

General Project Requirements

C1.1. General

- a. Facilities Management and Construction is responsible for the planning, design, construction and/or renovation of all facilities at the University. These standards and procedures have been developed in support of successful project delivery on ODU's campuses.
- b. The ODU Project Manager will hold a pre-kick off management meeting with the Architectural and Engineering project managers to review the project specific management plan and the Design Standards. Refer to **APPENDIX A – PROJECT MANAGEMENT TEAM KICK OFF AGENDA** for a discussion guide.

C1.2. Design Standards Compliance

- The University Architect oversees and maintains the Old Dominion University Design Standards. The Design Standards have been established to communicate the base building and process requirements for new construction and/or renovations on all campuses of the university. While all projects shall adhere to its content, it is not the intent of these standards to be restrictive and as such it is our expectation that the A/E participating in the development of a project from programming through occupancy submit **APPENDIX B – DESIGN STANDARDS VARIANCE REQUEST FORMS** when a project specific modification (physical, not process) to the standards is necessary. The form must be completed and submitted to the University Project Manager who will review the request with the Director, Operations and Maintenance and the University Architect within two weeks of submission at which point the A/E will be notified of any delay in review or request for additional information, prior to the conclusion of those initial two weeks. It is preferable that the A/E submit variances in groups prior to a design phase submissions for efficiency. It is the responsibility of the ODU Project Manager to inform the Planning Committee and Stakeholders of any approved variances. In this way there is clear communication between the A/E, Contractor and the University regarding project details.

NOTE: If the A/E deviates from the Design Standards without prior written approval, the variance will be considered an error and a claim may be processed against the A/E's professional liability insurance for reimbursement of the cost to meet the Design Standards. If the Contractor is responsible for design / building certain (or all) aspects of the project, and varies from the Design Standards without prior written approval, the Contractor's variance will be considered an error and a claim may be processed against the Contractor's insurance. If the Contractor makes a change or substitution during the shop drawing and submittal process that is a variance from the Standards, it is the burden of the Contractor, not the A/E, to seek a variance approval. Inclusion of a Design Standards variance in either drawings or specifications during any design phase submittal reviews or construction shop drawing and submittal reviews, is not considered a Standards Variance approval. It is the A/E and / or Contractor's burden to point out variances to the ODU Project Manager and to specifically request written variance approval prior to incorporating in the Project. The University is not responsible for identifying any deviations from the Design Standards.

C1.3. Project Team

- The composition of the project team will vary depending on the size and complexity of the project. At project inception, the ODU Project Manager, working with the end user, will identify who should be involved in the design and execution of the project and who within the planning committee are the key

decision makers. The composition of these groups will be communicated to all members of the project team and may be composed of, but not limited to the following:

- i. ODU has a project director base file formatted and prefilled for use on each project. The A/E shall ask the ODU Project Manager for the directory and will fill in the A/E team contacts. The Directory is set up to be used as a meeting attendance check in.
- ii. Executive Committee: Senior University Leadership and final decision maker(s) for the specific project, such as a Dean, Chair or Department, VP as well as the VP for Administration and Finance. The Executive Committee shall provide direction when the planning committee is at an impasse. The A/E shall provide concise design, budget and schedule updates as determined by the ODU project Manager. While all Capital Projects shall have an executive committee, Non-Capital projects shall be determined on a case by case basis by the Director, Engineering & Non-Capital Construction. Executive Committee meeting agenda shall be formulated to not exceed one hour of meeting time.
- iii. Planning Committee: Project users, as identified by the Department head or University Leadership, who will act as the working group engaged in and responding to A/E's design direction. The Planning Committee shall include the following individuals at a minimum:
 - a. Chairs or designated representative as identified by the Dean of the College or VP of the Department associated with the project
 - b. ODU Project Manager
 - c. University Architect
 - d. Assistant Director of Classroom & Learning Space Technologies.
 - e. Public Safety Physical Security Specialist
 - f. University Space Manager (through all programming discussions)
 - g. Risk Management (Fire Safety Manager)
 - h. Information Technology Services
- iv. Management Team: Focused on logistics, process and management and the successful execution of a project from inception to occupancy. The Management Team will include the ODU Project Manager, Director Capital Construction and Design or Director Engineering and Non-Capital Construction as appropriate, Architect/Engineering Design Team (A/E), Construction Manager at Risk (CMaR) and/or the General Contractor.
- v. University Stakeholders: Representatives of Facilities Management, ITS, Public Safety, Risk Management, Parking and Transportation, end users (as determined by the department head) and others identified specific to the project, who will be engaged in the design process and design review. Meaningfully engaging these stakeholders early in the project, as appropriate, is key to building project consensus and project success limiting changes after the design is well developed and in construction.
 1. Below is a list of University stakeholders (in addition to those noted as part of the committees above) and at what phase they should begin engaging in design discussions:
 - Programming
 - Facilities Management - Housekeeping
 - Environmental Health and Safety Officer
 - Auxiliary Services – as appropriate to the project
 - Student Engagement and Enrollment Services – as appropriate to the project.

