



Office of the Vice President
and Chief Financial Officer
Finance and Accounting Division
Purchasing and Disbursement Services
<http://purchasing.ufl.edu/>

102 Elmore Hall
PO Box 115250
Gainesville, FL 32611-5250
352-392-1331
352-392-8837 Fax

July 20, 2009

ADDENDUM NUMBER 4 ON INVITATION TO BID ITB10SVF-102

TITLE: Materials Engineering Bldg. 719 Roof Replacement

The mandatory pre-bid meeting was held July 14, 2009 at 1:30 PM. The bid opening is scheduled for July 29, 2009 at 2:00 PM in Elmore Hall, Radio Road, Gainesville, Florida.

This addendum shall be considered part of the Contract Documents for the above mentioned project as though it had been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract documents, this addendum shall govern and take precedence. Bidders are hereby notified that they shall acknowledge receipt of the addendum.

NOTES:

- Please see attached Ponikvar & Associates addendum 1.

Mercedes Bongiovanni
Purchasing Coordinator II

PLEASE ACKNOWLEDGE RECEIPT OF ADDENDUM AND RETURN WITH YOUR BID. FAILURE TO ACKNOWLEDGE YOUR ADDENDUM COULD CONSTITUTE REJECTION OF YOUR BID.

VENDOR NAME

VENDOR ADDRESS

SIGNATURE



P R I N C I P A L S

Jack Ponikvar, RA
Joseph Walker, RA
Apyl Williamson, RA

S E N I O R A S S O C I A T E

Michael Buchanan

DATE: 20 July 2009

FIELD ORDER NO: ONE (1)

TO: Chandler Rozear, Project Manager
UF PPD – Architecture/Engineering Dept.
Building 700, Radio Road
Gainesville, FL 32611-7715

PROJECT: UF Materials Engineering
Building 719 Roof Replacement

OWNER: University of Florida
Gainesville, Florida

ARCHITECT'S PROJECT NO: 08016
OWNER'S PROJECT NO: 1031611

You are hereby directed to execute promptly this Field Order which interprets the Contract Documents or orders minor changes in the Work without change in Contract Sum or Contract Time.

If you consider that a change in Contract Sum or Contract Time is required, please submit your itemized proposal to the Architect immediately and before proceeding with this Work. If your proposal is found to be satisfactory and in proper order, this Field Order will in that event be superseded by a Change Order.

DESCRIPTION: Specification Clarification

A1-1. SPECIFICATIONS: 01 100 Alternates thru 01 730 Operations and Maintenance Data: Insert the (16) sixteen specification sections 01 100 Alternates thru 01 730 Operations and Maintenance Data in their entirety.

PONIKVAR & ASSOCIATES, INC.

Joe Walker, RA
Project Manager

cc: file

A R C H I T E C T S

AA0002486

5700 SW 34th Street Suite 5700
Gainesville, Florida 32608
Phone
(352) 372-1378
Fax
(352) 378-1281
Email
design@ponikvar.com

SECTION 01100 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Some of the items mentioned in this Section are described further in pertinent other Sections of these Specifications.

1.2 DESCRIPTION:

A. WORK INCLUDED:

Provide alternative bid proposals as described in this Section.

B. PROCEDURES:

- 1. Provide alternate bids to be added to or deducted from the amount of the Base Bid if the corresponding change in scope is accepted by the Owner.
- 2. Include within the alternative bid prices all costs, including materials, installations, and fees.

END OF SECTION

SECTION 01152 - APPLICATION FOR PAYMENT

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Section in Division 1 of these Specifications.
- B. The contract Sum and the schedule for payments are described in the Form of Agreement.
- C. Payments upon Substantial Completion and Completion of the Work are described in the General Conditions and in Section 01700 of these Specifications.
- D. The Architect/Engineer's approval of applications for progress payment and final payment may be contingent upon the Architect/Engineer's approval of the status of Project Record Documents as described in Section 01720 of these Specifications.

1.2 DESCRIPTION OF WORK INCLUDED:

Comply with procedures described in this Section when applying for progress payment and final payment under the Contract.

1.3 QUALITY ASSURANCE:

- A. Prior to start of construction secure the Architect/Engineer's approval of the schedule of values required to be submitted under Paragraph 9.2 of the General Conditions, and further described in Section 01370 of these Specifications.
- B. During progress of the Work, modify the schedule of values as approved by the Architect/Engineer to reflect changes in the Contract Sum due to Change Orders or other modifications of the Contract.
- C. Base request for payment on the approved schedule of values.

1.4 **SUBMITTALS:**

A. APPLICATION FOR PARTIAL PAYMENT:

1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or neat lettering in ink, on University of Florida, Certificate of Partial Payment.
2. Sign and notarize the Certificate of Partial Payment. (See following sample form.)
3. Submit three (3) notarized (with embossed seal) originals of the Certificate of Partial Payment to the Architect/Engineer.
4. The Architect/Engineer will review, approve, and sign the Certificate of Partial Payment; and distribute as follows:
 - a. One (1) to the Contractor
 - b. One (1) to Owner
 - c. One (1) to Architect/Engineer's file
5. Each Certificate of Partial Payment shall have attached to the back of it:
 - a. One (1) copy of the Contractor's letterhead invoice which will show only the project title, project number and the amount due for that invoice; and
 - b. One (1) copy of the Schedule of Values.
6. Unbonded Construction Project:
 - a. The Contractor is required to pay its subcontractors and suppliers in accordance with Section 287.0585 of the Florida Statutes. With each pay request, the contractor shall provide a written statement to the University that indicates how the payment requested will be distributed to subcontractors and suppliers. This pay request breakdown shall define the disbursement intended for all of the funds requested.
 - b. With each pay request following the first, the Contractor shall provide a written statement from each of the subcontractors and suppliers indicated in the previous pay request breakdown that they have in fact received payment as indicated in the preceding statements. In the event any payment is not made as indicated on a prior statement, the Contractor shall furnish an explanation as to the reasons for such deviation. The Contractor shall return such unpaid funds to the University by providing a credit properly identified on the next pay request.

B. APPLICATION FOR FINAL PAYMENT:

1. Perform all items in Part 1.4.A above, plus:
 - a. Provide an executed Certificate of Contract Completion with each payment request.
 - b. Perform all Work described in Section 01700, Contract Closeout.
 - c. Provide a release of lien for each subcontractor and material supplier.

2. Unbonded Construction Projects:

The Contractor will supply the University with signed and dated statements from all laborers, materialmen, and subcontractors, identified in the certified list provided pursuant to Section 00430, paragraph 1.2(B)(3), that they have no claims against the Contractor for work under the contract. Said statements shall identify the project by name and number.

**UNIVERSITY OF FLORIDA
PHYSICAL PLANT DIVISION
CERTIFICATE OF PARTIAL PAYMENT**

W.O. # _____

DATE: _____ FOR PERIOD ENDING: _____ PAYMENT NO.: _____
CONTRACTOR: _____
PROJECT TITLE: _____
ORIGINAL CONTRACT SUM: \$ _____ CONTRACT TIME: 0 _____ cal. days _____
Additions to Date: _____ Authorized Extension: _____ cal. days _____
Deductions to Date: _____ Pending Requests: _____ cal. days _____
Adjusted Contract Sum: _____ Time Lapsed to Date: _____ cal. days _____

WORK PERFORMED TO DATE	\$ _____
MATERIAL SUITABLY STORED	\$ _____
TOTAL TO DATE	\$ _____
LESS RETAINAGE _____ %	\$ _____
LESS PREVIOUS PAYMENTS	\$ _____
DUE THIS PAYMENT	\$ _____

CERTIFICATE OF THE CONTRACTOR: According to the best of my knowledge and belief, I certify that all items and amounts shown on the face of this Certificate are correct. I further certify that all just and lawful bills against the undersigned and his subcontractors for labor, materials and equipment employed in the performance of this contract have been paid in full accordance with their terms and conditions.

I hereby certify that all provisions of 215.19 F.S., as amended by Chap. 63-380 Laws of Florida 1963, regarding apprentices and payments of wages have been complied with by me and to the best of my knowledge and belief by all subcontractors.

DATE: _____ CONTRACTOR: _____
(Signature)

STATE OF FLORIDA
COUNTY OF ALACHUA

Personally appeared before me this _____ day of _____ 20____

known (or made known to me) to be the _____ of _____
(owner) (partner) (corporate officer - give title)

Contractor(s) who subscribed and swore to the above instrument in my presence.

(SEAL) _____ Notary Public
(type name)

My Commission Expires _____ 20____

CERTIFICATE OF THE ARCHITECT-ENGINEER: I certify that I have checked and verified this Certificate, that to the best of my knowledge and belief it is a true statement of the value of the work performed and material included in this Certificate have been inspected by me or my authorized assistant; and that all work has been performed and material supplied in full accordance with the terms of the contract.

