January 2016

NC State University
GUIDELINES for Open-Ended Service Agreement Designers (OESADs)

I. Types of Projects

A. Informal Projects

The University has the authority to design and construct Informal projects that have total construction costs less than $500,000. These projects use the informal bid process. Most likely Open-Ended Service Agreement projects will be informal. These projects have the following attributes:

1. State Construction Office (SCO) reviews documents for code compliance only, and performs electrical inspections. No field oversight by SCO.
2. Construction costs must be $500,000 or less.
3. Single project fees shall not exceed $50,000.
4. Informal Projects are bid through the DCS Construction Management Project Manager and contractors are invited from their pre-approved bidders list. The designer is required to attend the pre-bid and preconstruction meetings. Attendance at bid opening is optional, but recommended.
5. Bonds not required from bidders for projects under $100,000. Bid and or performance bonds are required for projects between $100,000 and $500,000.
6. The State Construction Office must review of the project bid documents for code compliance. This review period is typically 2 weeks. If there are code concerns, an informal meeting with SCO reviewers is advised. This meeting shall include the NC State Project Manager as well as the Designer of Record.

B. Types of Informal Projects based on Scope

1. Projects with construction costs under $100,000
   a) NC SCO must review project bid documents for code compliance.
   c) Bid informally through NCSU Construction Management Department.
   d) Limited designer construction administration responsibilities.
   e) Design fees paid 80% at CD phase completion, 20% construction phase completion

2. Projects with construction costs between $100,000 and $500,000
   a) Size of project may require more review stages, such as SD/DD and CD.
   b) Exempt from State Construction Office review/construction field oversight.
   c) NC SCO must review project documents for code compliance
   d) Bid informally through NC State Design and Construction Services department.
   e) Designer has greater responsibilities during construction to duties as described in the State Construction Manual, The Board of Governors of the University of North Carolina, Standard Form of Agreement between Owner and Designer.
II. The Informal Project Design Process

A. Initial Contact

1. A Customer requests design project on campus through the Facilities Modification Request Process, and funding is available. The request is approved and can become a project.

2. The DCS design (PM) is assigned. (A list of authorized PMs is provided in the contract.) A DCS construction PM is assigned at the outset of the project also.

3. Design and Construction Services (DCS) secures account number from Customer and opens a project number. A SCO “Interscope+” project number is assigned by DCS, as this is required to send a project to SCO for code review.

4. The PM and client decide to use an Open-Ended Service Agreement Designer (OESAD).

5. An OESAD is contacted to confirm that the OESAD is available to handle the project within projected schedule.

6. An initial meeting among the client, PM, and OESAD is scheduled. The following events occur during the meeting:
   a. Discussion of OESAD’s ability to provide design type required
   b. Discussion of OESAD’s ability to meet client’s schedule.
   c. Site visit, as required.
   d. Project number given to OESAD. This project number must be included on all correspondence and construction documents for the project. Not including it on invoices will result in a delay of invoice payment.

7. From this meeting, the OESAD will determine:
   a. Project Description and Scope
   b. Design fee/negotiation of fee
   c. Content of the Design Proposal Letter

8. The OESAD will begin work on the proposal. This may require additional site visits, meetings with the client, and/or meetings with the PM. Additional client contact or site visits must be coordinated through the PM.

B. The Design Proposal

The OESAD will respond to the initial meeting and other preliminary investigations with a design fee proposal, which includes the following:

1. A description of the project including existing and special conditions:

2. A project schedule through construction (allow four weeks for bidding and awarding of construction contract). Use generic weeks rather than actual dates in the schedule. (Example: Completion Date: Six weeks after receiving notice to proceed). In a typical project, the time allotted to design a project should fall within the following guidelines:

   Up to $30,000: 6 weeks
$30,000 to $60,000:  8 weeks  
$60,000 to $100,000  12 weeks  
$100,000 to $500,000  Up to 14 weeks

The estimated construction schedule should be based on best available information and experience and must take into account the customer’s expectations. The designer must inform the Owner if schedule expectations are unrealistic. Long lead items and shop drawing approval durations must be considered. See III A1. B & C for a more complete discussion of the construction schedule.

