

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC WORKS

AMENDMENT ONE

This amendment to the hereinafter-mentioned contract is entered into this *11th* day of *January*, *2011*, by and between the State of Connecticut, hereinafter called the State, acting herein by its Acting Commissioner of the Department of Public Works (DPW), under the provisions of Sections 4-8 and 4b-1 of the Connecticut General Statutes, as revised, and

A/Z Corporation
46 Norwich Westerly Road
North Stonington, CT 06359

hereinafter called the Construction Administrator;

WITNESSETH

Whereas the parties hereto entered into a contract on May 25, 2010, in connection with the project entitled **Department of Public Health State Laboratory Building, Rocky Hill, Connecticut, Project No. BI-2B-179, Contract No. BI-2B-179-CAc**, and

Whereas the parties hereto are desirous of making certain changes to said contract,

Now, therefore, in consideration of the mutual covenants, terms, and conditions herein contained, the parties hereto do hereby agree as follows:

1. Said contract is hereby amended as follows:

- A. **RE: Article I, CONSTRUCTION ADMINISTRATOR RELATIONSHIP, of said contract** – add the following paragraph: The term “Construction Administrator” as used in this contract, and any subsequent amendments or modifications thereto, shall have the same meaning as the term “Owner’s Representative” as used in the contract documents for DPW Project entitled *Department of Public Health State Laboratory Building, Rocky Hill, Connecticut*, Project No. BI-2B-179, including, but not limited to, the DPW Division 1, General Requirements (the “General Requirements”).
- B. **RE: Article III, FEE AND PAYMENTS, of said contract** - “For performing the services under this contract, the Construction Administrator will receive a sum of” is revised from “One Million Two Hundred Eighteen Thousand Seventy-Five Dollars (\$ 1,218,075.00)” to “One Million Three Hundred Sixty-one Thousand Four Hundred Dollars (\$ 1,361,400.00),” an increase of One Hundred Forty-three Thousand Three Hundred Twenty-five Dollars (\$ 143,325.00).
- C. **RE: Exhibit A of said contract** -- **Add the following Special Services Section:**
Special Services

The Construction Administrator shall provide the following additional services when authorized in writing:

1. Commissioning Services

The Construction Administrator shall engage a Commissioning Agent to provide building mechanical, building automation, laboratory control, plumbing (domestic and laboratory), fire protection, and electrical commissioning services whereby equipment and systems will be put through a series of operational and performance tests to insure that all perform per the design intent.

Commissioning services and responsibilities of the Commissioning Agent are as outlined in project specification section 01 91 00 of the General Requirements, "Commissioning," a copy of which is attached to this amendment, and are incorporated herein by reference and shall be as binding upon the parties to this contract as though fully set forth herein.

For these commissioning services, the Construction Administrator will be paid a fee of One Hundred Forty-three Thousand Three Hundred Twenty-five Dollars (\$ 143,325.00) which amount is included in the Construction Administrator's total fee stated in Article III of the contract. Said amount includes all sub-consultant fees and 5% of the cost of such services for the Construction Administrator's overhead and profit. Said amount shall be paid out as follows when the work has been completed by the Construction Administrator and accepted by DPW:

1. Write a Commissioning Plan – A fixed fee of Fifteen Thousand Fifteen Dollars (\$15,015.00);
2. Develop Start-up and Commissioning Checklists – A fixed fee of Twenty-eight Thousand Six Hundred Ten Dollars (\$28,610.00);
3. Attend and Document commissioning meetings – A fixed fee of Twelve Thousand Six Hundred Dollars (\$12,600.00);
4. Execute Functional and Performance Testing – A fixed fee of Forty-four Thousand Eight Hundred Thirty-five Dollars (\$44,835.00);
5. Provide training support – A fixed fee of Four Thousand Two Hundred Dollars (\$4,200.00);
6. Review completion of punchlist work – A fixed fee of Eight Thousand One Hundred Forty Dollars (\$8,140.00);
7. Review Operations and Maintenance Manuals and Warranties – A fixed fee of Ten Thousand Five Hundred Dollars (\$10,500.00);
8. Prepare and submit a final commissioning report – A fixed fee of Fifteen Thousand Two Hundred Twenty-five Dollars (\$15,225.00);
9. Return Warranty Period - A fixed fee of Four Thousand Two Hundred Dollars (\$4,200.00).

The Construction Administrator will provide three (3) hard copies and one (1) electronic copy of the Final Commissioning Report.

The Construction Administrator is authorized to engage the services of R. G. Vanderweil Engineers, LLP, 274 Summer Street, Boston, MA 02210, for the services set forth in this subsection.

2. This amendment shall take effect upon its approval as to form as noted in Paragraph 4.
3. As provided in Connecticut General Statutes Section 4b-23(i), it is essential for the Construction Administrator contracting with the Department of Public Works to understand that the approval of the State Properties Review Board must be granted before the Construction Administrator's work pursuant to this amendment can begin. By providing service without a properly executed amendment, the Construction Administrator accepts the risk that payment will not be made by the State of Connecticut.
4. This amendment shall not be binding on the State unless and until it is approved as to form by the Attorney General of the State of Connecticut, the Deputy Attorney General of the State of Connecticut, or an Associate Attorney General of the State of Connecticut.
5. The Summary of State Ethics Laws posted on the DPW home page (<http://www.ct.gov/dpw/site/default.asp>), and as may be revised from time to time, is incorporated herein by reference as if fully set forth herein. This Summary may be found by clicking on "Ethics Affidavits & Legal Forms."
6. CAMPAIGN CONTRIBUTION RESTRICTION PROVISION

For all State contracts as defined in P.A. 07-1 having a value in a calendar year of \$50,000 or more or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized

signatory to this Agreement expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice. See Attachment [SEEC Form 11].