DATE: _____ ARCHITECT-ENGINEER: _____
(Signature)

PHYSICAL PLANT DIVISION APPROVAL:

DATE: _____ PROJECT MANAGER: _____
(Signature)

DATE: _____ ASSOCIATE DIRECTOR (A/E DEPT.): _____
(Harold B. Barrand)

UNIVERSITY OF FLORIDA

**PHYSICAL PLANT DIVISION
CERTIFICATE OF CONTRACT COMPLETION**

Project Description

Contractor: _____
 Project Title: _____
 Notice to Proceed: _____
 Total Amount: \$ _____

Work Order: _____
 Purchase Order: _____
 Purchase Order Date: _____
 Account #: _____

CERTIFICATE OF ARCHITECT/ENGINEER: I CERTIFY: That the work under the above named contract has been satisfactorily completed under the terms of the contract; that the project is recommended for occupancy by the user; that the contractor has submitted satisfactory evidence that he has paid all labor, materials and other charges against the project in accordance with the terms of the contract.

DATE: _____ ARCHITECT/ENGINEER: _____

(complete if applicable)

	Date/Days		Date/Days
Notice to Proceed	_____	Days to Complete	_____ Days
Contract Time	_____ Days	Under run	_____ Days
Total Contract Time	_____ Days	Overrun*	_____ Days
Contract Completed	_____	*Deduct Liquidated Damages	
		Daily L. D. Amt.	\$ _____
		Total L. D. Amt.	\$ _____

CONTRACTOR'S AFFIDAVIT: I CERTIFY: That the work under the above named contract and all amendments thereto have been satisfactorily completed; that all material, labor, and other charges against the project have been paid in accordance with the terms of the contract; that no liens have been attached against the project; that no suits are pending by reason of work on the project under the contract; that all workmen's compensation claims have been settled and that no public liability claims are pending; except as follows:

DATE: _____ CONTRACTOR: _____
 (typed name and title) _____

Subscribed and sworn to before me at _____

This _____ day of _____ (SEAL) _____ Notary Public

PHYSICAL PLANT APPROVAL: (not required for carpet, upholstery, floor coverings, draperies or painting)

By: _____ Coordinator, Operations Engineering Department	By: _____ Project Manager, A&E Department
Date: _____	Date: _____
By: _____ Associate Director, A&E Department	By: _____
Date: _____	Date: _____

SECTION 01153 - CHANGES IN THE WORK

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Changes in the Work are described further in Article 7 of the General Conditions (Section 00700) and in Paragraph 1.3.F, Items 1 through 5 of the Supplementary Conditions (Section 00800) which appends Article 7 of the General Conditions.

1.2 DESCRIPTION OF WORK INCLUDED:

Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as are described in written Change Orders signed by the Owner and issued after execution of the Contract, in accordance with the provisions of this Section.

1.3 QUALITY ASSURANCE:

Include within the Contractor's quality assurance program such measures as are needed to assure familiarity of the Contractor's staff and employees with these procedures for processing Change Order data.

1.4 SUBMITTALS:

- A. Make submittals directly to the Architect/Engineer at the address shown on the Project Directory in the Project Manual.
- B. Submit the number of copies called for under the various items listed in this Section.

1.5 PRODUCT HANDLING:

- A. Maintain a combined "Register of Requests for Proposal and Construction Change Directives" and a separate "Register of Change Orders" at the job site, accurately reflecting current status of all pertinent data.
- B. Make the Registers available to the Architect/Engineer for review at his request.

1.6 PROCESSING CHANGES INITIATED BY THE CONTRACTOR:

- A. Should the Contractor discover a discrepancy among the Contract Documents, a concealed or unknown condition at variance with the conditions indicated by the Contract Documents, or other cause for suggesting a change in the Work, a change in the Contract Sum, or a change in the Contract Time of Completion, he shall notify the Architect/Engineer as required by pertinent provisions of the Contract Documents.
- B. Upon agreement by the Architect/Engineer that there is reasonable cause to consider the Contractor's proposed change, the Architect/Engineer will issue either a Request for Proposal in accordance with Paragraph 1.7.A.1 below or a Construction Change Directive in accordance with the provisions described in Paragraph 1.7.B.1 below.

1.7 PROCESSING CHANGES INITIATED BY THE OWNER:

A. REQUESTS FOR PROPOSAL;

- 1. Issuance by Architect/Engineer - Should the Owner contemplate making a change in the Work or a change in the Contract Time of Completion, the Architect/Engineer will issue a "Request for Proposal" to the Contractor as directed by the Owner.
 - a. Requests for Proposal will be dated and will be numbered in sequence with Construction Change Directives.
 - b. The Request for Proposal will describe the contemplated change, and will instruct the Contractor to promptly advise the Architect/Engineer as to any credit or cost proposed for the described change. Any adjustment proposed to the Contract Sum shall be based on one of the methods described in Paragraph 7.3.3 of the General Conditions.
 - c. The Request for Proposal is **not** an authorization to proceed with the change.
- 2. Response by Contractor - If the Contractor receives a Request for Proposal from the Architect/Engineer, the Contractor shall:
 - a. Analyze the described change and its impact on costs and time;
 - b. Consult with the Architect/Engineer and reach agreement on the most appropriate method described in Paragraph 7.3.3 of the General Conditions for determining credit or cost for the change. (Information pertinent to allowable mark-up percentages is listed in Paragraph 1.8.)

- c. Secure the required information;
 - d. Submit a written reply as described below to the Architect/Engineer for review in response to each Request for Proposal received;
 - i. State proposed change in the Contract Sum, if any.
 - ii. State proposed change in the Contract Time of Completion, if any.
 - iii. Clearly describe other changes in the Work required by the proposed change, or desirable therewith, if any.
 - iv. Include full backup data such as subcontractor's or supplier's, et al, letters of proposal or similar information.
 - v. Submit this response in single copy, signed, and on letterhead.
 - e. Meet with the Architect/Engineer as required to explain costs and, when appropriate, determine other acceptable ways to achieve the desired objective;
 - f. Alert pertinent personnel and subcontractors or suppliers, et al, as to the impending change and, to the maximum extent possible, avoid such work as would increase the Owner's cost for making the change, advising the Architect/Engineer in writing when such avoidance no longer is practicable.
3. Agreement on Terms by All Parties - When the parties are in written agreement concerning the effect the change described in the Request for Proposal may, or may not, have on the Contract, and the Owner decides to proceed with the described change, one of the following shall apply;
- a. Contract Adjustment Required - If the described change requires an adjustment to the Contract Sum, or the Contract Time of Completion, the Architect/Engineer initiates the Change Order Request Summary (a copy of which is included for reference only at the end of this Section) and provides it along with appropriate backup data to the University of Florida Project Manager. The University of Florida Project Manager then processes the Change Order as described in Paragraph 1.9.
 - b. Contract Adjustment Not Required - If the described change does not require an adjustment to either the Contract Sum or the Contract Time of Completion, a Change Order is deemed unnecessary.

4. Disagreement on Terms - When there is disagreement concerning the effect the change described in the Request for Proposal may, or may not, have on the Contract, the Contractor shall continue to consult with the Architect/Engineer as necessary to reach agreement. Should the Owner decide to proceed with the Work prior to agreement being reached, the Architect/Engineer will issue a "Construction Change Directive" to the Contractor as described in Paragraph 1.7.B.1 below.

B. CONSTRUCTION CHANGE DIRECTIVES;

1. Issuance by Architect/Engineer - Should the Owner wish to proceed with making a change in the Work or a change in the Contract Time of Completion, the Architect/Engineer will issue a "Construction Change Directive" to the Contractor in accordance with Paragraph 7.3 and 7.4 of the General Conditions.
 - a. Construction Change Directives will be dated and will be numbered in sequence with Requests for Proposal.
 - b. The Construction Change Directive will describe the desired change in the Work, and will carry one of the following instructions to the Contractor regarding adjusting the Contract:
 - i. "No Change in Contractual Costs or Time" Construction Change Directive - Make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion;
 - ii. "Contract Change Expected" Construction Change Directive - Make the described change in the Work, credit or cost for which will be determined in accordance with Subparagraph 7.3.3 of the General Conditions. Information pertinent to allowable mark-up percentages is listed in Paragraph 1.8.
2. Response by Contractor to "No Change in Contractual Costs or Time" Construction Change Directive - If the Contractor has been directed by the Architect/Engineer to make the described change at no change in the Contract Sum and no change in the Contract Time of Completion, the Contractor shall:
 - a. Proceed with the Work, incorporating the described change as appropriate.
 - b. Make a written reply as described below to the Architect/Engineer in response to each Construction Change Directive.

