

UMBC

AN HONORS UNIVERSITY IN MARYLAND

**REQUEST FOR PROPOSAL
FOR
DESIGN/BUILD CONTRACTOR WITH GMP
FOR THE
PATAPSCO HALL ADDITION PROJECT
AT
THE UNIVERSITY OF MARYLAND, BALTIMORE COUNTY**

RFP #BC-20632-T

ISSUED: OCTOBER 8, 2009

PRE-PROPOSAL MEETING: **Monday, October 19, 2009 at 3:00 p.m.**
Engineering Lecture Hall #5
University of Maryland, Baltimore County
(See <http://www.umbc.edu/aboutumbc/campusmap/>)
(Note: The site visit will be conducted in conjunction with
this meeting.)

TECHNICAL PROPOSAL **Monday, November 2, 2009, on or before 4:00 p.m.**
UMBC PROCUREMENT OFFICE
1000 Hilltop Circle, Room 301- Administration Building
Baltimore, Maryland 21250

**PROCUREMENT/ISSUING
OFFICE:** UMBC Procurement Office
University of Maryland, Baltimore County
1000 Hilltop Circle, Room 301 Administration Building
Baltimore, Maryland 21250

PROJECT MANAGEMENT: UMBC Office of Facilities Management
University of Maryland, Baltimore County
1000 Hilltop Circle
Baltimore, Maryland 21250

NOTE: All Addenda to this procurement will be posted on the UMBC Procurement website. All potential proposers must notify the Procurement Office of their interest in order to be kept informed of any and all information regarding this procurement. Please contact **Terry Cook** via e-mail at tcCook@umbc.edu and provide the Name of your firm, Address, Contact Person, Phone Number and E-mail Address.

**REQUEST FOR PROPOSAL
FOR
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FOR THE

PATAPSCO HALL ADDITION PROJECT
AT THE UNIVERSITY OF MARYLAND, BALTIMORE COUNTY
RFP #BC-20632-T**

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SECTION 00100

I. INSTRUCTIONS TO PROPOSERS SECTION 00100

I. INSTRUCTIONS TO PROPOSERS FOR THE DESIGN/BUILD WITH GMP CONTRACT

A. **SUMMARY:**

1. The University of Maryland, Baltimore County (herein referred to as University or UMBC) desires to contract with an experienced Design/Build Contractor (DBC) for the design and construction of a 190-bed addition to the Patapsco Residence Hall (“Patapsco Addition Project”) with some renovation work in the existing hall at University of Maryland, Baltimore County and as described in the RFP documents inclusive of the Project Program. The scope of work also includes two add alternates which are (1) the addition of an elevator at Susquehanna Hall and athletic courts and (2) a plaza and associated hardscape between Patapsco Hall Addition and Susquehanna Hall. The project will be designed & built under a guaranteed maximum price as fully set forth in Section 00400 of the RFP.
2. The objective of this Request For Proposal (RFP) to select a Design/Build Contractor (DBC) team to provide professional design, management and construction services for the design and the construction of the Patapsco Addition Project (“Project”) fully set forth in Section 00400 of the RFP, the Project Program (Section 00600) and Project Specific Design Standards (Section 00601).
3. The Design/Build with Guaranteed Maximum Price (D/B with GMP) contract centers on utilization of a Design/Build Contractor (DBC), who assembles and leads the Design/Build Team (DBT) consisting of the Design/Build Contractor, the Architect/Engineer, other consultants as required including, but not necessarily limited to, Mechanical/Electrical/Plumbing/Structural/Civil/Engineers, construction trade contractors (all under contract to or under the Design/Build Contractor) as well as University representatives.

During the Pre-Construction/Design Phase, the DBC will cause the production of required design documents by the Architect/Engineer under contract to the DBC and will utilize his skills and knowledge of construction to manage the design process and provide pre-construction services (i.e., develop schedules, prepare construction cost models/estimates, bid trade packages, etc.).

During the Construction Phase, the DBC will manage the A/E in his provision of services as well as provide construction services and manage the project (inclusive of the award and management of all trade contracts) throughout the construction phase.

(See Section 00400 for details in regard the DBC's with GMP's scope of services.)

4. The project will be an "open book" job whereby the University may attend any and all meetings, have access to any and all DBC records (whether DBC records or the records of those under contract to the DBC) on the project and whereby any and all cost savings revert to the University. The University will pay the DBC for (i) its fixed fees inclusive of all inclusive A/E fees for both preconstruction/design and construction services, (ii) approved, applicable reimbursable costs under the General Condition allowance (on site personnel and non-personnel items) for actual expenditures only without any DBC mark-up of any type, and (iii) construction trade work inclusive of approved change orders without any DBC mark-up of any type.
5. It will be the responsibility of the Design/Build Contractor to provide the necessary services/work which includes, but is not limited to, the following:
 - (a) Develop a complete Project design and provide all required A/E services in accordance with (i) RFP #BC-20632-T inclusive of the University Procedure Manual (Section 00500), UMBC Project Program dated 10/4/09 (Section 00600), UMBC Project Specific Design Standards dated 10/2/09 (Section 00601), and all applicable codes and regulations through the engagement of licensed professional A/E design firm(s) approved by UMBC;
 - (b) provide all design and construction services necessary to implement the goals of the project inclusive of, but not limited to, the following: architectural, civil, electrical, structural, mechanical design services, and any required specialty design consultants as required; construction services inclusive of scheduling; administration and management;
 - (c) oversee the complete design and construction processes;
 - (d) develop and maintain schedules;
 - (e) coordinate/communicate the activities of the Team throughout the design and construction processes; and,
 - (f) construct the project under the design/build contract method inclusive of all construction services therein within sixteen (16) months of the Notice to Proceed.
6. Procurement of the Design/Build Contractor will be a phased process as follows:

Phase 1:	Technical Proposal Submittal and corresponding evaluation.
Phase 2:	Oral Presentation/Interview by only those proposers who achieve the required minimum technical score. Following Orals, a Second Phase Technical evaluation is conducted
Phase 3:	Price Proposal Submittal by only those Proposers who maintain the required, minimum or better technical score in the Second Phase technical

evaluation. (See Section 00300 for details.)

7. Upon selection of the Design/Build Contracting firm and approval by the Board of Public Works (BPW), the Contract will be executed for the pre-construction services of the Design/Build Contractor and the design services of the Design Team.

Subsequently, and upon submission and approval of the Guaranteed Maximum Price (GMP) for each bid package(s) by the University and the Board of Public Works, the contract shall be amended for the applicable construction work. Given the design/method, it is expected that there will be a number of GMPs so that construction work can proceed for early trade packages as the design is being completed for the remaining trade work. The DBC shall include the time necessary for the University's review and approval of each GMP and time for the subsequent approval by the Board of Public Works (BPW). The BPW meeting schedule for 2010 is included in Attachment H and the DBC's schedule will be required to include three (3) weeks prior to the identified BPW meeting date for a GMP to be submitted to the University System of Maryland for the particular BPW meeting date.

8. The Contract will govern all Pre-Construction/Design and Construction phases of this Project (Refer to Section 00400 of this document for further detail).
9. All work performed under this contract shall be in accordance with the RFP documents and the University of Maryland, Baltimore "Standard General Conditions of Construction Management Contract with GMP", (which is contained in this RFP as Section 00700 "Standard Conditions") as modified or supplemented by any amendments, supplementary conditions, the Contract Documents as listed herein, any addenda, and other components of the Contract.
10. The University anticipates having a contract in place with the successful Design/Build Contractor on or about January 11, 2010, with project completion within sixteen (16) months of the date of issuance of the Notice to Proceed. The Notice to Proceed is anticipated to be issued no later than January 18, 2010 with the facility to be completed by May 17, 2011.

B. **INSTRUCTIONS FOR SUBMITTAL OF PROPOSALS:**

For detailed information on preparation and submittal of proposals see Section 00300 "Proposals, Evaluation, Forms".

C. **ISSUING OFFICE:**

1. The Issuing Office is:

University of Maryland, Baltimore County
Office of Procurement
1000 Hilltop Circle, Administration Building #301
Baltimore, Maryland 21250

Attn: Terry Cook, AVP for Administrative Services
(410) 455-2939; Fax: (410) 455-1050

or

Sharon Quinn, Director of Procurement
(410) 455-2540; Fax: (410) 455-1009

2. The Issuing Office shall be the **sole** point of contact with the University for purposes of the preparation and submittal of the RFP proposal.
3. All questions on this procurement are to be directed to the Issuing Office.

D. **PRE-PROPOSAL CONFERENCE:**

1. A **Pre-Proposal Conference** inclusive of site tour will be held on **Monday, October 19, 2009, at 3:00 p.m. – 5:00 p.m. in Engineering Lecture Hall #5 at UMBC.** [See <http://www.umbc.edu/aboutumbc/campusmap> - Engineering is Building #14 on the directory. Parking is available in the metered lot (Lot 10) in front of the Administration Building or in Walker Avenue Garage located next to the UMBC AOK Library.]
2. A walk-through of the Project site will be conducted immediately following the Pre-Proposal Meeting.
3. Attendance is not mandatory, but is strongly recommended as clarifications may be provided.

E. **DUE DATE AND TIME:**

1. An original plus eight (8) copies (for a **total of 9**) of the **Technical Proposal** must arrive at the Issuing Office (UMBC Procurement Office) **by Monday, 11/2/09, at or before 4:00 p.m.** in order to be considered. **Late technical proposals will not be accepted.**

2. Price Proposals will only be requested from those firms whose technical proposals achieve the required, minimum or better technical score (see Section 00300 for further details.) The due date for Price Proposals will be set upon completion of the technical evaluation, however, the University anticipates the price proposal due date to be on or around December 1, 2009.
3. Proposers mailing proposals shall allow sufficient mail delivery time to insure timely receipt by the Issuing Office. Proposals or unsolicited amendments to proposals arriving after the due date and time will not be considered.
4. The UMBC Procurement Office is located on the third floor of the UMBC Administration Building and is accessible by the general public between the hours of 7:30 a.m. until 6:00 p.m. Monday through Friday with the exception of legal holidays. Proposers must allow sufficient time in submitting replies to solicitations to insure timely receipt by the Issuing Office in Room 301 of the Administration Building.
5. **LATE PROPOSALS CANNOT BE ACCEPTED.** Proposals are to be delivered to the University's Procurement Office, Room 301, UMBC Administration Building, 1000 Hilltop Circle, Baltimore, Maryland 21250. The University recommends against use of mail or delivery services, which will not guarantee delivery directly to Room 301. Proposals delivered to the campus central mail facility or to locations other than Room 301 will not be considered "received" by the University Procurement Office until they arrive at Room 301 and are clocked in. The University will not waive delay in delivery resulting from need to transport a proposal from another campus location to Room 301, or error or delay on the part of the carrier.

F. MODIFICATIONS AND WITHDRAWAL OF PROPOSALS:

1. Withdrawal of, or modifications to, proposals are effective only if written notice thereof is filed to the Issuing Office prior to the time proposals are due. A notice of withdrawal or modification to a proposal must be signed by an officer with the authority to commit the company.
2. No withdrawal or modifications will be accepted after the time either technical or price proposals are due.

G. QUESTIONS AND INQUIRIES:

1. Questions and inquiries shall be directed to the individuals referenced with the Issuing Office above. The Issuing Office will be open from 8:00 a.m. to 5:00 p.m., weekdays.
2. Inquiries may be submitted in writing, faxed or emailed to the Procurement Officer up to **Monday, October 26, 2009, by 5:00 pm. the last day for questions.**

3. Items affecting the scope of work or conditions of the contract shall be subject to the conditions of Addenda per Section O below.

H. **TERMINOLOGY:**

1. All references in this RFP to the Design/Build Contractor, Proposer, Architect, and other person or persons are made relative to the singular person, male gender (e.g. "he", "him", "his", etc.) These are intended only as generic terms relative to number and gender, and are employed solely to simplify text and to conform to commonly used construction specifications language. COMAR refers to the Code of Maryland Regulations.
2. The terms "proposer", "bidder" and "offeror" are used interchangeably and are defined to be the firm who is submitting proposals to the University under this solicitation.
3. The following terms are used throughout the RFP document and are defined as noted below.
 - Design/Build Contractor: The proposing firm with whom the University will contract to design and build the Project.
 - Design/Build Team: The Design/Build Contractor, the prime architectural firm and all design consultants required to complete the design and construction of the Project including, but not limited to, the landscape architect, mechanical/electrical engineering firm, civil engineering firm, structural engineering firm, fire protection engineering firm, and geotechnical engineering firm.
 - Guaranteed Maximum Price (GMP): The amount designated by the University in the RFP document for the design and construction of the Project including the construction costs only for the two (2) University Add Alternates; that is the GMP amount of \$14,840,000 has been designated by the University to design and construction the project inclusive of the two (2) University Add Alternates. The GMP amount will be a contractual obligation of the awarded firm.

I. **SITE INVESTIGATION:**

By submitting a proposal, the Proposer acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, and electric power. Any failure by the Proposer to acquaint himself with the available information will not relieve him from responsibility for estimating properly the cost of successfully performing the work. The University shall not be responsible for any conclusions or interpretations made by the Proposer of the information made available by the University.

J. **COMPETITIVE NEGOTIATION:**

1. The University reserves the right to make an award with or without negotiations. Only those proposers who are determined "to be reasonably susceptible of being selected for award shall be offered the opportunity to participate in the process."
2. Minor irregularities in proposals which are immaterial or inconsequential in nature may be waived wherever it is determined to be in the best interest of the University.

K. **PROPOSAL SECURITY:** With submission of the Price Proposal in accordance with this RFP, all proposers are required to comply with the following proposal security:

1. If the Proposer's Technical Offer is found responsive and the total Price Proposal (sum of the fees & NTE reimbursables) is \$100,000.00 or more, each Proposer shall furnish with his price proposal a "bid bond" issued by a surety company licensed to issue bonds in the State of Maryland. The bond must be in an amount not less than five percent (5%) of the total amount of the base price proposal (i.e. sum of the DBC's fees, A/E's fees, and DBC's Reimbursable items) and shall be in the form specified (see sample in Section 00300 "Proposals, Evaluation, and Forms").
2. Acceptable security shall be limited to: a) a bond in a form satisfactory to the State underwritten by a surety company authorized to do business in the state; b) a bank certified check, bank cashier's check, bank treasurer's check, cash, or trust account; c) pledges of securities backed by full faith and credit of the United States government or bonds issued by the State of Maryland; d) Irrevocable letters of credit in a form satisfactory to the Attorney General and issued by a financial institution approved by the State Treasurer; and e) the grant of a mortgage or deed of trust on real property located in the State when it is satisfactory to the procurement officer, the face amount of the instrument does not exceed 75% of the contractor's equity interest in the property, and the assignment of the mortgage or deed of trust is recorded in the county land records pursuant to Real Property Article, 30193, Annotated Code of Maryland.
3. Assistance in obtaining bid, performance and payment bonds may be available to qualifying small businesses through the Maryland Small Business Development Financing Authority (MSBDFA). MSBDFA can directly issue bid, performance or payment bonds up to \$750,000. MSBDFA may also guaranty up to 90% of a surety's losses as a result of a contractor's breach of contract.

MSBDFA's exposure on any bond guaranteed may not, however, exceed \$900,000. Bonds issued directly by the program will remain in effect for the duration of the contract, and those surety bonds that are guaranteed by the program will remain in effect for the duration of the surety's exposure under the contract. To be eligible for bonding assistance, as business must first be denied bonding by at least one surety in both standard and specialty markets within 90

days of submitting a bonding application to MSBDFA. The applicant must employ fewer than 500 full-time employees or have gross sales of less than \$50 million annually, have its principal place of business in Maryland or be a Maryland resident, must not subcontract more than 75 percent of the work, and the business or its principals must have a reputation of good moral character and financial responsibility. Finally, it must be demonstrated that the bonding or guarantee will have a measurable economic impact, through job creation and expansion of the state's tax base.

Applicants are required to work through their respective bonding agents in apply for assistance under the program. Questions regarding the bonding assistance program should be referred to:

Maryland Department of Business and Economic Development
Maryland Small Business Development Financing Authority
826 East Baltimore Street
Baltimore, Maryland 21202
Phone: (410)333-4270
Fax: (410)333-6931

4. Should the Proposer to whom the contract is awarded fail or be unable to execute the contract, for any reason, within ten (10) days after notification of award, then an amount equal to the difference between the accepted price, and that of the proposer to whom the award subsequently is made shall be paid to the University as liquidated damages.
5. The Proposer to whom a contract in excess of \$100,000.00 is awarded also must furnish Performance and Payment Bonds, each in the amount of one hundred percent (100%) of the Guaranteed Maximum Price (GMP), including executed Change Orders, in the form specified (see samples in Attachment B). These must be provided at the time of the signing of the contract and prior to the start of any work.
6. Evaluation of a Request for Proposal takes a considerable length of time. No information regarding the evaluation is anticipated to be released prior to the award. The award date is the date of approval by the Board of Public Works.
7. Bid Bonds remain in effect a minimum of one hundred twenty (120) days from the due date of the Price Proposals as all Price Proposals shall remain firm for one hundred twenty calendar days (refer to Section 00100, M. below).

L. **RIGHT TO REJECT PROPOSALS AND WAIVE INFORMALITIES:**

The University reserves the right to reject either all proposals after the opening of the proposals but before award, or any proposal, in whole or in part, when it is in the best interest of the University of Maryland and/or the State of Maryland. For the same reason, the University reserves the right to waive any minor irregularity in a proposal.

M. **IRREVOCABILITY OF PROPOSALS:**

The Design/Build Contractor's price proposal for this project shall be irrevocable for one hundred twenty (120) calendar days from the proposal due date. This period may be extended by written mutual agreement between the Proposer and the University.

N. **LICENSES AND QUALIFICATIONS:**

1. Proposers must be licensed as required by the Construction Firm Law of Maryland (Article 56, Section 180, Annotated Code of Maryland) and shall submit proof of current licensing with their proposal.
2. The University reserves the right to require that the Design/Build Contractor demonstrate that it has the skills, equipment and other resources to satisfactorily perform the nature and magnitude of work necessary to complete the project within the proposed contract schedule. (See Section 00300 of this RFP for further information/details.)

O. **CLARIFICATIONS AND ADDENDA:**

1. Should a Proposer find discrepancies in the RFP documents, or should he be in doubt as to the meaning or intent of any part thereof, he must, not later than seven (7) days (Saturdays and Sundays excluded), prior to the proposal due date, request clarification in writing from the Issuing Office, who will issue a written Addendum to the Contract. Failure to request such clarification is a waiver to any claim by the Proposer for expense made necessary by reason of later interpretation of the RFP documents by the University. Requests shall include the RFP number and name.
2. Oral explanations or instructions will not be binding; only written Addenda will be binding. Any Addenda resulting from these requests will be **posted on the UMBC eBid Board** (<http://www.umbc.edu/adminaffairs/procurement/EBidB.shtml>) no later than five days prior to the proposal due date. The Proposer shall acknowledge the receipt of all addenda in the space provided on the Proposal Form.
3. Any addendum/amendments to the RFP must be acknowledged by persons and entities known to have been issued, or otherwise to have received the RFP. Addendum Acknowledgement forms (found in Attachment A) are to be completed and signed with Technical Proposal. In addition, space is provided on the Price Proposal form to indicate these.

P. **CANCELLATION OF THE RFP:**

The University may cancel this RFP, in whole or in part, at any time before the opening of the proposals.

Q. **PROPOSAL ACCEPTANCE:**

The University reserves the right to accept or reject any and all proposals, in whole or in part, received as a result of this RFP; to waive minor irregularities; or to negotiate with all responsible Proposers, in any manner necessary, to serve the best interest of the University of Maryland. Further, the University reserves the right to make a whole award, multiple awards, a partial award, or no award at all.

R. **ORAL PRESENTATION:**

1. Proposers who submit proposals and achieve the required, minimum or better technical score will be required to make individual presentations to University representatives in order to clarify their proposals (see Section 00300 for details).
2. The University also reserves the right to visit Proposer's place of business during the evaluation process.

S. **ECONOMY OF PREPARATION:**

Proposals should be prepared simply and economically, providing a straight forward, concise description of the Proposer's offer to meet the requirements of the RFP.

T. **CONFIDENTIAL/PROPRIETARY INFORMATION:**

Proposers should give specific attention to the identification of those portions of their proposals which they deem to be confidential, proprietary information or trade secrets, and provide any justification of why such materials, upon request, should not be disclosed by the State under the Access to Public Records Act, State Government Article, Title 10, Subtitle 6 of the Annotated Code of Maryland. Proposals are not publicly opened. Proposers must clearly indicate each and every section that is deemed to be confidential, proprietary or a trade secret (it is NOT sufficient to preface your entire proposal with a proprietary statement).

U. **MINORITY BUSINESS ENTERPRISE NOTICE:**

1. Minority businesses are encouraged to respond to this RFP.
2. The minority business participation level for this RFP is set at **not less than twenty five percent (25%) of the total contract value inclusive of all fees**. A completed Certified MBE Utilization and Fair Solicitation Affidavit (Attachment A) will be required with the submission of the Technical Proposal. A completed MBE Participation Schedule (Attachment B) will be required at the time of issuance of the initial contract as well as with each contract amendment to reflect the GMP. (See Section 9.05 of the UMB General Conditions for the Construction Contract 00700 for additional information regarding MBE participation.) By submitting a response to the RFP, the proposer agrees that such a percentage of

the total contract award will be performed by minority business enterprises. MBE firms must be certified by the Maryland Department of Transportation and cannot be graduated from the applicable SIC Code.

3. In addition, the University encourages Proposers to exceed this minimum MBE participation level of 25% (see Section 00300 for details).

V. **FINANCIAL DISCLOSURE BY PERSONS DOING BUSINESS WITH THE STATE:**

Proposers providing materials, equipment, supplies or services to the University must comply with Section 13-221 of the State Finance & Procurement Article of the Annotated Code of Maryland which requires that every business which enters into contracts, leases or other agreements with the University and receives in the aggregate \$100,000, or more, during a calendar year shall, within 30 days of the time when the \$100,000 is reached, file with the Secretary of State a list containing the names and address of its resident agent, each of its officers, and any individual who has beneficial ownership of the contracting business.

W. **ARREARAGES:**

By submitting a response to this solicitation, a vendor shall be deemed to represent that it is not in arrears in the payment of any obligation due and owing the State of Maryland, including the payment of taxes and employee benefits and that it shall not become so in arrears during the term of the contract if selected for contract award.

X. **BID/PROPOSAL AFFIDAVIT:**

The Bid/Proposal Affidavit included in this package (see Attachment A and Loose Forms Package for this form) must be executed by each responding proposer and submitted with the Proposer's technical proposal.

Y. **MULTIPLE/ALTERNATIVE PROPOSALS:**

Proposers may not submit more than one (1) proposal nor may proposers submit an alternate to this RFP.

Z. **JOINT VENTURE PROPOSERS:**

If the Proposer is a joint venture firm, the Proposer must provide all identification information for all parties and all requirements for all parties (i.e., licenses, insurance, etc.) as requested. As part of the technical proposal submission under the category of Profile of Proposer - General (see Section 00300 for details), the proposer must identify the responsibilities of each joint venture party with respect to the scope of services/work (per Section 00400) inclusive of the requirements for each entity based on such services as described in this RFP.

NOTE: If the selected Design/Build Contractor is a joint venture firm, all joint venture parties will be held responsible for the contract obligations separately and severally.

AA. **ADDENDUM**

Any addendum/amendments to the RFP must be acknowledged by persons and entities known to have been issued, or otherwise to have received the RFP. Space is provided on the Price Proposal form to indicate these.

BB. **INCURRED EXPENSES:**

The University will not be responsible for any costs incurred by any vendor/firm in preparation and submittal of a proposal.

CC. **DEBRIEFING OF UNSUCCESSFUL PROPOSERS**

A debriefing of an unsuccessful proposer shall be conducted upon written request submitted to the procurement officer within 10 days after the proposer knew or should have known its proposal was unsuccessful. The debriefing shall be limited to discussion of the unsuccessful offeror's proposal only and shall not include a discussion of a competing offeror's proposal. Debriefings shall be conducted at the earliest feasible time. A summarization of the procurement officer's rationale for the selection may be given.

DD. **MARYLAND PUBLIC ETHICS LAW, TITLE 15**

The Maryland Public Ethics Law prohibits, among other things: State employees or officials (and in some cases, former employees) and businesses in which such an individual is employed or holds a financial interest from (i) submitting a bid or proposal, (ii) negotiating a contract, and (iii) entering into a contract with the governmental unit with which the individual is affiliated per the Maryland Code, State Government Article, SS 15-502.

If the bidder/offeror has any questions concerning application of the State Ethics Law to the bidder/offeror's participation in this procurement, it is incumbent upon the bidder/offeror to seek advice from the State Ethics Commission: Suzanne S. Fox, Executive Director, State Ethics Commission, 9 State Circle, Suite 200, Annapolis, MD 21401, 410-974-2068.

The procurement officer may refer any issue raised by a bid or proposal to the State Ethics Commission. The procurement officer may require the bidder/offeror to obtain advice from the State Ethics Commission and may reject a bid or proposal that would result in a violation of the Ethics Law.

The resulting contract is cancelable in the event of a violation of the Maryland Public Ethics Law by the vendor or any State of Maryland employee in connection with this procurement.

EE. **USE OF AFFILIATES TO AVOID TAXATION ON INCOME FROM STATE CONTRACTS**

Contractor may not for any period during the Contract term, seek to reduce the amount of Contractor's income subject to Maryland income tax by payments made to an affiliated entity or an affiliate's agent for the right to use trademarks, trade names, or other intangible property associated with Contractor. Contractor agrees that during the course of this Contract it shall not make any such royalty or similar payments to any affiliated company; and if any such royalty or similar payments are made, Contractor and the affiliated company shall file separate Maryland income tax returns and pay their respective Maryland income taxes in such a manner that Contractor does not claim a deduction against Maryland income tax for such payments, and the affiliated company receiving the royalty or similar payment files Maryland income tax returns and pays Maryland tax, under a formula that reasonably apportions the income of the affiliated company among the states, including Maryland, in which the Contractor does business. Contractor agrees that it is authorized to bind its affiliated entities to the terms hereof.

FF. **PAYMENTS TO CONTRACTORS BY ELECTRONIC FUNDS TRANSFER (EFT)**

By submitting a response to this solicitation, the Bidder/Offeror agrees to accept payments by electronic funds transfer unless the State Comptroller's Office grants an exemption. The selected Bidder/Offeror shall register using the attached form COT/GAD X-10 Vendor Electronic Funds (EFT) Registration Request Form. Any request for exemption must be submitted to the State Comptroller's Office for approval at the address specified on the COT/GAD X-10 form and must include the business identification information as stated on the form and include the reason for the exemption.

The form is available as a pdf file on the web site of the General Accounting Division of the Comptroller of Maryland. That web address is:

<http://compnet.comp.state.md.us/gad/agencyinfo/agencyeft.asp>

END OF SECTION 00100

SECTION 00200

II. INFORMATION AVAILABLE TO PROPOSERS

II. INFORMATION AVAILABLE TO PROPOSERS

I. **CONTRACT DOCUMENTS:** This RFP #BC-20632-T dated 10/8/09 consists of the documents noted below.

The following sections are contained **within the RFP document** with other documents packaged separately as noted:

- 00100 Instructions to Proposers;
- 00200 Information Available to Proposers;
- 00300 Proposals, Evaluation and Forms (Articles 1 through 4);
- 00400 Scope of Work (Articles 1 through 3);
- 00500 UMB Procedure Manual for Professional Services on Design/Build Projects dated 2/99
- 00600 UMBC Project Program dated 10/4/09
- 00601 UMBC Project Specific Design Standards dated 10/2/09
- 00700 UMB Standard General Conditions for Construction Management Contract with GMP dated 10/15/97;
- 00800 Amendments to General Terms and Conditions
- 00830 Prevailing Wage Rates (to be issued by addendum);

Attachment A: UMBC Forms Required with Proposal Submittal(s) (i.e., MBE FORMS A AND B; Bid/Proposal Affidavit, DB Team Organization, DBT Working Relationship Form, Key Personnel Form, Matrix of DBC On Site Staff, DBC Experience Form, A/E Experience Form, DBC Annual Sales Volume/Completed Projects Form, DBC Current Workload Form, and Acknowledgement of Receipt of Addendum.)

Attachment B: UMBC Forms Required to be signed/ provided by the Selected DBC Firm at time of contract award (i.e., Contract Affidavit, Performance & Payment Bonds, MBE Attachments C and D, and UMBC's Construction Contract);

Attachment C: General Conditions Listing for non-personnel items

Attachment D: UMBC Shop Drawing/Submittal Flow Chart

Attachment E: MBE Instructions

Attachment F: Price Proposal Form (to be provided by Addendum)

Attachment G: Maryland Board of Public Works Schedule for 2010

Attachment H: UMBC CAD Standards dated August 2005

Any Addenda, which may be issued prior to the Proposal Due Date.

All of these materials will be included in the Contract with the University awarded as a result of this solicitation. The proposer by submitting its proposal agrees that if awarded the Contract that it, as Design/Build Contractor, will be bound under the Contract to all the terms and conditions thereof.

- B. SET OF DOCUMENTS AVAILABLE TO PROPOSERS: The RFP, Attachments A through H are available on the UMBC eBid Board at <http://www.umbc.edu/adminaffairs/procurement/EBidB.shtml>.

Please note: This project will be a prevailing wage rate job. As noted above, the prevailing wage rates and price proposal form will be provided **via Addendum**. The DBC will be required to advertise the project for bidding of the trade packages and provide a copy of said advertisement to the University.

C. PRE-PROPOSAL CONFERENCE

1. A Pre-Proposal Conference and tour of the site will be conducted for all interested parties early in the proposal phase of the project as indicated in Section 00100 Instructions to Proposers for the Design/Build Contractor with GMP Contract.
2. Subsequent inspection of the site may be arranged by contacting the Issuing Office identified in Section 00100 Instructions to Proposers. Attention is directed to the following provisions in Section 00100:
 - G. Questions and Inquiries
 - I. Site Investigation
 - O. Clarifications and Addenda

D. AVAILABLE RECORD DOCUMENTS:

1. As part of this procurement, the UMBC Facilities Management Office is making the documents noted below available to all Proposers via the University's e-bid board. The University, however, can offer **no** assurances that such drawings, property description, or other data are accurate, current or complete. The UMBC documents listed below have been prepared, in whole or part, based upon information furnished by others. UMBC assumes no responsibility for the accuracy of these documents, or for any errors or omissions that may have been incorporated into them as a result of incorrect information provided to UMBC or other causes. Those relying on these documents are advised to obtain independent verification. These documents are made available to proposers under these conditions as described herein. **Should a Proposer access these documents on UMBC's e-bid board, which are provided separately from the RFP document, the Proposer agrees to the terms of the disclaimer stated above.**
 - Susquehanna Hall Record Construction Drawings dated January 1969;
 - Patapsco Hall Dormitory Building #3 dated August 1970;
 - Patapsco Hall Renovation – February 2, 2003;
 - Patapsco Hall Renovation – February 25, 2003
 - Enterprise Electric Basic Materials dated 1991;
 - Emergency Generator Documents dated 1991;
 - Lighting Fixtures dated May 1991 and September 1991;
 - Re-roofing Bid Documents dated July 1992;
 - Satellite Plant Record Drawings dated October 10, 2000;
 - Central Plant Study for Campus Building Additions dated June 2000;
 - Campus Building Roadway and Site Contours;
 - UMBC Site Utilities dated 10/2/09; and.
 - Excerpts from the UMBC Facilities Condition Assessment of Student Housing dated January 17, 2006 on Susquehanna Hall and Patapsco Hall.
2. The Proposers shall assume the responsibility for cost of printing and/or reproduction of these documents

END OF SECTION 00200

SECTION 00300
III. PROPOSALS, EVALUATION AND FORMS

INTRODUCTION/OVERVIEW
ARTICLE 1

- A. **INTRODUCTORY SUMMARY OF PROPOSAL SUBMITTALS:** Responses to RFP #BC-20632-T are to consist of the following:
1. **Technical Proposal Submittal** (see Article 2 of this Section 00300 for detailed information): All Proposers will be required to first submit only a Technical Proposal **without a Price Proposal**. One (1) original and eight (8) copies (for a total of 9) of the Technical Proposal Submittal are to be provided by each Proposer. The Technical Proposal Submittal is due by **Monday, November 2, 2009, at or before 4:00 p.m.** **Technical proposals received after this date and time will not be accepted.**
 2. **Oral Presentations** (see Article 3 of this Section 00300 for detailed information): Only those Proposers whose technical proposals achieve the required minimum, or better, technical score will be requested to make an oral presentation to the University. The date and time for these presentations will be set upon completion of the technical evaluation; however, it is anticipated that the Oral Presentations will be conducted on **Tuesday, November 24, 2009.**

The purpose of the presentations are (i) to allow the University's and Proposer's key personnel to meet, (ii) to discuss aspects of designated areas of its Technical Proposal, (iii) to provide an opportunity to clarify the D/B scope of services for this Project and (iv) review the Price Proposal form.

Each Proposer will be requested to have the following seven (7) key personnel attend: **DBC Project Manager, DBC Field Superintendent, A/E Project Manager, Project Architect, Landscape Architect, Mechanical Engineer, and Fire Protection Engineer.** Proposers are requested to set aside the entire day of 11/24/09 on the calendars of these people now so as to avoid any conflict as the University does not expect this date to change.
 3. **Price Proposal Submittal** (see Article 3 of this Section 00300 for detailed information): Upon completion of oral presentations, those Proposers who maintain the minimum technical score after the Second Phase Technical evaluation will be requested to submit a Price Proposal. One (1) original and one (1) copy (for a total of 2) of the Price Proposal are to be provided. The due date for submission of the Price Proposal will be set by the University subsequent to the Oral Presentations; however, it is anticipated that Price Proposals will be due on or about **December 1, 2009.**

B. **TRANSMITTAL LETTER**

A transmittal letter prepared on the Proposer's business stationery must accompany the Technical Proposal Submittal. The purpose of this letter is to transmit the Proposal; therefore, it should be brief, but shall list all items contained within the Technical Proposal. The letter must be signed by an individual who is authorized to bind his firm to all statements, including services and financials, contained in the Proposal.

C. **SIGNING OF FORMS**

The Price Proposal, if submitted by an individual, shall be signed by the individual; if submitted by a partnership or joint venture, shall be signed by such member or members of the partnership or joint venture as have authority to bind the partnership or joint venture; if submitted by a corporation, shall be signed by an officer, and attested by the corporate secretary or an assistant corporate secretary. If not signed by an officer, there must be attached a copy of that portion of the by-laws or a copy of a board resolution, duly certified by the corporate secretary, showing the authority of the person so signing on behalf of the corporation. Signatures shall be under seal, i.e.: indicated by the word "(Seal)" following signature of individual and partner bidders, and indicated by affixing the Corporate Seal at corporate signatures.

D. **FORMS PACKAGE:** Forms for each of the items required in the Technical Proposal (except items 1, and 2 and the transmittal letter) are furnished with the RFP. The forms required for the Technical Proposal are listed in Attachment A of the RFP.

The Price Proposal form is also provided under Attachment B; however, the price proposal will only be requested from those firms whose technical proposals achieve the required minimum or better technical score after the second phase technical evaluation. The anticipated price proposal due date is 12/1/09.

Note: The Loose Forms can be provided to proposers in MS Word format by request. A proposer need only send an e-mail to squinn@umbc.edu with a copy to tcook@umbc.edu. These forms will be provided via e-mail.

END OF SECTION 00300, ARTICLE 1

**SECTION 00300
PROPOSALS, EVALUATION, AND FORMS**

**ARTICLE 2
TECHNICAL PROPOSAL SUBMITTAL**

A. TECHNICAL PROPOSAL SUBMITTAL:

The Technical Proposal must be submitted in a sealed envelope. The envelope shall have the Proposer's name, the project name and project number prominently displayed, together with the words, "TECHNICAL PROPOSAL".

Technical Proposals shall be delivered on, or before, **Monday, November 2, 2009, at 4:00 p.m.** to the UMBC Procurement Office at the address noted in Section 00100 of the RFP as "The Issuing Office".

The following items must be included in this Technical Proposal Submittal. (Forms for 4, 5 and 6. [If applicable] are included in the RFP package. Proposer should provide Items 1, 2 and 3.)

1. Transmittal Letter (See SECTION 00300, ARTICLE 1, Item B)
2. Detailed responses to Section 00300, Article 2, Item C, Technical Proposal Criteria, Items 1 through 6 (noted in "C" below).
3. Contractor's license (photocopy)
4. Bid/Proposal Affidavit
5. Minority Participation Attachments A & B.
6. Acknowledgment of Receipt of Addenda (If addenda are issued prior to the Technical Proposal due date, this form acknowledging receipt of all addenda **MUST** be included with your Technical Proposal.)

Forms for each of the items required in the Technical Proposal (except items 1 and 3) are available in Attachment A of the RFP on the UMBC eBid Board at <http://www.umbc.edu/adminaffairs/procurement/EBidB.shtml>.

B. Project Design and Construction Costs: In order to be considered responsive, all firms must either agree with or take exception (i) to the Project Design and Construction Costs of **\$14,840,000 inclusive of two (2) add alternates as described in Section 00400 Scope of Work** and (ii) to the time frame for design and construction of **sixteen (16) months**.

The University considers the project to be feasible at the Project Design and Construction Costs and the time frames and may disallow any change to them. Firms wishing to argue for a higher Project Design and Construction Costs or an adjusted time frame must do so convincingly, and provide sufficient evidence to support their argument and include such documentation in the technical proposal envelope. If a proposer does not provide this in his technical proposal, it is understood that he accepts the Project Design and

Construction Costs and time frame. The University will make the final determination. In the event the Project Design and Construction Costs and/or time frame are adjusted, all firms will be notified. In the event the Project Design and Construction Costs and time frame are not adjusted, all firms arguing for a higher Project Design and Construction Costs and/or adjusted time frame will be asked to indicate whether they wish to withdraw. Firms will neither be rewarded nor penalized in any way for initially arguing with or accepting the Project Design and Construction Costs and time frame noted in this RFP.

C. **TECHNICAL PROPOSAL CRITERIA:**

Per Item A. above, the following information must be furnished in the Technical Proposal portion of the RFP. Failure to include any of the items listed below may disqualify your firm's response. Technical criteria are listed in order of importance. Proposers should describe in detail and provide evidence supporting the qualifications requested below. All proposers are to compile their Technical Proposals in the order listed.

1. **GENERAL TEAM ORGANIZATION/STAFFING OF PROJECT:**

1.1. **General: Organizational Chart/Matrix**

Complete the enclosed 'Design Build Team Organization' and 'DBT Working Relationship of Firms' forms; provide complete description of the Design-Build Team (DBT) inclusive of (i) all members of the DBT including all design consultants; (ii) basis for selection; (iii) previous or current working relationships among the firms; and, (iv) services to be provided by each member.

1.2 **Key Personnel:** Note: These key personnel must be **direct** employees of the applicable firm (Design/Build Contractor or the applicable design or consulting firm.)

Within this category, the named positions are defined as follows and it is these people who the University expects to deal with directly on the design and construction of this project, and who the University will see at design and construction meetings:

Design/Build Project Executive: Person from the Design-Build Contractor who will provide executive oversight for the DBT and address any issues that require high level attention such as resources.

Design/Build Project Manager: Person from Design-Build Contractor who will be involved on a continual basis 100% of the time from commencement of the design until construction completion; this person will be located on site once construction commences. This person will be responsible for the overall management of the design/build team and the completion of the project. (Note: Some Proposers may elect to have separate Project Managers for Design and Construction. This is acceptable, however, the University prefers only one Project Manager so higher consideration will be given to proposers who do not have separate design and construction project managers.)

Design/Build Field Superintendent: Person from the Design/Build Contractor who will be on site 100% once construction commences and will be responsible for the direct supervision of the trade contractors, daily coordination of the work on-site to maintain the schedule, on-site management such as material deliveries, outages, etc.

A/E Principal-in-charge: Person from the prime A/E firm who will provide executive oversight on the design consultants and address any issues with the design consultants that require high level attention.

A/E Project Manager*: Person from the prime A/E firm who will be involved on a continual basis from commencement of the design through construction administration. This person will be responsible for the overall management of the design professionals and/or design consultants.

Project Architect*: Professional, licensed architect from the A/E firm who is a member of the Design/Build team and who will be directly responsible for doing the architectural design of the project; this is the person who the University would see at the Design Progress meetings.

Landscape Architect: Professional person who is directly responsible for the landscape design of the project; this is the person whom the University would see at the Design Progress meetings.

Mechanical Engineer: Professional consultant who will be directly responsible for the mechanical design portion of the project; this is the person whom the University would see at the Design Progress meetings.

Fire Protection Engineer: Professional consultant who will be directly responsible for the fire protection design portion of the project; this is the person whom the University will see at the Design Progress meetings.

***Note: The University will consider one (1) person to serve in the roles of both the AE Project Manager and AE Project Architect. The University prefers that one of these roles also serves as the AE's Contract Administrator during construction. If the is not the case, the Proposer is to so note this within the Key Personnel Section of its proposal and who will serve in this capacity with the associated reasons.**

1.2.1 **DBC Team Key Personnel:** **Note: The Key Personnel Form was developed for use on this D/B procurement to ensure that all requested information is provided. Proposers are not required, however, to utilize this form; should a Proposer elect not to use this form, it is the Proposer's responsibility to provide all requested information within his Technical Proposal.

A. Provide the names of the **(1) DBC Project Executive, (2) DBC Project Manager (100% on the project and on site once construction commences), (3) DBC Field Superintendent (100% on site supervisor), (4) A/E Principal-in-charge, (5) A/E Project Manager, (6) A/E Project Architect, (7) Landscape Architect, (8) Mechanical Design Engineer, and (9) Fire Protection Design Engineer only** to be assigned to this project, if awarded, and complete a Key Personnel Form** on each inclusive of the following:

- **Educational background;**
- **Work experience with the proposing firm** inclusive of duration (by dates) of employment and position(s) held;
- **Work experience with all other prior employers,** durations (by dates) of employment and position(s) held.
- **Specific project experience similar to the UMBC Patapsco Hall Addition Project** (preferably the projects listed in #2 below) and the role this person played as well as duration of involvement in each selected project with higher consideration to be given if the role is the same as to be assigned on the University project. A **minimum of three (3) projects** is to be listed for each person. A brief description of the project should be given (if not provided elsewhere in the technical proposal) inclusive of the type of work performed (i.e., new construction, addition, renovation, etc.), type of facility (i.e. housing, academic building, etc.), dollar volume of project, contract method (CMAR, GC, DB, etc.), schedule of the job, A/E firm and Contractor; higher consideration will be given for the mechanical engineer if he/she has experience with district heating and cooling systems in evidence.
- Specify **percentage of time to be committed and estimated number of hours** for design and/or construction to this project during both the pre-construction and the construction phases. (Note: If 50% time commitment is noted, this is understood to mean 20 hours per week for the duration of the phase or phases noted.)
- **Specify other projects to which this person will be assigned during the schedule of UMBC's project with the percent time commitment and duration of assignment by dates;**

- **D/B Services:** Note which of the following items (under headings of Design/Pre-Construction and Construction) will be handled by which key person; in addition, please identify person who will handle overall management of this project:

Design/Pre-construction:

-For DBC: Design review, construct ability issues, cost model/ estimates, value engineering, schedule, and trade contract bidding.

-For A/E: Design Management, design work, design review, and value engineering.

Construction:

-For DBC: Schedule, Trade Contract Awards/Management, Quality Assurance/ Inspections, Shop Drawing Review/Processing, Change Order Review/ Processing, Meetings (Progress and Owner), Requests for Information, Substitution Requests, Cost Control, Project Safety, Monthly Reports and Claims Resolution.

-For the A/E: Quality Assurance/Inspections, Shop Drawing Review, Change Order Review, Meetings (Progress and Owner), Requests for Information, Substitution Requests, and Claims Resolution.

Notes: On the page opposite to or behind the Key Personnel Form of each individual, please show the **organizational chart** for this project and **highlight where this person is positioned**.

Higher consideration will be given if the **Project Manager, Field Superintendent, A/E Project Manager, A/E Project Architect, Landscape Architect, Mechanical Design Engineer, and Fire Protection Design Engineer** have experience in similar facilities and/or similar site conditions and/or project attributes. As well, higher consideration will be given based on the extent to which the Key People have worked together on other successful projects.

- B. Key Personnel References: Provide three (3) project*** references on **each** of the nine (9) proposed key people (DBC Project Executive, DBC Project Manager, DBC Field Superintendent, A/E Principal-in-charge, A/E Project Manager, A/E Project Architect, Landscape Architect, Mechanical Engineer, and Fire Protection Engineer), inclusive of contact person, phone number and name of applicable project.

*Project reference is defined to be contact person from the owner to provide a reference on a person associated with a particular project on which the person worked.

Such references are to be from different projects; that is, only one reference per project is allowed. The University prefers that only one (1) reference for each person be from within the University of Maryland, Baltimore County as UMBC is interested in speaking directly with other owners. In addition, the University reserves the right to check other sources available. Such references will be held in strictest confidence by the University. Please ensure that the information is accurate and that the reference named can speak to the **individual's performance in the role to be assigned on this project**.

Note – References: Key Personnel references are to be provided within the written Technical Proposal. However, references will be checked as part of the Second Phase Technical Evaluation; that is, reference checking will be conducted only for those firms who achieve the minimum or better technical score in the initial technical evaluation and are short-listed in this procurement. These references will be incorporated into the second phase technical evaluation scoring only (refer to section 00300, Article 4, for further information).

Personnel Commitment: By submitting the names for consideration under this Key Personnel Section, the Proposer and applicable A/E firm(s) are committing these people to UMBC for this project's duration if awarded the project. No personnel changes will be permitted without written authorization from the University via a contract amendment issued by UMBC's Procurement Office.

2. FIRM RELEVANT EXPERIENCE/REFERENCES:

- 2.1 Firm Experience: *Note: All Proposers are required to use the DBC Experience Form format; however, Proposers may elect to reproduce it.**

- 2.1.1 Design/Build Contractor:** Each Proposer is to submit information on a total of three (3) similar or relevant projects. For each project, the Proposer is to complete the DBC Experience Form* provided in this RFP document (see Attachment A). **Note:** If the Proposer is a **joint venture firm**, the following applies: Of the three (3) projects submitted, a **minimum** of one (1) project **MUST** be from the majority joint venture party; this project, **MUST** be done using the Design/Build contract method as defined below.

Of these 3 submitted projects, the criteria noted below must be met in order for a project to be considered as experience.

- (a) **All projects** must have been done by the Proposing Firm.
- (b) **Construction Cost: Two (2)** of the three (3) projects **must** be in excess of \$10M for construction costs with higher consideration if this is the case for all three.
- (c) **Project Completion: One (1)** of the three (3) projects **must** be completed in last seven (7) years and occupied by the owner for a minimum of 6 months. **The other two (2) projects may** be in construction but must be at least 50% complete. Higher consideration will be given for projects that are completed and occupied for at least six months.
- (d) **Project Type: Two (2)** of the three (3) projects **must** be a multi-residential, housing projects, **with higher consideration given if the projects are student housing in the higher education setting;**
- (e) **Project Delivery Method: Two (2)** of the three (3) projects submitted **must** have been done using the Design/Build delivery method.

The projects submitted under the Firm Experience category are to be similar in size and type (i.e., construction cost, square footage, student housing, etc.), utilizing the design/build contract method, for an institutional client (preferably higher education) with a greater degree of consideration given if the majority of these factors are applicable to the projects submitted.

All proposers are to base their responses on their three (3) most recently completed projects that reflect the size, complexity, and D/B services required under this RFP in accordance with required criteria.

Note: With each of these three (3) projects, provide **project photograph(s)** (color is desirable) with the description on the same or opposing page.

Note: Higher education is defined as a 4-year or more degree granting institution (i.e. Bachelor's, Master's, PhD, JD, etc.)

- 2.1.2 **A/E Firm Experience:** Note: The A/E Firm(s) projects may be the same as those of the DBC if the A/E and/or Mechanical Design Firm provided the design services. However, the "A/E Experience Form*" is still to be completed. A/E Team is to submit information on a total of two (2) similar or relevant projects as requested below. For each project, the A/E is to complete the A/E Experience Form provided in this RFP document (see Attachment A).

*Note: All A/Es are **required to use the A/E Experience Form format**; however, Proposers may elect to reproduce the form.

- A. **Prime A/E Firm Experience:** Must submit **two (2) projects** which meet the following criteria:
- (1) **Both** projects must have been designed by the **A/E Firm as the A/E of Record;**
 - (2) **Project Delivery Method: One (1)** of the two (2) projects **must** be a design build project;
 - (3) **Project Type: One (1)** of the two (2) projects **must** be a multi-residential, housing project, **with higher consideration given if the project is student housing in the higher education setting;**
 - (4) **Project Construction Costs: Both** projects **must** be in excess of \$10M for construction costs;
 - (5) **Project Completion: One (1)** of the two (2) projects must have had construction completed in the last seven (7) years and occupied for at least 6 months; and the **other project** may be in construction but must be at least 50% complete for construction with higher consideration if completed.
- B. **Landscape Architect Firm Experience:** Must submit one project which meets the following criteria:
- (1) **Project Size:** In excess of \$2M for total project construction costs;
 - (2) **Project Completion:** Construction completed in the last five (5) years and occupied for at least six (6) months;
 - (3) **Project Design:** For which the landscape portion was designed by the proposing **landscape architectural firm;**
 - (4) **Project Location:** Be located in campus setting; and,
 - (5) **Project Requirements:** Involve similar recreation and campus requirements.
- C. **Mechanical Engineering Firm Experience:** Must submit one project which meets the following criteria:
- (1) **Project Size:** In excess of \$10M for total project construction costs;
 - (2) **Project Completion:** Construction completed in the last seven (7) years and occupied for at least six (6) months;
 - (3) **Project Design:** For which the mechanical portion was designed by the proposing **mechanical engineering firm;** and,

- (4) **Project Delivery Method:** The project must have been done using the design/build method.

Note: Higher consideration given if the project demonstrates experience with district heating and cooling systems.

D. Fire Protection Engineering Firm: Must submit one project which meets the following criteria:

- (1) **Project Size:** In excess of \$5M for total project construction costs;
- (2) **Project Completion:** Construction completed in the last seven (7) years and occupied for at least six (6) months;
- (3) **Project Design:** For which the fire protection portion was designed by the proposing **fire protection engineering firm**;
- (4) **Project Location:** Be located in campus setting; and,
- (5) **Project Requirements:** Involve similar fire protection requirements with higher consideration if these requirements were associated with an addition to an existing building.

Note: The projects submitted under the Firm Experience category are to be similar in size [i.e., construction cost and square footage], function [facility type/use] in an institutional setting (preferably higher education), and design/build contract method, setting etc. to this project with a greater degree of consideration given if the majority of these factors are applicable to the projects submitted.

A/Es are to base their responses on the most recently completed projects that reflect the size, complexity, and D/B services required under this RFP in accordance with the required criteria.

Note: With each of these projects, provide **project photograph(s)** (color is desirable) with the description on the same or opposing page.

2.2 Firm References:

2.2.1 **Design/Build Contractor References:**

- (a) Provide three (3) project references* per the projects submitted under the firm experience category above (#2.1.1) Provide contact name, address, and telephone number for each reference. Such references are to be from different projects; that is, only one reference per project is allowed. The University prefers that only one reference be from UMBC as the University is interested in speaking to other owners.
- (b) The University reserves the right to verify all information given if it so chooses, as well

as to check any other sources available.

- (c) Please be sure that accurate information is provided and that the **contact person is capable of speaking to your firm's capability in performing the services required.** References will be held in the strictest of confidence.
- (d) As well, please provide **two additional project references**, including name of company, contact name, and phone number. These will be used only in the event the University is unable to contact one or more of the three (3) projects given above. Please include with these references, a list of applicable projects with a brief description of each.

2.2.2 A/E Firm References:

- (a) Provide project references* on the design team per the projects submitted under the firm experience category (#2.1.2); that is, two (2) references on prime A/E. and one (1) reference each on the **mechanical engineering firm, the landscape architectural firm and the fire protection engineering firm.**
- (b) Provide contact name, address, and telephone number for each reference. Such references are to be from different projects; that is, only one reference per project is allowed. Only one (1) reference may be from the University.
- (c) The University reserves the right to verify all information given if it so chooses, as well as to check any other sources available.
- (d) Please be sure that accurate information is provided and that the contact person is capable of speaking to your firm's capability in performing the services required. References will be held in the strictest of confidence.
- (e) As well, please provide **two additional project references** on each of the design team member firms for which firm experience was provided; that is, the prime A/E firm mechanical engineering firm, landscape architectural firm and fire protection engineering firm, including name of company, contact name, and phone number. These will be used only in the event the University is unable to contact a reference from the projects given above. Please include with these references, a list of applicable projects with a brief description of each.

***Note:** Project references are to be provided within the written Technical Proposal. However, references will only be checked as part of the Second Phase Technical Evaluation; that is, reference checking will only be conducted on those firms who achieve the minimum or better technical score within the initial technical evaluation. Refer to Section 00300 Article 4 regarding the evaluation of proposals.

Definition: Project reference is defined to be a contact person from the Owner to provide a reference on the proposing firm (DBC & A/E) regarding a project which the Proposer constructed and/or designed.

3. **PROJECT APPROACH*:**

- 3.1 Based on the program provided, provide in response to this RFP, for evaluation purposes only, a **summary of your Design Build Team's recommendations regarding the design and layout** of the UMBC project. This narrative summary should demonstrate the team's understanding of the project scope inclusive of the site limitations, the total square footage, overall building layout and floor plan.
- 3.2 In addition, provide a **preliminary project schedule** based on a schedule of 16 months for design and construction. Note: Please see Section 00400 and the Project Program, Section 00600, IV of the RFP as the University includes the required milestones for this project and other information associated with the schedule, such as the Board of Public Works (BPW) schedule (Attachment G) and University review time frames, for your use in developing this schedule.

*A proposer's project approach and schedule is submitted for evaluation purposes only in response to the RFP. It is not to be construed as the University's acceptance of the design, layout, schedule approach/sequencing, materials proposed, etc. Refer to Section 00400 for the scope of service and the procedures followed by UMBC as well as the Procedures Manual.

- 3.3 **DBC Matrix of Anticipated Total Hours:** Complete the enclosed "Anticipated Total Hours Forms" for DBC on-site staff during the construction phase of the project. Please note that this completed form will be required in the price proposal with the hourly rate for each position and the extension thereof.

3.4 Project Specific and/or Special/Unique Qualifications:

- 3.4.1 Design Build Contractor: Provide information on project specific background and/or special/unique qualifications that your firm and team bring to this project. This category can include information about the firm and/or the team members from the Design/Build Contractor (excluding such information that has already been provided under other categories such as Key Personnel or Firm Experience.)
- 3.4.2 Design Team: Provide information on project specific background and/or special/unique qualifications that the prime AE firm and any of the other design consultants bring to this project. This category can include information about a design firm and/or the team members from a design firm (excluding such information that has already been provided under other categories such as Key Personnel or Firm Experience.)

4. **PROFILE OF DESIGN/BUILD TEAM:** Provide the information requested below. Please note: If the Proposer is a local office of a parent company, the information requested under #4.1 are to be provided on the Design/Build Contractor only and are to be provided on the **local office only who will be managing this contract** not on the parent organization, unless the parent organization is the Proposer.

[**Note:** If the Proposer is a joint venture, the information requested in applicable subcategories (#4.1, 4.2 and 4.3) are to be provided on all parties. In addition, please note that the information provided under this category of Profile of Proposer will be evaluated for each joint venture party based on its percentage of the joint venture firm.]

NOTE: Per Section 00100, Item Z, if the Proposer is a joint venture firm, the Proposer must provide all identification information for all parties and all requirements for all parties (i.e., licenses, insurance, etc.) as requested. As part of the technical proposal submission under the category of Profile of Proposer - General (see Section 00300 for details), the proposer must identify the responsibilities of each joint venture party with respect to the scope of services/work (per Section 00400) inclusive of the requirements for each entity based on such services as described in this RFP document.