7. All the terms and conditions of said contract not hereby amended shall remain in full force and effect.

IN WITNESS WHEREOF, the State, acting herein by its Acting Commissioner of the Department of Public Works, and the Construction Administrator have executed this amendment.

Attested by:

Marjorie E. Heap
Witness Marjorie E. Heap

Shelley Seymour
Witness Shelley Seymour

Attested by:

Deborah Clark
Witness Deborah Clark

Adam Thibeault
Witness Adam Thibeault

State of Connecticut

By: [Signature]
Jonathan P. Holmes
Its Acting Commissioner

of the Department of Public Works

Date signed: 1/11/11

A/Z Corporation

By: [Signature]
Perry K. Lorenz

Its President, Duly Authorized

Date signed: 1/7/11

Approved as to form:

[Signature]
Attorney General

Date signed: 1/31/11

SECTION 01 91 00 – COMMISSIONING

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This section includes requirements that apply to the planning and implementation of the commissioning process.
- B. Acronyms used in this Specification:
 - 1. CxA - The Commissioning Agent.
 - 2. OR - The Owner's Representative.
 - 3. CM-R – The Construction Manager at Risk.
 - 4. A/E - The Architect and Engineer comprising the project design team.
 - 5. MC - The Mechanical Contractor.
 - 6. EC - The Electrical Contractor.
 - 7. TAB - The Testing and Balancing Contractor.
 - 8. CC - The Control Contractor.
- C. The Commissioning Process shall:
 - 1. Verify that applicable equipment and systems are installed according to the contract documents, manufacturer's recommendations, and industry accepted minimum standards and that the systems/equipment receive adequate operational checkout by installing contractors.
 - 2. Verify and document proper function/performance of equipment and systems.
 - 3. Verify that O&M documentation delivered to the Owner is complete.
 - 4. Verify that the Owner's operating personnel are adequately trained.
- D. The commissioning process does not take away from, or reduce the responsibility of the system designers or installing contractors to provide a finished and fully functioning product.

1.2 RELATED SECTIONS

- A. Division 01 Section 01 33 00 – Submittal Procedures
- B. Division 01 Section 01 75 00 – Starting and Adjusting
- C. Division 01 Section 01 77 00 – Closeout Procedures
- D. Division 01 Section 01 78 23 – Operation and Maintenance Data
- E. Division 23 Section 23 08 00 – Commissioning of HVAC

1.3 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
 - 1. ASHRAE Guideline 0-2005 The Commissioning Process
 - 2. ASHRAE Guideline 1-2005 The HVAC&R Commissioning Process
 - 3. Applicable federal, state and municipal codes, laws and regulations.

- B. Drawings, specifications and general provisions of the contract, including General and Supplementary Conditions, and other Division 1 specifications, apply to this section.

1.4 REGULATORY REQUIREMENTS

- A. Regulatory requirements are defined in other specification sections.

1.5 SUBMITTALS

- A. The CxA will provide appropriate contractors with a specific request for the type of submittal documentation the CxA requires for facilitating the commissioning work. These requests will be integrated into the normal submittal process and protocol of the construction team. At minimum, the request will include the manufacturer and model number, the manufacturer's printed installation and detailed startup procedures, full sequences of operation, O&M data, performance data, and any performance test procedures, control drawings and details of construction testing procedures, required by the specifications, relating to commissioned systems. In addition, the installation and checkout materials that are actually shipped inside the equipment and the actual field checkout sheet forms to be used by the factory or field technicians shall be submitted to the CxA. All documentation requested by the CxA will be included by the subcontractors in their O&M manual contributions.
- B. The CxA will review submittals related to the commissioned equipment for conformance to the contract documents as it relates to the commissioning process, to the performance of the equipment and adequacy for developing test procedures. This review is intended primarily to aid in the development of performance procedures and only secondarily to verify compliance with equipment specifications. The commissioning authority will notify the OR, CM-R, or A/E, as requested, of items missing or areas that are not in conformance with contract documents and which require resubmission. The CxA will respond to submittals within ten (10) working days of receipt of the documents.
- C. The CxA may request additional clarification of the design intent and controls sequences, provided with the specifications, from the A/E and CC.
- D. A meeting between the CxA, OR, A/E and CM-R will be scheduled to discuss how the submittal review process will be facilitated in order to avoid unnecessary delays.
- E. These submittals to the CxA do not constitute compliance for O&M manual documentation. The O&M manuals are the responsibility of the contractor, though the CxA will review them.

PART 2- PRODUCTS

2.1 TEST EQUIPMENT

- A. All standard testing equipment, tools and instruments required to perform startup and initial checkout and required performance testing shall be provided by the contractor for the equipment being tested. This includes, but is not limited to, two-way radios, meters, tools and equipment.
- B. Any specialty equipment, tools, and instruments required for testing equipment according to these contract documents shall be included in the contractor's base bid price and shall be turned over to the Owner at Project close-out.
- C. All testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance within the tolerances specified in the specifications. If not otherwise

noted, the following minimum requirements apply: Temperature sensors and digital thermometers shall have a certified calibration to NIST traceable standards within the past twelve (12) months to an accuracy of 0.5 degree F and a resolution of + or - 0.1 degree F. Pressure sensors shall have an accuracy of + or - 2.0% of the value range being measured (not full range of meter) and have been calibrated to NIST traceable standards, within the past twelve (12) months. Calibration tags shall be affixed or certificates readily available.

