

**UNIVERSITY OF THE DISTRICT OF COLUMBIA
CAPITAL PROCUREMENT DIVISION**



APPENDIX 'B'

TECHNICAL REQUIREMENTS AND SUBMITTAL GUIDE

APPLICABILITY OF APPENDIX 'B'

Unless otherwise stipulated, the Architect-Engineer shall be responsible to comply with all Sections and Sub-Sections of the Appendix 'B' that are applicable and necessary for performing the Work described and required by Appendix 'A' : Scope of Work.

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APPENDIX ‘B’

TECHNICAL REQUIREMENTS AND SUBMITTAL GUIDE

1. GENERAL

- 1.1. All written requests or correspondence regarding this Contract shall be addressed to the Contracting Officer, Attention: Contracting Officer’s Technical Representative (COTR). The Address for the COTR will be provided to the A-E during the Pre-design meeting that will be held immediately after the contract is executed by the Contracting Officer if the contract is for a specific project and after the Task Order is executed if the Contract is an Indefinite Delivery, Indefinite Quantity (ID/IQ) Contract. All matters pertaining to the administration of the contract or a Task Order shall be through the COTR.
- 1.2. All final decisions relating to the contract will be issued by the Contracting Officer.
- 1.3. During the construction period of the facility for which services are to be performed under this Contract, the Architect-Engineer (A-E) shall, without additional cost to the District of Columbia Government, be available for complete consulting services on errors, omissions and discrepancies in drawings and specifications for all phases of the design.
- 1.4. Changes in Appendix ‘B’ may be made from time to time by the Contracting Officer to accommodate modifications in the requirements of the District of Columbia Government, or the requirements for the particular project set forth in Appendix ‘A’ of the Contract. Such changes, when required shall be specifically amended in Appendix ‘A’, and are applicable to the project and Contract number to which the amendment is made.

2. TECHNICAL REQUIREMENTS

The Appendix ‘B’ defines both the technical requirements and the drawings/specifications submittal schedules as required by the District.

The requirements set forth hereafter are minimum requirements only, not intended to be all inclusive of all the contract requirements. It is the responsibility of the Architect-Engineer to provide all services necessary for a complete and integrated professionally designed product for the facility specified in Appendix ‘A’. This shall include all design and engineering features, equipment, system, etc., usually or customarily found in or necessary for the design of a structure or facility of the kind and type described therein, together with technical specifications, design analyses, construction cost estimates, renderings, photographs, and scale models.

2.1. Submittal Schedule

The preparation of the contract documents for construction work is complex, exacting, and time-consuming. For each project as a minimum there are three interested parties: the User Agency, the Implementing Agency and the Architect-Engineer. The establishment of a mutually acceptable design with the minimum effort shall be accomplished by graphic and textual design solutions to be submitted for review and comment at certain development stages. The quantity and the development stage of these submissions will vary according to complexity of the work. Following are the submissions for most projects and their minimum contents, unless specifically amended in Appendix A

NO.	<u>SUBMISSION</u>	<u>% COMPLETED</u>
I.	Schematic Phase (sketch stage) -----	15% completed
II.	Concept Phase -----	35% completed
III.	Design Development Phase -----	65% completed
IV.	Construction Documents Phase -----	100% completed
V.	Compliance Phase -----	Final

Requirements under this Appendix “B” shall be met by the Architect-Engineer unless modified or amended by the requirements of Appendix “ A ” and/or supplements.

2.2. Submittal copies

At each submission the Architect-Engineer shall submit five (5) sets of prints, one set of loaded computer disk (s) or CD ROM and one (1) set of reproducible prints. Complete submittal requirements are detailed hereunder unless modified in Appendix ‘A’

<u>PHASE</u>	<u>REPRODUCIBLE</u>	<u>DISK (S)</u>	<u>PRINTS</u>
I Schematic	1 set	1 set	5 sets
II Concept	1 set	1set	5 sets
III Design Development	1 set	1 set	5 sets
IV Construction Documents	1 set	1 set	5 sets
V Compliance	1 set	1 set	5 sets and Original set of drawings.
Specifications, Outline (Design Dev.)	1 sets	1 set	5 sets
Specifications, Draft (Constn. Doc.Ph.)	1 set	1 set	5 set
Specifications, Final (Compliance)	1 set	1 set	5 sets

Construction Cost estimate: For each submittal Architect-Engineer shall submit five copies of cost estimate. The estimate shall have details that are consistent with the submittal phase.

2.3. Computerized Design and Drafting

All design drafting shall be prepared utilizing AutoCAD R-2000 or latest version. All design analysis shall be developed using latest versions of appropriate computer software that is approved by the COTR. During the pre-design conference the A-E shall provide for approval a list of the design software he intends to use for the design work. He may obtain the approval of his software during negotiation of the costs for the work.

2.4. Document Preparation.

All documents required under this Contract shall be:

- 2.4.1. Prepared by the Architect-Engineer in a clear, neat, and professional manner; suitable for reproduction;
- 2.4.2. All drawings shall be prepared using AutoCAD Release 2000 or later version and all specifications shall be prepared using Microsoft Word and
- 2.4.3. Identified by the appropriate project name and number assigned by The District.
- 2.4.4. Prior to the submittal of any design drawings, specifications, engineering analyses, construction cost estimates, and studies, the Architect-Engineer shall completely check and coordinate same for accuracy, compliance with the District of Columbia Zoning requirements, Building Codes, other applicable codes and regulations, and for compliance with the additional requirements that are applicable to specific projects.

2.5. Reviews

2.5.1. Review timeframe:

As required by the contract, Architect-Engineer shall submit to COTR within seven calendar days of the date of issuance of Notice to proceed, a schedule showing the milestone dates for the starting and completing various phases of work (Refer to the sample progress schedule provided by the COTR) at the Pre-design meeting. He shall update this schedule on a monthly basis and submit to the COTR on a regular basis at the end of each month or on specific date as agreed with the COTR. In preparing the Schedule of Work, the Architect-Engineer shall allow time for each review by the District representatives. The review time allowance is in calendar days and will be measured from the date of receipt by the COTR and is as follows unless this time frame is amended for specific project in the Appendix A:

<u>NO.</u>	<u>SUBMISSION</u>	<u>REVIEW TIME</u> (Calendar days)
I.	Schematic Phase	7
II.	Concept Phase	7
III.	Design Development Phase	7
IV.	Construction Documents Phase	7
V.	Compliance Phase Final Submission	7

2.5.2. On-Board Reviews

When authorized in Appendix A as being necessary to accommodate an accelerated schedule, the normal time allowed for review of the work as set forth in Appendix B shall be waived and the District shall perform “on-board” reviews at such time and location as shall be reasonable and acceptable to the parties involved.

Unless amended, the Architect-Engineer shall print the job the same as would be required for a normal review submission; that he shall submit to the COTR at least five (5) calendar days prior to the date scheduled for an “on-board” review. The purpose of this lead time is for the District representatives make a cursory review of the submittal prior to on-board review. COTR will distribute the submittals to proper reviewers. COTR will also coordinate on-board reviews.