- 4.1 **Design/Build Contractor's Profile:** The following general company background information is required to be submitted:
- 4.1.1 Brief but **informative history** of your firm inclusive of the year in which your firm commenced providing design/build services. Include information as to type of work done, number of years in business, number of employees with breakdown between supervisory and non-supervisory. This history should provide the University with a clear understanding of your firm.
- 4.1.2 Provide overall **bonding capacity**, single limit and current available bonding. This information is to be provided in a letter addressed to the University by your bonding company.
- 4.1.3 Provide **one (1) copy only** of your firm's two most recent years audited **financial statements or independently prepared financial statements (prepared by an independent CPA)**. The one copy is to be provided with your firm's "original" technical proposal, in an unbound form.
- 4.1.4 Provide your firm's Experience Modifier Ratio (**EMR**).
- 4.2 **Design/Build Contractor's Annual Sales:** Complete the "**Annual Sales Volume/Completed Projects form**" (found in Attachment A) on a per year basis for the last three (3) years [2006-2008] and indicate what percentage of such work (based on dollar size) is CM, GC, D/B, or other (name). As well, indicate the largest size project and largest design build project for each year. (This information is to be about the responsible branch office **only**, not the parent organization of the Proposer. This information is to be provided on the **D/B Contractor only**).

- 4.3 **Design/Build Contractor's Current Workload:** Complete the "**Current Workload form**" (found in Attachment A) on which you are to list current projects on which your firm is committed, the dollar volume of each, the bonding requirement for each, the time frame for each, and the name of the Project Manager and Field Superintendent on each. In addition, please describe your firm's ability to accomplish the proposed services on this project within specified time frames in the space provided on this form. (This information is to be about the responsible branch office **only**, not the parent organization, unless the parent organization is the Proposer. This information is to be provided on **D/B Contractor only**.)

Note: If the Proposer is a joint venture, provide history of joint venture experience for all parties and specifically history of this joint venture relationship inclusive of the reasoning for the establishment of the joint venture on this project and a listing of all joint venture parties and each party's percentage of the joint venture firm. Note: If the selected proposer is a joint venture firm, a copy of the signed, joint venture agreement must be provided to the University for its review and approval prior to issuance of the Notice to Proceed. In addition, no changes can be made to the joint venture agreement without the written approval of the University.

4.4 **Prime A/E Firm (A/E of Record) and Engineering Firms Profiles:**

- a. Provide a **complete, current form 330** for the Prime A/E, Landscape Architect, Mechanical/Electrical Engineering, and Fire Protection Engineering Firms. Projects noted on this form should demonstrate the A/E's experience in similar projects as the UMBC project.
 - b. Provide **percent (%) of Annual Sales constructed using design build methodology** for prime A/E firm and Mechanical Engineering firm for each of the last three (3) years.
5. **ECONOMIC BENEFIT:** Provide a detailed, but concise, overall description as to how the award of this contract will benefit the economy of the State of Maryland if your firm is the successful DBC. Such items include can include but are not limited to, (i) contract dollars to be recycled into Maryland's economy in support of this contract, through the use of Maryland subcontractors, suppliers, and joint venture partners; (ii) the number and type of jobs for Maryland residents resulting from the contract; (iii) tax revenues to be generated for Maryland and its political subdivisions; and (iv) subcontract dollars committed to Maryland small businesses and MBE's.

6. **MINORITY BUSINESS ENTERPRISE:**

Per the RFP documents, the successful DB firm will be required to meet a minimum MBE subcontract participation level of 25% of the total contract award. MBE participation can be achieved by a proposer via MBE consultants, MBE suppliers, and/or MBE trade contractors. All MBE's must be currently state certified by the Maryland Department of Transportation and must not have graduated from the program.

(Note: Those firms who have graduated from the program are still listed in the MDOT MBE Directory but have a "G" by the Standard Industrial Classification Code (SIC) Number(s) which indicates their graduation. If a firm has graduated, it cannot be considered as part of the achieved MBE participation level.)

- (a) Proposers are to note in their Technical Proposal under this category as to what MBE participation level they will commit.*
- (b) Proposers are to provide a narrative explaining how they plan on achieving this MBE participation. Examples of achievement of MBE participation levels for prior projects are to be included in the narrative.

The University will evaluate the appropriateness of the MBE participation level to which the Proposing Firm is committing.

*Note: The MBE participation commitment provided in this sub-category will become a contractual obligation if the proposing firm is awarded the contract for this project. The minimum level acceptable is 25% per Section 00100 of this RFP document.

END OF SECTION 00300, ARTICLE 2

**SECTION 00300
PROPOSALS, EVALUATION, AND FORMS**

**ARTICLE 3
ORAL PRESENTATION AND PRICE PROPOSAL**

- A. **ORAL PRESENTATION:** Those Proposers whose Technical Proposals achieve the required, minimum or better technical score in the initial technical evaluation will be short-listed on this procurement and requested to conduct an Oral Presentation at the University.

The due date and time of the Oral Presentation will be set by the University upon completion of the evaluation of the Technical Proposals. It is anticipated that Oral Presentations will be conducted on **Tuesday, November 24, 2009**. This date will be verified with the applicable proposers at the time it is requested, however, **Proposers are advised to set this date in its entirety on the calendars of the nine (9) [or 8 if one person is serving as both the AE Project Manager and AE Project Architect] key personnel designated below to avoid any conflicts as the University does not expect this date to change.**

The purposes of the presentation are as follows:

- (i) to allow the University's and Proposer's Key Personnel to meet;
- (ii) to discuss aspects of the following areas of its Technical Proposal which are DBC Organization/Staffing; Firm Experience, Project Approach and Design/Build Team Profile;
- (iii) to allow the proposer to present its Project Approach and use sufficient visual aids to convey the team's approach and recommendations for the preliminary design and schedule of the project* (See note in Section 00300, Article 2 regarding the design and approach presented)
- (iv) to provide an opportunity to clarify the D/B scope of services for this Project; and,
- (v) to review the Price Proposal form.

At this time, it is anticipated that each proposer will be requested to have the following personnel attend the presentation: **DBC Project Manager, DBC Field Superintendent, A/E Project Manager, A/E Project Architect, Landscape Architect, Mechanical Engineer, and Fire Protection Engineer.**

At the time the Oral Presentations are scheduled, the University will confirm in writing with each Proposer the specifics of these sessions inclusive of the topics, time periods, and requested D/B personnel.

Upon completion of the Oral Presentations, the University will conduct the Second Phase Technical Evaluation as described in Section 00300, Article 4.

- B. **PRICE PROPOSAL**: After completion of the Oral Presentations and the Second Phase Technical Evaluation, those Proposers who have maintained the minimum or better technical score will be requested to submit a Price Proposal. One (1) original and one (1) copy (for a total of 2) of the Price Proposal are to be provided. **The due date** for submission of the Price Proposal is **anticipated to be Tuesday, December 1, 2009, at 4:00 p.m.** Proposers will be requested to provide the following in its Price Proposal:

1. **Design Build Contractor Fees**:

- 1.1 DBC Pre-Construction Fee;
- 1.2 DBC Construction Fee for the base project;
- 1.3 DBC Construction Fee for Add Alternate #1; and,
- 1.4 DBC Construction Fee for Add Alternate #2.

2. **A/E Fees (all inclusive)**:

- 3.1 AE Fee for the base project;
- 3.2 AE Fee for Add Alternate #1 as follows:
 - a. SD through Bidding; and,
 - b. CA and Post Construction
- 3.3 AE Fee for Add Alternate #2 as follows:
 - a. SD through Bidding; and,
 - b. CA and Post Construction

3. **DBC General Conditions Costs**:

- 3.1 DBC Staff Reimbursable Costs** for onsite personnel during construction including the costs for positions (i.e., laborers, etc.) in which the prevailing wage rates will apply; these wages will be issued via addendum. (Note: Should the University elect to proceed with either or both Add Alternates, it is assumed that this work will be done during the same time frame and not result in any additional staff reimbursable costs.)
- 3.2 General Conditions items per Attachment D** of the RFP inclusive of DBC's General Liability Insurance, Builders' Risk Insurance and 100% Performance and Payment Bonds. (Note: Should the University elect to proceed with either or both Add Alternates, it is assumed that this work will be done during the same time frame and not result in any additional non-personnel general conditions costs.)

4. DBC Hourly Billing Rates for the applicable on site positions during construction; the DBC's quoted NTE for On-site Staff noted in #3 above are to be based on these billing rates and these rates will be used in reimbursing the successful firm for the actual costs associated with its on-site personnel.
5. DBC-GMP Contingency: Amount of this contingency to be quoted by the DBC (see Section 00400 for details on this contingency). The minimum amount is 1.5% of the project construction costs. (Note: Should the University elect to proceed with either or both Add Alternates, The DBC will be allowed a 1.5% DBC-GMP contingency only on each add alternate.)

The Price Proposal is to be submitted in a sealed envelope. The envelope shall have the Proposer's name, the project name and the project number prominently displayed, together with the words "PRICE PROPOSAL". It should consist of the following:

- a. **Price Proposal Form** with signature page (sample form found in Attachment B of the RFP); and,
- b. **Bid Bond** on University bid bond form (form found in Attachment B of the RFP).

The Price Proposal shall be filled out **completely** in ink or typed on the Price Proposal Form (found in Attachment B of this RFP). Any erasures and/or alterations to the Proposer's pricing shall be initialed in ink by the signer. Please note, however, that no changes, alterations or additions to the Price Proposal Form are permitted. If there is any question or difference between the written words and the figures, the written word shall govern.

The Price Proposal shall clearly indicate the maximum cost to the University for the design and construction of the Project per the RFP. Price Proposals will be evaluated based on the total price.

END OF SECTION 00300, ARTICLE 3

SECTION 00300
PROPOSALS, EVALUATION, AND FORMS

EVALUATION OF PROPOSALS
ARTICLE 4

A. TECHNICAL EVALUATION:

1. Technical Proposals will be evaluated by a University Selection and Evaluation Committee prior to the Oral Presentations. The order of importance of the technical criteria is as follows:

DBT Organization/ Staffing, Firm Experience, Project Approach, Profile
of Design/Build Team, Economic Benefit and MBE.

Those proposals not considered "to be reasonably susceptible of being selected for award" may be rejected after evaluation of the Technical Proposals. A Technical Score of 75% or better of the available technical points must be achieved in order for a Proposer to advance/continue in this procurement process. Proposals may not be modified, cured, or revised after the due date and time for receipt of proposals.

2. Only those firms whose technical proposals achieve the required, minimum or better technical score in the initial technical evaluation, will then be requested to make an Oral Presentation at the University. (See Section 00300, Article 3 for further information regarding the Oral Presentation.)
3. A Second Phase Technical Evaluation will be conducted based upon the Oral Presentations. References for Key Personnel and Firm References will also be incorporated in the final score. The order of importance of the technical criteria will remain the same; that is, the order of importance will remain as noted above under #1.

The Second Phase Technical Evaluation will consist of scoring of the Key Personnel References and Firm References, and the re-scoring of all the other categories based on the Oral Presentations.

4. Those firms who remain shortlisted (retain 75% or better score) after the Second Phase Technical Evaluation will be asked to submit a Price Proposal.
5. Further information may be requested by the University during the technical evaluation process.

B. PRICE PROPOSAL EVALUATION:

1. Price Proposals will not be opened publicly.
2. Price Proposals will be evaluated based on total price inclusive of all fees and NTE reimbursables within the funds available.
3. The University may elect to request Best & Final Price Proposal(s).

C. FINAL PROPOSAL RATING:

1. Ranking of the price proposal will be combined with the corresponding total technical score to determine a final rating for each proposal.
2. Technical merit will have a much greater weight than cost.
3. The Evaluation and Selection Committee will choose from among the highest rated proposals that proposal which will best serve the interests of the University, in accordance with University System of Maryland Procurement Policies and Procedures.
4. As stated in Section 00100 Instructions to Proposers, J. Competitive Negotiation, and Q. Proposal Acceptance, the University reserves the right to make an award with or without negotiations.

END OF SECTION 00300, ARTICLE 4

END OF SECTION 00300

SECTION 00400
SCOPE OF WORK

SECTION 00400
ARTICLE 1
GENERAL PROVISIONS

I. SCOPE OF WORK

The University

The University of Maryland Baltimore County is a medium-sized, selective, public research university that attracts high-achieving students to its undergraduate and graduate programs in the liberal arts, sciences, and engineering. Founded in 1966, UMBC is classified by the Carnegie Foundation as Research Extensive and boasts an impressive array of scholarly and research awards. The campus' externally funded research portfolio, now in excess of \$85 million, has more than doubled over the past 5 years. With a remarkable collection of cutting-edge research laboratories and institutes, and excellent teaching facilities, UMBC is well-positioned to continue its growth as a leading research university.

UMBC offers 54 majors and 45 minors and 20 certificate programs in the physical and biological sciences, social and behavioral sciences, engineering, mathematics, information technology, humanities and visual and performing arts. UMBC's Graduate School offers 33 master's degree programs, 24 doctoral degree programs and 20 graduate certificate programs. Programs are offered in education, engineering, imaging and digital arts, information technology, gerontology, life sciences, psychology, public policy and a host of other areas of interest.

UMBC's 9,600 undergraduates and 2,650 graduate students come from nearly all 50 states, two territories of the United States, and over 100 foreign countries. Its 700 full-time and 300 part-time faculty are deeply committed to providing a distinctive and rich undergraduate experience including opportunities for faculty guided research. At the doctoral level, last year UMBC awarded 89 Ph.D.s in 20 disciplines. A campus community recognized for its cultural diversity, UMBC is home to the nationally known Meyerhoff Scholarship Program.

The campus, near Baltimore-Washington International Thurgood Marshall Airport has an operating budget of approximately \$317 million. The campus maintains and operates 42 buildings on 544 acres with a total of 3,036,345 GSF / 1,822,780 NASF and a current replacement value of over \$806 million.

UMBC is a member of the University System of Maryland and is accredited by the Middle States Association of Colleges and Secondary Schools.

Campus Housing

UMBC's Office of Residential Life manages ten (10) on-campus housing communities providing a total of 3,780 beds. The four traditional, double-loaded corridor residence halls, Chesapeake, Patapsco, Potomac, and Susquehanna, are similar and consist of suites of two rooms joined by a connecting bathroom. These furnished and carpeted rooms are mostly doubles, with a limited number of singles and triples available in each building. These four halls were constructed between 1970 and 1993.

Between 1981 and 1987, three apartment communities, Hillside, Terrace, and West Hill, were constructed each with six to eight individually named buildings. All of the furnished and carpeted apartments have kitchens and four single occupancy bedrooms, with shared bath and common living areas.

In recent years, three new communities have been added. Two University residence halls, Erickson Hall and Harbor Hall, opened in 2000 and 2001, respectively. The most recent additions to the campus inventory are the privatized Walker Avenue Apartments, constructed in 2003 and 2004 at the intersection of Walker Avenue and Hilltop Circle.

2. **Project Development/Scope:**

2.1 **Project Design and Construction Costs:**

2.1.1 **Base Project:** The Project Construction Costs are those funds available for the design and construction of the Project exclusive of only the owner's contingency and FFE and are **Fourteen Million Eight Hundred Forty Thousand Dollars (\$14,840,000).**

2.1.2 **Add Alternates:** The University has also identified two (2) add alternates with associated design and construction allowance amounts as follows which are included in the above \$14,840,000 project design and construction costs:

- Add Alternate #1: The addition of an elevator and athletic court at Susquehanna Hall with a construction allowance of Seven Hundred Sixty Thousand Dollars (\$760,000).
- Add Alternate #2: A hardscape plaza between Susquehanna Hall and the Patapsco Hall Addition with a construction allowance of Three Hundred Thousand Dollars (\$300,000).

2.2 **Project Scope of Services:**

- a. The University desires to contract with a Design/Build Contractor for the New Administration Building. The Design/Build Contractor is to provide complete design and construction services required to design and build the UMBC project described herein, ("Project") to be complete, operating and ready for use on or before the specified completion date and for the contract price.

The project is to be located on the UMBC campus in Baltimore, Maryland. Refer to the Project Program in Section 600 and the Project Specific Design Standards in Section 601 for requirements of the project.

- b. The design and construction of the facility is to conform to the Contract Documents listed in Section 0200 of this RFP. All work to be completed within sixteen (16) months of the issuance of the Notice to Proceed (NTP) which is anticipated to be issued on or about January 18, 2010.
- c. All design services and construction management services necessary to implement the goals of the Project inclusive of, but not limited to, the following: civil, architectural, electrical, structural, and mechanical design services as required for the Project; construction management services inclusive of budgeting, value engineering, scheduling, project administration and management/coordination of subcontractors.
- d. Conduct subsurface investigation work as indicated in the Project Program and as required for the project. Should the Design/Build Contractor determine that MDE review must be handled in an expedited format, the Design/Build Contractor shall include those costs in its design fees.
- e. The furnishing of all materials, equipment, and labor necessary to design and build all physical improvements.
- f. Design/build services are to be management oriented. The DBC is **not** to be involved in any permanent construction, unless the University elects to do so; should this occur, the contract will be amended for this purpose based on the specific circumstances. The University understands that the provision of items under the General Conditions allowance by the DBC as described in Attachment C is work of a temporary nature.

Under the RFP, UMBC intends to employ a Design/Build Contractor (DBC) to provide all design and construction services required on this project (see Article 3 of this Section 00400 for further descriptions).

3. Purpose and Definition of Design/Build Contract with Guaranteed Maximum Price

The Design/Build Contractor will assemble and lead the Project Design/Build Team consisting of the DBC, the A/E, other consultants as required and the University.

It will be the responsibility of the Design/Build Contractor to provide the necessary services/work to design and construct the Project within the Project Construction Costs which includes, but is not limited to, the following:

- (1) Engage licensed, professional Architect/Engineer firm(s) approved by UMBC to develop a complete Project design and provide all required A/E services per the Contract Documents of this RFP listed in Section 00200 and all applicable codes and regulations;
- (2) oversee the complete design and construction processes;
- (3) develop schedules utilizing his skill and knowledge of design/build and general contracting construction methods and maintain the project schedule;
- (4) prepare project construction estimates;
- (5) analyze alternative designs;
- (6) study labor conditions;
- (7) advise on most appropriate construction techniques;
- (8) perform value engineering;
- (9) coordinate/communicate the activities of the Team throughout the design and construction processes;
- (10) competitively bid all trade contracts, review results with the University, and award accordingly; and,
- (11) construct the project.

The Design/Build with Guaranteed Maximum Price (D/B with GMP) method centers on utilization of a Design/Build Contractor, who is a member of the Project Team with the University, Architect/Engineers and other consultants as the project may require.

During the Pre-Construction/Design Phase, the DBC will utilize his skills and knowledge of construction to manage the design process and the design professionals, develop schedules, prepare construction cost models/estimates, conduct value engineering studies, study labor conditions, identify and address constructability issues, and advise on the sequencing of construction work for the Project. The University will pay the DBC the

fixed, Pre-Construction Phase DBC fee as well as the fixed A/E fees for this Project; such fees are to include all costs associated with the DBC providing Pre-Construction and Design Services.

During the Construction Phase, the DBC will manage the Project (inclusive of the award and management of all trade contracts), manage the design professionals as well as provide services in the areas of change order review, quality assurance/inspections, schedule maintenance, cost control, meetings, shop drawing review, processing/monitoring of RFIs and substitution requests and claims resolution and coordination/communication of the activities of the Team throughout the construction phase.

Please note that the DBC cannot bid on any trade package; the DBC can only perform work of a temporary nature, such as required by the General Conditions, on the project unless unique/special situations occur whereby the University elects to have the DBC perform other work; if such a circumstance occurs a contract amendment to the DBC would be issued to define this change and the conditions thereof.

The project will be an "open book" job whereby the University may attend any and all meetings, have access to any and all DBC records on the project and whereby any and all cost savings revert to the University. The University will pay the DBC for its fixed, Pre-Construction and Construction Phase DBC fee and A/E fees as well as approved, applicable reimbursable costs under the General Condition allowance (on site personnel and non-personnel items) for actual expenditures only without any DBC mark-up of any type.

Assembly of Project Procedures which are to be established by the Design/Build Contractor during the design phase will allow for the integration of all design and construction phase components of this project. The team approach shall from project inception strive for a project delivery which is timely, cost effective and within required quality standards set by the University.

1.4 Relationship of University and Design/Build Contractor

The Design/Build Contractor (DBC) accepts a relationship of trust and confidence between himself and the University. The Design/Build Contractor agrees to furnish his best skill and his best judgment in furthering the interests of the University and the project. The DBC shall furnish efficient design services, engineering reviews, business administration, field supervision and shall use his best efforts to perform the work in the best and most expeditious, economical manner consistent with the interests of the University, and in strict conformity with the contract documents, including reasonable implications therein.

1.5 Project Team

The Design/Build Contractor, the University, the Architect, the Design Engineers and any other project consultants shall be called the "Project Team". It is our intent that the "Project Team" shall work from the beginning of this project through construction completion and that the Design/Build Contractor shall provide leadership to the Project Team on all matters relating to the project.

The University is committed to a "Partnering" approach to the successful design and construction of its projects. The University defines partnering as a collaboration among professionals (University, DBC, A/E, and Trade Contractors) to maximize the success of a project while understanding and respecting the responsibilities and expertise of each team member.

1.6 University General Conditions

1.6.1 All work shall be performed and administered in accordance with the Contract, including but not limited to, the Standard Conditions unless otherwise stated. These Standard Conditions are set forth in Section 00700.

1.6.2 The University intends to create a "General Conditions" allowance based on the DBC's quoted costs for General Condition items (inclusive of on-site, field staff reimbursable) to cover reimbursable costs which will be associated with construction of this facility. Items which UMBC will expect to pay from the established allowance are described herein (see **1.7, e. below** as well as "**Attachment C**) Allowance expenditures must be approved by UMBC prior to the provision of said services.

A third party test and inspection allowance of \$20,000 is established for the building and is to be included in Proposer's quoted not-to-exceed amount for General Conditions -Non-personnel items.

The DBC will be required to provide a "General Conditions" billing back-up in a UMBC approved format that is derived from the DBC's computer based project accounting/tracking system.

1.7 Design/Build Team Quoted Fees and Costs:

All costs associated with the design and construction are to be included in the Guaranteed Maximum Price of \$14,840,000 to design and construct the Project. These costs include the following, which are to be quoted by the DBC in its Price Proposal to the University:

- a. **Pre-Construction/Design DBC fees:** The DBC fee shall be an all inclusive lump sum fee associated with the provision of the required services as described in **Section 00400, Article 3, Part "A."**

Note: Please note that the following allowances (totaling \$30,000) are to be included in the DBC's quoted fee for the project as indicated on the Price Proposal form: (i) A reproduction allowance of \$20,000; (ii) a Site Investigation allowance of \$10,000.

These allowances * are set up as follows:

Reproduction Allowance (\$20K): This allowance is set up for reproduction costs associated with the bidding only of the trade packages by the DBC in his GMP preparation process. Any reproduction costs incurred during the Construction are to be handled under the General Conditions allowance (see Attachment D of the RFP).

Site Investigation Allowance (\$10K): This allowance is set up for any unforeseen site investigation work; such work will be approved by the University and performed under the direction of the DBC. Please note that the University has engaged a consultant to perform two (2) soil borings; the results of these will be provided to all proposers by addendum. Any soil borings which the DBT finds appropriate beyond these two (2) are the responsibility of the DBT and must be included in its price proposal under AE fees; that is, this site investigation allowance is not available for this purpose.

NOTE: Since these allowances are set up by the University, it will be the University's responsibility to replenish these if necessary; please note, however, that no costs are to be expended from these allowances without the prior written approval of the University; if the DBC expends such monies without the University's approval, he does so at his own risk.

- b. **Pre-construction/Design A/E fees:** The A/E fee shall be an all inclusive lump sum fee associated with the provision of the required services as described in **Section 00400, Article 3, Part 'A'** inclusive of the DBC's mark-up.

- c. **Construction & Post Construction Phase DBC Fees:** The DBC fee shall be an all inclusive lump management fee associated with the provision of the required services as described in **Section 00400, Article 3, Part "B"**. The DBC fee shall include all DBC home office costs inclusive of officers and home office and local office support staff not noted in e. below as well as all DBC overhead costs and profit for the Construction & Post Construction Phases.

The only DBC costs which are **not** to be included in the DBC fee are the A/E fees, trade contracts, General Conditions costs [as noted in (e) below as well as Attachment C, and DBC-GMP contingency.

Please note: There will **not be any adjustment made to the DBC fee** on this project no matter the project scope changes. In addition, General Conditions costs related to any change orders to the DBC contract will be reviewed on an individual, change order basis; a determination will be made as to the need for requested General Conditions increases related to the change order. **The DBC is not to expect that any change order will allow for an increase in General Conditions costs.**

Note: Should the University elect to proceed with the construction of either of the two (2) add alternates, the Design/Build Contractor's construction fee for those alternates will be based on the percentage of the DBC fee on the base project. No additional DBC General Conditions Reimbursables (both Personnel/On Site Staff and Non-personnel) will be considered if either or both of these Add Alternates is/are constructed.

- d. **Construction & Post Construction Phase A/E Fees:** The A/E fee shall be an all inclusive lump sum fee associated with the provision of the required services as described in **Section 00400, Article 3, Part "B"** exclusive of the DBC's mark-up which is to be included in the DBC fee (see "c" above).
- e. **DBC's "General Conditions" allowance** for both personnel and non-personnel items: An allowance for General Conditions will be established by the DBC based on its quotes for General Conditions items in its Price Proposal (and approved by the University) for the construction of the Project per this section and Attachment C of this Scope of Work. The DBC will be reimbursed for actual costs only as no mark-up is allowed by the DBC. Actual costs for the DBC's on site personnel will be based on the quoted hourly billing rates. Expenditures from this allowance can only be made with the approval of the University which shall not be unreasonably withheld.
1. General Conditions - Staff Reimbursable Costs: Costs for onsite field staff will be paid on a reimbursable basis through this General Conditions allowance**. Field personnel costs shall be billed at Direct Personnel Expenses [raw employee costs (direct salary) plus actual burden costs which are limited to auto allowance, bonus, FICA, SCUTA, FETA, 401K,

vacation leave, sick leave, holidays, jury duty leave and bereavement leave] with no employee overhead mark-up. The noted hourly rates are to include, but not be limited to, all of these costs and all the rates to be used for billing for on-site DBC personnel. The on-site field staff are **limited** to the **following positions**: Project Manager***, Project Engineers, Field Superintendent, Project Closeout Engineer****, Field Secretary/Clerk, Clerk/Document Control Person, Field Accountant, and Laborers. It is the DBC's discretion as to whether these are full time or part time positions with the exception of the Field Superintendent who must be a full time employee. All other DBC positions must be included in the DBC Construction Phase fee.

***Note: The project manager is to be a salaried position; that is the University will reimburse for forty (40) hours per week for this position; therefore, the quoted billing rate should be based on this maximum number of hours allowed per week.

****Note: The Project Close-Out Engineer cannot be handled by a person who is involved in the construction portion of the contract.

***Please note:** As part of the Price Proposal, the Proposers will be quoting on-site Staff Reimbursable costs for the construction of the Project; price evaluations will include this quoted amount (see Section 00300, Article 4 for details). By submitting its price proposal, a Proposer is committing that the costs associated with these on-site staff positions for the construction of the Project will not exceed the amount quoted in its Price Proposal if it is the awarded DBC firm. In addition, please note that prevailing wage rates apply for some positions (i.e. , Laborer) ; since these rates will be provided by addendum as Section 00830, the Proposer is to include such costs in its quoted on-site Staff Reimbursable.

2. General Conditions - Non personnel Items: Costs for non personnel items inclusive of \$20,000 for Third Party Testing & Inspection will be paid on a reimbursable basis through the General Conditions allowance. Items that apply herein are listed in Attachment C.

- f. **DBC-GMP Contingency:** The GMP shall include a DBC controlled construction **contingency (DBC-GMP Contingency)** in an amount not-to-exceed the DBC's quote for this contingency contained in its Price Proposal to the University, to protect the Design/Build Contractor against the risks assumed in providing the GMP for the Project. The University and the DBC acknowledge that the contingency is included to adjust the estimate for eventualities which have not been taken into precise account in the establishment of the GMP, including (1) scope gaps between trade contractors, (2) contract default by trade contractors, (3) costs of corrective work not provided for elsewhere, and (4) expediting/accelerating of the work to meet scheduled completion dates (if required).

The DBC-GMP Contingency is not allocated to any particular item of the Cost of the Work, and is established for the DBC's use as may be required for increases in costs incurred in the Work from unforeseeable causes or details not capable of reasonable anticipation at the time of the University's approval of trade contract awards. It is understood that the amount of the DBC GMP contingency is the maximum sum available to the DBC to cover costs incurred as a result of such unanticipated causes or details, and that cost overruns in excess of the amount of the DBC GMP contingency will be borne by the DBC.

The DBC-GMP contingency may be applied to any items within the Cost of the Work without the necessity of a change order and without constituting a change in the Work, and without resulting in any change in the GMP. The DBC will notify the University of the DBC's intent to apply any part of the DBC-GMP contingency to any item within the Cost of the Work prior to any such application.

As the actual Cost of the Work is determined, change orders shall be issued, as appropriate, to transfer funds with the University's review and sign off between the estimated Cost of the Work and the DBC-GMP contingency components of the GMP without effecting a net change to the sum of the GMP.

The amount of the DBC-GMP contingency is to be reviewed by the University as part of its review of the GMP and must be a minimum of **1.5%** of the project construction costs. The University retains the right to specifically request revisions to the amount of the DBC-GMP contingency prior to the University's acceptance and approval of the GMP.

Note: Payments of the DBC and A/E fees and General Conditions' reimbursable costs due the DBC will be authorized/distributed pursuant to **Article 2** of this Scope of Work and to the Standard Conditions (Section 00700), as amended.

1.8 Project Schedule: The time frame for this project is sixteen (16) months for its design and construction from the date of issuance of the Notice to Proceed (NTP).

1.9 Insurance Coverage Requirements:

1.9.1 Insurance Coverage Requirements for the Design/Build Contractor: See Section 00700 for insurance requirements #6.05 and #6.06.

1.9.2 Insurance Coverage Requirements for the Engineer/Architect: The A/E shall obtain and maintain from and after the date of the Design/Build Contract the following insurance:

- (i) Professional Liability insurance in an amount not less than **\$2,000,000** from the date of the Design/Build Contract and through ten (10) years

after final acceptance by UMBC of the Project.

- (ii) General Liability insurance in an amount not less than \$1,000,000 from and after the date of the Design/Build Contract and through two (2) years after final acceptance by UMBC of the Project. Such insurance is to include a contractual liability endorsement.
- (iii) Workmen's Compensation insurance per statutory requirements.

As a condition to the A/E Agreement, the Design/Build Contractor shall have the A/E deliver to UMBC, not later than the date of execution of the Design/Build Contract, a certificate of insurance verifying compliance with the above insurance requirements. Such Certificates/ Memoranda shall also provide for notice to UMBC not later than thirty (30) days prior to the expiration or cancellation of the referenced policy.

Any and all insurance obtained and maintained by the A/E under this Agreement shall indicate, in form satisfactory to UMBC that UMBC may make a claim against such insurance.

Failure to do so shall be a material breach of the Design/Build Contract. In the event that the A/E terminates, as a business entity, for any reason whatsoever, or in any manner whatsoever, the A/E shall obtain and provide for the maintenance of professional liability insurance, specifically covering the A/E's obligations performed or to be performed under this Agreement, in the amount set forth herein for the remainder of the time set forth herein.

1.10 Ownership of Project Documents

All data, information, material and matter of any nature and all copies thereof in any and all forms whatsoever developed by the Design/Build Contractor or the A/E or in the Design/Build Contractor's possession or control relating to the Project are the property of UMBC and shall be delivered to UMBC upon completion of any project done under this Contract. In addition, all documents in progress are the property of UMBC and shall be delivered to UMBC promptly in the event of termination of the Design/Build Contract prior to completion of the contract.

The Design/Build Contractor shall be responsible for protection and/or replacement of any Construction Documents or other documents in its possession. The UMBC shall receive all original drawings and the Design/Build Contractor shall retain a reproducible copy.

1.11 Separate Contracts

Without invalidating the relationship with the Design/Build Contractor, UMBC reserves the right to let other contracts in connection with the project, the work under which shall proceed simultaneously with the execution of the Design/Build Contractor's work.

The Design/Build Contractor shall afford other separate contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and the Design/Build Contractor shall take all reasonable action to coordinate his work with theirs. If the work performed by the separate contractor is defective or so performed as to prevent the Design/Build Contractor from carrying out his work according to the plans and specifications, the Design/Build Contractor shall immediately notify UMBC upon discovering such conditions.

- 1.12 **University/Owner's Contingency:** A University/Owner's Construction Contingency will be established outside of the Project Construction Costs. Expenditures against this contingency will be available to cover all costs resulting from the following items only with the University's written approval via a written authorization or contract amendment issued by UMBC's Procurement Office.

Changes in scope initiated by the owner's designated representative; and,

Unforeseen field conditions.

END OF SECTION 00400, ARTICLE 1, GENERAL PROVISIONS

SECTION 00400

ARTICLE 2 **UNIVERSITY'S ROLE**

2.0 Information Requirements

The University shall provide and furnish information regarding its requirements for the Project as applicable and as needed during all phases of the project.

2.1 Designated Representative

The University shall designate a UMBC-OFM Project Manager who shall be the University contact point during Pre-Construction/Design and Construction Phases. This representative shall be the primary channel of communication to the University and shall act as the University's liaison with the DBC. All communications on the Project must be directed to the University's Project Manager.

2.2 Project Oversight Committee

The University Project Manager will exercise responsibility for the Project under the direction of a Project Oversight Committee ('Committee'). The Committee will be comprised of the University Project Manager as well as, designated personnel of the University. Conferences shall be held on the UMBC campus on a bi-weekly basis during the design and construction phases. The Design/Build Contractor will be responsible for developing the layout and design in accordance with the guidance and programmatic interpretations provided by the Committee in accordance with the Design/Build Contract.

2.3 Decision Making Authority

The University shall be the principal reviewer and decision making authority within the Project Team. In the event of any disagreement or dispute between any members of the Project Team regarding the project, the University shall be the final decision making authority.

2.4 Document Review

UMBC shall review all Project documents at each design submittal (i.e., 100% Schematic Design, etc.); such review, however, will be made to insure that the intent of the Program and the Project Design Standards are maintained. No construction can proceed until UMBC's written approval of Design Development Documents has been provided. The Design/Build Contractor is solely responsible for the content, accuracy and coordination of all documents.

2.5 Documents Furnished by the University:

- 2.5.1 The **Project Program dated 10/4/09** ("Program"), included in Section 600 of this RFP document, provides the specific programmatic requirements and design criteria as complete and accurate as possible at this point in the development of the Project. It will be the responsibility of the A/E, through the Design/Build Contractor, to consult with the Committee to verify or to make refinements to these requirements and criteria through the design process. This process will be coordinated through the University Project Manager at submittal of specific phases of the Work.

Should the meaning or intent of the Program and the needs of the using organization result in conflicting requirements, the University's Project Manager will be responsible for obtaining resolution and for direction of the Design/Build Contractor in accordance with needs of the users and the Design/Build Contract.

- 2.5.2 The **Project Specific Design Standards dated 10/2/09** ("Standards") provide the design standards to which the Design/Build Team must adhere; this document is included in this RFP document in Section 601.

2.6 Payments to Design/Build Contractor

2.6.1 DBC and A/E Fees:

- a. Payments shall be made on the evaluation of work accomplishment.
- b. Such payment requests are to be submitted on University approved forms.
- c. Application for payment shall be submitted on/or about the 25th day of each month, but not less than thirty (30) days after commencement of services.
- d. The DBC will be paid for 100% of the approved monthly, DBC fee and A/E fee earned.

2.6.2 Construction Costs:

- a. Application for payment shall be submitted on/or about the 25th day of each month, but not less than (30) days after commencement of service.
- b. Trade-Contracts, Equipment Rentals, and Material Payment
 - (1) No markup for overhead or profit will be charged by the DBC for Trade or Sub-Contracts, Equipment purchases and Material Payments.
 - (2) Progress payments to trade or subcontractors shall be administered in accordance with the Standard Conditions; that is, 95% of the Subcontract, Equipment Rentals and Material Payment invoices will be paid with 5%

being withheld to assure faithful performance of the contract.

c. Reimbursable under General Conditions Allowance:

Allowance expenditures shall be approved by UMBC prior to the provision of said services.

Application for payment shall be submitted on/or about the 25th day of each month, but not less than (30) days after commencement of service.

Payment of approved reimbursable items will be made on a monthly basis with no retainage applicable.

- 2.6.3 Payments to the Design/Build Contractor pursuant to this Contract shall be made no later than thirty(30) days after the University's receipt of a proper invoice from the DBC. Charges for the payment of invoices, other than as prescribed by Title 15, subtitle 1 of the State Finance and Procurement Article of the Annotated Code of Maryland or by the Public Service Commission or Maryland with respect to regulated public utilities, as applicable are prohibited.

END OF SECTION 00400, ARTICLE 2, UNIVERSITY'S ROLE

SECTION 00400

ARTICLE 3

DESIGN/BUILD CONTRACTOR'S OBLIGATIONS

3.0 **Overview:** The Design/Build Contractor's services shall consist of the two main parts described as follows:

Part A: To provide professional design and construction services as required on the Project during the following phases: Schematic Design, Design Development, Construction Documents, and Bidding phases inclusive of designing the Project within the Project Design and Construction Costs of \$14,840,000.

Part B: To provide Construction Phase services as required on the Project to include Construction Administration and Post-Construction phases inclusive of constructing the Project within the Project Design and Construction Costs of \$14,840,000.

The Design/Build Contractor's obligations are defined in this RFP under Design Phase Services (Part A) and Construction Phase Services (Part B). The Design/Build Contractor will be **solely responsible** for all aspects of the design and construction of the project done under this Contract and will be solely responsible for insuring that the project is designed and constructed in accordance with the RFP documents delineated in Section 00200 of the RFP.

The Architect/Engineer (A/E) services are to be provided as required per the documents noted in this RFP (see 3A.1 and 3B.1). One of these documents is the UMB Procedure Manual for Professional Services on Design/Build Project which includes in an attachment the University's Standard Form of Agreement for Architect/Engineers (SFA-1) [see Section 00500] The Contractor will be required to contract with an A/E firm with an agreement substantially in the form of the SFA-1.

The Design/Build Contractor shall be required to contract with A/E firm with an agreement substantially in the form of this A/E services agreement attachment. The University will review the A/E agreement once fully executed to verify compliance with this requirement. If a deficiency is found, the Design/Build contractor will be required to correct this deficiency to the University's satisfaction.

Part A: **To provide professional design and construction services as required on the Project during the following phases: Schematic Design, Design Development, Construction Documents, and Bidding phases inclusive of designing the Project within the Project Design and Construction Costs of \$14,840,000.**

Note: This section supplements the Project Program and the Project Design Standards. Refer to Section 00200 for a list of all contract documents.

3A.1 **Architect/Engineering Services during the Pre-construction/ Design Phase:**
Below please find an overview and a listing of the primary services to be provided by the A/E on the Project. This listing is not all inclusive and the A/E shall refer to the RFP documents for all required services.

3A.1.1 Overview: Complete professional A/E services shall be provided as necessary for completion of the Project done under the Contract shall be in accordance with the RFP Documents specifically the Project Program, Project Specific Design Standards and UMB Procedure Manual for Professional Services on Design/Build Projects and the standards of the design and construction industry for public institutional projects.

3A.1.2 Project Review: The Design/Build Contractor, Architect, Engineers, other design team members and UMBC shall meet to fully understand the Program requirements, the project scope and all other pertinent aspects of the project.

3A.1.3 Expert Studies and Consulting Services: These services are to be provided by the DBC as required in the Project Program.

3A.1.4 Design Documents: The A/E shall design the Project within the Project Design and Construction Costs of \$14,840,000. Design submittals (i.e., Schematic Design, Design Development, etc.) shall be provided per the UMB Procedure Manual for Professional Services on Design/Build Projects for the University's review and approval.

All Contract Documents (drawings, specifications, etc.) for specific projects shall bear the seal and signature of the primary A/E and the seal and signature of each consultant to the primary A/E on drawings and specifications within his area of responsibility.

Major work, which may be subcontracted for construction such as structural, mechanical and electrical systems, shall be furnished as designed by the A/E rather than by a trade/ subcontractor under a design-build subcontract (including selection and review of proprietary or franchised systems).

3A.1.5 Design Meetings: The A/E shall attend all Project Team meetings and Design Review meetings as scheduled by the Design/Build Contractor. In addition, it is expected that the A/E will conduct separate design meetings among the design professionals as needed in developing and coordinating the design of the Project.

At various intervals during the design, the A/E shall be required to conduct design presentations to University constituencies including students; as such, these presentations may occur in the early evening hours to accommodate schedules.

Note: The University may also elect to have students attend design meetings as a means of further educating students on the design and construction processes.

- 3A.1.6** Value Engineering: Participate in the DBC's value engineering efforts as necessary (see Item 3A.2.6 below for details).
- 3A.1.7** Bidding: The A/E is to attend all pre-bid meetings and is to interpret the contract documents during the bidding period. Interpretations shall be given by written instruction only.

3A.2 **Design/Build Contractor Services during the Preconstruction/Design Phase**

- 3A.2.1** A/E Engagement: The Design/Build Contractor shall procure the services of the A/E firm in accordance with its Technical Proposal in response to this RFP.

- 3A.2.2** Project Review: The Design/Build Contractor shall meet with the University, Architect, Design Engineers and other design team members to fully understand the Program, the design documents, the project scope and all other pertinent aspects of the project.

The DBC shall be an integral part of the Project Team who will lead and coordinate the development and progress of the design and construction of the Project.

- 3A.2.3** Project Procedures: The DBC shall develop project procedures, in cooperation with UMBC, which will be used as a guide for the management and coordination of the Project throughout the design and construction of the Project.

- 3A.2.4** Design Meetings: The DBC shall conduct regularly scheduled design meetings with both the A/E and the University to review the status of design, address Project issues related to the design as well as conduct design review. It is anticipated that such meetings will be held at a minimum of every two (2) weeks unless agreed to otherwise by the UMBC-OFM Project Manager.

3A.2.5 Consultation During Project Development

The DBC shall attend regularly scheduled meetings with the Architect and Design Engineer during the development of the design to advise them on matters relating to site use, improvements, selection of materials, building methods, construction details, building systems and equipment. He shall provide recommendations on construction feasibility.

3A.2.6 Value Engineering

- 3A.2.6.1** The DBC shall, after a complete review of the Project Program and understanding of the intent of the University and the A/E, provide value engineering services and offer cost savings suggestions and best value recommendations to the University. All recommendations must be fully reviewed with the University and approved prior to implementation.

- 3A.2.6.2** Value engineering efforts shall result in a design that is most effective in first costs as well as long term operational costs relative to issues of energy use and facility maintainability. Value engineering studies shall include Life cycle cost analysis as may be required to achieve an appropriate balance between costs, aesthetics and function.
- 3A.2.6.3** Value engineering efforts shall also take into consideration applicable constructability issues. The DBC shall notify the A/E upon observing any features in the design that appear to be ambiguous, confusing, conflicting or erroneous and resolve accordingly inclusive of review with the University.
- 3A.2.6.4** Value engineering studies shall be continuous as the design is being developed. All value engineering studies must be provided on a timely basis within the design schedule.
- 3A.2.6.5** There shall be a major value engineering study at 100% design development (utilizing the design development documents) which shall include, but not be limited to, the items noted below, conducted and/or provided by the DBC firm.
- (a) Develop value engineering concepts for consideration at the session noted in (b) below (it is anticipated that the A/E will be concurrently conducting a similar activity);
 - (b) Brainstorming session(s) with design team;
 - (c) Written cost studies shall be produced and submitted to the University within two (2) weeks of the final brainstorming session;
 - (d) Written pro/con evaluation of the cost studies shall be provided to the University within two (2) weeks after submission of the cost studies;
 - (e) Formal presentation of the study to be conducted by the DBC firm; and,
 - (f) Formal submission of the value engineering study document inclusive of a summary of value engineering items, applicable cost savings, selected items and their corresponding cost savings.
- 3A.2.6.6** The DBC shall also conduct value engineering studies during the remainder of the Design Development Phase and the Construction Document Phase to evaluate specific items as requested by the University.
- 3A.2.7** Project Schedule
- 3A.2.7.1** The DBC shall utilize and maintain a University approved computer based software-scheduling system that will allow the DBC to provide appropriately detailed design and construction phase CPM schedules.
- 3A.2.7.2** Scheduling software shall allow for integration of all aspects of the design/construction processes and provide for coordination of all work to be performed. The scheduling software shall be capable of producing and coordinating logic developed network diagrams, Pert charts and Gnatt chart

format reports.

3A.2.7.3 The project schedule shall be sufficiently detailed to allow for a realistic projection of design and construction activity sequences and durations. Updated schedules will be required with each major design document submission and with major value engineering decisions; these schedules are due to the University no later than five (5) business days from each design submission or value engineering decision.

3A.2.7.4 The DBC shall within two (2) weeks of selection and written notice to proceed, provide the University with the format for the CPM schedule for the design and construction phases of the project. This schedule will be reviewed for compliance with overall project completion requirements relative to the University's occupancy needs.

3A.2.7.5 This CPM schedule shall include a projection of all design and construction phase activities to include DBC staff loading throughout the design/construction phases of the project. It is intended that this CPM schedule will be utilized throughout the design and construction of this project.

3A.2.7.6 The DBC is to establish a detailed, CPM schedule for use during the pre-construction/design phase with the concurrence of the University and the A/E. The DBC is responsible to monitor this schedule during the pre-construction/design phase, insure that this schedule is maintained, correct any deficiencies in adhering to the schedule by members of the DBC's team and advise the University of any deficiencies in adhering to this schedule by any University party.

3A.2.8 Constructability Review: DBC is to review the design throughout the pre-construction/design phase as to constructability issues. On each issue, the DBC is to do the following on a timely basis within the design schedule: (i) Description of constructability issue with background information; (2) in-depth study/research; and, (3) written report inclusive of DBC's recommendation for addressing and justification therein. Such reviews/ studies are also to be conducted as requested by the University.

3A.2.9 Construction Cost Model/Estimates

3A.2.9.1 The DBC shall develop a project budget/cost model which will require updating at multiple intervals during design phase for the project. The cost model format shall be in accordance with the UMB Procedure Manual for Professional Services on Design/Build project dated February, 1999 (see Section 00500 bound separately) and will require updating as described herein. Due to the changing economic climate, all cost models are to be construction based not data based; that is, the DBC is to obtain pricing of trade work directly from the market place rather than based on data retained in the DBC'S files.

A) The initial, full scale cost model is to be provided within ten (10) working days after the submission of the 100% Schematic Design Documents for approval.

- B) A full scale update of the cost model is to be provided within ten (10) working days after the 100% submission of the Design Development Documents for approval.
- C) Any further updates of the cost model will be as warranted by the Project design and value engineering efforts as may be determined by the DBC after review with the University.

3A.2.9.2 Each cost model must contain a statement of the total amount determined under that construction cost estimate to be the total hard construction costs for the Project in accordance with the DBC's contract; that is, Project Construction Costs less all A/E fees and Preconstruction/Design DBC fees.

3A.2.9.3 The Project Construction Costs are those funds available for the design and construction of the Project exclusive of only the Owner's contingency and are Fourteen Million Eight Hundred Thousand Forty Dollars (\$14,840,000) inclusive of the two (2) add alternate allowances (\$1,060,000).

3A.2.9.4 In the event that the costs exceed the Project Design and Construction Costs the University reserves the right to direct the DBC to (and the DBC shall) work in conjunction with the Architect/Engineer to redesign the Project as necessary to maintain the Project Program and meet the Project Construction Costs without additional compensation to either the A/E or DBC.

If the DBC's costs exceed the funds appropriated by the Legislature or allocated by the University or the University of Maryland System for construction of the Project, the University reserves the right to direct the DBC to (and the DBC shall):

1. After consultation with the University, shall coordinate and cooperate with the Project Team to alter and redraft Construction Documents as necessary to accomplish the necessary reduction in cost and shall repeat as necessary.
2. Develop and provide to the University a Probable Construction Costs in connection with the redrafted and altered Construction Documents to accomplish the necessary reductions in cost.
3. Analyze the Architect/Engineer originally submitted and as altered and redrafted construction documents and make recommendations to the University as to ways and methods to reduce the costs of constructing the project to a sum which does not exceed said appropriations.

Notwithstanding anything in the RFP to the contrary, the DBC and A/E shall perform the work set forth in this Section 00400 3A.2.9.4 without additional compensation.

3A.2.9.5 The DBC's Probable Construction Costs will be reviewed by the University for reasonableness and compatibility with the Project Construction Costs. Meetings and negotiations between University, A/E and the DBC will be held to resolve questions and differences that may occur within the Project Construction Costs and the DBC's Probable Construction Costs. If indicated by the Project Construction Costs limitations or other circumstances, the DBC shall work with the University and Architect to reach a mutually acceptable Probable Construction Costs.

3A.2.10 Coordination of Contract Documents

The DBC shall review the drawings and specifications as they are being prepared, recommending alternative solutions whenever design details affect costs, construction feasibility or schedules. The DBC shall notify the Architect and the University in writing upon observing any features in the plans or specifications which appear to be ambiguous, confusing, conflicting or erroneous. Such ambiguous, confusing, conflicting and/or erroneous features discovered in the plans or specifications by the DBC during the review process shall be understood to be corrected and any associated costs shall be included in the DBC's Guaranteed Maximum Price (GMP).

3A.2.11 Trade Contract Bidding

3A.2.11.1 At the applicable point in the design documents, the DBC shall bid trade packages for the construction of the Project. The DBC will utilize the design documents as prepared by the Architect and Engineers to invite and receive competitive bids on all trade packages and/or materials as a basis for each award under the GMP.

3A.2.11.2 The DBC will develop scopes of work for each trade package to be bid. In addition, each scope of work shall include but not be limited to, anticipated working hours to address the University's concerns with noise and vibration, coordination between or among trades, outages, temporary facilities, (if required), temporary heat and electric (if required), hoisting, etc.

3A.2.11.3 The DBC is to conduct a qualification process of all Trade Contractors to insure that all bidding have the necessary expertise.

3A.2.11.4 The DBC is to conduct the following for all Trade Contracts: Pre-Bid meetings, Post-Bid meetings, and Bid Opening sessions. The University is to be in attendance for all of these. The University reserves the right, in an advisory capacity, to raise questions to the DBC at any of these meetings. It is anticipated that a Pre-Bid meeting will be held for each trade package unless otherwise agreed to by the University's Procurement office.

3A.2.11.5 The DBC may reject all bids and repeat the bidding for the Trade work or re-package the Trade work activity. If the University rejects a Trade Contractor recommended by the DBC in accordance with UMB's General Conditions (Section 00700), the Design/Build Contractor shall recommend an acceptable substitute at no additional cost to the University.

- 3A.2.11.6 After review by the University of the selected contractors, the DBC shall submit its pricing for trade packages to the University in accordance with the schedule.
- 3A.2.11.7 In the event that the total projected hard construction costs for a trade package exceed the Project Construction Budget for that trade package, the University reserves the right to direct the DBC to (and the DBC shall) work in conjunction with the Architect/Engineer to redesign the trade work as necessary to maintain the Project Program and meet the Project Construction Budget.
- 3A.2.11.8 The DBC's detailed construction cost estimates for trade packages will be reviewed by the Architect and the University for reasonableness and compatibility with the Project Construction Costs. Meetings and negotiations between University, Architect and the DBC will be held to resolve questions and differences that may occur within the Project Construction Budget and the DBC's construction cost estimate for trade packages. If indicated by the Project Construction Budget limitations or other circumstances, the DBC shall work with the University and Architect to reach a mutually acceptable trade package cost.
- 3A.2.12 **GMP Savings:** All savings under the DBC's contract revert to the University. Such savings are based on the total for the design and construction costs not on a line by line basis.

END OF SECTION 00400, ARTICLE 3A - SCOPE OF WORK

Part B: To provide Construction Phase services as required on the Project to include Construction Administration and Post-Construction phases inclusive of constructing the Project within the Project Design and Construction Costs of \$14,840,000 (this amount is \$13,780,000 excluding the two (2) add alternates).

3B.1 Architect/Engineering services during the Construction and Post Construction Phase: Below please find an overview and a listing of the primary services to be provided by the A/E on the Project during these phases. This listing is not all inclusive and the A/E shall refer to the RFP documents for all required services.

3.B.1.1 Overview: A/E services for Construction and Post Construction to be provided per the Projects Program and the Contract Documents noted in Section 00200 of this RFP.

3.B.1.2 Construction Progress Meetings: The A/E shall attend all construction progress meetings which include the Design/Build Contractor, UMBC Project Manager and other University representatives, if any.

3.B.1.3 Shop Drawing/Review and Approval:

The A/E shall furnish all shop drawing review/approval for compliance with design documents, in accordance with the Contract Documents of this RFP listed in Section 00200, and in accordance with good design and engineering practice.

The A/E shall review and approve upon the Trade/Subcontractors' submittals such as Shop Drawings, Product Data and Samples, for checking for conformance with information given and the design concept expressed in the Construction Documents. The A/E's action shall be taken within the required time frame for the project so as to cause no delay in the work, while allowing sufficient time in the A/E's professional judgement to permit adequate review. The A/E's action on all shop drawings/submittals shall be reviewed by UMBC prior to the transmission to the Trade/Subcontractor. (see Attachment E for UMBC Shop Drawing/Submittal Flow Chart)

3.B.1.4 Document Interpretation: The A/E shall interpret Construction Documents as necessary and issue the applicable documents as may be necessary to explain construction details.

3.B.1.5 Quality Assurance/Inspection:

The A/E shall make periodic visits to the Project as required by the progress of the construction work or as requested by UMBC to gain familiarity with the progress and quality of the construction and to determine in general if the construction of the Project is proceeding in accordance with the Construction Documents. In making such periodic visits to the site and on the basis of such on-site observations the A/E shall guard UMB against defects and deficiencies in the construction work and shall report to the DBC and UMB any observed defect or observed deficiency.

3.B.1.6 Punch List: The A/E shall be responsible for the preparation and review of punch lists. Such punch lists will only be performed once a written statement from the DBC is received by UMB stating that the Project is complete and in accordance with the Contract Documents.

3.B.1.7 Record Drawings: The A/E shall be responsible for the provision of record documents. The record documents shall include Mylar reproducible of all drawings, Project Specifications, Project Manual originals, and other construction contract bid documents. In addition, the A/E shall furnish the above referenced Construction Contract Drawings and Contract Documents updated at completion of the project for "As-built Conditions" on compact disk(s) for AutoCAD per UMBC CAD Standards in Attachment G to the University for CADD generated drawings.

3.B.1.8 Post Construction Services: The A/E shall participate in one (i) site visit within the two (2) year project warranty period. It is anticipated that this site visit will be incorporated with other visits to the campus.

3B.2 **Design/Build Contractor Services during the Construction and Post Construction Phases**

3B.2.1 **Consultation During Continuing Project Development**

The DBC shall continue to advise and assist the University and Architect during the continuing Design Activities as described in Section 00400. Article 3, Part A.

3B.2.2 **Project Cost Control**

3B.2.2.1 The DBC shall develop and maintain an effective system of Project cost control. He shall refine and update the approved construction costs, incorporate University approved changes as they occur, and develop reports and forecasts as needed, or as directed by the University. He shall identify variances between actual and estimated costs and advise University whenever projected cost exceeds allowances or estimates.

3B.2.2.2 The DBC shall check and supervise all material deliveries, equipment and labor entering the work site. He shall maintain cost accounting records on authorized work performed under unit costs, actual costs for labor and material, or other bases requiring accounting records, and afford the University access to these records and preserve them for a period of three (3) years after final payment. The University reserves the right to audit their records during that period.

3B. 2.2.3 The DBC recognizes that the University has a limit on the project cost. The University's Design and Construction Cost limit is Fourteen Million Eight Hundred Forty Thousand Dollars (**\$14,840,000**) to design and construct the Project inclusive of the two University Add Alternates Allowances (totaling \$1,060,000).