PART 3 - EXECUTION

3.1 COMMISSIONING COORDINATION

- A. Project Commissioning Team - The members of the commissioning team consist of the Commissioning Agent (CxA), the Owner's Representative (OR), Construction Manager (CM-R), The Architect/Engineer (AE), the Mechanical Contractor (MC), the Electrical Contractor (EC), the Testing and Balancing (TAB) Contractor, the Control Contractor (CC), the facility operating staff, and any other installing subcontractors or suppliers of commissioned equipment. The CxA directs and coordinates the project commissioning activities and the reports to the OR. All team members work together to fulfill their contracted responsibilities and meet the objectives of the contract documents.
- B. Management - The CxA coordinates the commissioning activities through the OR and the CM-R.
- C. Scheduling - The CxA, will work with the OR and CM-R for scheduling commissioning activities. The CM-R will coordinate with the MC, EC, CC and TAB to provide them the opportunity to review and plan for scheduled activities. The CM-R will integrate all commissioning activities into the overall project schedule. All parties will address scheduling problems and make necessary notifications in a timely manner in order to expedite the commissioning process.

3.2 COMMISSIONING PLAN

- A. The CxA will develop and maintain the Commissioning Plan which shall be approved by the OR. The following narrative provides a brief overview of the typical commissioning tasks during construction and the general order in which they occur.
 - 1. Commissioning during construction begins with an initial commissioning meeting conducted by the CxA where the commissioning process is reviewed with the project commissioning team members.
 - 2. Additional meetings will be required throughout construction, scheduled by the CxA, through the OR or CM-R, with necessary parties attending to plan, scope, coordinate, schedule future activities and resolve problems.
 - 3. Equipment documentation is submitted to the CxA, through the OR or CM-R, during normal submittals, including detailed startup procedures.
 - 4. The construction checklists are developed by the CxA, and are completed by the installing contractor (or its subcontractors), before and during the startup process. In order to avoid duplication of effort, the CxA and the CM-R will coordinate to ensure that the construction checklists do not repeat the activities specified in the CM-R or contractor's own checklists. The CxA will coordinate development of construction checklists with the CM-R to avoid duplication of effort, and still ensure thoroughness of

the construction checklist process.

5. Construction checklists, TAB and startup must be completed before performance testing.
6. Items of non-compliance in material, installation, or setup shall be corrected as specified in the construction / contract documents.
7. The CM-R ensures that the subcontractors' construction checklists are executed and documented and that startup and initial checkout are performed. The CxA verifies that the TAB, construction checklists and startup were reviewed and completed according to the approved plans. This also includes witnessing startup of selected equipment. Any testing failure is to be corrected at no additional cost to the Owner, and a re-test is to be performed, observed, and documented.
8. The CxA develops and documents equipment and system functional/performance test procedures. The forms and procedures are reviewed and approved by the OR, CM-R, subcontractors and A/E according to the responsibilities defined in Section 3.3 – Commissioning Deliverables, Part A of this specification.
9. The functional/performance tests are executed by the contractor under the direction of the CxA with the assistance of the facility staff. All documentation is by the CxA. The CC will be involved in all applicable functional testing.
10. The CxA reviews the O&M documentation for completeness and provides the commissioning record for the O&M manuals.
11. Commissioning shall be completed before turnover of the building to the Owner.
12. The CxA reviews, pre-approves, coordinates, and witnesses the training provided by the contractor.
13. Deferred testing is conducted as specified or required.

3.3 COMMISSIONING DELIVERABLES

A. This section defines the deliverable documents that will be generated as part of the commissioning process and each party's responsibility to write, review, approve and execute the documents.

Legend:	CxA	OR	A/E	CM-R/R	Subcontractor
W - Write and maintain					
R - Review					
A - Approve					
E - Execute					
Commissioning Plan	W&E	R&A	R	R	-
Commissioning Schedule	W	R&A	R	R	-
Pre-delivery Inspection/FAT Plan	R&A	R	R	R	W&E
Pre-delivery Inspection/FAT Report	R&A	R	R	R	W
Training Plan & Record	R&A	R&A	-	W	R&E
Construction Checklists	W&A	R	R	R	E
Functional/Performance Test	W&E	R&A	R	R	E
Deficiency Log/Report	W	R	R	R	R
O&M Manuals	R	R&A	R	W	W
Final Commissioning Report	W	R&A	R	R	-

3.4 COMMISSIONING TEAM

A. Members appointed by Owner or Owner's Representative:

1. CxA - An entity identified by the OR who leads, plans, schedules, and coordinates the commissioning team to implement the commissioning process. OR will engage the CxA under a separate contract.
2. Representatives of the facility user, operation and maintenance personnel.
3. Architect and engineering design professionals.

B. Members appointed by the CM-R

1. Contractors and subcontractors
2. Equipment vendors

C. Members appointed by the contractor(s):

1. Individuals, each having authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated actions. The commissioning team shall consist of, but not be limited to, representatives of each contractor, including project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the CxA, OR, CM-R and A/E.

3.5 RESPONSIBILITIES

A. The general responsibilities of various parties in the commissioning process are provided in this sub-section. The specific responsibilities are in the Technical Specifications.

B. All Parties

1. Follow the Commissioning Plan.
2. Attend initial commissioning meeting and additional meetings as necessary.
3. Participate in commissioning activities as described below.

