institution established and operated The Belmont Inn and Conference Center. Since then, Belmont's historic significance took on new dimensions as it became an integral part of the community, providing for the professional and personal growth of citizens through corporate and association conferences, special events and family gatherings.

Belmont is not just the historic mansion, the landscaped grounds, or the property that surrounds Belmont. It has become a place where educational opportunities can be fostered, cultural events can be shared, and the historical environment can be appreciated. Numerous businesses and organizations meet at Belmont to grow professionally. An increasing number of cultural events, ranging from concerts to culinary workshops, is offered to the general public. In order for Belmont to be successful in the future, all of these facets of Belmont must be addressed and nurtured.

Since purchasing Belmont in 2004, Howard Community College Educational Foundation, Inc. (HCCEF) and its new manager, Howard Community College (HCC) are seeking to sustain and enhance these legacies. To accomplish this, HCC initiated a master planning process that sought input from community leaders, historic preservationists, residents, clients and other interested parties.

Major Events in the History of Belmont

1738: Caleb Dorsey marries Priscilla Hill and builds Manor House, where they raise six daughters and three sons;

1815: Property transfers to Edward Dorsey's daughter, Priscilla, and her husband, Alexander Hanson. Priscilla names the estate Belmont;

1917: Property transfers to Dorsey descendant, Mary Bowdoin Bruce, and her husband, Howard Bruce;

1964: Smithsonian Institution purchases Belmont, which consists of 350 acres, for about \$500,000 with funds that were believed to have been provided by an anonymous donor. The intent of the purchase was to operate a conference center, which continues today, some 40 years later;

1983: Smithsonian divides Belmont and sells 268 acres to the state at \$4,200 per acre for a total of \$1,125,600. Smithsonian donates historical and scenic easements to the Maryland Historical Trust. American Chemical Society (ACS) purchases the remaining Belmont estate (68 acres) and Dobbin House (13 acres). Smithsonian negotiates an easement for an access road at the rear of Belmont through the state park onto Landing Road;

2004: Howard Community College Educational Foundation, Inc. (HCCEF) purchases Belmont on behalf of HCC. HCC manages the conference center and begins to integrate certain academic courses into the Belmont Inn and Conference Center activities.

Writing a Complete History

The college is exploring ways to write a complete history of Belmont. This assignment may be done as part of a faculty sabbatical project or in conjunction with student interns in the history department of UMBC. Knowledgeable community historians will be asked to assist. Capturing a comprehensive history of Belmont will be an important asset for the community.

With such a rich and storied history, Belmont is an historic treasure that represents the region's heritage. HCC desires to preserve its historic nature and enable more of the community to experience the estate's beautiful and secluded site for executive retreats, corporate training, weddings, special events, and culinary programs. Additionally, Belmont provides an opportunity to offer unique related arts and cultural programs for the broader community.

Additionally, HCC is exploring various other models for the use of historic properties owned by colleges. Belmont is one of about 20 conference centers in the country associated with colleges that offer hospitality programs. A number of those also have historic properties, such as Belmont.

The Maryland Historical Trust

An easement overseen by the Maryland Historical Trust provides guidelines for balancing historic preservation with modifications that support the economic viability of the center. These guidelines are critical factors that must be considered when developing the master plan. HCC will continue to work closely with the Maryland Historical Trust to understand how these guidelines and the scenic easement are to be applied.

Educational and Cultural Center

As an educational organization, HCC desires to expand the learning opportunities available to the community at Belmont. Business training is offered to business and

organization clients of the conference center by HCC's department of continuing education. Community members have suggested a wide range of educational topics from art and music to astronomy and environmental studies.

The conference center is an ideal setting for a lab school for HCC's hospitality and culinary management program. Students are able to "learn by doing" with hands-on experience while at the same time supporting the operation most critical to Belmont's revenue.

Surrounded by Patapsco State Park, Belmont also has an environmental legacy and is an ideal site for programs that teach environmental studies. Moreover, the educational facilities themselves could be a showcase for design and architecture that supports sustainable design practices.

VI. Planning and Objectives

Throughout the planning process, several important planning and design objectives emerged. The master plan considers each of these important objectives:

1. Utilize the conference center as a unique educational and working environment for students enrolled in the existing culinary and hospitality management program (including special events planning and spa management), green construction, environmental science, and landscape management programs;
2. Preserve the historical, educational, and cultural mission of the conference center and its setting;
3. Create an environment of recognizable and cognitive spaces that enhance the overall environment and respects the site's historical context;
4. Expand the Carriage House as an enhanced learning environment for students enrolled in culinary arts and hospitality management;
5. Construct an Inn with a component that enhances the current fitness center and increases the viability of the conference business;
6. Consider other supporting uses that would enhance the conference business and contribute to the historical, educational, and cultural mission;
7. Evaluate cost effective methods for supply of future water, sewer, power and electrical needs;

8. Evaluate safe, feasible, and cost effective methods for vehicular access to the site; and
9. Ensure the economic viability of Belmont.

Howard Community College offers a wide range of programs that prepare students from diverse backgrounds for four-year institutions or for employment upon graduation. Several strategic initiatives help support these programs, consistent with the college's vision and mission. The scope of this master plan included an assessment of these programs and initiatives, as well as an analysis of the trends unique to the college's targeted student population and the anticipated needs and expectations of Howard County, including the broader Elkridge community. Site facilities and existing buildings, too, were assessed relative to these programs and trends and their ability or inability to address future needs. Specific facility and capital projects have been identified that are needed to support Belmont's mission.

Existing site, civil, and infrastructure conditions, such as utilities, roads, parking, storm water management, and similar, have been documented. These were evaluated during the planning process to assess future needs and improvements. Vehicular circulation, traffic patterns, and future traffic considerations were documented and assessed relative to future needs and improvements, both on site and off site. On-site and off-site roadway improvements are recommended as a result of this study and with respect to the master plan.

Existing pedestrian paths, accessibility, and circulation were inventoried and analyzed. Improvements are recommended where existing conditions are problematic and where future needs dictate rethinking pedestrian circulation patterns. The overall image and perception of the site was also assessed, with particular consideration for the sense of arrival and setting, how certain places, such as the gardens and the lawn areas, are used and perceived spatially, and how the sites history, topography, and bucolic setting contribute to the vision. These considerations are critically important in understanding overall image and perception, the strengths of Belmont, and how, as a physical place, the conference center can contribute to the overall historical, educational, and cultural environment.

A facilities and building conditions assessment, including site, infrastructure, buildings and building systems, was conducted by an independent mechanical, electrical, plumbing consultant. This assessment is included in Chapter 3, including an

independent review, evaluation, and recommendations by a mechanical, electrical, plumbing consultant and other knowledgeable personnel.

Academic programs and space needs were evaluated with critical input from the college, key staff, and the steering committee. Anticipated growth projections, program needs, and space needs have been meticulously evaluated and identified. These needs are summarized in this report. The master plan is based, largely, on these specific needs as well as the needs of the conference center business.

Upon careful evaluation of existing conditions and future needs, the design team prepared several master plan alternatives for review by the steering committee. Plans considered alternative locations for new buildings and parking. Various configurations and arrangements of buildings were explored, with critical consideration of the site's historical easement, how the placement and relationship of buildings would create cognitive spaces for learning, and the need for connectivity and adjacencies for the conference business. Community input was also sought and a new plan emerged. Multiple phasing strategies are included in this report.

VII. Methodology

The master plan for Belmont was developed over a two-year period through input and evaluation from a selected steering committee of HCC staff and faculty, with critical review by the college's board of trustees, and important input from the broader community. Monthly steering committee meetings and periodic review by key college staff has ensured an accurate documentation and analysis of planning data, a full understanding of teaching methods and needs, and a precise identification of space needs and necessary facility and capital projects. Moreover, nearby residents and community leaders have provided input during numerous meetings and workshops, ensuring the master plan consider the needs, expectations, and desires of the broader community. Various consultant reports contributed information on which to move forward. A complete list is on the inside cover.

VIII. Students at Belmont and Experiential Learning

The Belmont Inn and Conference Center is functioning as a business and as an instructional laboratory for students in the hospitality program. Because the college runs the business, students are welcomed as part of the business. It is anticipated that

students will play a greater role as Belmont staff and faculty work to create curricula that serve both the business and academic needs. Students can be involved in event planning, culinary and experiential learning activities, marketing, customer services, etc. Part-time employees have always been part of the workforce at Belmont. Now Belmont can draw on students who are interested in the field and have some knowledge of the business.

Experiential learning is a pedagogical theme at HCC. The college runs a Children's Learning Center that functions as a lab school for child development, nursing, and EMT students. The college runs Rep Stage, a professional theatre, which provides opportunities for theatre, music, and dance majors. The college runs the Center for Entrepreneurial and Business Education, which launches real businesses with student entrepreneurs. There are many opportunities for students to look in real life settings on campus and in the community. This type of learning develops responsibility, competence, and a true understanding of the student's chosen path.

Belmont is the ideal setting to be able to "learn by doing" and to enrich theoretical knowledge with hands-on experience.

Chapter 2 Needs Assessment/Market Study for Belmont Inn and Conference Center and Hospitality Education

- I. Colleges and Conference Centers**
- II. Achieving Economic Viability**
- III. Institutional Context**
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- VII. Recommended Business Facilities**
- VIII. Learning Environments of Today and the Future**
- IX. Academic Programs**

I. Colleges and Conference Centers

The Belmont Inn and Conference Center has not been economically viable in its past. "In the late 1970's the Smithsonian looked at the financial drain of Belmont and took steps to begin the sale of the property." (email from Alan Ullberg to Burnett Chalmers, November 16, 2004). As part of the sale, the State of Maryland purchased 268 acres for parkland. Because there was a great deal of pressure placed on the Smithsonian to keep Belmont, even though it was a financial drain, restrictions were placed on the property to preserve it. An easement was created, dated September 7, 1983. This easement is on the exterior of the Manor House, on the 28 acres around the Manor House (Zone I) and on the rest of the property (Zone II). Zone II can only be used for construction of improvements and facilities that are required "to maintain the economic viability of Belmont." The American Chemical Society purchased Belmont and ran it for 21 years as a conference center.

In 2004, the American Chemical Society (ACS) decided to sell Belmont to HCC. In a letter to County Executive Robey, dated March 9, 2006, Brian Bernstein, treasurer of ACS, said the following: "As you consider the college's proposed plans, I think you should know that the American Chemical Society had great difficulty managing Belmont on a breakeven basis. In fact, over our 21-year history of ownership we experienced only four years in which Belmont operated at breakeven or better. ACS struggled with the facility's small sleeping capacity which, in turn, limited the conference size, and ultimately, the financial viability of the conference center."

Since the college instituted a hospitality program in the fall of 2003, the college has been interested in building a facility to support the program which would include multiple kitchens, beverage labs, sleeping rooms, etc – a mock hotel or a real hotel which could be college-operated. Before such an idea could be developed, the Belmont Inn and Conference Center became available. This unique setting became the ideal way to create an environment (in a more slow-paced and personal environment) with all the skills in the industry available for observation, practice, and even continuous improvement.