2.5.3. Review Comments:

All review comments from the University shall be in writing. As these comments are incorporated in the contract documents, the Architect-Engineer shall carefully indicate his action taken. If incorporated, the work “done”, “complied” or “not complied” be written adjacent to the comment; if the comment is not acceptable to the Architect-Engineer, he shall note that the request is “ not done or not complied because -----.” The Architect-Engineer and the University shall discuss within ten (10) days and agree to a mutually acceptable action. The final decision, in every instance, remains with the University. If the Architect-Engineer cannot concur, he shall modify the work in accordance with The University’s directive, then write to UDC “the work has been done but not in accordance with his professional judgment because -----.”

2.6. Conferences

The Architect-Engineer (A-E) shall furnish all information material necessary to coordinate the project with all agencies and with the University. The Architect-Engineer or his/her authorized representative shall attend all meetings, arranged by other agencies or community groups or the Project Manager, to obtain the necessary approval of such agencies or groups. The A-E shall furnish all information, data and exhibits required for such meetings or reviews.

2.7. Surveys.

2.7.1. Plat of Computation

A "Plat of Computation" for the project site shall be procured by the A-E and shall be incorporated in the construction documents.

2.7.2. Topographic Survey

The Architect-Engineer shall order the topographic survey immediately after receiving the notice to proceed for the work. He shall prepare and submit one reproducible copy of a topographic survey map of the site of the facility in sufficient detail to permit the proper and efficient execution for the work required by this Contract. The area to be surveyed shall include a 50 feet wide strip around the entire perimeter except where there is no right of entry. The topographic survey map shall be at a scale of not less than 1"= 20'- 0", and shall show and / or include: (i) contours at 1'- 0" vertical intervals where slopes are 10% or less, contours at 2'- 0" vertical intervals where slopes are greater than 10% (ii) all natural and artificial features including, but not limited to: (a) building, sheds and other structures, both existing and previously demolished; (b) elevation of basements, areaways, vault floors, etc.; (c) retaining walls, terrace walls, steps, curbs, etc., with top, bottom and adjacent grade elevations; (d) roads, walks, driveways, and other paved areas (Indicate type of paving); (e) fences, gratings and drainage structures; (g) water, sewer and utility lines, manholes, vaults and both rim elevation and invert elevation; (h) telephone, power and light poles; (i) grass, lawn, weed, bush, and wooded areas; (j) trees, 3" diameter and over, and (k) fields, bare earth and exposed rock areas. The boundary, as indicated by the "Plat of Computation" and the location of existing markers shall be shown on the topographic map. The marker location shall be obtained from the D.C. Surveyor's office. At least on boundary line extending the full length of the site shall be located from existing markers and defined by a new marker at each end. All topographic features and all new construction shall be accurately located from this boundary line. This will not be an official survey but must be sufficiently accurate for building design to be developed without necessitating any major plan change when the official survey is prepared.

2.8. Soil Data.

The Architect-Engineer shall make determination and obtain concurrence from the Project Manager immediately after acceptance of the Schematic Phase by the University, on the location, quantity and depth of soil identification holes.

2.8.1. The Architect-Engineer shall provide with each required soil evaluation:

Soil boring, soil samples and certified boring logs. The boring logs shall show strata description, resistance to penetration of standard sampling spoons, ground water levels and other pertinent data.

2.8.2 The Architect-Engineer shall provide the following if these items of work are included in the Appendix A. if they are not included he shall perform this work only upon receiving approval from the Contracting Officer:

- (1) Perforated pipes for water level readings.
- (2) Core drilling in rock, core samples and drillings logs.
- (3) Test pits, test caissons, test piles, load tests, bearing tests and certified records of all pertinent test data.
- (4) Laboratory tests of soil strata and such borings and samples as may be needed in addition to 3.4.D above.
- (5) Written report of the analysis and recommendations from professional soil mechanics and foundation engineer.

2.8.3. The Architect-Engineer shall utilize all soils data secured under 3.4 D above as an aid in his determination for designs of foundations, sub-structures, retaining walls, etc., and for all earthwork such as cuts, fills and embankments.

2.8.4. The scope and sequence of various phases of soils investigations shall be established by the A-E as concurred by the COTR.

2.8.5. The Architect-Engineer shall provide adequate soil data including the preparation of boring location plans and specifications, supervision of boring operation and evaluation of soil data during progress of the borings. He shall also provide a drawing (or drawings) to be included with the drawings to be furnished under 3.5 F (2) (e) showing:

- (1) Locations of test borings and test pits.
- (2) Description and location of soil strata encountered in borings and test pits.
- (3) Record of blow counts on sampling spoons when taking soil samples.
- (4) Water level reading with time and date the record taken.
- (5) Any other data pertinent to the construction of foundations and / or earthwork.

2.9. Asbestos Abatement

Removal, Encapsulation, or Enclosure: For any project wherein the Scope-of-Work (Appendix "A") requires alteration and /or modernization of any part or all of any existing building or facility, including any replacement or improvements to HVAC and Plumbing System, the Architect Engineer shall prepare and furnish a report as set forth below:

The Architect- Engineer shall be responsible to determine by initial field check, and to report promptly to the District whether or not asbestos exists at the premises. If findings are positive, the A-E shall determine and photograph the

locations and the extent, and furnish a comparative budget type cost estimate for each (1) removal, (2) encapsulation, (3) enclosure and (4) a combination thereof; all to be in accordance with the current OSHA and EPA standards and regulations. Negative findings will require the A-E to confirm it by submission of a Negative Report.

When Asbestos exists on the premises, the report from the Architect-Engineer shall contain inspection photographs as follows:

Requirements for Asbestos Inspection Photographs:

- (a) Size: approximately 8”x 10”.
- (b) Clearly define the areas where sample is obtained and the condition prior to removal.
- (c) All photographs shall have an extension (title margin) with the following information printed or typed thereon:
 - (i) Title of project and Architect-Engineer
 - (ii) Location of photographs in relation to project;
 - (iii) Identified as to subject matter shown on photographs;
 - (iv) Dates taken;
 - (v) Facility name, building name and building identification number.
- (d) Number of photographs in each submission:
 - (i) Two prints and one negative of each sample area.
 - (ii) Photographs to be bound in book (each set). Negatives to be in jackets and labeled with building name building identification number facility name and photo number
 - (iii) All photographs shall be taken by a professional photographer and all enlargements shall be clear with the proper contrast.
 - (iv) If the photographs are taken using digital cameras, in lieu of negatives the A-E shall submit a CD Rom of all the photographs.
- (e) Submitted with the report upon completion of inspection.

3. SUBMITTALS

The preparation of construction contract documents is the responsibility of the Architect-Engineer. The COTR and the University will provide scope of work and program requirements as described in the Appendix. The contract documents produced by the A-E shall accurately and completely reflect the design concept if the project is to be aesthetically appealing, efficient and carefully planned for maximum usage, and economical in construction, operation and maintenance costs.