The above limit is inclusive of all costs associated with the design and construction of the Project excepting the University/owner's contingency.

The DBC is responsible for monitoring costs to insure that the Project Costs are not exceeded.

3B.2.2.4 Upon completion of work, any and all non-expended funds remaining in any DBC's contract revert to the University.

3B.2.3 Project Schedule:

3B.2.3.1 The DBC shall provide construction phase a CPM schedule through the use of a UMB approved computer based software scheduling system based on the schedule developed during the design of the Project. Scheduling software shall allow for integration of all aspects of the project and provide for coordination of all work to be performed.

3B.2.3.2 The DBC shall develop the complete and final CPM schedule in the form of a CPM network arrow diagram (Pert) using the DBC's logic and time estimates for each segment of the work. The arrow network diagram will be drawn in a level of detail suitable for display of salient features of the work, including but not limited to the placing of orders for materials, submission of shop drawings for approval, approval of shop drawings by the Architect and the University, delivery of material, and all work activities inclusive of punch list agreed to by the University. Each work activity shall be assigned a time estimate by the DBC. One day shall be the smallest time unit used.

3B.2.3.3 The DBC shall review the schedule each month. An updated project schedule shall be furnished showing actual completed work at the end of each month in respect to the entire project. The form used shall be approved by the University and shall be submitted with the monthly invoice.

- 3B.2.3.4 The University requires completion of the Project within sixteen (16) months from the date of the issuance of the Notice to Proceed (NTP).
- 3B.2.3.5 The DBC shall provide regular monitoring of the schedule as construction progresses, identify potential variances between scheduled and desired completion dates, review schedule for work not started or incomplete and take the action necessary to meet the required completion date.
- 3B.2.3.6 It is the DBC's responsibility to meet the required construction completion date as noted above in 3B.2.3.4. If the DBC finds that action must be taken in order to meet this contractual responsibility, all costs associated with such action are the DBC's responsibility within the contract unless a delay is attributable to the University.

If the DBC finds that the schedule has been impacted by an action or inaction on the part of the University, the DBC must review the situation with the University and obtain a change order amendment for such work prior to taking any action which has a cost impact; all change order work shall be governed by Section 3.06 of the Standard Conditions, as supplemented by the provisions of this Section 00400. Notwithstanding anything in that Section 3.06, the provisions thereof shall apply only to work to be performed in the Construction Phase.

3B.2.4 Trade Contracts

- 3B.2.4.1 After acceptance of each trade contact award, the DBC shall place through his office contracts* or purchase orders to the successful Trade Contractors or Suppliers. (The term Trade Contractors if used in this Contract means sub-contractors and the term Sub-Contractors as used in the Contract shall include Trade Contractors.)
- 3B.2.4.2 The DBC will require the Trade Contractors to provide the applicable contract documents inclusive of insurance certificates, performance and payment bonds, MBE participation schedules, and verification of MBE participation (by submission of letters of intent, copies of purchase orders, etc.).
- 3B.2.4.3 All contract documents between the DBC and the Trade Contractors are to be made available for review by the University as requested.

3B.2.5 Project Control

3B.2.5.1 Project Staffing

- (a) The DBC's on-site representatives shall manage the work of the Sub-Contractors and coordinate the work with the activities and responsibilities of the University, Architect and DBC to complete the Project in accordance with the University's objectives of cost, time, and quality.
- (b) The DBC shall maintain a competent and adequate full-time staff approved by the University at the Project site to coordinate and provide adequate direction of the work and to monitor progress of the Sub-Contractors on the Project at all times.
- (c) It is understood that the designated and approved on-site resident DBC representatives will remain on the job and in responsible charge as long as those persons remain employed by the DBC, unless the University has reason to agree otherwise during the course of the project and a contract amendment is issued accordingly by the UMBC Procurement Office.

3B.2.5.2 On-site Coordination/Management

- (a) The DBC shall establish on-site organization and lines of authority in order to carry out the overall plans of the Project Team.
- (b) The DBC shall conduct orientation sessions for its onsite field staff and Trade Contractor's staff, as applicable, as to the Project Procedures as developed during the Design Phase as noted in Section 00400, Article 3 as well as site requirements per the Contract Documents. University representatives may attend such sessions.
- (c) The DBC will provide for all coordination with the onsite Sub-Contractors the necessary On-Site Services for the construction activities and on-site requirements of the DBC, University and Architect. The DBC is not required to provide offices for the Architect or the University within its field offices.
- (d) The DBC shall require all Trade Contractors to submit a Trade Contractor's Daily Report which is to include, but not be limited to, a summary of work performed, information required, status of change order T&M work, materials received, and safety incidents.
- (e) The DBC shall accept delivery and arrange for storage, protection and security for any University purchased materials, systems and equipment, which are a part of the work until such items, are turned over to the respective trade Contractors.

3B.2.5.3 Meetings

- (a) The DBC shall schedule and conduct regular bi-weekly progress meetings, and as directed by the University, at which Trade Contractors, University, Architect, and other designated representatives, and the Design/Build Contractor can discuss jointly such matters as progress, scheduling, and construction-related problems.
- (b) The DBC shall take and distribute complete minutes of meetings to all attendees and others as directed by the University within three (3) days of such meetings. Representatives of the University may attend meetings and shall receive all notices and minutes of meetings. [See details throughout Section 00400, Article 3, Part 3 as to topics to be included in Progress meetings.]
- (c) The DBC shall also conduct Owner's meetings on a minimum of monthly or as requested by the University.

The Owner meetings are to be attended by representatives of the University [including, but not limited to, UMBC's Office of Facilities Management; UMBC's Procurement Office; UMBC's Residential Life Office and UMBC's Administration & Finance and Student Affairs Divisions; and the DBC and the Architect/Engineer to discuss overall project matters and project procedures to insure that all parties are meeting their obligations to insure a successful project.

The Design/Build Contractor shall take and distribute complete minutes of Owner's meetings to all attendees and others as directed by the University within three (3) days of such meetings.

3B.2.5.4 Requests for Information (RFI'S)

- (a) The DBC will be responsible for developing and implementing a RFI form for use on the project.
- (b) The DBC will be responsible for logging and reviewing all RFIs prior to submission to the University and the Architect. The DBC is to insure that the RFIs submitted are appropriate and not frivolous.
- (c) The DBC shall be responsible for tracking and monitoring all RFIs throughout the Construction Phase until all RFIs are processed by the A/E and the University.
- (d) The DBC shall include RFIs as an agenda topic at all owner meetings and advise the University immediately of any delays in the RFI process.
- (e) The DBC shall develop a RFI aging report which is to be submitted to the University's Project Manager at each biweekly progress meeting.

3B.2.5.5 Substitution Requests

- (a) The DBC will be responsible for logging all substitution requests.
- (b) The DBC will be responsible for reviewing all substitution requests to insure that they are complete; and, if not, return them to the Trade Contractor for proper submission.
- (c) The DBC will be responsible to review all Substitution Requests with the University prior to submission to the Architect.
- (d) The DBC shall be responsible for tracking and monitoring all Substitution Requests throughout the Construction Phase until all Substitution Requests are processed by the A/E and the University.
- (e) The DBC shall include Substitution Requests, if any, on the agenda topic at the Owner's meetings and advise the University immediately of any delays in the Substitution Request process.

3B.2.5.6 Project Photographs:

- (a) The UMB Standard General Conditions require the DBC to submit Progress photographs monthly in sufficient detail to properly record the work. In addition, however, the DBC will be required to hire a Professional Photographer to take a minimum of six (6) pictures each month.
- (b) The DBC is to provide three (3) sets of these pictures [which are to be labeled as to location and date] for distribution of two (2) sets to the University with one (1) set retained by the DBC for its records. The cost of these photographs will be reimbursable under the General Conditions allowance.

3B.2.6 Quality Assurance/Inspection

- (a) The DBC shall inspect the Work of the Sub-Contractors to guard the University against defects and deficiencies in the Work and shall coordinate this activity with the onsite duties of the Architect. He shall advise the Architect of any apparent variation and deviation from the intent of the Contract Documents and shall take the necessary action to correct such variations and deviations within the terms of the contract documents. The DBC shall provide one (1) set of all inspection reports (in binder form) to the UMBC Project Manager with the monthly report.

The DBC shall provide for and administer all third party inspection and testing as specified in the Construction Documents under the General Conditions allowance.

- (b) The University shall, in all cases, make final interpretation of the Contract Documents and rule on compliance of the Work. This provision specifically supersedes anything to the contrary in the Standard General Conditions of Construction Contract.

- (c) Quality Assurance/Inspections is an area of utmost importance to the University. Although it is the contractual obligation of both the Architect/Engineer and the DBC to guard the University against defects and deficiencies in the Work, it is expected that the University will participate in this process.

It is anticipated that personnel from UMBC's Office of Facilities Management will attend inspections and testings. It is the responsibility of the DBC to advise the UMBC Project Manager of scheduled testings and inspections with sufficient advance notice (a minimum of 2 weeks).

In addition, the DBC is to include on the agenda of all bi-weekly progress meetings a review of upcoming inspections and tests and attach a list of these with the minutes of such meetings.

3B.2.7 Commissioning

- (a) Commissioning for this project will include, but not be limited to, the following systems:
- All HVAC systems including fans, controls, pumps and associated piping, wiring and ductwork;
 - Fire Alarm and Life Safety Systems; and,
 - Electrical Systems particularly those tied to an emergency generator, if any.
- (b) All activities associated with Commissioning are to be performed during the Construction Phase only. Such activities include the preparation of the commissioning plan, observation of start-up, testing and calibration activities, verification and documentation of functional performance tests and acceptance.
- (c) Commissioning shall be performed, as required, to achieve the LEED Silver certification.

3B.2.8 Project Safety

- (a) The DBC shall develop and implement a project safety program in accordance with the UMB Standard General Condition for Construction and applicable regulations.
- (b) He shall report, to the University, as part of each monthly report any safety violations and actions taken to protect the safety of persons and property engaged in the work.

3B.2.9 Change in Scope and Change in GMP

- (a) The University unilaterally at any time by written order (via a change order amendment) may make changes within the general scope of the work to be performed under the Contract.
- (b) Changes in the scope of work to be performed during the Construction Phase shall be

governed by Section 3.06 of the Standard Conditions, as supplemented by the provisions of this Section 00400. Notwithstanding anything in that Section 3.06, the provisions thereof shall apply only to work to be performed in the Construction Phase.

- (c) The DBC shall notify the University in writing with detailed cost supportive data (and copy to Architect) if an apparent change in scope or design will require a change in the DBC's contract.
- (d) It is understood and agreed that refinement may be accomplished from time to time with respect to the drawings and specifications. No adjustment in the DBC's contract or the Scheduled Completion Date shall be made unless such refinement or detailing results in changes in the scope and/or design of the Project, as determined by the University. Nothing herein shall be construed to preclude the University from ordering minor changes in the Work not involving increases in cost, consistent with the intent of the Contract Documents.

No change order expenditures can be made against this contract without written approval by the University's designated representative via the issuance of a change order amendment to the DBC's contract by UMBC's Office of Procurement Services.

- (e) The University will review the DBC's analysis and cost data and advise the DBC of their findings. The University and DBC shall reach mutual agreement on the nature of the subject change and upon the University's direction eliminate the circumstances of the change or negotiate a mutually agreed cost change to be made to the DBC's contract. The DBC shall notify the Architect and the University of such changes before trade change order proposals for the work associated are requested.
- (f) Changes to the DBC's contract will only be made as a result of documented and University approved decisions with the issuance by UMBC's Procurement Office of a contract order amendment to the DBC's contract.
- (g) The DBC shall develop and implement a system for review, negotiation, and processing of proposed Change Orders. He shall, with complete supporting data, recommend necessary or desirable changes to the University and the Architect for approval.
- (h) There will be no DBC mark-up for any change order work. Rather, change order proposals will consist of actual costs only; that is, trade contractors, change order proposals and General Conditions items, if applicable, only.

3B.2.10 Shop Drawing Review/Processing

- (a) The DBC will be responsible for logging all shop drawings/submittal prior to submission to the University and the Architect. The DBC is to insure that shop drawing/submittals packages are submitted in an appropriate manner and, if not, return them to the Trade Contractor for proper submission.

- (b) The DBC shall develop and implement a system for review, acceptance or rejection, and processing of all shop drawings/submittals. He shall review this system with the University and obtain the University's approval prior to implementation.
- (c) The DBC shall be responsible for tracking and monitoring all shop drawings/submittals throughout the Construction Phase until all shop drawings/submittals have been approved by the A/E and the University [minimal time frame for this review is three (3) weeks]. (See UMBC Shop Drawing/Submittal Flow Chart in Attachment E.)
- (d) The DBC shall include shop drawings as an agenda topic on all Owner meetings and advise the University immediately of any delays in the shop drawing/submittal process.
- (f) The DBC shall develop a shop drawing/submittal aging report which is to be submitted to the UMBC Project manager at each bi-weekly progress meeting.
- (g) The DBC shall provide coordinated drawings as indicated in Section 00400, Article 3.

3B.2.11 Project Site Documents

The DBC shall maintain at the Project site, on a current basis, records of all necessary contracts, shop drawings, samples, purchases, materials, equipment, maintenance and operating manuals and instructions, and any other documents and revisions thereto which arise out of the contract or the Work.

3B.2.12 Claims Avoidance/Resolution

- (a) The DBC is to advise the University, as necessary, on construction issues so as to avoid disputes. Such advice is to be provided on a timely basis.
- (b) If claims/disputes arise, the DBC will provide the University with assistance as requested including, but not limited to, cost assessments, documentation review, and contract review and make recommendations accordingly.

3B.2.13 Contract Close Out

- (a) The DBC is responsible for compliance with all Contract Close Out items per the Contract Documents. He shall obtain data from Trade Contractors and maintain a current set of record drawings, specifications and operating manuals.
- (b) With mechanical and electrical equipment, the DBC is to obtain the Operating & Maintenance (O&M) manuals at least four (4) months prior to the demonstration for such equipment. These O&M manuals are to be sent to the UMBC Project Manager who is to forward one (1) set to UMBC's Operations & Maintenance staff for review prior to the equipment demonstration.

- (c) The DBC is to work closely with the UMBC Procurement Office as to the procedures and schedule for Contract Close Out and its contractual obligations.
- (d) At the completion of the Project, the DBC shall deliver all such records to the University along with completion set of as-built drawings for approval by the Architect. The DBC is also responsible for providing record drawings prepared by the A/E.

3B.2.14 Reports

- (a) The DBC shall provide to the University on a monthly basis (every 30 days beginning 30 days from the issuance of the Notice to Proceed) or at the University's request, a written report inclusive of the items noted below.
- (b) Within ten (10) days of issuance of the Notice to Proceed, the DBC is to submit to the University the report formats for each of these and prior to implementation the DBC must obtain the University's approval of these formats.
- (c) The monthly report by the DBC is to include the items noted below.

Project Status: Overall summary of the project status to date for the Project inclusive of information on the Trade Contractors, Work and the percentage of completion for the Project.

Schedule: Revised project schedules with a summary statement as to the status of construction for the Project.

Cost Status: Overall summary of the financial status of the project with the cost control report included.

Change Order: A summary statement as to the status of change orders for the Project inclusive of potential change orders, approved change order and rejected/voided change orders as well as change order which require the University's immediate attention.

Shop Drawings/Submittals: A summary statement as to the status of shop drawings/submittals for the Project inclusive of items requiring the University and/or the architect's immediate attention.

Quality Assurance/Inspections: A summary statement as to the status of quality control/inspections for the Project including, but not limited to, number and type of inspections made, overall project quality to date, and recommendations.

3B.2.15 Date of Completion

The Work and services under this Contract shall be scheduled for the time period necessary to permit the design and construction completion and successful final inspection of the Project within sixteen (16) months from the date of issuance of the Notice to Proceed (NTP). Time is of the essence.

END OF SECTION 00400, ARTICLE 3, PART B - SCOPE OF WORK

END OF SECTION 00400

SECTION 00500
UMB PROCEDURE MANUAL

for

PROFESSIONAL SERVICES

ON DESIGN/BUILD PROJECTS

UNIVERSITY OF MARYLAND, BALTIMORE

**220 Arch Street
13th Floor – Room 02-100
Baltimore, Maryland 21201
February, 1999**

Note: For purposes of RFP #BC-20632-T, the University of Maryland, Baltimore and UMB is to be read as the University of Maryland, Baltimore County and UMBC in all instances.

DIVISION I

GENERAL

REQUIREMENTS

DIVISION I GENERAL REQUIREMENTS

1. **PHASES OF A/E SERVICES:** The Architect/Engineer (A/E) assigned by contract to a given project shall provide, complete and adequate in every detail, the professional services described in the Standard Form of Agreement with Architects/Engineers (Attachment #1). The six phases of A/E services are:
 - a. **Preliminary and Schematic**
 - b. **Design Development**
 - c. **Construction Documents**
 - d. **Bidding and Negotiating**
 - e. **Construction**
 - f. **Post Construction**
2. **UMB PROJECT NUMBER**
 - 2.1 **ASSIGNMENT:** The A/E at the Project Initiation Conference will be given the UMB project number. The number must be used on all correspondence, drawings, specifications, estimates, shop drawings, and all other matters relative to the project.
3. **THE PROGRAM AND DESIGN CRITERIA**
 - 3.1 **PROGRAM:** The program as delivered to the A/E and the Request for Proposal are to be considered firm as to the scope of the project. The A/E contract is with the Design/Build Contractor under contract with the University. Only UMB has authority to alter the program. This authorization will be in writing. The A/E is cautioned to take particular note of this requirement.
 - 3.2 **DESIGN CRITERIA:** All University improvements shall be planned, designed and constructed to be attractive and functional, with an efficient utilization of space. They will be economical to construct, operate and maintain.
 - a. **Objective:** It is the objective of the University to achieve effective life cycle costs by application of sound economic and technical analysis by the A/E.

- b. **Building Design:** Shall be designed as sound structures of conventional shapes which avoid extraneous features and excessive perimeter walls. Special attention shall be given to the economics and interrelationship of architectural, structural, mechanical and electrical systems.
- c. **Examples:** Features which could be considered extravagant include a building with a low efficiency factor (See Building Efficiency Factors, Division I, paragraph 12.4 b.); projects with extensive roads, sidewalks and parking to meet extreme requirements; elevated walkways, superfluous lighting to enhance aesthetic effects; grandiose landscaping schemes which include elaborate and expensive benches; lighting fixtures, walks, etc., when simpler plans and economical fixtures and features could be adequate; specifying mature trees when standard size nursery stock would suffice.
- d. **Lighting systems:** Shall be designed for high energy efficiency while still maintaining IES recommended lighting levels. The A/E shall investigate the availability of energy incentive/rebate programs that may be offered by the local utility company and shall incorporate appropriate features into the lighting design so as to accrue the maximum benefit of such programs for the University.

4. AVAILABLE FUNDS

- 4.1 **DESIGN BUDGET:** The A/E and Design/Build Contractor must not exceed the stated funds for the work (including all fees, construction costs, contingencies, inflation, inspection, testing and other incidental costs).
- 4.2 **PROPOSAL:** The Design/Build Contractor's proposal shall include A/E fees and reimbursable expenses, if any, for all phases of work.

5. COORDINATION AND CORRESPONDENCE

- 5.1 **COORDINATOR:** The UMB-OFM Project Manager assigned to the project will act as coordinator between the using agency and the Design/Build Team (DBT).
- 5.2 **NOTIFICATION:** The UM-OFM Project Manager will notify the using agency, and when possible, a representative of the using agency will be present at all conferences.

- 5.3 COPIES:** Throughout the project development, copies all correspondence, estimates, and other matters should be directed to UMB-OFM Project Manager. Such information will be coordinated as necessary by UMB with the using agency. The Design/Build Contractor (DBC) is responsible for distributing drawings and specifications for review to UMB-OFM Project Manager as well as other local and regulatory agencies. (See Review Drawing Distribution, Attachment #2)
- 5.4 SITE VISIT:** The UMB-OFM Project Manager can arrange site visits as requested.
- 5.5 A/E TEAM:** The professional A/E team for the project shall be the same design team as stated in the Design/Build Contractor's Technical Proposal unless a change is requested and approved in writing by UMB in advance of any substitutions via the issuance of a contract amendment by UMB's Office of Procurement Services.

6. MINUTES OF CONFERENCES

- 6.1 PREPARATION:** The DBC shall prepare concise minutes of any and all conferences held relative to the project. These minutes shall state all decisions reached and who made them. The original shall be addressed to the UMB-OFM Project Manager, with copies as required for the using agency and any other persons concerned. (See Division II, paragraph 6.4) Minutes shall be distributed within five working days after the conference.
- 6.2 NOTIFICATION:** The DBC shall notify the UMB-OFM Project Manager coordinating the project of all desired or anticipated conferences with the using agency personnel sufficiently in advance of the meeting to permit the attendance of the UMB-OFM Project Manager at the proposed conference. As a general rule, such conferences will be held at the office of UMB or the Using Agency as appropriate. The UMB-OFM Project Manager will determine the location of the meeting.

7. APPROVAL OF CONSULTANTS EMPLOYED BY DESIGN/BUILD CONTRACTOR (DBC)

- 7.1 APPROVAL:** The names of all consultants including testing laboratories or test boring contractors engaged by the DBC shall be submitted to UMB-OFM Project Manager for approval before any services are performed such individuals. Approvals will be in writing from UMB-OFM Project Manager.
- 7.2 TELECOMMUNICATIONS CONSULTANT:** A telecommunications consultant, if required for a project, shall be independent of any telecommunication system manufacturer or public telephone utility; and past experience must be demonstrate, within the previous five years, the design and implementation of systems comparable to that described in the project program.

- 7.3 CONSULTANT REQUIREMENTS:** The DBC with whom UMB has a direct contract shall negotiate his agreements with his consultants so that the said consultants are bound by the requirements of the DBC Contract with UMB and this manual.
- 8. PRESS RELEASES POLICY:** No DBC or A/E executing a project for the University shall issue any press release or respond to any inquiries by any publication, including newspapers, without first clearing the text with the UMB-OFM Project Manager and obtaining written approval.
- 9. CONSTRUCTION COST ESTIMATES**
- 9.1 SUBMITTALS:** Cost estimates must be furnished by the DBC (See Cost Estimate Worksheet, Attachment #3 and Directions for Completing Cost Estimate Worksheet, Attachment #3-A) at each of the following phases of work:
- a. First Estimate:** 100% Schematic Design is sufficiently developed.
 - b. Second Estimate:** 100% Design Development
 - c. Estimate Updates:** Any further updates will be warranted by the Project design and value engineering efforts as determined by the DBC after review with the University.
- 9.2 ADDENDA:** The Cost Estimate Worksheet shall be revised and resubmitted when addenda reflecting an increase or decrease in cost are issued.
- 9.3 ESTIMATES REVISION:** UMB may require revision or restudy of any of the above estimates as may be necessary to keep the project within the budget or to require more realistic figures, at no additional charge to UMB. As it is essential accurate estimates be provided, it is recommended that the DBC obtain professional detailed take-off estimates as soon as the drawings are sufficiently developed to realistically obtain such an estimate.
- 10. LIFE CYCLE COST ACCOUNTING AND ENERGY CONSERVATION**
- 10.1 LIFE CYCLE COST ANALYSIS:** shall be commenced immediately following approval of the schematic design and shall be performed concurrent with design development in accordance with Procedures for the Implementation of Life Cycle Cost Analysis and Energy Conservation.
- 10.2 ENERGY CONSERVATION:** As part of the analysis, the A/E shall study alternatives for heat recovery and use of major equipment operating at off peak electrical rates.

- 11. CODES AND REGULATIONS:** The A/E's documents shall be developed in accordance with the applicable Codes and Regulations which include, but are not limited to, the following:
- 11.1 BUILDING CODE:** The Building Code of the State of Maryland is the latest addition of the BOCA Basic Plumbing, Mechanical, and Energy Conservation Codes, National Electric Code and current ASHRAE standards, with all appendices, references and additions incorporated. Compliance with all regulations of local and service district utility companies (electric, water, sewage) where work is to be located is required.
- 11.2 FIRE CODE:** The State Fire Prevention Code (COMAR 12.03.01) which references the NFPA National Fire Codes, latest edition, including Standards, Recommended Practices Manuals, etc.
- 11.3 HANDICAPPED:** Regulations Governing Construction of Facilities for the Handicapped by the State of Maryland (COMAR 05.02.02). The Fair Housing Amendments Act (1988) and the Americans with Disabilities Act (1990) or other Federal regulations, will supersede COMAR requirements.
- 11.4 SEDIMENT CONTROL AND STORM WATER MANAGEMENT:** Regulations of the Maryland Department of the Environment (MDE), Sediment & Storm Water Administration, 2500 Broening Highway, Baltimore, Maryland, 21224 (MD. DOE Article Sections 4-101 through 4-109 Annotated Code of Md. and COMAR 26.09.01, 08.05.01 and 08.05.05):
- a. **Chesapeake Bay Critical Area Criteria** (COMAR 14.15.02)
 - b. **Nontidal Wetlands** (COMAR 08.05.04)
 - c. **Wetlands** (COMAR 08.05.07)
 - d. **Reforestation Requirements** (Article-Natural Resources; Sections 5-101(B)& 5-103; Annotated Code of Md.)
- 11.5 FLOODPLAIN:** Management Regulations & Permits, Dept. of Natural Resources (COMAR 08.05.03)
- 11.6 WATER RESOURCES:** Other water resources rules and regulations of procedure as issued by the Dept. of the Environment (COMAR 08.05)
- 11.7 HOSPITALS:** Maryland State Dept. of Health and Mental Hygiene regulations for hospitals, care and treatment facilities as appropriate (COMAR 10.07). These regulations will be obtained by the A/E from the State Dept. of Health and Mental Hygiene.

- 11.8 FOOD PREPARATION:** Maryland State Department of Health Regulations for Eating and Drinking Establishments (COMAR 10.15) this applies whenever food preparation or serving areas are included in the project. These regulations shall be interpreted by the Maryland Dept. of Health and Mental Hygiene.
- 11.9 ELEVATORS:** Regulations Governing Elevators, Dumbwaiters, Escalators and Moving Walks ANSI A17.1 or the latest edition, and other requirements of the State Department of Licensing and Regulation, Division of Labor and Industry (COMAR 09.12.81)
- 11.10 HIGHWAYS:** Regulations of the Maryland Department of Transportation, State Highway Administration, for any construction affecting a State highway route or right-of-way.
- 11.11 LEAD EXPOSURE:** Maryland Occupational Safety and Health Standards for occupational exposure to lead in construction work. These regulations apply to occupational exposure to lead in every employee in construction work. (COMAR 09.12.32)
- 11.12 HAZARDOUS WASTE:** Maryland State Department of the Environment for disposal of controlled hazardous substances. These regulations establish standards for generators of hazardous waste. (COMAR 26)
- 11.13 WATER AND WASTEWATER TREATMENT PLANTS:** Maryland Department of the Environment Regulations for Construction of all Water and Wastewater Treatment Plants and for all connections exceeding four hundred feet. (COMAR 26)
- 11.14 MECHANICAL:** The Maryland State Plumbing Regulations, National Mechanical Code (BOCA), Maryland Accessibility Code, National Energy Conservation Code (BOCA), NFPA fuel gas code, applicable ASHRAE Standards, Procedures for Implementation of Energy Conservation, Maryland Department of Health Food Service Requirements, SMACNA and ASME.

12. MEASUREMENT OF BUILDING AREAS, VOLUME AND EFFICIENCY FACTORS

- 12.1 GROSS AREA:** The gross area of buildings shall be measured as follows:
- a. Measurement:** Measure from out to out walls.
 - b. Full Areas -** include the gross area of each level:
 - (1) All interior floors (including stairs, shafts, etc.)
 - (2) Mezzanine or interior balcony
 - (3) Basement, sub-basement, pipe space, boiler room, etc. (6 feet or more high)

- (4) Enclosed space beneath upper floors (stilt design)
- (5) Mechanical space (6 feet or more high)
- (6) Penthouse (stair, elevator, equipment, etc. 6 feet or more high)
- (7) Elevator machine room floor
- (8) Fly gallery gridiron
- (9) Pipe tunnels (6 feet or more high) under building and within 10 feet

c. Half Areas - Include one-half (0.5) of the gross area of:

- (1) Paved porch/terrace with roof
- (2) Exterior covered balcony
- (3) Entrance canopy over paving
- (4) Areaways (six feet or more)
- (5) Unenclosed space beneath building (stilt design)
- (6) Loading dock with canopy

d. Exclusions: Gross Area

- (1) Unusable/unfinished attic space under pitched roof
- (2) Roof and roof parapets
- (3) Interior court or yard
- (4) Covered walks (site work)
- (5) Sun shades
- (6) Porch/terrace without roof
- (7) Roof overheads (no paved walkway beneath)
- (8) Upper space of gym, pool, auditorium, lecture hall, large entrance exceeding one story, etc.

12.2 NET AREA: The net area of buildings is defined and measured as follows:

- a. Net Assignable Area** - This is the sum of all floor areas of a building allotted to an occupant, including types of space functionally usable by an occupant. Measurement is between inner faces of walls and partitions or imaginary dividing lines of open areas.

Examples: offices, classrooms, mailrooms, conference rooms, libraries, file rooms, storage pertaining to an occupant or program (not custodial or general storage), seminar rooms, laboratories (including balance, supply and preparation rooms, etc.), lecture rooms, auditoriums (including storage, dressing and preparation rooms, stage, etc.), toilet and locker rooms (including shower rooms) only when they are private and directly supporting a room function (e.g., for a patients room, examination room, gymnasium, kitchen, actor's dressing areas, student bedrooms or house parent's apartment, etc.), lounges (academic, dormitory, faculty, patient, etc.), kitchen (including food storage areas, dining rooms, etc.), athletic courts, swimming pool, dance and wrestling rooms, rifle range, library reading and stack areas (including processing, study, audio, micro-film and typing rooms, but excluding "phantom" corridors), etc.

"Phantom" corridors meaning a circular space not specifically defined by fixed or movable walls.)

- b. Non-assignable (supporting) Area** - This is the total of all areas remaining after net assignable areas have been deducted from the gross area. Non-assignable areas include the following:
- (1) Custodial** - for building protection, care, maintenance and operation, e.g., custodial storage, janitor closet, maintenance store room, locker room, toilet and shower room, shop, etc.
 - (2) Circulation** - required for physical access to some subdivision or space, whether or not enclosed by partitions, e.g., corridors (access, public, service, including "phantom" corridors for large unpartitioned areas), elevator shaft, escalator, fire tower and stairs, stair hall, loading platform (except when required for a program function), lobby, public vestibule or entryway, tunnel, bridge, stair or elevator penthouse, elevator machine room, covered paved open areas, etc.
 - (3) Mechanical** - to house mechanical equipment, utility services and non-private toilet facilities, e.g., duct and service shafts, meter and communication closets, boiler room, mechanical and electrical equipment rooms, telephone equipment rooms, fuel room, toilet rooms for public or general use, etc.
 - (4) Construction** - the areas actually occupied by the structural and other physical features of the building, e.g., exterior walls, fire walls, partitions, etc.

12.3 GROSS VOLUME:

- a. Full Volumes:** (for fully enclosed areas) For each portion of the building, multiply the gross area (see paragraph 12.1 b.) by the average height of that portion from the underside of its base floor slab (or underside of crawl space floor slab or top of ground if no slab exists) to the top of the finished roof. The height of enclosed space beneath plazas, etc. shall be from the underside of the base floor slab to the finished surface of the plaza.
- b. Half Volumes:** (for partially enclosed areas) - For each half area of a building as follows (See paragraph 12.1 c.), multiply one-half (1/2) of the gross area by the average height.
- (1) Covered porch/terrace & building dock - from ground level to the top of the finished roof

- (2) Exterior covered balcony - from the underside of the floor construction system to the top of the finished roof
- (3) Entrance canopy over paving - from the underside of the slab to the top of the finished roof
- (4) Areaways - from the underside of base slab to the top of enclosure walls or grating
- (5) Unenclosed space beneath building (stilt design) - From the top of slab to underside of ceiling, if there is any enclosed floor or crawl space beneath the open area. - From the underside of the slab to the underside of the ceiling, if there is no enclosed floor or crawl space beneath the open area.

12.4 TABULATION: Tabulation of Areas, Volume and Efficiency shall be prepared and furnished by the A/E as follows:

a. Itemize: Itemize tabulations for the following:

- (1) Gross Area - Floor by floor plus appurtenant areas
 - (2) Net Assignable Areas - Room by room
 - (3) Gross Volume - Includes half volumes of partially enclosed areas as well as full volumes of totally enclosed areas
 - (4) Efficiency Factors - Divide gross area by net assignable area, e.g., 40,209 SF gross area divided by 33,705 SF net assignable area = 1.46.
 - (5) Percent Efficient - Divide net assignable area by gross area and multiply by 100, e.g., 33,707 SF net assignable area divided by 49,209 SF gross area, multiplied by 100 = 68.5% efficient
- Building Efficiency Factors (Guidelines):** The following identifies the range of efficiency factors for several types of buildings common to State facilities. They are to be adhered to closely. Refer to Attachment #4, Summary - Areas, Volume and Efficiency, for the method and the parameters by which the efficiency factor shall be determined.

Building Type	Efficiency Factor Range
Office, Administration, Classroom	1.43 (70%) to 1.67 (60%)
Gymnasium	1.43 (70%) to 1.54 (65%)
Library	1.33 (75%) to 1.54 (65%)
Science (Undergraduate)	1.54 (65%) to 1.72 (58%)
Science (Research)	1.54 (65%) to 1.82 (55%)
Student Union, Fine Arts, Auditorium	1.43 (70%) to 1.67 (60%)
Theatre, Concert Hall	1.43 (70%) to 1.67 (60%)
Dormitory	1.43 (70%) to 1.54 (65%)
Armory	1.33 (75%) to 1.54 (65%)
State Police Barracks	1.43 (70%) to 1.67 (60%)
Dining Hall & Kitchen	1.43 (70%) to 1.61 (62%)
Medical or Teaching	1.54 (65%) to 2.00(50%)
Facility Patient Health Facility	1.50 (67%) to 1.67 (60%)
Detention Facility	1.50 (67%) to 1.67 (60%)
Maintenance Shop	1.11 (90%) to 1.50 (67%)
Garage (Vehicle Support)	1.05 (95%) to 1.43 (70%)
Park Comfort & Shower	1.25 (80%) to 1.54 (65%)
Facility Visitors, Concession, Nature	1.33 (75%) to 1.50 (67%)

c. Submission of Areas, Volume and Efficiency

- (1) **Requirements:** Submissions are required for all new buildings and additions: they may also be required for alterations and renovations
 - (2) **Forms:** Use Summary-Areas, Volume & Efficiency Form, Attachment #4.
 - (3) **Content:** Submissions at each phase shall show not only the tabulations of that phase, but shall also show the tabulations of program and all prior phases (based on approved plans of the prior phases) on the same form.
 - (4) **Copies:** Submit in triplicate to UMB-OFM Project Manager.
3. **Submission Schedule:** The A/E via the DBC shall submit current detailed tabulations of areas , volume and efficiency at the time of submission of plans for review, at each phase of submission of plans, initially, and at each submission of revised plans as follows:

(1) **Schematic Phase** - On each architectural floor plan, the actual net assignable and the programmed net assignable area shall be noted for each programmed space.

(2) **Design Development Phase**

(3) **Construction Document Phase** - Initial Review (50%) and Final Review (100%)

(4) **Other:** As requested

13. SUB-SURFACE EXPLORATION AND EVALUATION

13.1 REQUIREMENTS: The A/E shall plan and perform the subsurface exploration and evaluation and procure the information relative to the site and subsurface conditions relevant to the project requirements. The data procured shall be adequate, correct and reasonably complete for the intended purposes of planning, design, quantity, and cost estimating, and determining the construction feasibility of the project.

13.2 SUBSURFACE DATA: The A/E via the DBC shall make available the procured data relating to the site and subsurface information and evaluation to the UMB-OFM Project Manager prior to starting their functions of review, bidding, construction and inspection respectively.

13.3 GEOTECHNICAL ENGINEER: The work of subsurface exploration and evaluation shall be performed under the direct guidance, direction, and control of the geotechnical engineer. All submittals to UMB relating to and including the results of the subsurface exploration, evaluation and recommendations shall bear the seal of the geotechnical engineer.

13.4 EXPLORATORY PROGRAM: During the schematic phase, the A/E shall submit to the UMB-OFM Project Manager, for review and approval, three (3) copies of the proposed Exploratory Program. The Exploratory Program shall include, but not be limited to the following:

- a. **Scope:** Understanding of the project and design considerations.
- b. **Boring Plan:** A layout of test borings/pits with reference to existing physical features and proposed locations of structures. Site plan of the project showing location of structures, grading, stormwater management areas, and utilities may preferably be used to show the test locations.
- c. **Description:** Number, type, and estimated depths of test borings/pits or other investigative systems.

- d. **Estimated Quantities:** Estimated linear feet of earth borings and rock coring and types and estimated quantities of laboratory and field tests.
- e. **Estimated Cost** of the subsurface exploration at the billing unit prices.

After approval of the Exploratory Program by the UMB-OFM Project Manager, the A/E shall conduct the subsurface investigation and evaluation. Prior to starting field operations, A/E shall verify the underground utilities with Miss Utility and the using agency.

13.5 GEOTECHNICAL REPORT: Upon completion of subsurface exploration and evaluation, the A/E shall submit via the DBC to the UMB-OFM Project Manager three (3) copies of the Geotechnical Report and any additional results, reports, supplements, revisions, modifications or clarifications developed subsequent to the original report. As a minimum, the report shall address each of the following:

- a. **Geology:** Geology and general nature of soil/rock/drainage/ and groundwater conditions in the project area.
- b. **History:** A history of the project site and relevant information relating to the nearby foundations and structures, underground springs, etc.
- c. **Boring plan:** Boring plan, to scale, indicating boring and test pit locations referenced to existing physical features and proposed locations of structures and other facilities.
- d. **Logs:** Boring and test pit logs, with soil/ rock description, classification, and depth of character of fill, ground water observations made during the exploration
- e. **Characteristics:** Information relating to rock/soil character, consistency, compressibility, shear strength, safe bearing value, chemical content, corrosiveness, frost penetration depth, permeability, and relevant properties.
- f. **Quantity Estimates:** Depths, locations, and quantity estimates of topsoil, unsuitable soils, existing fill, rock excavations, borrow, demolition debris or controlled substances, etc.
- g. **Rock Line:** Rock line elevations with cross-sectional profiles, evidence that rock strata is sound and not underlain by mine cavities or lenses that would affect the stability and support capability. Recommendations for corrections in case of questionable stability.

- h. **Foundation Analyses:** Foundation analyses and recommendations including the presentation of risk and cost effectiveness considerations.
- i. **Foundation Information:** All relevant foundation information including design parameters, elevations of bottom of footings or pile tips, related soil bearing or pile capacity, factors of safety and settlement analysis considerations.
- j. **Recommendations:** Recommendations for design and support of floor slab, retaining or basement walls, water or dampproofing and drainage, underground utilities, pavements or driveways and parking lots, stability of slopes, ground water seepage control, or other stabilization procedures.
- k. **Site Evaluation:** (relating to the excavation and earthwork feasibility.) If rock excavation is involved, indicate definition, removal and handling type of equipment, blasting requirements, etc. For earthwork, indicate shrinkage factors, suitability of on/off-site materials, and borrow requirements and source. Include groundwater observations, elevations and recommendations for temporary dewatering during construction and for permanent dewatering during construction. Effects of seasonal variations shall be noted.
- l. **Potential Problems:** Identify problems which may affect the cost of construction and/or cause delays, and furnish construction precautions and recommendations. Identify inspection, testing and quality control requirements during the construction.
- m. **Stormwater Management Recommendations:** As to the type of stormwater management facilities suitable for the site and design parameters to be used by site engineer for systems sizing.

14. **SEDIMENT AND EROSION CONTROL, AND STORMWATER MANAGEMENT**

- 14.1 REQUIREMENTS:** It is required that review and approval be granted by the Maryland Department of the Environment (MDE), Sediment and Stormwater Administration (COMAR 26.09.01.11 and 26.09.02), for all projects in which existing earth surfaces are disturbed in the execution of the project or which on-site stormwater management is required, to current limitations established by MDE. Should a flooding hazard be present, which cannot be alleviated by natural features, retention measures may be required in the design of controls. The A/E shall be responsible for submitting plans, specifications and computations with the Design Development and Construction Document submittals directly to MDE for review. One copy of the transmittal letter with MDE's signature acknowledging receipt shall be submitted to UMB as part of DD submission to the UMB-OFM Project Manager.
- 14.2 PROGRAM:** The A/E shall provide sediment and erosion control, and stormwater management programs at all design phase submissions. The final stormwater management, sediment and erosion control plan(s) shall address all aspects of the construction phase such as stabilization of temporary stockpiles of topsoil, waste material, etc. in addition to the overall requirements of the Sediment and Stormwater Administration.
- 14.3 CONTRACT DOCUMENTS:** Contract documents and stormwater management construction shall be in accordance with the Sediment Control Regulations approved and adopted by the MDE. No changes in these measures as shown in the contract documents may be approved by any person or agency other than MDE. The A/E shall be responsible for revising contract documents for any changes required by MDE.
- 14.4 REFERENCE MANUAL:** The reference manual controlling specifications for Soil Erosion and Sediment Control, latest edition. Manuals can be obtained at: Maryland Department of the Environment, 2500 Broening Highway, Building 30A, 1st Floor, Baltimore, Maryland 21224
- 14.5 CERTIFICATION:** Contract drawings submitted to MDE for approval must contain both Engineer's and Developer's Certifications as shown below:

ENGINEER'S CERTIFICATION

I (We), _____, do hereby certify that the sediment control provisions shown on this plan are design in accordance with the guidelines, standards, and specifications for soil erosion and sediment control issued by the Maryland Department of the Environment, latest edition.

_____ Signature	_____ Title	_____ Date
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UMB CERTIFICATION

I (We), _____, do hereby certify that

- A. All development and construction will be done in accordance with this sediment and erosion control plan, and further authorize the right of entry for periodic on-site evaluation by the State of Maryland, Department of the Environment enforcement inspectors.
- B. Any responsible personnel involved in the construction project will have a certificate of attendance at a Department of the Environment approved training program for the control of sediment and erosion before beginning the project.

Signature _____ Date _____

Address _____ Card # _____

Phone # _____

15. WATER AND SANITARY SYSTEMS

- 15.1 REQUIREMENTS:** The A/E shall comply with all the requirements of COMAR Title 09, Department of Licensing & Regulation, Subtitle 20, Board of Commissioners of Practical Plumbing and COMAR Title 26, Department of the Environment, Subtitle 04, Regulation of Water Supply, Sewage Disposal, and Solid Waste.
- 15.2 STATE PERMITS:** When the project requires connections to water or sewer in excess of 400 linear feet and/or a new storage or treatment facility other than septic systems that discharge underground, the A/E shall obtain a Water & Sewage Construction Permit from the Applications and Permits Section, Water Management Administration, Department of the Environment.
- 15.3 LOCAL PERMITS:** When the project requires a septic system that discharges underground the A/E shall be responsible for complying with all the requirements of the local county health department and shall obtain the approval in writing, as well as COMAR Title 09, Subtitle 20 and COMAR Title 26, Subtitle 04.
- 15.4 SWIMMING POOLS:** Where the project requires a design or a repeat design for a swimming pool, all requirements of COMAR Title 10, Subtitle 17, Chapter 04 shall be followed.
- 15.5 WATER APPROPRIATION:** When the Project requires the withdrawal of either ground water or surface water, the A/E shall be responsible for complying with all permitting requirements and shall comply with COMAR 08.05.02, "Water Appropriation or Use".
- 15.6 UTILITY CONNECTIONS:** The A/E shall be responsible for making application to, and obtaining from, any and all local and State regulatory agencies, those permits and approvals necessary to make utility connections to available public, private or municipal water and sewer facilities to serve the site or to construct the necessary on-site sanitary facilities to support the building project in its entirety.
- a. Owner Approval:** The A/E shall obtain from the owners of the utilities, the necessary approvals for connection to the same and shall be responsible for coordination of the actual utility connection with the contractor's work schedule.
 - b. Trade Permits:** Mechanics and/or trade permits will be obtained by those trades as required by them.

- c. **Payment:** Actual payment of any local water and sewer charges or connection fees will be the responsibility of UMB unless otherwise required. The A/E shall direct the utility owner to invoice the UMB for said charges unless otherwise required.

16. PROJECT PROGRESS REPORT - PLANS AND SPECIFICATIONS:
Intentionally Omitted.

17. PROJECT DESCRIPTION

17.1 PROJECT DESCRIPTION SHEETS: (original and 2 copies) shall be completed and submitted by the A/E for each project at:

- (1) Design Development Phase,
- (2) Completion of the Construction Documents Phase, and
- (3) At such other times as requested (see Attachment #6)

Follow directions for completing the Project Description Sheet. (See Attachment #6-A)

18. PRESENTATION TO THE BOARD OF ARCHITECTURAL REVIEW

18.1 REQUIREMENTS: The Board of Architectural Review is created in accordance with Article 78A, Section 23, Annotated Code of Maryland. The A/E may be required to make presentations to the Board of Architectural Review at the Schematic and Design Development Phases. The A/E shall be required, as requested, to make such presentation to the Board of Architectural Review in connection with new buildings, building additions, and major renovations that alter the building exterior.

18.2 SCHEMATIC DESIGN PRESENTATION

First Presentation: The Board of Architectural Review, if required, shall consider the first presentation as the Schematic Design Phase regardless of the state of development and shall make its comments and recommendations accordingly.

- b. **Video:** The A/E shall obtain a video tape of the site and surrounding structures. The video shall be keyed to the plot plan.
- c. **Notification:** The A/E will be notified of date and time of the board meeting and be present with an explanation of the program, the schematic design of the building, the site, a simple block model and cost of the project. The A/E will be advised of the time limit for the presentation to the Board. The UMB-OFM Project Manager will schedule any of the A/E presentations before the Board of Architectural Review.

- d. **Considerations:** The Board will consider all factors affecting the project, including program, siting, adaptability of the master plan (if one exists) and architectural design. The Board, in its comments and recommendations, will evaluate the functional and esthetic aspects of the project design, and consider whether the project can be built economically, consistent with sound construction and minimum maintenance.
- e. **Recommendations:** After considering the submission, the Board shall discuss with the A/E the tentative recommendations of the Board. The A/E will be given the opportunity to reply to the Board's comments. The Board shall develop the final recommendation in the presence of the A/E.

18.3 DESIGN DEVELOPMENT (DD) PRESENTATION: The Design Development (DD) drawings will be presented to the Board of Architectural Review, if required, in the same manner as the Schematic Design.

18.4 MINUTES: The Board supplies written minutes which are sent to UMB. The UMB-OFM Project Manager will advise the A/E and instruct him/her as to how he/she is to proceed.

18.5 ADDITIONAL PRESENTATIONS: Additional presentations of the schematic or design development phase may be required. When subsequent meetings are required, all previous submissions shall be made available by the A/E to the Board.

19. APPROVAL OF CONTRACT DOCUMENTS

19.1 The approval of contract documents (which includes plans and specifications) by the University in no way relieves the A/E of his/her responsibility for (1) the accuracy and completeness of such documents, (2) compliance with required Standards, Codes, Ordinances or other applicable regulations, or (3) compliance with standard of care governing the A/E performance.

20. CERTIFICATION OF CONTRACT DOCUMENTS

20.1 PROFESSIONAL CERTIFICATION - Immediately after the contract documents have been reviewed, approved and all necessary signatures placed thereon, the A/E shall place the following certification on each of two prints of the title (signature) sheet of the plans and forward same to the UMB-OFM Project Manager: "The contract documents for the indicated public improvement were prepared under my supervision and, to the best of my knowledge, information and belief, they comply with the relevant building codes."

20.2 SEAL AND SIGNATURE - All Contract Documents (drawings, specifications, etc., shall bear the seal and signature of the primary A/E and the seal and signature of each consultant to the primary A/E on drawings and specifications within his area of responsibility.

21. CARE OF TRACINGS

21.1 RESPONSIBILITY: It is the responsibility of the A/E to care for, protect and know the whereabouts of these tracings until they are finally delivered to UMB, fully corrected "as-built" tracings.

22. PAYMENTS FOR PROFESSIONAL SERVICES:

Intentionally Omitted.

23. EQUIPMENT AND MAINTENANCE MANUALS

23.1 RESPONSIBILITY: It shall be the responsibility of the A/E to obtain from the DBC and furnish in triplicate to UMB-OFM Project Manager, before occupancy or use of any public improvement, bound manuals for the following data:

- a. Wiring Diagrams:** Detailed wiring diagrams of all signal systems, temperature control systems, and equipment interlock systems.
- b. Lubrication:** Lubrication type, location and schedule for each piece of equipment.
- c. Maintenance Schedules:** Required maintenance data and schedules other than lubrication for each piece of equipment.
- d. Filters:** Types and required maintenance for each piece of air handling equipment.
- e. Catalog Cuts:** Descriptive literature of each piece of mechanical and electrical equipment, indicating model number, size and capacity, performance curves, etc., as would be applicable to adequately identify and describe the equipment involved.
- f. Spare Parts:** Recommended spare parts in inventory.

23.2 MANUALS: Manuals shall be arranged in four sections:
Elevators;
Plumbing;
Heating, Ventilation and Air Conditioning;
Electrical.

23.3 NUMBER OF SETS: A total of four (4) sets are to be provided.

23.4 PROJECT SUMMARY SHEET: In the front of each Manual which is to include, but not be limited to, the following:

Product Name
Model Number
Specification Section Designation
Name and Telephone Number of Subcontractor and/or Supplier
Warranty Period [must be a minimum of two (2) years]

24. DESIGN REQUIREMENTS:

- a. Submissions:** The A/E shall submit design drawings to UMB for review in accordance with the requirements provided.
- b. Drawings:** The A/E shall prepare drawings to a minimum scale of 1/4 inch per foot for equipment rooms, elevator machine rooms, boiler rooms, toilet rooms, etc. Drawings shall be coordinated with the respective trades, and cross-sections and elevations provided.
- c. Piping and duct location:** Ducts shall be shown to scale, and piping and duct routing shall be shown as nearly as possible in the location where they are to be installed.
- d. Interferences:** Care shall be taken to avoid structural interference and conflict between different branches of mechanical and electrical equipment. Particular attention shall be given to avoidance of structural components, including beams, columns, bracing, column caps and concrete reinforcement.
- e. Pipe sleeves:**
 - 1. Coordinate with the Structural Engineer to ensure that structural working drawings show pipe sleeves for pipes passing through footings, beams and exterior walls below grade. The elevation of the sleeves must be given.
 - 2. All penetrations through floors, walls and roofs shall have sleeves. All sleeves and openings shall be sealed. Specify fire/smoke sealant for penetrations through rated fire/smoke assemblies.

- f. Floor penetrations:** All mechanical pits, cleanouts, manholes, trenches, etc. shall be shown on the structural plans. If membrane waterproofing is used, waterproofing under the basement toilet rooms shall be dropped far enough to permit running the soil and waste pipes above the waterproofing so as to reduce the number of pipes passing through the membrane. Drainage piping required in connection with pressure slabs, and location of pipes and sleeves passing through or under pressure slabs, shall be fully coordinated with the structural design.
- g. Foundation drawings:** If construction of a foundation is to proceed in advance of completion of the superstructure drawings, separate working drawings of foundations are required. These drawings shall show:

 - 1. Mechanical work that cannot be installed later. This includes piping and conduits below or through foundations, slabs, etc.
 - 2. Later installation of mechanical work. This includes sleeves, openings, chases and trenches

DIVISION II PROCEDURES

1. PRE-DESIGN CONFERENCE

- 1.1 PURPOSE:** As soon as practicable after the DBC's contract with UMB has been fully executed the UMB-OFM, Project Manager will call a conference to initiate the project. This meeting will include the DBC, A/E and its consultants, a representative(s) of the Using Agency, and the UMB-OFM Project Manager.
- 1.2 TOPICS:** At this meeting, the following will be furnished and/or reviewed with Design/Build Team (DBT):
- a. UMB Procedure Manual for Professional Services on Design/Build Projects**
 - b. UMB Project Number**
 - c. Program:** the approved Project Program
 - d. Lead-Based Paint:** the statements in the approved program addressing the presence or absence of lead-based paint
 - e. Funds:** total funds available for the project
 - f. Schedules/Estimates:** the form and frequency of submission of Project Progress Schedules, Cost Estimates Worksheets. Tabulations of areas-volume-efficiency, Project Description Sheets, etc. for all types and phases of projects.
 - g. Using Agency Personnel:** the names and phone numbers of using agency personnel with whom he/she may coordinate details.
 - h. UMB Personnel:** the names of UMB staff personnel with whom he/she will coordinate all work.
 - i. Available Information:** all site, utility, topographic and master plan information as may be available (if additional information is required, it must be requested in writing by the DBC),
 - j. Site Visit:** date and authorization for site visit
 - k. Permits:** licensing and permits (Federal, State, Local, etc.)

- l. **Phase Schedule:** a schedule with all phases of the DBC contract including the following start and completion dates:
 - . Schematic Design
 - . UMB Schematic Design Review
 - . Design Development
 - . UMB Design Development Review
 - . Construction Documents
 - . UMB Review-50% CD, & 100% CD
 - . Construction Administration
- m. **Checklist:** review the UMB Review Drawing Distribution by A/E'S
- n. **Additional Information:** determine any additional information which the DBC and/or A/E may need to complete the Schematic Phase
- o. **Special Policies:** any special UMB policies applicable to the project, i.e., roofing, etc.
- p. **Project Design Standards,** if any.

1.3 AVAILABLE DATA: In renovation, alteration and addition projects, such data as may be available on the existing facilities will be furnished to the DBC and A/E. The DBC and A/E must visit the site of the project and familiarize themselves fully with the use, operational conditions, and limitations of said site and perform sufficient excavations or obtain measurements and other information relative to existing improvements as provided in the project program.

1.4 PROJECT DESIGN REVIEW MEETINGS: DBC, A/E and appropriate consultants will attend review meeting at UMB or Using Agency to discuss comments regarding design submissions. The Using Agency will be represented at the meeting. Meetings will be scheduled at the conclusion of each design phase and as needed.

2. PHASE I - SCHEMATICS

2.1 REQUIREMENTS: The following are required for all projects unless waived by the UMB-OFM Project Manager in writing:

- a. **Transmittal:** Transmittal letter with submission package
- b. **MDE Transmittal:** Transmittal letter from MDE with signatures stating that the project has been submitted for MDE review (required for projects involving site work or hazardous and toxic waste)
- c. **Schematic Design Drawings** (16 sets)

- d. **Narrative Description** - Architectural, site improvements and an engineering analysis of structural, mechanical, electrical & civil systems
 - e. **Project Progress Reports:** Three (3) sets
 - f. **Cost Estimate Worksheets:** Three (3) sets
 - g. **Tabulations:** Tabulations of Areas-Volume-Efficiency
 - h. **Design Data Form:** Building Code Design Data Form (See Attachment #10)
 - i. **Geotechnical Report:** Completed Geotechnical Report (See Division I, paragraph 13.5).
- 2.2 ALTERNATIVE ENERGY SOURCES:** A narrative description and engineering analysis of alternative HVAC system concepts and energy sources shall be submitted. It shall focus on the variety of systems that may be needed to meet the program's requirements and for securing comfortable space environment. It shall also address considerations for implementation of energy conservation, individual space temperature control and the major equipment selection.
- 2.3 SCHEMATIC LAYOUT** or a single line floor diagram for alternative systems shall be submitted illustrating system concepts, including all related equipment, control air and water distribution, etc.
- 2.4 REVIEW CONFERENCE:** During the preparation of Design Development Drawings, conferences will be held with the UMB-OFM Project Manager, and the designated person(s) representing the Using Agency. Review conference for Design Development Drawings will be coordinated by the UMB-OFM Project Manager.
- 2.5 COST ESTIMATES:** The Cost Estimate Worksheet (CEW) shall be fully developed. Total Project Cost figures shall include the costs as of the anticipated Bid Due (Use Standard CEW, Attachment #3). The A/E shall not design for, or contemplate funds being available in excess of those stated to him by UMB.
- 2.6 DRAWING AND PRESENTATION REQUIREMENTS**
- a. **General:** Materials and methods of illustrating the schematic design phase are left to the A/E. However, all drawings for presentation to the Architectural Review Board shall be mounted on a firm backing for each display for review.
 - b. **Site Plan** - Sketch site plan shall be at a minimum scale of 1" = 40.0'.