Colleges all over the country maintain conference/retreat centers; some of them have historic properties and buildings; some have integrated students into the conference center business. Conference centers are also used for the professional development and retreat activities of their own employees and for student leadership activities.

II. Achieving Economic Viability

The principles that are being applied are as follows:

1. Create the best possible and profitable inn and conference center

2. Integrate compatible academic courses of study
3. Make Belmont accessible to the community for various educational, cultural, historical, and recreational activities.

To achieve economic viability, HCC hopes to generate revenue from various sources. For operating costs, the business revenue will support basic needs for business operations supplemented by tuition for students who will be attending classes at Belmont in classrooms/multi-purpose spaces. The college's general funds will also be tapped for employee professional development activities held at Belmont. For capital projects, the business will have to cover costs for additional sleeping rooms. For classrooms and multi-purpose meeting rooms, the college will seek support from local and state government. For special projects, such as academic equipment and scholarship support, the college will seek donors.

III. Institutional Context

Critical to the current and projected planning framework for the college are Belmont's human resources—its faculty and staff—and its facilities.

Faculty

The faculty represents the college's most critical resource to its educational mission. Historically, the college has maintained an 18 to 1 student to faculty ratio, and this is one key planning assumption on which projections of faculty are based. Fortunately, there is tremendous expertise in the community to draw on for teaching assignments. Both full-time and part-time faculty are critical to the success of the program.

Belmont Staff

The Belmont manager and staff have experience and credentials in the hospitality business. They will provide tremendous support for students just as nurses do as preceptors for student nurses in the hospital. Belmont staff might also serve as guest lecturers and mentors for students.

IV. Belmont Inn and Conference Center Site Analysis

Belmont Inn and Conference Center offers an elegant and comfortable setting for corporate, government, university and association training programs and conferences. As a conference center, Belmont has attracted Fortune 500 executives, Nobel laureates

and business and civic leaders for overnight retreats and day meetings. Clients include Johns Hopkins Applied Physics Lab, Northrop Grumman, Lockheed Martin, Constellation Energy, MedStar Health, Duratek, Inc., World Bank, NASA, NOAA, COLA, and Nature Conservancy. Approximately 5,000 guests annually are served through conferences and meetings while another 7,000 guests annually are served by special events, including holiday parties, picnics, concerts, community events, weddings, and private parties.

The Belmont site provides an ideal setting and surrounding environment for the retreat conference center concept that is already in place for the existing Belmont Inn and Conference Center. The fact that this site, which is ideally isolated from the surrounding community from a visual perspective and is located within a 45-minute drive time of the nation's Capital, provides an overall major positive competitive advantage for Belmont.

Accessibility is a function of proximity to major demand generators, transportation access and traffic conditions and proximity to major airports. The highway accessibility of the Belmont site is enhanced by the fact that the interstate highway system (I-95 and I-495) provided direct access to all the primary target market segments within a 30 to 45-minute drive under non-rush hour conditions.

The site itself is superior in its environmental retreat-like status, with rolling hillsides, outstanding views and protection by being immediately adjacent to a Maryland state park. The site is of sufficient size to allow for the expansion plan with essentially no adverse impact on the rural nature of the site.

The interstate 95 corridor on the east coast is one of the most heavily traveled in the country. The highway is the major north-south thoroughfare for travelers and commercial transportation connecting New England, New Jersey, New York, Washington, DC, Virginia, North Carolina, South Carolina, Georgia and Florida.

Accessibility to three major airports, BWI, Ronald Reagan National Airport and Washington Dulles International Airport, is considered to be excellent. The better access to the more important airport BWI is another positive, both due to the corporate market within the eastern United States and the resort-like environment that Belmont presents to the leisure travel market, which is expected to become a major new

demand segment as a result of the expansion plan, and specifically due to the intended inclusion of a high-quality spa facility.

V. Competitive Environment

The Belmont Inn and Conference Center is likely to compete primarily with other conference centers within the regional competitive market area that share similar characteristics. These include conference centers in northern Virginia and parts of Maryland that offer comparable meeting facilities, lodging accommodations, similar pricing structure and environmental setting.

The Lansdowne Conference Resort is located in Leesburg, Virginia approximately eight miles from Dulles International Airport and 25 miles from Washington, DC. Lodging accommodations include 286 guestrooms and 11 suites. The 45,000 square feet of meeting and exhibit space consists of 23 conference and breakout rooms, one multi-purpose ballroom and a 120-seat tiered amphitheater. Amenities at the resort include two 18-hole championship golf courses, full service spa facilities, tennis and racquetball courts, a health club, indoor/outdoor pools, billiard tables and jogging trails.

Approximately 80 percent of the business comes from the group segment and 70 percent of the meeting groups are from the corporate sector, while 5 percent of the events are association related. Group events are almost exclusively conferences (75 percent) and training programs (25 percent).

The Airlie Conference Center in Warrenton, Virginia is expected to be a primary competitor for corporate, association and government meeting business. Warrenton, Virginia is located 35 minutes from Dulles International Airport and one hour from Washington, DC.

Airlie is situated on a vast estate in the rural Virginia countryside in a remote location that doesn't offer guests many off-site dining options or nearby entertainment attractions. The property only accommodates guests who are affiliated with a group having a meeting at the center.

Airlie's facilities include 142 guestrooms and two, four-bedroom private cottages. Meeting facilities can accommodate groups up to 200 participants. The facilities are

spread out over the campus and include recreational amenities such as jogging, tennis, swimming volleyball, sauna, bicycling, fishing and skeet shooting.

Wye River Conference Center in Queenstown, Maryland, will compete with Belmont for meeting demand originating in the Washington, DC area including corporate, association and federal government business. This facility is located approximately 70 miles from Washington, DC and 54 miles from Baltimore Washington International (BWI) Airport in a rural setting overlooking the Wye river on Maryland's eastern shore. This 1,100-acre property offers 86 guestrooms, three private houses, outdoor pool, tennis, hunting, fishing, biking and volleyball. Meeting facilities consist of ten meeting rooms able to accommodate groups of up to 120 people.

Secondary Competition

Mount Washington Conference Center in Baltimore, Maryland, is located 25 minutes from BWI Airport and 8 miles northeast of Baltimore's Inner Harbor. This former corporate conference center is now owned by the Johns Hopkins University. Facilities include 48 standard guest rooms, 8 suites, conference dining room, fitness center, indoor basketball and game room. The 11,500 square feet of meeting space includes 12 rooms and a 75-seat amphitheatre.

Mount Washington is only expected to be a secondary competitor of the expanded Belmont Inn and Conference Center due to its marketing focus on the Baltimore market area and ownership usage.

The Westfields Marriot Conference Center in Chantilly, Virginia, is located seven miles from Dulles International Airport and 30 miles from Washington, DC. The resort conference center offers 335 guestrooms including 10 luxury suites. The 40,000 square feet of meeting space includes 27 conference and breakout rooms, three ballrooms and one amphitheatre. Amenities at the resort include a Fred Couples designed, 18-hole championship golf course nine minutes from the property and onsite health spa, indoor outdoor pools, tennis courts, volleyball, exercise room and jogging trail.

It is estimated that the conference center's business consists of approximately 70 percent group meetings and events and 30 percent transient. Westfields is only expected to be a secondary competitor of the expanded Belmont Inn and Conference

Center due to this property's focus on the Northern Virginia corporate market and its lack of retreat-like atmosphere.

VI. Demand Analysis

A series of project-specific interviews of professional meeting planners and corporate executives of existing Belmont Inn and Conference Center clients was conducted. The focus of these interviews was on learning from the experience of existing clients what were the biggest challenges with the current facilities. Based on this research, and the consultants' existing knowledge of the primary market area, the three conference segments that represent substantial demand potential are the corporate segment, the regional and national association segment and the federal government.

In addition, the leisure segment (small group, special occasions, individuals, family reunions, etc.) could become an obvious target market that previously was difficult to pursue. The leisure market could also be developed by agreements with selected area hotels that have overflow. These partner hotels could refer guests to Belmont. Special events are also a typical market for such venues. The critical elements that will allow Belmont to go after the leisure segment are the expanded modern guestroom facilities, multifunction space, expanded high quality food service and spa services for guests.

Other conference sites have more sleeping rooms than Belmont which means that Belmont is not competitive in most markets. Besides the fact that Belmont does not have enough rooms on the property, the retreat business has other limitations. The retreat business falls mainly Monday through Thursday. Additionally, in December, January, and February, the business is minimal. Special events are critical to general business revenue.

Special events include wedding, company picnics, concerts, fundraisers by non-profits, holiday parties, etc. Occasionally these events, especially weddings, use sleeping rooms as well. they also provide some weekend business.

VII. Recommended Business Facilities

Based on the combination of factors including the demand research, interviews of existing Belmont Inn and Conference Center clientele, tours of all the identified comparable/competitive conference centers, and over two decades of direct involvement in the conference center industry, Horwath Horizon strongly recommends

the implementation of a single-phase expansion of the lodging component at the Belmont Inn and Conference Center, rather than the current plan to add 40 new guestrooms in two separate phases.

The basis for this recommendation is a widespread set of indicators that the current demand for expanded, high quality residential conference facilities in the Baltimore/Washington area far exceeds the demand that would be needed to support a phased expansion plan at Belmont.

The need for a minimum of 50 to 60 guestrooms from the outset of the expansion has been strongly supported by customer interviews; the scope of lodging and conference facilities in the competitive environment; and the need for flexibility to accommodate multiple groups at the same time on the Belmont Inn and Conference Center site. This last factor (flexibility to accommodate multiple groups) is one of the driving elements of economic viability of relatively small facilities, which applies to Belmont both before and after the current full expansion of the lodging component.

As a simplified explanation, there are two core matters to this general topic. By being undersized, Belmont currently is rarely able to host more than a single conference group. This means that on many occasions, after a small group has booked as low as 25 percent of the lodging accommodations for a multi-day meeting, when another group comes along with a need for space on even one of the dates of the already booked meeting, that new group must be turned away. In some cases the new group can be convinced to change its meeting calendar but this is frequently not possible.

The second related factor is economy of scale. For a small property to succeed financially over the long term, one of the most important issues is the ability to establish a price position at or near the top end of the market. This is necessary because of the fixed costs of operating a high quality facility, including salaries and benefits of all key management positions, the fixed costs of all elements of operations and the overall impact on sales and marketing of a minimalist budget for this department. By adopting an interim, two-phase development plan for the expansion of accommodations, meeting facilities, and food and beverage services will not yield the benefits of the expansion until more than three to five years after the full (second phase) expansion. The Center will still be too small to attract its niche market.

In support of the recommendations for immediate implementation of the total of 40 new guestrooms at the new inn, Horwath recommends that during the architectural design-planning phase that a second expansion be taken into account, but only for an expansion that will eventually increase the overall accommodations at Belmont to between 100 and 125 total guestrooms.

Rather than implement this recommendation, the college chooses to develop compatible academic activity that complements the business and provides a model learning environment. The college believes that 100-125 rooms would change the character of Belmont and prefers to keep the room total around 54. Building all of the additional rooms at the same time will depend on various factors. The phased-in approach is used in this plan: 24 rooms in phase I and 16 in phase II.