The COTR will provide reviews to aid in the correct interpretation of the University’s program requirements that are identified in the Appendix A, to encourage appropriate creativity in design, to corroborate the selected engineering system, and to assess the synthesis of the project. The University will not check correctness of the contract documents for design. Architect-Engineer is responsible for all facets of the design.

3.1. SCHEMATIC PHASE (15%): (I)

3.1.1. General:

Schematic drawings for construction projects are a means of identifying alternative approaches to correct physical and functional deficiencies. The development of these schematic drawings is an interactive process between the Project Manager, the University and the A-E in order to produce a narrative and graphical description of possible program alternatives. As appropriate, the District will make available:

- Facility Development Plan, if available,
- Space Program Requirements for functional areas included in the project,
- Evaluation reports, to include but not limited to any available subsurface investigation reports, and as-built structural drawings and
- Approved Program

The A-E, in collaboration with the Project Manager and the University staff, shall sketch various possible alternatives and refine them based on continuing interaction with the University's project team. The A-E will then complete and present alternative architectural solutions which are functionally viable for consideration. The University will select the final concept identify the approved scope to be developed in Concept review stage.

Complete conceptual alternatives must be displayed on the Schematic drawings. The work may include the division of an alternative into distinct parts, each of which has an identified priority. The Schematic design must, therefore, be developed so that further development shall provide a well designed facility with respect to functional layout, construction phasing, minimized disruption of existing facility operation, and coordination with structures and utilities.

A group of simple drawings manifesting the Architect Engineer's understanding of the client's requirements as defined in the contract documents. These shall be on a reproducible medium.

3.1.2. Subject Matter

- Floor plan(s), two elevations, one each longitudinal and transverse sections, and site plan.
- Minimum scale shall be 1/8" = 1' - 0" for plans and elevation, 1/4" = 1'-0" for sections, and 1" = 50' for the site plan (s).
- North arrow and Building Identification Number shall be shown on all floor and site plan (s).
- The sheet size shall be adequate for a clear submission.

- Approval of sheet size and Building Identification Number shall be provided by the COTR in the pre-design meeting.
- Notes and dimensions shall be sufficient to enable the reviewer(s) to analyze the submission for conformance to the project's program requirement and to understand the quality of design. Tentative elevations of finish grade and each floor shall be included
- Material of construction shall be identified in a general manner i.e., masonry, concrete, curtain wall, steel, etc.
- Required egress information. Square footage of all interior spaces. Egress requirements showing calculated population, egress flow diagram, required exit units and area classification.
- Cost estimate shall be prepared based on either square foot cost basis or assembly cost basis. This is essential to evaluate each of the schematics to meet the funding limitation.

3.1.3. Review

Architect-Engineer shall deliver this submittal to the COTR. Number of copies of the submittal is stated in Appendix B. COTR shall require District's review staff and the User to complete the review and submit their review comments in the prescribed format within the time stated in Appendix B. COTR shall transmit the review comments to the A-E for incorporation in his next submittal. If the submittal is rejected, the COTR shall send the rejection notice stating the reasons for rejection. A-E shall resubmit it by incorporating the comments. If the A-E disagrees with the rejection and or comments he shall request within three calendar days for a meeting with the COTR to discuss the rejection and or comments. A-E shall write the minutes of this meeting and submit it to the COTR within three calendar days of the meeting. Also he shall immediately comply with the comments agreed in the meeting and resubmit if the submittal was rejected or if it was not rejected, incorporate the agreed comment in the next submittal. In case of schematics design, more than one joint meeting may be useful in avoiding resubmittals.

3.1.4. Upon approval of this submission the soil investigation shall be performed.

3.2. CONCEPT PHASE (35%): (II)

3.2.1. Definition:

The concept phase consists of drawings, description of materials, and area tabulations. Also other items as may be required for certain projects. The concept drawings shall be developed from the approved Schematic Phase drawings. These drawings shall be accurate, sufficiently complete architecturally to enable UDC to understand conformance to the scope of work as illustrated in Appendix "A". All pertinent information must be included.

3.2.2. Subject Matter:

- Floor plan(s), four elevations, one each longitudinal and transverse sections and site plan.
- Minimum scale shall be 1/8" = 1'-0" for floor plans and elevations, 1/4" = 1'-0" for section, 1/2" = 1'-0" for typical wall sections, and 1"=50" for plot plan. North arrow shall be shown on all floor and site plans (s). The sheet size is approximately 30"X42" (unless modified in Appendix 'A'), and must be legible, clear, and easily read.
- Notes and dimension shall be adequate for the information required.
- All rooms shall be identified and sized, typical furnishing and equipment to be named and location, elevations to be developed identifying facade to include fenestration types and openings, site development, overall dimensions, approximate floor and finish grade elevations.
- A description of materials in which shall be included the proposed engineering systems (structural, mechanical and electrical), materials of construction, and other information describing the project.
- Provide on the drawings, (within the confines of the area delineated) the seating capacity of assembly halls, auditoriums, gymnasiums and stadiums, plus any other spaces when identification of capacity is essential to the determination of compliance with the Code and Scope of Work.
- The requirements of the Building Code shall be equaled or exceed. For egress, show the calculated population, egress flow diagram (complex system), identify required, existing and the area classification. Type of occupancy, type of construction, fire safety requirements, etc.
- Architects must provide on each plan drawing, the gross square foot area of each plan or plans on the sheet. On the cover or index sheet, the architect must provide the gross square footage of the complete building project. The area of the site is to be expressed separately in terms of gross area.
- The required information is applicable to each review submission and will be prominently called out and shown as follows:

When a single floor plan only is shown, the square footage is to be placed in proximity of the Title Block. If more than one floor plan is shown on a sheet, show square footage as a part of floor plan identification; For example: (2nd Floor Plan; Area = _____ square foot, etc.).

On Cover or Index Sheet, the required information may be shown by "Key Plan" or schedule. Architects shall prepare and submit computations in support or aggregate figures.

- Cost estimate shall be more refined than the estimate prepared for Schematic submittal by eliminating sufficient number of contingencies that were included in the schematic submittal.

3.2.3. Review

Architect-Engineer shall deliver this submittal to the COTR. A-E shall also deliver a certificate stating that he has incorporated all the review comments as agreed for the Schematic Submittal. . He shall submit the number of copies as required under submittal requirements. COTR shall require District's review staff and the User to complete the review and submit their review comments in the prescribed format within the time stated. COTR shall transmit the review comments to the A-E for incorporation in his next submittal. If the submittal is rejected, the COTR shall send the rejection notice stating the reasons for rejection. A-E shall resubmit it by incorporating the comments. If the A-E disagrees with the rejection and or comments he shall request within three calendar days for a meeting with the COTR to discuss the rejection and or comments. A-E shall write the minutes of this meeting and submit it to the COTR within three calendar days of the meeting. Also he shall immediately comply with the comments agreed in the meeting and resubmit his design documents if the submittal was rejected or if it was not rejected, incorporate the agreed comment in the next submittal.