- i. Indicate agreement or disagreement with the assertion that the described change can be made at no change in the Contract Sum and no change in the Contract Time of Completion.
 - ii. State proposed change in the Contract Sum, if any.
 - iii. State proposed change in the Contract Time of Completion, if any.
 - iv. Clearly describe other changes in the Work required by the proposed change, or desirable therewith, if any.
 - v. Include full backup data such as subcontractor's or materials supplier's letter of proposal or similar information.
 - vi. Submit this response in single copy, signed, and on letterhead.
3. Response by Contractor to "Contract Change Expected" Construction Change Directive - If the Contractor has been directed by the Architect/Engineer to make the described change subject to later determination of cost or credit, the Contractor shall:
 - a. Proceed with the Work, incorporating the described change as appropriate.
 - b. Consult with the Architect/Engineer and reach agreement on the most appropriate method described in Paragraph 7.3.3 of the General Conditions for determining credit or cost for the change.
 - c. Make written reply as described below to the Architect/Engineer in response to each Construction Change Directive.
 - i. State proposed change in the Contract Sum, if any.
 - ii. State proposed change in the Contract Time of Completion, if any.
 - iii. Clearly describe other changes in the Work required by the proposed change, or desirable therewith, if any.
 - iv. Include full backup data such as subcontractor's letter of proposal or similar information.
 - v. Submit this response in single copy, signed, and on letterhead.

4. Agreement on Terms by All Parties -
 - a. Contract Adjustment Required - When a Construction Change Directive requires adjustment to either the Contract Time or the Contract Sum and has been agreed upon by all parties, the Architect/Engineer initiates the Change Order Request Summary (a copy of which is included at the end of this Section) and provides it along with appropriate backup data to the University of Florida Project Manager. The University of Florida Project Manager then processes the Change Order as described in Paragraph 1.9.
 - b. Contract Adjustment Not Required - When all parties are in written agreement that a Construction Change Directive does not require adjustment to the Contract Sum or the Contract Time of Completion, a Change Order is deemed unnecessary.

5. Disagreement on Terms;
 - a. "No Change in Contractual Costs or Time" Construction Change Directive - If the Contractor has been directed by the Architect/Engineer to make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion, but the Contractor wishes to make a claim for one or both of such changes, the Contractor shall proceed with the Work and notify the Architect/Engineer of the Contractor's disagreement by indicating any Contract adjustment requested in the written reply (signed and on letterhead) required by Paragraph 1.7.B above.
 - b. "Contract Change Expected" Construction Change Directive - When there is disagreement concerning the effect the change described in the Construction Change Directive may, or may not, have on the Contract, the Contractor shall continue to consult with the Architect/Engineer as necessary to reach agreement.

1.8 MAXIMUM PERCENTAGES AND OTHER CONSIDERATIONS OF A CONTRACT SUM CHANGE

The percentage fee for overhead and profit combined, to be added to the Cost of the Change in determining the total cost to the Owner, shall be based upon the following schedule:

- A. For any Work performed by the Contractor's own forces, 15% of the Cost of the Change;
- B. For any Work performed by a Subcontractor or forces under the Subcontractor including any Sub-subcontractors or other persons not in the direct employ of the Subcontractor, a total of 22 1/2% of the Cost of the Change, with 15% to be assigned to the Subcontractor and any forces under him and 7 1/2% to be

assigned to the Contractor.

- C. When a project is handled by a Construction Manager (CM), via the Agreement between Owner and Construction Manager for Continuing Services, the total cost to the Owner is determined based on the following schedule:
1. For any Work performed by the Construction Manager's own forces, the maximum allowable mark-up that may added to the Cost of the Change for overhead and profit combined, is the Construction Manager percentage fee determined at the beginning of each project.
 2. For any Work performed by a Subcontractor or forces under the Subcontractor including any Sub-subcontractors or other persons not in the direct employ of the Subcontractor, the maximum allowable mark-up that may added to the Cost of the Change for overhead and profit combined, is a 15% fee to be assigned to the Subcontractor **and** any forces under him, plus the agreed upon Construction Manager's percentage fee.

1.9 PROCESSING CHANGE ORDERS:

Upon receipt of the Change Order Request Summary (a copy of which is included at the end of this Section) and appropriate backup data from the Architect/Engineer, the University of Florida Project Manager will obtain the appropriate University approvals and have the Change Order issued. This formal authorization is issued to the Contractor as an amendment to the Purchase Order.

UNIVERSITY OF FLORIDA
 PHYSICAL PLANT DIVISION
 ARCHITECTURE/ENGINEERING DEPARTMENT
 BLDG. 700 · (352) 392-1155 · GAINESVILLE, FL 32611

CHANGE ORDER REQUEST SUMMARY

DATE: _____

WORK ORDER NO.: _____

PROJECT NO.: _____ P.O. NO.: _____ BID NO.: _____ C.O. NO.: _____

TITLE: _____

CHANGE ORDER ITEMS WITH BACK-UP
 ATTACHMENTS AS NOTED:

SUBTRACT	ADD
NET ADD OR SUBTRACT:	

	SUBTRACT	ADD
ORIGINAL CONTRACT SUM		
PREVIOUS NET ADD/SUBTRACT:		
PRESENT CONTRACT SUM:		
THIS CHANGE ADD/SUBTRACT:		
NEW CONTRACT SUM:		

	DAYS/DATE	DATE OF COMPLETION
NOTICE TO PROCEED:		
ORIGINAL CONTRACT TIME:		
PRESENT CONTRACT TIME:		
THIS CHANGE ADD/SUBTRACT:		
NEW CONTRACT TIME:		

APPROVAL	AUTHORIZED SIGNATURES	DATE
ARCHITECT/ENGINEER CONSULTANT:		
PPD PROJECT MANAGER:		
PPD A/E DEPT. - ASSOCIATE DIRECTOR:		

SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 RELATED SECTIONS:

Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.

1.2 DESCRIPTION:

A. WORK INCLUDED:

To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Architect/Engineer will conduct project meetings throughout the construction period.

B. WORK NOT INCLUDED:

The Contractor's relations with his subcontractors and materials suppliers, and discussions related thereto, especially financial, are the Contractor's responsibility. Nevertheless, for most project progress meetings to be of maximum benefit, the active participation of subcontractors is encouraged.

1.3 QUALITY ASSURANCE:

For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings.

1.4 SUBMITTALS:

A. AGENDA ITEMS:

To the maximum extent practicable, advise the Architect/Engineer at least 24 hours in advance of project meetings regarding items to be added to the agenda.

B. MINUTES:

1. The Architect/Engineer will compile minutes of each project meeting, and will furnish three copies to the contractor and required copies to the Owner.
2. Recipients of copies may make and distribute such other copies as they wish.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

3.1 MEETING SCHEDULE:

- A. Except as noted below for Pre-Construction Meeting, project meetings will be held weekly.
- B. Coordinate as necessary to establish mutually acceptable schedule for meetings.

3.2 MEETING LOCATION:

The Architect/Engineer will establish meeting location. To the maximum extent practicable, meetings will be held at the job site.

3.4 PROJECT MEETINGS:

A. ATTENDANCE:

1. To the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout progress of the Work.
2. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved.

B. MINIMUM AGENDA:

1. Review, revise as necessary, and approve minutes of previous meetings.
2. Review progress of the Work since last meeting, including status of submittals and pay requests for approval.
3. Identify problems which impede planned progress.
4. Develop corrective measures and procedures to regain planned schedule.
5. Complete other current business.

C. REVISIONS TO MINUTES:

1. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
2. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
3. Challenge to minutes shall be settled as priority portion of "old business" at the next regularly scheduled meeting.

END OF SECTION

SECTION 01201 – PRE-CONSTRUCTION CONFERENCE

PART 1 - GENERAL

1.1 RELATED SECTIONS:

Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 DESCRIPTION OF WORK INCLUDED:

To help clarify construction contract administration procedures, the Architect/Engineer will conduct a Pre-Construction Conference prior to start of Work. Provide attendance by the designated personnel.

1.3 QUALITY ASSURANCE:

Representatives attending the Pre-Construction Conference should have the authority to speak for their organization.

1.4 SUBMITTALS:

- A. To the maximum extent practicable, the Contractor shall advise the Architect/Engineer at least 24 hours in advance of the Conference as to items to be added to the agenda.
- B. The Architect/Engineer will compile minutes of the Conference, and will furnish three copies of the minutes to the Contractor and required copies to the Owner. The Contractor may make and distribute such other copies as he wishes.

1.5 PRE-CONSTRUCTION CONFERENCE:

- A. The Conference will be scheduled commensurate with the Notice to Proceed, but prior to actual start of the Work.
- B. ATTENDANCE:
 - 1. Provide attendance by authorized representatives of the Contractor and major subcontractors.
 - 2. The Architect/Engineer will advise other interested parties, including the Owner, and request their attendance.