In terms of the other facilities that are part of the master plan expansion at Belmont, the inclusion of both the expanded conference and dining space in the new inn, the planned renovation of the Belmont Barn to further expand meeting and classroom space, and the inclusion of spa services in the first phase of development are all considered to be critical matters to the earliest financial success of operations at the expanded conference center. Horwath notes that to attract the affluent customer base, both in terms of corporate meetings (the primary target market) and high-end social events and leisure travelers, this facility should be operated and promoted as a spa, the single hottest topic in the evolution of the upscale hospitality market.

Horwath strongly recommends a minimum of four spa treatment rooms. This is based on the strength of the affluent market of residents and corporate customers in the Baltimore metropolitan area and the need to have enough critical mass to deliver the proper level of service and image. If properly sized and designed, the spa can also be a profit center that supports the overall financial operations at Belmont. It will also significantly improve the marketing capabilities of the Center, both for conference groups and the leisure market. To maximize the benefits of the spa, it is highly recommended that this facility be designed into the inn, as opposed to being in a separate facility.

VIII. Learning Environments of Today and the Future

In addition to rapid changes in instructional technology, several trends in higher education will continue to have impacts on campus-based learning environments. First, collaborative learning, well established in basic education, is taking its place in higher education pedagogy. As an

instructional strategy, it replaces the traditional “sage on stage” with the instructor as a mentor. With this change in instructional delivery, classrooms must flexibly allow for small group work, often preceded or followed by traditional presentations. Further, distinctions between classroom/lecture and hands-on class lab modalities are rapidly becoming blurred. “Lecture” material is now becoming part of the flow of work in the “lab” setting. Further, learning through class assignments is expected to also be collaborative, changing the design of both classroom and library buildings. Classroom buildings should provide for small group study rooms conveniently located with or adjacent to classrooms and class labs to support impromptu small group work among students and/or students and faculty.

Secondly, as professional credentialing has increased and the academic level at which professional education begins continues to lower, experiential learning becomes a critical element in how students in higher education are prepared for careers. Internships and cooperative education programs place the student in actual, real-life work settings, and these types of programs will continue to be important in making the connection between the classroom theory and hands-on experience. The intermediate step emerging as facilities are renovated or constructed for a wide variety of academic disciplines is the discipline-based class laboratory that simulates real career settings or real life problems. Belmont provides the opportunity for Howard Community College to provide not only traditional and simulation laboratories but real-life settings as well in the field of hospitality and culinary management.

IX. Academic Programs

Current and Planned Academic Programs

Howard Community College (HCC) creates an environment that inspires learning and the lifelong pursuit of personal and professional goals. The college provides open access and innovative learning systems to respond to the ever-changing needs and interests of a diverse and dynamic community. As a vital partner, HCC is a major force in the intellectual, cultural, and economic life of its community. The college understands its role in a fast-growing county that has attracted new technology industries and strives continually to identify and respond to the education and training needs of those industries using the resources and talents of the credit and continuing education divisions.

Continuing Education and Workforce Development

The college, through its continuing education and workforce development division, also provides special services to the Howard County community and some state agencies

such as contract training (credit and noncredit) in business management, healthcare, advanced technology, leadership training for business executives, and other areas. Services also include open enrollment classes for personal and professional development, year-round enrichment programs for elementary, middle, and high school students, non-traditional high school diplomas for adults, credit opportunities in a noncredit format, adult basic skills and literacy courses, and a variety of levels of English as a second language training. While the division continues to develop programs of noncredit, continuing education and workforce development for Belmont, it expects to utilize the existing and planned Belmont facilities and not to have dedicated spaces. This strategy will contribute to ensuring cost effective use of resources.

The continuing education division has offered numerous successful, short courses at Belmont, including the Winter Health Retreat for Executive Women, Wine Appreciation, Landscaping Do's and Don'ts, Community Spanish, Meditation and Kripalu Yoga, Fall Planting, Quick and Easy Holiday Entertaining and Introduction to Wine.

Some of the goals being pursued by continuing education include:

- Identify existing continuing education clients who would be interested in overnight retreats, develop a plan to attract them, and assign staff to contact them.
- Assist with the development of new strategic accounts – utilize boards and continuing education team to identify contacts in the targeted organizations.
- Provide a wider range of services that would help attract and retain clients.
- Create training products that would be attractive to Belmont's clients.
- Revise Belmont marketing materials to emphasize the value that the HCC partnership brings to the facility including:
 - Availability of experienced, high quality facilitators and trainers;
 - Ability to design customized agendas, training for clients; and
 - Ability to provide follow-up training at client sites.
- Advertise Belmont in appropriate continuing education publications.

Some of the specific program ideas being pursued include:

- Improv as a team building exercise
- Language and culture immersion weekends (to prepare people who are planning trips)
- Use Belmont as an immersion site for language training

The Hospitality and Culinary Management Division

For the past three years, the business and computer systems division at HCC has offered a hospitality management option under the business management curriculum. Currently the hospitality management option contains an A.A.S. degree option and a certificate of proficiency (one-year) option.

In the spring of 2006, the college received approval for two new degrees: hospitality management and culinary management.

The hospitality management program is designed to prepare graduates to function at entry-level to mid-level management positions within the hospitality field. The program is organized to provide theory and application for the basic arenas within the career, allowing for some concentration in hotel and lodging, food service, tourism and conferencing, and catering. Variations in internships and availability of electives accommodate those who have no experience in the field as well as those who have relevant past experience. The program will prepare graduates for employment in hospitality. Transferability to four-year programs has been established with Widener University, Johnson and Wales, Florida International University, University of Houston, and University of Maryland Eastern Shore. Howard Community College also has articulations with the Howard County Public School System and the Carroll County Public School System.

The culinary management program is designed for individual students to develop skills within the field of culinary arts along with essential supervisory and management skills necessary to operate a kitchen facility or other related food service business. Students will matriculate through courses related to food production, sanitation and safety, and service standards along with management cost control skills, supervisory skills, and kitchen management. Upon completion of the program, students will be able to operate and work within a traditional culinary setting as a supervisor or entry-level culinary manager. Articulations have been established with the University of Maryland Eastern Shore and the Baltimore International College for the culinary management program.

As of January 2007, there are 42 majors in hospitality management and 13 in culinary management. In 11 classes, 170 students are enrolled (this is a duplicated headcount).

In the fall 2006 semester, three classes met at Belmont on a weekly basis, one day a week:

Lodging management and operations – 19 students

Introduction to travel and tourism – 10 students

Food service safety/sanitation – 24 students

Additionally, the college is piloting a 10-hour requirement that meets at Belmont to include an internship experience. The educational experience is structured at the Belmont facility and has been designed by the academic hospitality team and the team at Belmont. The experiences are designed to be deployed in a project management format and culminate in specific outcomes and pre-designed deliverables. The required 10-hour project is done under the supervision of an instructor and the Belmont staff. At the end of the semester, students will make a presentation to the Belmont staff and the course instructor. For example, one group will develop a guest services survey to identify key areas important to overnight guests. Another group will develop a marketing plan for Belmont by visiting other area properties and researching best practices. It is anticipated that this requirement will be expanded to all hospitality courses and into selected courses in other disciplines by summer 2007. In addition, the entrepreneurial center is currently working to identify students that would best fit with the Belmont projects and match them with activities on site.

Other Academic Ideas

The college does not intend to offer entire academic programs at Belmont. Only courses (credit or non-credit) that make sense in the unique environment of Belmont will be offered. For instance, HCC has 7 students enrolled in healthcare for professionals – massage therapy. This is by way of an arrangement with the Baltimore School of Massage since massage therapists now must have an associate's degree. Belmont could serve as a site for student interns in massage therapy when Belmont creates some space to offer massage for guests. But students take massage classes in Baltimore and take general ed classes at Columbia.

Other ideas that have been discussed include programs (either credit or non-credit) in green technology, which is now the focus of the new Howard County Executive and which has been added to the HCC board of trustee's area of interest. The board has asked the college to educate itself and employ consultants who can help design facilities which are appropriate and environmentally sensitive.

The college is also interested in environmental science and may eventually develop such a program. Students may or may not take classes at Belmont but they might do projects at Belmont to learn about the environment and recommend improvements. There could be a link between offering horticulture classes to hospitality. Students could develop an herb and vegetable garden and maintain it.

The property offers a myriad of educational opportunities for students of all ages. While the majority of coursework will be taken at the campus, the faculty is encouraged to bring students to Belmont for a course, for a project, for a day, or for a few hours if it enhances the coursework. Since there will also be limited space and students have to work around the business guests, advance planning will be very important.

Classes at HCC are small by design with a ratio of 18 to one. Personal attention is especially important for the freshman student. Additionally all the support services are on the main campus and could not be duplicated at Belmont.

Belmont will remain a very specialized instructional site for students and faculty.

Other College Activities at Belmont

Faculty and staff of HCC also have retreats and professional development activities at Belmont. Instead of traveling to other locations, learning can take place close to home in a very special place. Employees feel like they have gone far away!

The development office hosts dinners and lunches for prospective donors at Belmont. The board of trustees and the foundation board hold their retreats at Belmont. Belmont is an integral part of the college's life. It is not the heart of the campus, but it is a home away from home. These are generally daytime or evening events rather than overnights.

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Space and Use Program projections under development

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Space and Use Program projections under development

Chapter 3 Facility Conditions and Proposed Facility Projects

- I. Physical Context**
- II. Summary of Existing and Planned Facilities**
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- VI. Conclusion**
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This chapter presents the existing facilities of Belmont, beginning with a brief description of its physical context and ending with its projected facility needs and specific facility projects. A critical element of the foundation for understanding facility conditions and the college's facilities needs is a summary of the existing and planned facilities. The building conditions, including architectural, mechanical, electrical, civil, and structural elements, are presented for each existing building. The needs assessment then compares the existing and planned facilities.

I. Physical Context

The Belmont Inn and Conference Center is located on a 68.62 acre piece of land in Elkridge in Howard County, Maryland. Another 13-acre parcel, called the Dobbin property, is part of the property. This parcel is located about .5 mile from the main site. The land is surrounded on three sides by Maryland Department of Natural Resources land and the Patapsco Valley State Park. Belmont Woods Road serves the site. Access from Montgomery Road to Belmont Woods Road is available through Elibank Drive, a narrow drive that runs along Interstate 95. Belmont is eight miles from the Town Center of Columbia, Maryland and the Howard Community College. The conference center is also 12 miles from downtown Baltimore, 37 miles from downtown Washington, D.C., and 7 miles from Baltimore Washington International/Thurgood Marshall Airport. The sites access to business centers, and major transportation centers and corridors make it a great location for a conference center.

II. Summary of Existing and Planned Facilities

Building Inventories and Campus Summary

Belmont houses a total of eleven buildings and auxiliary structures on site. These buildings include:

1. Manor House
2. Dobbin House and garage
3. Carriage House
4. Old Stone Barn
5. Pool House
6. Maintenance Shed
7. Manager's Residence

8. Caretaker's House
9. Stone Smokehouse and Well House
10. Picnic Storage Building
11. Golf Cart Shed

Three of these structures were studied in depth.