3.2.4. Review by other Agencies:

If the project is to be submitted to either the Fine Arts Commission (FAC) or the National Capital Planning Commission (NCPC) or the Community, the Architect-Engineer shall prepare a set of plans for a formal presentation by mounting on board stock (board mounting may not be required for NCPC), by shading, by crisp black lines and bold, clear lettering. The submissions will be reviewed by Commission members from a distance of ten to twelve feet; hence prepare this submission accordingly. If requested, the Architect-Engineer shall prepare rendering for submission to FAC; if the work is accepted and the rendering remains correct, it may be used as the one that is required to be submitted to the District under the contract. A model is optional unless it is specified in Appendix 'A'. If the Architect-Engineer has prepared a study model for his office use, it may be submitted in both Commissions' scheduled monthly meetings. The dates for these meetings shall be obtained from the Commission.

If FAC or NCPC rejects the submission it is incumbent upon the Architect-Engineer to carefully correct the submission and completely prepare it for the resubmission. It is responsibility of the A-E to prepare a design acceptable to all authorized review agencies.

Acceptance of this submission by the authorized review agencies establishes the aesthetics and the configuration of the project. Only minor refinements of these

items shall be permitted thereafter. However, interior spaces and operating systems will continue to be reviewed and adjusted.

3.3. DESIGN CONSULTATION OF ENGINEERING SYSTEM(S)

3.3.1 Definition

The Architect-Engineer shall request for a meeting immediately after receiving the approved concept design documents from the COTR. The purpose of this meeting shall be to establish both a mutual understanding of the project and a common acceptance of the proposed engineering system(s). In depth discussion shall require simple drawings.

The simple drawings shall include information from the approved concept drawings and the written comments. The drawings for this phase shall be prepared to a convenient and easily readable scale. This work shall be sufficiently complete to portray, on sheets for each discipline, the proposed engineering systems.

3.3.2. Consultation

Graphics shall consist of floor plans, elevations, sections, details, site plans, and others as needed for in-depth discussion of the proposed engineering systems. Participants may include the Project Manager, Government's architects and engineers, representatives from the user, Architect-Engineer and his consultants to reach an Contract on the proposed engineering system that will be the most advantageous economically, functionally, and maintenance-wise. These proposed engineering systems shall have been established by computations, comparative life cycle cost analysis, comparative lead time for purchase and delivery, and other items investigated by the consultant that are pertinent to the system(s). Sufficient information must be provided for the reviewer(s) to reach a reasonable decision. When the Architect-Engineer and his consultants and their counterparts in UDC have agreed on a basic system, it will normally be final unless, as the plans are developed, it is established that the selected system is unsafe, excessively complex, or too costly. When this occurs, the revisions are the responsibility of the Architect-Engineer. There must be Contract before the work proceeds.

The Architect-Engineer shall prepare a technically sufficient and reasonably comprehensive "package" of the items described in Section 3.5 D (1), and shall deliver the same to the Project Management in not less than 3 working days prior to the scheduled date for the pre-design meeting and consultation. All materials shall be clearly identified as to the applicable discipline. All decisions important to identification of the type and / or establishing the intent and direction the design shall be carefully recorded. See item 3.12, "Architect-Engineer" Responsibility to Record at All Meetings".

3.3.3. Subject Matter

Typical submissions for the first review of this phase shall include the following suggested items, however, the Architect-Engineer shall include all information necessary for the reviewer to clearly understand the items submitted.

3.3.3.1. Architectural

The sheets shall incorporate Concept Phase comments and additional sheets as may be required for The Architect-Engineer consultant to accomplish his work. Topographic survey information, either official or taken by the Architect-Engineer. The computation developed to determine egress requirements.

3.3.3.2. Structural:

- Live and dead loads.
- Proposed Structural system with the back-up information use to make the selection.
- Foundation system based on sub-soil data.
- The proposed structural system to be shown on the plans in a legible and simple manner.
- Written analysis explaining the comparative advantages of one or more systems and the reason (s) for selection of the system.

3.3.3.3. Electrical:

- Lighting level based on Illumination Engineering Society (IES) standard, listing of security, fire alarm, telephone and data communication systems.
- Luminaries types, in general.
- Preliminary electrical load selected voltage level to be applied.
- The major components and services to be drawn on the plans in a legible and simple manner. Include room and approximate area requirements for control panels.
- Written analysis, when applicable, explaining the comparative advantages of one or more systems and the reasons for selection of the recommended system.
- Prior to this meeting, the consultant shall have conferred with all utility organizations and have their comments regarding availability of service, their recommendation for type, etc.

3.3.3.4. Mechanical (HVAC):

- Heat loss/heat gain load calculations (Block Load) for the building as a whole.

- Assumed quantity and approximate area requirement for boilers, chillers, air handling units, compactors, elevators, and all other equipment to be installed in mechanical room (s) and other rooms or spaces.
- Draw on the plan in a legible and simple manner all rooms and spaces for the required equipment. Show the equipment layout to scale in its proper relationship.
- Written analysis explaining the comparative advantages of one or more systems and the reason for selection of the recommended system.

3.3.3.5. Plumbing:

- Draw in the plans in a legible and simple manner all rooms and spaces identifying all plumbing fixtures.
- Prior to the pre-design meeting the consultant shall have conferred with all utility organizations and have their comments regarding availability of service, their recommendations for type, etc.

3.4. DESIGN DEVELOPMENT PHASE (65%): (III)

3.4.1. Definition:

The final approved Concept Plans shall be the basis for the development of the Design Development phase. Any changes from these plans must be approved by Project Manager prior to proceeding with the Design Development Drawings.

All plans will be reviewed for functional and aesthetic relationships. The result of this phase will be a set of design documents defined to the point that no further functional decisions are required.

The Design Development Phase consists of basic plans, elevations, sections and details with computation and analysis of all disciplines required for the project.

3.4.2 Subject Matter:

Typical submissions for the review of the Design Development phase shall include the following suggested features. The plans and specifications shall include all information necessary to enable a valid judgement of the final design as developed by the Architect-Engineer:

3.4.2.1. Architectural:

- All floor plan sufficiently complete for exterior building dimensions and interior dimensions of all major partitions; floor elevations; all windows, openings, door and door swing; other items in keeping with this degree of completion.

- Site plans sufficiently complete for location of improvements showing the existing topography, point elevations for finish grade in the vicinity of the improvements, location of all existing utilities and clearly identifying each with its capacity, other items in keeping with this degree of completion.
- All elevations sufficiently complete to show all prominent features of the building; i.e., doors, windows, steps, roofs, projections, eaves, eaves; other items in keeping with this degree of completion.
- Sections sufficiently complete to show foundation support, foundation, exterior walls, interior floors, roof, etc.; dimensions vertically and all walls and partitions horizontally; sections to be shown are longitudinal, transverse, others of all major elements, stairs outlined; other items in keeping with this degrees of completion.
- Architect-Engineer's selection of details to be sufficiently completes in keeping with this degree of completion.
- Room finishes schedule identifying basic materials.