C. MINIMUM AGENDA:

Data will be distributed and discussed on:

1. Organizational arrangement of Contractor's forces and personnel, and those of subcontractors, materials suppliers, and the Architect/Engineer;
2. Channels and procedures for communication;
3. Construction schedules, sequence of critical work, schedule of values, details, work by subcontractors, offsite fabrication, revisions, updating, maintenance, reissue;
4. Contract Documents, including distribution of required copies of Drawings and revisions;
5. Processing of Shop Drawings and other data submitted to the Architect/ Engineer for review;
6. Processing of field decisions and Change Orders;
7. Rules and regulations governing performance of the Work;
8. Hot Work Policy; comply with Appendix "C" of Construction Standards.
9. Procedures for safety and first aid, security, and quality control, housekeeping, barricades, control of work involving generation of noxious fumes/odors, noise, et al, potential disruption to building occupants, special precautions, and related matters;
10. UF, PPD Natural Disaster Emergency Plan;
11. Project Signs; PPD or BOR, Felony Trespassing, and Anti-Harassment. (No other signs are allowed.)
12. Assignment of Vehicular Parking and Staging Area;
13. Dig Permits;
14. Tree Protection;
15. Toilet Facilities;
16. Completion - time extensions - liquidated damages;
17. Lock Cylinders for Work and access to Work;
18. Storage Facilities;
19. Working Hours;
20. Utility Outages, Temporary Power, and Metering;
21. Completion Inspections - Substantial and Final;
22. Payment Procedures and Forms;
23. "As-Built" Drawings and Manuals;
24. Fire Suppression Equipment (Contractor must call Fire Equipment Services at 392-2364 and request that any unneeded fire equipment be picked up);
25. Workmanship and Quality;
26. Site supervision including work by subcontractors and sub-subcontractors;
27. Waivers of lien and Performance Bond,
28. The Contractor's provision of evidence (per Section 00100, Subparagraph 1.18.A) of notice being posted in the newspaper and at the work site;
29. The Contractor's provision of Proof of Insurance;
30. Asbestos Abatement - Scheduled Start and Completion.

END OF SECTION

01 300 SUBMITTALS & SHOP DRAWINGS

GENERAL SUBMITTAL REQUIREMENTS

- A. Deliver submittals to the Architect unless indicated otherwise. Accompany each submittal with a letter of transmittal indicating:
 - 1. Title of Project
 - 2. Name of Contractor
 - 3. Title of Submittal
 - 4. Number of Submittal (numbering shall CORRESPOND TO SPECIFICATION SECTION NUMBER).
- B. Include ALL ITEMS requested within the Section being submitted.
- C. Do not include any items not within the Section being submitted.
- D. Provide a SEPARATE TRANSMITTAL for each submittal
- E. Format:
 - 1. Submittal data 11" x 17" or smaller in size:
 - a. The Contractor shall submit submittals in such quantity to allow the Architect to retain THREE (3) copies.
 - 2. Submittal data larger than 11" x 17" in size:
 - a. The Contractor shall submit reproducible sepias and two (2) bluelines or photocopies.
 - b. The Architect will stamp the sepia, note as required, make copies for his use and return the sepia to the Contractor for his use.
- F. **Submittals not following the above requirements will be returned unreviewed.**

2. SHOP DRAWINGS, PRODUCT DATA, & SAMPLES

- A. Definitions:
 - 1. Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are prepared by Contractor or any subcontractor, manufacturer, supplier, or distributor. Shop drawings illustrate some portion of the Work and confirm dimensions and conformance to Contract Documents.
 - a. Shop drawings are not a part of the Contract Documents.
 - 2. Samples are physical examples furnished by Contractor to illustrate materials, equipment, color, or workmanship and to assist in the establishment of standards by which the Work will be judged.
- B. Procedure:
 - 1. Contractor shall review and designate (stamp) his approval and submit to Architect, with reasonable promptness and in orderly sequence, all shop drawings and samples required by the Contract Documents.
 - a. Shop drawings and samples not required by the Contract Documents but requested by Contractor or supplied by those under contract to him need not be submitted to Architect for approval unless specifically requested. These shop drawings shall meet all specified shop drawing requirements except those relating to submission to Architect.
 - 2. Shop drawings and samples shall be properly identified as specified or as Architect may require.
 - 3. Contractor shall reject shop drawings not in conformance with the Contract Documents.
 - 4. Shop drawings shall be complete and detailed. If reviewed by Architect, each copy of the shop drawings will be identified as having received such approval by being so stamped and dated. If review "with exception" or "as noted" by Architect is so identified, stamped, and dated, Contractor shall comply with notations shown. If such qualified review is shown or if the shop drawings are not reviewed by Architect or if re-submission is so directed, Contractor shall make any corrections required or indicated by Architect at Contractor's expense.
 - a. Any shop drawing or correction indicated on a shop drawing which does not conform to

- the Contract Documents shall be submitted as a change order and approved prior to performing the changed work.
- b. Contractor shall bear cost of reproducing copies of shop drawings required by all concerned.
5. Review shall be considered timely if submittal is returned to Contractor within 14 days of receipt of complete submittal by the Architect. It may be necessary, however, to delay review of submittals if coordination with of submittals must be made with submittals not yet received.
- C. By approving shop drawings and samples, Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers, and similar data, or will do so, and that he has checked and coordinated each shop drawing and sample with requirements of the Work and of the Contract Documents.
 - D. No work requiring a shop drawing or sample submission shall be commenced until submission has been approved by Architect.
 - E. Samples:
 - 1. Where specified or required, Contractor shall submit samples to Architect together with specification material, affidavits, and other documentation as may be required by Architect.
 - 2. It is Contractor's specific responsibility to ascertain that samples submitted have been checked and approved by him.
 - 3. Cost of samples, together with transportation, delivery, and any other costs, shall be borne by Contractor. Samples shall be submitted in duplicate and one of each sample shall be retained in the office of Architect until completion of the Project. Where samples are specifically required to be submitted for approval, no work involving the sampled materials shall proceed until written approval has been obtained from Architect.
 - F. Review By Architect:
 - 1. Product Submittal Data on any particular phase of Work will receive one review and one re-review (if required). If additional reviews are required beyond these two the Contractor will be charged \$ 80.00 per hour for review time. This fee shall be paid to the Architect prior to Product Submittal Data release.
 - 2. Submittals will be stamped (Approved,....Rejected) to the same degree as the Contractor stamps them.
 - 3. Review of shop drawings by Architect shall not be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory. Review of such drawings will not relieve Contractor of responsibility for any error which may exist in the submittals.

END OF SECTION

SECTION 01310 - CONSTRUCTION SCHEDULES

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Refer to Section 01016, Utility Outages for related requirements regarding the coordination of utility outages with the University of Florida Schedule.

1.2 DESCRIPTION:

A. WORK INCLUDED:

To assure adequate planning and execution of the Work so that the Work is completed within the number of calendar days allowed in the Contract, and to assist the Architect/Engineer in appraising the reasonableness of the proposed schedule and in evaluating progress of the Work, prepare and maintain the schedules and reports described in this Section.

B. RELATED WORK:

- 1. Requirements for Progress Schedule: General Conditions (Section 00700).
- 2. Construction Period: As per Contract.

C. DEFINITIONS:

"Day", as used throughout the Contract unless otherwise stated, means "calendar day" (Section 01091, Definitions and Standards).

1.3 QUALITY ASSURANCE:

- A. Employ, if necessary, a scheduler who is thoroughly trained and experienced in compiling construction schedule date, and in preparing and issuing periodic reports as required below.
- B. Perform data preparation, analysis, charting, and updating in accordance with standards approved by the Architect/Engineer.

C. Reliance upon the approved schedule:

1. The construction schedule as approved by the Architect/Engineer will be an integral part of the Contract and will establish interim completion dates for the various activities under the Contract.
2. Should any activity not be completed within 15 days after the stated schedule date, the Owner shall have the right to require the Contractor to expedite completion of the activity by whatever means the Owner deems appropriate and necessary, without additional compensation to the Contractor.
3. Should any activity be 30 days or more behind schedule, the Owner shall have the right to perform the activity or have the activity performed by whatever method the Owner deems appropriate.
4. Costs incurred by the Owner and by the Architect/Engineer in connection with expediting construction activity under this Article shall be reimbursed by the Contractor.
5. It is expressly understood and agreed that failure by the Owner to exercise the option either to order the Contractor to expedite an activity or to expedite the activity by other means shall not be considered to set a precedent for any other activities.