Early Site Planning

Director of Transportation & Parking
Facilities Management - Grounds Manager
Risk Management (Fire Safety Manager)
Physical Security Specialist

Schematic Design through Working Drawings

Facilities Management (Structural, Locksmith Shop, MEP Shop, Housekeeping, Grounds,
Moving & Hauling)
Procurement Officer
Project Inspector (PRELIM and Working Drawing Review)
Risk Management (Fire Safety Manager)
Physical Security Specialist

- University Space Manager:
 - i. For Non-Capital Projects, the ODU Project Manager shall confirm with the University Space Manager that the appropriate review and approval has been obtained for the project.
 - ii. For Capital Projects, the University Space Manager shall be included in all initial program discussions to facilitate how the new program will interact with the overall campus space utilization and SCHEV reporting.
- Specialty Consultants
 - i. Depending on the nature and complexity of a project, the A/E should consider, when appropriate, additional consultants to their team to assist with the design and execution of the project. Potential consultants might include, but are not limited to, the following:
 1. Landscape Architect
 2. Acoustical Consultant
 3. Fire Safety - engineering judgements on construction as needed by DEB. Refer to **DEB NEWSLETTER FOR JANUARY 2018** with regards to the use of engineering judgements.
 4. Lab Planner
 5. Food Service
 6. Sports Planners
 7. Student Engagement
 8. Lighting Designer
 9. Environmental Graphic Design Currently the University has a term contract with a turnkey Environmental Graphic Design firm. The ODU Project Manager shall determine when engaging this firm is appropriate and within the budget constraints of the project.
 - ii. Specialty consultants may be contracted directly by the university and/or have their contract assigned to the A/E or the A/E may be responsible for securing the consultant as a direct member of their team.
 - iii. Envelope Consultant – it is desirable for projects to engage an expert on total envelope design to review the A/E approach to vapor and air barriers, insulation and water infiltration. This consultant can be provided by either the A/E as part of the design team, or as part of the CMAr's constructability team on both new construction and exterior renovations, when appropriate

- iv. Audio Visual & Technology – The University has its own internal design team that handles all audio visual design and technology design through implementation working directly with the A/E. The A/E shall document the infrastructure required to support the AV design as part of their basic services.

C1.4. Project Vision | Goals | Expectations

- For Capital projects, and others as appropriate, prior to the start of Design the A/E will meet with the Executive Committee for a university leadership project kick off to listen to any university leadership project specific goals or requirements.; this is a separate discussion which should be followed by a Planning Committee design kick off meeting at which the A/E will facilitate a visioning session. The visioning session will look at what are considered key success factors for the project by the Users, Administration, and Facilities Management & Construction. Project Goals will be identified and all Planning Committee members will have an opportunity to indicate what their expectations are of the A/E and/or the University.
- A one page Project Vision Statement and bulleted project goals, should be documented by the A/E and confirmed by the Planning Committee. The vision should include comments on both the exterior and interior aesthetics. This will be used as a litmus test for decisions moving forward. The Project Vision statement can include diagrams, photo examples or other items that best communicate the vision for the project.