3.4.2.2.Structural:

- All floor plans, foundations plan and roof plan sufficiently complete for all major structural components to be dimensioned and sized; other items in keeping with this degree of completion.
- Soil boring plan and log, both complete.
- Sections sufficiently complete to show foundation support, foundation, walls, columns, beams, girders, joists, floors, roof; all typical and major atypical conditions; other items in keeping with this degree of completion.
- Schedules completed and coordinated for all typical and major atypical elements.
- Complete and coordinate computations for all typical and major atypical members.

3.4.2.3.Electrical:

- All floor plans with luminaries, convenience outlets, power outlets, and all other electronic communication, and all attendant systems that are to be provided.

- Required equipment rooms to be shown with location of major components and services; service equipment, panel-boards, motor starter centers, substations, switchboards, and transformers.
- Computerized computations for correct lighting levels; lighting levels tabulated for the various spaces; total estimated power requirements; calculations indicating selection of voltage; other items in keeping with this degree of completion.

3.4.2.4.Mechanical (HVAC):

- All floor plans showing heating and cooling equipment to scale; all other equipment previously named will be drawn to scale.
- Computerized computations for each room, area and zone, with design factors and assumptions. Provide all reference for data used.
- Other items in keeping with this degree of completion.

3.4.2.5.Plumbing:

- All floor plans showing the plumbing equipment to scale.
- Computations for determining equipment and piping sizes.
- Other items in keeping with this degree of completion.

3.4.2.6.Outline Specifications:

The Architect-Engineer shall prepare and submit outline specifications giving principal characteristics of construction materials and finishes to be used in each principal area and for each feature of construction, together with types and capacities of equipment. Specifications may be included on each drawing to which they are pertinent, or they may be prepared on letter size sheets and properly keyed for identification with areas to which they are pertinent as illustrated on the drawings.

- For all projects involving repairs, restoration, alterations or additions, and /or unless otherwise stipulated in Appendix “A”, it is the requirement that all walls, ceilings and floor finishes shall “MATCH EXISTING” with respect to color, texture, quality of material and all architectural details contained within and utilized in a space or area. This requirement shall also apply to contiguous areas and spaces when visual continuity and aesthetic consideration dictate a “MATCH OF EXISTING”.

- The requirement set forth above shall also apply to all types of fixtures, trim, sash, doors, cabinetry, and hardware, unless it shall no longer be manufactured or meet code requirements. In this event, it shall be incumbent upon the Architect-Engineer to specify alternate solutions.
- Historic facilities listed in the Federal and/or District Register are subject to the constraints of Public Law as pertains to HISTORIC PRESERVATION. Project in this category will receive special consideration and are subject to special reviews and approval by Agencies and Commissions established for this purpose. A-E consultant is required to obtain their approval.
- Reference is made to sections 3.5F “ Construction Documents Phase IV” and 3.5.G “Compliance Submission Phase V”. The Architect-Engineer, in preparing these documents, shall make sure that the intent and specific features and requirements of “Approved Outline Specifications” are properly and fully translated into these documents. No significant deviation will be permitted unless prior approval has been granted by the OPM.
- Responsibility of the Architect-Engineer is stipulated in ARTICLE I of the Contract and in Section 5 of the GENERAL PROVISIONS. A-E’s are cautioned that notwithstanding their receipt of documents from the Government such as “Original Bid Documents”, “As-Built”, etc., the Architect-Engineer will be held fully responsible to make comprehensive onsite investigation to confirm and /or determine actual EXISTING CONDITIONS in every significant detail. The importance of this effort cannot be overemphasized where the design objective is to “MATCH THE EXISTING” and avoid conflict of new work with the existing

3.4.2.7. Construction Cost Estimate:

The estimating procedure will be in accordance with CSI standards. In preparing the estimate at this stage, it is recognized that many items will not have been ascertained to a point where a quantity survey is possible. Nevertheless, a number of the general construction features will have been selected which will permit an itemization of basic quantities under the major branches of work, such as: general excavation, concrete, masonry, etc. In those instances where insufficient information has been developed to determine specific quantities, systems, fixtures, or equipment, an appropriate allowance may be indicated. For each allowance, an explanation of its development shall be included. This preliminary estimate shall show separately the cost of each new building or addition,

the work in existing buildings, and costs of all work outside the buildings. The estimate shall be broken down to show the cost analyses or allowances (noted as such) based on these units. As example: building construction cost shall be shown separately from mechanical and equipment costs, and these in turn shall be separated into the various trades and types in the summary sheets to the degree practical at this stage of development. Similarly, outside work shall show components of grading, roads and sidewalks, landscaping, sanitary and electrical services, etc. (Government form furnished). Computer software such as “Means” or other approved software shall be used in developing construction cost estimates. Appropriate adjustments shall be made for location of the project, labor rates, complexity of the project, degree of difficulty, local conditions, regulatory requirements etc.

3.4.3. Reviews:

Architect-Engineer shall deliver this submittal to the COTR. A-E shall also deliver a certificate stating that he has incorporated all the review comments as agreed for the Concept Phase submittal and Design consultation meeting. He shall submit the number of copies as required under submittal requirements. COTR shall require District’s review staff and the User to complete the review and submit their review comments in the prescribed format within the time stated. COTR shall transmit the review comments to the A-E for incorporation in his next submittal. If the submittal is rejected, the COTR shall send the rejection notice stating the reasons for rejection. A-E shall resubmit it by incorporating the comments. If the A-E disagrees with the rejection and or comments he shall request within three calendar days for a meeting with the COTR to discuss the rejection and or comments. A-E shall write the minutes of this meeting and submit it to the COTR within three calendar days of the meeting. Also he shall immediately comply with the comments agreed in the meeting and resubmit his design documents if the submittal was rejected or if it was not rejected, incorporate the agreed comment in the next submittal. If the Schematics and Concept submittals were rejected prior to their final approval no payment will be made for this phase until the submittal for this phase is approved.

3.5. CONSTRUCTION DOCUMENTS (100%) : (IV)

3.5.1. Definition:

- This review shall be at the completion of the construction documents and known as Construction Documents Phase. Included for this review shall be complete plans, specifications, final construction cost estimate, and final detail computations. This submission requires that the plans be complete and ready for issue to bidders.

- The plans may be done on either linen or Mylar. Approval must be obtained from the Government prior to the selection of the type of reproducible sheets. Size 29" x 41" trim line unless stipulated otherwise in Appendix "A", inside border 1 ½ " on binding edge, ½" on other edges. Optimum readability is a requirement at full size reproduction. A graphic scale shall be shown on each drawing for each scale used. The quality and spacing of lines on the drawings must be carefully controlled. Clear space between parallel lines should always be of greater width than the adjoining lines. All lettering shall be vertical capitals with an open quality and shall be not less than 1/8" high. Material symbols must be bold and not dense. Do not use any kind of half tone or opaque shading or patch except solid black on the face of the drawings where applicable for small or thin sections. Drawings shall be of the best quality for possible scanning reproduction. The format and wording of the title block to be used on the drawings shall be approved by the Office of Property Management before proceeding with printing reproducible sheets.
- Drawings shall be complete and prepared using computer software "AutoCAD R-14" or later version, unless stipulated otherwise in Appendix "A".
- Specifications shall be prepared using MasterSpec (Latest Version) as guide. The Office of Property Management (OPM) may review and note the comments with changes prior to its return to the Architect-Engineer for final submission prior to printing for issuance to the bidders.