C. Architect/Engineer (A/E)

Construction Phase

1. Perform normal submittal review, construction observation, as-built drawing preparation, O&M manual review, etc., as contracted.
2. Provide clarification to the design documents/design intent as requested by the CxA.
3. Review construction checklists for major pieces of equipment for sufficiency prior to their use.
4. Review the functional/performance test procedure forms for major pieces of equipment for sufficiency prior to their use.
5. Witness testing of selected pieces of equipment and systems as contracted.
6. Participate in the resolution of system deficiencies identified during commissioning, according to the contract documents.
7. Using the contractor's red-line drawings, and shop drawings as required, edit and update one-line diagrams developed as part of the record drawing set.
8. Provide a presentation at one of the training sessions for the Owner's personnel.

Occupancy and Operations Phase

9. Participate in the resolution of non-compliance, non-conformance and design deficiencies identified during commissioning during warranty-period commissioning.
10. Attend lessons learned session upon completion of the project

D. Commissioning Authority (CxA)

1. The CxA will verify the execution of commissioning process activities. Verification will include, but is not limited to, equipment submittals, construction checklists, functional/performance testing, training, operating and maintenance data, tests, and test reports to verify compliance with the design documents.

Construction Phase

2. Works with the CM-R and OR to coordinate the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties.
3. Work with the CM-R to integrate commissioning activities into the master schedule.
4. Maintain /update the Commissioning Plan.

5. Plan and conduct commissioning meetings.
6. Request and review additional information required to perform commissioning tasks, including O&M materials, contractor startup and checkout procedures.
7. Before startup, gather and review the current control sequences and interlocks and work with contractors and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
8. Review contractor submittals applicable to systems being commissioned for compliance with commissioning needs, concurrent with the A/E reviews.
9. Write and distribute construction checklists. Prepare and maintain completed construction checklist log.
10. Review the startup and initial systems checkout plan prepared by the CM-R.
11. Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress.
12. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
13. Witness all or part of the HVAC piping test and flushing procedure to verify that proper procedures were followed. Notify OR and CM-R of any deficiencies in results or procedures.
14. Witness all or part of any ductwork testing and cleaning procedures to verify that proper procedures were followed. Notify the OR and CM-R of any deficiencies in results or procedures.
15. Approve construction checklist completion by selected site observation and spot checking.
16. Review the TAB execution plan.
17. Oversee sufficient testing of the control system for it to be used for TAB, before TAB is executed.
18. Review air and water systems balancing by selected site observation and by reviewing completed reports.
19. With necessary assistance and review from installing contractors, write the functional/performance test procedures for equipment and systems, including energy management control system trending, stand-alone data logger monitoring or manual performance testing as required.
20. Coordinate, witness, and execute functional/performance tests with installing contractors. Analyze any performance trend logs and monitoring data to verify performance. Recommend retesting as necessary until satisfactory performance is achieved.
21. Maintain a master Deficiency Log. Provide the OR and CM-R with written progress reports and test results with recommended actions.

22. Witness performance testing of smoke control systems by Fire Marshall and all other tests by regulatory agencies or manufacturer's personnel over which the CxA may not have direct control. Document these tests and include this documentation in Commissioning Record in O&M manuals.
23. Review equipment warranties to ensure that the Owner's responsibilities are clearly defined.
24. Witness and comment on the training of the Owner's operating and maintenance personnel.
25. Compile and maintain the project commissioning record.
26. Review of O&M manuals.
27. Provide a final commissioning report.
28. Specify a standard trend logging package of primary parameters that will provide the operations staff clear indications of system function in order to identify proper system operation and trouble shoot problems. The CxA shall also provide any needed information on interpreting the trends.

Occupancy and Operations Phase

29. Coordinate and supervise required seasonal or deferred testing and deficiency corrections.
30. Return to the site at ten (10) months into the twelve (12) month warranty period and review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal commissioning. Also interview facility staff and identify problems or concerns they have operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports, documents and requests for services to remedy outstanding problems.
31. Assist in the development of a preventative maintenance plan, a detailed operating plan or an energy and resource management plan as requested by the Owner.

E. Owner or Owner's Representative (OR)

Construction and Acceptance Phase

1. Manage, coordinate and observe the activities of the A/E and of the CM-R.
2. Facilitate the coordination of the commissioning work by the CxA, and, with the CM-R. Ensure that commissioning activities are being scheduled into the master schedule.
3. Review and approve the final *Commissioning Plan*.
4. Attend a commissioning scoping meeting and other commissioning team meetings.
5. Perform the normal review of contractor submittals.
6. Furnish a copy of all construction documents, addenda, change orders and approved submittals and shop drawings related to commissioned equipment to the CxA.

7. Review and approve the performance test procedures submitted by the CxA, prior to testing.
8. When necessary, observe and witness startup and performance testing of selected equipment.
9. Review commissioning progress and deficiency reports.
10. Coordinate the resolution of non-compliance and design deficiencies identified in all phases of commissioning.
11. Sign-off (final approval) on individual commissioning tests as completed and passing.
12. Assist the CM-R in coordinating the training of Owner personnel.
13. Provide the design documentation to the CxA for information and use.
14. Assign operation and maintenance personnel and schedule them to participate in commissioning team activities.
15. Assist the CxA as necessary in the seasonal or deferred testing and deficiency corrections required by the specifications.
16. Ensure that any seasonal or deferred testing and any deficiency issues are addressed.

F. Construction Manager (CM-R) and Subcontractors

Construction Phase

1. Facilitate the coordination of the commissioning and incorporate commissioning activities into the Overall Project Schedule.
2. Provide detailed manufacturer's recommended equipment startup procedures to the CxA as requested.
3. Include the cost of commissioning in the total contract price.
4. Ensure that all subcontractors and vendors execute their commissioning responsibilities according to the contract documents.
5. Provide copies of all submittals as required in Division 1 including all changes thereto.
6. Attend and participate in commissioning team meetings held on a monthly basis
7. No later than thirty (30) days prior to startup of the first piece of major equipment, meet with the CxA, CM-R, and OR to finalize the detailed commissioning procedures/schedule.
8. Provide the training of Owner personnel.
9. Review construction checklists provided by the CxA prior to execution.
10. Execute construction checklists as work is completed and provide to the commissioning on a weekly basis.
11. Perform commissioning process test procedures.
12. Evaluate deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
13. Work with the CxA and OR for resolution of issues recorded in the "Deficiency Log".