C1.5. Communications

- Old Dominion University’s designated Project Manager is the central point of contact for the project. All communication between the A/E and the University shall be routed through the Project Manager. Clear, concise, consistent and timely communication is key to the success of any project. Larger more complicated projects rely on established communication protocols which should be adhered to at all times. The ODU Project Manager along with the Management Team shall establish mutually acceptable lines and methods of communication at the project kick off. The ODU Project Manager will be copied on all correspondence and will maintain the university’s project files. The A/E will coordinate closely with the ODU Project Manager for scheduling University personnel throughout the design phases of the project. Since email has become the most utilized form of communication, we request that the A/E coordinate with the ODU Project Manager to establish the short hand name of the project which will then be used in the subject line of all emails associated with that project. For example SU is short hand for Student Union. This allows for the quick search for associated emails by all parties. Informative email subject lines improve communication (i.e. SU – Budget Update).
- Agendas and Draft Presentations
 - i. Agendas for all design phase meetings are to be submitted to ODU’s Project Manager at least one week prior to any meeting for confirmation. While we understand A/E’s work right up until the last moment preparing for meetings, a draft version of the material to be presented/discussed, should be issued to ODU’s Project Manager at least 24 hours prior to the scheduled meeting, who will distribute the materials to the project team.

Project Vision, Budget/GSF and Schedule are the key drivers for each project.

Each meeting shall start with a brief update on these three factors.

- Project Directory

- i. The A/E working with the ODU Project Manager will flush out **APPENDIX ? – PROJECT DIRECTORY** Template for each project which will be used as the meeting sign-in sheet. It is the A/E's responsibility to keep the project directory updated.
- Meeting Minutes
 - i. At the project kick-off the A/E shall propose a meeting schedule including presentations and reviews. The university understands that the initial meeting schedule will not cover all topics that may come up during the process, but having the majority of the meetings loaded into personal calendars will ease the number of conflicts.
 - ii. Complete meeting minutes include the Sign-in Sheet, Meeting Notes, **copy of presentation materials**. Meeting Minutes shall be in Adobe PDF format.
 - iii. ODU's Project Manager shall post and/or distribute all meeting minutes to planning committee members, stakeholders and management team.

If the project uses a CMaR delivery method then the A/E shall be responsible for producing meeting minutes from the Kick off meeting through the completion of Design, at which point the CMaR will be responsible for meeting minutes.

If the project uses a design bid build delivery method, then the A/E shall be responsible for producing meeting minutes for the duration of the project from Design through construction and closeout.

C1.6. Design Schedule

- The A/E shall provide a total project schedule during the Schematic Design Phase. This initial schedule shall be the baseline schedule for the project and shall contain sufficient detail to allow tracking the schedule throughout the project and shall include **specific dates** for the following (at a minimum):
 - i. Kick-Off Meeting
 - ii. Design Meetings
 - iii. AARB Submissions, when required
 - iv. DEB Design Phase Submissions
 - v. DEB Review Durations
- The ODU Project Manager shall provide the design schedule to the ITS department, who shall be considered a consultant to the project team and included in A/E communications as appropriate. Specifically it is important that any design schedule updates or shifts be communicated to ITS as soon as possible for their planning purposes.
- The Design schedule shall be updated at each submittal phase, at a minimum and provided to the ODU project manager.

C1.7. Project Scope and Budget

- Because the Planning Committee is composed of people who may not be aware of the impact their direction can have on project scope, budget and schedule, **it is the A/E and Contractor's responsibility to clearly articulate the impact of design direction on the project in a timely fashion.**

"Do not show us what we can't afford," is a statement often repeated on campuses across the country, but which is worthy of repeating here. At the same time the design must always reflect the identity of the Old Dominion University within the project specific budget.

- “Don’t render what you cannot build” – Renderings are what people remember and get attached to, so during the design process renderings are very helpful to convey ideas, just be sure that if you show a design element or idea in a rendering that it can logistically be built within the budget. The A/E is responsible to meet the design not to exceed contract number. If the A/E feels the number does not align with the program and general description of the project, it is their responsibility to raise any concerns prior to signing the contract.

C1.8. Programming and Room Data Sheets

- a. On larger projects, as determined by the request for proposal scope of work a Program Summary shall be provided by the A/E. The A/E shall include a program summary and room data and/or room diagrams with the Schematic Design submittal. These sheets shall be tied to the program summary using a space identifier, which could relate to the FICM codes used by the university and the state as noted in **APPENDIX AE- FICM CODES**. . Only one room data sheet is required for each type of space, as long as the detail is clear. It is especially important to document any special needs for each space. The Room Data sheets are to be reviewed by the end users for approval and signoff.