3.5.2. Subject Matter:

General:

The work accomplished for the review shall be 100% complete.

3.5.2.1.Existing Conditions

Plan showing locations of previously demolished structures, structures to be demolished by others and any other changes that are expected to occur on the site between the time the topo survey is made and the time the site is released to the contractor for his construction operations. Information shown on this drawing shall include, but not necessarily be limited to, the following: (i) outline of proposed structures; (ii) locations of demolished structures and rubble fills in basements, areaways, vaults, etc.; (iii) locations of all structures, wall, walks, curbs, trees, paved areas, etc., remaining on the site;

(iv) a complete scope and clear definition of all site work to be performed by the contractor related to existing conditions that involve demolition and removal of existing structures, retaining walls, areaways, vaults, walks, footings, basement slabs, paving, etc., removal of rubble and other fills, removal of trees, etc., Existing conditions plan shall show relationship of existing conditions to new construction in both horizontal and vertical planes of reference.

3.5.2.2. Site Plan

This shall be at a scale not less than 1"= 20' – 0" showing and/or including location and dimensions of (i) proposed building(s); (ii) existing proposed sidewalks, street, exterior utilities, property lines, paved areas, play areas, service and parking areas; (iii) existing streets or alleys to be closed; (iv) total square feet; and (v) extent of contract lines. (vi) Building identification number (to be furnished by the University) includes street address, lot and square numbers (for all projects).

3.5.2.3.Sub-soil information drawing

This drawing shall be included and should provide complete information regarding the investigation performed for this work.

3.5.2.4.Landscape Drawing:

This drawing shall be at a scale not less than 1" = 20'- 0", identifying plant material and location of it and including a list of materials.

3.5.2.5.Architectural: (min. scale 1/8"=1'-0")

- Floor plans – dimensioned, completely referenced, partitions and fixed equipment located, doors and windows, egress location and identification of sections, details, and other pertinent data.
- Reflected ceiling plans – structural members both heads, horizontal and vertical, luminaries, HVAC registers, sprinkler heads, electronic devices, all other exposed items, and ceiling material layout. Wherever, in the ceiling space, ducts, conduits, beams, etc. indicate possible acute congestion, a vertical section shall be included establishing adequate clearances.
- Elevators – fully completed indicating materials, fenestration, finish grade, etc.

- Sections – identification, longitudinal and transverse sections, all wall sections, stair sections, vertical transportation sections, and all other sections, as needed.
- Details – door and window, all other as needed.
- Schedule – completed.
- All other – fully complete in keeping with the spirit and intent of the plans.
- Marked-up plans, computations, notes and a copy of the OPM review comments (with annotated action taken by A/E) from the previous submission.

3.5.2.6.Civil:

- Plans – existing, removal, finish, all complete. Particularly the location and identification of all utility lines both existing and new. This information will be shown on the site plans.
- A copy of the University’s review comments on the previous submission.

3.5.2.7.Structural:

- Floor Plans, foundation plan, roof plan – dimensioned all structural members and/or system(s), location and identification of section(s) and details, and other pertinent data.
- Sections – identification, longitudinal and transverse sections, wall sections, stair sections foundation and foundation support sections, and all other major sections.
- Details – all details as needed.
- Schedules – completed.
- Computerized Analysis – all computations including corrections necessitated at original submission review and changes made as the work progressed, as well as located on computer disk(s) with label(s) to show project No., project title and date.
- Review comments (with annotated action taken by A/E) on the previous submission.

- All other: completed as needed.

3.5.2.8.Electrical:

- Floor plans, ceiling and roof plans – locations of luminaries, switches, wiring panels, switch gear and electrical room, service entrance, transformers, etc. All systems shall be shown, fully complete.
- Riser diagrams – all systems.
- Schedules – panels, fixtures, switchboard, etc.
- Computerized Analysis– complete lighting and final power load calculations including PEPCO information regarding available short circuit current and maximum permissible inrush current.
- All other – communications, security alarm, etc.
- Manufacturer’s catalogue cuts of power equipment, wiring devices and lighting fixtures.
- Marked-up plans, computations, notes and a copy of the University’s review comments (with annotated action take by A/E) from the previous submission.
- Miscellaneous utilities information from suppliers.

3.5.2.9.Mechanical HVAC:

- Floor plans, roof plan – all HVAC units, registers, louvers, controls, piping, ductwork and their sizes etc.
- Risers, control diagrams and description, all mechanical notes and details
- Capacities of boilers, chillers, fans, pipe sizes, valves, expansion tanks, and other associated equipment, accessories and data as well as schematic flow diagram (s)
- Complete computerized Analysis for each room – heat loss, heat gain, ventilation, and total building load with air supply/return and outside air.
- Fuel tanks, piping, and sizes etc.

- Equipment schedules, catalogue cuts.
- Boiler and equipment room size and layout. Room layout and vertical sections (where needed) at ¼ "scale, minimum.
- Marked-up plans, computations, notes and copy of an OPM review comments (with annotated action taken by A/E) from the previous submission.

3.5.2.10. Plumbing:

- Floor plans, roof plan with vent, equipment locations and roof drains, all fixtures, hot and cold water with distribution/ recirculation and waste piping, vents, drains, sprinkler system pumps, etc.
- All riser diagram(s) to include water, sanitary, gas, sprinkler system, projection (option).
- Schedules – completed and catalogue cuts.
- Toilet and equipment room layouts at ¼" scale, minimum.
- Computerized load analyses and sizing calculations.
- Marked-up plans, computations, notes and a copy of the University’s review comments (with annotated action taken by A/E) from the previous submission.

3.5.2.11. Specifications:

The Architect-Engineer shall prepare and submit one (1) copy of the architectural, structural, mechanical, plumbing and electrical specifications for review. Preparation of specifications shall be accomplished by using latest version of the MASTERSPEC Specifications (as a guide) in accordance with the requirements set forth below, as well as loaded on computer disk (or CD) properly labeled with Project No., Project Title and date.

- The District may furnish the Architect-Engineer a latest version of MASTERSPEC Specification to be used as a guide. However, if the A-E is required to procure the MASTERSPEC that will be included in the Appendix A. The Architect-Engineer shall modify the MASTERSPEC Specification as may be needed to meet the project requirement. Items appearing therein, which are not included in the project, shall be omitted. New paragraphs and sections shall be developed as required and shall conform to the standard format, using section numbers format of the MASTERSPEC.