- Old Stone Barn
- Carriage House
- Manor House

Belmont had no facilities supporting instruction (classrooms and laboratories) and academic support (testing and tutoring and study) at this time. As of fall 2006 a makeshift classroom had been renovated in the wooden structure attached to the Barn. Available office space (1,903 NASF) currently supports the Inn and Conference Center operations. Special use—fitness facilities (240 NASF) and general use—food and meeting room facilities (5,771 NASF) are essential to supporting the operations of the Inn and Conference Center. Finally, the Manor House provides 15 guest rooms with 2,678 NASF. Belmont has five guest rooms at the Dobbin House and will renovate the manager's house to accommodate four guests.

Outdoor Facilities

With over 80 acres of secluded gardens and meadows and surrounded by 10,000 acres of State forest, Belmont provides a remarkable and unforgettable setting and can support many types of outdoor activities and events.

Outdoor recreational facilities include:

- Concerts
- Swimming pool, built in 1929 and the oldest pool in Howard County, with two pavilions
- Tennis courts
- Volleyball court
- Croquet
- Jogging and hiking trails
- Bird watching

- Cross-country racing
- Stargazing

The Manor House Gardens can be tented to accommodate up to 225 for a banquet or reception or 400 for a reception. These activities are seasonal. The picnic grounds can accommodate up to 500 for corporate and private events.

III. Review of Building Conditions

Following is a summary assessment of the facilities at Belmont, including recommendations for upgrades.

Overview

Built in 1738, the Belmont estate, located in Elkridge, Maryland, is one of Maryland's most historic properties. Belmont remained a private home until 1964 when it was purchased by the Smithsonian Institution for use as a conference center. The property was subdivided and sold to the State of Maryland (268 acres) and the American Chemical Society (81 acres) in 1983. Acquired by the Howard Community College Educational Foundation in 2004, Belmont continues to operate as a conference center and site for educational, social, and cultural events.

Today, the Belmont Inn and Conference Center consists of four primary buildings (the Manor House, Dobbin House, the Carriage House, and the Old Stone Barn) and approximately eight auxiliary buildings, as follows:

1. *Manor House* (about 12,000 sq. ft)

The two-story Georgian-style house is used for small meetings and overnight stays in 15 guest rooms (11 private baths, two shared baths, and two hallway baths). Sections of the house were built from 1738 to 1927 (renovations as late as 1996). The Manor House will remain intact.

2. *Dobbin House and garage* (about 2,500 sq. ft.)

Built in 1946, the two-story, wood-frame house was converted into additional guest rooms in 1989. The 440 sq. ft. garage is a concrete block and frame structure. The five sleeping rooms are important to support the business but,

located on another parcel, inconvenient. Various options for Dobbin House are under consideration.

3. *Carriage House* (4,000 sq. ft)

The building houses a conference room, receiving kitchen, and offices. Exact age unknown, it was converted between 1989 and 1991 and renovated in 1999. Plans call for expanding the Carriage House to add a classroom and a kitchen to use as a teaching area for the hospitality and culinary management program and can also be used to support the business.

4. *Old Stone Barn* (6,200 sq. ft.)

Dating to the 1700's, the barn has a silo, hand-hewn logs, stone rubble walls, concrete, wood, and dirt floors, and a cellar/stable with a loft. Adjoining the barn is a classroom and fitness room. Plans call for preserving the barn and adding multi-purpose space with a view to the fields and warming kitchen.

5. *Pool House* (130 sq. ft)

Built in 1927, the stucco building houses two bathrooms, the pool pump, and a covered walkway. The pool house will remain intact.

6. *Maintenance shed* (2,900 sq. ft)

The shed has board and batten siding, shed-style roof, and six garage doors. The building serves as the primary storage area for maintenance equipment and supplies. Plans call for relocating the shed and incorporating it into a future academic building.

7. *Manager's Residence* (1,900 sq. ft.)

The residence is a mansard style, older two story with composition shingled roof and wood exterior. The residence is being repaired, a bathroom is being added, and four bedrooms will be available to support the business by fall of 2007. This building will continue to be used for the foreseeable future.

8. *Caretaker's House* (2,100 sq. ft)

The Cape Cod house is a small, two-story wood frame structure that serves as the caretaker's home. It will continue to be the caretaker's residence.

9. *Stone Smokehouse and Well House* (800 sq. ft)

Located near the kitchen of the Manor House, the smokehouse and well house no longer serve their original functions but, rather, are utilized for storage. They will remain.

10. *Picnic Storage Building*

11. *Golf Cart Shed*

A small open-air structure that houses golf carts and other storage items.

The Belmont Inn and Conference Center consists of four primary buildings and approximately seven auxiliary buildings totaling eleven structures. DCI surveyed the three buildings that relate directly to the facilities master plan: the Manor House, the Carriage House, and the Barn. The Dobbin House and the auxiliary buildings were surveyed by EMG. The BICC is in good condition and has been well maintained in recent years, but continued maintenance is very important in buildings of this age. This building assessment does not address interior considerations, such as painting, carpeting, furniture, drapes nor the upgrading of the bathrooms, and other spaces.

Following are descriptions of the existing mechanical, plumbing, and electrical systems in the three buildings surveyed by EMG Facility Condition Assessment and reviewed by DCI; and conclusion.

Manor House

A. Architectural/Civil/Structural

General property information: built in 1738, the Manor House is constructed of stone and masonry bearing walls with wood-framed roofs with a stucco and painted wood trim exterior. The primary, gabled roof is wood shake; secondary flat roofs are single ply membrane.

Following are the architectural, civil and structural deficiencies, as observed and/or described in the July 2005 Facility Condition Assessment prepared by EMG.

Priority 1 items include the following:

- Powder post beetle damage: the first floor wood structural framing exhibits at least some damage from powder post beetles, although it appears that most of the damage has occurred near external surfaces. The crawl space should be monitored in the summer to confirm whether the infestation is active.
- Intercom, cameras and door monitoring hardware: install intercom at main entrance, cameras at all entrances, and door monitoring hardware at secondary entrances.
- Roof leaks: interior finishes near guest room chimneys are water-damaged and should be repaired.
- Moisture damage: interior windowsills on the south side of the home are moisture-damaged. The source of the moisture should be determined and corrective action should be taken to prevent future problems, including mold.
- Brick/stone stairs: repair missing bricks and/or damaged stone.
- Termite treatment: inspect for termites and treat as needed.

Priority 2 items include the following:

- ADA compliance: the Manor House does not currently comply with ADA. Modify the most public portions of the home to provide accessibility. Provide ramp and handrail at rear and add handrails at existing exterior ramps and stairs. Replace bar area carpet to provide an accessible path of travel. Provide accessible threshold and grab bars at toilet room. Required handrails are missing at stairs. Provide one or two accessible parking spaces in front and add a sign directing visitors to the parking spaces.
- Asphalt paving: cut and patch damaged asphalt paving between the Manor House and the Carriage House.
- Brick paths: repair brick sidewalks to eliminate tripping hazards at east side path and rear path to basement.

Priority 3 items include the following:

- Exterior wood trim: scrape and paint as needed (wood shutters in particular).
- Stucco: patch and repair cracking at the rear of the house, and at chimneys.
- Missing roof vents: install roof vents to provide attic ventilation.

- Tennis court: the tennis court is in poor condition and should be repaved.
- Terraces: repoint/replace settled brick; replace terrace off bar to provide wheelchair access into this area.

Priority 4 items include the following:

- Roof membrane: replace roof membrane at flat roofs.
- Asphalt: seal asphalt at all parking areas and driveways.

B. Existing Conditions - Mechanical

The Manor House is primarily heated and air-conditioned with the use of ten McQuay water source packaged heat pump units (WSHP). Five of these units are located in the basement and supply air to first floor spaces. HP-1 and HP-4 are floor mounted vertical WSHP with nominal capacities of 4 tons and 3½ tons, respectively. The other three basement units HP-2, HP-5, and HP-6 are suspended horizontal heat pumps with nominal capacities of 5 tons, 5 tons, and 1¼ tons, respectively. Three additional WSHP's are located on the second floor in mechanical closets. These three units provide air to adjacent groups of bedrooms. HP-8, HP-9, and HP-10 are floor mounted vertical heat pumps with nominal capacities of 2 tons, 3½ ton, and 5 tons, respectively. The last two units are console type heat pumps and are contained within a decorative wood cover. Model numbers were not accessible on these units, but they were designed with nominal capacities of 2 tons. All ten of the McQuay WSHP's seem to be in fair condition, but the maintenance supervisor has reported that these units have recently required extra maintenance.

In addition to the primary heating and air-conditioning systems, the bathrooms are heated with electric wall heaters. These electric heaters are surface mounted and have a capacity of approximately 2 kW each. The distribution ductwork for the Manor House is fabricated with standard galvanized steel. This ductwork looks to have been installed with good craftsmanship and appears to be in very good condition.

The water loop for the WSHP's consists of two base mounted centrifugal pumps circulating water between the equipment and each WSHP via an uninsulated closed piping loop. Generally, the piping is constructed of black steel.

The loop temperature is maintained between 60 degrees F and 110 degrees F via two boilers, a cooling tower, and a Superchanger Heat Exchanger. The boilers are Weil-McLain medium capacity cast iron boilers, each having a capacity of 313 MBH, piped in parallel. These boilers are propane-fired units and are located in a four feet deep pit in the basement. The cooling tower is a BAC ejector tower, rated to lower the temperature of 103 GPM from 95 degrees F to 75 degrees F. This tower is mounted on a concrete pad outside of the building.

The boilers, cooling tower, pumps, and heat exchanger are approximately ten years old and appear to be in fair condition. No major maintenance issues have been reported for any of this equipment.

C. Existing Conditions – Plumbing

The domestic water system for the Manor House includes a well pump, a small tank style water heater, and domestic water storage tanks. Domestic cold water is supplied to the house by a pump that draws water from a well and pumps it to ten pressurized water tanks. These tanks combine for a capacity of approximately 800 gallons. Domestic hot water is provided via the use the water heater and is stored in two large domestic water storage tanks. The water heater is an A.O. Smith propane-fired water heater. The storage tanks have dissimilar dimensions and their capacities are unknown. All domestic water equipment appears to be in good condition.

The majority of the CPVC domestic water piping system, including the basement mains, is approximately 10 years old and in good condition. Some of the distribution piping was not replaced in the significant renovation that was performed 10 years ago. This piping condition varies and the probability for maintenance is high. The maintenance supervisor has needed to occasionally replace small sections of this piping due to small “pin-hole” leaks. An analysis of the incoming water condition and subsequent water treatment may improve this situation.

The Manor House contains approximately eighteen private and public toilet rooms. These toilet rooms are either located within a private suite or adjacent to a main corridor. Each of these toilet rooms includes a “tank-type” floor mounted water closet, a wall or floor mounted china laboratory, and a sliding glass door

enclosed shower stall. The maintenance supervisor has been renovating each of the toilet rooms during unoccupied periods and all of the fixtures look to be in very good condition.