Architectural scale may not be used. Plan shall show location of existing buildings and structures, roads, walks, utilities, flood plains, wetlands and critical areas within 200 feet of the proposed structure and/or within the limits of the contract. It shall indicate proposed site improvements, grading, access, parking areas, utilities, etc. Where a master plan exists, the site plan shall show the future buildings adjacent to the proposed project, proposed structures, and/or within the limit of contract, grading, drainage, planting, lighting, access, sediment and erosion control and storm water management conceptual drawings.

- c. **Floor Plans** - Floor plan or plans shall be double line and be at a scale of 1/8" = 1'-0". No other scales shall be used unless written approval has been obtained from UMB-OFM Project Manager. Overall dimensions shall be shown. Major rooms, areas or space shall be appropriately identified by name, actual net square footage, and programmatic, net square footage. Each floor plan shall contain a note below the plan, indicating the approximate gross square feet and the net assignable square feet for each floor, including basements, mechanical floors, penthouses, etc. The first floor plan in the case of multiple story buildings shall contain a summary for the entire building. (See Division I, paragraph 12). Mechanical Floor Plan indicating single line representation of major systems.
- d. **Elevations** - Block elevations of all sides shall be at a scale of 1/8" = 1'-0" unless otherwise approved in writing by UMB-OFM Project Manager.
- e. **Dates/Project No.:** Dates must be shown on all drawings, with revision dates when applicable. UMB Project number and title shall be shown in the bottom right hand corner and scale shall be noted. If more than one scheme is prepared, they shall be noted "Scheme".
- f. **Sheet size:** Drawings shall be 24" x 36". Should circumstances of plan make the use of a larger sheet mandatory, inquiry shall be made to UMB-OFM Project Manager to determine if another size is acceptable.
- g. **Number of Drawings Required:** Six (6) copies of Schematic Design drawings shall be supplied to UMB for each presentation.
- h. **Text:** Text on drawings shall be legible and minimum 1/8" in size.

- i. **Mechanical System Narrative:** Provide narrative description and engineering analysis of proposed mechanical systems reflecting results of coordination with UMB. Engineering analysis shall address preliminary load calculations, design criteria used e.g. indoor/outdoor conditions, etc., domestic water demand, impact on existing site utilities, fuel analysis, justification for selection of specific HVAC systems including alternative system comparisons, investigation of need for specific life-safety provisions, such as smoke exhaust systems, and investigation of fire protection requirements.
- j. **Electrical:** The following are to be included:

- 1. **Specifics**

- a. Source of power
- b. Source of telephone, data, fiber optics, fire alarm, and security cabling.
- c. Locations of buildings to which underground cabling will be required for fire alarm, building management, security, etc.
- d. The approximate size, preferred location and number of stacks of electrical/telephone/data distribution rooms.
- e. Probable location for entrance into the building of underground fees for power, telephone, data, fiber optics, fire alarm, and security cabling.
- f. Rough 1-line diagram of power, fire alarm, telephone, data cabling risers.
- g. Emergency generator and fuel tank location.

2.7 SCHEMATIC DESIGN SUBMITTAL

2.7.1 Drawings

- 1. Site Plan and first floor level
- 2. Subgrade level (if any)
- 3. Typical floor level
- 4. All four (4) elevations

2.7.2 Outline Specifications for all divisions

- 1. Structural System Description

3. PHASE II - DESIGN DEVELOPMENT

3.1 REQUIREMENTS: The following are required for all projects unless waived by the UMB-OFM Project Manager in writing:

- a. **Transmittal:** Transmittal letter with submission package
- b. **MDE Transmittal:** Transmittal letter from MDE with signatures stating that the project has been submitted for MDE review (required for projects involving site work)
- c. **Sediment Control:** Preliminary sediment and erosion control & storm-water management computations and plan(s)
- d. **"Marked-up" schematics** review documents
- e. **Design Development Drawings** (16 sets)
- f. **Outline Specifications** (16 sets)
- g. **Project Progress Reports** (3 sets)
- h. **Cost Estimate Worksheets** (3 sets)
- i. **Project Description Sheets**
- j. **Tabulations:** Tabulations of Areas-Volume-Efficiency
- k. **Design Data Form:** Building Code Design Data Form (Attachment #10)
- l. **Life Cycle Cost/Energy Conservation Analysis**
- m. **Preliminary Electrical Calculations** (one copy per paragraph 3.7)

3.2 REVIEW CONFERENCE: During the preparation of Design Development Drawings, conferences will be held with the UMB-OFM Project Manager, and the designated person(s) representing the Using Agency. Review conference for Design Development Drawings will be coordinated by the UMB-OFM Project Manager.

3.3 COST ESTIMATE: An updated cost estimate shall be prepared. The A/E shall not design for, or contemplate funds being available in excess of those stated to him by UMB. (See Division I, paragraph 9)

3.4 DRAWINGS REQUIREMENTS:

- a. **Site Plan** - Sketch site plan shall be at a minimum scale of 1" = 40.0'. Architectural scale may not be used. Plan shall show location of existing buildings and structures, roads, walks, utilities, flood plains, wetlands and critical areas within 200 feet of the proposed structure and/or WITHIN THE LIMIT OF CONTRACT. It shall indicate existing and proposed contours as necessary, proposed site improvements, grading, sediment control, Stormwater Management, access, parking areas, new and existing underground utilities and services including point of entry into building. Where a master plan exists, the site plan shall show the future buildings adjacent to the proposed project.
- b. **HVAC/Plumbing Narrative:** A narrative description of HVAC and plumbing systems, equipment and controls as per Life Cycle Cost Analysis for all spaces in the building, including provisions for implementation of energy conservation and incorporating review comments from previous submission and reflecting further refinements.
- c. **Floor Plans:** Floor plan or plans shall be double line and be at a scale of not less than 1/8" = 1'-0". Major rooms, areas or space shall be appropriately identified by name and gross square footage. Each floor plan shall contain a note below the plan, indicating the approximate gross square feet and the net assignable square feet for each floor, including basements, mechanical floors, penthouses, etc. The first floor plan in the case of multiple story buildings shall contain a summary for the entire building. Provide Mechanical Floor Plan indicating single line representation of major systems, incorporating review comments from previous submission. Locations and service access shall be shown for all mechanical equipment, where utility cores are used, indicate planned arrangements of piping and ductwork within cores and provisions for accessibility.
- d. **Elevations:** Elevations of all sides shall be at a scale of not less than 1/8" = 1'-0". These elevations shall be developed to a sufficient degree to establish character of design, materials, textures and color.
- e. **Sections:** Sections through building, walls, etc. shall be at a large enough scale to illustrate floor to floor heights, ceiling heights, changes in elevations, typical construction, etc.
- f. **Dates/Project No.:** must be shown on all drawings, with revision dates when applicable. UMB Project number and title shall be shown in the bottom right hand corner and scale shall be noted. If more than one scheme is prepared, they shall be noted "Scheme A," B," etc., as applicable.

- g. Sheet size:** drawings shall be 24" x 36". Should circumstances of plan make the use of a larger sheet mandatory, inquiry shall be made to UMB-OFM Project Manager to determine the size that may be acceptable. However, drawings shall neither be smaller than 24" x 36" nor larger than 30" x 42".
- h. Number of Drawings Required -** Six (6) copies of DD drawings shall be supplied to UMB-OFM Project Manager for each presentation.
- i. Engineering Drawings:** shall be submitted at the DD Phase and as a minimum shall consist of single line drawings of each system: Structural, Civil, Plumbing, Heating, Ventilating, Air Conditioning and Electrical Distribution. Drawings shall show equipment layouts for specialized rooms such as laboratories; mechanical rooms, electrical rooms, kitchens, food serving areas, etc. Lighting, receptacle, telephone and special systems layouts are also required. Single line drawings shall be of sufficient detail as to convey the intent of the systems.
- j. Mechanical Drawings:** Building plans showing proposed location for HVAC, plumbing and fire protection equipment in main mechanical rooms and elsewhere inside and outside the building and on the roof shall be submitted. The submittal shall address space adequacy to accommodate service and removal of equipment, including equipment suspended above ceiling. Schematic layout, floor diagram or single line drawings for the HVAC, plumbing and fire protection systems, based on life cycle costing analysis showing the various components (air and water distribution, controls, etc. it shall be in sufficient detail as to convey the intent of the selected system and its performance.
- k. Life Cycle Cost Analysis:** A study of not less than three alternative HVAC systems shall be submitted substantiating the selection of HVAC systems and energy sources, according to the Procedure for the Implementation of Life Cycle Cost Analysis and Energy Conservation.
- l. Preliminary Stormwater Management:** Plans shall be submitted at the DD Phase.
- m. Text:** Text on drawings must be legible and 1/8" minimum size.
- n. Electrical:** Including the following:

 - a. Firm locations for:

 - 1. Electrical/telephone/data room stacks and building entrance.
 - 2. Emergency generator and fuel tank.

3. Cable tray/ladder system for distribution of telephone/data/security systems.
- b. Coordination and short circuit study - calculations, impedance diagram.
- c. 1-line diagram of power systems showing sizes of feeders, transformers, distribution panels, switchboards, motor control centers and protection schemes.
- d. Description of the sequence of operation, approved by the user, engineer, UMBC Physical Plant, Police and Environmental Health and Safety, for card access, building security, and fire alarm systems.
- e. Lay out of substation, emergency generator rooms and electrical/telephone/data rooms.
- f. Calculations to support the number and spacing of lighting fixtures to achieve IES lighting levels.
- g. Calculations to show compliance with energy conservation requirements for lighting (watts/square foot for corridors, offices, labs, etc.).
- h. Description of sequence of operation, approved by UMBC's Electrical Engineer and Operations and Maintenance Representative for substation automatic throw over or emergency power systems.

3.5 OUTLINE SPECIFICATIONS

- a. **Copies:** Sixteen (16) copies of Outline Specifications for Architectural, Structural, Site Improvements, Civil, Mechanical and Electrical work are to be submitted with the 100% Design Development documents.
- b. **Content:** The Outline Specifications shall clearly define all components of each of the systems and all materials that are intended to be used on the project. Outline specifications for HVAC, plumbing, fire protection and underground utilities shall clearly define the components of each system, as well as all materials and methodology of installation; individual specification sections planned for and list of equipment and materials to be included in each section.

3.6 ELECTRICAL CALCULATIONS:

- a. Requirements:** One copy of the following preliminary calculations are to be submitted with the DD presentation:

- (1) Load and demand analysis
- (2) Load analysis for stand-by power systems
- (3) Lighting power budget per latest revisions of ASHRAE/IES 90.1
- (4) Lightning risk assessment per NFPA 78, Appendix I

- b. Format:** All calculations are to be presented on an applicable form; all literature used in the determination of the calculations shall be referenced.

3.7 MECHANICAL CALCULATIONS: One copy of building and system load calculations of HVAC plumbing systems shall be submitted.

3.8 MEETING: Following submission and review of DDS, a meeting shall be held with the University, DBC and A/E.

3.9 DESIGN DEVELOPMENT PHASE SUBMITTAL: During the Design Phase the Design/Build Contractor shall complete the Schematic Building Design consistent with the terms of the design/build contract. The Design Development Phase submittal shall represent 35% completion of the Project design and engineering and shall include, but not be limited to, the following:

- 3.9.1 Utilities Analysis as required inclusive of preliminary layout of ductbank as required.

3.9.2 Drawings

- a. All Plans (dimensioned and materials noted)
- b. All Elevations (dimensioned and materials noted)
- c. Two building sections perpendicular to each other
- d. Exterior wall sections and details
- e. Single line diagrams of all fire protection, mechanical, plumbing and electrical systems indicating size, capacity, etc.

- 3.9.3 Outline Specifications: Technical sections of the Project Manual for all sections.

4. PHASE III - CONSTRUCTION DOCUMENTS

- 4.1 PREPARATION:** The DBC shall proceed with the preparation of construction documents (CD's) only upon receipt of written authorization by UMB-OFM Project Manager.

4.2 CONFERENCES: During the development of CD's, conferences will be held as needed with the UMB-OFM Project Manager, the designated person(s) representing the Using Agency, DBC and the A/E. Minutes of these meetings will be prepared and distributed by the DBC. (see Division I, paragraph 6)

4.3 REQUIREMENTS: Initial CD Review Submission (Approximate 50% Completion)

a. At this stage of completion of all CD's, the A/E shall submit the following to UMB for review:

1. **Transmittal:** Transmittal letter with submission package
2. **MDE Transmittal:** Transmittal letter from MDE with signatures stating that the project has been submitted for review (required for projects involving site work)
3. **Drawings:** Sixteen (16) sets unless otherwise designated in the Checklist for Distribution of Review Drawings by A/E's, black or blue-line prints
4. **Specifications:** Sixteen (16) sets - Draft copies shall be indexed and securely bound with durable covers with the 50% and 95% CD submittals.
5. **Cost Estimate Worksheet:** (In triplicate; see Attachment #3),
6. **Area-Volume-Efficiency Tabulations** (In triplicate; see Attachment #4)
7. **Building Code Data Form** (See Attachment #10)
8. **Electrical Calculations** - (One copy per paragraph 4.3 c)
9. **Mechanical Calculations** - (One copy per paragraph 4.3c)
10. **Storm-Water-Management:** plan(s), specifications and computations.
11. **Design Development Review Documents:** "marked-up" by review team(s). Provide a written response to UMB mechanical review comments from the DD phase, addressing each item individually.
12. **CITS/ITS** specification bid package (See paragraph 4.8)

13. Construction Documents Submittals: Construction Contract "Packages" for fast track schedule may be submitted after approval of the Design Development documents. Subsequent submittals of each system and/or each construction contract package shall be submitted to UMB for review as follows:

- 13.1 50%-complete construction documents by each contract "package" including all requirements of the Design Development Phase reviews and draft technical specifications for all (or applicable) trades;
- 13.2 95%-complete construction documents for each contract "package" and draft Project Manual including final technical specifications sections, Division 1 and contract bidding documents, and an updated project schedule and project cost estimate by trade; and,
- 13.3 100%-complete construction and bidding documents in accordance with the requirements of Design/Build contract.

b. Drawings: For Architectural and Engineering Drawings, 50% CD Submission is defined as 50% completion of each tracing that will constitute the final set of CD's. At this phase of design, the A/E will mark review sets with "FOR REVIEW ONLY, NOT FOR CONSTRUCTION" or equivalent. For Architectural and Engineering Specifications, 50% CD Submission is defined as a Draft Copy of the Final CD Specifications.

Provide a set of drawings representing a minimum of 50% completion of the final set of construction drawings. Included as a minimum shall be floor plans, sections, 1/4 scale floor plans of mechanical spaces, toilet rooms, and where required due to tight conditions or a high density of mechanical equipment. Also include details, schedules, symbols and abbreviations. Building performance criteria as outlined in the DGS requirements shall be completed and included on the drawings at this phase.

Electrical: 50% Construction documents should be accurate and coordinated with other disciplines, showing sizes, locations, connections and detailing materials, equipment and methods so the contractors understand what is intended and can select and install equipment to satisfy the intended purpose.

c. Electrical Calculations:

1. One copy of the following calculations are to be submitted with the 50% CD presentations. Those calculations previously submitted at the DD phase shall be updated for this submission:
 - a) Load and demand analysis
 - b) Load analysis for stand-by power systems, including sizing calculations for stand-by equipment
 - c) Lighting power budget per latest revision of ASHRAE/IES 90.1
 - d) Short circuit analysis using ohm or per-unit method depending on complexity of the system (Reference IEEE Transactions on Industry and General Applications, Vol. 3, Number 2, March/April 1967)
 - e) Voltage drop analysis
 - f) Power factor correction
 - g) Lighting calculations (interior and exterior)
 - h) Pole classifications, guy vector diagrams and guy strength when overhead transmission systems are involved.
 2. All calculations are to be presented on an applicable form; all literature used in the determination of the calculations shall be referenced.
- d. **Mechanical Calculations:** Finalize load calculations of HVAC & Plumbing and equipment selection. Provide bound sets of room heating and cooling load calculations for every conditioned space.
 - e. **Site Improvement Drawings:** 50% CD Submission is defined as 50% completion of each tracing that will constitute the final set of CD's, showing all existing and proposed conditions, materials, structures, fixtures, elements, furniture, equipment, etc., in sufficient detail to establish location, alignment and grade. The A/E will mark review sets with "FOR REVIEW ONLY, NOT FOR CONSTRUCTION" or equivalent. For site Improvement Specifications, 50% CD Submission is defined as a Draft Copy of the Final Specifications. Provide site plan indicating all required utility work, including existing conditions, proposed systems, structures, equipment in sufficient detail to establish location, alignment, grade, inverts and impact on existing structures, systems or utilities.
 - f. **Conference:** Following submission, the UMB-OFM Project Manager will schedule a conference with the DBC, A/E and a representative(s) of the using agency for a review meeting.
 - g. **Critical Path Method:** At the above discussion, review the DBC and

A/E along with the UMB-OFM Project Manager, and using agency representative will review the DBC's Critical Path Method (CPM) construction schedule. CPM's will be required on all construction projects unless the dollar value and nature of work clearly demonstrates no need for a CPM. During the discussion of CPM's significant milestone, activities necessary for control and phasing of the project will be identified and incorporated into the construction contract requirements. Project start date and end dates will determine which tasks are on the critical path.

- h. UMB Approval:** Following the 50% CD conference, the DBC may continue with the preparation of CD's with WRITTEN approval of the UMB-OFM Project Manager.
- i. MDE Approval:** Approval of the Sediment Control and Stormwater Management Plans by Maryland Department of the Environment in accordance with Division I, Paragraph 14 of this manual is required in this phase. A copy of the MDE approval letter is required to complete this review phase.
- j. Earthwork Cost Estimate:** A/E shall itemize in cost estimate earthwork quantities (topsoil cut & fill) and any unusual conditions such as rock excavation or unsuitable materials.
- k. Electrical**
 - 1. Floor Plans:** Provide a minimum of two plans for each floor. Normally, the first plan should show lighting requirements; and the second plan should show the floor system, power system, and the communication and signaling systems. A third plan will be necessary in locations where power, telephone, data, security and fire alarm systems cause overcrowding and poor legibility.

Floors plans include the following:

- a. Scale.** Indicate the scale by note and by graphic scale on each drawings;
- b. Plan sheets.** Provide column lines and numbers, and use north arrow indications on plan sheets;
- c. Section symbols.** Note the sheet locations of detail involved.
- d. Details.** On details other than standard details, note the sheet number and drawing location of detailed features;
- e. Key plan.** Where a portion of a plan or elevation appears on a sheet, provide a key plan that shows the location of that portion

with respect to the other portions;

- f. **Cross-references.** Indicate the relationship of details, plans, elevations, and sections by cross-reference;
- g. **Room title and number.** Show room title and number on all plans;
- h. **Specification information.** Write all specification information on working drawings. Do not repeat drawing information on plans, elevations, and details; do not repeat general specifications from the project specifications document.
- i. **Abbreviations.** When possible use standard abbreviations;
- j. **Equipment capacities.** Show equipment capacities;
- k. **Delineation of work.** Carefully delineate all drawings to distinguish between new, existing, and replacement items of work; and
- l. **Expansion space.** Indicate possible future expansions (both vertical and horizontal) by dotted lines on site plans, architectural floor plans, engineering floor plans, and in elevations and sections.
 - 1. **Scale plans.** Clarify congested areas on enlarged scale plans, or by additional normal scale floor plans. Include features that affect construction or interfere with the construction contractor's work in floor plans. These includes: expansion joints, structural beams located below the ceiling line, sky-lights, special panels, grills, air-conditioning outlets, ducts, piping, etc.
 - 2. **Plot plan.** Indicate exterior electrical work on a plot plan, which shall be complete and clearly delineate and extent of the contractor's responsibility. Plans also shall show all other underground utilities.
 - 3. **Electrical layouts.** Indicate layouts on drawings to define specific requirements for each raceway, conductor, cable, outlet, wiring device, lighting fixture, switching arrangement, equipment item, etc.

4. **Symbols and legends.** Electrical symbols required to define specific system components shall conform to IEEE standards; they may be supplemented by additional symbols, which shall be indicated on project drawings.
5. **Raceway layouts.** Indicate raceways required for each electrical system in their entirety on each floor plan; include specific identification on associated conductors or cables. Indicate branch circuits from outlet to outlet. Including switch legs, but associated home runs may be symbolically designated. Indicated feeders in their entirety from points of origin to termination; include all intermediate takeoffs, pull boxes, etc. Arrange raceways so they are not installed in elevator hoistways, duct spaces, stairwells, etc.
6. **Supplementary diagrams.** Include in drawings a one-line diagram for each major electrical system, and a riser diagram for each electrical system; these shall include schedules and supplementary information that completely define the several systems. Electrical schedules required shall include each medium-voltage or low-voltage switchgear assembly transformer motor control center and panelboard; these shall designate system characteristics and parameters for each protective device and motor controlled, including current limiting fuses circuit designation equipment served, and the connected load.
7. **Equipment rooms.** Provide enlarged scale drawings for each room required for medium-voltage and low-voltage switchgear assemblies, and for transformers. Show auxiliary systems equipment arrangement, grounding requirements, and DC and supervisory systems on drawings.

2. **Detail drawings.**

- a. **Architectural and other drawings.** Architectural or other drawings may be used to show exact locations of electrical or lighting work, but on electrical drawings show complete requirements.
- b. **Cross-references.** Include in drawings suitable notes which cross-reference diagrams, schedules, symbol list, general notes, etc., with associated floor plans.

c. **Detail drawings.** Provide detail drawings, as described below in subpars. (1) thru (4). Use a minimum scale of 1/4 - inch equals 1 foot.

1. **Front elevations.** Provide front elevations for each supervisory control panel motor control center and medium-voltage and low-voltage switchgear assembly. Provide front elevations for a typical transformer at each substation with the cabinet containing current transformer and secondary disconnecting switch. Provide front elevations for each type of services entrance, including the associated conduit bank and other significant details. Requirements shall be coordinated with utility companies. This is essential, as some require reinforced conduit bank construction for filled areas and a conduit bank support or saddle that must be cast in the building wall.
2. **One line diagrams.** Delineate elevator control transfer scheme, control transformer arrangement, potential and current transformer ratings, device numbers indicated by ANSI, etc., on these diagrams on associated one-line diagrams.
3. **Ground diagram.** Provide a system grounding diagram with the required layout also indicated on associated floor plans.
4. **Enlarged plans, elevations, and details.** Provide these for each typical and special electric and telecommunications closets.
5. **Service entrance profiles for duct bank.** Bell Atlantic duct bank and any others as required.

4.4 CONTRACT DRAWINGS - GENERAL REQUIREMENTS:

- a. **CADD:** A/E's shall be encouraged to produce contract documents on CADD (Computer-Aided Design & Drafting) whenever feasible. If generated by CADD, similarly prepared documents shall be required from all disciplines. (Auto-CAD, Version 14)

- b. Material:** Contract drawings will not be accepted unless made on mylar drafting film. Under no circumstances will drawings made on paper be accepted. Reproducible prints are not acceptable in lieu of cloth or mylar drafting film without prior approval in writing from UMB-OFM Project Manager.
- c. Scale of Drawings**
- (1) Site plans shall be at a scale of 1" = 40' unless, due to unusual circumstances, another scale is specifically authorized in writing by UMB-OFM Project Manager. Architectural scales may not be used for Site Plans.
 - (2) Floor plan or plans for contract drawings shall be double line and at a scale of 1/8" = 1'-0". No other scales shall be used for overall building floor plans unless written approval has been obtained from the UMB-OFM Project Manager.
 - (3) Building elevations of all sides shall be at a scale of 1/8" = 1'-0" unless otherwise approved in writing by the UMB-OFM Project Manager.
 - (4) All sheets must contain graphics scale.
- d. Drawing Size:** Sheet size for drawings shall be 24" x 36". Should circumstances of plan make the use of a larger sheet mandatory, inquiry shall be made to UMB-OFM Project Manager to determine if another size is acceptable.
- e. Lettering size:** shall be a minimum 1/8". All line work shall be of sufficient density to provide uniform reproduction and photographic quality. When using "Prestype," or similar material, a workable fixative shall be applied to eliminate peeling. When lettering, shading or marking on the reverse side of drawings, a double matte finish polyester drafting film shall be used or the reverse side of the drawing shall be properly prepared prior to its use. There shall be a cover sheet accompanying each set of drawings (see Attachment #11).
- f. Title and signature block:** shall be either Option #1 or Option #2 (see Attachment #12). The following items shall be included in the title block:
- (1) Title of Sheet - such as "FIRST FLOOR PLAN", "FINISH SCHEDULE," etc.
 - (2) Title of Project as stated in the contract.

- (3) Project Number - The UMB Project Number must appear on all drawings, specifications, contracts, shop drawings and correspondence pertaining to the job.
- (4) Date - This is the date drawings are completed.
- (5) Drawing Numbers e.g. Drawing No. ____ of
- (6) Location of job, as for example - Springfield State Hospital Sykesville.
- (7) Revisions
- (8) Space for UMB approval
- (9) Space for Using Agency approval
- (10) Architects' and Engineers' names, seals, etc. may be placed to the left of the above title arrangement or in other locations as made necessary by the drawing.
- (11) In addition to placement of seals, the Primary A/E must sign all drawings under his Seal. Consultants to the primary Architect/Engineer must sign all drawings prepared by their office under their seal.

g. Cover Sheet: All projects shall have a cover sheet containing the following information (see Attachment #11):

- (1) Name of Project
- (2) UMB Project Number
- (3) Location (full address if known)
- (4) UMBC
- (5) Board of Public Works-Governor, Comptroller, Treasurer
- (6) Names, addresses and phone numbers of all consulting firms
- (7) Vicinity Map
- (8) Location Map
- (9) Code Design Information, i.e., date of code, use group, construction classification, fire rating, total gross area, total net area, building height
- (10) List of Drawings There are no signature blocks required.

h. Site Plans

- (1) Use 1"=40', unless due to unusual circumstances another scale is specifically authorized in writing by UMB-OFM Project Manager. Architectural scales may not be used. The limit of the work must be accurately identified and located.

- (2) Plans shall include locations of all new and existing buildings and structures, roads, walks, utilities, flood plains, wetlands and critical areas, etc. It shall indicate existing and proposed contours. Where a master plan exists, the plan shall show the future buildings adjacent to the proposed project.
- (3) A complete Sediment Control and Stormwater Management Plan(s) as required by MDE shall be submitted at each design phase, including Engineer's Certification and UMB Certification. (See Division I, paragraph 14.5)

j. Plans and Elevations

- (1) Scale of Drawings: Unless otherwise permitted by UMB-OFM Project Manager, scale of building plans or details shall not be less than 1/8"= 1'-0". All drawings shall have a graphic scale for each scale used on the drawing.
- (2) Floor Plans: The plans shall show complete arrangements of all spaces, with their relation to structural, mechanical, and electrical clearly indicated. Structural, Plumbing, Heating, Ventilating and Electrical Plans shall be developed to indicate and show complete systems to be used. All ductwork shall be double line except in areas where not more than one duct is shown.
- (3) Elevations: The elevations shall show and clearly indicate all design elements and the materials to be used sections and details indicating any and all requirements of the structure or design together with properly shown story heights.
- (4) Drawings shall contain keys to materials, symbols and abbreviations, and sufficient schedules (finishes, doors, windows, etc.), so as to provide the proper organization and coordination of drawings with specifications.
- (5) On the first sheet of the mechanical and electrical drawings the following information shall be included:
 - a) Heating - Total heat loss for the building in BTUs, Ventilation load in BTUs, Domestic hot water load in BTUs, Heating design temperatures inside and outside.

- b) Cooling - Total heat gain for building in BTUs, Ventilation load for building in BTUs, Indoor/Outdoor temperature conditions/humidity.
 - c) Plumbing - Total plumbing fixture units, Domestic water consumption maximum demand in gph, Maximum gas consumption in cu ft/hr.
 - d) Electrical - Total electrical load in KVA, Total lighting and receptacles in KVA, Total power in KVA, Largest motor H.P., Estimated Emergency Power demand in KVA, and the type and size of stand-by power unit(s).
 - e) Telecommunications - (as appropriate) System description Features Interface definitions
- (6) Structural Notes that include the following shall be place on one of the structural drawings:
- (a) Design Dead Load, Partition Load and Live Load for each and every area of the building, including the roof. Allowances shall be included, wherever applicable, for additional loads due to mechanical equipment, piping, ceilings, etc.
 - (b) Design bearing value for all spread footings and caissons, and bearing load for all piles
 - (c) Concrete strength required for each part of the building
 - (d) Steel yield point strength for all reinforcing and structural steel
- (7) Plans and specifications for excavation, retaining structures, dewatering, etc., where required, shall be included in the contract documents.
- (8) Demolition Drawings: Where demolition work is required, the plan shall clearly show what work is to be removed and a reference provided to identify the proposed work for the same area. If lead is identified, the demolition plan and related notes shall describe the location and refer to the specification section which shall specifically describe or give the necessary regulation for the removal and disposal of potential lead hazards.

4.5 SPECIFICATIONS FOR CONSTRUCTION

a. General Requirements:

- (1) A/Es shall follow the Construction Specifications Institute division numbers Masterformat and Three Part Section format.
- (2) Where trade names or proprietary items are identified reference shall be made to "approved equals".
- (3) Whenever brand name products are include at least three acceptable brands shall be named, if possible.
- (4) Hardware schedules are required in the specification. They shall be open to full competition. The A/E shall determine the requirements of the Using Agency for the Master Key System.
- (5) Generalized all-inclusive ("grandfather") clauses must be avoided. Be specific in such items as "Scope." Scope should enumerate items to be included.
- (6) Reference shall be made to the latest applicable General Conditions in appropriate divisions of the specifications.
- (7) One page of the Specifications (following the cover page) shall contain the Project Title, UMB Project Number, the seal and signature of the primary A/E, and the seal and signature of each consultant to the primary A/E.
- (8) When electrical high voltage work (over 600 volts) is required in construction of a project, the services of an independent high voltage electrical testing agency shall be utilized. The project specifications shall read as follows where appropriate: "The contractor shall coordinate and cooperate with the independent high voltage electrical testing/inspection agency under contract to the DBC for testing/inspection of all electrical high voltage components of the system prior to being energized." The costs of the testing/inspection services shall be paid direct by DBC. Repeat testing costs caused by unacceptable test results and/or inspection findings shall be back charged to the contractor.

(9) The following statement shall be included in the appropriate sections of the electrical specifications: "An electrical certificate from an independent (non-governmental) electrical inspection agency approved by the State of Maryland Fire Marshal must be submitted to the UMB prior to or with the final payment invoice. The inspection certificate shall be used in lieu of a county or municipal permit for electrical work performed on property belonging to the State of Maryland. The electrical sub-contractor shall file with the independent inspection agency, and pay all fees associated with such filing, at the start of construction so that adequate rough-in inspection can be made during the course of work."

b. Assembly of Specifications: All specification pages must be firmly and permanently bound together with binding tape to prevent the removal of a page without the possibility of detection. Specifications must be printed on both sides of paper.

c. Cover Page of Specifications: The required information is shown on the attached sample (See Attachment #13). The A/E shall include a "mock-up" with the review sets of specifications as the names of various state officials change from time to time. A seal page is required. The color of the cover sheet is to be selected by UMB.

d. Contents of Pages of Specifications:

(1) The Contents Pages shall be complete, listing all division numbers and division titles as shown by CSI. After each division number and title, indicate the page numbers where the specification is to be found. If the project does not include any work in a specific division show "none" in the column of page numbers. It is preferred that sub-divisions or "sections" (paragraphs) be numbered or lettered in consecutive order, rather than the four digits and decimals shown by the CSI.

(2) Sequence of Specification contents shall be as follows: - Title Page - A/E Seals & Signatures - Index/Contents - Instructions to Bidders - General Conditions - Wage Rates (see Division II, paragraph 4.7) - Division I - Etc.

4.6 INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS:
Intentionally omitted as the responsibility of the DBC.

4.7 PREVAILING WAGE REQUIREMENTS: Prevailing wage scale, if applicable are provided to the DBC by UMB in the Request for Proposal documents.

4.8 INSPECTION AND TESTING SERVICES

- a. **ITC/CIT Contracts:** For those projects for which resident construction inspection (CITS) is to be provided by private inspection firms, the required material inspection and testing shall be part of the construction inspection contracts (CITS). Unless otherwise noted, resident construction inspection contracts shall be developed for construction contracts with estimated costs in excess of one million (\$1,000,000) dollars.

When CITS/ITS inspection and/or testing services are required in connection with the construction of a project, such services shall be provided by a qualified independent inspection and testing firm (ITS or CITS) under contract with the DBC.

- b. **Contract Monitoring:** The DBC shall, monitor the contract with the contracted inspection and/or testing firm. Contract monitoring shall consist of **weekly review** of test results and field inspection reports, liaison with ITS/CITS.

4.9 FINAL CD REVIEW SUBMISSION - (95% COMPLETION)

- a. **Final Review Meeting:** When CDs have been 95% to 100% completed, coordinated and checked by the A/E, the DBC shall request the UMB-OFM Project Manager to arrange a meeting with all concerned UMB staff and the Using Agency. The A/E shall have present his appropriate Consultant(s). At this meeting the CDs shall be reviewed in total, to such an extent that UMB and the Using Agency may be assured that upon submission of the Final CDs (Original Tracings), the required signatures may be applied without delay.

- b. **Requirements:** Three weeks prior to the above meeting the DBC all submit the following to the UMB-OFM Project Manager:

- (1) Drawings - Sixteen (16) sets black or blue-line prints (Note: Review sets must be marked "FOR REVIEW ONLY, NOT FOR CONSTRUCTION" or equivalent). Provide a complete set of drawings including site plan, floor plans, sections, 1/4 scale plans, details and schedules, incorporating all previous review comments. The drawings shall include a building load summary for HVAC and plumbing including but not limited to the following: ventilation criteria, design conditions, total heating and cooling loads, fixture units, domestic hot and cold water demand and other, utilities and services required in the project. In addition, substantiating data indicating coordination between the mechanical design team and other disciplines shall be submitted. The use of prints of interdisciplinary, composite floor plans with appropriate highlighting and annotations is an effective method.

- (2) Specifications - Sixteen (16) draft copies shall be indexed and securely bound with durable covers; specifications shall be complete incorporating all review comments from previous submissions. Mechanical specifications shall represent all facets of the mechanical work shown on the submitted drawings, including products and execution documentation.
- (3) Construction Bid Form: Intentionally omitted.
- (4) Cost Estimate Worksheet - (In triplicate)
- (5) Area-Volume-Efficiency Tabulations - (In triplicate; this submission shall be up-to-date)
- (6) Project Description Sheet - (In triplicate; this submission shall be up-to-date)
- (7) A brief project description including design details such as size, type of building, roof specs, type of construction, HVAC, uses or purposes of building and special design features
- (8) Some projects may require additional CDs for review. The A/E shall verify the required number of CDs with the UMB-OFM Project Manager, prior to submission of the above stated minimum
- (9) Electrical Calculations (One copy updated per Division II, 4.4.)
- (10) Electrical Coordination Study - At a minimum, this analysis shall encompass that segment of the distribution system between the origin of utility service and the first level of secondary distribution equipment, or where service is derived from an existing state-owned distribution system, between the existing primary distribution equipment and the first level of secondary distribution equipment. This study shall include set points for all adjustable protective devices.
- (11) Sediment Control and Stormwater Management Computations (up-to-date)
- (12) 50% CD review documents, "marked-up" by review team(s) with a written response to UMB mechanical review comments addressing every item individually.
- (13) Engineering Analysis: Provide bound sets of engineering analyses including any additional room heating and cooling load calculations not provided in the 50% CD phase, and calculations supporting the selection of all mechanical equipment.

(14) **Electrical:** Should be essentially complete and coordinated by A/E. The drawings shall include all circuiting and wiring, details and schedules.

- c. **Permits:** All necessary permits and/or approvals, save those required of the construction trade necessary to perform the work for making connections to available water and sewer facilities to completely support the project as called for in Division I, paragraph 16, Water and Sanitary Systems.

4.10 FINAL CD SUBMISSION (100% COMPLETION) At this stage of 100% completion of CDs, the A/E shall submit sixteen (16) sets of the following to UMB-OFM Project Manager:

- a. **100%:** CD drawings and specifications (fully coordinated with drawings), etc., incorporating all review comments from the 95% CD phase with written response to UMB mechanical review comments from 95% CD phase addressing each item individually.
- b. **All CDs (Tracings):** The tracings shall be retained during this submission. Final comments received after this submission shall be incorporated into the final design. After all review comments have been incorporated, submit the final construction documents (tracings). In addition, provide a written response to UMB review comments from this phase.
- c. **Updated calculations,** loads and demands charted
- d. **Engineering analysis:** Provide bound sets of engineering analysis addressing any reselection or revisions resulting from the 95% CD phase review comments.

4.11 COST ESTIMATES: Intentionally Omitted.

4.12 FINAL APPROVALS: The A/E will secure and submit via the DBC to UMB final approvals and/or permits from all regulatory agencies and public utilities (State Fire Marshal's Office; Department of Health and Mental Hygiene; Maryland Department of the Environment; water, sewer, telephone, gas and electric owner; etc.) affected by the project design.

4.13 A/E CERTIFICATION: The A/E will furnish the certification of the Contract Documents as required in Division I, paragraph 20.

4.14 SIGNATURES: After all signatures of approval have been obtained, UMB will notify the A/E to pick up the tracings.

4.15 CONSTRUCTION BID FORMS: Intentionally omitted as the responsibility of the DBC.

4.16 ALTERNATES

a. Purpose: When authorized by UMB-OFM Project Manager, the A/E shall specify add alternates to be included in bids as may be considered necessary to assure project costs within established budgets. Alternates shall be used to affect a change in the scope of the project or in the materials or methods specified. The following practices shall be followed by the A/E when specifying alternates.

(1) **Priorities:** The A/E shall review all alternates with the OEC Project Manager and establish the priority in which alternates will be listed. Add alternates, if accepted with the Base Bid, will be in the order listed on the bid form. Alternates shall normally be all add in a given bid.

(2) **Federal Requirements:** If the project is federally funded, completely or in part, the Federal Government requirements for Alternates shall be followed.

5. PHASE IV - BIDDING PROCEDURES: Intentionally omitted as the responsibility of the DBC.

5.1 INVITATIONS: Intentionally omitted as the responsibility of the DBC.

5.2 ADVERTISEMENT: Intentionally omitted as the responsibility of the DBC.

5.3 BID DATE: Intentionally omitted as the responsibility of the DBC.

5.4 DISTRIBUTION OF CONTRACT DOCUMENTS: Intentionally omitted as the responsibility of the DBC.

5.5 PRE-BID CONFERENCE: The A/E shall attend all pre-bid meetings conducted by the DBC.

5.6 ADDENDA

a. Interpretation: Only the A/E shall interpret the contract documents during the bidding period. Interpretations shall be given by written instruction only.

- b. **Preparation:** The A/E shall prepare addenda as necessary during the bidding period and deliver the number of copies in accordance to DBC for distribution to prospective bidders not less than seven (7) working days prior to scheduled date of bid opening.

5.7 CONTRACT (BIDDING) DOCUMENTS: Intentionally omitted as the responsibility of the DBC.

5.8 BID OPENING: Intentionally omitted as the responsibility of the DBC.

6. PHASE V - CONSTRUCTION

6.1 CONTRACT AWARD: Intentionally omitted as not applicable on a DBC project.

6.2 WORK INITIATION CONFERENCE: Intentionally omitted as the responsibility of the DBC.

6.3 PROJECT SIGNS: Project signs are required for all projects over \$10,000. The DBC shall provide one project sign per the Project Design Standards for each major entrance to the project.

6.4 PROGRESS MEETING AND PROJECT REPORT

- a. **Responsibility:** It will be the DBC's responsibility to chair the meeting and submit minutes within 5 working days following the meeting, to UMB-OFM Project Manager for approval.
- b. **Scheduling:** Progress meetings shall be held a minimum of every two weeks. The progress meeting minutes are to reflect the true intent of the progress meeting. The purpose of the progress meeting is to review the job progress, and to resolve any problems which may be impeding the job progress. Problems strictly between the DBC and the Sub-Contractor shall not be discussed. At each meeting, actual job progress and anticipated work as outlined in the project schedule shall be reviewed.
- c. **Requirements:** During the construction phase of work, the A/E shall be required to have available at progress or special meetings or for field inspections those members of the design team whose technical expertise is necessary to clarify or reconcile project difficulties. Said personnel shall also be required to furnish to UMB-OFM Project Manager via the DBC written reports summarizing said clarification, direction, reconciliation or results of field inspections. The A/E shall include sufficient man-hours of the various disciplines in construction phase services to provide this support on 'on-call as needed' basis. No additional compensation shall be made to the DBC over and above the amounts included in the A/E fee unless the object of these events is outside the original contract scope.

- d. **Minutes:** The progress minutes are to contain the following information. Items (1) through (7) shall be on the first page of minutes.

- (1) Project Name
- (2) Project Number
- (3) Progress Meeting Number
- (4) Time and Date of Meeting
- (5) Project Synopsis:
 - Notice to Proceed
 - Completion Date
 - Contract Calendar Days
 - Contract Calendar Days Elapsed
 - Contract Calendar Days Remaining
 - Percentage of Time Consumed
 - Percentage of Job Completion
 - Anticipated Completion Date
 - Bad Weather Days Requested
- (6) Statement of Any Items Delaying the Project
- (7) Summary of Work Completed to Date
- (8) Old Business
- (9) New Business
- (10) Participants
- (11) Time of Adjournment
- (12) Time and Date of Next Progress Meeting

6.5 MATERIALS AND COLORS: At the appropriate time in an early stage of construction, the A/E shall select and the DBC shall coordinate the approval of brick panels, stone sample, concrete colors and textures, paint colors and all other finishes with the UMB-OFM Project Manager. The UMB-OFM Project Manager must also approve in writing all such materials, including material substitutions.

6.6 CHANGE REQUESTS AND CHANGE ORDERS

- a. **Unauthorized Changes:** Representatives of using agencies are not authorized to issue instructions of any kind to contractors or A/E's except when such instructions relate to security or operating functions of the institution.
- b. **Procedure:** Changes requested by the Using Agency must be submitted in writing to the UMB-OFM Project Manager who will issue the necessary instructions to the DBC.

- c. **Requirements:** For any and all construction related change orders, the DBC must include a detailed cost proposal to the UMB-OFM Project Manager for review and approval. This proposal shall include an itemized breakdown showing all related material quantities, labor hours, material costs, unit prices, wage rates, labor and material burdens, and all other associated expenses. The DBC is responsible for providing a written cost estimate which independently verifies that the subcontractor's cost proposal is fair, reasonable, and accurately reflects the proposed changes. The DBC is also responsible for the preparation of, transmittal to, and processing of all change orders.
- d. **Construction Change Order Approval Form:** This form will note the reason for the change order. The change order may be required due to a program change, (code violation of a provision published subsequent to the issue of the documents), field condition, omission or error. UMB may seek to recover costs due to a change order required as a result of an error in the preparation of the documents, or an omission in the documents which cause UMB to incur a cost it would not have incurred had the documents been correct at bidding.
- e. **See RFP document for further information on change orders.**

6.7 CERTIFICATES OF PAYMENTS

- a. **Percentage of Completion:** The DBC's Project Manager and the UMB-OFM Project Manager will agree in draft form on the percentages of completion of the various segments. The representative sub-contractors, and/or A/E will participate in this effort as deemed necessary by DBC and UMB.
- b. **Monthly Estimate:** After completing (a) above the DBC will prepare a typed copy of the monthly estimate on the prescribed form and return it to the UMB-OFM Project Manager for review and signature.
- c. **Review:** Intentionally omitted as included in "b." above.
- d. **Submittal:** Intentionally omitted as included in "b." above.

6.8 SHOP DRAWINGS/PRODUCT DATA SUBMITTAL:

- a. A/E to provide master list of submittals based on numbering system approved by UMB.

- b. The A/E shall review, approve and take appropriate action upon the Project Contractor's submittals such as Shop Drawings, Product Data and Samples, for checking for conformance with information given and the design concept expressed in the Construction Documents. The A/E's action shall be taken within two (2) weeks of receipt for initial submittals so as to cause no delay in the A/E's Professional judgement to permit adequate review. The A/E's action on all shop drawings/submittals shall be reviewed by UMB prior to the trade/subcontractors or suppliers.

6.9 REQUESTS FOR INFORMATION (RFIs): Respond to all RFIs in a timely manner and provide clarifications - (i.e. sketches/drawings and specifications as necessary).

6.10 CHANGE BULLETINS (CB): Provide CB's in consecutive numbering order with sketch/drawings and/or specifications to document any changes to the construction documents.

7. COMPLETION AND ACCEPTANCE OF PROJECT

7.1 FINAL INSPECTION: When the project or designated portion thereof is substantially complete the DBC shall notify the UMB-OFM Project Manager in writing. If the A/E verifies the work is substantially complete, he will establish a date for a Final Inspection, a representative(s) from the Using Agency, the DBC and A/E. The entire project will be inspected and all defects or deficiencies observed in the construction or any deviations from the contract documents will be noted on the punch list. If, in the opinion of the A/E and the UMB-OFM Project Manager, the project is ready for acceptance, a Final Inspection report will be issued to the DBC establishing the date of acceptance and the start of the guarantee period. The Final Inspection report will be signed by all the representatives.

7.2 FINAL PAYMENT: When all the defects and deficiencies have been corrected and verified by the UMB-OFM Project Manager then the A/E shall review the work and report to DBC that the punch list has been finalized. Once the punch list has been completed the DBC shall submit final payment request to the UMB-OFM Project Manager.

7.3 RECORD DRAWINGS

a. As-Built Drawings

- (1) The A/E shall acquire from the DBC or CITS/ITS, the record set of drawings as required by the Contract Documents and revise and so note on the original Working Drawings, the "As-Built" conditions of the project.

- (2) "As-Built" drawings shall be marked up by the DBC, subcontractors or the CITS/ITS in the field on a regular basis to record all changes in the work as they occur, and the exact location of all exposed and concealed pipe runs, valves, plugged outlets cleanouts and other control points including electrical conduits and ducts, in such manner as will provide a complete accurate as-built record. The location of pipes or control points concealed underground, under concrete, in chases or above hung ceilings shall be dimensioned. "As-Built" drawings shall be neatly marked with colored pencil or ink, and shall be delivered to the Architect.
 - (3) "As-Built" tracings must be corrected, original drawings submitted on linen or mylar drafting materials, Reproducible mylar materials are subject to approval by UMB. No paper-based tracings will be accepted.
 - (4) If original drawings are prepared by CADD, "As-Built" drawings must also be generated on CADD. If CADD is used as the drawing medium, CADD-generated "As-Built" shall be required from all disciplines.
 - (5) Acceptance of "As-Built" tracings shall be conditional upon UMB-OFM Project Manager's approval of materials, quality, completeness and accuracy. UMB reserves the right to verify "As-Built" accuracy prior to final payment.
 - (6) As-built drawings shall be turned over to UMB-OFM Project Manager within four (4) months of satisfactory completion of the project; final payment of the A/E's Phase V fee shall not be due until "As-Built" tracings and one complete set of contractor's record set are submitted and approved by UMB.
- b. Operation, Parts and Maintenance Manuals (OPMs):** It is the responsibility of the DBC to obtain the Guarantees, Roof Bond, Equipment and Maintenance Manuals, Brochures, etc., and forward same UMB-OFM Project Manager for distribution inclusion of the Using Agency (See Division I, #23 for details).
- c. Approved Shop Drawings:** Throughout the Construction Phase, the A/E shall assemble a complete set of approved shop drawings for the Using Agency. At the time of acceptance of the project by the Using Agency, the A/E shall forward this complete set of approved shop drawings, including one copy of the "As-Built" drawings, referred to in paragraph (a) above, directly to the DBC who is to forward these documents to the UMB-OFM Project Manager.

8. PHASE VI - POST CONSTRUCTION PHASE (GUARANTEE PERIOD)

- 8.1 SITE VISITS:** During the two year guarantee period, the DBC, and the A/E and his design team (all disciplines) shall make a minimum of two (2) site visits after acceptance of the project at times determined by the UMB-OFM Project Manager. These visits will be arranged by the UMB and shall be in the presence of the Using Agency representative and UMB representatives.
- 8.2 REPORTS:** The A/E via the DBC shall provide a written report to the UMB-OFM Project Manager within seven (7) days after each site visit. This report is to include all disciplines.

DIVISION III POLICIES AND PROCEDURES

1. FLOODPLAIN MANAGEMENT CRITERIA FOR FLOOD-PRONE AREAS:

- 1.1 REQUIREMENTS:** All proposed project sites (including new construction, major improvements, and site work projects) shall be reviewed to ascertain that a one hundred (100) year floodplain determination has been made and that the source and map used for that determination are cited and attached to the program.
- 1.2 STANDARDS:** All activities proposed within tidal and nontidal floodplains, including construction of buildings, grading, or utility work, shall be designed to meet or exceed the standard set forth below.
- a. Determination:** The Department of Natural Resources, Water Resources Administration (DNR-WRA) may provide assistance in determining the tidal/nontidal nature of the floodplain. Proposed activities located within nontidal floodplains are also subject to the provisions of Natural Resources Article, Section 8-803, Annotated Code of Maryland, and COMAR 08.05.03.01 et seq.
 - b. Permits:** For tidal and nontidal floodplains, permits shall be obtained from DNR-WRA, the Maryland Department of the Environment, and the Army Corps of Engineers (if applicable).
- 1.3 BUILDING SITE:** If a proposed building site is in a tidal or nontidal floodplain, all new construction, manufactured buildings, and substantial improvements shall be:
- a. Anchored:** Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - b. Materials:** Constructed with materials resistant to flood damage;
 - c. Methods:** Constructed with methods and practices that minimize flood damage;

- d. **Service Equipment:** Constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and
- e. **Review:** Reviewed by DNR-WRA for consistency with flood damage reduction objectives.

1.4 Building Site: If a proposed building site is in a tidal or nontidal floodplain:

- a. **Sewage Systems:** New and replacement sanitary sewage systems are to be designed to minimize and eliminate infiltration of flood waters into the systems and discharges the flood waters; and
- b. **On-site Waste Disposal:** On-site waste disposal systems are to be located to avoid impairment to them or contamination from them during flooding.

1.5 NEW CONSTRUCTION: All new construction and substantial improvements (exceeding 50% of market value of structure) of non-residential structures within tidal or nontidal floodplains shall:

- a. **Floor Elevation:** Have the lowest floor (including basement) elevated at least one (1) foot above the 100-year flood level; or
- b. **Watertight:** shall be designed to be watertight to at least two (2) feet above the 100-year flood level, with walls substantially impermeable to the passage of water and the structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
 - 1) A registered Professional Engineer or Architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice; and
 - 2) A record of such certificate which includes the specific elevation to which such structures are floodproofed shall be provided to DNR-WRA and indicated on design drawings.

- c. **Fully Enclosed Areas:** Areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters shall:

1. Be certified by a registered Professional Engineer or Architect: or
2. Meet or exceed the requirement for a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

1.7 ZONES VI-30, VE, V: All new construction within zones VI-30, VE, and V as delineated on the Flood Insurance Rate Map prepared by FEMA must be:

- a. **Location:** located landward of the reach of mean high tide;
- b. **Elevation:** have the bottom of the lowest structural member of the lowest floor two (2) feet above the 100-year flood level;
- c. **Foundation:** have a pile or column foundation and structure attached thereto anchored to resist floatation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously;
- d. **Support:** shall not use fill of structural support of buildings; and
- e. **Open Space:** shall have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or the supporting foundation system.

2. STANDARDS OF ETHICAL CONDUCT

2.1 CODE: Article III of the Code of Ethics for Executive Branch Officers and employees as promulgated by Executive Order of the Governor dated September 4, 1969 states in part that "It shall be considered unethical for any State officer or employee...to engage in outside employment which may frequently result in conflicts between the private interests of the officer or employee and his official State duties and responsibilities or which impairs or could reasonably be expected to impair his independent judgement in the exercise of his official duties.

Failure to conform to the standards of ethical conduct so prescribed may lead to removal from office, termination of employment, or other action as the particular case may require."

2.2 CONFLICT: A/E's providing professional services to the State should carefully note the foregoing standards and avoid any action in conflict therewith. Failure to comply with these standards may lead to termination and loss of contract for professional services.

3. CONSTRUCTION IN ALLEGHENY AND GARRETT COUNTIES

3.1 REQUIREMENTS: A/E's preparing Contract Documents for construction in Allegheny or Garrett County shall include the following in plans or specifications: "The bidder's attention is directed to the requirement by law which requires all Contractors to notify the Bureau of Mines when coal is encountered on any construction project. This notice shall be sent to the following: Director Maryland Geological Survey Bureau of Mines, 16-20 E. 23rd Street 69 Hill Street Baltimore, Maryland 21201 Frostburg, Maryland 21532"

4. VOLUMETRIC BATCHING AND CONTINUOUS MIXING OF CONCRETE

4.1 OPTIONS: Contractors shall have the option of furnishing drum transit mixed concrete according to ASTM C-94, or volumetric batched concrete according to ASTM C-685. It is therefore directed that unless an A/E has a valid objection thereto all future concrete specifications for State (DGS) projects shall include the provision that a Contractor may supply either transit mixed concrete conforming to ASTM C-94, or upon approval of the A/E, volumetrically batched concrete conforming to ASTM C-685. The A/E shall include such special provisions as may be necessary with the latter specification.

5. STANDARDS FOR NEW ROOFING CONSTRUCTION, REROOFING OF EXISTING ROOFING AND ROOFING SYSTEM GUARANTEE REQUIREMENTS

5.1 SLOPE: All roofs on new construction shall be pitched with a minimum of 2-1/2" per 1' slope achieved structurally if feasible per the revised DGS Roofing Policy with draft date of 12/98.

5.2 PREFERENCE: Steep roofs are preferred on new construction, if feasible, and may be a standing seam metal system or an asphalt coated fiberglass surfaced with ceramic coated mineral aggregate.

2. **Standing Seam Metal Roofing Systems:** shall be fabricated metal panel systems from 20 gauge G-90 galvanized steel conforming to ASTM A-446 Grade A and ASTM A-525. The system shall conform to the requirements of ANSI Publication A 58.1, BOCA, and the American Institute of Steel Construction Manual. The panels shall have a UL Class 90 rating and the structural uniform uplift load capacity shall be in accordance with ASTM E330. The finish shall be equal to at least 70% Kynar and shall be tested in accordance with ASTM procedures. The finish shall have a 20 year manufacturer's warrantee.

b. **Asphalt Shingles:** reinforced with fiberglass shall be wind resistant type, UL Class A and comply with ASTM D 3018 Type 1 and ASTM D 3462. Shingles manufacturer's warranty shall be at least the 25 year type and shall provide for repair or replacement of defective shingles as necessary to eliminate leaks.

c. **Sheet Metal Roofing:** - Roofing material shall consist of 20 gauge hot dip "Galvalume" steel, with a 20 year written guarantee. The underlayment shall be 30# felt. Minimum roof slope 3 in 12. Finish shall be "Kynar 500" with a 20 year guarantee provided.

5.3 NEW LOW SLOPE ROOFS: shall be four ply built-up asphalt bitumen with minimum roof slope 1/4 inch per foot. Existing low slope roofs with slopes less than 1/4 inch shall be four ply built up coal tar bitumen Type III. However, when it is feasible to achieve slopes 1/4 inch and greater, four ply built-up asphalt bitumen shall be utilized. Roofing felts used with asphalt bitumen shall be glass fiber and meet the requirements of Table 1 and 2 ASTM D 2178 Type IV or Type VI (Asphalt Impregnated). Roofing felts used with coal tar bitumen shall be glass fiber and meet the requirements of ASTM D 4990 (Coal Tar Bitumen Impregnated). Guarantee by manufacturer shall cover roofing system (roofing, insulation and base flashing system) and shall be for a term of 20 years with a no-dollar limit and no penal sum.