14. Prepare O&M manuals, according to the contract documents, including clarifying and updating the original sequences of operation to as-built/as-tested conditions.

Occupancy and Operations Phase

15. Ensure that subcontractors provide assistance for seasonal or deferred performance testing, performed by the CxA, according to the specifications.
16. Ensure that subcontractors correct deficiencies and make necessary adjustments to O&M manuals and as-built drawings for applicable issues identified in any seasonal testing.
17. Perform all guarantee work for materials furnished under the contract for the time specified in the contract, including all warranties and curing all latent defects within the time period provided in the contract.

G. Equipment Vendors

Construction Phase

1. Provide all requested submittal data, including detailed startup procedures and specific responsibilities of the Owner to keep warranties in force.
2. Assist in equipment testing per agreements with subcontractors and/or contractor.
3. Include cost of all special tools and instruments (only available from vendor, specific to a piece of equipment) required for testing, operating, and maintaining equipment according to these contract documents in the base bid price to the contractor.
4. Analyze specified products and verify that the A/E has specified the newest, most current equipment reasonable for this project's scope and budget.
5. Provide requested information regarding equipment sequence of operation and testing procedures.
6. Review construction checklists and test procedures for equipment installed by factory representatives.

3.6 EQUIPMENT/SYSTEMS TO BE COMMISSIONED

A. The following equipment/systems will be commissioned on this project:

1. The Department of Public Health State Laboratory
 - a. HVAC systems, including piping, ductwork and associated equipment and devices
 1. Air Handling and Energy Recovery Units with supply, return and outside air duct and filters.
 2. Variable air volume supply and exhaust boxes serving offices and general laboratory spaces, including sound attenuation equipment.
 3. HEPA filtered Exhaust Air Valves and sound attenuation equipment serving BSL-3 laboratories.
 4. Fan coil units and associated heating hot water and chilled water piping.
 5. Steam Boilers and heating hot water distribution system, including pumps and piping, heat exchangers, PRV's and unit heaters.
 6. Water Cooled Chillers, cooling towers and chilled water distribution system, including pumps and piping system.

7. Exhaust air systems (including fans, ductwork and interconnection with air handling/supply systems)
8. Specialty air removal including specialty chemical exhaust fans, laboratory fume hoods and bio-safety cabinets.
9. Building Automation System (BAS).
10. Laboratory Control System (LCS).
11. Domestic Plumbing Systems
12. Laboratory Plumbing Systems
 - a. BSL-3 Kill System
 - b. RODI Water System
13. Fire Protection System
14. Electrical Power Distribution System
15. Emergency Power Distribution System
16. Uninterruptible Power System (UPS)
17. Lighting Control System
18. Fire Alarm System
19. Security System

ART 4.- STARTUP & TURNOVER

4.1 MEETINGS

- A. Initial Meeting. The CxA, through the OR/CM-R, will schedule, plan and conduct an initial commissioning meeting. The contractor and its responsible parties are required to attend.
- B. Miscellaneous Meetings. Other meetings will be planned and conducted by the CxA as construction progresses. These meetings will cover coordination, deficiency resolution, and planning issues. These meetings will be held at least monthly, until the final 3 months of construction, when they may be held as frequently as one (1) per week.

4.2 STARTUP, CONSTRUCTION CHECKLISTS, AND INITIAL CHECKOUT

- A. The following procedures apply to all equipment/systems to be commissioned, according to Section 3.6 - Equipment/Systems to be Commissioned.
- B. General. Construction checklists are used to verify and document that the equipment and systems are fully connected and ready for operation in the manual mode, in accordance with the requirements of the design documents and approved submittals. The construction checklists for a given system must be successfully completed and approved prior to startup and formal performance testing of equipment or subsystems of the given system.
- C. Startup and Checkout Plan. The CxA will assist the project commissioning team members responsible for startup of any equipment. The primary role of the CxA in this process is to ensure that there is written documentation that each of the manufacturer-recommended procedures has been completed.

1. The construction checklists are developed by the CxA. These checklists indicate required procedures to be executed as part of startup and initial checkout of the systems and the party responsible for their execution.
2. The CM-R shall determine which trade is responsible for executing and documenting each of the line item tasks and transmit the checklists to the responsible subcontractors. Each form may have more than one trade responsible for its execution.
3. The contractor/subcontractor responsible for the purchase of the equipment shall develop, with assistance from the CxA, the full startup plan by combining the manufacturer's detailed startup and checkout procedures and the construction checklists.
4. The contractor/subcontractor shall submit the full startup plan to the CxA for review and approval.
5. The CxA will review and approve the procedures and the documentation format for reporting. The CxA will return the procedures and the documentation format to the contractor, through the CM-R.
6. The CM-R shall coordinate startup and checkout with the OR, CxA and Subs. The execution of the construction checklists, startup, and checkout shall be directed and performed by the CM-R, subcontractors or vendors. Signatures are required of the applicable subcontractors for verification of completion of their work.
7. The OR/CM-R, and A/E as necessary, shall observe, at minimum, the procedures for each piece of primary equipment, unless there are multiple units, in which case a sampling strategy may be used. The CxA will observe all testing.
8. For lower-level components of equipment, (e.g., sensors, controllers), the CxA shall observe a sampling of the startup procedures.
9. The subcontractors and vendors shall execute startup and provide the CxA and A/E, through the OR/CM-R, with a signed and dated copy of the completed startup and construction checklists.
10. Only individuals of the contractor (technicians, engineers, tradesmen, vendors, etc.) who have direct knowledge and witnessed that a line item task on the construction checklist was actually performed shall check off that item. It is not acceptable for witnessing supervisors to fill out these forms.
11. The CM-R shall ensure that the subcontractors clearly list any outstanding items of the initial startup and construction checklist procedures that were not completed successfully, in the appropriate section of the Construction Checklist. The executed checklist, including and any outstanding deficiencies, shall be provided, through the OR, to the CxA within two (2) days of test completion.