3. A construction budget estimate with a 5% contingency allowance to enable the client to budget funds. (this estimate must be updated as design progresses)

4. A list of consultants that will be used.

5. A design fee, negotiated informally with the PM before putting it into the formal proposal letter should consider:
   a. Design time involved including review meetings with client, PM, CM, and SCO preliminary code sit-down meeting is code issues are suspected.
   b. Any consultant fees.
   c. Two check sets to be submitted during the design review phase at 100%, one for the plan review room, one for the PM.
   d. When the documents are ready to bid, transmit to the NCSU construction project manager, 13 sets of the bid documents will be required.
   e. Bidding and construction refer also to section III – The Informal Bid and Construction process. The designer needs to participate in:
      1. A constructability review meeting with DCS design and DCS construction PMs prior to bidding
      2. A pre-bid conference
      3. A pre-construction conference
      4. Minimum of 4 site visits during construction. Note that typically for projects under $100,000 construction administration is not required of the designer, but is optional for the purpose of ensuring that the construction documents are followed, building code is met, all applicable certifications are complete, and the designer has adequate knowledge of the project construction to submit a signed “Certificate of Compliance” at the completion of the project.
      The designer will be expected to provide interpretation of design documents as required and to review hidden conditions during construction, if they affect the design.

5. For projects between $100,000 and $500,000, construction administration as set forth in the State of North Carolina, The Board of Governors of the University of North Carolina, Standard Form of Agreement between the Owner and Designer, Capital Projects costing $2,000,000 or less (attached) applies as modified for the specific project.

6. A final inspection, punch list, and re-inspection/s, and finally completion of a Certificate of Compliance by the designer.
7. As built documents will be provided to design project manager prior to the final 20% design fee invoice being paid.
8. A separate line item for the cost of providing the proposal. This amount will be paid to the designer before design begins if the client cancels the project, otherwise this cost will be included in the total design fee. Make certain that the fee for the proposal does not exceed $500 in cost. (Most proposals are in the $300 to $500 range.) Do not proceed with design work until notification from PM is received.

C. Approval to Proceed

The OESAD will be given approval to proceed with design upon the completion of the following:
1. Review and approval of the proposal by the PM and the Campus Customer. Approval to proceed is granted upon receipt of customer account number. DCS will then prepare a purchase order, (PO). A confirming purchase order will be sent to OESAD for their records.
2. For projects between $100,000 and $500,000, the State of North Carolina, The Board of Governors of the University of North Carolina, Standard Form of Agreement between Owner and Designer, Capital Projects costing $2,000,000 or less as modified will be referred to in the proposal, the actual binding document for the design work will be the purchase order that is written and reflects the design proposal.

D. Design Work

1. All work must comply with State and university standards. The Facilities PM can provide guidance in this area. Please refer to the NC State Physical Master Plan at [http://www.ncsu.edu/facilities/physical_master_plan/index.htm](http://www.ncsu.edu/facilities/physical_master_plan/index.htm). Also, the “NC State University’s Design and Construction Guidelines” shall be used as a reference to inform your design effort: [http://www.ncsu.edu/facilities/con_guidelines/index.htm](http://www.ncsu.edu/facilities/con_guidelines/index.htm)

2. The most important principle in producing contract documents for the university is **field verification**. Record drawings cannot be relied upon to provide a 100% accurate description of site conditions. The designer will be expected (among other things) to:
   a. Check heating and cooling capacity. Check exhaust capacities.
   b. Check power availability and routing to spare circuits or provision of new panels if necessary.
   c. Check above ceilings for possible existing code violations, existing rated walls or chases, and availability of space for new equipment.
   d. Check floors below and the occupancy of the lower floors.
   e. Identify the need for destructive testing if necessary.
   f. Request from the Owner any chemical lists that may be required for Code review/approval **early** in a project.
**Failure of the designer to perform a thorough and careful site check is the most common cause of construction delays and change orders in an informal project.**

3. When appropriate, the design PM will arrange meetings between the OESAD design team and building Zone maintenance mechanics. This meeting can be useful when new power, exhaust or cooling concerns are an integral part of the project. Typically, modifications to a building’s HVAC system will trigger the need for the project to include rebalancing and testing of the system following the work.