5.4 FOUR PLY ROOFING SYSTEMS: Less Than Four Ply Roofing Systems are not permitted without DGS authorization.

5.5 INSULATION

- a. **Heat Transmission** - All roofing systems shall be insulated. Insulation heat transmission values shall be established in accordance with the latest BOCA National Energy Conservation Code. Organic insulations shall not be allowed under the built-up roofs. Light weight concrete insulating fill is not acceptable.
- b. **Structural** - Insulation systems over metal decks shall be mechanically fastened using steel fasteners acceptable to the manufacturer furnishing guarantee of roofing system and shall be installed in accordance with Factory Mutual System 1-28, Insulated Steel Decks.

5.6 FLASHING

Base Flashing: is part of the roofing system and shall meet requirements of manufacturer furnishing roofing system.

- b. **Other Flashing:** other than base flashing - Metal flashing including expansion joint flashing shall be in accordance with SMACNA Standards and the NRCA Roofing and Waterproofing Manual. Pitch pockets are to be avoided. Roof penetrations will be flashed with performed flexible flashings using clamps and tents unless the penetration is such a complex shape that a pitch pocket is required.

5.7 ROOF DRAINS: shall be provided with shallow sumps, gravel stops, and lead flashings in accordance with NRCA Roofing and Waterproofing Manual. Drains will be located wherever possible at low points, and crickets will be allowed between drains in structurally formed valleys to assure positive water flow to the drains.

5.8 ROOF ACCESS: Permanent access to all roof areas from the inside of the building shall be provided.

5.9 ROOF EQUIPMENT: Equipment located on top of roof shall be minimized; penthouse enclosures of equipment are preferred. Walking pads from roof access shall be provided.

6. REFORESTATION PROCEDURES

- 6.1 REQUIREMENTS:** In accordance with Natural Resources Article, Section 5-103, all construction activities, let for bid involving land clearing of one acre or more by a unit of State government or any person using State funding for a construction project, shall clear only a minimum number of trees and other woody plants that are necessary and consistent with sound design practices. When clearing is conducted an area equivalent to that cleared is to be reforested.
- 6.2 SITE:** Reforestation is to take place on the construction site or in the project right-of-way being used for construction if a suitable planting site is available. If not, then the constructing Agency or person may locate a suitable planting site on State owned or other publicly owned land in the county in which the construction activity is located. Reforestation may occur on these lands only when the Agency owning the land agrees to the proposed reforestation.
- 6.3 STATE FUNDS:** Constructing agencies or other persons using State funds for construction activities are required to consult with the Department of Natural Resources prior to cutting in or clearing forest land and prior to the selection of an area of reforestation.
- 6.4 UNAVAILABLE SITE:** If a suitable planting site cannot be located the construction Agency or person using State funds shall deposit \$500, for each acre cleared, into the Reforestation Fund of the Department of Natural Resources to be used for reforestation of suitable sites as they become available.

- 6.5 CONSTRUCTION SITE:** An Agency or person using State funds for construction projects shall request a review of the proposed construction site no less than two (2) months prior to clearing. The Request should be in writing to a designated representative of the State forester with a copy of the transmittal letter and review request form to the State forester.

7. EARTHQUAKE CONSTRUCTION

- 7.1 REQUIREMENTS:** Facilities should be designed for earthquake loads per applicable provisions of BOCA or the Building Seismic Safety Council (BSSC) whichever is more stringent. Of particular concern should be "provisions of adequate ductility to structural components, especially connections, consistent with the design levels assumed, and adequate anchorage of nonstructural components such as parapets."

8. INSTALLATION OF SPRINKLER SYSTEMS IN NEW CONSTRUCTION

- 8.1 REQUIREMENTS:** Installation of sprinkler systems in new construction projects shall be in accordance with Article 38A, Section 12B of the Annotated Code of Maryland.

9. CHESAPEAKE BAY POLICY

- 9.1 REQUIREMENTS:** A/E's are required to incorporate the Chesapeake Critical Area and Wetlands Regulations administered by the Chesapeake Bay Critical Areas Commission, Department of Natural Resources, into the design of construction projects.
- 9.2 CAC APPROVAL:** For projects which have received general approval from the **Critical Area Commission (CAC)**, the A/E will be responsible for submitting Schematics, 50% and 95% Construction Documents (CD) to the CAC. In all instances, one copy of the transmittal letter acknowledging receipt by the CAC shall be submitted to the UMB project manager. The A/E shall provide to DGS, two copies of CAC's letter which indicates their approval of each phase of the proposed design.
- 9.3 FORMAL PRESENTATION:** The A/E may be required to make formal presentations to the CAC.

UMBC PATAPSCO HALL ADDITION

PROJECT PROGRAM

DATED 4OCTOBER09

SECTION 600

UMBC PATAPSCO HALL ADDITION PROJECT – PROJECT PROGRAM

UMBC Campus Housing

UMBC's Office of Residential Life manages ten on-campus housing communities providing a total of 3,780 beds. The four traditional, double-loaded corridor residence halls, Chesapeake, Patapsco, Potomac, and Susquehanna, are similar and consist of suites of two rooms joined by a connecting bathroom. These furnished and carpeted rooms are mostly doubles, with a limited number of singles and triples available in each building. These four halls were constructed between 1970 and 1993.

Between 1981 and 1987, three apartment communities, Hillside, Terrace, and West Hill, were constructed each with six to eight individually named buildings. All of the furnished and carpeted apartments have kitchens and four single occupancy bedrooms, with shared bath and common living areas.

In recent years, three new communities have been added. Two University residence halls, Erickson Hall and Harbor Hall opened in 2000 and 2001, respectively. The most recent additions to the campus inventory are the privatized Walker Avenue Apartments, constructed in 2003 and 2004 at the intersection of Walker Avenue and Hilltop Circle.

Patapsco and Susquehanna Halls

Patapsco Hall and Susquehanna Hall are located off of Poplar Avenue. They consist of three levels of residential rooms in two wings, 90 degrees from each other, and a lower partially underground level. Each building provides beds for roughly 350 students and residence staff. In addition they incorporate building services like laundries, study rooms and lounges.

Both buildings are similar in design, configuration and construction. They have similar peculiarities of design that should be noted. Above the basement level the halls are comprised of two three-story wings, joined by a one story lobby. The lobby is raised a full floor above the ground requiring a stair and terrace platform to reach it. On the upper two floors, the wings do not directly connect with each other. Direct connection between the wings occurs on the lobby and basement levels. The buildings do not have an elevator.

The construction type is concrete plank over concrete block bearing walls, which allowed a floor to floor height of 8'-8" above the basement level. Conditioned air is delivered to the hallways via vertical chases. The construction type makes modifications of building systems challenging.

The 8"-8" floor-to-floor level is not acceptable for the building addition.

Project design for Patapsco Hall addition shall include a reasonable floor-to-floor height and a way to transition creatively to the end of the west wing of Patapsco Hall at each floor level.

Existing Utilities

Chilled water and medium-temperature hot water is distributed from the Satellite Plant, a nearby facility to the north of Potomac Hall. The chilled and hot water system has been designed with redundant capacity to supporting the five residence halls and the dining facility. The Satellite Plant is controlled and operated from the Central Plant.

The Satellite Plant has a primary 750-ton chiller, with an identical secondary chiller. The system generates water chilled at 44-degrees F. The chilled water return typically has a 10-degree F increase in temperature. UMBC believes that chiller capacity will support the additional load of the Patapsco Hall Addition.

Hot water at 180-degrees is generated by a 500-HP boiler during the heating season. An identical 500-HP boiler provides redundancy. During the warmer months, the plant runs a 100-HP boiler to provide domestic hot water for the buildings. The water lines travel to the buildings via an underground concrete duct bank and enter Patapsco Hall from the north side.

Air handlers on the roof of Patapsco Hall, installed in 2009, provide conditioned air to the hallways, lobby and lower level of the residence hall. Coils in the roof-top air handling units are directly piped with chilled and medium-temperature hot water.

Electrical service is provided through a 480V transformer located north of the east wing of Patapsco Hall.

The Satellite Plant was designed to accommodate a generator to provide emergency power to the residence halls. A concrete pad is in place and the conduits are located in the duct bank. The generator has not been installed. Emergency backup power is currently provided by a generator located north of the east wing of Patapsco Hall, adjacent to the transformer enclosure and loading dock. This generator does not have the capacity to provide emergency power to the addition.

Domestic water and fire suppression sprinklers are served by the water main located along Poplar Avenue. Storm water piping is located along Poplar Avenue and Hilltop Circle.

II. PROJECT GOALS

The goals of this project are to:

- create an addition that integrates seamlessly with the existing Patapsco Hall in terms of function and access, yet provides the flexibility for future independence.
- provide a minimum of 190 additional beds at Patapsco Hall;
- create a high quality living environment for students;
- provide accessibility to all rooms of the existing and expanded Patapsco Hall with an elevator in the addition and an elevator in the existing east wing.
- provide accessibility to all rooms of Susquehanna Hall with an elevator addition at the existing lobby.
- upgrade bathrooms in the existing wings of Patapsco Hall and in the existing lobby;
- meet or exceed the requirements of the US Green Building Council LEED criteria for Silver certification of the Patapsco Hall addition;
- provide informal recreational facilities;
- minimize conflicts with campus operations and residents;
- meet project schedule; and
- satisfy applicable codes in an efficient and effective way.

III. PROJECT SCOPE

The scope applies to several discrete but interrelated projects.

- Addition to Patapsco Hall
- Partial renovation to the existing Patapsco Hall
- New elevator and athletic court at Susquehanna Hall (Add Alternate #1)
- New exterior recreation facilities
- Hardscape plaza/sidewalks between Susquehanna Hall and Patapsco Hall Addition (ADD Alternate #2)

Each of these project elements shall require a sustained coordination effort with UMBC to ensure that the Work will not impact adjacent facilities unnecessarily. Each project element shall require a distinct schedule to maximize use of the summer construction period. Both Patapsco Hall and Susquehanna

Hall will need to be fully operational during the academic year. Renovations to existing buildings will need to be scheduled during the summer months. See Section IV. SCHEDULE for more detailed information. The project elements include:

1. **Addition to Patapsco Hall :**

Building addition connected to the west end of Patapsco Hall to include the following:

- a. Approximately four stories plus a limited basement.
- b. 190 beds based upon the following room distribution:
 - i. 8 Triple Rooms.
 - ii. 68 Double Rooms.
 - iii. 24 Single Rooms.
 - iv. 3 Studio Apartments for graduate resident staff.
- c. Junior suite configuration with shared baths, except as noted.
- d. Shared baths with 48-inch wide shower stall and a wall hung toilet.
- e. Sinks and built-in closets in each sleeping room.
- f. Studio apartments for graduate resident staff to have kitchens and bathrooms.
- g. Resident assistant singles to have a dedicated bath and located on each floor level with dorm rooms.
- h. Study Lounges on each floor, half with attached full bath.
- i. Hallway kitchenettes and informal meeting areas on each floor.
- j. Trash rooms on each floor.
- k. New lobby for the residence hall at or near the west corner of the hall with elevator access to all floors of the addition and to all floors of the existing west wing. Lobby shall include the following:
 - i. Seating area with a flat screen TV.
 - ii. Well organized and secure desk and small office.
 - iii. Access to the north courtyard.
 - iv. Adjacent toilet facilities.
- l. A director's office adjacent to or near the lobby.
- m. A classroom adjacent to the lobby for control, but independent from the sleeping rooms. Size for a minimum of fifty (50) seats. Include windows to the outside and two doors.
- n. Laundry facility in the lower level to accommodate 200 additional residents.
- o. A maintenance staff suite consisting of two toilet rooms with shower and a small office with lockers.
- p. Building storage.
- q. Covered bike storage area.
- r. Roofing to be Sarnafil or equal
- s. Design breezeway / pedestrian pathway from interior courtyard space to west side of new addition towards True Grits.

- t. Approximately 33,000 NASF/51,000 GSF addition based upon the following detailed space summary:

Quantity	Programmed Space	Approximate Area NSF	Approximate Total NSF
Residences			
8	Triple Room	300	2,400
70	Double Room	230	16,100
20	Single Room	165	3,300
4	Resident Assistant w/bath	200	800
50	Shared Bath	30	1,500
TBD	Accessible Bath	40	TBD
3	Studio Apartment - Staff	425	1,275
Amenities			
4	Study Room	400	1,600
4	Lounges with unisex bath	450	1,800
1	Laundry	400	400
8	Hallway Kitchenette	60	480
4	Hallway Trash Rooms	80	320
Additional Support Space			
1	Lobby/Lounge	800	800
1	Classroom with toilet room	650	650
1	Director's Office w/storage	150	150
1	Security Desk	100	100
1	Maintenance Staff Suite	300	300
2	Building Storage Spaces	500	850

- u. Wireless internet access, cable and Ethernet in each room and the lounges. Hard-wired phones in hallways only.
- v. Required building support facilities such as custodial closets and electrical and telephone/data closets on each floor level.
- w. Basement level space for building's primary mechanical equipment, fire control equipment, electrical equipment, and central trash and recycling room (no chute or compactor).

Design Criteria

- a. Provide architectural and space planning solutions for the detailed spatial relationships of the elements of the building program outlined above and referenced in Project Specific Design Standard dated 10/2/09 in Section 00601 of the RFP #BC-20632-T document dated 10/8/09.
- b. Provide a suitable design solution for both the building and site that responds to issues of building, fire, public safety, accessibility and security, ensuring that all solutions are integral to the desired end result.
- c. Provide design and finish solutions that meet the needs and requirements of the programs as well as the housekeeping and maintenance programs.
- d. Provide design and construction to meet or exceed LEED silver rating as determined by the US Green Building Council.
- e. Evaluate options to satisfy accessibility, building, life safety, and environmental codes.
- f. Follow Procedure Manual for Professional Services issued by UMB (provided in Section 00500 of the RFP #BC-20632-T document dated 10/8/09. As noted in Section 00500, proposers are to read the University of Maryland, Baltimore and UMB as the University of Maryland, Baltimore County and UMBC in all instances in this Procedure Manual.

Site Features

- a. Provide landscaped and paved courtyard throughout the area east of the new addition. Design intent shall be development of an inviting space to congregate and dine. Provide landscaping to transition between the hardscape of the courtyard and the residential rooms surrounding it, including Potomac Hall. Provide appropriate pedestrian scale lighting matching campus standard.
- b. Provide a plaza at the front entry of the new addition along Poplar Avenue.
- c. No exterior areas for trash will be located adjacent to the addition. The existing dumpster area to the north of the east wing of Patapsco Hall will continue to be utilized.
- d. Provide paths and landscaping elements, including trees to the west and north of the addition to integrate with existing walking paths.
- e. Design for and provide trash cans and benches, matching the UMBC standard, in all plaza areas.
- f. Add Alternate #2: Provide new courtyard in front of True Grit's Dining Hall along Poplar Avenue, connecting existing and redefining new walking paths between Susquehanna Hall and the Patapsco Hall Addition. Include appropriate landscape and hardscape design, while providing for areas for seating and congregation.

Utilities and Emergency Power

- a. Verify that loads generated by the addition will not exceed the capacity of the existing boilers and chillers in the Satellite Plant, while still allowing for the desired redundancy. Verify adequacy of pipe size and pumping capacity feeding the existing building.
- b. Provide new water service for the addition from the water main in Poplar Avenue.
- c. Provide new underground electric service to the addition. Consider alternate approaches to modifying the transformer providing service to the existing building.
- d. Provide emergency power for the new facilities, and the life safety systems of Patapsco and Susquehanna Halls.

2. Partial Renovations to Patapsco Hall

Design and construct of various improvements and modifications to Patapsco Hall as outlined below.

- a. Provide a new elevator and a new stair on the north corner of the east wing of the existing building without loss of student bed space. The new stair will allow for full code compliance and will provide access to the roof. The elevator will provide access to all four levels of the building.
- b. Renovate dormitory shower and toilet rooms in both wings of the existing residence hall. Improvements will include replacement of the existing shower with new solid surface shower pans and enclosure; shower controls; existing style toilets; plumbing fittings and accessories; and bathroom finishes.
- c. Provide new stair from the outdoor terrace on the south side of the existing lobby that orients west toward the center of campus. Connect stair to a new plaza at sidewalk level with seating and landscaping.
- d. Provide a new card reader system and security camera at both entrances to the existing lobby.
- e. Provide new directional and building signage.
- f. Provide new emergency power to support the life safety systems of the building.

3. Add Alternate #1:

3.1 New Elevator at Susquehanna Hall

Design and construct various improvements and modifications to Susquehanna Hall as outlined below.

- a. Provide a new elevator in an addition adjacent to the existing lobby. Elevator shall be part of an accessible route to all rooms of the building. The elevator improvement shall connect both wings of the building on every floor level.
- b. Provide new emergency power to support the life safety systems of the building.
- c. Provide new access to the courtyard from the lobby by a set of stairs.
- d. Provide a small landscaped plaza adjacent to the new access stair in the courtyard.

3.2 New Athletic Courts

This work will include the design and construction of the new recreational facilities as noted below:

- a. Provide one full-court or two half-court basketball courts north of True Grit's Dining Hall adjacent to Patapsco Hall.
- b. Provide a sand volleyball court adjacent to Chesapeake Hall. Provide a plaza space with benches, tables and grills. Provide appropriate underground drainage for the volleyball court.
- c. Replace disturbed paths and sidewalks to coordinate with new pedestrian desire lines and existing campus pedestrian systems. Replace existing disturbed pedestrian scale lighting with lighting fixtures that match the campus standard.
- d. Provide an emergency phone location near the basketball courts.
- e. Provide lighting suitable to support evening use of the basketball courts.

IV. Project Schedule Milestones

Activity Description	Duration	Finish
Contract Award		1/11/2010
NTP – Contractual Start Date - DBC		1/18/2010
University Schematic Design Document Review & Comment	2 Weeks	
University Design Development Construction Package Review & Comment	2 Weeks	
University Civil/Site Construction Package # 1 Review & Comment	2 Weeks	
Submit GMP Construction Package #1		5/25/2010
Obtain Maryland Department of Environment (MDE) Permits		6/8/2010
BPW Approval of GMP #1		6/23/2010
Commence Construction on GMP #1 Work- NTP		6/24/2010
50% Construction Document Design		6/23/2010
University 50% Construction Document Review & Comment	2 Weeks	
University Review of GMP Construction Package #2	2 Weeks	
BPW Approval of GMP #2	3 Weeks	
95% Construction Document Design		9/16/2010
University 95% Construction Document Review & Comment	2 Weeks	
University Review of GMP Construction Package #3–	2 Weeks	
BPW Submission and Review of Construction Package #3 or 3 - Pricing	3 Weeks	
Substantial Completion – Patapsco Hall Addition		5/14/2011
Commissioning	4 weeks	This time is set aside solely for this purpose. This 4 week period is <u>not</u> available to the Design/Build Contractor for any other purposes.

Install FF&E	4 weeks	
Turnover Patapsco Hall Addition to Residential Life for occupancy.		7/14/2011

V. SCHEDULED CLOSURES OVERVIEW OF EXISTING HALLS

Scope	Closures
Patapsco Hall Addition	N/A
*Patapsco Hall East Wing Renovation & New Elevator	Closed Summers of 2010/2011
*Patapsco Hall West Wing Renovation	Closed Summers of 2010/2011
Susquehanna Hall New Elevator	Susquehanna Hall Closed Summer of 2011
Basketball Courts	N/A
Volleyball Court/Plaza	N/A

***Halls shall be fully occupied during the 2010 – 2011 Academic Year**

SECTION 00601

UMBC PROJECT SPECIFIC DESIGN STANDARDS
DATED 10/2/09

UMBC PATAPSCO HALL

UMBC PROJECT SPECIFIC DESIGN STANDARDS

A. PATAPSCO HALL ADDITION:

1. General Building Design

- a. The building will have an exterior skin of a brick that matches or complements the existing building in color and size.
- b. The building will be designed so that lounges, lobbies and classroom spaces are denoted and articulated from the exterior.
- c. The building entrance should be designed to be clearly visible from any approach.
- d. Stairways shall be designed to access the roof through a door.
- e. Protect the existing oak tree to the east of the dining hall (True Grit's) from damage during construction.
- f. One Studio Apartment will be designed to be fully adaptable as an ADA compliant apartment.
- g. A minimum of four Singles will be ADA compliant with a private bathroom.
- h. An addition minimum of four Singles will be ADA compliant, but will share a compliant bathroom with another residential room.

2. Finishes and Lighting

- a. The entry lobby shall have a mixture of resilient flooring (or ceramic tile) and carpet, acoustic tile on the ceiling and distinctive architectural lighting.
- b. The classroom shall have acoustic ceiling with direct/indirect high efficiency lighting, operable window treatment, a recessed projection screen, and resilient sheet flooring. Partial transparency to the classroom from the lobby is required.
- c. Dormitory rooms and corridors shall be carpeted.
- d. Ceramic floor and wall tile will be used in toilet rooms.
- e. Provide acoustic ceilings in hallways for access to utility ductwork and conduits. Ceiling grids in bathrooms to be PVC or aluminum with FRP ceiling tiles.
- f. Lighting in the hallways to be direct/indirect high efficiency fixtures.
- g. Provide resilient flooring in the laundry room, maintenance suite, and other service areas.
- h. Damage resistant wall finishes to be employed.
- i. Sound isolation between residential suites and corridors (in addition to other areas of congregation) shall meet or exceed University standards.

3. Utilities

- a. Provide hot and chilled water from the Satellite Plant via the existing underground pipe duct entering the west wing of the existing building. Verify adequacy of pipe size and pumping capacity.
- b. Add sufficient pumping capacity for the increase in hot and chilled water load, if necessary.
- c. Hallways shall be provided with conditioned air per code. The air handlers for the common areas shall be located in the lower level of the addition, if possible.

- d. Electrical service will be from the transformer located to the north of the east wing of Patapsco Hall. Provide the necessary improvements, modifications and service to the Addition to adequately provide for the power requirements.
- e. Provide emergency power to all of Patapsco Hall, the Addition and to Susquehanna Hall from a new generator at the Satellite plant provided by UMBC. Verify that the conduits in the duct banks are sufficient to provide the service.
- f. Emergency power will be provided as a minimum to the elevators, the lobby desk and office outlets and the lobby and office ceiling lights, in addition to other circuits required by life safety codes.
- g. Water for domestic use and for life safety will be serviced off of an existing water main in Poplar Avenue.
- h. Stormwater management requirements will be satisfied. Refer to the 2002 UMBC Stormwater Management Master Plan.

4. Mechanical/Electrical Systems

- a. The dormitory rooms shall have vertical mounted, ECM variable-speed fan coil units with 277 volt motors. Ensure that the units have stock filter sizes.
- b. Currently Patapsco Hall has Building Automation Control Systems by both American Automatrix and Siemens Building Technology. Coordinate with Facilities Management staff on the condition of existing and on the proposed control systems.

5. Technology and Data Systems

- a. Wireless Internet
 - Wireless network connectivity will be available through the entire building.
- b. Data
 - Ethernet jacks will be installed in each dorm room – one for each resident. The jack will provide the same level of service that is currently provided in the rest of Patapsco Hall.
 - Data cabling should be unshielded and meet Category 6a standards.
 - Ethernet jacks will be provided to all apartments, RA rooms, Lounges (6 ports per lounge) and the Lobby desk and Office.
- c. Cable
 - A cable television outlet will be provided for each resident room or apartment, the Lounges, the Classroom, Lobby desk and the Office. It will be connected to the UMBC cable television system.
 - All cable television cabling should be RG-6 quad shield.
- d. Phone
 - Provide one phone line (instrument provided by Owner) to each RA room, the Lobby, the Classroom, the Office and to each ADA accessible or adaptable resident room. In addition, one hallway phone line (instrument provided by Owner) for every twenty-four residents will be installed.
 - TTY lines should be available in ADA rooms.
 - The phones will initially be Rolm with the plan to switch them to VOIP in the future.
 - In the addition, all voice cabling should be unshielded and meet Category 6a standards.
 - All of the hallway and lobby phones will be rugged courtesy phones.

- All phones should be able to make calls anywhere on campus and make local calls outside of the campus. All phones will be able to receive calls from outside of the campus.
 - In the current Patapsco Hall building, we will remove the phones and install blank plates over the wall boxes. We will need the ability to install a phone in a room if a student requests it. We will remove the phones from the current Patapsco Hall during the summer of 2011.'
- e. Security and Access
- All fire doors will be alarmed. In addition, all the doors that connect the addition to the existing building should be alarmed.
 - Video Surveillance will be installed at all exterior doors and the Lobby.
 - All video surveillance should be IP based and should be recorded for a minimum of 7 days.
 - Card readers will be used to control access to all exterior doors, doors off of the Lobby, all elevators and all doors that connect the addition to the existing Patapsco Hall.
- f. Data Equipment Rooms and Closets
- The communications infrastructure for the building will run off the main closet (IDF) in the current building. Conduits will be needed from the current IDF to the new closets.
 - Closets will be provided on each level. All of the closets must be on emergency power with UPS. The closets do not need separate cooling systems, but adequate ventilation is required. It is not anticipated that outside feeders or conduits will be needed for the addition. The A/E shall verify.
- g. Cabling
- All jack locations must have conduit run back to a cabling tray in the hallway. Cable trays shall not pass through a student room.
 - All data cables should be terminated as RJ45 connectors. All cable TV cables should be terminated as F connectors. All voice cables should be terminated as RJ25 connectors.
6. Life Safety Issues
- a. Coordinate with local agencies to coordinate fire control and other life safety issues. The 2009 renovation of the existing Patapsco Hall lobby replaced and updated the fire enunciator panel and controls. Ensure coordination with the existing systems in place in regard to life safety as required.
 - b. The elevator shall provide accessibility to both the Addition and the west wing of Patapsco Hall.
 - c. Coordinate with local agencies with jurisdiction regard emergency vehicle access.

B. PARTIAL RENOVATIONS TO PATAPSCO HALL

a. New Elevator and Stair

- The elevator can be located toward the north end of the wing to limit construction impacts on the existing lobby space and residential rooms. Optional locations can be proposed.
- Consider an option that replaces the stair at the north end of the east wing with the elevator shaft and creates a new stair on the exterior northwest corner of the wing.
- Unlike the elevator at Susquehanna Hall the upper two levels of the east wing will not connect directly to the west wing.
- Provide modifications to the existing loading lock to ensure adequate access to the east wing corridor, stair and elevator for loading by car or trolley during student move-in and move-out.

- b. The A/E will conduct an inspection of the condition of the toilet room risers to determine their condition and prepare a report. If conditions warrant the risers may need to be replaced.
- c. Investigate the possibility of consolidating the building services, (telephone, data, electrical, pumps, etc.) of the existing building and the Addition in the lower level of Patapsco Hall.
- d. Evaluate whether or not other upgrades will be required such as:
 - Modifying stairways to meeting current building codes
 - Updating or replacing the current emergency lighting connecting to a new emergency generator circuit.

C. NEW ELEVATOR AT SUSQUEHANNA HALL

1. New Elevator and Corridor

- The addition and elevator shall be located toward the courtyard side of the lobby.
- Eliminate the stairway (S-02, S12, S-22 and S-33) to provide space for a new corridor linking to the elevator.
- Make modifications to the existing Study Lounges on the second and third floors (202 and 302) to allow for elevator access and a new hallway linking the floors. Replace the kitchens in these Study Lounges.
- Create a new storage room in the lower level space vacated by stair S-02.
- Make modifications to the control doors of the existing lobby to provide adequate access to the elevator addition and courtyard access. Provide card access and video surveillance to the courtyard access doors.

2. Emergency Power

- Design modifications to the existing emergency power system to allow for connection to a new generator in the Satellite Plant.
- Provide emergency power to the new elevator.

3. Courtyard Plaza

- Provide a new courtyard plaza of a minimum 3600 square feet with paved, yet pervious, congregation and circulation areas, and landscaped areas.
- Provide residential plaza furniture of tables, grills, and benches to match university standards.
- Provide landscape design and planting material to match the quality and quantity of Erickson Hall.
- Provide proper storm water drainage as required.

SECTION 00700

UNIVERSITY OF MARYLAND, BALTIMORE COUNTY

STANDARD GENERAL CONDITIONS OF
CONSTRUCTION MANAGEMENT CONTRACT WITH GUARANTEED MAXIMUM PRICE

OCTOBER 15, 1997 EDITION
("STANDARD CONDITIONS")

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SECTION 1: DEFINITIONS AND RESPONSIBILITIES

1.01 DEFINITIONS (these definitions shall apply to the entire contract unless specifically noted):

"Addendum" -- Means a revision or clarification to the original forms, conditions, Specifications and Drawings, made prior to execution of the Contract. Addendums are part of the Bid Documents.

"Any" -- Means 'any and all' whenever more than one item would be applicable or required to complete the Work of the Project in accordance with the Contract Documents.

"Architect/Engineer (A/E)" -- means the Architect as defined above.

"As indicated", "As Shown," "As Specified" -- Means "as indicated", shown or specified in the Contract Documents.

"The Architect" -- A person registered in the State of Maryland to practice architecture and commissioned by the University to serve as architect on this project. Should no independent Architect have been appointed, then the Office of Facilities Management of the Baltimore City Campus, University of Maryland, is referred to by the term "Architect." Whenever the contract documents are prepared by a registered Engineer in independent practice, and no Architect is employed, each reference to "Architect" refers to the Engineer. If Design/Build project, the term "Architect" shall refer to the person registered in the State of Maryland to practice architecture and commissioned by the Design/Build Contractor to serve as Architect on this project.

"The Chancellor" -- Shall be understood to mean the President of the University of Maryland, Baltimore County or his or her designee.

"Change Order" -- A written order signed by the responsible procurement officer, directing a contractor to make changes in implementation of the construction phase of the project which the contract authorizes the procurement officer to order with or without the consent of the contractor.

"Contract" -- The written agreement executed between the University and the Contractor, covering the performance of the work and furnishing of labor, services, equipment, and materials, and by which the University is obligated to compensate him therefore at the mutually established and accepted rate or price. The Contract shall include the RFP, the proposal, contract forms and bonds, these Standard Conditions, and special conditions pertaining to work on the campus involved, specifications, addenda, supplemental specifications, all special provisions, all technical provisions, all plans and notices to proceed, any written change orders and supplemental agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, and any other matter agreed to as being part of the contract in a component of the contract. (Said documents are sometimes referred to as the "contract documents.")

"The Contractor" -- The person or organization having direct contractual relation with the University for the execution of the "Work." If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder. The Contractor refers to the Construction Manager as described in Section 00400. The Contractor shall indicate its Federal Tax Identification or Social Security Number following its name on the first page of the Contract.

"Contract Time and Completion Date" -- The number of calendar days shown in the specifications indicating the time allowed for the completion of the work contemplated in the Contract. In case a calendar date of completion is shown, instead of the number of calendar days, such work shall be completed on or before that date.

Critical Path Method (CPM) - A scheduling/management tool showing a network of work elements or activities for a construction project.

"Day" -- Means calendar day unless otherwise designated.

"Drawings" -- The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the work, generally including plans, elevations, sections, details, schedules and diagrams.

"Indicated" -- See "As indicated" above.

"Notice to Proceed" -- A written notice to the Contractor of the date on or before which he shall begin the prosecution of the work to be done under the Contract. The Contract contemplates two Notices to Proceed, the Pre-Construction Notice to Proceed and the Construction Notice to Proceed.

"Or Equal," "Similar To," or similar expressions -- Means the judgement of "equality" or "acceptability" rests with the University.

"Owner" -- means the University as defined below.

"Performance Bond and Payment Bond" -- The security in the form approved by the University and executed by the Contractor and his surety, and paid for by the Contractor, as a guarantee that he will pay in full all his bills and accounts for materials and labor used in the construction of the work, as provided by law.

"Plans" -- The official drawings approved by the University as part of the contract documents, including those incorporated in the contract documents by reference.

"Procurement Officer" -- The person designated by the Chancellor and authorized by the University in accordance with law or regulations to formulate, enter into, or administer contracts or make written determinations and findings with respect to them.

"Project" -- The Project is the total construction of which the work performed under the Contract Documents which may be the whole or a part and which may include construction by the University or by separate contractors.

"Related Sections" -- A phrase in the specifications to direct the reader to find provisions on other work which is directly related to

the subject section.

"Repair" -- Where used in these contract documents shall be taken to mean to restore after injury, deterioration, or wear; to mend, to renovate by such means as appropriate and to supply such materials and labor as necessary to render the item to be repaired sound, solid, true, plumb, square, even, smooth and fully serviceable. Upon completion of such repair it must be, unless otherwise stated, rendered to such conditions as to present a first class finished work, or in instances where the repaired item serves as a base for additional finish, the repaired work must be such as to permit a first class finish, to be applied without extra cost to the University. When the word "repair" is used in connection with machinery or mechanical equipment it shall mean, in addition to the above, rendering the equipment completely serviceable and efficient ready for normal use for which it was intended originally.

"Replace," "Restore," "Renew," "Make Good," "Reconstruct" and similar expressions -- Means to "provide", using new materials, as applicable to the type of work involved.

"Specifications" -- The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the work, and performances of related services.

"State" -- Refers to the State of Maryland.

"Subcontractor" -- As employed herein includes only those having a direct contract with the contractor. It includes one who furnishes material worked to a special design according to the plans and specifications for the "Work." It excludes one who merely furnishes material not so worked.

"Supplemental Agreement" -- A written agreement covering added or changed work which is beyond the scope of the Contract and the changes clause. A supplemental agreement becomes a part of the Contract when approved and properly executed by all parties to the Contract.

"Surety" -- The corporate body bound with and for the contractor, for the full and complete performance of the Contract and for the payment of all debts pertaining to the work.

"University" -- Refers to the University of Maryland, a body corporate and an agency of the State of Maryland. In particular, the University refers to the University of Maryland, Baltimore County.

"Work" -- Work shall be understood to mean the furnishing of all labor, materials, equipment, services, utilities, and other incidentals necessary to the successful completion of the project and the carrying out of all the duties and obligations imposed by the Contract.

"Written Notice" -- Shall be deemed to have been duly served if delivered in person to the individual or to the member of the firm or to an office of the corporation to whom it is intended, or if delivered to or sent by registered mail, to the last business address known to him who gives notice.

1.02 UNIVERSITY'S RESPONSIBILITIES:

- A. The University shall furnish base surveys describing the physical characteristics, legal limitations, and utility location for the site of the project, and a legal description of the site. The Construction Manager shall be required to provide any and all subsequent surveys under the General Conditions allowance.
- B. Information or services under the University's control shall be furnished by the University with reasonable promptness to avoid delay in the orderly progress of the work.
- C. The foregoing are in addition to other duties and responsibilities of the University enumerated in the Contract.
- D. The State shall not assume any obligation to indemnify, hold harmless, or pay attorney's fees that may arise from or in any way be associated with the performance or operation of this agreement [21.07.03.23]

1.03 CONTRACTOR'S RESPONSIBILITIES: Notwithstanding anything in this Contract to the contrary, the following items are in addition to the Contractor's obligation set forth elsewhere in the Contract.

- A. The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work under the Contract.
- B. The Contractor shall be responsible to the University for acts and omissions of his employees, subcontractors and their agents and employees, and other persons performing any of the work under a Contract with the Contractor.
- C. The Contractor shall not be relieved from his obligation to perform the work in accordance with the Contract documents either by the Contract, or by inspections, tests, or approvals required or performed by persons other than the Contractor.
- D. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, and the Contract documents, and shall not unreasonably encumber the site with any materials or equipment. The Contractor shall submit proof of a Confined Space Program to the University's Office of Environmental Health & Safety (EHS), 714 W. Lombard Street, Baltimore, MD 21201-1041.

E. Cutting and Patching of Work:

- (1) The Contractor shall be responsible for all cutting, fitting, or patching that may be required to complete the work or to make its several parts fit together properly in accordance with the Contract Documents.
- (2) The Contractor shall not damage or endanger any portion of the work of the University or any separate Contractors by cutting, patching, or otherwise altering any work or by excavation. The Contractor shall not cut or otherwise alter the work of the University and of such separate Contractor. The Contractor shall not unreasonably withhold from the University or any separate Contractor his consent to cutting or otherwise altering the work.

F. The Contractor shall perform all work in accordance with the lines, grades, typical cross sections, dimensions, and other data required by the Contract documents or as modified by written orders, including the furnishing of all materials, services, implements, machinery, equipment, tools, supplies, transportation, labor, and all other items necessary for the satisfactory prosecution and completion of the project in full compliance with the requirements of the Contract documents.

G. Indemnification:

- (1) To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the University System of Maryland, the University, the State of Maryland, the Architect and the City of Baltimore, if requested by the University, and their agents and employees from and against all claims, damages, losses, and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the work, provided that any such claim, damage, or loss or expense: (1) is attributable to bodily injury, sickness, disease, or death personal injury or injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent or willful act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this paragraph. This obligation is not intended to be or to imply a waiver of the sovereign immunity of the University or the State.

- (2) In any and all claims against the University or the State of Maryland or the Architect or any of their agents or employees by any employee of the Contractor any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.
- (3) The obligations of the Contractor under this paragraph shall not extend to the liability of the Architect, his agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications, for (2) the giving of or the failure to give directions or instructions by the Architect, his agent or employees providing such giving or failure to give is the primary cause of the injury or damage.

SECTION 2: AWARD AND EXECUTION OF CONTRACT:

2.01 AWARD:

- A. The University reserves the right to cancel the award of any Contract before the execution of the Contract by all parties without any liability on its part.
- B. When a Contract is jointly bid, all Contractors bidding will be held jointly and severally responsible for the duties of the Contractor.

2.02 EXECUTION OF CONTRACT AND AMENDMENT

After a Notice of Award has been issued and after the University has accepted the GMP respectively, the University's Office of Procurement and Supply shall forward the formal contract form or the formal contract amendment to reflect the GMP ("Contract Amendment"), as applicable, and other applicable contract forms (i.e., Contract Affidavit, Minority Business Participation Exhibit II, Performance and Payment bonds, etc.) to the Contractor for execution. The Contractor shall execute the Contract form or the Contract Amendment, as applicable, and other applicable forms and return it (them) along with required certificate(s) of insurance to the Division of Procurement and Supply within ten (10) days after receipt of same.

After receipt of the properly executed Contract form or the Contract Amendment, as applicable, and other applicable contract forms, the Division of Procurement and Supply will execute the Contract or the Contract Amendment, as applicable, within sixty (60) days and forward the Contractor a copy. In the event that the University fails to execute the Contract or the Contract Amendment, as applicable, within the sixty (60) day period, the Contractor will have, as it's only remedies, the option to declare the Contract terminated without any liability by the University or the State of Maryland or to accept an extended period for execution by the University.

The Contract and the Contract Amendment shall not be in effect until and unless it is executed by all parties and approved by the Board of Public Works.

2.03 FAILURE TO EXECUTE CONTRACT:

Failure of the Contractor to execute the Contract or the Contract Amendment and file acceptable bonds within the time provided in Section 2.02 and Section 2.04D shall be just cause for the payment of liquidated damage guaranteed by the bid bond or other securities at an amount equal to the increased Contract price (including but not limited to GMP) paid by the University as a result of the failure of the Contractor to execute the Contract or that Contract Amendment.

In the event that the damages sustained by the University exceed the amount of the bid security, the University reserves the right to proceed against the Contractor for the balance of its damages.

2.04 PERFORMANCE AND PAYMENT BONDS:

(Required when initial contract exceeds \$100,000.00)

- A. The University shall provide to the Contractor for execution copies of the Performance and Payment Bond along with the formal contract amendment reflecting the GMP. The bonds must be executed and returned to the University as provided in the Contract. The premium for the bonds shall be paid by the Contractor.
- B. The bonds shall be in the full amount of the contract price.
- C. The Contractor shall increase the amount of the bonds from time to time to reflect increases in the contract price. For such additions, the Contractor will be reimbursed by the University in the amount of the actual increased bond cost.
- D. The Contractor shall deliver fully executed 100% Performance and Payment bonds to The University's Office of Procurement within ten (10) working days after the Contract document is sent to the Contractor.

2.05 CERTIFICATIONS REQUIRED BY LAW:

A. Cost and Price Certification:

- 1. The Contractor by submitting cost or price information certifies that, to the best of its knowledge, the information submitted is accurate, complete and current as to a mutually determined specified date prior to the conclusion of any price discussions or negotiations for
 - (a) a negotiated contract, if the total contract price is expected to exceed \$100,000 or a smaller amount set by the procurement officer; or
 - (b) a change order or contract modification expected to exceed \$100,000, or a smaller amount set by the University.

2. The price under this contract and any change order modification hereunder, including profit or fee, shall be adjusted to exclude any significant price increases occurring because the Contractor furnished cost or price information which, as of the date agreed upon between the parties, was inaccurate, incomplete or not current.
3. If the parties are negotiating for a change order which is expected to exceed \$100,000, the Contractor shall truthfully execute a cost and price information certificate on a form provided him by the University; said certificate will provide, in relevant part, that the Contractor's price and cost information is accurate, complete and current as of mutually determined date prior to the change order.

B. **Contingent Fee Prohibition:**

At the time the parties execute the Contract, if not sooner, the Contractor shall truthfully execute a certificate on a form provided him by the University which provides that he has not employed or paid consideration to any person which is contingent upon the making of the Contract.

C. **Corporate Registration and Tax Payment Certification:**

At the time the parties execute the Contract, if not sooner, the Contractor, if it is a corporation, shall truthfully execute a certificate on a form provided him by the University which provides that it is a properly registered corporation and that it has paid and will pay all appropriate State taxes prior to final settlement.

2.06 CONTRACT DOCUMENTS;

- A. The Contract documents are complementary. That which is called for by any one shall be as binding as if called for by all.
- (1) Intent of the documents is to include all work necessary for proper completion of the project ready for continual efficient operation. It is not intended, however, to include any work not reasonably inferable.
 - (2) Clarification - Whenever he has questions, the Contractor should obtain clarification of all questions which may have arisen as to intent of the contract documents or any actual conflict between two or more items in the Contract documents. Should the Contractor have failed to obtain such clarification, then the University may direct that the work proceed by any method indicated, specified, or required by the contract documents in the interest of maintaining the best construction practice. Such direction by the University shall not constitute the basis for a claim for extra costs by the Contractor. The Contractor acknowledges that he had the opportunity to request clarification prior to submitting his bid to the University and therefore agrees that he is not entitled to claim extra costs as a result of such clarification.

- (3) Jargon -- Work described in words that have a well-known technical or trade meaning shall be held to refer to such recognized standard use.
 - (4) Identification -- The Contract documents shall be signed in duplicate by the University and the Contractor.
- B.** Drawings -- The Contractor shall do no work without proper drawings and instructions. Drawings are in general drawn to scale and symbols, are used to indicate materials and structural and mechanical requirements. When symbols are used those parts of the drawings are of necessity diagrammatic and it is not possible to indicate all connections, fittings, fastenings, etc., which are required to be furnished for the proper execution of the work. Diagrammatic indications of piping, ductwork and conduit, and similar items in the work are subject to field adjustment in order to obtain proper grading, fitting passage over, under or past obstructions, to avoid exposure in finished rooms and unsightly and obstructing conditions. The Contractor shall make these adjustments at no increased cost to the University.
- (1) Copies Furnished -- The University will furnish the Contractor without cost, one (1) set of reproducible drawings and one (1) set of specifications at 100% Construction Documents.
 - (2) Copies At The Site -- The Contractor shall keep in the job site office a complete set of all drawings, specifications, shop drawings, schedules, etc., in good order and available to the Architect and the University.
 - (3) Ownership -- All documents remain the property of the University. They must not be used on other work and they shall be returned to the University upon completion of the work.
 - (4) Singular or plural references shall mean one or more like terms of work as necessary to complete the Work, unless specifically directed otherwise.
 - (5) Typographical and spelling errors in the specifications will be interpreted by the A/E for their meaning and intent.
 - (6) The following order of precedence shall be used when there is a conflict in the Bidding or Contract Documents. When the order of precedence cannot be used to resolve a conflict, then the more expensive labor, material or equipment shall be provided.
 - (a) Agreement between University and Contractor
 - (b) Supplementary Conditions (Section 00800)
 - (c) General Conditions (Section 00700)
 - (d) Specifications, Divisions 1 through 16
 - (e) Drawings, in the following order of precedence:

- (i) Notes on Drawings in order of scale with largest first
- (ii) Details in order of scale with largest first
- (iii) Figured Dimensions
- (iv) Scaled Dimensions

C. Intentionally Omitted

- D. Dimensions -- The Contractor shall carefully check all dimensions prior to execution of the particular work affected. Whenever inaccuracies or discrepancies are found, the Contractor shall consult the Architect prior to any construction or demolition. Should any dimensions be missing, the Architect will be consulted and supply them prior to execution of the work unless, under the specifications, the Contractor is responsible for determining dimensions. Dimensions for items to be fitted into constructed conditions at the job will be taken at the job and will be the responsibility of the Contractor. The obvious intent of the documents or obvious intent of the documents or obvious requirement dictated by conditions existing or being constructed supersedes dimensions or notes which may be in conflict therewith. Whenever a stock size manufactured item or place of equipment is specified by its normal size, it is the responsibility of the Contractor to determine the actual space requirements for setting or entrance to the setting space. No extra will be allowed by reason of work requiring adjustments in order to accommodate the particular item of equipment
- E. Whenever new work, building, addition, or portions thereof are not accurately located by plan dimensions, the Architect will supply exact position to execution of the work.

2.07 SHOP DRAWINGS:

- A. The Contractor shall submit, for the Architect's approval at such time as agreed in the Contractor's schedule, shop drawings, including setting drawings, and schedules as required by the University or the Architect for the work of the various trades. These drawings shall be prepared in conformity with the best practice and standards for the trade concerned. Due regard shall be given to speed and economy of fabrication and erection.
- B. All shop drawings must show the name of the project and the University Contract number.
- C. Size of Drawings -- All shop drawings and details submitted to the Architect for approval shall be printed on sheets of the same size as the Contract drawings prepared by the Architect. When a standard of a fabricator is of such size to printed more than one drawing on a sheet of the size of the Architect's drawing, this is acceptable. Sheets larger than the Architect's drawing will not be accepted except when specifically permitted by the University. Shop detail supplied on a sheet of letter size 8-1/2" x 11" is acceptable for schedules and small details.

- D. Items For Which Shop Drawings Will Be Required -- Shop drawings will be required for all items which are specifically fabricated for the work or when the assembly of several items is required for a working unit. Shop drawings are required for all reinforcing and structural steel, specially made or cut masonry units, miscellaneous metal work, specially made millwork, plaster molds, or moldings, marble and slate, special rough hardware, and all heating, ventilating, plumbing, and electrical items requiring special fabrication, or detail connections including refrigeration, elevators, dumb waiters, laboratory equipment, ducts, etc.
- E. Copies Required -- Contractor shall supply two (2) copies for the Architect's file and two (2) for the University's Office of Facilities Management, in addition to such copies as the Contractor may desire for his own use.
- F. Examination And Approval -- The Architect will examine shop drawings with reasonable promptness, noting desired corrections or granting approval or rejecting them.
- G. Field Dimensions And Conditions -- The Architect is not responsible for the check of dimensions or existing conditions in the field. This is the sole responsibility of the Contractor.
- H. Resubmission -- When the Architect notes desired corrections or rejects the drawings, the Contractor shall resubmit the drawings promptly with corrective changes, without additional compensation.
- I. Contractor's Responsibility -- Unless the Contractor has, in writing, notified the Architect to the contrary, at the time of submission, the University and the Architect may and will assume that the drawings are in conformity with the contract documents and do not involve any change in the Contract price or any change which will alter the space within the structure or alter the nature of the building from the contemplated in the Contract documents.
- J. University's and Architect's Notations -- Should the Contractor consider any rejection of the University's and Architect's notation on the shop drawings to require an increase in the cost of the work from that contemplated in the Contract documents, then the Contractor shall desist from further action relative to the item he questions and shall notify the University and Architect, in writing, within five (5) days of the additional or less cost involved. No work relative to the item shall be executed until the entire matter is clarified and the Contractor is ordered by the University to proceed. Failure of the Contractor to serve written notice as above required shall constitute a waiver of any claim in relation thereto. Similarly, should the University's and Architect's notation or change involve less work than is covered by the contract drawings, the Contractor shall allow the University an equitable credit resulting from the change in the work.

SECTION 3: SCOPE OF THE WORK

3.01 INTENT OF THE CONTRACT DOCUMENTS;

It is the intent of the Contract documents to show all the work necessary to complete the project.

3.02 GENERAL CONDITIONS CONTROLLING:

In event of a conflict between these General Conditions and any other provision of the Contract documents, these General Conditions shall prevail unless such other provision expressly provides to the contrary.

3.03 DIFFERING SITE CONDITIONS:

- A. The Contractor shall promptly, and before such conditions are disturbed, notify the procurement officer in writing of: (1) Subsurface or latent physical conditions at the site differing materially from those indicated in this Contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract. The procurement officer shall promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the Contract modified in writing accordingly.
- B. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in paragraph A above provided, however, the time prescribed therefore may be extended by the University.
- C. No claim by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

3.04 SITE INVESTIGATION: This provision is in addition to any other provision in the Contract relating to Site Investigation.

The Contractor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment, and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that he has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the University, as well as from information presented by the drawings and specifications made a part of the Contract. Any failure by the Contractor to acquaint himself with the available information may not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing this work. The State assumes no responsibility for any

conclusions or interpretations made by the Contractor on the basis of the information made available by the University.

3.05 CONDITIONS AFFECTING THE WORK:

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work and the general and local conditions which affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve him from responsibility for successfully performing the work without additional expense to the University. The Contractor agrees not to place any credence in any understanding or representation concerning conditions made by any University employee or agents prior to the execution of this Contract unless such understanding or representation is expressly stated in the Contract.

3.06 CHANGES IN THE WORK:

- A. A procurement officer of the University's Division of Procurement and Supply may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make any change in the work within the general scope of the Contract, including but not limited to changes:
 - (1) In the specifications (including drawings and designs);
 - (2) In the method or manner of performance of the work;
 - (3) In the University-furnished facilities, equipment, materials, services, or site;
 - (4) Directing acceleration in the performance of the work.
- B. Any other written order or oral order (which terms as used in this paragraph B shall include direction, instruction, interpretation, or determination from the procurement officer which causes any such change) shall be treated as a change order under this clause, provided that the Contractor gives the procurement officer written notice stating the date, circumstances, and source of the order, and that the Contractor regards the order as a change order.
- C. Except as herein provided, no order, statement, or conduct of the procurement officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment hereunder.
- D. If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this Contract, whether or not changed by and any order, an equitable adjustment shall be made and the Contract modified in writing accordingly; provided, however, that except for claims based on defective specifications, no claim for any change under paragraph B above shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as therein required: provided further, that in the case of defective specifications for which the University is responsible, the equitable adjustment shall include any increased cost reasonable incurred by the Contractor in attempting to comply with such defective

specifications.

- E. If the Contractor intends to assert a claim for an equitable adjustment under this clause, he shall within 30 days after receipt of a written change order under paragraph A above or the furnishing of written notice under paragraph B above, submit to the procurement officer a written statement setting forth the general nature and monetary extent of such claim unless this period is extended by the University. The statement of claim hereunder may be included in the notice under paragraph B above.
- F. No claim by the Contractor for an equitable adjustment hereunder shall be allowed or asserted after final payment under this Contract.
- G. In order to facilitate review of quotations for extras or credits, all proposals (except those so minor that their propriety can be seen by inspection) shall be accomplished by a complete itemization of costs including labor, materials and Subcontracts. Where major cost items are Subcontracts, they shall also be itemized. In no case will a change involving over \$200.00 be approved without such itemization.
- H. The Contractor shall furnish labor and materials for any additional work ordered by the University and for which no pre-agreed price has been fixed, for the net cost of all labor and materials furnished plus the following percentage for overhead and profit:
 - Not to exceed 10% mark up for additional work performed by a subcontractor; and,
 - Not to exceed 15% mark up on work performed by the Contractor's own forces."
- I. Each contract modification or change order that affects contract price shall be subject to the prior written approval of the Procurement Officer and other appropriate authorities and to prior certification of the appropriate fiscal authority of fund availability and the effect of the modification or change order on the project budget or the total construction cost. If, according to the certification of the fiscal authority, the contract modification or change order will cause an increase in cost that will exceed budgeted and available funds, the modification or change order may not be made unless sufficient additional funds are made available or the scope of the project is adjusted to permit its completion within the project budget.

3.07 UNAUTHORIZED WORK:

Contractor shall not be paid for any work not authorized in writing by the University.

SECTION 4: CONTROL OF THE WORK:

4.01 AUTHORITY OF THE ARCHITECT: Notwithstanding anything in this contract to the contrary, this provision #4.01 applies solely to the construction phase of the project.

- A. Under the direction of the University, the Architect shall be the initial interpreter of any drawings included among the Contract documents. He will furnish with reasonable promptness such clarifications as he may deem necessary for the proper execution of the work; such clarifications to be consistent with the intent of the Contract documents. He is the agent of the University only to the extent provided in the Contract documents. When in special instances he is authorized by the University so to act, he has authority to recommend to the University to stop work whenever such stoppage may be necessary to insure the proper execution of the Contract.
- B. Except as otherwise provided in the Contract documents, all the Architect's decisions are subject to review by the University.

4.02 CONFORMITY WITH CONTRACT REQUIREMENTS:

- A. All work performed and all materials furnished by the Contractor shall be in conformity with the Contract requirements.
- B. In the event the University finds the materials or the finished product in which the materials are used or the work performed are not in complete conformity with the Contract requirements and have resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by and at the expenses of the Contractor.
- C. In the event the University finds the materials or the finished product in which the materials are used are not in complete conformity with the Contract requirements, but have resulted in a satisfactory product, he shall then make a determination if the work shall be accepted. In this event, the University will document the basis of acceptance by a change order which will provide for an appropriate adjustment in the Contract price.

4.03 ADJACENT WORK:

- A. The University shall have the right, at any time, to Contract for and perform other work on, near, over, or under the work covered by the Contract. In addition, other work may be performed under the jurisdiction of another State agency. The Contractor shall cooperate fully with such other Contractors and carefully fit his own work to such other as may be directed by the Architect.
- B. Intentionally omitted.

4.04 CONTROL BY THE CONTRACTOR:

- A. The Contractor shall constantly maintain efficient supervision of the work, using his best skill and coordinating ability. He shall carefully study and compare all drawings, specifications, and other instructions and check them against conditions existing, or being constructed on the project. He shall at once report to the University and the Architect any error, inconsistency, or omission which he may discover.

- B. The Contractor shall schedule and conduct regular progress meetings every other week, and as directed by the University, at which Subcontractors, University, Architect, and other designated representatives, and the Contractor can discuss such matters as progress, scheduling, and construction-related issues. The Contractor is responsible for taking meeting notes and distributing these to all invited parties within three (3) working days after such meetings. The meeting notes are the product of the Contractor. Failure of the University to respond to such notes is not deemed to be acceptance.

4.05 COOPERATION WITH UTILITIES:

- A. It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present or relocated positions and that no additional compensation will be allowed for normal delays, inconvenience, or damage sustained by him due to any interference from the said utility appurtenances, the operation of moving them, or the making of new connections thereto if required by the Contract documents.

- B. The Contractor shall have responsibility for notifying all affected utility companies prior to the necessity of performing any work on their utilities and shall cooperate with them in achieving the desired results. All damage to utility facilities caused by the

Contractor's operations shall be the responsibility of the Contractor.

- C. At points where the Contractor's operations are adjacent to properties of railway, telegraph, telephone, water, and power companies, or are adjacent to other property, damage to which might result in expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made by the Contractor.

- D. The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may be reduced to a minimum and that services rendered by those parties will not be unnecessarily interrupted.
- E. In the event of interruption to utility services as a result of accidental breakage or as a result of being exposed or unsupported the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.
- F. Utility outages shall be kept to a minimum and will be permitted only with the written approval of the University's Office of Facilities Management. All requests for outages shall be made a minimum of ten (10) working days in advance of their need. Requests for outages will not be considered unless they include an identification of all areas which will be affected by the proposed outage.