C1.9. Site Survey and Geotech Report

- a. ODU’s 3rd party contractor to mark irrigation systems and fiber on the site
- b. The A/E’s consultant shall include the irrigation and fiber optic systems on the site survey drawings.
- c. The A/E’s consultant is responsible for back checking that the irrigation and fiber optic systems were located on the drawings accurately
- d. Site survey shall include any existing abandoned utilities
- e. ODU shall provide all available existing site documents associated with the project site AND all adjacent properties to the A/E’s consultant for review and consideration when developing their site survey scope.
- f. The A/E’s consultant shall indicate if an underground tank survey is warranted.

C1.10. Cost Estimate Contingencies

- Per the CPSM and as reiterated in the **DEB NEWSLETTER OF FEBRUARY 2017**, a design contingency of a maximum of 10% shall be carried in the schematic estimate and a design contingency of a maximum of 5% shall be carried in the Preliminary estimate. In both schematic and preliminary estimates a construction contingency shall be carried at no more that 3% in the estimates and shall be reduced to 2% at Working Drawings / GMP.
- The A/E may request a reduction in the design contingency percentage stated above at both schematic and preliminary estimates, if the project type or level of development warrants. This in no way alleviates the A/E from meeting the design not to exceed budget number at each phase cost estimate.
- Cost Estimate Escalation
 - i. Escalation shall be carried to the establishment of the GMP for CM at Risk Projects. Escalation shall not be calculated on fixed fee percentages.
 - ii. Escalation shall be carried to the midpoint of construction for traditional bid projects.

C1.11. Life Safety Drawings

- All projects shall follow the requirements of **CPSM SECTION 5.8.6.9.1** as it relates to fire protection and fire safety systems. It is vital to have this design information clearly identified for all projects for reference years after the building is constructed when renovations are necessary. Included in the life safety drawings, for both capital and non-capital projects, shall be a site plan indicating fire truck access and any required building clearance distances used in calculations to determine allowable floor areas.

Show any assumed (by the A/E for the purposes of building separation of buildings on the same lot) property lines between new and existing buildings.

- Life Safety Drawings shall be numbered using LS instead of FP to avoid confusion with fire protection (sprinkler) drawings.

C1.12. Value Management

- While our desire is to have a smooth process where the design developed and presented to the University is on budget, we understand the reality is sometimes not so clear. In order to keep a project on budget, there will be times, typically at each submittal's cost estimate review, where changes are required in the design in order to bring the cost in alignment with the "Design Not To Exceed" budget. During these discussions, **the University expects the A/E and in some cases the Contractor, to provide a comprehensive list of options for reducing costs**. The A/E and Contractor should indicate the pros or cons for each item, any impact to sustainability goals, any impact to the project's schedule or whether the change would put the project out of compliance with these Design Standards. University Leadership will review the list at each design phase and will ultimately determine what items are to be reduced, cut or modified in order to bring the design in line with the budget. The A/E will utilize **APPENDIX F – PROJECT VE FORMAT** to track all value management suggestions. (Request the excel version from the ODU project manager). This VE process works in conjunction with the CPSM's Value Engineering Requirements and in no way intends to supersede those.
- The ODU Project Manager is responsible for communicating the VM List to the project stakeholders for their input and to communicate the accepted VE items to the stakeholders as each design phase of the project.

C1.13. Design Review Process

- Prior to the submission of the design to AARB (Art and Architectural Review Board), the Executive Committee shall review and approve all building designs on campus. The University Architect, Project Users and Senior Administration reviews projects, offers constructive advice, and ultimately recommends to the Executive Committee and other University Leadership that the project be constructed. Typically, as schedule allows, project designs will be presented to the Board of Visitors, by the University Architect, for review and comment, prior to submission to AARB.
- **Any** change to the exterior of a campus building requires AARB approval.
- Design Phase Approvals
 - i. It is the intent of the university to improve the review process with the state, decreasing the number of comments and time required by the reviewing agency. At each design phase of a project, the university will review the design phase submittal, provide written review comments to the A/E who will provide written responses to each comment and return the completed list to the university project manager using **APPENDIX E – SUBMITTAL REVIEW SHEET**.
 - ii. To facilitate the University review process, an "On-Board" review session can be held at the University for each Phase Submittal. Comments received during the on board review are to be recorded by the ODU Project Manager and the A/E Project Manager compiling a complete comment list. These comments and their responses will be distributed to the entire review team for acceptance.