12. The CxA will review the report and issue either a non-compliance report or an approval form, through the OR, to the CM-R. The installing subcontractors or vendors shall correct all areas that are deficient or incomplete in the checklists and tests in a timely manner, shall notify the OR/CM-R as soon as outstanding items have been corrected, and resubmit an updated startup report with a Statement of Correction on the original non-compliance report. When satisfactorily completed, the CxA will recommend approval of the execution of the checklists and startup of each system.
13. Items left incomplete, which later cause deficiencies or delays during performance may result in backcharges to the subcontractor or vendor.

4.3 FUNCTIONAL/PERFORMANCE TESTING

- A. Requirements. The functional/performance testing shall verify and document that each system is functional in accordance with the approved sequence of operations and engineer's design intent. Performance testing brings the systems from a state of individual substantial completion to full dynamic operation. Additionally, during the testing process, areas of deficient performance are identified and corrected.
- B. Coordination and Scheduling. The contractor shall provide sufficient notice, regarding their completion schedule for the construction checklists and startup of all equipment and systems to allow the functional/performance testing to be scheduled. The commissioning team shall oversee, witness, and document the performance of all equipment and systems. The CxA in association with the contractor/subcontractors and facility staff shall execute the tests. Functional/performance testing shall be conducted after the construction checklists, and startup has been satisfactorily completed. The control system shall be sufficiently tested and approved by the CxA before it is used, to verify performance of other components or systems. The air balancing and water balancing shall be completed before performance testing of air or water-related equipment or systems. Testing proceeds from components to sub-systems to systems. When the proper performance of all interacting individual systems has been achieved, the interface or coordinated responses between systems shall be checked.
- C. Development of Test Procedures. Before test procedures are finalized, the CM-R shall provide to the A/E and the CxA all requested documentation and a current list of changes affecting equipment or systems, including an updated points list, program code, control sequences, and testing parameters. Using the testing parameters and requirements in the technical specifications, the CxA shall update/develop specific test procedures and forms to verify and document proper operation of each piece of equipment and system. Each contractor/subcontractor or vendor, as appropriate, shall provide assistance to the CxA in developing the final procedures. Prior to finalization, the A/E shall review the test procedure.
- D. Test Methods.
 1. Functional/performance testing and verification may be achieved by manual testing or by monitoring the performance and analyzing the results using the control system's trend log capabilities or by stand-alone data loggers. The CxA may substitute specified methods or require an additional method to be executed other than what was specified. The CxA will determine which method is most appropriate for tests that do not have a specified method.

2. Simulated Conditions. Simulating conditions shall be allowed, where timing the testing to experience actual conditions is impractical.
 3. Overridden Values. Overriding sensor values to simulate a condition, such as overriding the outside air temperature reading in a control system, is acceptable.
 4. Simulated Signals. Using a signal generator which creates a simulated signal to test and calibrate transducers and DDC constants is generally recommended over using the sensor to act as the signal generator via simulated conditions or overridden values.
 5. Altering Set points. Altering set points to test a sequence is acceptable.
 6. Indirect Indicators. Relying on indirect indicators for responses or performance shall be allowed only after visually and directly verifying and documenting, over the range of the test parameters, that the indirect readings through the control system represent actual conditions and responses.
 7. Setup. Each performance test shall be performed under conditions that simulate actual conditions as closely as is practically possible. The contractor/subcontractor(s) assisting the CxA in executing the test shall provide all necessary materials, system modifications, etc., to produce the necessary flows, pressures, temperatures, etc., necessary to execute the test according to the specified conditions. At completion of the test, the contractor/subcontractor(s) shall return all affected equipment and systems to their approved operating settings.
 8. Trending. Verification of system performance over time shall be established by trending critical system parameters in the BAS. Trends shall be setup only after successful demonstration, testing and verification of the system sequence of operations. Trends shall be conducted for a minimum of 24 hrs. with printed trend reports attached to the performance test documents and furnished to the CxA as part of the commissioning record. In addition to documenting satisfactory performance of the facility systems, trending shall be used to verify and document acceptable performance of the facility environments including offices, BSL-2 and BSL-3 laboratory spaces. Issues of non-conformance, identified through trending shall be resolved per Section 4.4 of this specification.
- E. Test Equipment. Refer to Part 2 for test equipment requirements.
- F. Problem Solving. Problem solving shall be a team effort between the OR, A/E, CM-R, subcontractors and CxA. The responsibility to correct, and retest malfunctions/failures shall be determined by the OR and the CM-R, with A/E approval as required.

4.4 DOCUMENTATION, NON-CONFORMANCE, AND APPROVAL OF TESTS

- A. Documentation. The CxA shall generate and execute all documentation for performance testing.
- B. Non-Conformance.
1. Corrections of minor deficiencies identified may be made during the tests at the discretion of the CxA. In such cases the deficiency and resolution will be documented on the procedure form or on an attached sheet.
 2. As tests progress and a deficiency is identified, the CxA shall discuss the issue with the

OR and CM-R.