4. The OESAD must be mindful of how the project will affect the operation of the department during construction and keep the design PM and client informed of possible detrimental effects.

5. The project budget must be maintained. It is important that the OESAD, the Project Manager, and the client know what the budget is. As the design progresses the OESAD must inform the PM and client of any impacts to the project’s budget and construction estimate. It is the OESAD’s responsibility to keep the construction costs within the project budget. The OESAD is expected to redesign the project, as necessary at no additional cost to the owner for rebid if the project cannot be awarded within the budget at the initial bid.

E. Design Reviews

1. The NC State Construction Office/NC SCO must review and approve all design documents when there are any **life safety, ADA, or electrical changes** in the scope of work. An early meeting with code reviewers is useful to avoid delays due to changing completed documents. The NC State PM should be invited to any meetings w/ SCO on our projects. The Designer shall submit the construction documents to NC SCO for final review and approval prior to bid and construction.

2. Usually, with regular design meetings and progress reports, the PM and client will have adequate understanding of the design documents. Typically, one formal review of the documents with the client at or near the completion of the documents is required as long as all parties are kept informed of the design status as the work progresses, prior to bidding or pricing the project.

3. Comments will be provided by reviewers on a design review template. After the designer addresses the comments, in writing, and in the drawings, another 2 sets must be resubmitted to the PM for final review and approval.

4. Reviews are not meant to serve as a complete document check or a formal approval of the plans. Reviews do not relieve OESAD of statutory and professional responsibilities of preparing a thorough, coordinated set of construction documents.

F. Invoicing

1. For project design work on projects below $100,000, the University expects the OESAD to bill for services **only twice**: 80% of the total fee at the end of the design phase; and 20% after the completion of the final construction inspection and submission of Record Drawings. Under special circumstances, such as client project delays, more than one billing during the design phase may be acceptable. If the design is not implemented, under ordinary circumstance, the final 20%, will not be paid. For studies, 100% of the fee can be invoiced when the study is complete. All
construction projects will hold 5% of the design fee until “as built” documents are received by NC State Construction PM that meet our requirements for documentation.

2. For projects between $100,000 and $500,000, payments will be made as per the schedule agreed upon and listed on the State of North Carolina, The Board of Governors of the University of North Carolina, Standard Form of Agreement between the Owner and Designer, Capital Projects costing $2,000,000 or less (attached).

3. The University expects the original fee proposal to be the total design cost. If unforeseen circumstances or clear scope changes occur during the design or construction that require additional OESAD time, a clear understanding of what constitutes the extra work must be reached before proceeding with design work. Negotiations for additional fees are required. The final agreement must be in writing. After receiving the written amendment and approval by the PM, a purchase order change order (POCO) will be issued. We do not allow for reimbursable expenses such as printing and travel. These expenses must be in the fee.

4. The invoices must be clearly marked “Invoice.” Those marked as “statements” will be returned. **All invoices should clearly list the project name, the NCSU project number, name of the design PM, and the P.O. number.** If this information is not included, the invoice may be returned to the OESAD. Due to recent audits, the University Accounts Payable Department is requiring invoices to be paid as submitted by the designer/vendor without alterations. In the event there is an adding error or error in the percentage of work completed the PM can make corrections to the invoice and then process it for payment, otherwise the invoice will be returned to the OESAD for correction.

**Special note:** It is a violation of General Statute 142-32B to expend State funds before receiving goods or service. Violations will require restitution to the State and may result in the termination of the Open-Ended Service Agreement with the designer, employment of the University employee(s) involved and/or criminal prosecution of both.

5. The final invoice will not be paid until the Record Drawings and the Certificate of Compliance are received from the OESAD, as prescribed in the “Record Set Deliverables” document on the Facilities website: [https://facilities.ofa.ncsu.edu/construction-guidelines/](https://facilities.ofa.ncsu.edu/construction-guidelines/). The construction contractor will keep a set of documents on site and return the marked set to the construction manager at the end of construction. The contractor will give this set to the OESAD for the preparation of the Record Drawings.