1.4 SUBMITTALS:

A. Comply with pertinent provisions of Section 01340, Submittals and Substitutions.

B. CONSTRUCTION SCHEDULE:

Within ten (10) calendar days after the Contractor has received the Owners' Notice to Proceed, submit one (1) reproducible copy and four (4) prints of a construction schedule prepared in accordance with Part 3 of this Section.

C. PERIODIC REPORTS:

After the above-mentioned construction schedule is approved, if the PPD Project Manager deems it to be necessary, the Contractor will be required to submit periodic updates of the construction schedule consisting of four (4) prints of the construction schedule updated as described in Part 3 of this Section.

PART 2 - PRODUCTS

2.1 CONSTRUCTION ANALYSIS:

- A. Graphically show by bar chart the order and interdependence of all activities necessary to complete the Work, and the sequence in which each activity is to be accomplished, as planned by the Contractor and his project field superintendent in coordination with all subcontractors whose work is shown on the diagram.
- B. Include, but do not necessarily limit indicated activities to:
 - 1. Project mobilization;
 - 2. Submittal and approval of Shop Drawings and Samples;
 - 3. Procurement of equipment and critical materials;
 - 4. Fabrication of special material and equipment, and its installation and testing;
 - 5. Final cleanup;
 - 6. Final inspecting and testing;
 - 7. All activities by the Architect/Engineer that affect progress, required dates for completion, or both, for all and each part of the Work.

PART 3 - EXECUTION

3.1 CONSTRUCTION SCHEDULE:

- A. As soon as practical after receipt of Notice to Proceed, complete the construction analysis in preliminary form, meet with the Architect/Engineer, review contents of the proposed construction schedule, and make all revisions agreed upon. Contractor will coordinate his work with the University of Florida Schedule. Construction work will be so scheduled and carried out that the normal operations of the University must be given first priority. This applies particularly to outages of Utilities and restriction of access. Such construction operations must be carried out outside of normal working hours and by overtime, weekend, and holiday working. *It shall be the contractor's responsibility to provide for this in his Bid.*
- B. Submit in accordance with Paragraph 1.4 above.

3.2 PERIODIC REPORTS:

As required under Paragraph 1.4 above, update the approved construction schedule.

- A. Indicate "actual" progress in percent completion for each activity;
- B. Provide written narrative summary of revisions causing delay in the program, and an explanation of corrective actions taken or proposed.

3.3 REVISIONS:

Make only those revisions to approved construction schedule as are approved in advance by the Architect/Engineer.

END OF SECTION

SECTION 01340 - SUBMITTALS AND SUBSTITUTIONS

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Individual requirements for submittals also may be described in pertinent Sections of these Specifications.

1.2 DESCRIPTION OF WORK:

A. WORK INCLUDED:

Make submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

B. WORK NOT INCLUDED:

- 1. Un-required submittals will not be reviewed by the Architect/Engineer.
- 2. The Contractor may require his subcontractors to provide drawings, setting diagrams, and similar information to help coordinate the Work, but such data shall remain between the Contractor and his Subcontractors and will not be reviewed by the Architect/Engineer.

1.3 QUALITY ASSURANCE:

A. COORDINATION OF SUBMITTALS:

- 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
- 2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
- 3. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.

B. SUBSTITUTIONS:

1. The Contract is based on the standards of quality established in the Contract Documents. Substitutions will be considered only when listed at the time of bidding. If bids are based on equivalent products, indicate on the Bid Proposal Form (Bid Form 00310-1) the manufacturer's name and catalog number. Bidder shall submit, at the time of bidding, cut sheets, sketches, and descriptive literature, and/or complete specifications. The Bidder shall also explain in detail the reason why the proposed equivalent will meet the specifications and not be considered an exception thereto.
2. The following products do not require further approval except for interface within the Work.
 - a. Products specified by reference to standard specifications such as ASTM and similar standards.
 - b. Products specified by manufacturer's name and catalog model number.
3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this work by the Architect/Engineer.

C. "OR EQUAL",

1. Where the phrase "or equal", or "or equal as approved by the Architect/Engineer", occurs in the Contract Documents, do not assume that the materials, equipment, or methods will be approved as equal unless the item has been specifically so approved for this Work by the Architect/Engineer.
2. The decision of the Architect/Engineer shall be final.

1.4 SUBMITTALS:

Make submittals of Shop Drawings, Samples, substitution requests, and other items in accordance with the provisions of this Section.

PART 2 - PRODUCTS

2.1 SHOP DRAWINGS:

A. SCALE AND MEASUREMENTS:

Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the work.

B. TYPES OF PRINTS REQUIRED:

Submit Shop Drawings in the form of one sepia transparency of each sheet plus three blueline or blackline prints of each sheet.

C. Review comments of the Architect/Engineer will be shown on the sepia transparency when it is returned to the Contractor. The Contractor may make and distribute such copies as are required for his purposes.

2.2 MANUFACTURER'S LITERATURE:

A. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.

B. Submit 4 copies. One copy will be retained by the Architect/Engineer.

2.3 SAMPLES:

A. Provide Sample or Samples identical to the precise article proposed to be provided. Identify as described under "Identification of Submittals" below.

B. NUMBER OF SAMPLES REQUIRED:

1. Unless otherwise specified, submit 3 samples. One will be retained by the Architect/Engineer.

2. By prearrangement in specific cases, a single Sample may be submitted for review, and when approved, be installed in the work at a location agreed upon by the Architect/Engineer.

2.4 COLORS AND PATTERNS:

Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to the Architect/Engineer for selection.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS:

- A. Consecutively number all submittals.
 - 1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with a new transmittal number.
 - 2. On resubmittals, cite the original submittal number for reference.
- B. Accompany each submittal with a letter of transmittal showing all information required for identification and checking.
- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the submittal number in which the item was included.
- D. Maintain an accurate submittal log for the duration of the Work, showing current status of all submittals at all times. Make the submittal log available to the Architect/Engineer for his review upon request.

3.2 GROUPING OF SUBMITTALS:

Unless otherwise specified, make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.

- A. Partial submittals may be rejected as not complying with the provisions of the Contract.
- B. The Contractor may be held liable for delays caused by non-complying submittals.

3.3 TIMING OF SUBMITTALS:

- A. Make submittals far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and re-submittals, and for placing orders and securing delivery.
- B. In scheduling, allow at least ten working days for review by the Architect/Engineer following his receipt of the submittal.

3.4 ARCHITECT/ENGINEER'S REVIEW:

- A. Review by the Architect/Engineer does not relieve the Contractor from responsibility for errors that may exist in the submitted data.

- B. **SHOP DRAWINGS:**

Shop Drawings submitted to the Architect/Engineer for approval shall first be checked and approved by the Contractor, the evidence of which shall be a "checked" stamp marked "Approved", or "Approved as Noted", on each copy of each Shop Drawing, placed thereon by the Contractor. Shop Drawings received without the Contractor's "checked" stamp will be cause for immediate return without further action. Each drawing correctly submitted will be checked by the Architect/Engineer and marked "Approved", "Approved as Noted", or "Not Approved".

- C. **REVISIONS:**

1. The Contractor shall make the revisions required by the Architect/Engineer.
2. If the Contractor considers any required revision to be a change, he shall so notify the Architect/Engineer as provided for in Paragraph 12.3 of the General Conditions.
3. The Contractor shall make only those revisions as directed or approved by the Architect/Engineer.

END OF SECTION

SECTION 01370 - SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
- B. The Schedule of Values is required under Article 9.2 of the General Conditions (AIA Document A201, 1976 Edition per Section 00700).

1.2 DESCRIPTION OF WORK INCLUDED:

- A. Provide a detailed breakdown of the agreed Contract Sum showing values allocated to each of the various parts of the Work, as specified herein and in other provisions of the Contract Documents.
- B. The breakdown of the Work shall be made according to the format of the Construction Specifications Institute's "Master List of Titles and Numbers for the Construction Industry" (1988 Edition).

1.3 QUALITY ASSURANCE:

- A. Use required means to assure arithmetical accuracy of the sums described.
- B. When so required by the Architect/Engineer, provide copies of the subcontracts or other data acceptable to the Architect/Engineer, substantiating the sums described.

1.4 SUBMITTALS:

Within ten (10) days after receipt of Notice to Proceed, the Contractor shall submit a proposed Schedule of Values to the Architect/Engineer.

- A. Meet with the Architect/Engineer and determine additional data, if any, required to be submitted.
- B. Secure the Architect/Engineer's approval of the Schedule of Values prior to submitting first application for payment.
- C. Submit Schedule of Values with each pay request indicating the percentage of work completed.