D. Existing Conditions - Electrical

Secondary electrical service (208Y/120 volt, three phase, four wire) is supplied from an exterior pad-mounted transformer. The service entrance conductors are comprised of two sets of 250 kcmil aluminum conductors (rated for 410 amps), which enter the basement and terminate on a 600 amp automatic transfer switch. Two sets of #3/0 copper conductors (rated for 400 amps) extend from the load lugs of the transfer switch to a three pole, 400 amp fused service disconnect switch. The switch supplies the following via taps in a wire trough:

- Enclosed circuit breaker supplying Panel RA
- 400-amp Federal Pacific Electric (FPE) Type NDP panel board
- Enclosed circuit breaker supplying Panel RB
- 225-amp FPE panel board
- 90-amp enclosed circuit breaker supplying the cooling tower
- 100-amp enclosed circuit breaker supplying Panel #5
- Square D Type QO load center

Power is distributed throughout the building to various panel boards and load centers. Various manufacturers were noted, including FPE, Square D, Cutler-Hammer, and General Electric. Wiring methods include electrical metallic tubing (EMT), electrical nonmetallic tubing (ENT), flexible metal conduit (NEC Type FMC or "Greenfield"), armored cable (NEC Type AC or "BX"), and nonmetallic-sheathed cable (NEC Type NM or "Romex"). Panels RA, RB, and RC, which supply HVAC equipment, and Panel EA, which supplies exit signs and emergency lighting, were installed as part of the 1996 renovation project. Receptacles and branch circuits throughout the house were replaced at the same time. As it does not appear that any other significant electrical work has occurred since then, the remainder of the electrical installation predates the 1996 renovation.

The grounding electrode system for the electrical service consists of a driven ground rod and the incoming underground water service pipe.

Standby power for the Manor House is supplied by an exterior 125 kW, 208Y/120 volt Olympian diesel engine-generator set, located adjacent to the cooling tower. The generator is equipped with a weatherproof enclosure and a 265-gallon sub-base fuel oil tank. With a rated output of 434 amps, the generator is of sufficient capacity to supply the entire electrical demand load for the Manor House. The generator output is connected to the automatic transfer switch in the basement via two sets of #3/0 copper conductors (rated for 400 amps) routed in underground conduits. The generator is maintained on a quarterly basis by Alban Engine Power Systems, and is exercised weekly (without load). The generator and automatic transfer switch appear to be in good condition. The record drawings for the 1996 renovation do not include the installation of the generator and transfer switch; this equipment is a more recent installation.

Lighting fixtures throughout the building are generally incandescent, residential type, and in many cases of period style. Control of lighting fixtures is generally by wall switches. There is a switched fixture or outlet in each of the guest rooms. The conference room is equipped with a dimming control system, with an integrated remote control station for lighting, the projection screen, and a sound system. Wall-mounted emergency lighting units are located in some areas, and selected corridor fixtures are unswitched, with generator backup. Exit signs are LED-type, and are connected to emergency circuits with generator and battery backup.

The telephone service and data network equipment are located in the basement. Six strands of single mode and twelve strands of multimode fiber optic cable extend from this location to the Carriage House. Several generations of telephone equipment and wiring were noted, some of it possibly abandoned.

Exterior doors are equipped with electronic Cypher locks. These are battery operated, stand alone units. They are programmable by laptop computer and are capable of data logging.

The Manor House is equipped with a Radionics fire alarm system. The control station is located at the main entrance, and the batteries and digital alarm communicator transmitter are located in the basement. There are manual fire alarm boxes and combination horn/strobes throughout the building. There are system smoke detectors in the corridors on the upper level, and single station

smoke detectors in the guest rooms. Ducted water source heat pumps are equipped with duct smoke detectors. The fire alarm system was installed as part of the 1996 renovation.

Carriage House

A. Architectural/Civil/Structural

General property information: conventional wood frame structure with painted wood siding and wood trim on concrete slab. Hipped roof is asphalt-shingled.

Following are the observed architectural, civil and structural deficiencies, as described in the July 2005 Facility Condition Assessment prepared by EMG. Refer to EMG report for additional information.

Priority 1 items include the following:

- Intercom, cameras and door monitoring hardware: install intercom at main entrance, cameras at all entrances, and door monitoring hardware at secondary entrances.

Priority 2 items include the following:

- ADA compliance: aspects of the building do not currently comply with ADA. Provide one or two accessible parking spaces in front and add a sign directing visitors to the parking spaces. First floor toilet rooms are not wheelchair accessible. Required handrails are missing at stair. Provide lever hardware at main entrance door and women's toilet room.
- Wood siding: scrape and paint entire building; replace deteriorated siding.
- Asphalt paving: repair asphalt paving at surrounding loop road.
- Regrade earth that slopes toward the building to achieve positive drainage.

Priority 3 items include the following:

- Termite damage: there is evidence of possible termite damage; inspect and treat as needed.

Priority 4 items include the following:

- Asphalt: seal asphalt at all parking areas and driveways.

- Rear addition: the wood-framed addition on the rear of the building, currently utilized for storage, is poorly constructed.

B. Existing Conditions - Mechanical

The Carriage House is heated and air-conditioned with the use of three (3) oil-fired furnace/air-conditioning split systems. All of these systems have nominal capacities of 3 tons. The second system includes a furnace section that is approximately 15 years old and may require some maintenance in the upcoming years. The condenser section for this system is only approximately 5 years old and seems to be in good condition. The third system contains a recently replaced furnace unit and a condenser section that is in fair condition.

The distribution ductwork for the Carriage House is fabricated with standard galvanized steel. The majority of this ductwork is concealed, so the craftsmanship and condition could not be determined.

C. Existing Conditions - Plumbing

No problems have been reported for the plumbing fixtures or the piping systems in the Carriage House. Domestic hot water is supplied by two residential type electric water heaters with capacities of 40 gallons and 80 gallons. Both heaters are only a few years old and appear to be in good condition.

D. Existing Conditions - Electrical

Secondary electrical service (120/240 volt, single phase, three wire) is supplied from an exterior pad-mounted transformer. The current transformer cabinet, meter, and 400 amp service disconnect switch are wall-mounted on the exterior of the building. One set of 500 kcmil copper conductors (rated for 380 amps) extends from the disconnect switch to a 400 amp Zenith automatic transfer switch, also mounted on the exterior of the building. The switch supplies two 200 amp panel boards in a combined electrical/telecommunications closet on the ground floor.

Power is distributed throughout the building to various panel boards and load centers. Various manufacturers were noted, including Square D and Cutler-

Hammer. Wiring methods include electrical metallic tubing (EMT), flexible metal conduit (NEC Type FMC or "Greenfield"), armored cable (NEC Type AC or "BX"), and nonmetallic-sheathed cable (NEC Type NM or "Romex").

Standby power for the Carriage House is supplied by an exterior 200 kW, 208Y/120 volt Olympian diesel engine-generator set, located adjacent to the building. The generator is equipped with a weatherproof enclosure and a 1444-litre sub-base fuel tank. The tank is a UL listed closed top diked generator base tank. Although the generator has not been relabeled, the output must have been reconfigured for single phase, three wire service. The generator is of more than sufficient capacity to supply the entire electrical demand load for the Carriage House. The generator output is connected to the automatic transfer switch via one set of 500 kcmil copper conductors (rated for 380 amps). A remote annunciator and a battery charger are located in the combined electrical/telecommunications closet. The entire electrical service installation, including the service disconnects, transfer switch, and generator is recent and appears to be in good condition.

Lighting fixtures on the ground floor are generally incandescent, primarily downlights. Control of lighting fixtures in the dining room and conference room is by dimmer switches. There are wall-mounted emergency lighting units and exit signs, either incandescent or fluorescent, with integral battery backup. Lighting fixtures in the second floor offices are generally fluorescent, controlled by wall switches.

The telephone service and data network equipment are located in the combined electrical/telecommunications closet on the ground floor. Two strands of single mode and four strands of multimode fiber optic cable extend from this location to the General Manager's House, although according to the maintenance supervisor this connection is no longer intact.

There is no fire alarm system in the building. There is one manual fire alarm box in the conference room, connected to the fire alarm system in the Manor House.

Old Stone Barn

In order to be inhabitable, major work needs to be done on the barn structure. The current barn addition is now used as a temporary classroom and a small fitness area. It is not handicapped accessible; there is no bathroom and the lighting is poor.

A. Architectural/Civil/Structural

General property information: the barn is the oldest structure on the Belmont grounds. An addition was added in approximately 1940. The original structure is stone with a wood frame roof, while the addition is constructed of concrete masonry units with an asphalt-shingled roof. The silo is clad with glazed terra cotta tiles.

Following are the observed architectural, civil and structural deficiencies, as described in the July 2005 Facility Condition Assessment prepared by EMG.

Priority 1 items include the following:

- Foundation cracks: the exterior concrete masonry walls have settlement cracking; seal to prevent moisture infiltration.

Priority 2 items include the following:

- Roof and wood siding: the roof and wood siding are in fair to poor condition and should be replaced.
- Upper level floor boards: the upper level flooring shows evidence of moisture damage and should be replaced, along with some floor framing members.
- Stone walls: some of the wall stone needs to be repointed and/or replaced.

B. Existing Conditions - Mechanical

The Barn is heated and air-conditioned with the use of residential type electric baseboard heaters and window air conditioners.

C. Existing Conditions - Plumbing

The domestic water for the Barn is supplied by a well pump and pumped into a pressurized domestic water storage tank. No problems have been reported.

D. Existing Conditions - Electrical

There are two electrical services to the barn, a 60 amp, 120/240 volt, single phase, three wire service from the BGE pad-mounted transformer terminating on a Cutler-Hammer load center, and a 15 amp, 120/240 volt, single phase, three

wire service from the Carriage House. The second service supplies the well pump, and is backed up by the Carriage House generator. There was an exterior fixture with a non-working photocell. The fixture was on during our visit during the day. Walkway between Barn, Manor House and Carriage House does not have adequate lighting.

Auxiliary Structures

Architectural/Civil/Structural/Mechanical/Plumbing/Electrical

Deficiencies in other structures on the Belmont property (maintenance shop, greenhouse, cottages, pool house, pool pump house, smoke house, well house, picnic storage building, golf cart shed, and storage garage), were provided.

Comments by Mueller Associates on EMG Corporation's Assessment

Review of July 2005 EMG Assessment / Mueller Associates' Recommendations:

EMG recommendation: Add ADA – Pull stations in single occupancy toilet rooms.

Although EMG recommends this, Mueller Associates notes that there is no code required for pull stations in single occupancy toilet rooms.

EMG recommendation: Replace Manor House central fire alarm panel due to remaining useful life.

Mueller Associates concur with this recommendation. However, we would go further and recommend that a conference center-wide infrastructure for fire alarm should be provided. Existing building fire alarm systems should be replaced with addressable systems, integrated into a campus network. Upgrades for fire alarm code and ADA compliance should be implemented. Fire alarm should be monitored by an on-site proprietary receiving station or by an off-site service.

Additional Mueller Associates recommendations:

Manor House - Replace Federal Specific Electric (FPE) panel boards.

Carriage House - Provide one historic light pole with fixture on the walkway between Carriage House and Barn to increase visibility at night.