**G. Documents**

1. Typically, for project under $100,000, specifications should be included on drawings. Separately bound specifications will typically not be used. (An exception would be reroofing projects.) DCS provides a “Front end” comprising a cover sheet including the NC DOI Building Data Form (SPFIF 94) and Informal General Conditions. For projects between $100,000 and $500,000, separately bound specifications may be used for convenience and to avoid having too much printed
matter on the drawings. In this case, the Informal General Conditions and NC State Supplementary General Conditions can be bound in with the technical specifications.

2. A specific description and scope of the project must be included on the cover sheet. Also the latest edition of the SCO Building Data Form (SPFIF 94, Building Code Summary Sheet) must be on the cover sheet of ALL projects.

3. The DCS project number and SCO project (if applicable) must be on each sheet.

4. Jobs should be described on as few and as small sized sheets as is reasonable for the job. Sheets 36” x 24” should be used when possible. All construction documents must be drawn using CADD. A copy of the project disk must be submitted with the record drawings. Facilities uses AUTOCAD. OESADs using other software shall provide the DFX file or a file that is compatible with our current version.

5. The OESAD seals are required as described in the State Construction Office- North Carolina Construction Manual (Blue Book) latest edition.

6. All OESAD are encouraged to include drawing dates in title blocks, initials of personnel working on the project, clear distinctions between existing and new work, clear narrative of control of operation sequences, and other features which will fully define the location, intent, and scope of the project for future reference, perhaps many years later.

7. No information on contractor’s insurance requirements, payments, licensing, etc., should be included in the drawing notes. All of these items are covered in General Terms and Conditions, which are provided separately to bidders by Construction Management.

8. During design, the OESAD must not rely on so-called “as-built” drawing alone, but shall field verify items such as pipe and duct sizes, existing obstructions, existing HVAC, electrical loads, etc. OESAD must also verify existing HVAC capacities and electrical power capacities.

9. In electrical renovation work, any abandoned circuits and conduit must be removed back to the source. The designer must mark the drawings accordingly and make field investigations and surveys as required to make the bid documents explicit to what is to be abandoned and how it is removed.

10. When design is complete and ready for bid, provide 13 sets for the PM for distribution to Construction Management for bidding.

11. Revise original drawings at the end of construction to reflect any changes that occurred during construction (reflect “as-built” conditions). Per the General Conditions, the contractor shall provide these drawings to the Construction PM for processing at the end a project. Contractors are instructed to keep a marked up, “redline” set of prints on the job site to keep track of changes from the original drawings. At the end of construction, these marked up sets will be transmitted to the designer to incorporate all changes into the final “as built” document set. The “as-built” conditions must also be reflected in the record drawings. Refer to the NC State Construction Guidelines for the specific “as built” requirements: https://facilities.ofa.ncsu.edu/files/2015/02/division00_planning_design-general_issues.pdf
III. The Informal Bid and Construction Process

A. Preconstruction Responsibilities

The OESAD is responsible for conducting and preparing for numerous preconstruction activities, as detailed below:

1. Prepare for the Final Design Review
   Prior to the Final Design Review that is held between the OESAD, the Design project manager, and the Construction Management project manager, the OESAD should perform the following tasks:
   A. Finalize the design and specifications so they are suitable for a review.
   B. Present and discuss the construction schedule during the final review meeting with the design project manager and the assigned construction manager. Tasks that should be considered when preparing the estimated construction schedule are: Any special schedule considerations such as end of classes, beginning of classes, test days, etc.; Bid preparation (usually one week), Preconstruction meeting; Bonding and insurance checking and contract signature (one week); mobilization; submittal preparation, submission, and approval; demolition; various construction tasks; long lead time items; SCO electrical inspections; site clean-up; final inspection.
   C. Establish a recommended construction start and completion date based upon the estimated project schedule, to be discussed at the design review.
   D. Generate the final detailed cost estimate
   E. Using a template form from NC State, generate a contractor bid sheet, broken-down by appropriate line items, bid alternates, allowances, and unit costs. (attached)
   F. Verify that Specifications are Non-Proprietary: Verify that specifications meet GS 133-3, the “Competitive Items” statute, for all materials specified. If an exception is expected or a justification needed, or a special bid alternate needed, then coordination should ensue through the DCS project manager, who will place and pay for the advertisement. The PM can provide a list of current NC State proprietary products, to include locks, toilet accessories, etc.
   G. Verify durations for long lead-time materials: Call vendors to verify ordering/manufacturing/delivery durations for all times that are anticipated to need greater than a two-week period to order/manufacturer/deliver to the project site.
   H. Verify durations for shop drawings:
      Call vendors to verify appropriate durations to generate and deliver shop drawings, if required.
   I. Prepare a list of potential Vendor Contacts for nonstandard specialty items (based upon verification calls to vendors, above). Distribute this information to contractors at the pre-bid conference.
   J. Prepare an outline Quality Control Plan for construction based on your knowledge of the design that would include:
      a. Mandatory inspection points or special review points during the project
      b. Recommended or required quality control testing
      c. Specific tests and related specs/standards
K. If the design has requirements for a “specialty discipline” contractor or supplier, (i.e., not typical disciplines such as electric, mechanical, general, painting), please provide NC State University with a list of specialty contractors (with contact information) that perform the type of work required and specified. When possible, check the with the specialty contractors their HUB (Historically Underutilized Business status and note the status on your list.

2. **Prepare for and Conduct a Professional Pre-Bid Meeting**
   Prepare for and conduct a professional Pre-Bid Meeting with prospective contractors.
   A. See attached “Checklist for an Informal Project Pre-Bid Meeting with Contractors,” that details OESAD responsibilities.
      1. The Construction Management department will invite the contractors. The OESAD is responsible for following the checklist to properly prepare for and conduct the pre-bid conference in accordance with University expectations.

3. **Prepare and distribute addendums, as needed, giving contractors reasonable reaction time prior to the Bid Opening.**
   Answer contractor questions during bid preparation.

4. **Attend the Bid Opening**
   Optional, but recommended. Be prepared to resolve any confusion on addenda, or other bid items before bids are opened.

5. **Prepare for and Attend the Pre-Construction Conference**
   A. See attached “Checklist for an Informal Project Pre-Bid Conference with Contractors,” that details OESAD responsibilities.
      1. The Construction Management department will schedule the contractor, OESAD, owner/client, and other necessary attendees.
   B. The OESAD is responsible for:
      1. Prepare for the preconstruction meeting by answering any unresolved questions.
      2. Address and clarify any questions by issuing an addendum to all bidders.
      3. Provide contractor with a log or list of required material and shop drawing submittals.
      4. Take notes and distribute minutes.
      5. Provide any supplemental information after the meeting, as requested.

B. **Construction Responsibilities**
   At a minimum, the OESAD scope of work includes certain Basic Services after the Preconstruction Meeting. However, the Owner may elect to hire the OESAD for additional construction oversight services.

   1. Basic OESAD Construction Administration Services during construction (usual scope for projects under $100,000 in cost):
      a. Review and comment on project schedule.
      b. Review and comment on schedule of values.
      c. Review and approve material submittals. Maintain a log.
d. Review and approve shop-drawing submittals. Maintain a log.
e. Visit the site at least twice during construction, and more often for specific inspection points, if necessary.
f. Attend pre-final inspections and generate/distribute punch lists
g. Attend final inspection
h. Provide Certificate of Compliance at the end of the project
i. Review contractor redlines for accuracy and provide the Construction Management Project Manager with updated record drawings and CAD files as described in II.G.11. above.

2. Full Construction Administration Services
   Provide full construction administration services as described in the North Carolina Construction Manual of the State Construction Office: “Standard Form of Agreement Between Owner and Designer”, as modified below for informal projects. The OESAD will NOT have to perform the following:
   a. Produce more than 13 final plan sets
   b. NC State will invite contractors or maintain bidder lists
   c. Generate bid tabulation and award recommendation
   d. Assist NC State review HUB good faith efforts
   e. Assist NC State verify contractor license, insurance, bonding

   Any additional OESAD efforts required during construction due to design oversights, value engineering a bid higher than estimated cost, errors, or omissions will not be compensated.
I. Checklist for an Informal Project Pre-Bid Conference with Contractors