4.06 AUTHORITY AND DUTIES OF UNIVERSITY INSPECTORS:

- A. University inspectors shall be authorized to inspect all work done and all material furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. The inspector is not authorized to revoke, alter, or waive any requirements of the Contract, nor is he authorized to approve or accept any portion of the complete project. He is authorized to call the attention of the Contractor to any failure of the work or materials to conform to the contract. He is authorized to reject materials or suspend the work until any questions at issue can be referred to and decided by the University. Inspectors shall perform their duties at such times and in such manner as will not unnecessarily impede progress on the Contract.
- B. The inspector shall in no case act as foremen or perform other duties for the Contractor, nor interfere with the management of the work by the latter.
- C. Any advice which the inspector may give the Contractor shall not be construed as binding the University in any way or releasing the Contractor from fulfilling all the terms of the Contract. The duty of the inspector on the project is to observe the progress of the work and to report any deviations from the requirements of the Contract documents; however, should the inspector fail to report any such deviation from the Contract requirements, this does not release the Contractor from fulfilling all of the terms of the Contract.

- D. Where there is disagreement between the Contractor and the inspector, the inspector will immediately direct the University's and the Architect's attention to the issues of disagreement, and if the Contractor still refuses to make corrections, comply or suspend work, the University will prepare and deliver in writing to the Contractor, by mail or otherwise, a written order suspending the work and explaining the reason for such shutdown. as soon as the inspector shall immediately leave the site of the work and any work performed during the inspector's absence will not be accepted or paid for and may be required to be removed and disposed of at Contractor's expense.

4.07 INSPECTION OF THE WORK:

- A. By law, work, including the fabrication and source of supply, is subject to observation by the Architect and to the University's Office of Facilities Management's right to inspect specific items.
- B. The Contractor shall provide facilities for access and inspection as required by the University.
- C. If the specifications, the Office of Facilities Management's instructions, law, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Office of Facilities Management timely notice of its readiness for inspection, and if inspection is by another authority, the date fixed for such inspection. Inspections by the Office of Facilities Management shall be made promptly and where practicable at the source of supply. Any work covered without approval of the University must, if required by the Architect or the Office of Facilities Management, be uncovered for examination at the Contractor's expense.

4.08 REMOVAL OF DEFECTIVE WORK:

- A. All work and materials which do not conform to the requirements of the Contract will be considered unacceptable.
- B. Any unacceptable or defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist shall be removed and replaced by work and materials which shall conform to the Contract requirements or shall be remedied otherwise in an acceptable manner authorized by the University.
- C. Upon failure on the part of the Contractor to comply promptly with any order of the University, made under the provisions of this section, the University shall have authority to cause defective or unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs from any monies due or to become due the Contractor under this Contract.

4.09 MAINTENANCE OF WORK DURING CONSTRUCTION:

- A. The Contractor shall maintain the work during construction and until acceptance. This maintenance shall be continuous and effective, prosecuted with adequate equipment and forces to the end that all parts of the work be kept in satisfactory condition at all times and protected from damage of any kind from external sources.
- B. Particular attention shall be given to drainage, both permanent and temporary. The Contractor shall use all reasonable precautionary measures to avoid damage or loss that might result from accumulations and concentrations of drainage shall be diverted or dispensed when necessary to prevent damage to excavation, embankments, surfaces, structures, or property. Suitable measures shall be taken by the Contractor to prevent the erosion of soil in all construction areas where the existing ground cover has been removed. Such measures shall be in compliance with the requirements of any governmental entity having jurisdiction.
- C. All cost of maintenance work during construction and before final acceptance shall be included in the base bid and the Contractor will not be paid any additional amount for such work.
- D. In the event that the Contractor's work is halted by the University for failure to comply with the provisions of the Contract, the Contractor shall maintain the entire project as provided herein, and provide such ingress and egress for local residents or tenants adjacent to the project site, for tenants of the project site, and for the general public as may be necessary during the period of suspended work or until the Contractor has been declared in default.
- E. On projects where pedestrian or vehicular traffic flow is maintained, the Contractor shall be responsible for repair and restoration of all traffic damage to the work, either partially or totally completed, until such time as the work is accepted by the University.

4.10 FAILURE TO MAINTAIN ENTIRE PROJECT:

If the Contractor shall at any time, fail to comply with the provisions of paragraph 4.09, the University shall immediately notify the Contractor to comply with the required maintenance provisions. In the event that the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the University will immediately proceed with adequate forces and equipment to maintain the project, and the entire cost of this maintenance will be deducted from monies due the Contractor.

4.11 UNIVERSITY'S RIGHT TO DO WORK:

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the University after three (3) days' written notice to the Contractor may make good such deficiencies and may deduct the cost thereof from the monies then or thereafter due the Contractor.

4.12 AUTHORITY OF OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

- A. The University of Maryland, Baltimore County's Office of Environmental Safety & Health ("ESH") is responsible for promoting a safe and healthful work environment for the project and for assuring compliance with Federal and State environmental protection regulations and University safety and health practices. In carrying out these responsibilities, ESH shall be authorized to inspect the project, all work done and being done, and all material to be furnished and being furnished. In the event that ESH uncovers an unsafe condition, ESH is authorized to suspend work (after notice to the Procurement Officer) until the unsafe condition is cured by the Contractor. The "unsafe condition" shall mean any practice that represents a significant risk of injury or health hazard to University employees, a significant adverse environmental impact or a physical hazard which could result in damage to University property and/or the public. The authority of ESH is in addition to any other rights of the University set forth herein.
- B. Prior to the Contractor proceeding with the Work, he is to submit proof of a Confined Space Program to The University's Office of Environmental Safety & Health for verification.

4.13 IDENTIFICATION:

- A. The Contractor shall obtain identification for his/her employees. Identification badges shall be obtained through the University's Security at a cost of \$35.00 each for access card and \$25.00 each for regular badge. **EMPLOYEE IDENTIFICATION OF WORK PERSONS ASSIGNED TO THE UNIVERSITY PROJECT SHALL BE VISIBLE AT ALL TIMES.**
A \$20.00 refund is applicable for each identification badge returned to the University.
- B. All vehicles and mobile equipment shall be identified with the Contractor's name displayed in a highly visible manner.
- C. The Contractor shall require all trade contractors' personnel to wear Cm identification badges at all times on campus.

4.14 NOISE CONTROL:

- A. The Contractor shall execute the Work in this Contract as quietly as practicable to avoid unnecessary disturbances. Use of portable radios or tape recorders will not be allowed on the premises other than two-way communication radios.
- B. Any complaints duly registered by the University of unacceptable noise levels shall be cause for the use of special precautions and methods of operation by the Contractor to reduce noise to acceptable levels. The University shall be the sole judge of the tolerability of noise levels.

4.15 PARKING:

Parking of employees of the Contractor and/or subcontractor(s) is the responsibility of the applicable Contractor and/or subcontractor. The University's Parking Office may be contacted as to designated public parking facilities on campus with any costs thereof to be borne by the Contractor or subcontractor, dependent on whose employees utilize such public parking.

SECTION 5: MATERIALS:

5.01 GENERAL:

- A. All materials shall meet all quality requirements of the Contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the University and the Architect in writing of the sources from which he proposes to obtain all materials requiring approval, testing, inspection, or certification prior to incorporation into the work as soon as possible after receipt of notification of award of the Contract.
- B. Materials include all manufactured products and processed and unprocessed natural substances required for completion of the Contract. The Contractor, in accepting the Contract, is assumed to be thoroughly familiar with the materials required and their limitations as to use, and requirements for connection, setting, maintenance, and operation. Whenever an article, material, or equipment is specified and a fastening, furring, connection (including utility connections), access hole, flashing closure piece, bed, or accessory is normally considered essential to its installation in good quality construction, such shall be included as if fully specified. Nothing in these specifications shall be interpreted as authorizing any work in any manner contrary to applicable laws, codes, or regulations.
- C. Approval -- All materials are subject to the University's approval as to conformity with the specifications, quality, design, color, etc. No work for which approval is necessary shall be used until written approval is given by the University and Architect. Approval of a subcontractor or supplier as such does not constitute approval of a material which is other than that included in the specifications.
- D. New Materials -- Unless otherwise specified, all materials shall be new. Old materials must not be used as substitutes for new, regardless of condition or repair, unless approved in writing by the University.
- E. Quality -- Unless other specified, all materials shall be of the best quality of the respective kinds.
- F. Samples -- The Contractor shall furnish for approval all samples as directed. The materials used shall be the same as the approved samples.

- G. Proof of Quality -- The Contractor shall, if requested, furnish satisfactory evidence as to the kind and quality of materials either before or after installation. He shall pay for any tests or inspections called for in the specifications and such tests as may be deemed necessary for "substitutions," as set forth in paragraph 5.03 of these General Conditions.
- H. Standard Specifications -- When no specification is cited and the quality, processing, composition, or method of installation of a thing is only generally referred to, then:
 - (1) For items not otherwise specified below, the latest edition of the applicable American Society for Testing Materials specification is the applicable specification.
 - (2) For items generally considered as plumbing and those items requiring plumbing connections, the applicable portions of the latest edition of the B.O.C.A. Code are the applicable specifications.
 - (3) For items generally considered as heating, refrigerating, air-conditioning, or ventilating, the applicable portions of the latest edition of the A.S.H.R.A.E. Handbook published by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., are the applicable specifications.
 - (4) For items generally considered as site work, the applicable portions of the Maryland S.H.A. Standard Specifications are the applicable specifications.
 - (5) For items generally considered as electrical, the applicable provisions of the latest edition of the National Electric Code are the applicable specifications.
 - (6) For items generally considered as fire protection, the applicable portion of the latest edition of the National Fire Protection Association Code are the applicable specifications.

5.02

STORAGE AND HANDLING OF MATERIALS:

- A. Materials shall be so stored as to assure the preservation of their quality and acceptability for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. Approved portions of the project site may be used for storage purposes and for the placing of the Contractor's plant and equipment. Such storage areas must be restored to their original condition by the Contractor at his expense.
- B. Materials shall be handled in such a manner as to preserve their quality and acceptability for the work.
- C. Contractor shall confirm his apparatus and the storage of materials to the area delineated in the Contract documents as the "Limit of Contract."

D. Explosives:

- (1) Explosives shall not be stored upon any property belonging to the University.
- (2) Should the Contractor desire to use explosives on any projection University property he shall first receive written approval of the Chancellor. The approval will stipulate time, place, and quantity to be used and manner of use.
- (3) The Contractor shall assume all responsibility for injury to persons or property damage which may result from the use transportation of explosives as well as complying with any and all ordinances, regulations, and restrictions in relation to the use of explosives.

E. Paints

- (1) Oil base paints and inflammable liquids shall not be stored in large quantities on the project. Containers shall be limited to five (5) gallon size. Any liquid with a flash of point of less than one hundred (100) shall be contained in safety cans, UL approved. Liquid with a higher flash point shall be stored in rigid cans. Glass containers shall not be used.
- (2) Oily rags, waste, etc., must be removed from the work site at the close of each working day.

5.03 SUBSTITUTION:

- A. Should the Contractor desire to substitute another material for one or more specified by name he shall apply to the University, in writing, for such permission and state the credit or extra cost involved by the use of such material. The University will not consider the substitution of any material different in type or construction methods unless such substitution affects a benefit to the University.
- B. Contractor shall not submit for approval materials other than those specified without a written statement that such a substitution is proposed. Approval of a "substitute material" by Architect when the Contractor has not designated such material as a "substitute", shall not be binding on the University, nor release Contractor from any obligations of his Contract, unless the University approves such "substitution" in writing.
- C. A material which is an approved equal (see #5.04) is not a substitution under this clause 5.03.

5.04 APPROVED EQUALS:

The terms "Or Equal", "Equal", "Approved Equal" are used as synonyms throughout the specifications. They are implied in reference to all named manufacturers in the specifications unless otherwise stated. Only materials fully functionally equal or superior in all details and characteristics will be considered to be approved equals. The Contractor shall apply to the University in writing for confirmation that a material is an approved equal. The University's Office of Facilities Management is the final judge as to equality.

5.05 CONTRACTOR'S OPTIONS:

When several products or manufacturers are named in the specifications for the same purpose of use, then the Contractor may select any of those so named. However, all of the units required for, and used in, the project must be the same in material and manufacture.

5.06 TESTS:

- A. If the Contract documents, laws, ordinances, rules, regulations, or orders of any public authority having justification require any portion of the work to be inspected, tested, or approved, the Contractor shall give the University and the Architect timely notice of its readiness so the Architect may observe such inspection, testing, or approval. The Contractor shall bear all costs of such inspections, tests, or approvals conducted by public authorities.
- B. The University reserves the right to require special inspection, testing or approval which the Contract documents do not include, and instruct the Contractor to order such special inspection, testing, approval, and the Contractor shall give notice as provided in 5.06 A above. If such special inspection or testing reveals a failure of the work to comply with the requirements of the Contract documents, the Contractor shall bear all costs thereof, including compensation for the Architect's additional services made necessary by such failure; otherwise the University shall bear such costs and an equitable adjustment will be made.
- C. Required certificate of inspection, testing, or approval shall be secured by the Contractor and promptly delivered by him to the University and the Architect.

5.07 BUY AMERICAN STEEL:

Only steel products made in the United States shall be used or supplied in the performance of the Contract or any subcontract thereunder. Steel products include products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed from steel made in the United States. This requirement shall not apply if the Chancellor shall have determined that the cost of such steel products is unreasonable or inconsistent with the public interest. The provisions of this paragraph shall not apply where they are in conflict with any Federal grant or regulation affecting this Contract.

5.08 SALES TAX:

Effective July 1, 1968 supplies and materials purchased in connection with University Construction Contracts will not be tax exempt.

5.09 HAZARDOUS MATERIALS:

- A. The use or handling of regulated materials, including asbestos or PCB, shall be strictly governed by Federal, State and Local regulations.
- B. No Contractor furnished material or product containing any asbestos in any form may be used on this project.
- C. Contractor must remove any and all materials covered under the hazardous waste regulations upon completion of the project.
- D. It is assumed that hazardous materials are not present within the areas of work in the existing buildings but the Contractor is advised to remain alert to the possibility of encountering hazardous materials during the course of the Work. In the event that hazardous materials are encountered and must be handled, the Contractor shall immediately stop all work within the affected area and notify the University's Project Manager for instructions. The Contractor shall coordinate and cooperate with the hazardous material removal contractor in the removal of hazardous materials within the areas of work under the Contract.

SETTING 6: LEGAL RELATIONS AND RESPONSIBILITIES:

6.01 LAWS TO BE OBSERVED:

- A. The Contractor shall keep fully informed of all Federal, State, and Local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work or which in any way affect the conduct of the work. He shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees. He shall protect and indemnify the University and the State of Maryland and its representatives against such claim or liability arising from or based on the violation of any law, ordinance, regulation, order, or decree, whether by himself or his employees or subcontractors.
- B. The Contractor must comply with the provisions of the Workmen's Compensation Act and Federal, State, And City laws relating to hours of labor.
- C. The provisions of this Contract shall be governed by the Laws of Maryland.
- D. The Contractor shall give all notices and comply with all State and Federal laws, ordinances, rules, and regulations bearing on the conduct of the work as drawn and specified.

- E. If the Contractor observes that the drawings and specifications are at variance with any law, he shall promptly notify the Architect, and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to the Architect, he shall bear all costs arising there from.

6.02 PERMITS AND LICENSES:

- A. The University will file with the appropriate local authority drawings and specifications and any pertinent data reasonably proper for their information. No permits are applicable for work on University property with the exception of (i) any permits required in the specifications as noted in 6.02, C. below and (ii) Cutting & Welding permit noted in 6.02, D. below.
- B. Any permits required for work on non-University property are the responsibility of the Contractor in terms of the permit acquisition, cost thereof and all obligations and liability under the permit.
- C. Any permits required by the specifications (i.e., Air and Radiation Management Administration boiler permits, etc.) are the responsibility of the Contractor in terms of the permit acquisition, cost thereof and all obligations and liability under the permit.
- D. Before any welding, burning, pipe sweating, or brazing is started a CUTTING & WELDING PERMIT must be obtained from The University's Office of Environmental Safety & Health (ESH). This permit must be requested from ESH at least 48 hours prior to the anticipated hot work. The cardboard portion of the permit shall be secured to either the cutting or welding equipment. At the end of the requested time, the cardboard portion of the permit must be returned to ESH.

6.03 PATENTED DEVICES, MATERIALS, AND PROCESSES:

The Contractor shall pay for all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the University and the State of Maryland harmless from loss on account thereof, except that the University shall be responsible for any such loss when a particular process or the product of a particular manufacturer or manufacturers is specified by the Contractor as the University's responsibility; however, if the Contractor has information that the process or articles specified is an infringement of a patent he shall be responsible for such loss unless he promptly gives such information to the University.

6.04 LAND, AIR, AND WATER POLLUTION:

- A. The Contractor shall incorporate all permanent erosion control features into the work at the earliest practicable time. Temporary pollution control measures will be used to correct conditions that develop during construction that were not foreseen during design, that are needed prior to installation of permanent pollution control features, or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.
- B. The Contractor's attention is directed to the fact that temporary pollution control may include measures outside the project site where such work is necessary as a direct result of project construction. The University's Office of Facilities Management shall be kept advised of all such off-site control measures taken by the Contractor. This shall not relieve the Contractor of the basic responsibilities for such work.
- C. In case of failure on the part of the Contractor to control erosion, pollution, and/or siltation, the University's Office of Facilities Management reserves the right to employ outside assistance or to use its own forces to provide the necessary corrective measures. All expenses incurred by the University's Office of Facilities Management in the performance of such duties for the Contractor shall be withheld from monies due to the Contractor.
- D. The Contractor must submit evidence to the University's Office of Facilities Management that the governing Federal, State, and Local Air Pollution criteria will be, and were, met. This evidence and related documents will be retained by the University's Office of Facilities Management for onsite examination.
- E. If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the procurement officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor required by the University's as one of the terms of this Contract. If it is determined that the order is due in any part to acts or omissions of the Contractor required by the terms of the Contract, such suspension, delay, or interruption shall be considered as if ordered by the procurement officer in the administration of this Contract under the terms of the "Suspension of Work" clause of this Contract. The period of such suspension, delay, or interruption shall be considered reasonable, and an adjustment shall be made for any increase in the cost of performance of this Contract (excluding profit) as provided in that clause, subject to all the provisions thereof.
- F. The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the University has not duly considered, either substantively or procedurally, the effect of the work on the environment.

6.05 CONTRACTOR'S LIABILITY INSURANCE:

- A. From and after the execution of the Contract by the Contractor in connection solely with Worker's or Workmen's Compensation Insurance and from and after the execution of the Contract Amendment by the Contract in connection with all insurance enumerated in this Section 6.05A below, the Contractor shall purchase and maintain under the General Conditions allowance for this project (see Attachment C) insurance required by this paragraph 6.05A. applicable to all claims which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by the Contractor, by any subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. All insurance except Workmen's Compensation shall name the University of Maryland and the State of Maryland as an additional insured.
- (1) Worker's or Workmen's Compensation Insurance.
 - (2) Employer's Liability Insurance.
 - (3) Comprehensive General Liability Insurance for bodily injury and property damage, including loss of use of property, arising out of any occurrence
This insurance should include the following extensions:
 - (a) Products and completed operations coverage for a period of at least two years;
 - (b) Personal injury liability coverage (including contractual coverage);
 - (c) Contractual liability insurance to cover the Contractor's obligation to the University and the State of Maryland under paragraph 1.03 H.
 - (d) Broad form property damage (including completed operations);
 - (e) Independent contractor's coverage.
 - (f) "X", "C", and "U" coverage applying to explosion, collapse of other structures and underground foundations;
 - (g) If the work involves containment or removal of asbestos, pollution liability (environmental protection liability) coverage.
 - (4) Business automobile liability insurance which will pay for liabilities arising out of accidents involving the ownership, operation, maintenance or use including the loading or unloading of any automobile.
 - (5) Umbrella excess liability

- B. The coverage listed in paragraph 6.05 A shall be written for not less than the following limits of liability.
- (1) Worker's Compensation Insurance - - statutory requirements.
 - (2) Employer's liability insurance - - \$1,000,000 each accidental injury or disease and \$5,000,000 aggregate.
 - (3) Comprehensive general liability insurance including all extensions - - limit required by umbrella excess liability coverage.
 - (4) Business automobile liability - - limit required by umbrella excess liability coverage.
 - (5) Umbrella excess liability - - \$10,000,000 limit.
- C. Satisfactory proof of purchase of required insurance shall be furnished on the Accord format for certificates prior to execution of the Contract, upon execution of the Contract Amendment and upon renewal of any policy, and upon obtaining any new insurance policy. Certificates must be amended to indicate: "Should any of the described policies be canceled before the expiration date thereof, or non-renewed, the issuing company will give thirty (30) days prior written notice to the certificate holder," each Certificate should indicate the insurer, the appropriate policy number(s), the policy expiration date(s), the limits of liability in effect, and the Best's rating and financial rating of the insurer. A certificate will be accepted only if signed by an authorized representative of the insurer.
- D. Insurance certificates will be accepted only from an insurer having a minimum Best's rating of Class A for the policyholders' rating and Class IX for the financial rating. Insurers must be authorized to do business under the laws of the State of Maryland.
- E. No work shall be started at the site until appropriate certificates of insurance are filed with and approved by the procurement officer.

6.06 BUILDER'S RISK INSURANCE:

- A. From and after the execution by Contractor of the contract amendment to reflect the GMP, the Contractor shall purchase and maintain under the General Conditions allowance for this project (see Attachment C) builder's risk insurance naming as additional insured the University of Maryland, the State of Maryland, the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them. The University and State shall be loss payees as their interests may appear.
- B. The builder's risk policy shall cover any and all materials, equipment, machinery, and supplies of any nature whatsoever, intended to be used in or incidental to the completion of the Contract, but coverage shall apply to property on the construction site, property in transit, and property in temporary storage at locations other than the construction site which property is designated to become a permanent part of the insured project.

- C. The limits of insurance (without any coinsurance conditions applying) shall be the full value of the project when completed. Deductibles are allowed only if reported to the University, which shall not unreasonably withhold consent. The Contractor shall be responsible for paying the amount of the deductible to the University or State in the event of a claim by either or both of them which is within the coverage of the builder's risk policy. Coverage shall be on a full replacement cost basis with no deductions for actual physical depreciation.
- D. Insurance should be against all risks of direct physical loss of or damage to the insured property including theft; earthquake; flood; and settling, shrinkage or expansion of buildings or foundations other than normal settling shrinkage or expansion. Any fault, defect, error or omission exclusion should not apply to damage resulting from such fault, defect, error or omission in the design plans or specifications. Any faulty or defective workmanship or internal exclusion clause should not apply to damage resulting therefrom.
- E. The term of the builder's risk insurance shall continue until issuance of the substantial completion certificate on the project by the University.
- F. Satisfactory proof of purchase of required insurance shall be furnished to the University prior to execution of the Contract. The certificate must be amended to indicate that the certificate holder and all insured will receive ninety (90) days prior written notice of cancellation or non-renewal of the policy.
- G. Certificates of insurance shall be submitted to the procurement officer for review and approval and shall be held by him for the duration of the Contract. The University shall have the absolute right to terminate the Contract if the policy of insurance is canceled at any time for any reason and a new policy effective immediately thereafter is not obtained by the Contractor and approved by the procurement officer. This paragraph G. applies to insurance required under Section 6.05 and 6.06.

6.07 ASSIGNMENTS:

The Contractor shall not assign the Contract. The Contractor shall not assign monies due or to become due to him hereunder.

6.08 SEPARATE CONTRACTS:

- A. The University reserves the right to let other contracts in connection with this work. Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs.
- B. If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the contractor shall inspect and promptly report to the University any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to the defects which may develop in the other Contractor's work after

the execution of his work.

- C. To insure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the University any discrepancy between the executed work and the drawings.

6.09 PAYMENT OF SUBCONTRACTORS:

- A. Neither the final payment of the GMP or any part of the retained percentage or of the CM Construction fee shall become due until the Contractor shall deliver to the University receipt for full payment to all subcontractors and any principal suppliers identified by the University.
- B. If any subcontractor or supplier refuses to provide a receipt for payment, the Contractor may obtain final payment by providing the University with a bond satisfactory to the University for payment to subcontractors or suppliers as a condition of fulfilling any contractual obligation (including warranties) or losses resulting from subcontractors' or suppliers' failure to fulfill such obligations. Under the bond the Contractor shall refund the University all monies paid to subcontractors or losses incurred, including all costs and reasonable attorney's fees.

6.10 RELATIONSHIP OF CONTRACTOR TO PUBLIC OFFICIAL AND EMPLOYEES:

- A. In carrying out any of the provisions of the Contract, or in exercising any power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the procurement officer or other authorized representatives of the University, it being understood that in all such matters they act solely as agents and representatives of the University.
- B. The University may terminate the right of the Contractor to proceed under this Contract if it is found by the procurement officer that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor or any agent or representative of the Contractor to any officer or employee of the University with a view toward securing a Contract or securing a favorable treatment with respect to the awarding or amending or the making of any determination with respect to the performing of such Contract, the facts upon which the procurement officer makes such findings may be reviewed in any competent court.
- C. In the event this Contract is terminated as provided in paragraph B hereof, the University shall be entitled (1) to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor, and (2) in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the procurement officer) which shall be not less than three(3) nor more than ten times the costs incurred by the Contractor in providing any such gratuities to any such officer or employee.
- D. The rights and remedies of the University provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

- E. Conflict of Interest -- No employee of the University or any other department, commission, agency, or branch of the State of Maryland, whose duties as such employee include matters relating to or affecting the subject matter of this Contract, shall, while such employee, become or be an employee of the party or parties hereby contracting with the University.

6.11 NO WAIVER OF LEGAL RIGHTS:

- A. The University and the State of Maryland shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate or certificate is untrue or is incorrectly made, for from showing that the work or materials do not in fact conform to the requirements of the Contractor. The University and the State of Maryland shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate, and payment from recovering from the Contractor or his sureties, or both, such damage as the University may sustain by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by the University or any representative of the University shall operate as a waiver of any portion of the Contractor or of any power herein or of any right to damages.
- B. The waiver by the University of any breach of the Contractor shall not be held to be a waiver of any other or subsequent breach.

6.12 COVENANT AGAINST CONTINGENT FEES:

The Contractor warrants that it has not employed or retained any person, partnership, corporation or other entity other than a bona fide employee or agent working for the Contractor to solicit or secure this Contract, and that it has not paid or agreed to pay any person, partnership, corporation, or other entity other than a bona fide employee or agent, any fees or any other consideration contingent on the making of this agreement.

6.13 ASSIGNMENT OF ANTITRUST CLAIMS:

The Contractor sells, transfers, and assigns to the University and the State of Maryland all right, title, and interest of and in to any cause of action arising at any time before the date of this assignment or during the performance of this Contract under the Antitrust Laws of the United States, including Section 1 of the Sherman Act and the Antitrust Law of Maryland relating to the purchase by him or the University and the State of Maryland of any products from any supplier or source whatever that is incorporated in the structure built under the terms of this agreement. The Contractor hereby certified that the above causes of action are lawfully owned and that no previous assignment of same has been made nor has the same heretofore been attached or pledged in any manner whatsoever.

6.14 FEDERAL PARTICIPATION:

If the United States Government pays all or any portion of the cost of a project, the work under this Contract shall be subject to inspection by the appropriate federal agency. Such inspection shall in no sense make the federal government a party to this Contract and will not interfere in any way with the rights of either party hereunder.

6.15 DISPUTES:

- A. This Contract is subject to the provisions of Title 7, Article 21 (Administrative and Civil Remedies) of the Code (the "Act") and COMAR 21.10. As noted therein, that unless a lesser period is provided by applicable statute, regulation, or by this Contract, the Contractor shall file a written notice of a claim relating to the Contract with the procurement officer within thirty (30) days after the basis for the claim is known or should have been known, whichever is earlier. Contemporaneously with, or within thirty (30) days after, the filing of a notice of claim, contractor shall submit the written claim to the procurement officer. If contractor so requests, the procurement officer, on conditions the procurement officer deems satisfactory to the unit, may extend the time in which contractor must submit claim. An example of when a procurement officer may grant an extension includes situations in which the procurement officer finds that contemporaneous or timely cost quantification following the filing of the notice of claim is impossible or impractical.
- B. Except as may otherwise be provided in the Act or COMAR, all disputes arising under or as a result of a breach of this Contract which are not disposed of by mutual agreement shall be resolved in accordance with this Section 6.15.

- C. As used herein, "claim" means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of Contract terms or other relief arising under or relating to this Contract.
- (1) A voucher, invoice, or request for payment that is not in dispute when submitted is not a claim under this clause. However, where the submission subsequently is not acted upon in a reasonable time or disputed as to liability or amount, it may be converted to a claim for the purpose of this clause.
- (2) A claim by the Contractor shall be made in writing and submitted to the procurement officer for decision. A claim by the State shall be the subject of a decision by the procurement officer in consultation with the Office of the Attorney General.
- D. When a controversy cannot be resolved by mutual agreement, the Contractor shall submit a written request for final decision to the procurement officer. The written request shall set forth all the facts surrounding the controversy.
- E. In connection with any claim under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of his claim to the procurement officer.
- F. The procurement officer shall render a written decision on all claims within 180 days of receipt of the Contractor's written claim, unless the procurement officer determines that a longer period is necessary to resolve the claim. This decision shall be furnished to the Contractor, by certified mail, return receipt requested, or by any other method that provided evidence of receipt. The procurement officer's decision shall be deemed the final action of the University. If a decision is not issued within 180 days, the procurement officer shall notify the Contractor of the time within which such a decision shall be rendered and the reasons for such time extension.
- G. The procurement officer's decision shall be final and conclusive unless the Contractor files a written appeal with the Maryland State Board of Appeals within thirty (30) days of receipt of said decision.
- H. Pending resolution of a claim, the Contractor shall proceed diligently with the performance of the Contract in accordance with the procurement officer's decision.
- I. The final decision may award a contract claim only for those expenses incurred not more than thirty (30) days before contractor was initially required to have files the notice of claim or sixty (60) days before contractor was required to have filed the claim initially, even if the procurement officer extends the time in which contractor must submit the claim.

6.16 CLAIMS:

- A. If the Contractor claims that any instructions by drawings or otherwise involve or may involve extra cost under this Contract,

he shall give the University written notice thereof within fifteen (15) calendar days after receipt of such instructions or after the occurrence of an emergency. No claim shall be valid unless so made.

- B. Under no circumstances will overhead or profit be permitted as items of a claim (if permitted at all under this Contract) when such overhead or profit is for periods during which a "Stop Work" order is in effect due to an act, error, omission for which the Contractor is responsible.
- C. No profit or overhead which includes rental of equipment and the salaries of supervisory personnel (if permitted at all under this Contract) will be allowed the Contractor for stoppage of work when written notice of such stoppage or impending stoppage is not given reasonable in advance by the Contractor so that the University can take action to prevent such stoppage.
- D. No claim for extra costs will be granted which includes cost of delays or work stoppage due to strikes, lockouts, fire, unusually severe weather, avoidable casualties, or damage or delay in transportation for which the University is not responsible; only time extensions in accordance with Section VII. 7.03 will be granted.
- E. The Contractor and the University agrees that no prejudgment or postjudgement interest on any claims asserted by either party will be allowed.
- F. No claim for damage caused by a delay (if permitted at all under the Contract) will be allowed unless the Contractor notifies the University of the existence of the delay within five (5) days of the act or omission causing the delay.
- G. No payment will be made for increased payment or performance bond premiums as a result of any act or omission by the University which results in a claim.

6.17 VARIATIONS IN ESTIMATED QUANTITIES:

Where any quantity of major pay item as defined in this Contract is an estimated quantity and where the actual quantity of such pay item varies more than twenty-five percent (25%) above or below the estimated quantity in the Contract an equitable adjustment of the stated price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above one hundred twenty-five percent (125%) or below seventy-five percent (75%) of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the procurement officer shall, upon receipt of a written request for an extension of time within ten (10) days from the beginning of the delay, or within a further period of time which may be granted by the procurement officer before the date of final settlement of the Contract, ascertain the facts and make the adjustment for extending the completion date as in his judgement the findings justify.

6.18 PRE-EXISTING REGULATIONS:

In accordance with the provisions of Section 11-206 of the State Finance and Procurement Article of the Annotated Code of Maryland, the regulations set forth in Title 21 of the Code of Maryland Regulations (COMAR Title 21) in effect on the date of the execution of this Contract are applicable to this Contract.

6.19 FINANCIAL DISCLOSURE:

The Contractor shall comply with the provisions of Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which requires that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during the calendar year under which the business is to receive in the aggregate \$100,000 or more, shall, within thirty (30) days of the time when the aggregate value of these contracts, leases or other agreement reaches \$100,000 file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

6.20 POLITICAL CONTRIBUTION DISCLOSURE:

The Contractor shall comply with the provision of Article 33, Section 30-1 through 30-4 of the Annotated Code of Maryland, which requires that every person that enters into contracts, leases or other agreements with the State of Maryland, including its agencies or a political subdivision of the State during a calendar year under which the person receives in the aggregate \$10,000 or more, shall on or before February 1, of the following year, file with the Secretary of State of Maryland certain specified information to include disclosure of political contribution in excess of \$100 to a candidate for elective office in any primary or general election.

6.21 COMPLIANCE WITH LAWS:

The Contractor hereby represents and warrants that:

- A. It is qualified to do business in the State of Maryland and that it will take such action as, from time to time hereafter, may be necessary to remain so qualified.
- B. It is not in arrears with respect to the payment of any monies due and owing to the State of Maryland or any department or unit thereof, including but not limited to the payment of taxes and employee benefits, and that it shall not become so in arrears during the term of this Contract.
- C. It shall obtain, at its expense, all licenses, permits, insurance and governmental approvals, if any, necessary to the performance of its obligations under this Contract.

6.22 RECIPROCITY:

In accordance with COMAR, State Finance and Procurement regulations 14-401, any bid/proposal from a contractor whose principal office is outside of the State of Maryland is subject to reciprocity. Any form of preference the other state gives to its residents will in turn be applicable to that bidder by the State of Maryland. All nonresident bidders/proposers are required to submit a copy of the current statute, resolution, policy, procedure or executive order of the bidder/proposer's resident state that pertains to that state's treatment of nonresident bidders/proposers. In the event a non-Maryland bidder is the awarded Contractor, prior to the award, the non-resident Contractor must agree, in writing, to meet any and all applicable preferences its state gives to its residents.

SECTION 7: PROSECUTION AND PROGRESS OF THE WORK:

7.01 NOTICE TO PROCEED:

- A. After the Contract has been executed, the University will issue to the Contractor a "Pre-Construction Phase Notice to Proceed" and this notice will stipulate the date on or before which the Contractor is expected to begin work. The specified Contract time in the connection with the Pre-Construction Phase shall begin on the day work actually starts or on the day stipulated in the "Pre-Construction Phase Notice to Proceed". Any preliminary work started or materials ordered before receipt of the "Pre-Construction Phase Notice to Proceed", shall be at risk of the Contractor.
- B. After each Contract Amendment is executed and approved by the Board of Public Works, the University will issue the "Construction Phase Notice to Proceed" and this notice will stipulate the date on or before which the Contractor is expected to begin work on the Construction Phase. The specified Contract time in connection with the Construction Phase shall begin on the day work (other than the erection of the Inspector's office, construction stakeout, and mobilization) actually starts or on the day stipulated in the "Construction Phase Notice to Proceed", whichever is earlier. Any preliminary work started or materials ordered before receipt of the "Construction Phase Notice to Proceed", shall be at risk of the Contractor.

7.02 PROJECT SIGNS: Notwithstanding anything in this Contract to the contrary, this section is applicable to the Construction Phase only.

- A. General -- For all University construction contracts over \$50,000, provide, erect, maintain, and remove upon final acceptance of work, two (2) project signs. Sign locations and mounting systems (ground-supported posts or attached to existing structure) will be established at the Work Initiation Conference by the University's Project Manager. The University-mandated logo, graphic dimensions, state prescribed text (Board of Public Works and Governor), colors, letter fonts, and size of basic sign panel are either shown on Contract Documents or will be provided at the Work Initiation Conference. Wording of project-specific text shall be a directed by The University's Project Manager.

B. Products --

1. Sign Panel--Provide panel five (5) feet high by ten (10) feet long by 3/4" thick, exterior grade, MDO surface on sign face.
2. Posts (if used -- Provide 4"x 4" construction grade lumber, pressure-preservative treated, of sufficient length for minimum 3'- 6" burial into ground and for minimum of 3'- 0" clearance from bottom of sign panel to grade.
3. Fasteners--Provide non-corrosive bolts, nails, screws and other fasteners throughout.
4. Paint--Provide one (1) coat of white primer-sealer and two (2) coats of white semi-gloss for sign background. Paint back and edges of sign panel also.

C. Execution --

1. Submit, for review and approval, shop drawing indicating size, materials, construction, details, color graphics and text.
2. Provide signs by skilled, established sign manufacturer having a minimum of five (5) years' experience in the production of quality signs.

7.03 PROSECUTION OF THE WORK:

- A. Time is an essential element of the Contract and all time limits in the Contract documents are of the essence of the Contract. Contractor shall prosecute the work and its obligations under the contract vigorously until full completion.
- B. The date of commencement of work is the date established in a Notice to Proceed authorized by the procurement officer, however time limits shall commence pursuant to Section 7.01.
- C. If the Contractor is delayed at any time in the progress of the work by any act or omission of the University or any of its officers, agents, or employees or by any separate Contractor employed by the University, or by any changes ordered in the work, or by labor disputes, fire, unusual delay in transportation, unavoidable casualties, or by a cause which the procurement officer determines may justify any delay, then the Contract time will be extended for such time as the procurement officer may authorize.
- D. It is expressly understood and agreed by and between the Contractor and the University that the time for the completion of the work is a reasonable time for completion of the same, taking into consideration the average climatic range and the usual business conditions prevailing in the locality of the project.

7.04 PUBLIC CONVENIENCE AND SAFETY:

The Contractor at all times shall conduct the work in such a manner as to create the least practicable obstruction to all forms of traffic. The convenience of the general public, tenants, and of the residents along and/or adjacent to the improvement shall be respected. Material stored upon the project shall be placed so as to cause a minimum of obstruction to the public. The Contractor shall, unless otherwise specified, provide and maintain in passable condition such temporary access, roads and bridges as may be necessary to accommodate traffic diverted from the project under construction or using the project under construction and shall provide and maintain in a safe condition temporary approaches to, and crossing of, the project. Existing facilities planned to be removed, but which might be of service to the public during construction are not to be disturbed until other and adequate provisions are made. Fire hydrants on or adjacent to the project shall be kept accessible to fire apparatus at all times, and no materials or obstruction shall be placed within fifteen (15) feet of any such hydrant. Work closed down for the winter or at any other times shall be left entirely accessible at all points to fire apparatus. All footways, gutters, sewer inlets, and portions of the project including the work under construction shall not be obstructed more than is absolutely necessary.

7.05 BARRICADES AND WARNING SIGNS:

- A. The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs, and other control devices, and shall take all necessary precautions for the protection of the work and safety of the public. All highways and other facilities closed to traffic shall be protected by effective barricades, and obstructions shall be illuminated during hours of darkness with electric lights.
- B. The Contractor shall erect warning signs in advance of any place on the project where operations may interfere with the use of the facility by vehicular or pedestrian traffic, and at all other points where the new work crosses or coincides with an existing roadway or traffic lane(s). Such warning signs shall be constructed and erected in accordance with the FHWA Manual on Uniform Traffic Control Devices or as directed.
- C. In cases where the Contractor's sequence of operations results in grade differentials which would be hazardous to vehicular or pedestrian traffic, the Contractor will, at the direction of the University's Office of Facilities Management and at no additional cost to the University, provide suitable substantial guardrail to the extent determined by that office.

7.06 PRESERVATION, PROTECTION, AND RESTORATION OF PROPERTY:

- A. The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect University property from injury or loss arising in connection with this Contract. He shall repair and indemnify against any such damage, injury, or loss, except such as may be directly due to errors in the Contract documents or caused by agents or employees of the University. He shall adequately protect adjacent property as provided by law and the Contract documents.

- B. The Contractor shall box all trees along the way of access, also all trees surrounding the work which are liable to injury by the moving, storing, and working up of materials. He shall use no tree for attachment of any ropes or derricks.
- C. The Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the hazards created by such features of construction as protruding nails, hoists, well holes, elevator hatchways, scaffolding, window openings, stairways, and falling materials.
- D. In any emergency affecting the safety of life or the work or of the adjoining property, the Contractor without special instruction or authorization is hereby permitted to act, at his discretion, to prevent such threatened loss or injury. If he is specifically instructed by the University's Office of Facilities Management to do work in an emergency, the Contractor shall do the work and will be paid compensation as outlined in Section 3.06.
- E. No such extension shall be made for delay occurring more than five (5) days before claim therefore is made in writing to the University. In the case of continuing cause of delay, only one claim is necessary.

7.07 PROGRESS SCHEDULE AND TIME:

- A. The Work under the Contract shall be planned, scheduled, executed and reported by the Contractor in accordance with the Contract Documents for the University's review and approval using the Critical Path Method (CPM) Schedule unless otherwise agreed to in writing by the Procurement Officer in consultation with the University's Project Manager. The University's review and approval of the Contractor's schedule does not constitute an agreement to specific dates, durations or sequences for activities. The purpose of the project schedule shall be to:
 - 1. Assure adequate planning, scheduling and reporting during execution of the Contract;
 - 2. Assure coordination of the Work of the Contractor and the various subcontractors and suppliers;
 - 3. Assist the Contractor in monitoring the progress of the Work and evaluating proposed changes to the Contract and the project schedule; and,
 - 4. Assist the Contractor in the preparation and evaluation of the subcontractors' monthly progress payment requests.
- B. When multiple subcontractors are involved, the Contractor will incorporate the schedules of all subcontractors in its schedule to produce a unified project schedule. The Contractor shall make all submissions required in the Contract Documents.
- C. The CPM schedule diagram shall include, but not necessarily be limited to, the following:
 - 1. The order and interdependencies of the Contractor's and

subcontractors' activities and the major points of the interface or interrelation with the activities of others, including specific dates for completion.

2. Activities should be linked between major area separations of the project so that the individual areas do not imply complete independence. The critical path should run through all major areas, since the entire project must be completed.
 3. Conformance with and identification of the Specific Dates specified in the Contract Documents.
 4. The description of work by activity.
 5. Delivery of Owner-furnished material and equipment, if any.
 6. Shop fabrication and delivery.
 7. Critical Path (or Paths).
 8. Testing of equipment and materials.
 9. Seasonal weather conditions, utility coordination, no-work periods (if any), expected job learning curves, and other such circumstances to activities shall be considered and included in the planning and scheduling of all work. Seasonal weather conditions shall be based upon the preceding ten (10) years records published for the locality by the National Ocean and Atmospheric Administration (NOAA) and entitled "Local Climatological Data."
- D. The level of detail of the CPM schedule shall be such that activity durations over fifteen (15) working days shall be kept to a minimum except for non-construction activities such as shop drawings and sample submittals, fabrication and delivery of materials and equipment, concrete curing and General Conditions activities.
- E. If the Contractor's schedule shows the University or a separate contractor is to complete an activity by a specific date, or within a certain duration, the University or separate contractor under contract with the University shall not be bound to said date or duration unless the University's Project Manager specifically agrees in writing to the same.
- F. It is to be expressly understood and agreed by the Contractor that the project schedule is a working document to be revised from time to time as progress proceeds, however, the Contractor is responsible for completing the Work within the time frame noted in the Contract. The Contractor agrees that updating the schedule is a key component and will make every reasonable effort to provide current information to the University. Throughout the progress of the Work, the Contractor shall prepare and maintain a two week manual bar chart field schedule reflecting the schedule of work activities accomplished for the previous week and the work scheduled for the forthcoming two weeks. This manual field schedule shall be updated weekly and review and the regularly scheduled progress meetings.
- G. If the Contractor fails to prepare and submit to the University's

Office of Facilities Management a schedule before the existence of a delay, then no claim for extra costs due to delay in the work shall be recognized or asserted.

- H. The time frame(s) for this project are as described in Section 00400 Scope of Work and work shall commence as set forth in Section VII 7.01.
- I. Materials Purchased Under Allowances -- The Contractor with approval of the University will provide schedules for all materials to be purchased from specified allowances.

7.08 PROGRESS PHOTOGRAPHS:

The Contractor shall submit photographs monthly to the University's Office of Facilities Management, taken on or about the first of each month showing the status of the work. Only one print of each negative is necessary but the negatives should be sufficient in number to properly record the work. The Contractor shall photograph all disputed items of the work.

7.09 SUSPENSION OF THE WORK:

- A. The procurement officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for a period of time as he may determine to be appropriate for the convenience of the University.
- B. If the performance of all or any part of the work is suspended, delayed, or interrupted for an unreasonable period of time by an act of the procurement officer in the administration of the Contract, or by his failure to act within the time specified in this Contract (or if no time is specified, within a reasonable time), an adjustment shall be made for any increase in the cost of performance of this Contract (excluding profit) necessarily caused by an unreasonable suspension, delay, or interruption, and the Contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent (1) that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or (2) for which an equitable adjustment is provided for or excluded under any other provision of this Contract.
- C. No claim under this clause shall be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the procurement officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of a suspension, delay, or interruption, but not later than the date of final payment under the Contract.

7.10 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT:

If the work should be stopped under an order of any court, or other public authority, for a period of three (3) months, through no act or fault of the Contractor, or of anyone employed by him, or if the University should fail to issue any certificate for payment within seven (7) days after it is due, then the Contractor may, upon seven (7) days' written notice to the University's Office of Facilities Management, stop work or terminate this Contract and receive from the University payment of all complete work in accordance with Section 7.11 of these General Conditions.

7.11 UNIVERSITY'S RIGHT TO TERMINATE FOR ITS CONVENIENCE:

- A. The performance of work under this Contract may be terminated by the University in accordance with this clause in whole or in part from time to time, whenever the procurement officer shall determine that such termination is in the best interest of the University or the State. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective.
- B. After receipt of a Notice of Termination and except as otherwise directed by the procurement officer, the Contractor shall:
 - (1) Stop work under the Contract on the date and to the extent specified in the Notice of Termination;
 - (2) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of the portion of the work under the Contract as is not terminated;
 - (3) Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination;
 - (4) Assign to the University in the manner, at the times, and to the extent directed by the procurement officer, all of the right, title, and interest of the Contractor under the orders and subcontractor so terminated, in which case the University shall have the right, in its direction, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;
 - (5) Settle all outstanding liabilities and all claims arising out of such terminations or orders and subcontracts, with the approval or ratification of the procurement officer to the extent he may require, which approval or ratification shall be final for all the purpose of this clause;

- (6) Transfer title and deliver to the University in the manner, at the times, and to the extent, if any directed by the procurement officer, (a) the fabricated or unfabricated parts, work in process, completed work, supplies, and (b) other material produced as a part of, or acquired in connection with the performance of, the work terminated by the Notice of Termination, and other property which, if the Contract had been completed, would have been required to be furnished to the University.
- (7) Use its best efforts to sell, in the manner , at the times, to the extent, and at the price or prices directed or authorized by the procurement officer, any property of the types referred to in (6) above; provided, however, that the Contractor (a) shall not be required to extend credit to any purchaser, and (b) may acquire any such property under the conditions prescribed by and at a price or prices approved by the procurement officer; and provided further that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the University to the Contractor under this Contract or shall otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the procurement officer may direct;

Such action as may be necessary or as the procurement officer may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the University has or may acquire an interest.

The Contractor may submit to the procurement officer a list, certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorized by the procurement officer and may request the University to remove such items or enter into a storage agreement covering the same; provided, that the list submitted shall be subject to verification by the procurement officer upon removal of the items or, if the items are stored, within 45 days from the date of submission of the list. Any necessary adjustment to correct the list as submitted shall be made prior to final settlement;

- (8) Complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and,
- (9) Take any action that may be necessary, or as the procurement officer may direct, for the protection and preservation of the property related to this contract which is in the possession of the Contractor and in which the State has or may acquire an interest.

- C. After receipt of a Notice of Termination, the Contractor shall submit to the procurement officer his termination claim, in the form and with certification prescribed by the procurement officer. Such claim shall be submitted promptly but in no event later than one year from the effective date of termination, unless one or more extensions in writing are granted by the procurement officer, upon request of the Contractor made in writing within such one year period or authorized extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the procurement officer may determine on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.
- D. Subject to the provisions of paragraph C, the Contractor and the procurement officer may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this clause, which amount or amounts may include a reasonable allowance for profit on work done; provided that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of work not terminated. The Contract shall be amended accordingly and the Contractor shall be paid the agreed amount. Nothing in paragraph E. of this clause, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the procurement officer to agree upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this paragraph.
- E. Notwithstanding anything in this Contract to the contrary, this subsection E shall apply to the Construction Phase of this Contract. Subsection L shall apply to the Pre-Construction Phase of this Contract, notwithstanding anything in this Contract to the contrary. In the event of the failure of the Contractor and the procurement officer to agree, as provided in paragraph D., upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this clause, the procurement officer shall pay the Contractor the amounts determined by the procurement officer as follows, but without duplication of any amounts agreed upon in accordance with paragraph D:
- (1) With respect to all Contract work performed prior to the effective date of the Notice of Termination, the total (without duplication of any items) of:

- (a) The cost of the work;
 - (b) The cost of settling and paying claim arising out of the termination of work under subcontracts or orders as provided in paragraph B (5) above, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the subcontractor before the effective date of the Notice of Termination of work under this Contract, which amounts shall be included in the cost on account of which payment is made under (a) above; and
 - (c) A sum, as profit on (a) above, determined by the procurement officer to be fair and reasonable provided, however, that if it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed under this subdivision (c) and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss.
- (2) The reasonable cost of the preservation and protection of property incurred pursuant to paragraph B (9) and any other reasonable cost incidental to termination of work under this Contract, including expense incidental to the determination of the amount due to the Contractor as the result of the termination of work under this Contract.

The total sum to be paid to the Contractor under (1) above shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of work not terminated.

Except for normal spoilage and except to the extent that the University shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor under (1) above, the fair value, as determined by the procurement officer, of property which is destroyed, lost, stolen, or damaged so as to be undeliverable to the University, or to a buyer pursuant to paragraph B (7).

- F. Costs, claimed, agreed to, or determined pursuant to C, D, E, and I hereof shall be in accordance with COMAR 21.09 as in effect on the date of the Contract.
- G. The Contractor shall have the right of appeal, under the clause of this Contract entitled "Disputes," from any determination made by the procurement officer under paragraph C, E, or I hereof, except that if the Contractor has failed to submit his claim within the time provided in paragraph C or I thereof, and has failed to request extension of such time, he shall have no such right of appeal. In any case where the procurement officer has made a determination of the amount due under paragraph C, E, or I hereof, the University shall pay to the Contractor the following:
- (i) if there is no right of appeal hereunder or if no timely appeal has been taken, the amount so determined by the procurement officer, or
 - (ii) if an appeal has been taken, the amount finally determined on such appeal.

- H. In arriving at the amount due the Contractor under this clause there shall be deducted (i) all unliquidated advances or other payments or account theretofore made to the Contractor, applicable to the terminated portion of the Contract, (ii) any claim which the University may have against the Contractor in connection with this Contract; and (iii) the agreed price for, or the proceeds of sale of any materials, supplies, or other things acquired by the Contractor or sold, pursuant to the provisions of this clause, and not otherwise recovered by or credited to the University.
- I. If the termination hereunder be partial, the Contractor may file with the procurement officer a claim for or an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the Notice of Termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices. Any claim by the Contractor for an equitable adjustment under this clause shall be asserted within ninety (90) days from the effective date of the termination notice, unless an extension is granted in writing by the procurement officer.
- J. The University, may from time to time, under such terms and conditions as it may prescribe, make partial payments and payments on account against costs incurred by the Contractor whenever in the opinion of the procurement officer the aggregate of such payments shall be within the amount to which the Contractor shall be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this clause, such excess shall be payable by the Contractor to the University upon demand together with interest computed at the legal rate for the period from the date such excess payment is received by the Contractor to the date on which the excess is repaid to the University; provided, however, that no interest shall be charged with respect to any such excess payment attributable to a reduction in the Contractor's claim by reason of retention or other disposition of termination inventory until ten days after the date of the retention or disposition, or a later date as determined by the procurement officer by reason of circumstances.
- K. Unless otherwise provided for in this Contract or by applicable statute, the Contractor shall, from the effective date of termination until the expiration of three (3) years after the final settlement under this Contract, preserve and make available to the University at all reasonable times at the office of the Contractor but without direct charge to the University, all his books, records, documents, and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the word terminate hereunder, or to the extent approved by the procurement officer, photographs, or other authentic reproductions thereof.

- L. This subsection 7.11 L shall apply solely in connection with the Pre-Construction Phase of this Contract, and in lieu of Section 7.11 E. In the event of the failure of the Contractor and the University to agree as provided in paragraph D upon the whole amount to be paid to the Contractor by reason of the termination of work pursuant to this Section 7.11, the University shall pay to the Contractor the amounts determined by the University as follow, but without duplication of any amounts agreed upon in accordance with paragraph D:
- (1) For completed supplies or services or services accepted by the University (or sold or acquired as provided in paragraph B. (7) (above) and for which payment has not theretofore been made, a sum equivalent to one aggregate price for the supplies or services computed in accordance with the price or prices specified in the Contract, appropriately adjusted for any saving of freight or other changes;
 - (2) The total of:
 - (a) The cost incurred in the performance of the work terminated including initial cost and preparatory expense allocable thereto, but inclusive of any costs attributable to supplies or services paid or to be paid for under paragraph L (1) hereof;
 - (b) The cost of settling and paying claims arising out of the termination of work under subcontracts or orders, as provided in paragraph B(5) above, which are properly chargeable to the terminated portion of the contracts (exclusive of amounts paid or payable on account of supplies or materials delivered or services furnished by subcontractors or vendors before the effective date of the Notice of Termination), which amount shall be included in the costs payable under (a) above; and,
 - (c) A sum, as profit on (a) above, determined by the University to be fair and reasonable, provided, however, that if it appears that the contractor would have sustained a loss on the entire contract had it been completed, no profit shall be included or allowed under this subdivision (c) and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and,
 - (3) The reasonable cost of settlement accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the contracts and for the termination and settlement of subcontracts thereunder, together with reasonable storage, transportation and other costs incurred in connection with the protection or disposition of property allocable to this Contract.

The total sum to be paid to the Contractor under (1) and (2) of this paragraph shall not exceed the total contract price in connection with the Pre-Construction Phase as reduced by the amount of payments otherwise made as further reduced by the contract price of work not terminated. Except for normal spoilage and except to the extent that the University shall have otherwise expressly assumed the risk of loss, these shall be excluded from the amounts payable to the Contractor as provided in L(1) and (2)(a) above. The fair value, as determined by the procurement officer of property that is destroyed, lost, stolen or damaged so as to become undeliverable to the University or to a buyer pursuant to paragraph B(7).