3. When there is no dispute on the deficiency and the contractor accepts responsibility to correct it:
 - a. The CxA will document the deficiency and the contractor's response and intentions and submit the non-compliance reports to the CM-R. The contractor corrects the deficiency, signs the statement of correction at the bottom of the non-compliance form certifying that the equipment is ready to be retested and sends it back to the CxA.
 - b. The contractor shall reschedule and repeat the test.
4. If there is a dispute about a deficiency, regarding whether or not it is a deficiency:
 - a. The dispute shall be documented on the non-compliance form with the contractor's response.
 - b. Resolutions are made at the lowest management level possible. Other parties are brought into the discussions as needed. Final interpretive authority is with the A/E. The CxA documents the resolution process.
 - c. Once the interpretation and resolution have been decided, the contractor corrects the deficiency, signs the statement of correction on the non-compliance form and provides it to the CxA, through the CM-R. The contractor shall reschedule the test and the test repeated until satisfactory performance is achieved. Cost of retesting a performance test is the responsibility of the responsible subcontractor.
5. The contractor shall submit in writing to the CM-R at least as often as commissioning meetings are being scheduled, the status of each outstanding discrepancy identified during commissioning. Discussion shall cover explanations of any disagreement and proposals for their resolutions.
 - a. The CxA retains the original non-conformance forms until the end of the project.
 - b. Retesting shall not be considered a justified reason for a claim of delay or for a time extension by the contractor.
6. Failure Due to Manufacturer Defect. If 10% (or three, whichever is greater) of identical pieces of equipment fail to perform to the contract documents (mechanically or substantively) due to a manufacturing defect, not allowing it to meet its submitted performance specification, all identical units may be considered unacceptable by the A/E or CxA. In such case, the contractor shall provide the OR with the following:
 - a. Within one week of notification from the OR and CM-R, the contractor or manufacturer's representative shall examine all other identical units making a record of the findings. The findings shall be provided to the OR, through the CM-R, within two (2) weeks of the original notice.
 - b. Within two weeks of the original notification, the contractor or manufacturer shall provide a signed and dated, written explanation of the problem, cause of failures, etc., and all proposed solutions. The proposed solutions shall not significantly exceed the specification requirements of the original installation.
 - c. The A/E will determine whether a replacement of all identical units or a repair is acceptable.

- d. Two examples, where applicable, of the proposed solution shall be installed by the contractor and the A/E shall be allowed to test the installations for up to one week, upon which the A/E will decide whether to accept the solution.
 - e. Upon acceptance, the contractor and/or manufacturer shall replace or repair all identical items, at their expense. The replacement/repair work shall proceed with reasonable speed beginning within one week from when parts can be obtained.
- C. Approval. The CxA notes each satisfactorily demonstrated function on the test form. Final approval of the functional/performance test by the OR is made after review by the CxA.

4.5 DEFERRED TESTING

- A. Unforeseen Deferred Tests. If any check or test cannot be completed due to the project completion level, required occupancy condition or other deficiency, execution of checklists and performance testing may be delayed upon approval of the CxA and CM-R. These tests will be conducted in the same manner as the seasonal tests as soon as possible. Services of necessary parties will be negotiated.
- B. Seasonal Testing. During the warranty period, seasonal testing (tests delayed until weather conditions are closer to the system's design) shall be completed as part of this contract. The CxA shall coordinate this activity through the OR/CM-R. Tests will be executed, documented by the CxA and deficiencies shall be corrected by the appropriate contractor/subcontractors with the CxA witnessing. Any final adjustments to the O&M manuals and record drawings due to the testing shall be made by the contractor/subcontractor.

4.6 TRAINING OF OWNER PERSONNEL

- A. The CM-R shall provide training coordination, scheduling of subcontractors, and ensure that training is completed as required under Section 017500 – Starting and Adjusting and as described in this section. All training shall be coordinated, through the CM-R, with the CxA.
- B. The training schedule shall be developed by the OR and CM-R and incorporated into the master construction schedule. This will allow the Owner to make personnel available for training at the appropriate time.
- C. The CM-R shall ensure that each subcontractor and vendor (mechanical, plumbing, fire, electrical, specialty, etc.) shall have the following responsibilities:
 - 1. Provide, to the OR and the CxA, through the CM-R, a training plan thirty (30) days before the planned training covering the following elements:
 - a. Equipment
 - b. Intended audience
 - c. Location of training
 - d. Objectives
 - e. Subjects covered (description, duration of discussion, special methods, etc.)
 - f. Duration of training on each subject
 - g. Instructor for each subject
 - h. Methods (classroom lecture, manufacturer's quality video, site walk-through, actual operational demonstrations, written handouts, etc.).