Individual Responsibilities
(If project is designed by NC State staff, then Design PM assumes responsibilities of Consultant Designer)

Consultant Designer
PRIOR to the conference:
1. Review agenda for items you will cover, and get answers, either from the NC State design project manager, or the building liaison.
2. With at least 2-3 vendors: check price, availability, and lead-time on materials specified.
3. Determine if “quick shipping” is available, it’s cost, and whether a “quick ship” quote is required.
4. If NC State provides materials, determine anticipated delivery dates.
5. Visit the site and review that plans reflect current building conditions.
6. Prepare for meeting by reviewing plans and the agenda.
7. Fill out and make 8 copies of the Informal Project Bid Form by line items, providing line item descriptions on a separate page. The Bid Form is available as an Excel spreadsheet.

AFTER the conference:
1. Complete attached “Topics Discussed at the Pre-Bid Conference” listing, with any clarification notes (handwritten is OK), and provide a copy of the document to the construction management PM for the project file.
2. Answer contractor questions on bid documents.
3. Prepare addendum(s), review with FPD and CM Project Managers, then distribute to Contractors.

NC State Design Project Manager:
PRIOR to the conference:
1. Coordinate with NC State Transportation for Staging Area Agreement.
2. Ensure that consultant designer has this checklist.
3. Doublecheck anticipated project schedule with construction management PM.
4. Doublecheck material lead times with consultant designer.

AFTER the conference:
1. Answer contractor questions on bid documents.

NC State Construction Management Project Manager:
PRIOR to the conference:
1. Schedule pre-bid conference with:
   Contractors, NC State Design PM, Consultant Designer, Building Liaison, Department Representative, and the Campus ADA coordinator (if project is ADA or affects walkways or entrances).
2. Pre-determine an approximate project schedule.
3. Educate Owner/Client on expectations for the project.

AFTER the conference:
1. Coordinate bid activities and troubleshoot any contractor problems.
2. Answer contractor questions on bid documents.
II. SAMPLE Pre-Bid Meeting Agenda

Open Meeting
  • Distribute plans and specifications

Introductions
  • Pass around sign-in sheet

Present Overall Project Scope of Work

Discuss Individual Plan Sheets and Details

Discuss General Notes and General Instruction Sheets

Conduct Project Walk-Through
  PM

Discuss Attached List of Mandatory Topics

Discuss bid sheet, bid breakdowns, and bid alternates

Contractor Questions and Concerns

Discuss Addendums

Announce Bid Date and Time

Close Meeting
III. Topics Discussed at the Pre-Bid Meeting

Project Description: ________________________________________________________________

Date of Pre-Bid Meeting: ______________________

Note: The Consultant Designer shall jointly lead discussion about the topics listed below with the Design PM and the Construction Management PM. This form will be filled-out as discussion ensues, and shall be placed in the project file for a future reference of items discussed.

1. If a topic is not discussed because it is “Not Applicable,” signify with “NA” next to the topic. Otherwise, signify that discussion occurred by placing a checkmark “✓” next to an item.
2. If more detailed discussion occurs, such as discussing exact dates and times, annotate details discussed next to the respective items.
3. Staple attendance sheet to this list.

Bid Date and Time

Date: ________________
Time: _____ PM

FedEx and Mailed Bids MUST clearly denote project bid information on the outer envelope

Contractor Access during bid preparation

_____ How will Contractor access site during bid prep? Who to call?
_____ Departmental Point of contact, telephone number, email
_____ Building Liaison, telephone number, email

Anticipated Project Schedule

Start Date ________________
End Date ________________

Discuss Lead Times for Materials, and how this affects the Schedule

_____ Materials requiring ordering and delivery
1.
2.
3.

_____ NC State-provided materials and delivery times

_____ Vendors queried

_____ Normal delivery time

_____ “Quick ship” quotes

_____ Shop Drawing preparation and Review times?

____________________________________________________________________________
Discuss Constraints on the anticipated Project Schedule
   _____ Establish any Calendar Constraints on Start and End of Construction
   _____ Regularly Scheduled Events (exams, graduation, classes, etc)
   _____ Upcoming Irregular Events (Special Olympics, seminars, etc)
   _____ Establish any Daily Work Schedule Constraints
   _____ Classroom Schedules
   _____ Quiet hours
   _____ What are the Resulting SPECIFIC allowable DAILY work hours for contractor?