- iii. Old Dominion University's design review and comment process does not limit the liability of the A/E for quality control and quality assurance for the project, nor does it relieve the A/E from adherence to all applicable building codes and regulatory requirements.
- iv. The A/E will provide ODU with the BIM models as part of each submittal phase review. These models will only be used as part of the review process, for visualization of systems coordination, by the University Architect and will not be distributed outside of Facilities Management and Construction. The A/E can request ODU sign a digital agreement prior to using BIM files.

C1.14. DEB Submittal Reviews (Department of Engineering & Buildings)

- On all DEB reviewed Projects the University encourages the A/E to work closely with our designated reviewer at DEB to ensure clear communication on design and code issues. The A/E is responsible for confirming that their responses to DEB comments are acceptable before proceeding with the next design phase. If an A/E response to a DEB review comment is repeated in a subsequent submittal review, then the resolution of that comment is the responsibility of the A/E at their own expense. Significant errors that require a design change impacting structural systems and which push the project over budget and/or behind schedule, requiring further revision to bring the project budget back in alignment, will be the responsibility of the A/E at no additional cost to the University.

C1.15. Building Permit

- Projects on campus fall into three categories with the following identified as the AHJ:
 - i. DEB
 - ii. The City of Norfolk Building Inspectors (Real Estate Foundation Projects only)
 - iii. AVP Facilities Management & Construction
- Refer to **CPSM APPENDIX P – BUILDING PERMIT POLICY FOR CONSTRUCTION OF STATE OWNED BUILDINGS & STRUCTURES** to determine if a Non-Capital Project requires DEB review. The A/E in conjunction with the University will complete **APPENDIX H – ANNUAL PERMIT WORKSHEET** and file the completed worksheet with the project files, once the worksheet is accepted by the Director of Engineering and Non Capital Construction.

C1.16. Building Information Modeling (BIM)

- a. The university is a proponent of the use of BIM software for the development of building design documents. Currently the university uses both AutoCAD and Revit platforms. It is our desire that all projects utilize BIM software for the development of documents including all disciplines except civil and landscape, although the specific platform used by the A/E is up to the them
- b. The A/E will share their project specific BIM Execution Plan with the University to assist in use of the BIM models. For ODU, who works with a number of A/E's, understanding how each project is structured in the BIM model will assist in navigating in the project browser each model.
- c. ODU will cooperate in digital agreements with the A/E for the use of the BIM models.

C1.17. File Naming

- As a university, we manage multiple projects at one time as well as actively manage the maintenance and space utilization of a large network of buildings. As such tracking, organizing and storing information is one that requires consistency. The University will endeavor to rename files received from the A/E and contractors to match our system as follows (example):

YYYY MMDD_MM Kick Off – The first part of the file is the date of the document followed by all caps letters referencing the type of information in the file, in this case Meeting Minutes, then followed by short description in lower case of the content. The benefits are that when filed, the information is sorted chronologically across multiple years, the consistent use of a file type identifier makes it easy to search

NOTE: THE LENGTH OF A FILE NAME SHOULD BE CONSIDERED AT ALL TIMES. FILE NAMES THAT ARE EXCESSIVLY LONG CANNOT BE ARCHIVED.

for a type of document, followed by a more specific description or event identifier. Since data is stored by project, the name of the project need not be in the file name, unless desired by the ODU Project Manager or as desired by the A/E for their own reference. If the project short name is used in the file name, it should be consistently located in all file names. The Project Identification Code noted below is not required in the file name, nor is it beneficial to have the A/E's project number in the file name.

C1.18. Document Labeling

- **ALL correspondence and documentation shall include the project identification code number and date on the document.** All documents shall have a date on each page and will identify the submittal associated. Design Narratives should have the Project Name, Submittal Name and Project Identification numbers on each page along with a page number and date. Proofing submittals prior to submission to DEB and/or ODU is an expectation by the owner for quality control and a reduction in comments from both entities.

All drawings submittal cover sheets should be clearly identified having, as part of the cover sheet title, the submittal name, i.e. PRELIMINARIES, 2nd WORKING DRAWINGS, PERMIT, etc., and the date in large letters.