Barn - Replace non-working exterior fixture. Provide one additional historic light pole with fixture on the walkway between Manor House and Barn to increase visibility at night.

IV. Water and Septic System

The Manor House septic system is antiquated and not designed originally for a business. Over time upgrades have been made.

Because the house depends on well water, when power is lost there is no water. The well water is also corrosive in nature, which causes extreme wear on equipment and parts. Interruption to service to make repairs on pumps, which run constantly, to support the HVAC and sanitary systems, dramatically impacts guests. Basic utilities need to be reliable for a successful business.

Consultants recommend city water and sewer as part of planned expansion of sleeping rooms.

V. Technology Upgrades

In a focus group, staff listened to changes clients wanted at the conference center. Many of those changes were related to technology. Staff also needed upgraded technology to communicate with the campus.

A. Initial Information Technology Upgrades

In FY05, the college installed a new high-speed computer network and phone system that established connectivity to the college and improved the network capacity for the conference center. All office computers were replaced, enabling staff to use the same up-to-date computer applications as the college. Wireless technology was installed at the center, which has enabled network connectivity throughout the facilities for staff, students, and guests.

In FY06, the college invested in multimedia technology for the Manor House and Carriage House conference rooms. These locations were equipped with multimedia podiums that are user-friendly and provide complete control of video, audio, and computer presentations within the conference rooms. Technologies integrated into the conference rooms include wide screen plasma TVs, computer systems, smart-boards, high fidelity sound systems, and touch pad control units. Technology was also purchased for a new business center that provides guests with access computers, phones, network, and fax equipment. A new management software application was purchased to assist with scheduling, inventory, and billing of the conference center activities. Additionally, student interns in the information technology division helped install many of the technology upgrades.

B. Future Information Technology Projects

The telecom infrastructure at Belmont is in need of replacement because of damage to external cables from storms, construction, and deterioration. Existing fiber optic and phone cabling along the entrance road and between existing and new buildings need to be replaced and upgraded in capacity. The fiber and cabling along the entrance and access road should be buried to protect them from damage. It will cost \$225,000 to complete this project.

The internal cable and fiber network infrastructure needs to be replaced, upgraded or installed in the Manor House, Carriage House, Barn, Dobbin House and all auxiliary buildings. This will enable these locations to improve or provide current and future technology services such as phones, security, video, Internet and data. This project will cost for the existing buildings \$180,000.

The technology requirements for new buildings will include connectivity to the existing Belmont network infrastructure. Each location will require the capability

for multiple phone lines for internal communication within the Belmont complex and externally for business and safety. The new buildings will also require connectivity to the fiber optic computer network for connectivity to the local area network, Internet, environmental systems, security, video, and the college's computer services. Wireless computer access will also need to be expanded to cover all new building locations. All rooms in new facilities require multiple computer network and telephone jacks to provide flexibility for connectivity and services.

Presentation technology will need to be installed in all meeting rooms and classrooms to meet the diverse needs of faculty and businesses using these facilities. Presentation technology includes computers, projectors, plasma monitors, sound systems, electronic podiums, whiteboards and video systems. Room designs in these new facilities should take into consideration the use of this technology by the clients.

VI. Conclusion

- **Mechanical:** The mechanical systems at the Belmont Inn and Conference Center are in acceptable condition and with improvements totaling \$108,000, can serve for the next ten years.
- **Plumbing:** The July 2005 EMG Assessment notes that the condensing units, heat pumps, and water heaters will require replacement within the period of the next ten years. In addition, the light commercial and residential grade equipment utilized at the Belmont Inn and Conference Center typically has a median useful life of fifteen years. Therefore, all of the equipment can be expected to require replacement within the next ten years.
- **Electrical:** The electrical systems at the Belmont Inn and Conference Center are in acceptable condition and can function with upgrades totaling approximately \$90,000.

- Utilities: County water and sewer are needed on the property.
- Technology: Some upgrades have been done but infrastructure needs considerable improvement.

VII. Proposed Facility Projects

Renovation and Expansion of Old Stone Barn (6,210 NASF, 8,200 GSF). This project renovates the existing Old Stone Barn to provide multi-purpose rooms and to provide initial spa facilities. It expands the current capacity of the facility by excavating the lower floor and providing dormers to provide adequate headroom. The building is actually two unconnected structures, and an engineering study is required to analyze the stone structure as to the specific building parameters. That analysis may change the available space and thereby the overall plans. Consideration should also be given to providing an interior connection between the two sections to increase usability. (See preliminary plans approved by the Maryland Historical Trust in Appendix A.)

Renovation and Addition to Carriage House (10,140 NASF, 16,900 GSF). This project constructs additions to the Carriage House and renovates it to support the College's culinary and hospitality management programs. It is conducted in two stages. The first stage (3,915 NASF, 5,400 GSF) provides a demonstration kitchen and support, dining, classroom and office space. The second stage provides another addition (6,225 NASF, 11,500 GSF) with classroom space, expansion of the demonstration kitchen, additions of a beverage training lab and a computer lab, more office space, media production space, and building support. (See preliminary plans approved by the Maryland Historical Trust in Appendix B.)

Construction of Belmont Inn (21,530 NASF, 32,450 GSF). The construction of the Belmont Inn complements the facilities provided by the Manor House and provides additional guest rooms and conference amenities that will improve the economic viability of the conference operations. The project is divided into two stages. The first stage (16,210 NASF, 23,600 GSF) provides 24 of the 40 planned guest rooms and a dining room and living room lounge with a beverage server. Other spaces in the first stage provide guest and meeting amenities and building support. Twenty-four guest rooms are provided. The second stage (5,320 NASF, 8,850 GSF) completes the Inn with an additional 16 guest rooms.

Renovation of Manor House. Renovation includes updating of 15 guest rooms to meet current technology and amenity standards of current rooms to meet customer expectations and amenity standards that include larger rooms, business center, and refreshment area. The renovation would result in decreasing the number of guest rooms in the Manor to 10-12.

Construction of Conservatory Conference Center (22,880 NASF, 39,450 GSF) This project constructs a conference center that will accommodate larger conferences and events, the Observatory and Planetarium, supporting the college's science programs will also be part of the Conservatory Conference Center.

Construction of Sustainability Technology Building (17,995 NASF, 29,992 GSF). This project constructs a facility to support the college's future courses in landscape technology and green construction. In addition, it supports Belmont with maintenance shops with about 5000 square feet. Following the construction of this facility, use of the existing maintenance building would be discontinued.

Estimated Square Footage at Belmont

Facility	Existing	GSF Planned
Manor House	12,000	- 0 -
Barn	6,200	2,000
Carriage House I	4,000	5,400
Carriage House II	- 0 -	11,500
Belmont Inn I	- 0 -	23,600
Belmont Inn II	- 0 -	8,850
Conservatory Center	- 0 -	39,450
Green Construction Building/Main*	- 0 -	29,992
Manager's House	1,900	- 0 -
Caretaker's House	2,100	- 0 -
Dobbin House**	2,500	-2,500
Maintenance Facility *	2,900	-2,900

* Existing maintenance structure to be removed; other miscellaneous structure (pool house, shed, storage) approx. 1,000

** Dobbin House could be sold eventually or retrofitted for environmental science/nature center

Also proposed are water and sewer utilities to support these projects, to improve reliability of utilities, and to cease subterranean pollution.

Chapter 4 Site Analysis and Needs Assessment

- I. Current Land Use**
- II. Existing Grounds and Infrastructure**
 - Civil
 - Environmental
 - Mechanical
 - Electrical
 - Historical
- III. Outdoor Recreation Facilities and Open Space**
- IV. Access and Vehicular Circulation**
- V. Parking and Projected Needs**
- VI. Pedestrian Circulation**
- VII. Appropriate Building Sites**

I. Current Land Use

Belmont consists of a loosely structured collection of buildings from a wide range of eras. The site is entered at Belmont Woods Road, a narrow, privately owned rural drive leading through a dense forest. Belmont Woods Road terminates at the Belmont Manor House. The Manor House currently holds 15 guest rooms. To the East-Northeast of the Manor House lies a collection of support buildings. Among these support buildings are: the Old Stone Barn dating back to the 1700s; a late addition to the barn houses a small classroom and a fitness room; a carriage house converted between 1989 and 1991 and renovated in 1999 houses a meeting room/classroom, receiving kitchen and offices; the Belmont manager's house and maintenance shed holding the majority of the equipment used to upkeep the Belmont grounds. Directly behind the Manor House is a formal garden used as event space for weddings, parties, and other special events. To the north of the garden lies the caretaker's house. A pool and accompanying pool house and tennis court lie just to the west of the gardens. Other than a historic cemetery on the northern edge of the property, the rest of Belmont Woods' land consists of open space – rolling grass hills with a few hedgerows and edged with a dense forest. Much of the property is surrounded by Department of Natural Resources land and a public trail skirts the eastern most property line.

II. Existing Grounds and Infrastructure

Civil

There is no public water or sewer currently on site at Belmont. All buildings are served by well water and septic systems. There are intermittent problems with water availability; the septic system barely supports existing structures, and the water and sanitary systems do not function during power outages.

A pond at the southern end of the property currently handles the storm water management for the site.

Environmental

A stream and 50-foot buffer runs along the eastern property line between Belmont and the Patapsco Valley State Park. Likewise, a stream with 50-foot buffer and accompanying wetland with 25-foot buffer runs across the 60-foot right-of-way connecting Landing Road with the Belmont property.

In addition to its expansive grass fields, Belmont is host to vast wooded areas with many old-growth trees. A tree survey should be done in Zone I before any development takes place, since the Deed of Architectural Exterior and Scenic Easement forbids the cutting of trees 10-inches in diameter or greater, unless subject tree is dead or decaying.

Mechanical

There are no central mechanical utilities. Each building is heated by propane, fuel oil, or electricity. Each building is cooled by electrically driven equipment. Propane or fuel oil tanks are provided at the various buildings. As new construction takes place, consideration of more efficient systems need to be explored.

Electrical

Electrical and telephone service is delivered to the site via overhead pole lines. The lines run adjacent to the driveway from Belmont Woods Road to a pole at the entrance to the circle in front of the Manor House. At this point, both services transition to underground. There are three exterior pad-mounted Baltimore Gas & Electric Company transformers on the site. One supplies 208Y/120 volt, three phase, four wire power to the Manor House. The second supplies 120/240 volt, single phase, three wire power to the Caretaker's House and the Swimming Pool. The third supplies 120/240 volt, single phase, three wire power to the Carriage House, Barn, General Manger's House, and Shops. Meters are exterior.

The main telephone service terminates in the basement of the Manor House. There is no cable television service to the site. A satellite dish and aerial antenna are located outside of the Manor House. According to the maintenance supervisor, service outages are not uncommon.