Anticipated Project Phasing
   _____ Discuss as appropriate
   _____ Does the project schedule reflect phasing?

Projects on Centennial Campus
Contractor pays JA Jones directly for utility interruptions. Hand out rate schedule.
   Provide address & PO to JA Jones. Need payment letter from JA Jones prior to final payment.

Construction Impacts to Owner during Construction
Discuss planning, mitigation, and notification for the following possible impacts
   _____ Noise
   _____ Vibration
   _____ Dust
   _____ Odor
   _____ Light
   _____ Security
   _____ Temperature and Humidity (HVAC) changes
   _____ Utility interruptions
      _____ Water
      _____ Electric
      _____ HVAC
      _____ Steam
      _____ Fire Alarm
      _____ Sprinkler System
      _____ Detection System
      _____ Gas Systems
      _____ Natural Gas
      _____ Telecommunications
      _____ Fumehoods and/or Lab Air (compressed)
      _____ RO/DI Water
______REQUIRED notification for Utility interruptions
Primary (total building power) – 12 working days
Secondary power feeders – 7 working days
Cold/Hot water interruption – 7 working days
AC/Heat Interruption – 7 working days
Fire Alarm Disconnect/Testing – 5 working days
Distilled Water Interruption – 7 working days
Steam Interruption – 7 working days
Gas Interruption – 7 working days
Lab Air Interruption – 7 working days
Sanitary/Storm Sewer – 5 working days

Owner/Customer Proximity and Considerations
______Discuss who is in proximity to project and their activity.
______Any special Owner considerations based upon anticipated impacts?

Excavations on Campus
______Must contact ULOCO, NO-CUTS, or other utility locating service to have utilities
   Marked prior to breaking ground.
______Trench Safety per OSHA standards

Temporary Contractor Use of Utilities and Facilities
   Water
   Electric
   Telephone
   Restrooms
   Drinking water

Establish Parameters for Normal Contractor Operations
______Contractor parking locations
______Material deliveries: restrictions on time & location
______Allowable staging areas
______Allowable material storage areas
______Any DO NOT DISTURB areas?

Permits: NC State and others (discuss lead-time for notification, and cost)
______Hotwork
______Fire Alarm
______Environmental Permits (streams, wetlands, open burning, air quality)
______Parking and Staging Area
______Permits to be paid by Contractor or NC State?
Miscellaneous Items

_____ Any danger of invalidating warranties on any recently installed components?
_____ Any anticipated change orders?
_____ Specialized equipment possibly necessary?
   1.
   2.
_____ Who is responsible for removing existing furniture and equipment?
_____ Who is responsible for replacing furniture and equipment?
_____ Who will coordinate project schedule with the Housekeeping Department?
_____ Did NC State Telecommunications review the project? Any mods/impact to telecomm drops, etc?

Environmental Considerations

_____ Weather Delays
   _____ Adverse weather policy
_____ Asbestos
   _____ NC State University Survey
   _____ Any project-related asbestos removal contracts?

As-Built Drawings

_____ How and when to submit to CM PM
_____ # of copies

Warranty

_____ NC State-provided materials
_____ Contractor-provided materials
_____ Effect of project on warranties of existing facilities

Contractor Payment

_____ Full Payment only, or partial payments considered?
_____ Liquidated Damages in effect?

Contractor Qualifications

_____ License Limit: Must be above $____________
_____ Project-Specific Liability Insurance Certificate to be provided to CM PM.
   Minimum Liability coverage is........
_____ Workman’s Compensation: Minimum coverage is........
_____ Automobile Insurance: Minimum coverage is........

Safety

_____ Safety considerations of the Client/Department
_____ Student safety
_____ Faculty/Staff safety
_____ Safety Plan required
_____ Weekly Safety Meetings
Contractor Decorum and Conduct

- Shirts required
- No profanity or lewd/objectionable behavior
- Minimal disruption to offices and classrooms: advance notice required