- Proprietary materials and systems shall not be indicated or specified without prior written approval
- The use of trade and manufacturer's names to describe a product, material, fixture or type of construction shall be avoided. If and when it becomes necessary to make such a reference, the specifications shall state that the reference is made to establish a standard of quality and performance only, and not for the purpose of limiting competition. The A-E shall include salient features of the item or equipment specified.
- Specifications for materials, equipment and fixtures shall be written in terms of physical characteristics, chemical composition tests, performance, or any combination of these as may be applicable.
- Specify only such articles, materials, and supplies as have been manufactured in the United States substantially from articles, materials, or supplies mined, produced, or manufactured (as the case may be) in the United States. This provision shall not apply to such articles, materials, or supplies of the class or kind to be used or such articles, material, or supplies from which they are manufactured, as are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, or to such articles, materials, or supplies as may be expected by the Contracting Officer under the provisions of Title III, Section 3, of the Act approved March 3, 1933, 47 Stat. 1520 (U.S. Code, Title 41, Sec. 10b), as amended.
- One (1) copy of all manufacturers' catalogs, specifications or similar materials referred to in the specifications and/or plans shall be submitted when requested by the University.

3.5.2.12. Color Charts:

Color charts shall be submitted as follows:

- Color charts shall be prepared and submitted with Color Design Section of specifications.
- Individual boards shall be approximately 12" x 15". Display an actual sample whenever practicable of each color specified for every material used. Number of display boards will depend on site and quantity of samples.

- Miniature samples should be used if possible. Lithographs generally are not acceptable. For ceramic floor tiles, use sufficient individual tiles to show pattern.
- Paper reproductions of items such as metal partitions, steel equipment, laminated plastics, porcelain enamels, and similar facsimiles which appear to be actual finishes specified are acceptable.
- Where large and/or heavy samples (e.g. brick, cast stones, etc.) are required, it is not necessary to mount these on display boards, however, they must be properly identified with project name and number, D.C. Color Code and manufacturer's identification.

3.5.2.13. Miscellaneous:

- Elevators, escalators, dumb-waiters, pneumatic tube, waste and other transportation systems.
- Special equipment – swimming pools, food services, etc.
- Trash and disposal equipment.

3.5.2.14. Construction Cost Estimates:

The cost shall be based on an accurate detailed quantity survey of both labor and material. Any approved standard estimating procedure will be acceptable provided that the conclusions are presented in the order and detail specified in CSI format. Lump sums or allowances for major items of the estimates shall not be used. However, quantity surveys that could be used for ordering materials are desirable from a cost control viewpoint are not necessary. For example concrete formwork may be priced on the basis of square area for slabs, walls, beams, etc., rather than the actual quantity of lumber or metal formwork required. Plumbing take-off shall show the linear feet of various pipe sizes, but need not itemize fittings. Fittings may be calculated as a percentage allowance. The same procedure may be used for fittings on ductwork and electric conduit where appropriate.

Bidding Alternates are to be indicated on the Recapitulation form by adding an additional column or columns and adjusting the appropriate items.

Explanation of Terms on Recapitulation Form:

Gross Building Area: The gross square foot areas shall include all spaces (including all openings in floors) measured to the exterior surfaces of the enclosing walls for all floors, basements, balconies, mezzanines, usable attics, service and equipment rooms, penthouse(s), enclosed passages, and tunnels. The total shall include ½ the gross area for pitched roof space (not usable attic), roof enclosures, cornices, areaways, pipe spaces, crawl spaces, covered areas, such as open play areas under buildings, and all other unfinished excavated spaces.” The item 1.0 “General Expenses”: These are the costs experienced by the General Contractor, which are not covered in the other items enumerated on the Recapitulation form.

The computation copy shall be sharp and legible.

3.5.2.15. Computerized Design Analyses:

The Architect-Engineer shall prepare design analyses in reproducible form complete in such detail as to accurately reflect the development of all engineering design, and sufficient to support all design work prepared to date. Mechanical and Plumbing Design Analysis shall: (i) be complete and shall include detailed room by room heat loss and heat gain calculations; (ii) load summaries; (iii) detailed equipment selection calculations with major performance data and dimensions of all major equipment items; (iv) air balance calculations; (v) ventilation calculations; and (vi) pipe and duct sizing, diagrams, etc.

Computer Software:

Software to be used for HVAC Design Analysis shall be either Carrier Co.’s “E-20” or Trane Co.’s “Trace” program or other approved. For Plumbing Design Analysis, use Elite software or other approved. Approval must be obtained from OPM prior start of Design analyses.

3.6. COMPLIANCE (FINAL) (V):

3.6.1. Definition:

The Compliance Phase will consist of all contract documents fully completed, signed and ready to print prior to issuance for bids.

The plans shall be the originals on material as approved by Government prior to start of design, as well as accomplished by computer disk (or CD) loaded with the entire design work and with proper labels. The labels shall identify project number (s), project title and date as well as Contract number.

3.6.2. Technical Specifications:

In accordance with the approved specifications, Final Specifications shall be prepared for reproduction by Photocopy or offset process. The originals shall be printed on sheets of 8" x 10-1/2" bond paper with margin for side binding, Times New Roman font type and black imprint. All corrections must be legible and permanent; use of stick-on's, piecing, tape, or other adhesive to effect corrections will not be acceptable. The Architect-Engineer shall submit originals only, and shall retain one (1) complete reproducible set and loaded computer disk or CD as a contingency against loss of the originals. Wherever in the specification an item is designated to be installed or performed "where indicated" or "as shown on the drawings" or words of like import, it shall be the responsibility of the Architect-Engineer to check such drawings and determine if such requirement is in fact shown and/or indicated with sufficient clarity so as to preclude the possibility of disagreement to contract requirement during the actual construction of the facility as designed.

3.6.3. Design Analysis:

The Architect-Engineer shall submit (i) one (1) reproducible and (ii) two copies of all final corrected design analyses, complete in every respect and (iii) one set of computer disks (or CD) loaded with the entire Design Analysis. The disks/CD's shall be labeled as indicated for previous submission.

3.6.4. Rendering:

The Architect-Engineer shall submit one perspective rendering in color, when required by Appendix "A". Rendering shall be of professional quality and shall be furnished matted, suitably framed, protected with non-glare glass, and ready for 'hang' mounting. Additionally, the Architect-Engineer shall be guided by the following:

- (a) Preliminary Sketch Submission: A preliminary sketch of the proposed rendering shall be submitted for UDC review and approval with respect to items "b" and "c" below prior to proceeding for finalization.
- (b) Size: The rendering shall be appropriate for the scale of the building portrayed and as may otherwise be dictated by good practice and pleasing proportions. Generally, any overall dimensions (including frame) in excess of approximately 30" x 40" will not be considered necessary.
- (c) Perspective Viewpoint: It may be either eye-level or bird's-eye view taken from a point which will best show the scope and aesthetic quality of the project. At least one full principal façade must be shown. Foregrounds for purposes of relating to scale, may show persons,

landscaping, vehicles, equipment, etc., provided they do not obscure important architectural elements or otherwise invite attention away from the primary purpose of the rendering which is the delineation of the architectural quality of the building. Shade and shadows shall be used to emphasize architectural and other features as appropriate.