C1.19. Drawing Submissions

- It is the preference of Facilities Management & Construction to have a consistent sequence of drawings between projects by different firms. Recognizing that we use the drawings for reference for years to come, having consistency moving forward will be highly beneficial.
- Below is the file structure we have set in place for the University's digital library and represents the sequence that we expect for all drawing sets:

- 01 General (Includes Cover sheet)
- 02 Life Safety
- 03 Civil
- 04 Landscape
- 05 Structural
- 06 Architectural
- 07 Plumbing
- 08 Mechanical
- 09 Electrical
- 10 Fire Alarm
- 11 Fire Protection
- 12 AV

- 13 Data
- 14 Food Service
- 15 Laboratory
- 16 Specialty Consultant

PDF submittals should be separated into sheets grouped as noted above. As many people review different aspects of the drawings, not everyone has a high end computer and larger files are not always readable.

- Exterior / Roof Detail Drawing Scale: Due to the high level of importance on the building envelop, in its entirety, the A/E shall draw details at a minimum scale of 3" = 1'-0" but a 6" = 1'-0" scale is preferred to clearly see the extent of the water, air, vapor and thermal systems barriers.

C1.20. Specifications

- Headers shall include the current date of the section issued. For example if the section was issued and then revised and reissued, the section should have two dates in the upper right corner.
- The header shall indicate, as a minimum, the following:

Project Name	Issued 12/12/2016
OLD DOMINION UNIVERSITY	ADD 01 1/10/2017
Campus Location; i.e. Norfolk, Virginia	
Project Code:	

- Specifications shall be developed selecting three specific products. DEB does not accept a basis of design plus two manufacturers. Alternately a basis of design and a performance specification can be used, being careful that the performance specification does not then exclude the basis of design.
- The CPSM does not allow the specifications to require a specific number of years of experience or time in business as a basis of award.
- The A/E shall include a list of submittals as part of the specifications.
- Sole Source Specifications:
 - i. The following systems have received approval from the Director, Division of Engineering & Buildings to use in a sole source specification. ODU can provide the relevant CO-18 form when requested. Refer to **CPSM 5.3.9.3 SOLE SOURCE SPECIFICATIONS** for further information with regards to procuring designated sole source items.
 - Fire Alarm – Simplex Grinnell
 - Building Automation System – Siemens
 - Electronic Locks/ Building Access – Stanleyworks BEST Access
 - Locks – Stanleyworks BEST Locking Systems
- Hardware
 - i. All projects utilizing an A/E, whether through the RFP process or through a term contracts, shall provide a door hardware schedule as part of their scope of services. The hardware standards are identified in Division 08 – Openings of these standards.
 - ii. Door Hardware schedules and coordination with door access requirements requires careful review and coordination with ODU's ITS group. **Prior to issuing the documents for bidding or development of a GMP, a separate door hardware/security access coordination meeting will be held with the A/E and ODU ITS.**

C1.21. Materials Samples

- a. Specifications: The A/E shall convey, through the contract documents, that submittals involving finishes will only be approved by ODU when all exterior samples are submitted. Exterior materials will not be approved independent of each other. With regards to the exterior mock up, materials can be selected independently if necessary, based on the basis of design selection, but the University Architect reserves the right to reject or alter a finish based on the completed mock-up. Brick sample panels are a prudent way of confirming brick and mortar colors ahead of mock-up fabrication.
- b. Exterior Finishes
 - i. Prior to GMP and/or issued for bid documents the A/E shall have a final finishes meeting with the University Architect to review the full selection of all exterior materials (physical samples) on the project.
 - ii. The A/E shall provide a box of the Basis of Design materials for the exterior finishes, to include all elements visible to the public on the exterior of the building. The finish samples shall be loose and clearly labeled. Photographs, photocopies or other print/digital samples are not acceptable.
 - iii. Provide a complete list of all materials to include the basis of design manufacturer, model (where applicable) color and finish. **Indicate if the basis of design has been specified to be selected from the manufacturer's standard colors, premium colors or to match a specific existing color.**
- c. Interior Finishes
 - i. Prior to GMP and/or issued for bid the A/E shall have a final interior finishes meeting to review the full selection of all physical samples of the finishes, especially such elements that are part of the base building such as terrazzo, doors, frames, floor tiles, epoxy, laminates, veneers, solid surface, elevator cabs, etc. The finish samples shall be loose and clearly labeled. Photographs, photocopies or other print/digital samples are not acceptable. If necessary a second interior final finishes meeting can be held to review the remainder of the physical samples selected in the same manner as noted above.
 - ii. Provide a list of all materials to include the basis of design manufacturer, model (where applicable) color and finish. **Indicate if the basis of design has been specified to be selected from the manufacturer's standard colors, premium colors or to match a specific existing color.**