7.12 TERMINATION FOR DEFAULT -- DAMAGES FOR DELAY --TIME EXTENSIONS:

- A. If the Contractor refuses or fails to prosecute the work or any separable part thereof, with such diligence as shall insure its completion within the time specified in this Contract or any extension thereof or fails to complete said work within this time, the University may, by written notice to the Contractor, terminate his right to proceed with the work or the part of the work as to which there has been delay. In this event, the University may take over the work and prosecute the same to completion, by Contract or otherwise, and may take possession of and utilize in completing the work, the materials, appliances, and plant as may be on the site of the work and necessary therefore. Whether or not the Contractor's right to proceed with the work is terminated, he and his sureties shall be liable for any damage to the University resulting from his refusal or failure to complete the work within the specified time.
- B. If fixed and agreed liquidated damages are provided in the Contract and if the University so terminates the Contractor's right to proceed, the resulting damage shall consist of such liquidated damages until a reasonable time as may be required for final completion of the work together with any increased costs occasioned for the University in completing the work.
- C. If fixed and agreed liquidated damages are provided in the Contract and if the University so terminates the Contractor's right to proceed, the resulting damage shall consist of these liquidated damages until the work is completed or accepted.
- D. The Contractor's right to proceed may not be so terminated nor the Contractor charged with resulting damages if:
 - (1) The delay in the completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, acts of the public enemy, acts of the University or State in either their sovereign or contractual capacity, acts of another contractor in the performance of a Contract with the University, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of subcontractor or suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractor or suppliers; and
 - (2) The Contractor, within 10 days from the beginning of any such

delay (unless the procurement officer grants a further period of time before the date of final payment under the Contract), notifies the procurement officer in writing of the causes of delay. The procurement officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in his judgment, the findings of fact justify such an extension, and his findings of fact shall be final and conclusive on the parties, subject only to appeal as provided in the "Disputes" clause of this Contract.

- E. If, after notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provision of this clause, or that the delay was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the Contract contains a clause providing for termination for convenience of the University, be the same as if the notice of termination had been issued pursuant to that clause. If, in the foregoing circumstances, this Contract does not contain a clause providing for termination for convenience of the State, the Contract shall be equitably adjusted to compensate for the termination and the Contract modified accordingly; failure to agree to any such adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this Contract entitled "Disputes."
- F. The rights and remedies of the University provided in this clause are in addition to any other rights and remedies provided by law or under this Contract.
- G. As used in paragraph D (1) of this clause, the term "subcontractors or suppliers" means subcontractors or suppliers at any tier.
- H. Notwithstanding anything in this Contract to the contrary, paragraphs A-G (inclusive) of this Section 7.12 shall apply only to the Construction Phase of this Contract.
- I. In connection with the Pre-Construction Phase of this Contract, if the Contractor fails to fulfill its obligations under this Contract properly and on time, or otherwise violates any provision of the Contract, the University may terminate this contract upon written notice to the Contractor. The notice shall specify the acts or omissions relied upon as cause for termination all finished or unfinished work provided by the Contractor, shall, at the option of the University, become the University's property. The University shall pay the Contractor fair and equitable compensation for satisfactory performance prior to receipt of notice of termination less the amount of damages caused by the Contractor's breach. If the damages are more than the compensation payable to the Contractor, the Contractor shall remain liable after termination and the University can affirmatively collect damages.

- J. In connection with the Pre-Construction Phase of this Contract, the Contractor agrees to prosecute the work continuously and diligently and no charges or claims for damages shall be made by it for any delays or hindrances from any cause whatsoever during the progress of any portion of this work specified in this Contract.

Time extensions will be granted only for excusable delays that arise from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of public enemy, acts of the State in either its sovereign or contractual capacity; acts of another contractor in the performances of a contract in the State of Maryland, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, or delays of subcontracting or suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of either the contractor or the subcontractors or suppliers.

7.13 PARTIAL ACCEPTANCE:

- A. If during the construction of work the University desires to occupy any portion of the project, the University shall have the right to occupy and use those portions of the project which in the opinion of the procurement officer can be used for their intended purposes; provided that the conditions of occupancy and use are established and the responsibilities of the Contractor and the University for maintenance, heat, light, utilities, and insurance are mutually agreed to by the Contractor and the University.
- B. Partial occupancy shall in no way relieve the Contractor of his responsibilities under the Contract.

7.14 FAILURE TO COMPLETE ON TIME/LIQUIDATED DAMAGES:

- A. This Section #7.14 is in addition to provisions concerning liquidated damages set forth elsewhere in the Contract.
- B. For each day that any work shall remain uncompleted beyond the time(s) specified elsewhere in the Contract, the Contractor shall be liable for liquidated damages in the amount of \$1,000.00 per day provided, however, that due account shall be taken of any adjustment of specified completion time(s) for completion of work as granted by approved change orders.
- C. The University shall have the right to deduct, retain offset and recoup out of the monies due to or become due to the Contractor hereunder the amount of damages, and in case the amounts due the Contractor are less than the amount of such damages, the Contractor shall be liable to the University for the difference.

7.15 SUBSTANTIAL COMPLETION AND FINAL INSPECTION:

- A. When the work is substantially completed, the Contractor shall notify the University and the Architect that the work will be ready for the final inspection and test on a definite date. Sufficient notice shall be given to permit the Architect and the University to schedule the final inspection.
- B. On the basis of the inspection, if the Architect and the University determine that the work is substantially complete and the project can be occupied or used for its intended purpose, the University shall establish the date of substantial completion and shall state the responsibilities of the University and the Contractor for maintenance, heat, utilities, and insurance, and shall fix the time for which the guarantee will begin.
- C. The University shall fix the time within which the Contractor shall complete any remaining items of work which may be indicated on a list prepared by the Architect and the University. If the Contractor fails to complete the remaining items so listed in the time stipulated the University shall have the undisputed right to complete the work and deduct any cost incurred from any monies retained under the Contract.
- D. Final payment shall not be made until all Contract work is complete to the satisfaction of the University's Office of Facilities Management.

7.16 CLEANING-UP:

The Contractor shall at all times keep the construction area, including storage areas used by him, free from accumulation of waste materials or rubbish and prior to completion of work, shall remove from the premises any rubbish and all tools, scaffolding, equipment, and materials, not the property of the University. Upon completion of the construction, the Contractor shall leave the work and premises in a clean, neat, and workmanlike condition satisfactory to the University's Office of Facilities Management.

7.17 GUARANTEES:

The Contractor guarantees and warranties for a two (2) year period (unless another period is specified which shall not be less than two (2) years), commencing on the date of substantial completion as established by the University.

- A. That the work contains no faulty or imperfect material or equipment or any imperfect, careless, or unskilled workmanship.
- B. That all mechanical and electrical equipment, machines, devices, etc., shall be adequate for the use to which they are intended, and shall operator, with ordinary care and attention, in a satisfactory and efficient manner.

- C. That he will re-execute, correct, repair, or remove and replace with proper work, without cost to the University, any work found not to be as guaranteed by this Section. The Contractor shall also make good all damages caused to other work or materials in the process of complying with this Section.
- D. That the entire work shall be water-tight and leak-proof in every particular.

The guarantee set forth herein is in addition to any implicit or explicit guaranty provided by law, if any.

7.18 NOTICE TO UNIVERSITY OF LABOR DISPUTES:

- A. Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice thereof, including all relevant information with respect thereto, to the procurement officer.
- B. The Contractor agrees to insert the substance of this clause, including this paragraph B., in any subcontract hereunder as to which a labor dispute may delay the timely performance of this Contract; except that each such subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the subcontractor shall immediately notify his next higher tier subcontractor, or the prime Contractor, as the case may be, of all relevant information with respect to such dispute.

SECTION 8: PAYMENTS:

8.01 SCOPE OF PAYMENT: This Section 8.01 applies only to payments of the GMP received or to be received by the Contractor for payment to subcontractors and not to the CM fees.

- A. Payments are made on the valuation of work accomplishment and on account of materials delivered on the site, for incorporation in the work which are suitably stored and protected. The Contractor is to submit a Schedule of Values (SOV) for the University's approval within ten (10) working days of the issuance of the Notice to Proceed. The SOV must be approved by the University prior to the Contractor's use in applying for payment. The SOV will be submitted in a format as prescribed by and to the level of detail specified by the University inclusive of the following:
 - 1. The sum of the parts of the SOV shall total to the Contract amount.
 - a. Labor will be separate from material/equipment.
 - b. Round amounts off to the nearest whole ten (10) dollars.
 - 2. The minimum level of breakdown and order on the application for payment include, but are not limited to, the following:
 - a. Bond costs, if applicable.
 - b. General Conditions:
 - 1. Mobilization/Demobilization

2. Submittals/Shop Drawings
 3. Schedule/Schedule Updates
 4. On site staff reimbursable costs
 5. Safety
 6. Clean-up
 7. Hoisting
 8. Punch List
 9. As-built Drawings
 10. Warranties and Operations & Maintenance Manuals
 11. Close out Documentation
- c. Division 1 cost breakdown as requested/required.
 - d. Major trade work shall be broken down into labor and material line items.
 - e. A listing of approved/fully executed change orders/contract amendments, if any, in sequential order.
3. SOV items shall have a direct and understandable relation to the Project construction schedule.
 4. Overhead and profit shall be distributed into each item of work.
 5. Once approved, the SOV shall be the basis for the Contractor's application for payment except as noted below in #6.
 6. The University shall have the right to require the Contractor to alter the value or add/delete categories on the SOV at any time for the following reasons:
 - a. The SOV appears to be incorrect or unbalanced.
 - b. A revision of the segregation of values is required due to the Contractor revising the sequence of construction or assembly of building components.
 - c. Change orders/contract amendments are issued to the Contractor and shall be incorporated into the SOV as a separate line item at the bottom of the SOV.
 7. The Contractor is required to correlate the documentation for payment of stored materials requested in the application for payment against the agreed upon breakdown of the SOV and provide the necessary certificate of insurance for offsite storage with the University as the certificate holder; such payment to be conditioned upon submission by the Contractor of bills of sale or other procedures satisfactory to the University's Office of Facilities Management to establish the University's title to such materials or equipment or otherwise protect the University's interest, including applicable insurance as noted above and transportation to site.

- C. Prior to application for first payment, the Contractor shall submit to the University a schedule of values of the various parts of the work, including quantities, aggregating the total sum of the Contract. This schedule shall be so divided as to facilitate payments to subcontractors. The form of this submission shall be as the Contractor and the University have agreed upon and shall be supported by such evidence as to its correctness as the University may direct. Unless at a later date found to be in error, this schedule shall be used as a basis for certificates of payments.
- D. Application for payment shall be submitted on or about the 25th day of each month but not less than thirty (30) days after the "Work Initiation Conference" nor before ten (10) days of job operation (job shut-down days excluded).
- E. In applying for payments the Contractor shall submit a statement, based upon the schedule of values prepared under subparagraph C above, itemized in such form and supported by such evidence as the University may require, showing the Contractor's right to the payment claimed. Each invoice shall prominently display the Contractor's Federal Employers Tax Identification Number or (if no such number) his social security number. Payment will be for work in place by the 25th of the billing month; no projection to the month's end are to be included.
 - (1) In applying for all payments, excluding the first payment and final payment, the Contractor shall submit in addition to the above a certificate he has paid:
 - (a) All labor to date;
 - (b) All vendors and material suppliers in full for all items received; and
 - (c) All subcontractors in full, less the retained amount.
 - (2) In applying for the final payment, the Contractor shall submit in addition to the statement required in E (1), the following:
 - (a) Such evidence as the University may demand as will establish the University's title to materials and give reasonable assurance that claims against materials and claims for labor and other items by others do not exist;
 - (b) An electric certificate from an independent (non-governmental) electrical inspection agency approved by the State of Maryland Fire Marshal. The Contractor must make application for the inspection, coordinate same, and pay the required inspection fees. The independent electrical inspection agencies are not considered local authorities;
 - (c) All other guarantees are called for by the Contract;
 - (d) All equipment manuals and parts lists.

8.02 **FORCE ACCOUNT WORK:** This Section 8.02 applies only to payments of the GMP received or to be received by the Contractor for payment to subcontractors and not to the CM fees.

A. When the Contractor is required to perform or have performed work as a result of additions or changes to the Contract for which there are no applicable unit prices in the Contract, the University's Office of Facilities Management and the Contractor shall make every effort to come to an agreed upon price for the performance of such work. If an agreement cannot be reached, the University's Office of Facilities Management may require the Contractor to do or have done such work on a force account basis to be compensated in accordance with the following:

- (1) Labor -- For all labor and for foremen in direct charge of the specific operations, the Contractor shall receive the actual wages for each and every hour that said labor and foremen are actually engaged in such work. The Contractor shall receive the actual costs paid to, or in behalf of, workmen by reason of subsistence and travel allowances, health, welfare benefits, pension fund benefits, or other benefits, when such amounts are required by collective bargaining agreement or other employment Contract generally applicable to the classes of labor employed on the work.
- (2) Materials -- For materials accepted by the Architect and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth).
- (3) Equipment -- For any machinery or special equipment rented (other than small tools, whether rented or owned), the Contractor shall receive the rates agreed upon in writing before such work is begun, or the Contractor shall receive those rates which may be specified elsewhere in the Contract.
For purposes of definition, equipment with a new cost of \$500 or less will be considered small tools.
- (4) Materials and Supplies Not Incorporated in the Work -- For materials and supplies expended in the performance of the work (excluding those required for rented equipment) and approved by the Architect, the Contractor shall receive the actual cost of such materials and supplies used.
- (5) Bond, Insurance, and Tax -- For bond premiums, property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions, and social security taxes on the force of account work, the Contractor and University shall determine an equitable percent to be applied.
- (6) Subcontractors -- The Contractors shall receive the actual cost of work performed by a subcontractor. Subcontractor's cost is to be determined as in A (1-5) above. An allowance will be made to the Contractor for subcontractor's overhead and profit in an amount to be determined in accordance with Section VII. 8.02 A (8).
- (7) Superintendence -- No additional allowance shall be made for general superintendence, the use of small tools, or other

costs for which no specific allowance is herein provided.

- (8) Subcontractor's Overhead and Profit -- The allowance to the subcontractor for his overhead and profit will be at the following scale:

<u>Value of Work</u>	<u>Combined Overhead and Profit</u>
0 - \$ 1,000	25%
\$ 1,001 - \$ 5,000	20%
\$ 5,001 - \$10,000	17%
\$10,001 - \$25,000	15%
over - \$25,000	negotiated, but not more than 15%

- B. Compensation -- The compensation as set forth above shall be received by the Subcontractor as payment in full for the work done on a force account basis. At the end of each day, the Subcontractor's representative and the Architect shall compare records of the cost of work as ordered on a force account basis.
- C. Statements -- No payment will be made for work performed on a force account basis until the Subcontractor furnishes the University duplicate itemized statements of the cost of such force account work detailed as to the following:
- (1) Name, classification, date, daily hours, total hours, rate, and extension for laborers and foremen.
 - (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment rented (other than small equipment).
 - (3) Quantities and prices of materials.
 - (4) Changes for transportation of materials paid by the Contractor.
 - (5) Cost of property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.
 - (6) Statements for payments of items under paragraphs (3) and (4) shall be accompanied by original receipted invoices for materials used and transportation charges. If, however, the materials used in the force account work are not specifically purchases for such work but are taken from the Contractor's stock, then in lieu of the original invoices the statements shall contain or be accompanied by an affidavit of the Subcontractor which shall certify that such materials were taken from his stock, that the quantity claimed was actually used and that the price and transportation of the materials as are claimed represent actual cost.

8.03 CASH ALLOWANCES:

Whenever an allowance is mentioned in the specifications, then the Contractor shall include in his GMP the entire amount of such specified allowances. The expenditure of these allowances is at the University's direction. However, the allowance expenditure is limited to items properly inferable from the title of the allowance. Unexpended balances are to revert to the University. The cost of installation of materials purchased are not included in the allowance. The Contractor shall have installed (through subcontractors) all material purchased under allowances and shall include in the Contract sum a sufficient amount, in addition to the allowance, to cover the installation, other costs, and profit.

8.04 CERTIFICATES OF PAYMENT:

- A. If the Contractor has made application as above, the University shall, not later than the date when such payment falls due, issue to the Contractor a certificate for such amount as it decides to be properly due. In approving such partial payments, there shall be an amount retained pursuant to Section 00400 of the Request for Proposal document until completion and acceptance of all work covered by the Contract.
- B. No certificate issued nor payment made to the Contractor nor partial or entire use or occupancy of the work by the University shall be an acceptance of any work or materials not in accordance with this Contract.

8.05 DEDUCTIONS FOR UNCORRECTED WORK:

If the University deems it inexpedient to correct work injured or done in accordance with the Contract, an equitable deduction from the Contract price shall be made therefore.

8.06 PAYMENTS WITHHELD:

- A. The University may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect the University from loss on account of:
 - (1) Defective work not remedied;
 - (2) Claims filed or reasonable evidence indicating probable filling of claims;
 - (3) Failure of the Contractor to make payments properly to subcontractor for material or labor;
 - (4) A reasonable doubt that the Contract can be completed for the balance then unpaid; or
 - (5) Damage to another contractor.
- B. When the above grounds are removed, payment shall be made for amount withheld because of them.

8.07 CORRECTION OF WORK BEFORE FINAL PAYMENT:

- A. The Contractor shall have promptly remove from the premises all materials condemned by the Architect or the University as failing to conform to the Contract, whether incorporated in the work or not. The Contractor shall have promptly replace and re-execute his own work in accordance with the Contract and without expense to the University and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.
- B. If the Contractor does not have such condemned work and materials removed within a reasonable time, fixed by written notice, the University may remove them and may store the materials at the expense of the Contractor. If the Contractor does not pay the expense of such removal within ten (10) days time thereafter, the University may, upon ten (10) days notice, sell such materials and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor.

8.08 ACCEPTANCE AND FINAL PAYMENT:

- A. When the Contractor has completed the work and it has been finally accepted, the University shall promptly proceed to make any necessary final surveys and complete any necessary computation of quantities. This tabulation shall be accompanied by a statement setting forth (1) the additional work performed under change orders and/or supplemental agreements, (2) any authorized extension of time, (3) the number of days which have been charged against the Contractor as having been used to complete the Contract and (4) any deductions, charges, or liquidated damages which have been made or imposed. Payment for the full apparent value of the Contract thus determined shall become due and payable to the Contractor within 45 days after acceptance of the project by the University for maintenance, as hereinafter provided. As a condition precedent to final payment, the Contractor shall be required to execute a general release of all claims against the University's Office of Facilities Management and its employees arising out of or in any way connected with this Contract.
- B. The Contractor shall then have a period of ten (10) calendar days dating from the date upon which he received the aforementioned tabulation from the University, in which (1) to decide whether or not he will accept final payment upon such a basis, and (2) to notify the University's Office of Facilities Management, in writing, of his decision. The Contractor may request an additional period up to ten (10) calendar days in which to notify the procurement officer of his decision. In the event the Contractor notifies the procurement officer that he protests final payment on such a basis, that notification shall outline the reason(s) for said protest.

- C. Upon receipt of a notification of acceptance as provided for in paragraph B above, the University shall prepare for Final Payment forms and submit them to the Contractor. These forms shall show all data noted in paragraph A above, together with deductions for all prior payments. The Contractor shall execute these forms and return them to the University within ten (10) calendar days from the date they are received, whereupon the University will make payment. If such signed forms are not received by the University within the specified time, the University will prepare duplicate forms and submit them to the procurement officer for execution and payment. Such action by the procurement officer shall be deemed to constitute Acceptance and Final Payment.
- D. If, under the provisions of paragraph B above, the Contractor notifies the procurement officer of his protest and non-acceptance of the data submitted to him, the University shall pay the Contractor a Semi-Final Estimate, or an Additional Semi-Final Estimate in the event a Semi-Final Estimate has already been paid based upon the data noted in paragraph A above, with deductions for all prior payments. The acceptance of such Semi-Final Estimate, or additional Semi-Final Estimate, shall be considered as a waiver on the part of the Contractor of his right to pursue his protest and press for Acceptance and Final Payment.
- E. In the event the Contractor does not accept the data submitted to him as described in paragraph A above and /or has outstanding a claim filed with the University, the Architect and the Contractor shall confer at mutually convenient times and endeavor to reconcile all points of disagreement expeditiously. If such reconciliation is accomplished, the University will promptly process with Acceptance and Final Payment on the reconciled basis and in accordance with the provisions of paragraph C above.
- F. All prior partial estimates and payments shall be subject to correction at the time of Acceptance and Final Payment and if the Contractor has been previously overpaid, the amount of such overpayment shall be set forth in the Final Payments forms and the Contractor hereby agrees that he will reimburse the University for such overpayment within six (6) months of receipt of such advice, and his surety will not be granted release from obligations under the terms of the Contract until reimbursement has been made in full.

8.09 INTEREST:

- A. Contractor and the University such agree that neither is entitled to any interest on any payment or judgement due it from the other.

8.10 AUDITS BY THE UNIVERSITY:

- A. The Contractor agrees that the University or any part of its duly authorized representatives shall, until expiration of three (3) years after final payment under this Contract or after any applicable statute of limitations, whichever is longer, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Contractor involving transactions to this Contract.
- B. The Contractor further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the University or any of its duly authorized representatives shall, until the expiration of three (3) years after final payment under the subcontract or after any applicable statute of limitations, whichever is longer, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract.
- C. The Contractor shall retain and maintain all records and documents relating to this Contract for the period specified in paragraph A and shall make them available for inspection and audit by authorized representatives of the State of Maryland, including the University or designee at all reasonable times.

8.11 MULTI-YEAR CONTRACTS:

If the General Assembly fails to appropriate funds or if funds are not otherwise made available for continued performance for any fiscal period of this Contract succeeding the first fiscal period, this Contract shall be canceled automatically as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available; provided, however, that this will not affect either the University's rights or the Contractor's rights under any termination clause in this Contract. The effect of termination of this Contract hereunder will be to discharge both the Contractor and the University from future performance of this Contract, but not from their rights and obligations existing at the time of termination. The Contractor shall be reimbursed for the reasonable value of any non-recurring costs incurred but not authorized in the price of the contract. The University shall notify the Contractor as soon as it has knowledge that funds may not be available for the continuation of this contract for each succeeding fiscal period beyond the first.

SECTION 9: EMPLOYEES, SUBCONTRACTORS, AND WORK CONDITIONS:

9.01 EMPLOYEES AND WORKMANSHIP: The following provisions in Section 9.01 are in addition to provisions relating to these matters set forth elsewhere in the Contract.

- A. Qualification of Employees -- Only personnel thoroughly trained and skilled in the task assigned them may be employed on any portion of the work. Any employee found by the Contractor, the Architect, or the University's Office of Facilities Management to be unskilled or untrained in his work shall be removed from the work.
- B. Licensed Employees -- When Municipal, County, State, or Federal laws require that certain personnel (electricians, plumbers,

etc.) be licensed, then all such personnel employed on the Work shall be so licensed.

- C. Quantity of Labor -- The Contractor shall employ on the Work, at all times sufficient personnel to complete the work within the time stated in the Contract.
- D. Work Areas -- The Contractor shall confine the operations of his employees to the limits as provided by law, ordinance, permits, or directions of the University's Office of Facilities Management. Generally, the work area will be the same as the "Limited of Contract" line indicated in the construction documents.
- E. Methods and Quality:
- (1) All workmanship shall be of good quality. Whenever the method of the work or manner of procedure is not specifically stated in the Contract documents, then it is intended that the best standard practice shall be followed. Recommendations of the manufacturers of approved materials shall be considered as a part of these specifications and all materials shall be applied, installed, connected, erected, used, cleaned, and conditioned as called for thereby. This, however, does not remove any requirement in these specifications to add to the manufacturer's recommendations.
 - (2) All materials shall be accurately assembled, set, etc., and when so required in good construction, shall be true to line, even, square, plumb, level, and regularly spaced, coursed, etc. Under no circumstances, either in new or cold work, shall any material be applied over another which has not been thoroughly cleaned, sanded, or otherwise treated so as not to impair the finish, adhesion, or efficiency of the next applied item.
 - (3) All methods and procedures and results are subject to the University's and Architect's approval as to finished result to be obtained. However, this is not to be interpreted as placing upon the University and the Architect any responsibility for the "Work" management which is solely the responsibility of the Contractor.
- F. Scheduling: The obligations in this Section 9.01 F shall be in addition to the scheduling provision set forth elsewhere in the Contract.
- (1) The Contractor shall so schedule the work as to ensure efficient and uninterrupted progress and to hold to an absolute minimum the cutting and patching of new work. All cutting, patching and digging necessary to the execution of the work is included.
 - (2) The Contractor shall schedule the construction performed by each group or trade so that each installation or portion of the construction shall member with and join with every other new or old work required for a complete installation, all according to accepted good construction practice.

- G. Project Manager and Superintendent -- The Contractor shall keep the work at all times during its progress a competent Superintendent and any necessary assistants, all approved by the University's Office of Facilities Management the name of the person it intends to employ as superintendent for the execution of this Contract with a statement of the proposed superintendent's qualifications. This data will be reviewed by the University's Office of Facilities Management and an approval or rejection will be given in writing. Persons who have previously proved unsatisfactory on work executed for the University or the at State of Maryland or who are without proper qualifications will not be approved. Should it be necessary to change the superintendent, this procedure will be repeated. A single Superintendent will be permitted to superintend two or more jobs located at the same institution or close to each other only when approved by the University's Office of Facilities Management in writing. The Superintendent shall represent the Contractor. All directions given to the Superintendent shall be as binding as if given to the Contractor. Other directions shall be so confirmed on written request in each case. Should the Superintendent be complained of by the University's Office of Facilities Management for cause, he shall be removed from the work and a new Superintendent obtained and approved as described above.
- H. Discipline -- The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ or permit to remain on the work any unfit person. He shall enforce all instructions relative to use of water, heat, power, no smoking, and control and use of fires as required by law and by the University. Employees must not be allowed to loiter on the premises before or after working hours.
- I. Employee Safety -- The Contractor shall designate a responsible member of his organization, on the work, whose duty it shall be, in addition to his other duties, to prevent accidents and to enforce the standards of Section VII. 9.07. The name and position of the person so designated shall be reported to the University's Office of Facilities Management with a copy to the Architect, by the Contractor at the commencement of the work.
- J. Supervisory Personnel: All supervisory personnel of the Contractor must be direct employees of the Contractor.

9.02 NON-DISCRIMINATION-EMPLOYMENT POLICIES:

- A. Acceptance of a Contract based on the University's specifications constitutes agreement by the Contractor to comply with State policy as established by Joint Resolution No. 16 of the General Assembly of 1958, which is:

That on all public works being paid for in whole or in part with State or other public funds, preference shall be given to available persons who have been residents of Maryland for a period of at least six (6) months immediately prior to availability of positions for employment of laborers, mechanics, and others not including supervisory personnel, not to exceed ten percent (10%) of the total working force.

- B. The contents of Section 13-219 of the State Finance and Procurement Article, which provides as follows, is called to the attention of the Contractor and each subcontractor.
- a. A contract subject to this article may not be awarded to any Contractor unless the Contract contains provisions obligating the Contractor not to discriminate in any manner against any employee or applicant for employment because of sex, race, creed, color, or national origin and obligating the Contractor to include a similar clause in all subcontracts, except subcontracts for standard commercial supplies or raw materials. In addition, the Contractor and sub contractor shall agree to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of the nondiscrimination clause.
 - b. Failure to include such a contract provision renders any contract void of initiation at the election of the election of the State, but any party shall be entitled to the reasonable value of services performed and materials supplied.
 - c. Where the Contractor willfully fails to comply with the non-discrimination provisions the State may, where the contract is still executory in part, compel continued performances of the contract, but it shall be liable only for the reasonable value of services performed and materials supplied from the date that the breach of contract was discovered or should have been discovered, and any sums previously paid by the State under the Contract, shall be set off against the sums to become due as the contract is performed.
 - d. If the subcontractor willfully fails to comply with the non-discrimination provisions the Contractor may avoid the contract note and shall be liable only for the reasonable value of the services performed and materials supplied.

- e. Any person, whether an employee, prospective employee or not with information concerning violations of the requirements of this section may inform the Board of Public Works which shall cause an immediate investigation of the charges. If the Board concludes that the charges are true it shall invoke the remedies set out in this section.
- C. The Governor's Executive Order pertaining to the Code of Fair Practices, dated July 9, 1976 bars discrimination by State Contractors on account of political or religious opinion or affiliation in addition to the discrimination listed above.
- D. It is understood that the provisions of the Civil Rights Act of 1964 are hereby included in this Contract to the end that no person in the United States shall, on the ground of race, color, or natural origin, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under this Agreement.
- E. The Contractor, subcontractor(s), or their agents, insofar as possible, shall secure labor through the Maryland State Employment Service of the Maryland Department of Human Resources. Where the Contractor has entered into a collective bargaining agreement under which labor is to be provided by a union, the Contractor is not required to conform to these provisions unless the Contractor and the union arrange with the Maryland State Employment Service for referral of such labor as they may mutually agree shall be referred. The Contractor shall be the sole judge of the competency or fitness for satisfactory service of any labor referred to him by the Maryland State Employment Service.
- F. Each Contractor with the University will submit to the Board of Public Works, at the Board's request, information as to the composition of the Contractor's work force. This information will be furnished on a form to be prescribed by the Board of Public Works.
- G. The Contractor and all subcontractors will develop and maintain an Affirmative Action Plan directed at increasing the utilization of women and members of minority groups on State Public Works projects. Approval of the plan by the Board of Public Works shall be a prerequisite to the award of any Contract for Public Works by the State or any agency of the State. The Affirmative Action Plan referred to in the preceding sentence shall contain written provisions and procedures for each of the following:
 - (1) Notification of established community organizations of employment opportunities, and the maintenance of records on responses by such organizations and their disposition.
 - (2) Maintenance of records, including names and address, of woman and members of minority groups applying or referred for employment. The records shall indicate what disposition was made of the application. If such an applicant was not sent to a union hiring hall for referral or if such an applicant was not employed by the Contractor, the records shall indicate the reasons therefore.

- (3) Notification by the Contractor to the University if any union or unions with whom the Contractor has a collective bargaining agreement has not referred to the Contractor a woman or member of a minority group sent by the Contractor, or if the Contractor has other information that the union referral process is impeding efforts for the utilization of women and members of minority groups.
- (4) Participation in training programs, including those funded by the United States Government.
- (5) Procedures for disseminating notice of the Contractor's equal employment opportunity policy by publicizing it through company newspapers and annual reports, conducting staff, employee and union representatives' meetings, posting, and by specific review with employees who are women or members of minority groups.
- (6) Procedures for disseminating notice of the Contractor's equal employment opportunity policy externally through review with all recruitment sources, advertising in news media, and discussion with subcontractors and suppliers.
- (7) Recruitment efforts directed at minority organizations, schools with minority students, and minority recruitment and training organizations.
- (8) Validation of all specifications, selection requirements, and tests relating to employment.
- (9) Procedures for promoting after-school, summer, and vacation employment to minority youth.
- (10) Programs for the development of on-the-job training opportunities and participation and assistance in any association or employer group training programs.
- (11) Programs for evaluating women and minority personnel for promotion opportunities and encouragement of such employees to seek those opportunities.
- (12) Review of seniority practices and job classifications to insure that they do not have an improper discriminatory effect.
- (13) Monitoring of personnel activities to insure that the Contractor's equal employment opportunity policy is being carried out.
- (14) Proposals for soliciting bids for subcontracts for available minority subcontractors engaged in the trades covered by the bid conditions.

- H. The Contractor agrees: (a) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, national origin, ancestry, or physical or mental handicap unrelated in nature and extent so as reasonably to preclude the performance of such employment; (b) to include a provision similar to that contained in subsection (a), above, in any subcontract for standard commercial supplies or raw materials; and, (c) to post and to cause subcontractors to post in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.

9.03 SUBCONTRACTS:

- A. The Contractor shall, as soon as practicable and before the execution of the Contract, notify the Architect and the University's Office of Facilities Management in writing of the names of subcontractors proposed for the principal parts of the work and for such others as the Architect may direct and shall not employ any that the Architect or the University's Office of Facilities Management may object to as incompetent, unfit, or irresponsible.
- B. The Contractor agrees that he is as fully responsible to the University for the acts and omissions of his subcontractor and of persons directly employed by them as he is for the acts and omissions of persons directly employed by him.
- C. Nothing contained in the Contract documents shall create any contractual relation between any subcontractor and the University and nothing in the contract documents is intended to make the subcontractor a beneficiary of the Contract between the University and the Contractor.

9.04 RELATION OF CONTRACTOR AND SUBCONTRACTOR:

- A. The Contractor agrees to bind every subcontractor and will see that every subcontractor agrees to be bound by the terms of the Contract and Contract Documents and each of these as far as applicable to his work, unless specifically noted to the contrary in a subcontract approved in writing as adequate by the University's Office of Facilities Management.
- B. The Contractor agrees to include the following provisions in all subcontracts and supply contract, applicable to the work:
- (1) Subcontractor agrees to be bound to the Contractor by the terms of the Contract and the Contract Documents and each of these, and to assume toward the Contractor all obligations and responsibilities that the Contractor, by those documents, assumes toward the University.
 - (2) The subcontractor agrees to submit to the Contractor applications for payment from the GMP in such reasonable time as to enable the Contractor to apply for payment under Section 8 of the Standard Conditions.
 - (3) The subcontractor agrees to make all claims for extras, for extensions of time, and for damages for delays or otherwise, to the Contractor in the manner provided in the Standard

Conditions for like claims by the Contractor upon the University except that the time for making claims for extra cost is five (5) days.

- (4) The subcontractor agrees, upon completion of his work to promptly pay all labor, material suppliers, vendors, subcontractors, and others, and to permit simultaneous final payment by the Contractor and execution of the "Waiver of Liens" by the subcontractor.
- C. The Contractor agrees to be bound to the subcontractor by all the obligations that the University assumes to the Contractor under the Contract, the Contract Documents and each of these, and all the provisions thereof affording remedies and redress to the Contractor from the University. The Contractor also agrees:
- (1) To pay the subcontractor, upon the presentation of certificates, if issued under the schedule of values prescribed in Section 8 of these Standard Conditions, the amount allowed to the Contractor on account of the subcontractor's work to the extent of the subcontractor's interest herein.
 - (2) To pay the subcontractor, upon the presentation of certificates, so that at all times his total payments shall be as large in proportion to the value of the work done by him as the total amount certified to the Contractor is to the value of the work done by him.
 - (3) To pay the subcontractor to such extent as may be provided by the Contract documents or the subcontract, if either of these provides for earlier or larger payments than the above.
 - (4) To pay the subcontractor on demand for his work or materials as far as executed and fixed in place, less the retained percentage, at the time to certificate should be issued, even though the Architect fails to issue it for any cause not the fault of subcontractor.
 - (5) To pay the subcontractor a just share of any fire insurance money received by the Contractor.
 - (6) To make no demand for liquidated damages or penalty for delay in any sum in excess of such amount as may be specifically named in the subcontract.
 - (7) To give the subcontractor an opportunity to be present and to submit evidence in any matter involving his rights.
- D. No claim for services rendered or materials furnished by the Contractor to the subcontractor shall be valid unless written notice thereof is given by the Contractor to the subcontractor during the first ten (10) days of the calendar month following that in which the claims originated.
- E. The Contractor and the subcontractor agree that nothing in this section shall create any obligation on the part of the University to pay to or to see to the payment of any sums to any subcontractor.

9.05 MINORITY BUSINESS ENTERPRISE UTILIZATION:

- A. The Contractor shall structure his procedures for the performance of the construction services required by this Contract to achieve the result that a minimum of 20 percent (20%) of the total contract award inclusive of all CM fees and the GMP is performed directly or indirectly by minority business enterprise (MBE). Such performance by minority business enterprise shall be in accordance with this Section. The provisions of this Section are applicable to Contracts with a value of \$25,000 or more. The Contractor agrees to carry out the requirements of this Section consistent with efficient performance of the project.
- B. Definitions:
- (1) "Minority Person" -- A member of a socially or economically disadvantaged group, which for purposes of this Section includes Blacks, (not of Hispanic Origin), Hispanics, American Indians, Alaska Natives, Asians, Pacific Islanders, women, and the physically or mentally disabled.
 - (2) "Minority Business Enterprise" (MBE) -- Any legal entity, other than a joint venture, organized to engage in commercial transactions, which is at least 51 percent (51%) owned and controlled by one or more minority persons, or a nonprofit entity organized to promote the interests of the physically or mentally disabled. All MBE's must be certified by the State of Maryland or the State of Maryland's Department of Transportation with applicable certification numbers provided for each MBE firm applicable on this project by the Contractor.
 - (3) Ownership:
 - (a) For a sole proprietorship to be deemed an MBE, the sole proprietor must be a minority person. For a partnership to be deemed an MBE at least 51 percent (51%) of the partnership's assets or interests must be owned by a minority person or persons. For a corporation to be deemed an MBE, legal and equitable ownership of at least 51 percent (51%) of each class of stock, bonds, and other securities issued by the corporation must be owned by a minority person or persons.
 - (b) For purposes of this definition, any interest held by a minority person subject to an option in that interest held by a non-minority person or business entity affecting the incidents of ownership, operation and control shall not qualify as being an interest held by a minority person.
 - (4) Control -- Control means that the primary power, direct, or indirect, to influence the management of an MBE shall rest with minority persons. In addition, this term shall be construed to mean that the business enterprise is not subject to any formal or informal restrictions which would limit the customary discretion of the minority proprietor, partners, or the stockholders, as the case may be. In addition, the term "control" shall be construed to mean that there are no

restrictions through bylaw provisions, partnership agreements, or charter requirements for cumulative voting rights, or otherwise, which would prevent the minority proprietor, partners, or stockholders, without the cooperation or vote of any non-minority co-owner, partner, or stockholders, from abrogating a business decision of the enterprise which otherwise favors the minority proprietor's, partner's, or stockholder's share of said enterprise.

C. Contractor Responsibilities:

- (1) The Contractor must submit the Minority Business Enterprise Affirmative Action Certification (Exhibit I) with its technical proposal/offer and Schedule for Participation by Minority Business Enterprises Contractors/Suppliers (Exhibit II) within ten (10) working days after the contract form is sent to the Contractor for execution.
- (2) The Contractor must assure that MBEs shall have the maximum practical opportunity to compete for subcontractor work under the Contract.
- (3) The Contractor must enter into an agreement or award subcontracts or procure supplies and services with MBEs, or take other appropriate action, to achieve the result that a minimum of 20 percent (20%) of the total dollar value of the Contract is performed by MBEs.
- (4) The Contractor must submit an MBE subcontractor project participation statement signed by both the bidder or offeror and each MBE listed in the schedule of participation which shall include the following:
 - (a) A statement of intent to enter into a contract between the prime contractor and each subcontractor or supplier if a contract is executed between the procurement agency and the prime contractor, or if the prime contract has been awarded, copies of the subcontractor agreement or agreements; and,
 - (b) The amount and type of bonds required of MBE subcontractors or suppliers, if any.
- (5) If the Contractor will be unable to enter into an agreement or subcontract with, or procure supplies and materials from MBEs as required by paragraph 3, above, the Contractor must submit with his Procurement Response a Request for Exception to the 20 percent (20%) requirement, using the Exception Form requested from the University.
- (6) The Request for Exception will be reviewed by the University's Buyer and decided by the Director of Procurement & Supply.
- (7) The Contractor shall cooperate with the University in any reviews of the Contractor's procedures and practices with respect to minority business enterprises which the University may from time to time conduct.

D. Records and Reports:

- (1) The Contractor shall maintain such records as are necessary to confirm compliance with its MBE utilization obligations. These records shall indicate the identity of minority and non-minority subcontractors employed on the Contract, the type of work performed by each, and the actual dollar value of work, services, and/or supplies and materials secured by the Contractor from each MBE subcontract and/or supplier.
- (2) The Contractor shall submit information with its monthly cost breakdown for progress payments which indicates dollar value of Contracts awarded to minority business enterprises as a supplement to the Cost Breakdown for Progress Payments. Failure of the Contractor to submit the required supplementary MBE participation information may result in delays in processing progress payments.
- (3) All records concerning MBE participation must be retained by the Contractor for a period of three (3) years after final completion of the Contract, or termination of the Contract, whichever is later, and will be available for inspection by the University.

E. Enforcement:

- (1) The University is responsible for conducting inspections to confirm compliance with the terms of this Section. If the University determines that the Contractor is not in compliance with this Section, the University will notify the Contractor of those measures which cure default. If the Contractor or subcontractor fails to take corrective action, the University may report the noncompliance to the Board of Public Works for appropriate action.
- (2) If the documentary material submitted by the Contractor to determine MBE status contains false, misleading information, or other misrepresentations, the matter will be referred to the Attorney General of the State for appropriate action.

F. Contractor Assistance -- Contractors requiring assistance in locating minority business enterprises are encouraged to contact the following offices:

Director of Facilities Management
University of Maryland, Baltimore County
1000 Hilltop Circle
Baltimore, Maryland 21250
(410) 455-3260

Director of Procurement
University of Maryland, Baltimore County
1000 Hilltop Circle
Baltimore, Maryland 21250
(410) 455-2540
Contract Compliance Officer

Maryland State Department of General Services
301 West Preston Street - Room 1307
Baltimore, Maryland 21201
(410) 767-7726

Minority Business Officer
Maryland State Department of Transportation
P. O. Box 8755, 10 Elm Road
BWI Airport, Maryland 21240-0755
Div. of Fair Practice & Equal Opportunity
(410) 859-7328
Robert Keeley

9.06 PREVAILING WAGE RATES:

- A. All Contracts in the base bid amount of \$500,000 or more shall be subject to the provisions of Art. 21, Section 8-501, et seq., Annotated Code of Maryland. Where an original Contract is in an amount less than \$500,000, the terms of Article 21, Section 8-501, shall not apply even where subsequent change orders shall increase the total Contract in excess of \$500,000. Wage rates applicable to projects of \$500,000 or more are bound into the specifications under Section entitled "Prevailing Wage Rates."
- B. The Contractor shall submit two (2) complete copies of his payroll records and the payroll records of each of his subcontractors - one (1) copy to the University's Office of Facilities Management and the second to the Commissioner of Labor and Industry, 1100 North Eutaw Street, Room 607, Baltimore, MD 21202-2272, where they will be available for inspection during regular business hours. These payroll records must be submitted within two weeks after each payroll period, and shall contain the following employee information: Name, address, and social security number, work classification, hours straight time and overtime worked each day, total hours worked, rate of pay, and gross amount earned. The Contractor shall be responsible for the submission of all subcontractors' payroll records covering work performed directly at the work site. Each copy of the payroll records shall be accompanied by a statement signed by the Contractor or the subcontractor, as the case may be, indicating that the payroll records are correct, that he wage rates contained therein are not less than those established by the Commissioner as set forth in the Contract, etc. or apprentice conforms with the work he performed, and that the Contractor or the subcontractor, as in the case may be, has complied with the provisions of this section.
- C. If the Contractor is delinquent in submitting his or any of his

subcontractor's payroll records, processing of partial payment estimates may be held in abeyance pending receipt of the payroll records. In addition, if the Contractor is delinquent in submitting his or any subcontractor's payroll records, the Contractor shall be liable to the contracting public body for liquidated damages. The liquidated damages shall constitute the sum of ten dollars (\$10.00) for each calendar day that the payroll records are late.

9.07 CONSTRUCTION SAFETY AND HEALTH STANDARDS:

It is a condition of this Contract and shall be made a condition of each subcontract entered into pursuant to this Contract, that the Contractor and any subcontractor shall not require any laborer or mechanical employed in performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under construction safety and health standards, laws and regulations of the locality in which the work is done, the State, and the Federal government.

END OF GENERAL CONDITIONS SECTION

SECTION 00800

**VIII. AMENDMENTS TO UMBC GENERAL CONDITIONS
OF CONSTRUCTION CONTRACTS
DATED 8/30/04**

SECTION 00800
AMENDMENTS TO
UMBC STANDARD GENERAL CONDITIONS FOR CONSTRUCTION
DATED 8/30/04

GENERAL: This procurement is governed by the USM Procurement Policies and Procedures dated 6/00.

#6.09 Payment of Subcontractors: ADD the following paragraph:

(C) Prompt **Payment of Subcontractors:** This contract is subject to the provisions of COMAR 21.10.08. The contractor shall promptly pay a subcontractor any undisputed amount to which the subcontractor is entitled for work under a State procurement contract for construction within 10 days of receiving a progress or final payment from the State. In the event the contractor fails to pay promptly, subcontractors may request remedy in accordance with COMAR 21.10.08. In each subcontract under this contract, the contractor shall include a clause that contains substantially the same provisions as this clause.

#6.10 Relationship of Contractor to Public Official and Employee, Paragraph E, Conflict of Interest: DELETE this paragraph and REPLACE it with:

"E. Conflict of Interest - No official or employee of the State of Maryland whose duties as such official or employee include matters relating to or affecting the subject matter of this contract, shall during the pendency and term of this contract and while serving as an official or employee of the State become or be an employee of the contractor or any entity that is a subcontractor on this contract."

#8.04 Certificates of Payment: ADD the following summary of how retainage will be handled:

Amount of Retainage: Retainage cannot exceed 5% of the contract amount.

Parameters of retainage:

- In addition to retainage, a primary procurement unit may withhold from payments otherwise due a contract an amount that the unit reasonably believes is necessary to protect the State's interest.
- A contractor may not retain from a payment due a subcontractor a percentage of the payment greater than the percent for retainage retained by the primary procurement unit.
- A subcontractor may not retain from a payment due a lower-tier subcontractor a percentage of the payment greater than the percent for retainage retained by the primary procurement unit.
- A contractor and a subcontractor are not, however,

prohibited from withholding an amount in addition to retainage if the contractor or subcontractor determines that a subcontractor's performance provides reasonable grounds for withholding the additional amount.

Escrow Account:

- A contractor may elect to have retainage placed in an escrow account.
- An escrow agreement would be applicable signed by the contractor, the escrow agent and, if applicable, the surety.
- The escrow agent shall be selected from among the banks approved by the State Treasurer's office.
- The contractor is liable to the escrow agent for the payment of fees and charges associated with the escrow account.
- Retained funds may only be released as directed by the Procurement Agency.
 - At the time of final payment, the procurement agency shall direct the escrow agent to settle the escrow account by paying funds as directed.
 - Until payment is made, escrow accounts are State funds and are not subject to any liens.

#8.12 - PAYMENT OF STATE OBLIGATIONS: Add to this section the following paragraph:

Electronic funds transfer will be used by the State to pay Contractor for this Contract and any other State payments due Contractor unless the State Comptroller's Office grants Contractor an exemption.

#9.05 - MINORITY BUSINESS ENTERPRISE UTILIZATION:

A: The MBE requirement for this project is twenty-five percent (25%). Refer to Schedule MBE attached to this Section 00800 for further information regarding the MBE requirements.

#9.06 - PREVAILING WAGE RATES: REVISE address for submittal of certified payroll records in item B. of this paragraph to be Commissioner of Labor and Industry, 1100 N. Eutaw Street, Room 607, Baltimore, MD 21201.

END OF AMENDMENTS TO UMBC GENERAL CONDITIONS DATED 8/30/04

SECTION 00830

PREVAILING WAGE RATES

Prevailing Wage Rates will be issued via Addendum.

Attachment A

Technical Proposal Forms

The following forms must be included within the Technical Proposal. However, please refer to Section 00300 for further required contents of the technical proposal. Completion of these forms is not the entire technical proposal.

- MBE Attachment A Form
- MBE Attachment B Form
- Bid/Proposal Affidavit
- DB Team Organization Form
- Working Relationships of DB Firms
- Key Personnel Form
- DBC Experience Form
- AE Experience Form
- Annual Sales Volume/Number of Projects Form
- Current Workload Form
- Acknowledgment of Receipt of Addenda Form (if applicable)

It is the Proposer's responsibility to thoroughly review the RFP documents, in particularly Section 300, to ensure all required contents are submitted.

MBE Attachment A

CERTIFIED MBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT

This document must be included with the bid or offer. If the bidder or offeror fails to submit this form with the bid or offer as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

In conjunction with the bid or offer submitted in response to Solicitation No. _____, which includes Schedule MBE, I affirm the following:

1. I acknowledge the overall certified Minority Business Enterprise (MBE) participation goal of _____ percent and, if specified in the solicitation, sub goals of _____ percent for MBEs classified as African American-owned and _____ percent for MBEs classified as women-owned. I have made a good faith effort to achieve this goal.

OR

After having made a good faith effort to achieve the MBE participation goal, I conclude I am unable to achieve it. Instead, I intend to achieve MBE participation of _____ percent and request a waiver of the remainder of the goal. Within 10 business days of receiving notice that our firm is the apparent low bidder or the apparent awardee (competitive sealed proposal), I will submit a written waiver request that complies with COMAR 21.11.03.11. I acknowledge that the MBE subcontractors/suppliers listed in the MBE Participation Schedule will be used to accomplish the percentage of MBE participation that I intend to achieve.

2. I have identified the specific commitment of certified MBEs by completing and submitting an MBE Participation Schedule (Attachment B) with the bid or proposal.

3. I understand that if I am notified that I am the apparent awardee, I must submit the following documentation within 10 working days of receiving notice of the potential award or from the date of conditional award (per COMAR 21.11.03.10), whichever is earlier.

- (a) Outreach Efforts Compliance Statement (Attachment C)
- (b) Subcontractor Project Participation Statement (Attachment D)
- (c) MBE Waiver Request per COMAR 21.11.03.11 (if applicable)
- (d) Any other documentation required by the Procurement Officer to ascertain bidder or offeror responsibility in connection with the certified MBE participation goal.

I acknowledge that if I fail to return each completed document within the required time, the

Procurement Officer shall determine that I am not responsive and therefore not eligible for

contract award. If the contract has already been awarded, the award is voidable.

4. In the solicitation of subcontract quotations or offers, MBE subcontractors were provided not

less than the same information and amount of time to respond as were non-MBE subcontractors.

I solemnly affirm under the penalties of perjury that the contents of this paper are true to the best of my knowledge, information and belief.

Bidder/Offeror Name

Signature of Affiant

Address

Printed Name, Title

Date

SUBMIT THIS AFFIDAVIT WITH BID/PROPOSAL

MBE Attachment B

MBE PARTICIPATION SCHEDULE

This document must be included with the bid or offer. If the bidder or offeror fails to submit this form with the bid or offer as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

Prime Contractor (Firm Name, Address, Phone)	Project Description
Project Number	Total Contract Amount
List Information for Each Certified MBE Subcontractor/Supplier on this Project	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	

USE ATTACHMENT B CONTINUATION PAGE AS NEEDED

SUMMARY

TOTAL MBE PARTICIPATION: _____ %
\$ _____

Document Prepared by: (please print or type)
Name: _____
Name/Title: _____ <small>(Signature)</small>

Attachment B
MBE PARTICIPATION SCHEDULE (continued)

List Information for Each Certified MBE Subcontractor/Supplier on this Project	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name	MBE Certification Number
Work to be Performed	
Dollar Amount or Percentage of Total Contract	

Submit this Schedule with Bid Proposal

BID/PROPOSAL AFFIDAVIT

A. AUTHORIZED REPRESENTATIVE

I HEREBY AFFIRM THAT: I am the (title) _____ and the duly authorized representative of (business) _____ and that I possess the legal authority to make this Affidavit on behalf of myself and the Business for which I am acting.

B. AFFIRMATION REGARDING BRIBERY CONDITIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business (as is defined in Section 16-101(b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies (as is defined in Section 16-101(f) of the State Finance and Procurement Article of the Annotated Code of Maryland), has been convicted of, or has had probation before judgment imposed pursuant to Article 27, Section 641 of the Annotated Code of Maryland, or has pleaded nolo contendere to a charge of , bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business) (use attachments as necessary):

C. AFFIRMATION REGARDING OTHER CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, partners, or performing contracts with public bodies, has:

- (a) Been convicted under state or federal statute of a criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract, fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property;
- (b) Been convicted of any criminal violation of a state or federal antitrust statute;
- (c) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organization Act, 18 U.S.C. 1961, et seq., or the Mail Fraud Act, 18 U.S.C. 1341, et seq., for acts arising out of the submission of bids or proposals for a public or private contract;
- (d) Been convicted of a violation of the State Minority Business Enterprise Law, Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;
- (e) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction

- or liability under any law or statute described in subsection (a), (b), (c), or (d) above;
- (f) Been found civilly liable under a state or federal antitrust statute for acts or omissions in connection with the submission of bids or proposals for a public or private contract;
- (g) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described above, except as follows (indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the business, and the status of any debarment) (use attachments as necessary): _____
- _____
- _____
- _____

D. AFFIRMATION REGARDING DEBARMENT

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceedings, the name(s) of the person(s) involved and their current positions and responsibilities with the business, the grounds of the debarment or suspension, and the details of each person's involvement in any activity that formed the grounds of the debarment or suspension) (use attachments as necessary):

E. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES

I FURTHER AFFIRM THAT:

- (1) The business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to section Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Codes of Maryland; and

- (2) The business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (you must indicate the reasons why the affirmations cannot be given without qualification) (use attachments as necessary):
-
-
-

F. SUB-CONTRACT AFFIRMATION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, has knowingly entered into a Contract with a public body under which a person debarred or suspended under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

G. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business has:

- (1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;
- (2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the bidder or offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

H. FINANCIAL DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, the provisions of Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which require that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate \$100,000 or more shall, within 30 days of the time when the aggregate value of the contracts, leases, or other agreements reaches \$100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

I. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

I am aware of, and the above business will comply with, the provisions of Article 33, Sections 30-1 through 30-4 of the Annotated Code of Maryland, which requires that every person that enters into contracts, leases, or other agreements with the State of Maryland, including its agencies or a political subdivision of the State, during a calendar year in which the person receives in the aggregate \$100,000 or more shall, file with the State Administrative Board of Election Laws a statement disclosing contributions in excess of \$500 made during the reporting period to a candidate for elective office in any primary or general election.

J. DRUG AND ALCOHOL FREE WORKPLACE

(Applicable to all contracts unless the contract is for a law enforcement agency and the agency head or the agency head's designee has determined that application of COMAR 21.11.08 and this certification would be inappropriate in connection with the law enforcement agency's undercover operations.)

I CERTIFY THAT:

- (1) Terms defined in COMAR 21.11.08 shall have the same meaning when used in this certification.
- (2) By submission of its bid or offer, the business, if other than an individual, certifies and agrees that, with respect to its employees to be employed under a contract resulting from this solicitation, the business shall:
 - (a) Maintain a workplace free of drug and alcohol abuse during the term of the contract;
 - (b) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of drugs, and the abuse of drugs or alcohol is prohibited in the business' workplace and specifying the actions that will be taken against employees for violation of these prohibitions;
 - (c) Prohibit its employees from working under the influence of drugs or alcohol;
 - (d) Not hire or assign to work on the contract anyone whom the business knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engaged in a bona fide drug or alcohol abuse assistance or rehabilitation program;
 - (e) Promptly inform the appropriate law enforcement agency of every drug-related crime that occurs in its workplace if the business has observed the violation or otherwise has reliable information that a violation has occurred;
 - (f) Establish drug and alcohol abuse awareness program to inform its employees about:
 - (i) The dangers of drug and alcohol abuse in the workplace;
 - (ii) The business' policy of maintaining a drug and alcohol free workplace;
 - (iii) Any available drug and alcohol counseling, rehabilitation, and employee assistance programs;
 - and
 - (iv) The penalties that may be imposed upon employees who abuse drugs and alcohol in the workplace;
 - (g) Provide all employees engaged in the performance of the contract with a copy of the statement required by J (2) (b), above;

- (h) Notify its employees in the statement required by J (2) (b), above, that as a condition of continued employment on the contract, the employee shall:
 - (i) Abide by the terms of the statement; and
 - (ii) Notify the employer of any criminal drug or alcohol abuse conviction for an offense occurring on the workplace not later than 5 days after a conviction;
- (i) Notify the procurement officer within 10 days after receiving notice under J(2) (h) (ii), above, or otherwise receiving actual notice of a conviction
- (j) Within 30 days after receiving notice under J(2) (h) (ii), above, or otherwise receiving actual notice of conviction, impose either of the following sanctions or remedial measures on an employee who is convicted of a drug or alcohol abuse offense occurring in the workplace.
 - (i) Take appropriate personnel action against an employee, up to and including termination; or
 - (ii) Require an employee to satisfactorily participate in a bona fide or alcohol abuse assistance or rehabilitation program; and
- (k) Make a good faith effort to maintain a drug and alcohol free workplace through implementation of J(2) (a)-(j), above.

Page 3 of 5

- (3) If the business is an individual, the individual shall certify and agree as set forth in J(4), below, that the individual shall not engage in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or the abuse of drugs or the abuse of drugs or alcohol in the performance of the contract.
- (4) I acknowledge and agree that:
 - (a) The award of the contract is conditional upon compliance with COMAR 21.11.08 and this certification;
 - (b) The violation of the provisions of COMAR 21.11.08 or this certification shall be cause to suspend payments under, or terminate the contract for default under COMAR 21.07.01.11 or 21.07.03.15, as applicable; and
 - (c) The violation of the provisions of COMAR 21.11.08 or this certification in connection with contract may, in the exercise of the discretion of the Board of Public Works, result in suspension and debarment of the business under COMAR 21.08.06.

K. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT

I FURTHER AFFIRM THAT:

- (1) Except as validly contested, the business had paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Employment Security Administration, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final payment under any contract relating to this bid/proposal affidavit.

(2) The business named above is a ____ sole proprietorship, ____ partnership, or ____ corporation formed under the laws of the State of _____. [For entities not formed under the laws of Maryland,] I further affirm that the business named above is registered in accordance with the Corporations and Associations Article, Annotated Code of Maryland, and that it is in good standing and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation, and that the name and address of its current resident agent is filed with the State Department of Assessments and Taxation is:

Name: _____

Address: _____

L. CONTINGENT FEES

I FURTHER AFFIRM THAT:

The business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee or agent working for the business, to solicit or secure the Contract, and that the business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee or agent, any fee or any other consideration contingent on the making of the contract.

M. ACKNOWLEDGMENT

I ACKNOWLEDGE THAT this Affidavit is to be furnished to the Procurement Officer and may be distributed to units of: (1) the State of Maryland; (2) counties or other subdivisions of the State of Maryland; (3) other states; and (4) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from the submission of the accompanying bid or proposal shall be construed to supersede, amend, modify or waive, on behalf of the State of Maryland, or any unit of the State of Maryland having jurisdiction, the exercise of any statutory right or remedy conferred by the Constitution, and the laws of Maryland with respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the above business with respect to (1) this Affidavit, (2) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____

By: _____
(Authorized Representative and Affiant)

EIN or SS# _____

Solicitation # _____

Proposer: _____

PAGE 1 of 1

DESIGN BUILD TEAM ORGANIZATION

FIRM NAME	Services to be Provided	Basis for Selection (i.e., why selected, factors considered, project experience, etc.)
_____ Prime A/E Firm		
_____ Structural Engineering Firm		
_____ Civil Engineering Firm		
_____ Mechanical Engineering Firm		
_____ Electrical Engineering Firm		
_____ Interior Design Firm		
_____ Landscape Architect		
_____ Other		
_____ Other		

UMBC PATAPSCO HALL ADDITION PROJECT - RFP #BC-20632-T

Proposer: _____

WORKING RELATIONSHIP OF PROPOSED DBC TEAM FIRM

Project Information *	DBC	Prime A/E	Structural Engineering Firm	Civil Engineering Firm	M/E/P Engineering Firm	Interior Design Firm	Landscape Architect Firm	Other: _____

** Project information to include job name, \$amount, type of facility, setting & year completed

RFP FOR UMBC PATAPSCO HALL ADDITION PROJECT

RFP #BC-20632-T

KEY PERSONNEL FORM - Page 1 of 5

Proposing Firm: _____

1. PERSON'S NAME: _____

We confirm this person is available all day on November 24, 2009 for the Oral Presentation session: ___ Yes ___ No, if No, explain.

2. POSITION TO BE ASSIGNED:

_____ DBC PROJECT EXECUTIVE	_____ A/E PRINCIPAL-IN-CHARGE
_____ DBC PROJECT MANAGER	_____ A/E PROJECT MANAGER
_____ DBC FIELD SUPERINTENDENT	_____ PROJECT ARCHITECT
_____ MECHANICAL ENGINEER	_____ LANDSCAPE ARCHITECT
_____ FIRE PROTECTION ENGINEER	

3. DBC SERVICES TO BE HANDLED BY THIS PERSON: (See Matrix of Services.)

3.1 PRE-CONSTRUCTION/DESIGN PHASE DBC SERVICES:

_____ Project/Design Review	_____ CPM Schedule
_____ GMP Preparation	_____ Value Engineering
_____ Overall Management	_____ Cost Model/Estimates
_____ Constructability Review/Recommendations	_____ Management of Design
_____ Architectural Design	_____ Mechanical Design
_____ Landscape Design	_____ Fire Protection Design

3.2 CONSTRUCTION PHASE CM SERVICES:

_____ CPM Schedule	_____ Trade Contract Awards
_____ Trade Contract Management	_____ Conduct Progress Meetings
_____ Conduct Owner Meeting	_____ RFIs
_____ Substitution Requests	_____ Project Photos
_____ Change Orders	_____ Cost Control
_____ Change Order Review	_____ QA/Inspections
_____ Project Safety	_____ Monthly Report
_____ Shop Drawings/Submittals	_____ Project Close Out
_____ Project Site Documents	_____ Overall DBC Team Management
_____ Claims Avoid/Resolve	_____ AE Construction Administration

RFP FOR UMBC PATAPSCO HALL ADDITION PROJECT - RFP #BC-20632-T
KEY PERSONNEL FORM - Page 2 of 5

Proposing Firm: _____ **PERSON'S NAME:** _____

NOTE: If a Proposer finds the space provided on this form to be insufficient, he can attach additional pages to this form as he finds appropriate and just indicate on this form to see attached pages.

4. **OTHER PROJECTS:** To which this person will be assigned during same time period as the schedule of UMBC's Project:

Project Name & Geographic Location	Role	% Time	Anticipated Completion Date of Person's Assignment

5. **EDUCATIONAL BACKGROUND:**

Institution	Degree/Diploma/Certificate	Major (if any) and Date of Degree or Diploma

6. **EMPLOYMENT HISTORY*:** (*NOTE: If a person has more than three (3) employers in his/her employment history, please provide complete employment history via supplemental page(s) attached to this form.)

6.1 **CURRENT EMPLOYER'S NAME:** _____

DATES OF EMPLOYMENT: _____

Position Held	Duration by Date(s)

6.2 **PRIOR EMPLOYER'S NAME:** _____

DATES OF EMPLOYMENT: _____

Position Held	Duration by Date(s)

Proposing Firm: _____ PERSON'S NAME: _____

6.3 PRIOR EMPLOYER'S NAME: _____

DATES OF EMPLOYMENT: _____

Position Held	Duration by Date(s)

Note: Attach additional pages for employment beyond three (3) employers.

7. **SIMILAR RELEVANT PROJECT EXPERIENCE/REFERENCES:** Provide a **full** description of Key Person's project experience, including their role on the project and the services they performed on the project during pre-construction and construction, as applicable. (Note: As indicated in the solicitation document, references are to be **project/contract references not employment references**; that is, the University is interested in speaking to a Project Owner (preferably) or the A/E regarding the person's performance on a particular project.) Per the solicitation documents, the University will contact the references provided below as part of the second phase evaluation.

7.1 **PROJECT #1:** _____ (NAME)

Project Reference Contact Person and Title	
Company/Organization	
Telephone Number	
Contact Person's Role	
Project Schedule (Month/Year for Start to Finish)	
Construction Dollar Amount	\$
Project GSF	
Project Delivery Method (CM at Risk, Design/Build, Design-Bid-Build, or other (name))	
Proposed Key Person's Role on the project	
Duration the Proposer's Key Person was on the project	
Explanation if Proposer's Key Person was not on the project for the full duration	

DESCRIPTION OF THE CONTRACT/PROJECT: _____

DESCRIPTION OF SERVICES PROVIDED BY THE KEY PERSON DURING PRE-CONSTRUCTION AND CONSTRUCTION, AS APPLICABLE:

HOW/WHY IS THIS PROJECT SIMILAR/RELEVANT TO THE UNIVERSITY'S PROJECT?

Proposing Firm: _____ PERSON'S NAME: _____

7.2 PROJECT #2: _____ (NAME)

Project Reference Contact Person and Title	
Company/Organization	
Telephone Number	
Contact Person's Role	
Project Schedule (Month/Year for Start to Finish)	
Construction Dollar Amount	\$
Project GSF	
Project Delivery Method (CM at Risk, Design/Build, Design-Bid-Build, or other (name)	
Proposed Key Person's Role on the project	
Duration the Proposer's Key Person was on the project	
Explanation if Proposer's Key Person was not on the project for the full duration	

DESCRIPTION OF THE CONTRACT/PROJECT: _____

DESCRIPTION OF SERVICES PROVIDED BY THE KEY PERSON DURING PRE-CONSTRUCTION AND CONSTRUCTION, AS APPLICABLE:

HOW/WHY IS THIS PROJECT SIMILAR/RELEVANT TO THE UNIVERSITY'S PROJECT?

RFP FOR UMBC PATAPSCO HALL ADDITION PROJECT - RFP #BC-20632-T
KEY PERSONNEL FORM - Page 5 of 5

Proposing Firm: _____ **PERSON'S NAME:** _____

7.3 **PROJECT #3:** _____ **(NAME)**

Project Reference Contact Person and Title	
Company/Organization	
Telephone Number	
Contact Person's Role	
Project Schedule (Month/Year for Start to Finish)	
Construction Dollar Amount	\$
Project GSF	
Project Delivery Method (CM at Risk, Design/Build, Design-Bid-Build, or other (name)	
Proposed Key Person's Role on the project	
Duration the Proposer's Key Person was on the project	
Explanation if Proposer's Key Person was not on the project for the full duration	

DESCRIPTION OF THE CONTRACT/PROJECT: _____

DESCRIPTION OF SERVICES PROVIDED BY THE KEY PERSON DURING PRE-CONSTRUCTION AND CONSTRUCTION, AS APPLICABLE:

HOW/WHY IS THIS PROJECT SIMILAR/RELEVANT TO THE UNIVERSITY'S PROJECT?

8. **ACHIEVEMENTS/OTHER NOTATIONS (NOT REQUIRED):**

NOTE: If a Proposer finds the space provided to be insufficient, he/she can attach additional pages to this form as he finds appropriate and just indicate on this form to see attached pages.

PROPOSER:	PROJECT OWNER'S NAME:
PROJECT NAME:	ADDRESS:
START DATE:	CONTACT PERSON:
COMPLETION DATE:	TELEPHONE NUMBER:
PRIME ARCHITECT:	PROPOSER'S PROJECT MANAGER:
DELIVERY METHOD: ____ GC ____ CMAR ____ D/B	PROPOSER'S FIELD SUPERINTENDENT:
CONTRACTOR'S CONSTRUCTION CONTRACT AMOUNT:	TOTAL GROSS SQUARE FOOTAGE:

BRIEF BUT DETAILED DESCRIPTION OF THE PROJECT INCLUDING BUT NOT LIMITED TO (i) TYPE OF PROJECT (NEW, RENOVATION, ADDITION, ETC., (ii) PROJECT SCHEDULE AND (iii) SETTING.	SIMILARITIES OF PROPOSER'S PROJECT TO THE UNIVERSITY PROJECT
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PROPOSER: _____

PROJECT NAME: _____

TRADES INCLUDED: (check all that apply)

___ Mechanical (HVAC) (name system type: _____) ___ Electrical ___ Carpentry
___ Plumbing ___ Drywall ___ Acoustical ___ Flooring ___ Painting ___ Telecommunications
___ Casework ___ Fire Protection ___ Masonry ___ Concrete ___ ATC ___ Carpeting ___ Audio/Video
___ Window ___ Structural (Name type of structural system: _____)
___ Computer Cabling ___ Other: _____ ___ Site Work ___ Utilities

SITE CONSTRAINTS (Please describe): _____

LIST BELOW ALL PROPOSED DBC TEAM MEMBERS WHO WORKED ON THIS JOB BY NAME AND POSITION:

PROPOSED DBC TEAM MEMBER	POSITION HELD ON THIS PROJECT
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NOTE: HIGHER CONSIDERATION IF PROPOSED TEAM MEMBERS HAVE WORKED TOGETHER ON THIS PROJECT.

PROPOSER: _____

PROJECT SUBMITTED BY: _____ Prime A/E (2 required) _____ Landscape Architect (1 required)
(Check as applicable) _____ Mechanical Eng. (1 required) _____ Fire Protection Engineer (1 required)

PROPOSER:	PROJECT OWNER'S NAME:
PROJECT NAME:	ADDRESS:
START DATE:	CONTACT PERSON:
COMPLETION DATE:	TELEPHONE NUMBER:
PRIME ARCHITECT:	MECHANICAL/ELECTRICAL ENGINEERING FIRM:
LANDSCAPE ARCHITECT FIRM:	CIVIL ENGINEERING FIRM:
DELIVERY METHOD: ___ GC ___ CMAR ___ D/B	STRUCTURAL ENGINEERING FIRM:
CONTRACTOR'S CONSTRUCTION CONTRACT AMOUNT:	TOTAL GROSS SQUARE FOOTAGE:

BRIEF BUT DETAILED DESCRIPTION OF THE PROJECT INCLUDING BUT NOT LIMITED TO (i) TYPE OF PROJECT (NEW, RENOVATION, ADDITION, ETC., (ii) PROJECT SCHEDULE AND (iii) SETTING.	SIMILARITIES OF PROPOSER'S PROJECT TO THE UNIVERSITY PROJECT
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PROPOSER: _____

PROJECT SUBMITTED BY: _____ Prime A/E (2 required) _____ Landscape Architect (1 required)
 (Check as applicable) _____ Mechanical Eng. (1 required) _____ Fire Protection Engineer (1 required)

TRADES INCLUDED: (check all that apply)

___ Mechanical (HVAC) (name system type: _____) ___ Electrical ___ Carpentry
 ___ Plumbing ___ Drywall ___ Acoustical ___ Flooring ___ Painting ___ Telecommunications
 ___ Casework ___ Fire Protection ___ Masonry ___ Concrete ___ ATC ___ Carpeting ___ Audio/Video
 ___ Window ___ Structural (Name type of structural system: _____)
 ___ Computer Cabling ___ Other: _____ ___ Site Work ___ Utilities

SITE CONSTRAINTS (Please describe): _____

LIST BELOW ALL PROPOSED DBT MEMBERS WHO WORKED ON THIS JOB BY NAME AND POSITION:

PROPOSED DBT MEMBER	POSITION HELD ON THIS PROJECT
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NOTE: HIGHER CONSIDERATION IF PROPOSED TEAM MEMBERS HAVE WORKED TOGETHER ON THIS PROJECT.

UMBC PATAPSCO HALL ADDITION PROJECT - RFP #BC-20632-T

DESIGN BUILD CONTRACTOR
ANNUAL SALES VOLUME/NUMBER OF PROJECTS

PROPOSER: _____

Year	Sales Volume \$	# of Completed Projects	Largest Project Size	Largest Design/Build Project	CM at Risk (CMAR) %	Design/Build %	GC %	*Other: %
2006	\$		\$	\$	%	%		%
2007	\$		\$	\$	%	%		%
2008	\$		\$	\$	%	%		%

Is the proposing firm the local office of a parent company? _____ Yes _____ No

If yes, please verify below that the above figures reflect the sales data for the local office that will manage this contract, not the parent company:

*Describe "Other":

UMB NEW ADMINISTRATION BUILDING

UMBC PATAPSCO HALL ADDITION PROJECT
DESIGN/BUILD CONTRACTOR RFP#BC-20632-T

CURRENT WORKLOAD

PROPOSING FIRM: _____

Below find a list of the current projects on which our firm is committed, the dollar volume of each, % complete, the date of anticipated completion and whether bonds are applicable.

PROJECT NAME	DOLLAR VOLUME	% COMPLETE	ANTICIPATED COMPLETION DATE (MONTH/YEAR)	BONDED? YES/NO	ASSIGNED PROJECT MANAGER	ASSIGNED FIELD SUPERINTENDENT
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____
_____	\$ _____	_____ %	_____	_____	_____	_____

Based on this current workload, provide a description of proposing firm's ability to accomplish the proposed services on this project within required time frame:

RFP NO.: #BC-20632-T

RFP FOR: UMBC PATAPSCO HALL ADDITION PROJECT

DUE DATE: MONDAY, NOVEMBER 2, 2009, ON OR BEFORE 4:00 PM

NAME OF PROPOSER: _____

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA

The undersigned, hereby acknowledges the receipt of the following addenda:

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Signature _____

Printed Name _____

Title _____

Date _____

ATTACHMENT B

(TO BE COMPLETED BY THE SUCCESSFUL DBC FIRM)

UMB's Construction Contract
Contract Affidavit
100% Performance & Payment Bonds
MBE Attachment C Form
MBE Attachment D Form

CONTRACT AFFIDAVIT

A. AUTHORIZED REPRESENTATIVE

I HEREBY AFFIRM THAT:

I am the (title) _____ and the duly authorized representative of (business name) _____ and that I possess the legal authority to make this Affidavit on behalf of myself and the business for which I am acting.

B. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT

I FURTHER AFFIRM THAT:

(1) The business named above is a (___domestic) (___foreign) corporation registered in accordance with the Corporations and Associations Article, Annotated Code of Maryland, and that is in good standing and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation, and that the name and address of its current resident agent is filed with the State Department of Assessments and Taxation is:

Name: _____

Address: _____

City, State, Zip: _____

(2) Except as validly contested, the business had paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Department of Labor, Licensing, and Regulation, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

C. CERTAIN AFFIRMATIONS VALID

I FURTHER AFFIRM THAT:

To the best of my knowledge, information and belief, each of the affirmations, certifications, or acknowledgements contained in that certain Bid/Proposal Affidavit dated _____, 20____, and executed by me or for the purpose of obtaining the contract to which this Exhibit is attached remains true and correct in all respects as if made as of the date of this Contract Affidavit and as if fully set forth herein.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____ By: _____

(Authorized Representative & Affiant)

12.00061 (04/02)

PERFORMANCE BOND

PERFORMANCE BOND

<i>Principal</i>	<i>Business Address of Principal</i>
<i>Surety</i>	<i>Obligee</i>
<i>a corporation of the State of</i>	<i>STATE OF MARYLAND</i>
<i>and authorized to do business in the State of Maryland</i>	<i>By and through the following</i>
<i>Penal Sum of Bond (express in words and figures)</i>	<i>Administration</i>
	<i>Date of Contract</i>
	, 20.
<i>Description of Contract</i>	<i>Date Bond Executed</i>
	, 20.
<i>Contract Number:</i>	

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal named above and Surety named above, are held and firmly bound unto the Obligee named above in the Penal Sum of this Performance Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these presents. However, where Surety is composed of corporations acting as co-sureties, we, the cosureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

WHEREAS, Principal has entered into or will enter into a contract with the State of Maryland, by and through the Administration named above acting for the State of Maryland, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as "the Contract."

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, during the original term of said Contract, during any extensions thereto that may be granted by the Administration, and during the guarantee and warranty period, if any, required under the Contract, unless otherwise stated therein, this Performance Bond shall remain in full force and effect unless and until the following terms and conditions are met:

1. Principal shall well and truly perform the Contract; and
2. Principal and Surety shall comply with the terms and conditions in this Performance Bond.

Whenever Principal shall be declared by the Administration to be in default under the Contract, the Surety may, within 15 days after notice of default from the Administration, notify the Administration of its election to either promptly proceed to remedy the default or promptly proceed to complete the contract in accordance with and subject to its terms and conditions. In the event the Surety does not elect to exercise either of the above stated options, then the Administration thereupon shall have the remaining contract work completed, Surety to remain liable hereunder for all expenses of completion up to but not exceeding the penal sum stated above.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Performance Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Performance Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Performance Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation's name to be set forth below, a duly authorized representative of the corporation to affix below the corporation's seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each such duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

In Presence of Witness

Individual Principal

as to

(SEAL)

In Presence of Witness

Co-Partnership Principal

.....
(Name of Co-Partnership)

(SEAL)

as to By:

(SEAL)

as to

(SEAL)

as to

(SEAL)

Corporate Principal

Attest:

.....
(Name of Corporation)

.....
Corporate Secretary

By:
President

**AFFIX
CORPORATE
SEAL**

(Surety)

Attest:

(SEAL) By:

**AFFIX
CORPORATE
SEAL**

Title:

Signature

Bonding Agent's Name:
(Business Address of Surety)

Agent's Address:

(Contractor shall fill in all blank spaces above this line) *Approved as to legal form and sufficiency*

this . . . day of, . . . 20

.....
Asst. Attorney General

PAYMENT BOND

PAYMENT BOND

Principal	Business Address of Principal
Surety	Obligee
a corporation of the State of and authorized to do business in the State of Maryland	STATE OF MARYLAND By and through the following Administration
Penal Sum of Bond (express in words and figures)	Date of Contract
Description of Contract	Date Bond Executed
Contract Number:	, 20. 20.

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal named above and Surety named above, being authorized to do business in Maryland, and having business addresses as shown above, are held and firmly bound unto the Obligor named above, for the use and benefit of claimants as hereinafter defined, in the Penal Sum of this Payment Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns jointly and severally, firmly by these co-sureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

WHEREAS, Principal has entered into or will enter into a contract with the State, by and through the Administration named above acting for the State of Maryland, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as "the Contract."

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials furnished, supplied and reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject to the following conditions:

1. A claimant is defined to be any and all of those persons supplying labor and materials (including lessors of the equipment to the extent of the fair market value thereof) to the Principal or its subcontractors and sub-contractors in the prosecution of the work provided for in the Contract, entitled to the protection provided by Section 9-113 of the Real Property Article of the Annotated Code of Maryland, as from time to time amended.
2. The above named Principal and Surety hereby jointly and severally agree with the Obligor that every claimant as herein defined, who has not been paid in full may, pursuant to and when in compliance with the provisions of the aforesaid Section 9-113, sue on this Bond for the use of such claimant, prosecute the suit to final judgement for such sum or sums as may be justly due claimant and have execution thereon. The Obligor shall not be liable for the payment of any costs or expenses of any such suit.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Payment Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Payment Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Payment Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation's name to be set forth below, a duly authorized representative of the corporation to affix below the corporation's seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each such duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

In Presence of Witness *Individual Principal*
as to (SEAL)

In Presence of Witness *Co-Partnership Principal*
..... (SEAL)
(Name of Co-Partnership)
..... as to By:..... (SEAL)
..... as to (SEAL)
..... as to (SEAL)

Corporate Principal
.....
Attest: (Name of Corporation)
..... as to By:..... AFFIX
Corporate Secretary President CORPORATE
SEAL

(Surety)
Attest: (SEAL) By: . AFFIX
CORPORATE
SEAL

Signature Title: .
Bonding Agent's Name:.....
Agent's Address.....
(Business Address of Surety)

(Contractor shall fill in all blank spaces above this line) Approved as to legal form and sufficiency
this day of. 20
.....
Asst. Attorney General

Attachment C

OUTREACH EFFORTS COMPLIANCE STATEMENT

This document must be submitted within 10 working days of receiving notice of potential award or date of conditional award (per COMAR 21.11.03.10), whichever is earlier.

In conjunction with the bid or offer submitted in response to
Solicitation No. _____,
I state the following:

1. Bidder/Offeror identified opportunities to subcontract in these
specific work categories:

2. Attached to this form are copies of written solicitations (with
bidding instructions) used to solicit certified MBEs for
these subcontract opportunities.

3. Bidder/Offeror made the following attempts to contact
personally the solicited MBEs:

4. ☐ Bidder/Offeror assisted MBEs to fulfill or to seek waiver
of bonding requirements. (Describe efforts)

☐ This project does not involve bonding requirements.

5. ☐ Bidder/Offeror did/did not attend the pre-bid conference
☐ No pre-bid conference was held.

By: _____
Bidder/Offeror Name

(Signature)

Address

Name, Title (Print)

Date

Attachment D

SUBCONTRACTOR PROJECT PARTICIPATION AFFIDAVIT

This document must be submitted within 10 working days of receiving notice of potential award or date of conditional award (per COMAR 21.11.03.10), whichever is earlier.

SUBMIT ONE FORM FOR EACH CERTIFIED MBE LISTED IN THE MBE PARTICIPATION SCHEDULE (ATTACHMENT B)

Provided that _____ is awarded the State contract in

_____ Prime Contractor Name
conjunction with Solicitation No. _____, it and
_____,

MBE Subcontractor Name

MDOT Certification No. _____, intend to enter into a contract by which

Subcontractor shall: (describe work)

☐ No bonds are required of Subcontractor

☐ The following amount and type of bonds are required of Subcontractor:

MBE Subcontractor Contract Amount

Prime Contractor Signature
Subcontractor Signature

MBE

By: _____

Name, Title (Print)

By: _____

Name, Title (Print)

Date

Date

ATTACHMENT C
GENERAL CONDITION ITEMS

ATTACHMENT "C"

UMBC PATAPSCO HALL ADDITION PROJECT

RFP 3BC-20632-T

GENERAL CONDITIONS ITEMS

Page 1 of 3

GENERAL CONDITIONS ITEMS TO BE HANDLED BY THE CM ON A REIMBURSABLE BASIS PER THE GENERAL CONDITIONS ALLOWANCE AND ARE TO INCLUDE BUT ARE NOT NECESSARILY LIMITED TO:

MOBILIZATION

Move on site and establish appropriate field offices.

TEMPORARY FACILITIES

Provide Field office trailer(s).

Provide Field office furniture.

Provide Field office telephones.

Provide Field office electrical power connections.

Include Field office heating costs other than UMB supplied electricity.

Include temporary sanitary facilities costs.

Note: Temporary heat and electric, if applicable, are to be part of the Mechanical and Electrical Contractors respectively.

TOOLS/EQUIPMENT

Provide small power/hand tools and equipment as may be required by the CM'S field staff only.

Establish and maintain an appropriate shipping/receiving system.

Provide miscellaneous materials.

PLANS/SURVEY'S/PERMITS/TESTING

Provide reproduction of Construction Documents during construction phase.

Provide surveyors services (Site surveys, Layout, etc.), if required.

Acquire required permits and provide required third party inspection/testing services (Soils, Concrete, Steel, etc.)

ATTACHMENT "C"

UMBC PATAPSCO HALL ADDITION PROJECT

RFP #BC-20632-T

GENERAL CONDITIONS ITEMS

Page 2 of 3

SAFETY/CLEAN-UP

Establish and maintain an onsite safety program throughout construction phases.

Install and maintain temporary facilities as required: safety barricades, partitions, ladders, stairs, site fencing, signage, and traffic control devices.

Provide daily site clean-up, trash collection and removal.

Provide and maintain site security throughout project construction phases.

Provide site snow removal as may be required throughout project construction phases.

GENERAL

Provide temporary Weather and Dust protection (That which must practically remain outside of sub-contracts) as may be required during construction phases.

Provide progress photos throughout project construction phases; once a month is the minimum and as may be required to document special conditions. In addition, provide six (6) photographs per month taken by a Professional Photographer (see Section 00400 of the RFP for further details.)

Provide field office computers (lease) for project tracking purposes to be used with CM software (Accounting, tracking, scheduling, word processing).

Provide appropriate office type equipment (copying machine, fax machine, etc.) for field office use.

Provide field personnel pagers and two way radios throughout construction phases, as applicable.

Include travel expenses for field personnel related to offsite equipment/materials surveys and inspections.

Include automobile/travel expenses for CM's on-site staff.

UMB NEW ADMINISTRATION BUILDING

RFP 06-418 RA

GENERAL CONDITIONS ITEMS

Page 3 of 3

PROJECT FIELD STAFFING

Field staffing needs shall be provided by the CM on a reimbursable basis per the RFP documents which is limited to the specific staff positions listed therein. Allowable costs will be at the quoted hourly, billing rate per the CM'S contract.

Provide field support staff as may be required throughout construction phases (i.e., laborers, carpenters, etc.).

INSURANCE/BOND

Provide 100% Performance & Payment Bonds

Provide CM liability insurance in accordance with Sections 00700.

Provide a builders risk insurance policy in the amount of the GMP in accordance with Sections 00700.

CLOSE-OUT/DE-MOBILIZATION

Provide final site/facility clean-up.

Provide final release of liens for all contracts.

Provide as-built set drawings to the University for use by the A/E in record drawing preparation.

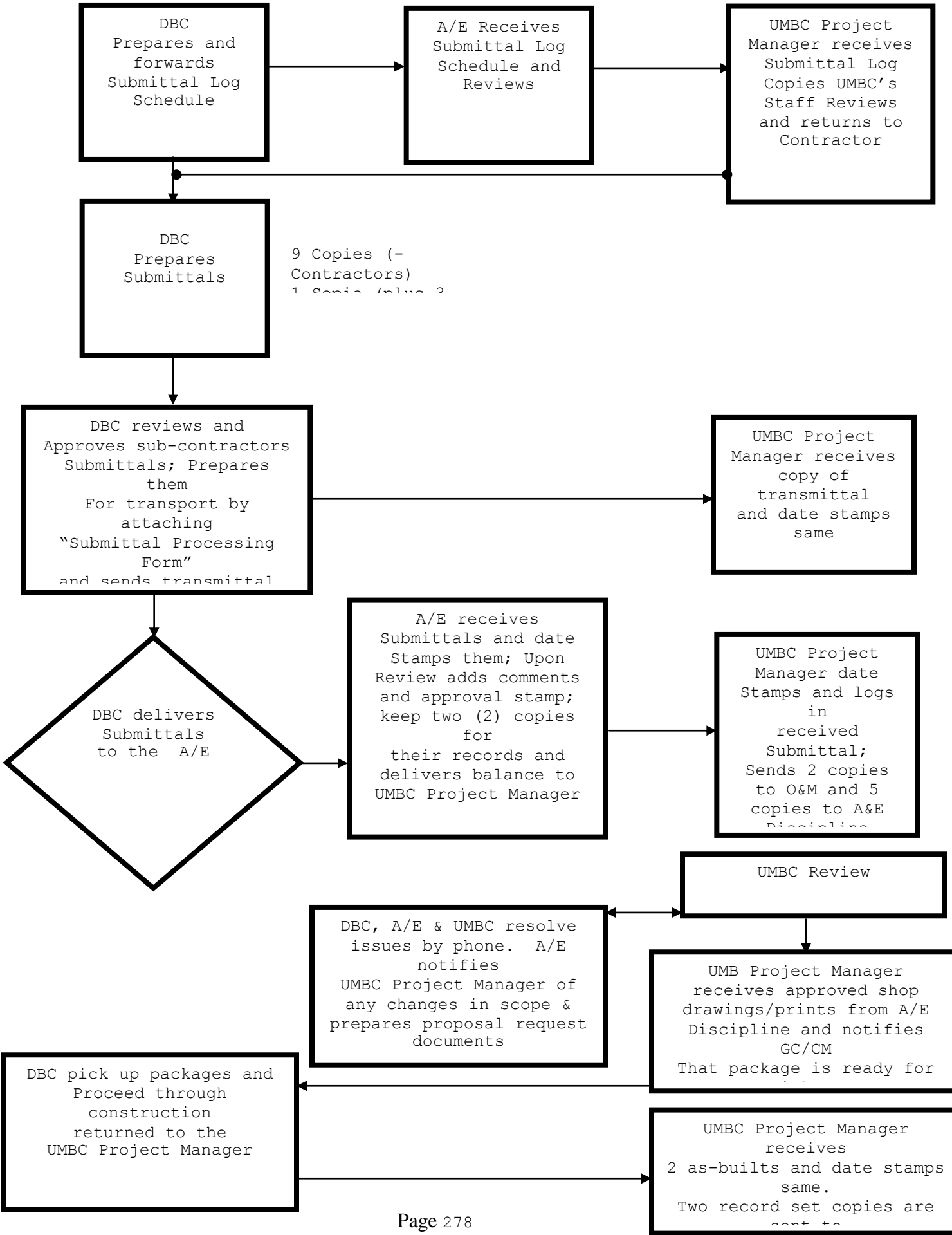
Turn over one copy of project files and records for University archives.

ATTACHMENT D

ATTACHMENT E

UMBC Shop Drawings/Submittal Flow Chart

UMBC Shop Drawings/Submittal Review Process



ATTACHMENT F

MBE INSTRUCTIONS

SCHEDULE MBE
MINORITY BUSINESS ENTERPRISE PARTICIPATION

PURPOSE

Contractor shall structure its procedures for the performance of the work required in this contract to attempt to achieve the minority business enterprise (MBE) goal stated in the Invitation for Bids or Request for Proposals. MBE performance must be in accordance with this Exhibit, as authorized by Code of Maryland Regulations (COMAR) 21.11.03. Contractor agrees to exercise all good faith efforts to carry out the requirements set forth in this Exhibit.

MBE GOALS AND SUB GOALS



An MBE subcontract participation goal of ____ percent of the total contract dollar amount has been established for this procurement. By submitting a response to this solicitation, the bidder or offeror agrees that this dollar amount of the contract will be performed by certified minority business enterprises.

- ◆ A prime contractor — including an MBE prime contractor — must accomplish an amount of work not less than the MBE subcontract goal with certified MBE subcontractors.
- ◆ A prime contractor comprising a joint venture that includes MBE partner(s) must accomplish the MBE subcontract goal with certified MBE subcontractors.

SOLICITATION AND CONTRACT FORMATION

- ◆ A bidder or offeror must include with its bid or offer:
 - (1) A completed Certified MBE Utilization and Fair Solicitation Affidavit (Attachment A) whereby the bidder or offeror acknowledges the certified MBE participation goal or requests a waiver, commits to make a good faith effort to achieve the goal, and affirms that MBE subcontractors were treated fairly in the solicitation process.
 - (2) A completed MBE Participation Schedule (Attachment B) whereby the bidder or offeror responds to the expected degree of Minority Business Enterprise participation as stated in the solicitation, by identifying the specific commitment of certified MBEs at the time of submission. The bidder or offeror shall specify the price and/or the percentage of contract value associated with each MBE subcontractor identified on the MBE Participation Schedule.

If a bidder or offeror fails to submit Attachment A and Attachment B with the bid or offer as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

- ◆ Within 10 working days from notification that it is the apparent awardee or from the date of the actual award, whichever is earlier, the apparent awardee must provide the following documentation to the Procurement Officer.

- (1) Outreach Efforts Compliance Statement (Attachment C)
- (2) Subcontractor Project Participation Statement (Attachment D)
- (3) If the apparent awardee believes a waiver (in whole or in part) of the overall MBE goal or of any sub goal is necessary, it must submit a fully documented waiver request that complies with COMAR 21.11.03.11.
- (4) Any other documentation required by the Procurement Officer to ascertain bidder or offeror responsibility in connection with the certified MBE participation goal.

If the apparent awardee fails to return each completed document within the required time, the Procurement Officer may determine that the apparent awardee is not responsible and therefore not eligible for contract award. If the contract has already been awarded, the award is voidable.

CONTRACT ADMINISTRATION REQUIREMENTS

Awarded Contractor shall:

1. Submit monthly to the Procurement Department a report listing any unpaid invoices, over 30 days old, received from any certified MBE subcontractor, the amount of each invoice and the reason payment has not been made. (See MBE Monthly Payment Form Attachment E).
2. Include in its agreements with its certified MBE subcontractors a requirement that those subcontractors submit monthly to the Procurement Department a report that identifies the prime contract and lists all payments received from Contractor in the preceding 30 days, as well as any outstanding invoices, and the amount of those invoices. (See MBE Monthly Payment Form Attachment F)
3. Maintain such records as are necessary to confirm compliance with its MBE participation obligations. These records must indicate the identity of certified minority and non-minority subcontractors employed on the contract, the type of work performed by each, and the actual dollar value of work performed. Subcontract agreements documenting the work performed by all MBE participants must be retained by the Contractor and furnished to the Procurement Officer on request.
4. Consent to provide such documentation as reasonably requested and to provide right-of-entry at reasonable times for purposes of the State's representatives verifying compliance with the MBE participation obligations. Contractor must retain all records concerning MBE participation and make them available for State inspection for three years after final completion of the contract.
5. At the option of the procurement agency, upon completion of the contract and before final payment and/or release of retainage, submit a final report in affidavit form and under penalty of perjury, of all payments made to, or withheld from MBE subcontractors.

ATTACHMENTS

- A. Certified MBE Utilization and Fair Solicitation Affidavit (must be submitted with bid or offer)
- B. MBE Participation Schedule (must be submitted with bid or offer)
- C. Outreach Efforts Compliance Statement (must be submitted within 10 working days of notification of apparent award or

- actual award, whichever is earlier)
- D. Subcontractor Project Participation Statement (must be submitted within 10 working days of notification of apparent award or actual award, whichever is earlier)
 - E. MBE Monthly Payment Form (Submitted monthly as needed after award by the prime contractor)
 - F. MBE Monthly Payment Form (Submitted monthly as needed after award by the MBE subcontractor)

Attachment A

CERTIFIED MBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT

This document must be included with the bid or offer. If the bidder or offeror fails to submit this form with the bid or offer as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

In conjunction with the bid or offer submitted in response to Solicitation No. _____, which includes Schedule MBE, I affirm the following:

1. I acknowledge the overall certified Minority Business Enterprise (MBE) participation goal of _____ percent and, if specified in the solicitation, sub goals of _____ percent for MBEs classified as African American-owned and _____ percent for MBEs classified as women-owned. I have made a good faith effort to achieve this goal.

OR

After having made a good faith effort to achieve the MBE participation goal, I conclude I am unable to achieve it. Instead, I intend to achieve MBE participation of _____ percent and request a waiver of the remainder of the goal. Within 10 business days of receiving notice that our firm is the apparent low bidder or the apparent awardee (competitive sealed proposal), I will submit a written waiver request that complies with COMAR 21.11.03.11. I acknowledge that the MBE subcontractors/suppliers listed in the MBE Participation Schedule will be used to accomplish the percentage of MBE participation that I intend to achieve.

2. I have identified the specific commitment of certified MBEs by completing and submitting an MBE Participation Schedule (Attachment B) with the bid or proposal.

3. I understand that if I am notified that I am the apparent awardee, I must submit the following documentation within 10 working days of receiving notice of the potential award or from the date of conditional award (per COMAR 21.11.03.10), whichever is earlier.

- (a) Outreach Efforts Compliance Statement (Attachment C)
- (b) Subcontractor Project Participation Statement (Attachment D)
- (c) MBE Waiver Request per COMAR 21.11.03.11 (if applicable)
- (d) Any other documentation required by the Procurement Officer to ascertain bidder or offeror responsibility in connection with the certified MBE participation goal.

I acknowledge that if I fail to return each completed document within the required time, the

Procurement Officer shall determine that I am non responsive and therefore not eligible for

contract award. If the contract has already been awarded, the award is voidable.

4. In the solicitation of subcontract quotations or offers, MBE subcontractors were provided not

less than the same information and amount of time to respond as were non-MBE subcontractors.

I solemnly affirm under the penalties of perjury that the contents of this paper are true to the best of my knowledge, information and belief.

Bidder/Offeror Name

Signature of Affiant

Address

Printed Name, Title

Date

SUBMIT THIS AFFIDAVIT WITH BID/PROPOSAL

Attachment B

MBE PARTICIPATION SCHEDULE

This document must be included with the bid or offer. If the bidder or offeror fails to submit this form with the bid or offer as required, the Procurement Officer shall deem the bid non-responsive or shall determine that the offer is not reasonably susceptible of being selected for award.

Prime Contractor (Firm Name, Address, Phone)	Project Description
Project Number	Total Contract Amount
List Information for Each Certified MBE Subcontractor/Supplier on this Project	
Minority Firm Name MBE Certification Number	
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name MBE Certification Number	
Work to be Performed	
Dollar Amount or Percentage of Total Contract	
Minority Firm Name MBE Certification Number	
Work to be Performed	
Dollar Amount or Percentage of Total Contract	

USE ATTACHMENT B CONTINUATION PAGE AS NEEDED

SUMMARY

TOTAL MBE PARTICIPATION:

\$ _____

_____ %

Document Prepared by: (please print or type) Name: _____ Name/Title: _____ <div style="text-align: right; font-size: small;">(Signature)</div>

MBE PARTICIPATION SCHEDULE (continued)

List Information for Each Certified MBE Subcontractor/Supplier on this Project
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract
Minority Firm Name MBE Certification Number
Work to be Performed
Dollar Amount or Percentage of Total Contract

Submit this Schedule with Bid Proposal

Attachment C

OUTREACH EFFORTS COMPLIANCE STATEMENT

This document must be submitted within 10 working days of receiving notice of potential award or date of conditional award (per COMAR 21.11.03.10), whichever is earlier.

In conjunction with the bid or offer submitted in response to Solicitation No. _____,

I state the following:

1. Bidder/Offeror identified opportunities to subcontract in these specific work categories:

2. Attached to this form are copies of written solicitations (with bidding instructions) used to solicit certified MBEs for these subcontract opportunities.

3. Bidder/Offeror made the following attempts to contact personally the solicited MBEs:

4. ☐ Bidder/Offeror assisted MBEs to fulfill or to seek waiver of bonding requirements. (Describe efforts)

☐ This project does not involve bonding requirements.

5. ☐ Bidder/Offeror did/did not attend the pre-bid conference
☐ No pre-bid conference was held.

By: _____
Bidder/Offeror Name

(Signature)

Address

Name, Title (Print)

Date

Attachment D

SUBCONTRACTOR PROJECT PARTICIPATION AFFIDAVIT

This document must be submitted within 10 working days of receiving notice of potential award or date of conditional award (per COMAR 21.11.03.10), whichever is earlier.

SUBMIT ONE FORM FOR EACH CERTIFIED MBE LISTED IN THE MBE PARTICIPATION SCHEDULE (ATTACHMENT B)

Provided that _____ is awarded the State contract in

_____ Prime Contractor Name
conjunction with Solicitation No. _____, it and
_____,

MBE Subcontractor Name

MDOT Certification No. _____, intend to enter into a contract by which

Subcontractor shall: (describe work)

☐ No bonds are required of Subcontractor

☐ The following amount and type of bonds are required of Subcontractor:

MBE Subcontractor Contract Amount

Prime Contractor Signature
Subcontractor Signature

MBE

By: _____

Name, Title (Print)

By: _____

Name, Title (Print)

Date

Date

MBE MONTHLY PAYMENT REPORT – Attachment #E (Issued by Prime Contractor)

NAME OF PRIME CONTRACTOR _____ TELEPHONE NO. _____

ADDRESS _____ CITY _____ STATE _____ ZIP CODE _____

PROJECT NAME _____ PROJECT NO. _____

PRIME CONTRACTOR TOTAL \$AMOUNT _____ PRIME'S TOTAL CONTRACT PAYMENT \$YTD _____

CONTACT PERSON _____ TELEPHONE NO. _____

REPORT FOR MONTH OF _____ 20_____ FINAL REPORT YES ☐ ☐

List MBE firms utilized in connection with the above project either as subcontractor and/or supplier:

NAME OF MBE FIRM	WORK/ SERVICE PERFORMED	ORIGINAL CONTRACT AMOUNT	CHANGE ORDERS TO ORIGINAL CONTRACT AMOUNT	PAID TO DATE	AMOUNT OF PAYMENT(S) OVER 30 DAYS LATE	BALANCE TO FINISH

SIGNED BY: _____ DATE: _____

PRINT NAME: _____

TITLE: _____

NOTE: Specify in writing under separate cover any reasons for subcontractor payments that are over 30 days late.

Return to: University of Maryland, Baltimore County
Office of Procurement
1000 Hilltop Circle
Baltimore, Maryland 21250
 Attn: Sharon Quinn

MBE MONTHLY PAYMENT REPORT – Attachment #F (Issued by Subcontractor)

NAME OF SUBCONTRACTOR _____ TELEPHONE NO. _____

ADDRESS _____ CITY _____ STATE _____ ZIP CODE _____

PROJECT NAME _____ PROJECT NO. _____

PRIME CONTRACTOR _____

PRIME'S CONTACT PERSON _____ PRIME'S TELEPHONE NO. _____

REPORT FOR MONTH OF _____ 20_____ FINAL REPORT YES ☐ ☐

WORK/ SERVICE PERFORMED	ORIGINAL CONTRACT AMOUNT	CHANGE ORDERS TO ORIGINAL CONTRACT AMOUNT	PAID TO DATE	AMOUNT OF PAYMENT(S) OVER 30 DAYS LATE

SIGNED BY: _____ DATE: _____

PRINT NAME: _____

TITLE: _____

Return to: University of Maryland, Baltimore County
Office of Procurement
1000 Hilltop Circle
Baltimore, Maryland 21250
 Attn: Sharon Quinn

ATTACHMENT F

PRICE PROPOSAL FORM (TO BE PROVIDED BY ADDENDUM)

ATTACHMENT G
MARYLAND BOARD OF PUBLIC WORKS
2010 MEETING SCHEDULE

MARYLAND BOARD OF PUBLIC WORKS – 2010 MEETING SCHEDULE

January 6, 2010
January 20, 2010
February 10, 2010
February 24, 2010
March 10, 2010
March 24, 2010
April 7, 2010
April 21, 2010
May 5, 2010
May 19, 2010
June 9, 2010
June 23, 2010

July 7, 2010
July 28, 2010
August 11, 2010
September 1, 2010
September 22, 2010
October 6, 2010
October 20, 2010
November 3, 2010
November 17, 2010
December 1, 2010
December 15, 2010

ATTACHMENT H

UMBC CAD STANDARDS DATED AUGUST 2005



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CAD Standards-August 2005

2.0.0 USER RESPONSIBILITY Adherence to the standards and procedures contained herein is essential in preserving a homogeneous character in the drawings maintained by UMBC and in increasing the efficient use of project time and management. Modifications to the standards and procedures in this manual may be necessary for specific situations. Proposed modifications must be approved in writing by the Project Manager and the CAD Designer or Planning & Construction Services Manager. Do not make arbitrary changes without prior approval. Internal change recommendations to this manual should be directed to the Planning & Construction Services Manager in writing detailing: a) Why the current procedure is not adequate; and, b) What the proposed modification or addition should be c) How it would improve the existing standards and procedures

5.0.0 REQUIRED DATA

5.0.1. FILE TYPES

The files which will be included in any submittal will fall into the following three categories.

5.0.1.1 Text Files The only types of text files to be included in the deliverables are File Descriptions and Specifications unless otherwise directed by UMBC. File descriptions will be in ASCII file format and will have the extension TXT. Specifications may be submitted in Microsoft Word (DOC) or Adobe Acrobat (PDF). No other formats will be accepted.

5.0.1.2 Drawing Files The only types of drawing files to be included in the deliverables will be Autodesk AutoCAD 2005 or later and will have the DWG and DWF extension. DXF files will not be accepted.

5.0.1.3 Raster Files The only types of raster or image files that will be accepted are TIFF, JPG, BMP or WMF.

5.0.2 FILE INFORMATION All information included in hard copy submittals must be included in electronic data deliverables. If blocks are used in the documents, then they are to be consistent throughout. For example, if fixture "A" is a block, then all locations where fixture "A" is shown shall be of the same block. Any reference files or block files pertinent to the content of the master file are required data and are to be included on the File Description.

5.0.2.1 File Format All submittals shall be clearly and systematically organized and incorporate good drafting practices. All submittals to UMBC shall have colors set by layer, not by entity. Graphic elements representing a physical component of the project (i.e., lines indicating a wall or a block indicating a light fixture) shall be shown only one time in the submittals. If additional references to the object are needed in additional drawing files they shall be shown via an external reference of the original file.

5.0.2.2 File Size and Organization It is the responsibility of the consultant to organize drawing information coherently and maintain reasonable file sizes.

Major contributors to excessive file sizes are unreferenced blocks, redundant line work and hatches. Files should be purged before submittal to remove unnecessary data and reduce file size.

5.0.2.3 Copy and Compression Format If more than one file is copied to a single disk, the disk label will include all file names. Files copied to a CD shall not be compressed. Only files e-mailed or uploaded to the FTP site may be compressed into a ZIP or self-extracting EXE format.

5.0.2.4 Externally Reference Files When submitting the electronic AutoCAD drawings, A/E's must bind all externally referenced drawings. Drawings submitted without x-refs bound will be rejected.

5.0.2.5 Document File Format There shall be one drawing file, saved in a plot-ready format when submitted, corresponding to each hard copy submittal sheet.

Document files shall be formatted utilizing paper space. Plotting should take place from paper space at a scale of 1 = 1. Drawings with title blocks in model space will not be accepted.

5.0.2.6 File Naming All files included in the electronic data deliverable package will conform to the following file naming convention that is based on Uniform Drawing

System published by CSI. Alternative file naming conventions may be utilized only with prior written



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approval of a detailed alternative. Approval of alternate naming conventions is solely at the discretion of the UMBC Planning & Construction Services. Similar name guidelines have been defined for both Model and Sheet file types. The first character is the discipline code designator, then a hyphen. 5.0.2.6a Model file name example:

___ 101 This applies to both file types and must be one of the following:

- A Architecture
- C Civil
- E Electrical
- F Fire Protection
- G General
- H Hazardous material
- I Interiors
- K Kitchen Equipment
- L Landscape
- M Mechanical
- P Plumbing
- Q Equipment
- R Resource
- S Structure
- T Communications
- X Other disciplines

U Utilities Infrastructure Z Contractor/Shop drawings 5.0.2.6b Sheet File Names The remaining characters following the File Type will be the Sheet File Name. These are numeric and indicate the sheet sequence number. UMBC requires a numeric sequence by organizing the sheets by type of information found on the sheet. The following is how the sheets shall be numbered:

- 000LL Lower Level
- 100 First Floor
- 200 Second Floor
- 300 Third Floor
- 400 Fourth Floor (if needed)
- 500 Fifth Floor (if needed)
- 600 Exterior Elevations, Building Sections, Wall Sections
- 700 Interiors General
- 800 Reflected Ceiling Plans

900 Interiors Specific Basements, Sub-Basements, Mezzanines will be labeled B, SB or M after the letter/3 digit number. For example the basement below the lower level will be labeled A000B. The subbasement in the same building would be A000SB. For large buildings where the floor plans have to be split a letter designating north south east or west will be used after the 3 digit number: A100N, A100S, A101N, A101S etc. The sheets within a specific grouping will be label numerically; for example M200, M201, M202, M203, etc.

6.0.0 DRAWING FORMATS AND GRAPHICS Sheet borders, title block and data, consultant's stamp, logos and all other components of the master drawing sheet shall be located in paper space. All graphic representations of the project or facility and all related notes, dimensions, symbols, etc., shall be constructed in model space.

6.0.1 AutoCAD compatibility CAD File deliverables must be in AutoCAD format, and of version 2000 or later. All files delivered to UMBC will be thoroughly tested for compatibility and integrity. In many cases, third-party software has been used to produce CAD files and may contain predefined entities such as line types, symbols and blocks. Files delivered to UMBC must be free of any copyrighted or other material whose distribution is prohibited.

6.0.2 Entities All graphic entities shall be comprised of representational and geometrically accurate entities. For example, a circle shall be represented by a circle entity and not a visually equivalent collection of line segments. Items shown in a dashed line type shall be created with the LINETYPE" feature and not by individual line elements. These characteristics are typical of files that have been converted from some other format and they will not be accepted. Likewise, files in which all blocks are exploded or all data is on a single layer will not be accepted. Good drawing technique goes a long way in AutoCAD drawings. It is expected that submittals to the university will be of the highest quality. The following are considered poor technique and should not be present in CAD products delivered to the University. Redundant Lines -There should be no redundant lines. These typically are forms of multiple line segments in the same place or two segments joined to make a single segment.

This also applies to text entities. Redundant Blocks — Care should be taken to insure that only one insertion occurs for a block. Also make sure that the block itself only contains one copy of the image. Open Intersections — One of the most important and basic tools used in CAD is object snap. By using snap, the CAD operator is sure to produce clean and closed intersections. Intersections are very important since they provide accurate snap positions and are required as part of area boundaries. Also:

- a) All entities shall be colored 'BYLAYER' and not individually by entity. b) If the drawing is to be three dimensional than it should be consistently and accurately drawn as such, otherwise it is a two dimensional drawing and all 'Z' coordinates should be 0.0.c) All blocks shall be created from layer "0". Nested blocks should be avoided. d) NO information shall be stored on layer "0". Layer 0 shall remain 'white' as default color. e) Blocks shall not be mirrored. Mirrored blocks cannot be exploded and their attribute cannot be edited. f) Temporary blocks used during file creation or editing shall be exploded and purged. g) Paper space origins shall be 0,0.

7.0.0 DRAWING ENVIRONMENT AutoCAD allows the choice between two drawing environments: model space and paper space. Model space is AutoCAD's working mode for creating the model. The model is a subset of a building's geometry and it's physical components such as walls, doors, windows, columns, beams, outlets, ducts, etc. The model is always drawn at full scale (1:1). Paper space enables one to take the model and create a variety of views or scales for plotting. Each sheet represents one plotted drawing at full scale.

7.0.1 Paper Space (Layout)The primary drawing is to be submitted in paper space (layout). The features represented in paper space are scaled to fit on the sheet. The various views of the drawings are referenced. General project graphic elements such as title blocks, legends, key plans, plan titles, riser and schematic diagrams, and sheet specific notes should be drawn in paper space.

7.0.2 Model Space The drawing or model may be created in model space. This drawing must be drawn at full scale (1:1). Any additional items that help define the model or add model data such as details, schedules or sections must also be drawn at full scale in model space. Consistency in keeping related model elements in model space along with proper layer assignments will allow the use of x-refs and the ability to keep information dynamic and updated among disciplines.

7.0.3 Standard Coordinate System Any drawing utilizing a coordinate system shall correspond to the Maryland State Plane System, North American Datum, 1983 (NAD 83), in feet, for all map and plan view files. Where necessary for composing drawings on a sheet a user coordinate system named "PLAN VIEW" shall be established.

1 **Prototype Drawing Files** Prototype drawing files and symbols shall be utilized as provided by the University. These may include but not be limited to title sheets, formatted drawing files, drawing symbology and other blocks. When blocks contain attributes all relevant attribute fields are to be filled out.

2 **STANDARD SHEET SIZES AND FORMATS** All sheet sizes are to be limited to five standard formats. Required sheet size is specific to each project and is under the discretion of the University. They are as follows: ANSI A Plot - 8 1/2" x 11" ANSI B Plot- 11" x 17" ARCH D Plot -24" x 36" (preferred format)



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9.0.0 GRAPHICS

9.0.1 Text All text is to be created only with standard AutoCAD or standard Windows TrueType fonts. Exceptions will be made, however, they must be approved by the CAD Designer or the Planning & Construction Services Manager, and the source font file must be included in the root directory of any electronic deliverable or submittal. All text sizes are to plot and display in accordance with the following sizes:

Schedules — 1/8" Dimensions and Notes — 1/8" Grid Numbers — 3/16" Sheet Detail Title — 3/16" Sheet Title — 3/16" Sheet Number — 3/16"

The model space drawing and the paper space layout are created at a 1:1 scale, so the model space text must be scaled by a factor in relation to the paper. The scale factor is multiplied by the desired plotted text height of the AutoCAD text height. This scale factor is always reciprocal of the drawing scale. When using paper space, the zoom option 'XP' allows you to scale each view port. The XP scale factors (1/scale factor XP) are the same factors used to convert text height in model space. For example if you wish to plot a drawing at a scale of 1/8" = 1', calculate the scale factor as follows:

$1/8' = 1'0.125" = 1' \ 1/0.125 = 96$ (The scale factor is the reciprocal of 0.125 or 96)

9.0.2 Special Entity Requirements Common symbols, doors, windows, equipment, etc. shall be inserted as blocks. Room numbers are very important. UMBC's CAD drawings are used to provide real data throughout the University. A standard block named "RMNO" is used and contains attribute data including not only associative data such as room number, area and perimeter but also the entity handle of the poly line with which it is associated. All As-Built submissions will contain UMBC's room numbers, not the construction or consultant's numbers.

9.0.3 Dimensioning All dimensions shown in the project submittals shall be fully associative. Dimension definition points should be located with an appropriate Object Snap (End Point, Mid Point, etc.) or otherwise located precisely on the project geometry. Manual input of dimension text or otherwise over-riding the actual dimensions is NOT acceptable in submittals to the university.

9.0.4 Line types It is recommended that only standard AutoCAD line types be used. If custom or compound line types are necessary, then their definition file(s) shall have a .LIN extension and shall be included in the root directory of the files with which they are associated.

9.0.5 Fill and Hatch Patterns Vectorized fill patterns are acceptable but excessive use is discouraged as they make files unnecessarily large. In many circumstances solids may be used instead of hatches. All consultants are responsible for keeping files sizes within manageable limits.

9.06 Line Weights Preliminary Recommendations: Consultants are solely responsible for the production and appearance of their hard copy submittals.