END OF SECTION

01 400 TESTING LABORATORY SERVICES

1. GENERAL

- 1.1. Certain tests of materials, equipment and systems are required as a part of the Contract Documents. These are named in the Technical Specifications and the Contractor shall provide such testing to establish compliance with the requirements of the specifications.
- 1.2. Should initial tests indicate non-compliance any subsequent retesting shall be performed by the same agency.
- 1.3. All costs of required inspections, tests and retesting shall be paid for by the Contractor.
- 1.4. Three copies of all test reports shall be furnished to the Architect.

END OF SECTION

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Permanent installation and hookup of the various utility lines are described in other Sections.
- C. Refer to Section 00842, Safety Requirements for requirements regarding compliance with OSHA regulations.

1.2 DESCRIPTION:

A. WORK INCLUDED:

Provide temporary facilities and controls needed for the Work, including, but not necessarily limited to:

- 1. Temporary utilities such as heat, water, electricity, and telephone;
- 2. Field office for the Contractor's personnel;
- 3. Sanitary facilities;
- 4. Enclosures such as tarpaulins, barricades, and canopies; traffic control and pedestrian control devices;

B. WORK NOT INCLUDED:

- 1. Except for the requirement that equipment furnished by subcontractors shall comply with pertinent safety regulations, such equipment as normally furnished by the individual trades in execution of their own portions of the Work, is not part of this Section.
- 2. The permanent installation and hookup of the various utility lines are described in other Sections and are not part of this Section.

1.3 PRODUCT HANDLING:

Maintain temporary facilities and controls in proper and safe condition throughout progress of the Work.

PART 2 - PRODUCTS

2.1 UTILITIES:

A. WATER:

1. Provide necessary temporary piping and water supply, and upon completion of the Work, remove such temporary facilities.
2. Water necessary for construction, drinking, and testing of plumbing and mechanical systems will be furnished and paid for by the Owner.

B. ELECTRICITY:

1. Provide necessary temporary wiring, and upon completion of the Work, remove such temporary facility.
2. Provide area distribution boxes located such that the individual trades may furnish and use extension cords 100 feet in length (maximum) to obtain power and lighting at points where needed for work, inspection, and safety.
3. All electric power necessary for the construction and testing of Project mechanical and electrical systems will be furnished and paid for by the Owner. The point(s) of tie-in shall be designated by the Physical Plant Division.
 - a. All temporary wiring provided by the Contractor must conform to the requirements of the National Electric Code, the Industrial Safety Commission and local requirements. In addition, all wire used shall be fused to adequately protect that wire according to the Code.
 - b. The contractor shall have an adequate number of outlets and each outlet shall be properly and clearly labeled with the maximum voltage and fuse protection.
 - c. Where temporary lighting is used, outlets shall consist of a weatherproof socket properly insulated and provided with a locking type wire guard.
 - d. All devices shall be properly grounded.

2.2 FIELD OFFICES AND SHEDS:

A. CONTRACTOR'S FACILITIES:

Field office buildings and sheds are not allowed except under special circumstances.

B. SANITARY FACILITIES:

1. Provide temporary sanitary facilities, if required, for use by all personnel.
2. Maintain in a sanitary condition at all times.
3. The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the regulations of the State Board of Health.
4. At the Owner's option, existing sanitary facilities (location to be established at the Pre-Construction Conference) may be used by construction personnel.

2.3 ENCLOSURES:

A. GENERAL:

Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, bridges, and other temporary construction necessary for proper completion of the Work in compliance with pertinent safety and other regulations.

B. DUMPSTER ENCLOSURES:

For all projects requiring dumpsters, where the dumpster is located within the geographical area of Campus bounded by SW 13th Street, West University Avenue, North-South Drive, and Stadium Road, the dumpster shall be enclosed by a solid wooden fence installed around the entire perimeter. This fence shall be a minimum of 6' high and shall be constructed of vertical 1 x 6's on a 2 x 4 frame. Pre-fabricated sections are acceptable.

2.4 TEMPORARY FENCING:

- A. Provide and maintain for the duration of construction a temporary fence if needed to prevent entry of the public onto the Work and Storage Area. (Work and Storage Area is the assigned outside area used to access the Work, park vehicles directly engaged in the Work, and temporary storage, i.e. storage while being delivered). The Contractor shall use six-foot high chain link fencing mounted on fixed posts of metal or wood (or other fencing as approved by the PPD Project Manager) for temporary parking and work area; however, any open trenches, or other hazards, shall be enclosed in a fixed wire fence or wooden barricades with flashing lights. The responsibility for any injuries occurring at the Contractor's construction site shall be the Contractor's.
- B. Florida Statutes 812.014 and 810.09 require that construction area fences be clearly labeled "Warning" (white on red) "This area is a designated construction site. Anyone trespassing on this property shall, upon conviction, be guilty of a felony." Signs (black on white) shall be approximately 14" x 18".

2.5 PROJECT SIGNS:

- A. Install the standard Physical Plant Division sign in a location directed by the Architect/Engineer and/or the PPD Project Manager. This sign will be given to the Contractor at the Pre-Construction Conference. Each interior project sign shall be encased in a standard size 17"x 11" glass picture frame. This sign must have a weatherproof housing for exterior installation. The project title, project manager, project number, the Architect or Engineer, the Contractor and the contract's Substantial Completion Date will be shown.
- B. Except as otherwise specifically approved by the Architect/Engineer and/or the PPD Project Manager, do not permit signs or advertising on the job site.

PART 3 - EXECUTION

3.1 MAINTENANCE AND REMOVAL:

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work.
- B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Architect/Engineer and/or the PPD Project Manager.

END OF SECTION

01 600 MATERIALS & EQUIPMENT

1. GENERAL

1.1. Materials:

- A. Materials incorporated into Project shall be new, except as otherwise indicated in the Specifications, of specified quality, and furnished in sufficient quantity to facilitate proper and speedy execution of the Work.
- B. Contractor shall, if required, furnish evidence of the quality of any materials.
- C. Materials not meeting requirements of the Contract Documents shall be removed from Project by Contractor without expense to Owner.
- D. No asbestos or products containing asbestos have been knowingly specified for this Project. Notify the Architect immediately if:
 - 1. Materials containing asbestos are brought to the site for inclusion in the Work.
 - 2. Asbestos materials are encountered in any existing structures upon which work is being performed.

1.2. Delivery, Storage, & Handling:

- A. Materials shall be delivered to the site in original packaging with labels and trademarks intact, and such labels and trademarks shall remain intact until used.
- B. Contractor shall confine his apparatus, storage of materials, and operations of his workmen to limits indicated by law, ordinances, and permits and shall arrange and maintain parking of vehicles and storage of materials in an orderly manner leaving all walks, driveways, roads, and entrances, unencumbered.
- C. All equipment on site shall be protected from physical damage and from the elements by measures satisfactory to Architect. All rotating equipment shall be rotated four turns once each week during construction.

1.3. Product Options & Substitutions:

- A. When several materials are specified in the Contract Documents by name for one use, Contractor may select any one of those so specified. The mixing of several products specified by name for one use is prohibited.
- B. Wherever an item or class of material is specified exclusively by trade name, name of maker, or by catalog reference, use such item only unless Architect's approval for a substitution has been secured by Addendum. Items and material not specified in the Contract Documents and installed in the Work shall be removed and replaced by specified items and material at no additional cost to Owner and for no additional time added to Contract.
- C. Wherever words "Approved by", "Satisfactory to", "submitted to", "inspected by," or similar phrases are used in this Specification, they shall be understood to mean that the material or item referred to shall be approved by, be satisfactory to, submitted to, or inspected by Architect.

END OF SECTION

SECTION 01700 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Activities relative to Contract closeout are described in, but not necessarily limited to, Paragraphs 2.2.15, 9.8, and 9.9 of the General Conditions (Section 00700).
- C. "Substantial Completion" is defined in Paragraph 8.1.3 of the General Conditions (Section 00700). Refer to Section 1091, Definitions and Standards for definitions of other relevant terms.

1.2 DESCRIPTION OF WORK INCLUDED:

Provide an orderly and efficient transfer of the completed Work to the Owner.

1.3 QUALITY ASSURANCE:

Prior to requesting inspection by the Architect/Engineer, use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.

1.4 PROCEDURES:

- A. **SUBSTANTIAL COMPLETION:**
 - 1. The Contractor shall prepare and submit the list of items to be completed or corrected as required by the first sentence of Paragraph 9.8.1 of the General Conditions.
 - 2. Within a reasonable time after receipt of the list, the Architect/Engineer will inspect to determine status of completion.