C1.22. Conformed Documents

- a. Conformed Construction Documents are the Construction Documents modified to include any addenda issued during the bidding or negotiation process. The A/E is responsible for providing copies of conformed documents prior to the start of construction, in PDF format (**split as noted above**) for distribution. These are sometime termed the IFC or Issued for Construction set.

C1.23. Construction Field Reports

- a. Per the CPSM, field reports are expected to be produced by the A/E on a regular basis during construction, typically coinciding with monthly meetings. Action lists included in the field reports are valuable and should identify the action requested, responsible party, date of request and anticipated date action is required to be closed. Action items will remain on the field report until they are complete, and the resolution recorded.

C1.24. Attic Stock

- a. Refer to **APPENDIX I - ADDITIONAL MATERIALS (ATTIC STOCK)** for quantity of materials required.

C1.25. Project Close Out

- a. Neither the General Contractor nor the A/E's contract will be considered complete, nor will final payment be made until all project close-out requirements are met. Refer to **APPENDIX J – CLOSEOUT DOCUMENT CHECKLIST**. The General Contractor and A/E Project Managers and the ODU Project Manager shall work together to confirm all documents have been received and accounted for.

It is vital that individual file names not exceed the overall limit of characters for the full path of files located within our digital library. The Contractor and A/E shall direct their teams to develop file names that don't exceed 80 characters in length (includes spaces and characters) including any subfolder names. Do not include a "." in the file name and avoid other punctuation. Avoid excessive folder structures when compiling the record documents as these also use up available file characters. If upon receipt of the closeout documents we cannot load these into the university's digital library, they will be returned in their entirety to the A/E and or contractor for renaming.

- b. The **General Contractor** shall complete and deliver As-Built documents to the A/E within four months after project completion.
- c. The A/E shall deliver Record Drawings as defined by the CPSM and electronic BIM/AutoCAD files within six months of project completion. Failure to deliver As-Built and Record Documents on a timely basis will be considered as criteria in future A/E and Contractor selections.
- d. As part of the Record Drawing Submission, the Civil engineer shall provide a single drawing sheet for each BMP which shall note the following:
- i. Specs
 - ii. Details
 - iii. Construction sequencing
 - iv. Maintenance requirements & Responsible Party for maintenance
 - v. DEQ BMP Certification Statement
- e. The A/E shall provide the linked BIM models (detached) to the university for future reference, along with the civil and landscape AutoCAD files. While these files are a valuable resource in the management and maintenance of campus facilities, we understand that the use of these files for the university's benefit will in no way create any additional project specific liability issues for the A/E.
- f. The A/E's professional photography shall be coordinated through the ODU Project Manager. The A/E shall secure copyright usage of the images by the University for their web site and any promotional materials related to the project.
- g. The A/E shall provide, to the ODU Project Manager for review with Facilities Management, a consolidated list of all O&M training to be provided by the contractor with reference to the specific specification section containing the details for the training.
- h. The General Contractor shall provide a consolidated list of all warranty requirements, as part of the O&M manual, beyond the standard 1-year warranty covering everything in the building (except consumables such as filters, etc.)

- i. The A/E shall require, as part of the specifications for close out, an as-built valve directory (laminated and secured to a visible wall in the mechanical room.
- j. All underground sanitary piping shall be GPS located and those coordinates shall be reflected on as-built drawings.
- k. All piping systems shall be reviewed using cameras at the end of the project to determine no debris is blocking pipes. Videos shall be submitted to FM for verification of clean pipes.

C1.26. Post Occupancy Review

- a. Ten (10) Months after building occupancy, the ODU Project Manager will schedule a joint project review and walkthrough with the entire project team, A/E, Contractor and Users. The review and walk through is an evaluation of what works and what does not from a design and construction standpoint and to confirm there are no open warranty issues. Participation in the post occupancy review by the A/E is voluntary.