Historical

Belmont and Doughoregan Manor are the last colonial manors in Howard County with their historical view sheds intact. An historic and scenic easement exists through the Belmont site. In 1982, the American Chemical Society acquired Belmont from the Smithsonian Institution for the purpose of holding corporate retreats, seminars and conferences. Along with the State of Maryland, the three entities wrote the Deed of Architectural Exterior and Scenic Easement that separates the property into two zones. Zone I is meant to maintain the view of and from the Belmont Manor House and exists in front of the manor, stretching forward to the property line, and the zone extends

behind the manor through the gardens to the cemetery and on to the property line. In summary, no topographical changes, no removal of trees 10 inches in diameter or greater (unless dead or decaying), and no above ground utilities unless required for the existing main house and support structures shall be allowed within Zone I. No additional buildings shall be allowed within Zone I unless approved by the Maryland Historical Trust.

Zone II includes the remainder of the Belmont property. This includes the land on which sits the existing barn, Caretaker's and Manager's Houses, Carriage House, pool, and tennis court. The purpose of Zone II is to permit construction of new facilities to maintain the economic viability of the Belmont Inn and Conference Center. New construction shall not reach higher than the roofline of the Belmont Manor House. Existing structures within Zone II may be altered, except for the exterior of the smokehouse and the exterior front, east, and west facades of the stone barn shall not be altered without the permission of the easement deed's grantee.

III. Outdoor Recreation Facilities and Open Space

Currently, on site at Belmont there are many recreational options. A swimming pool and adjoining pavilion lie just west of the formal gardens. Built in 1927, the pool is the oldest in Howard County. Belmont contains many trails winding throughout the site and is connected to the Patapsco Valley State Park and its trail system, running along the eastern edge of the Belmont property.

The gardens of Belmont offer outdoor event space for weddings and other social gatherings. During the summer, Howard Community College holds a concert series in the garden. The gardens and the pool need frequent care and maintenance. In the next two years the pump room which provides the water for the pool will need plumbing and electrical work.

IV. Access and Vehicular Circulation

Belmont Woods Road is the only access road serving The Belmont Inn and Conference Center. The road is a narrow, one-lane drive shared by a number of residential homes. Pull-offs allow the road to support limited two-way traffic. Belmont Woods Road has a very rural feel as it makes its way through a dense forest comprised of large mature growth trees. At the Conference Center, the forest clears and the road opens up to

the rolling fields of Belmont. Belmont Woods Road is just wide enough for a fire truck to drive down, but as two cars pass each other, one typically must pull over to the side to allow the other to pass.

Since Belmont is a destination both compact and small, visitors to the site park their car once they arrive and walk to their desired facility. Vehicular drives are generally shared by pedestrians and have an informality that responds to the rural, historical nature of the site. Walking from one building to another at night is hazardous due to poorly lighted areas.

A 60-foot right-of-way through the Maryland Department of Natural Resources land to the West of Belmont was set aside when the Belmont land changed hands from the Smithsonian Institute to the American Chemical Society. This right-of-way enables a future connection to Landing Road.

V. Parking and Projected Needs

Areas for parking at Belmont currently are located near the Old Stone Barn. Space for about 18 cars is set aside along the service drive linking the Carriage House with the Manor House. In front of the Old Stone Barn there is a parking lot with approximately 34 parking spaces. In between these two parking areas is a parking pad with striping for buses. When no buses are present, approximately 8 cars can park there. In total, Belmont holds approximately 60 paved parking spaces. During large events, visitors often park on the grass surrounding much of the access drive and parking lots.

VI. Pedestrian Circulation

Belmont's pedestrian circulation is generally unstructured and practical. Pedestrian traffic between the Manor House and the Old Stone Barn and Carriage House runs primarily on the paved drive. Since automobile traffic at Belmont is slow and minimal, shared pedestrian-vehicular drives are not a problem. Many visitors find themselves wandering through the garden, to the pool, and throughout the fields. Trails of the Patapsco Valley State Park run adjacent to the Belmont property opening the site up to further exploration into the surrounding park.

VII. Appropriate Building Sites

The areas of Belmont most receptive to construction are those that do not impact the historical and cultural importance of the site. These sites exist outside Zone I. The area down-slope from the north side of the Carriage House is one area that lends itself to future facility development. Likewise, sites on both sides and down-slope of the gardens behind the Manor House as well as the northern most piece of the property are possible sites for development. Development in front of the manor house is not permitted and development which may be visible from the entry drive is not recommended.

Chapter 5 Master Plan for Site Development

I. Site Development Planning Principles

- **Physical Planning Objectives**
- **Sustainable Design Objectives**

II. The Site Master Plan

- **Illustrative Master Plan**
- **Phases Of Site Development**
- **Land Use And Site Organization**
- **Grounds And Infrastructure**
 - **Civil Solutions**
 - **Environmental Solutions**
 - **Mechanical**
 - **Electrical**
- **Outdoor Recreation Facilities**
- **Access And Vehicular Circulation Solutions**
 - **Parking Solutions**
 - **Pedestrian Circulation Solutions**

I. Site Development Planning Principles

Physical Planning Objectives

The master plan of The Belmont Inn and Conference Center respects the history of the site while acknowledging that in order to remain economically feasible and compete with its peers, the center must update, improve, and modernize its facilities. As the new steward of Belmont, Howard Community College understands the delicate balance between the economic vitality and the important historical value and character of the site. The quality of place, including the design of buildings and their interiors, the upkeep of open space, the services provided, and over-all image attracts clients to a conference center like Belmont. In addition, Howard Community College sees an exciting opportunity to incorporate an educational component to Belmont for programs in keeping with the nature of the site and in a manner that is compatible with the use of the site as a conference center. The physical master plan sets forth a framework to guide construction and change.

Sustainable Design Objectives

Howard Community College is dedicated to employing sustainable planning and design solutions on campus and will continue to employ these principles in its stewardship of the Belmont Inn and Conference Center. The College is committed to creating a better world by conserving our ecologic, economic, and social resources and leaving a positive legacy for future generations. The College's vision and mission promotes environmentally sensitive land development and building design that minimizes impact on the land, conserves energy, and utilizes landscapes consistent with the site's natural topography and hydrologic regime.

When the United States Green Building Council – Baltimore Region Chapter was looking for a place to hold its annual board meeting, Belmont was picked as the perfect location. Based on its setting, Belmont is the ideal location for the college to continue to carry out sustainable design practices. Howard Community College is dedicated to employing sustainable planning and design solutions on its Columbia campus and will continue to employ these principles in its stewardship of the Belmont Conference Center. These practices will be carried out in its

- Site development
- Operations and
- Course offerings.

Site Development

The master plan is environmentally sensitive in its land development and building design. The plan minimizes impact on the land, conserves energy, and utilizes landscapes consistent with the sites natural topography and hydrologic regime.

All new projects will strive to comply with sustainable design practices and guidelines for green buildings, including:

- Minimization of site impacts
- Conservation of water and natural resources
- Reduction in energy consumption
- Utilization of renewable building materials
- Utilization of permeable surfaces for parking

Such practices are intended to create healthier indoor environments through careful consideration of design solutions that take into account initial costs, life-cycle costs, and other requirements that are unique to the Belmont Conference Center. All new development and the design of new buildings should follow these principles striving to meet the LEED Green Building Rating System, the priority program of the United States Green Building Council (USBGC).

Operations

In looking at the operations at Belmont, many areas could be considered. The environment should be part of the decision matrix in selecting products and services. Currently, florescent lighting has been utilized selectively in current buildings and recycling of paper, glass and plastics is also done. However, using green products in every day operations is also being considered. This includes but is not limited to non-VOC (Volatile Organic Compounds) paints and carpet, green cleaning supplies and internal building materials. Recycling other areas such as cooking grease and fuel oil in the tractors is also an area for consideration.

A two-fold strategy for energy at Belmont could also be considered - one for the historic structures and one for the newer structures could be undertaken. An example to be

studied could be designing energy systems such as geothermal for the newer buildings. Also, ways to reutilize the heat generated by the kitchen could also occur.

With the culinary program at Belmont, corollary classes could be offered in gardening so that the vegetables could be grown in the green house and then used in the culinary program. In addition, composting of vegetative scraps used in the kitchen could also occur along with classes for the community.

Course offerings

The college also sees Belmont as the ideal setting for educational offerings in sustainable practices and for this reason has located a site on the master plan to carry out these educational teachings in the *Sustainable Technology and Relocated Maintenance facilities*. Currently the college has programs in Environmental Science and Horticulture. These programs will be expanded at the center. Four year institutions around the country and in the United Kingdom are currently beginning to develop programs in “sustainable design”. Howard will research best practices and look to develop programs that will articulate with these institutions.

Committed to creating a better world by conserving our ecologic, economic, and social resources and leaving a positive legacy for future generations, the College's vision for Belmont will show that “green practices” can be aligned with “historic preservation”. Part of our vision is to have Belmont become a showcase of these two principles.

II. The Site Master Plan

Illustrative Master Plan

The master plan respects the historic Manor House as well as the gardens, the Carriage House, the Old Stone Barn, and the other auxiliary structures. All new building construction lies within Zone 2 of the historic easement. The placement of the new construction respects current views and vistas from key areas throughout the property. A new Belmont Inn Building is constructed offering 40 new rooms to the conference center. On the other side of the garden from the new inn, a Conservatory Center with Observatory and Planetarium is to be constructed. The Carriage House and Old Stone

Barn are to be renovated and expanded and accompanying these buildings is the new construction of a Sustainability Technology educational facility. The development of these buildings is to be done in five phases. A new entrance road is introduced from Landing Road within the right-of-way through the Department of Natural Resources land. The purposes of this new access point are to improve access for life-safety vehicles and for increased accessibility to the community essential to the financial stability of BICC, to alleviate the traffic on the residential Belmont Woods Road and preserve its historic and rural character.

Phases of Site Development

Phase 1

Renovation of Manager's House – upgrade bathrooms, renovate siding, and windows.

Old Stone Barn Renovation – upgrade and utilize facility; rebuild barn to provide multipurpose space for classes and meetings.

Carriage House Facility Renovation and Expansion, Stage 1 – new facilities are to include a demonstration teaching kitchen, classroom, and office space.

Phase 2

New Belmont Inn, Stage 1 – sited along the southwestern side of the garden adjacent to the existing pool, the New Belmont Inn is to compliment the facilities provided by the Manor House. Stage 1 includes 24 additional guest rooms as well as conference amenities, dining room, living room lounge, beverage server, other guest amenities and building support.

Renovation of Manor House - renovation includes updating to meet customer expectations and amenity standards that include larger rooms, business center, and refreshment area. The renovation would result in decreasing the number of guest rooms in the Manor to 10-12.

New Entrance Drive – BICC has an easement which provides a new entrance through the existing 60-foot right of way through the Maryland Department of Natural Resources land.

Guest Parking Lot – sited just north of the new inn, the surface lot shall use permeable paving technology to lessen storm water run-off.

Labyrinth – providing an intimate setting for contemplation and reflection, a small labyrinth garden is to be planted within the setting of the small thicket of woods just north of the new inn; the labyrinth could be a planting or pavers.

Phase 3

New Belmont Inn, Stage 2 – At this point, Dobbin House could be reconfigured for other programs such as Environmental Science and the Manager's House could be used for offices and visiting faculty. Completion of the new inn with an additional 16 rooms, bringing the total number of guest rooms at the Belmont Inn and Conference Center to 50.