A. SUBSTANTIAL COMPLETION - Continued:

3. Should the Architect/Engineer determine that the Work is not Substantially Complete:
 - a. The Architect/Engineer promptly will so notify the Contractor, in writing, giving the reasons therefore.
 - b. Remedy the deficiencies and notify the Architect/Engineer when ready for reinspection.
 - c. The Architect/Engineer will reinspect the Work.
4. When the Architect/Engineer concurs that the Work is Substantially Complete:
 - a. The Architect/Engineer will prepare a "Certificate of Substantial Completion" on the included form (See page 5 of this Section) and a list of the Contractor's items to be completed or corrected.
 - b. The Architect/Engineer will submit the Certificate to the Contractor and then to the Owner for their written acceptance of the responsibilities assigned to them in the Certificate.
5. On those projects, which require maintenance and operating manuals, such manuals shall be given to the Project Manager for distribution to relevant Physical Plant employees in advance of the Substantial Completion Inspection so those employees can familiarize themselves with the manuals in advance of the Substantial Completion Inspection.

B. FINAL COMPLETION:

1. Prepare and submit the notice required by the first sentence of Paragraph 9.9.1 of the General Conditions.
2. Verify that the Work is complete including, but not necessarily limited to, the items mentioned in Paragraph 9.9.2 of the General Conditions.
3. Certify that:
 - a. Contract documents have been reviewed;
 - b. Work has been inspected for compliance with the Contract Documents;
 - c. Work has been completed in accordance with the Contract Documents;

B. FINAL COMPLETION, ITEM 3 - Continued:

- d. Equipment and systems have been tested as required, and are operational;
 - e. Work is completed and ready for final inspection.
- 4. The Architect/Engineer will make an inspection to verify status of completion.
 - 5. Should the Architect/Engineer determine that the Work is incomplete or defective:
 - a. The Architect/Engineer promptly will so notify the Contractor, in writing, listing the incomplete or defective work.
 - b. Remedy the deficiencies promptly, and notify the Architect/Engineer when ready for re-inspection.
 - 6. When the Architect/Engineer determines that the Work is acceptable under the Contract Documents, he will request the Contractor to make closeout submittals for which he is responsible.

C. CLOSEOUT SUBMITTALS:

- 1. By Architect/Engineer: Project Record Documents as follows:
 - a. One set of mylar sepias or mylars of all drawings, as per Section 01720 & RFP. (Contractor is responsible for giving "as-built" information to the Architect/Engineer. Architect/Engineer is responsible for the drafting work required to record the "as-built" information on the official "as-builts".)
 - b. "As-Built" Diskettes of Drawings and Specifications as per RFP.
 - c. One set of "As-Built" blueprints. (Made from the "as-built" mylars).
 - d. Before and After 8 x10 photograph as per RFP.
- 2. By Contractor:
 - a. Three sets Operation and Maintenance Manuals as per Section 01730 (more sets may be requested; see Technical Specifications)
 - b. Warranties and bonds;
 - c. Keys and keying schedule;

C. CLOSEOUT SUBMITTALS, ITEM 2 - Continued:

- d. Spare parts and materials extra stock;
- e. Evidence of compliance with requirements of governmental agencies having jurisdiction;
- f. Evidence of payment and release of liens by subcontractors and material suppliers;
- g. List of subcontractors, service organizations, and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at all times, including nights, weekends, and holidays;
- h. Shop Drawings.

D. FINAL ADJUSTMENT OF ACCOUNTS:

- 1. Submit a final statement of accounting to the Architect/Engineer, showing all adjustments to the Contract Sum.
- 2. If so required, the Architect/Engineer will prepare a final Change Order showing adjustments to the Contract Sum, which were not made previously by Change Orders.

1.5 INSTRUCTION:

Instruct the Owner's personnel in proper operation and maintenance of systems, equipment, and similar items which are provided as part of the Work.

**UNIVERSITY OF FLORIDA
PHYSICAL PLANT DIVISION
CERTIFICATE OF SUBSTANTIAL COMPLETION**

PROJECT NO: _____ DATE: _____
(PPD Work Order No.)

The Work, or portion of the Work identified on an attachment hereto, performed under the Contract (Purchase Order) dated _____ between UNIVERSITY OF FLORIDA, Owner and _____, Contractor, for the construction of _____, was inspected and found to be substantially completed as of _____.

The Date of Substantial Completion of the Work or designated portion thereof is the date certified by the Architect/Engineer when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it was intended.

A list of items to be completed or corrected is appended hereto. This list may not be exhaustive and the failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents, including authorized changes thereto.

The Contractor shall complete or correct the Work on the list of items appended hereto within _____ calendar days from the Date of Substantial Completion.

Owner assumed or will assume full possession and responsibility for security of the facility above described on _____.

The responsibility of the Contractor to provide utilities shall cease on the date the Architect/Engineer determines the Work to have been substantially completed in accordance with the requirements of the Contract Documents. On the date so established by the Architect/Engineer as the date of Substantial Completion of the project, or beneficial occupancy, whichever comes first, the one year warranty shall commence running. All insurance coverages shall continue in force as provided by the Contract Documents.

ARCHITECT/ENGINEER:

CONTRACTOR:

(Type name of firm)

(Type name of firm)

By: _____
(Signature of Authorized Representative)

By: _____
(Signature of Authorized Representative)

OWNER: UNIVERSITY OF FLORIDA

By: _____
(Signature of PPD Project Manager)

By: _____
(Signature of Associate Director, A/E Department)

By: _____
(Signature of Director, Physical Plant Division)

PPD FORM NO. (To be assigned)

END OF SECTION

SECTION 01710 - CLEANING

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. In addition to standard described in this Section, comply with requirements for cleaning as described in pertinent other Sections of these Specifications.

1.2 DESCRIPTION OF WORK INCLUDED:

Throughout the construction period, maintain the buildings and site in a standard of cleanliness as described in this Section.

1.3 QUALITY ASSURANCE:

- A. Conduct daily inspection, and more often if necessary, to verify that requirements for cleanliness are being met.
- B. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT:

Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY:

Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING:

A. GENERAL:

1. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
2. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of the Work.
3. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
4. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the environment.

B. SITE:

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Restack, tidy, or otherwise service arrangements to meet the requirements of subparagraph 3.1-A-1.
3. Maintain the site in a neat and orderly condition at all times.

C. STRUCTURES:

1. Weekly, and more often if necessary, inspect the structures and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
2. Weekly, and more often if necessary, sweep interior spaces clean. ("Clean", for the purpose of this subparagraph shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and a hand-held broom.)
3. As required preparatory to installation of succeeding materials, clean the structures of pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the necessary cleanliness.

C. STRUCTURES - Continued:

4. Following the installation of finish floor materials, clean the finish floor daily (and more often if necessary) at all times while work is being performed in the space in which materials are installed.

("Clean", for the purpose of this paragraph, shall be interpreted as meaning free from foreign material which, in the opinion of the Architect/Engineer, may be injurious to the finish floor material.)

3.2 FINAL CLEANING:

- A. "Clean", for the purpose of this Article, and except as may be specifically provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- B. Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described in Article 3.1 above.

C. SITE:

1. Unless otherwise specifically directed by the Architect/Engineer, broom clean paved areas on the site and public paved areas adjacent to the site.
2. Completely remove resultant debris.

D. STRUCTURES:

1. Exterior:
 - a. Visually inspect exterior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter.
 - b. Remove all traces of splashed materials from adjacent surfaces.
 - c. If necessary to achieve a uniform degree of cleanliness, hose down the exterior of the structure.
 - d. In the event of stubborn stains not removable with water, the Architect/Engineer may require light sandblasting or other cleaning at no additional cost to the Owner.

D. STRUCTURES - Continued:

2. Interior:

- a. Visually inspect interior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter.
- b. Remove all traces of splashed material from adjacent surfaces.
- c. Remove paint droppings, spots, stains, and dirt from finished surfaces.

3. Glass: Clean inside and outside.

4. Polished surfaces: To surfaces requiring routine application of buffed polish, apply the polish recommended by the manufacturer of the material being polished.

- E. Schedule final cleaning as approved by the Architect/Engineer to enable the Owner to accept a completely clean Work.

3.3 CLEANING DURING OWNER'S OCCUPANCY:

Should the Owner occupy the Work or any portion thereof prior to its completion by the Contractor and acceptance by the Owner, responsibilities for interim and final cleaning shall be as determined by the Architect/Engineer in accordance with the General Conditions of the Contract.

END OF SECTION

SECTION 01720 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Other requirements affecting Project Record Documents may appear in pertinent other Sections of these Specifications.

1.2 DESCRIPTION OF WORK INCLUDED:

- A. Throughout progress of the work, maintain an accurate record of changes in the Contract Documents, as described in Paragraph 3.1 below.
- B. Upon completion of the Work, submit the recorded changes to the Architect/Engineer as described in Paragraphs 2.1.B and 3.2.B below.

1.3 QUALITY ASSURANCE:

- A. Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Architect/Engineer.
- B. ACCURACY OF RECORDS:
 - 1. Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
 - 2. Accuracy of records shall be such that future search for items shown in the Contract Documents may rely reasonably on information obtained from the approved Project Record Documents.
- C. Make entries within 24 hours after receipt of information that the change has occurred.