- (d) **Medium:** Delineators may have an option with respect to preference for working with Tempura, water colors, ink washes, conte, etc., provided the colors will reasonably approximate the texture and color of the materials to be used in the construction, and provided further, that when photographed, the reproduction will be in colors that are true to the rendering. When the reproduction is in black and white, there shall be no significant loss of either lines or tones. Collage for any purpose except lettering will not be accepted.
- (e) **Project Title And Credits:** The title of the project (not project number) will be appropriately placed on the lower portion of the matted area along with name of the Architect-Engineer of record. If the project has, or is to have, a “dedicated” name, use it for the title. The delineator may sign and date his work in a discreet manner directly on the rendering.
- (f) **Photographs:** The Architect-Engineer shall submit photographs of the rendering as follows: (i) one black and white negative, three 8”x 10” prints and one 16” x 20” print; and (ii) one color negative, three 8” x 10” prints and one 16” x 20” prints.

4. **ARCHITECT-ENGINEER’S RESPONSIBILITY:**

The aforementioned procedures are designed to enable the Architect-Engineer to proceed from Design Development Phase approval to completion of plans and specifications without interruption. It is anticipated that these procedures will be conducive to both the accuracy and efficiency. Finally, the Architect-Engineer is totally responsible for the accuracy, coordination and completeness of the drawings and specifications. The University’s reviews are only for the application of good design principles and practices.

The preparation and/or transmittal of BUDGET DRAWINGS for any project shall be at the discretion of the Contracting Officer or his/her authorized representative. Their primary intent is for internal use by the University for project definition and budgetary purposes. BUDGET DRAWINGS furnished to the Architect-Engineer are intended to be used for general information purposes only. The University makes no warranty, expressed or implied, with respect to their completeness, accuracy, or consistency with Appendix “A”, or compliance with Federal and District of Columbia Laws and Regulations. The negotiated and mutually agreed fee for professional services is for the Architect-Engineers to strive for excellence in design through his own freedom of expression and expertise. Architect-Engineer are cautioned that when at their OPTION,

the creation of a complex design results in greater design costs, same shall not be the reason or justification for any increase in fee.

5. PROJECT MANAGER:

Project Manager (PM) serves as the liaison between the Architect-Engineer, the University, and other participating agencies and as the Contracting Officer's Technical representative (COTR), is the official representative of the Contracting Officer on the project. It is essential and required that all information, both to and from the Architect-Engineer, be through the PM. The Project Manager is the focal point of all activities regarding the assigned project(s) and serves as coordinator between the A-E and the University.

6. SMALL SCALE DRAWINGS:

The Architect-Engineer shall provide small-scale drawings of floor plans for the new additions and existing buildings and the site along with the final submission of the contract drawings. Drawings shall be 1" - 30' scale. Minimum sheet size is 11" x 17". Site plans shall be drawn at a scale of 1"- 50'. Record square foot area on each floor plan as well as the square feet area on the site plan. Submit the originals reproducible and one (1) set of prints.

7. PAYMENTS:

The Contract between the Architect-Engineer and the University of the District of Columbia permits payments during the contract life based on the approved quantity of work accomplished, at each specified submission phase.

- (1) Architect-Engineer's requests for partial payments will be processed for payment only when Contracting accompanied by a "Monthly Progress Report" (see item 3.3.D (2)). Request for payment for Title II services are excluded.
- (2) Partial Payments will be made upon request of, and for the percentage of completed work certified by the Architect-Engineer and as computed and approved by OPM. In no case shall payments be made that will exceed the specific reference points or "milestones" shown on the Architect-Engineer's submission phase. In no event will requests for partial payments be accepted more frequently than once each month, nor for amounts on excess of value of work completed and determined technically acceptable to the University.
- (3) All requests for payments shall conform to the standard format (see Chart IV). "Less Previous Payments" must reflect the cumulative total of all prior payments actually received.
- (4) The 10% withholding or retainage of fee will prevail throughout the life of the contract pending completion and acceptance of all work.

- (5) Payment for change order work will be made only after the Change Order is executed by the Contracting Officer.
- (6) Payments are made by check and will be mailed to the address provided in the contract.
- (7) A request for payment of 100% (less 10%) will be made only after the University approves final compliance documents. Upon determination that no further work shall be required of the Architect-Engineer, a 'Notice of Acceptance' shall be issued by the University and a Final Payment of all residual amounts due, shall automatically be paid.

8. TIME EXTENSION

The request for a time extension shall be submitted on a monthly basis. This is essential for the COTR to review the request during the period when circumstances are clear to both the A-E and the University. All time extension requests shall be current. If the request for time extension is approved, the Contracting Officer will issue a change order to extend the time for completion. If no action is taken by the Contracting Officer, by the time the next report is due, the Architect-Engineer shall include his request once again and also include any new requests for time extension until the time extension is granted or denied. If the time extension is denied he may appeal the decision by providing additional information if he finds it to be necessary.

9. MINUTES MEETING:

The Architect-Engineer shall be responsible for acting as recorder at all meetings, which he attends. Examples are The University Community, the Board of Trustees, Fine Arts Commission, National Capital Planning Commission, and Government Agencies. 'Memorandum for Record' of such meetings shall be typewritten and furnished to the University for review and approval, and such distribution as may be required, within five (5) calendar days from the date of the meeting.

10. CERTIFICATION OF DRAWINGS:

The Architect-Engineer shall certify that the drawings were prepared under his supervision and that he acknowledges responsibility for their correctness by placing professional license stamp and signing the tracings at the completion of the Compliance Phase (V) and again by stamping and signing those prints that will be submitted to the Department of Consumer and Regulatory Affairs, Permit Processing Center for a building permit.

11. BUILDING PERMITS:

The Architect-Engineer shall be responsible for obtaining any such building permits and clearance as may be required for the construction of the Project (s). Public Law and D.C. Regulations require permits and clearances. For example, if the project is located in a historic area or is a property listed on the register of historic places, clearances to proceed must be provided by either the Joint Committee on Landmarks or the Commission of Fine Arts. The conduct of preliminary reviews at the conceptual design stage in conjunction with the Permit Center is encouraged and recommended particularly, when complex or high cost projects are involved. Step 1 in the procedure for review and permit issuance is to initially contact the Permit Information Counter (the location and telephone number can be obtained from the Project Manager).

The Architect-Engineer shall submit five (5) sets of drawings to the Permit Processing Center. The Center will retain one (1) set for their permanent file. The remaining four (4) sets of Approved Drawings and the Permit will be given to the Architect-Engineer who in turn will deliver the same to the University Project Manager.

The Architect-Engineer, for no additional fee, shall be responsible to make any and all changes and/or corrections as may be required by the Department of Consumer and Regulatory Affairs; compliance being a mandatory requirement prior to the issuance of a Permit.

Architect-Engineer compensation for performing these services shall be included as a part of the Title I portion of the fee. The actual Permit fee is not included in the Title I service. The University will pay the permit fee. If requested the A-E shall pay the permit fee and submit his request for payment for the actual amount of the permit fee by enclosing a copy of the paid receipt.

Final payment will not be approved and work required under Title I services will not be considered complete until the construction building permit is approved by all the required agencies and is permit ready for pick up either by the A-E or by the Contracting Officer or until the A-E satisfactorily completes all the requirements related to procuring the permit.