Picnic Pavilion – sited outside of the protected view shed easement, the pavilion takes advantage of expansive views throughout the northern portion of the site; this pavilion is not for public use but for guests of Belmont.

Phase 4

Conservatory Center – placed on the opposite side of the garden from the new inn, the center includes space and accommodations for large conferences and events. An observatory and planetarium, supporting the college's science program is to be incorporated as well.

Carriage House Expansion, Stage 2 – expansion includes more classroom space, a computer lab, more office space, further expansion of the demonstration kitchen and addition of a beverage training lab.

Shared Parking Lot – situated between the Carriage House and the Conservatory Center, the lot is to serve both facilities and use permeable paving technology to minimize site impact.

Phase 5

Sustainable Technology Building – sited north of the Carriage House, this building is intended to support Howard Community College's future green design, construction and

landscape management programs. This facility also includes an area for relocated maintenance equipment and support.

Land Use and Site Organization

The master plan for the Belmont Inn and Conference Center is organized so that the majority of the educational uses are separated from the conference uses. Both uses are, however, within close enough proximity to benefit from each other when needed.

The arrangement of the new buildings at Belmont responds to many characteristics of the site. The majority of new construction associated with the conference center is located behind the Belmont Manor House and responds to the formality of the existing gardens as well as the topography. The educational construction is sited with the existing Carriage House and Barn and is oriented in a manner in keeping with a seemingly random rural farm, but takes advantage of topography and views from the building. Its visual impact on the rest of the site is kept to a minimum by placing it on the far side of the ridge on which the Manor House is situated.

Grounds and Infrastructure

Civil Solutions

The current septic system is barely adequate for the existing buildings. The buildings included in the master plan should be provided with a new public sewer system. The existing buildings are also currently served by well water. Underground public water will be required for the buildings included in the master plan. The sewer and water lines must be placed along with new entry improvements in Phase 2. If a new entrance is brought in through the department of Natural Resources land then the water and sewer lines are to be laid through there. The first priority should be water and sewer service through the easement to Landing Road.

New construction on the site will need to be served by storm water management. In the site master plan, a storm water pond is shown in the northern most area of the property. Consideration for underground storm water recharge areas may also be of value.

Environmental Solutions

New construction and road layouts must take in consideration all existing specimen trees 10" in caliper or greater. All development should be mindful of topography and use as little grading and site engineering as possible. Sustainable technology should be

used in order to lessen the impact of any construction on the site. Resources will be sought to help make BICC a model of sustainable design and construction.

Mechanical

It is recommended that the heating for the various proposed new buildings be provided separately for each, similar to the current arrangement. Propane or fuel oil tanks should be provided, if electrically driven equipment is not suitable. Likewise, separate electrically-driven cooling equipment should be provided for each of the new buildings.

Electrical

Based on preliminary assessment by BGE, the existing overhead service to the site is of adequate capacity to accommodate the proposed master plan. Relocating the service to underground would improve reliability and is recommended, but it would be at college's expense.

Based on projected electrical demand for master plan, transition to Schedule P electrical service for the conference center is not feasible. New buildings will be supplied from individual electrical services.

Electrical service and distribution equipment within the existing buildings varies in age and condition. Replacement and upgrade of existing equipment and wiring should be considered in conjunction with renovation plans for each building.

Outdoor Recreation Facilities

The outdoor uses at Belmont are to range from passive and unorganized to more active and planned events. Features such as the preserved pool, located adjacent to phase one of the new Belmont Inn, the vast expanses of open fields, existing gardens, walking trails, and close proximity to the Patapsco Valley State Park trails to the east offer a wide array of informal outdoor recreation. Tucked away within a patch of woods just beyond the formal gardens will be a labyrinth; a small, circular, maze-like garden designed to provide an intimate location for respite and meditation. A planned pavilion for picnics and small events will be placed along the new entrance road Pavilion. The preserved gardens will continue to hold events such as weddings and parties. In addition, the garden will continue to be the site for the outdoor summer events run by Howard Community College.

Access and Vehicular Circulation Solutions

There are several options to improve vehicular access to the conference center. Option A exists within the 60-foot right-of-way through the Department of Natural Resources land and connecting with Landing Road. Option B is to use a little less than half the length of the 60-foot right-of-way, deviating from it, and connecting to a Calton Gellar development along Landing Road. Option C would be to widen Belmont Woods Road bringing it up to county standards. For safety purposes it would be better to have two exits from Belmont. Trees have fallen blocking the current roadway. All options need to provide for water and sewer.

Once entering the Belmont property, the new entrance road (under either Option A or B) connects with the existing drive that services the Caretaker's house. This drive connects to the entrance circle in front of the Manor as well as the small parking pad adjacent to the renovated barn. This drive is to be widened for safe vehicular circulation. A new access road could serve as the automotive spine for Belmont, connecting to the new Belmont Inn, the Conservatory Center, Manor House, and the educational facilities. It would be nice to keep Belmont Woods Road intact to preserve its historic nature and rural feel with maintenance and upkeep to be performed as needed.

Parking Solutions

Parking is located at two key points on the Belmont site. The new Belmont Inn has an adjacent lot holding approximately 40 parking spaces. A lot shared between the Conservatory Center and the Carriage House and Sustainability Technology building holds around 90 spaces with overflow parking for another 30 cars.

The road to the maintenance shed would be removed as well as parking at the rear of the stone barn to enhance the view from the Barn and Carriage House.

Pedestrian Circulation Solutions

Pedestrian circulation within Belmont is to range from formal pathways to more natural trails. Just as the arrangement of the new construction in Belmont responds to its location within the site, so does the nature of each pathway. When in proximity to the formal garden, pathways are to be more formal; a semi-axial relationship is set up between the new Belmont Inn and the Conservatory Center. Conversely, pathways in and around the educational and support buildings surrounding the Carriage House are to be more informal, winding, and follow the topography of the site.

Chapter 6 Recommended Projects

Master Plan for Site Development

- Projects in Phase 1
- Projects in Phase 2
- Projects in Phase 3
- Projects in Phase 4
- Projects in Phase 5

Budget Cost Estimates for the Belmont Facilities Master Plan		
The budget cost estimates have been developed as the "Planning Estimates" only. It is assumed that using these estimates as guidelines, detail budget estimates will be developed for each project.		
Phase 1		
<u>Renovation and additions to the Barn</u> Barn (Government and donor funds will be sought for this project) \$1 million is already allocated.	Building	1,388,000
	New construction – 2,000 GSF x \$260/SF = \$520,000	
	Renovation – 6,200 GSF x \$140/SF = \$868,000	
	Site Work	15,000
	Utilities	35,000
	FF & E	140,000
	Design Fee	130,000
Project Cost	\$1,708,000	
<u>Renovation and Addition to Carriage House – Stage 1</u> (Government and donor funds will be sought for this project) \$1 million is already allocated.	Building	840,000
	Renovation – 2,200 GSF x \$120/SF = \$264,000	
	Addition – 3,200 GSF x \$180/SF = \$576,000	
	Site Work	150,000
	Utilities	80,000
	FF & E	400,000
	Design Fee	130,000
Project Cost	\$1,600,000	
<u>Total Phase Construction</u>		\$3,308,000.00

Budget Cost Estimates for the Belmont Facilities Master Plan		
Phase 2		
<p>Stage 1 of Belmont Inn to include 24 guest rooms and renovation of the Manor House (15 guest rooms). Site work includes a road to the inn, parking lot and labyrinth. A new or improved access road is to be included, 3 options are described.</p> <p><u>Belmont Inn – Stage 1</u> (The business will fund this project.)</p>	<p>Building 23,600 GSF x \$125/SF = \$2,950,000</p> <p>Site Work Utilities FF & E Design Fee Project Cost</p>	<p>2,950,000</p> <p>200,000 100,000 350,000 300,000 \$3,900,000</p>
<p><u>Manor House Guest Room Renovation</u> (The business will fund this project.)</p>	<p>Renovation FF & E Design Fee Project Cost</p>	<p>250,000 300,000 80,000 \$630,000</p>
<p><u>Access Road Upgrades or New Access Road</u> (Government support will be sought for this project.)</p> <p><u>Access Road Option A</u> New road through existing right of way from Landing Road, including 10" water, 12" sanitary, 12 way electrical duct bank and street lighting. The cost includes a pump station, forest conservations and wetland/stream restoration.</p> <p><u>Access Road Option B</u> New Road through existing right of way from Belmont property but connecting with Calton Gulhaar development</p>	<p>Site Work Utilities Design Fee Project Cost</p> <p>Site Work Utilities Design Fee Project Cost</p>	<p>800,000 1,400,000 200,000 \$2,400,000</p> <p>600,000 1,200,000 150,000 \$1,950,000</p>

Access Road Option C		
Renovation of Belmont Woods Road to county standards, with utilities	Road pavement and bridge improvements including removal of existing road	1,800,000
	Utilities	1,000,000
	Design Fee	250,000
	Project Cost	\$3,050,000

Budget Cost Estimates for the Belmont Facilities Master Plan		
Phase 2 (continued)		
<u>Total Phase Construction</u>		
With Access Road Option A		\$2,400,000
With Access Road Option B		\$1,950,000
With Access Road Option C		\$3,050,000
Phase 3		
<u>Belmont Inn /stage 2 (16 rooms) and a picnic pavilion</u>	Building	1,239,000
	8,850 GSF x \$140/SF = \$1,239,000	
	Site Work (including pavilion)	260,000
	Utilities	50,000
	FF & E	200,000
	Design Fee	250,000
	Project Cost	\$1,999,000
<u>Total Phase Construction</u>		\$1,999,000.00

Budget Cost Estimates for the Belmont Facilities Master Plan		
Phase 4		
<p><u>Conservatory Center with Observatory and Planetarium</u></p> <p>This project will combine business and education; funding will be split between the business and government.</p>	Conservatory Center – 39,450 SF x 230/SF	9,074,000
	Site (access roads/parking)	420,000
	Utilities	150,000
	FF & E	1,500,000
	Design Fee	1,300,000
	Project Cost	\$12,444,000
<p><u>Carriage House – Stage 2 and a combined parking lot for both facilities</u></p> <p>Government support will be requested for this project.</p>	Building – 11,500 GSF x 180/SF	2,070,000
	Site	60,000
	Utilities	35,000
	FF & E	240,000
	Design Fee	160,000
	Project Cost	\$2,565,000
Total Phase Construction		\$15,009,000
Phase 5		
<p><u>Green Construction Building including maintenance facility</u></p> <p>Government support will be requested for the academic portions of this project.</p>	Building – 29,992 GSF x \$160/SF = \$4,799,000	4,799,000
	Site	175,000
	Utilities	125,000
	FF & E	575,000
	Design Fee	500,000
	Project Cost	\$6,174,000
Total Phase Construction		\$6,174,000
Phase 1 thru 5 Total Project Cost		
With Access Road Option A		\$33,420,000
With Access Road Option B		\$32,970,000
With Access Road Option C		\$34,070,000
<ul style="list-style-type: none"> Removal of maintenance building and road to it needs to be added Cost estimates are rounded off to the nearest \$1,000 		