1.4 SUBMITTALS:

- A. Comply with pertinent provisions of Section 01340.
- B. Prior to submitting each request for progress payment, secure the Architect/Engineer's approval of the current status of the Project Record Documents as that approval may be a prerequisite for the Architect/Engineer to approve requests for progress payments and the request for Final Payment under the Contract.
- C. Prior to submitting request for final payment, submit the job set of the Project Record Documents to the Architect/Engineer and secure his approval.

1.5 PRODUCT HANDLING:

- A. Maintain the job set of the Record Documents completely protected from deterioration and from loss and damage until completion of the Work and submittal of the job set to the Architect/Engineer for his transfer of all recorded data to the final Project Record Documents.
- B. In the event of loss of recorded data, use means necessary to again secure the data to the Architect/Engineer's approval.
 - 1. Such means shall include, if necessary in the opinion of the Architect/Engineer, removal and replacement of concealing materials.
 - 2. In such case, provide replacements to the standards originally required by the Contract Documents.

PART 2 - PRODUCTS

2.1 RECORD DOCUMENTS:

A. JOB SET:

Promptly following receipt of the Owner's Notice to Proceed, secure from Physical Plant Division, Architecture/Engineering Department at no charge to the Contractor one complete set of all Documents comprising the Contract. (If necessary, replacement sets are available from the Architect/Engineer at the Architect/Engineer's usual charge for reproduction and handling.)

B. FINAL RECORD DOCUMENTS:

At the completion of the Work, the Contractor shall submit the job set of the Record Documents to the Architect/Engineer for review and approval. The Architect/Engineer is responsible to transfer all recorded data from the job set to the final Project Record Documents and to submit these documents to the Project Manager. Record documents shall indicate the "as-built" condition. Intermediate design representations not indicating the "as-built" condition shall be deleted from the Contract drawings by the Architect/Engineer. (The items comprising the final Project Record Documents are determined by the University's Request For Proposal to the Architect/ Engineer, but generally include "as-built" mylars of the Contract drawings, "as-built" AutoCAD-format computer files of the Contract drawings, Word or WordPerfect-format computer files of the "as-built" Contract specifications, and "before" and "after" 8"x10" jobsite photographs. Refer to Section 01700, Paragraph 1.4.C.1) Other Contractor-provided closeout submittals are described in Section 01700, Paragraph 1.4.C.2.

PART 3 - EXECUTION

3.1 MAINTENANCE OF JOB SET::

A. Immediately upon receipt of the job set described in Paragraph 2.1.A above, identify each of the Documents with the title, "RECORD DOCUMENTS - JOB SET".

B. PRESERVATION:

1. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Architect/Engineer.
2. Do not use the job set for any purpose except entry of new data and for review by the Architect/Engineer.
3. Maintain the job set at the site of work as that site is designated by the Architect/Engineer.

C. MAKING ENTRIES ON DRAWINGS:

1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required. Clearly indicate at each affected detail and other Drawing a full description of changes made during construction, and the actual location of items described in Paragraph 3.1.E.1 below.

2. Date all entries.
3. Call attention to the entry by a "cloud" drawn around the area or areas affected.
4. In the event of overlapping changes, use different colors for the overlapping changes.

D. MAKING ENTRIES ON THE OTHER PERTINENT DOCUMENTS:

Make entries in the pertinent other Documents as approved by the Architect/Engineer.

E. CONVERSION OF SCHEMATIC LAYOUTS:

1. In some cases on the Drawings, arrangements of conduits, circuits, piping, ducts, and similar items, are shown schematically and are not intended to portray precise physical layout.
 - a. Final physical arrangement is determined by the Contractor, subject to the Architect/Engineer's approval.
 - b. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the drawings.
2. Show on the job set of Record Drawings, by dimensions accurate to within one inch, the centerline of each run of items such as are described in Paragraph 3.1.E.1.
 - a. Clearly identify the item by accurate notes such as "cast iron drain", "galv. water", and the like.
 - b. Show, by symbol or note, the vertical location of the item ("under slab", "in ceiling plenum", "exposed", and the like).
 - c. Make all identification sufficiently descriptive that it may be related reliably to the Specifications.

3.2 FINAL PROJECT RECORD DOCUMENTS:

- A. The purpose of the final Project Record Documents is to provide factual information regarding all aspects of the work, both concealed and visible, to enable future modification of the work to proceed without lengthy and expensive site measurement, investigation, and examination.

B. APPROVAL OF RECORDED DATA:

1. At the completion of the Work, submit the completed job set of the Project Record Documents to the Architect/Engineer for review.
2. Participate in review meetings and promptly provide any additional information requested and/or make revisions to the job set as required to obtain the Architect/Engineer's approval of the job set as accurate and complete.

3.3 CHANGES SUBSEQUENT TO ACCEPTANCE:

The Contractor has no responsibility for recording changes in the work subsequent to Final Completion, except for changes resulting from work performed under Warranty.

END OF SECTION

SECTION 01730 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED SECTIONS:

- A. Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.
- B. Required contents of submittals also may be amplified in pertinent other Sections of these Specifications.
- C. Refer to Section 01340 - Submittals and Substitutions for additional requirements regarding submittals.

1.2 DESCRIPTION OF WORK INCLUDED:

To aid the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the products incorporated in the work, furnish and deliver the data described in this Section and in pertinent other Sections of these Specifications.

1.3 QUALITY ASSURANCE:

In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.

1.4 SUBMITTALS:

- A. Comply with pertinent provisions of Section 01340 - Submittals and Substitutions.
- B. In sufficient time that they may be reviewed and commented on by the Architect/Engineer and then returned to the Contractor for his/her completion and return to the Architect/Engineer for issue to PPD operating personnel, submit two copies of a preliminary draft of the proposed Manuals to the Architect/Engineer.

- C. Unless otherwise directed in other Sections, or in writing by the Architect/Engineer, submit three copies of the final Manual to the Architect/Engineer at least one week prior to Substantial Completion.

PART 2 - PRODUCTS

2.1 INSTRUCTION MANUALS:

- A. Where Instruction Manuals are required to be submitted under other Sections of these Specifications, prepare in accordance with the provisions of this Section.
- B. FORMAT:
1. Size: 8-1/2" x 11".
 2. Paper: White Bond, at least 20 lb. weight.
 3. Text: Neatly written or printed.
 4. Drawings: 11" in height preferable; bind in with text; foldout acceptable; larger drawings acceptable but fold to fit within the Manual and provide a drawing pocket inside rear cover or bind in with text.
 5. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
 6. Binding: Use heavy-duty plastic or fiberboard covers with binding mechanism concealed inside the Manual; 3-ring binders will be acceptable; all binding is subject to the Architect/Engineer's approval.
 7. Measurements: Provide all measurements in U.S. standard units such as feet-and-inches, lbs., and cfm.
- C. Provide front and back covers for each manual, using durable material approved by the Architect/Engineer, and clearly identified on or through the cover with at least the following information:

OPERATING AND MAINTENANCE INSTRUCTIONS

name and address of work
name of contractor
general subject of this Manual
space for approval signature of
the Architect/Engineer and approval date

D. CONTENTS:

Include at least the following:

1. Neatly typewritten index near front of the Manual, giving information as to location within the Manual of all emergency information regarding the installation.
2. Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly and reassembly.
3. Complete nomenclature of all parts of all equipment.
4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor, and all other data pertinent to procurement procedures.
5. Copy all guarantees and warranties issued.
6. Manufacturer's bulletins, cuts, and descriptive data, where pertinent, clearly indicating the precise items included in this installation, and deleting or otherwise clearly indicating, all manufacturer's data with which this installation is not concerned.
7. Such other data as required in pertinent Sections of these Specifications.

PART 3 - EXECUTION

3.1 INSTRUCTION MANUALS:

A. PRELIMINARY:

1. Prepare a preliminary draft of each proposed Manual.
2. Show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering.
3. Secure the Architect/Engineer's approval prior to proceeding.

B. FINAL:

Complete the Manuals in strict accordance with the approved preliminary drafts and the Architect/Engineer's review comments.

C. REVISIONS:

Following the indoctrination and instruction of operation and maintenance personnel, review all proposed revisions of the Manual with Architect/ Engineer.

3.2 MAINTENANCE INSTRUCTION:

- A. It is required that Physical Plant representatives be instructed in operating and maintenance procedures for installed equipment.
- B. In particular, this applies to the Physical Plant Electrical and Air Conditioning tradesman.
- C. In addition, special tools for use on light switches, A/C controls, etc., should be minimized if at all possible. Special tools desired are specified.

END OF SECTION

END OF NON-TECHNICAL SPECIFICATIONS