2. Provide designated Owner personnel with comprehensive orientation and training in the understanding of the systems and the operation and maintenance of each piece of equipment that makes up the system.
3. Training shall normally start with classroom sessions followed by hands-on demonstration/training on each piece of equipment.
4. During any demonstration, should the system fail to perform in accordance with the requirements of the O&M manual or sequence of operations, the system shall be repaired or adjusted as necessary and the demonstration repeated at another scheduled time, if necessary.
5. The appropriate trade or manufacturer's representative shall provide the instructions on each major piece of equipment. Practical building operating expertise as well as in-depth knowledge of all modes of operation of the specific piece of equipment is required. More than one party may be required to execute the training.
6. The controls contractor shall attend sessions other than the controls training, as specified, to discuss the interaction of the controls system as it relates to the equipment being discussed. The controls contractor's scope of work shall therefore include attending training sessions for other equipment.
7. The training sessions shall follow the outline in the table of contents of the operation and maintenance manual and illustrate whenever possible the use of the O&M manuals for reference.
8. Training shall include:
 - a. Use of the printed installation, operation and maintenance instruction material included in the O&M manuals.
 - b. A review of the written O&M instructions emphasizing safe and proper operating requirements, preventative maintenance, special tools needed and spare parts inventory suggestions. The training shall include startup, operation in all modes possible, shutdown, seasonal changeover and any emergency procedures.
 - c. Discussion of relevant health and safety issues and concerns.
 - d. Discussion of warranties and guarantees.
 - e. Common troubleshooting problems and solutions.
 - f. Explanatory information included in the O&M manuals.
 - g. Discussion of any peculiarities of equipment installation or operation.
9. Classroom sessions shall include the use of overhead projections, slides, video/audio-taped material as might be appropriate.
10. Hands-on training shall include startup, operation in all modes possible, including manual, shut-down, alarms, power failure and any emergency procedures, and preventative maintenance for all pieces of equipment.
11. The contractor shall fully explain and demonstrate the operation, function and overrides of any local packaged controls not controlled by the central control system.

12. Training shall occur before performance testing is complete so that the facility operators may participate the performance testing as part of their familiarization with the facility and its systems.
13. Factory training videos identifying key troubleshooting, repair, service and/or replacement techniques shall be provided and reviewed with the Owner.
14. The CxA at the beginning of each training session presents the overall system narrative and the design concept of each equipment section.

4.7 OPERATIONS AND MAINTENANCE MANUALS

- A. The commissioning process requires detailed O&M documentation as identified in this section and in the technical specifications.
- B. Subcontractors shall submit O&M Manuals, in accordance with the requirements of Division 1, for review and comment by the Owner, A/E and CxA. Submittal comments shall be returned through the normal submittal process.
- C. The subcontractor shall submit corrected final approved manuals prior to substantial completion. Prior to final submittal, the CxA shall review the O&M manuals, and documentation, with redline as-builts, for systems that were commissioned to verify compliance with the specifications. The CxA will communicate, through the OR, deficiencies in the manuals to the CM-R or A/E, as requested. Upon a successful review of the corrections, the CxA will recommend approval and acceptance of these sections of the O&M manuals to the OR. The CxA will also review each equipment warranty and verify that all requirements to keep the warranty valid are clearly stated. This work does not supersede the A/E's review of the O&M manuals according to the A/E's contract.
- D. The CM-R shall compile O&M manuals for every piece of equipment and building operating or electrical system being commissioned according to the format and quantity defined in Division 1.
- E. Commissioning Record in O&M Manuals.
 1. The CxA is responsible to compile, organize and index the following commissioning data by equipment into labeled, indexed and tabbed, three-ring binders and deliver it to the OR. At the discretion of the OR, other parties may receive copies of the commissioning records.
 - a. Commissioning Plan.
 1. System reports including design narratives and criteria including sequences. Each system shall contain the startup plan and report, approvals, corrections, construction checklists, completed performance tests, trending and analysis, training plan and recommended re-commissioning schedule.
 2. Final Commissioning Report including an executive summary, list of participants and roles, brief building description, overview of commissioning and testing scope and a general description of testing and verification methods. For each piece of commissioned equipment, the report should contain the disposition of the commissioning authority regarding the adequacy of the equipment, documentation and training meeting the contract documents in the following

areas: 1) equipment meeting the equipment specifications, 2) equipment installation, 3) performance and efficiency, 4) equipment documentation and design intent, and 5) operator training. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific performance test, inspection, trend log, etc. where the deficiency is documented. The performance and efficiency section for each piece of equipment shall include a brief description of the verification method used (manual testing, BAS trend logs, data loggers, etc.) and include observations and conclusions from the testing.

END OF SECTION



STATE OF CONNECTICUT
STATE ELECTIONS ENFORCEMENT COMMISSION
20 Trinity Street Hartford, Connecticut 06106-1628

SEEC FORM 11

NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF
CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

This notice is provided under the authority of Connecticut General Statutes 9-612(g)(2), as amended by P.A. 07-1, and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined below):

Campaign Contribution and Solicitation Ban

No *state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract or state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall make a contribution to, or *solicit* contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee;

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

Duty to Inform

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

Penalties for Violations

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

Civil penalties--\$2000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of \$2000 or twice the amount of the prohibited contributions made by their principals.

Criminal penalties--Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or \$5000 in fines, or both.

Contract Consequences

Contributions made or solicited in violation of the above prohibitions may result, in the case of a state contractor, in the contract being voided.

Contributions made or solicited in violation of the above prohibitions, in the case of a prospective state contractor, shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State will not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information and the entire text of P.A 07-1 may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "State Contractor Contribution Ban."

Definitions:

"State contractor" means a person, business entity or nonprofit organization that enters into a state contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. "State contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Prospective state contractor" means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. "Prospective state contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Principal of a state contractor or prospective state contractor" means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state contractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has *managerial or discretionary responsibilities with respect to a state contract*, (v) the spouse or a *dependent child* who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

"State contract" means an agreement or contract with the state or any state agency or any quasi-public agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services, (ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. "State contract" does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan or a loan to an individual for other than commercial purposes.

"State contract solicitation" means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

"Managerial or discretionary responsibilities with respect to a state contract" means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

"Dependent child" means a child residing in an individual's household who may legally be claimed as a dependent on the federal income tax of such individual.

"Solicit" means (A) requesting that a contribution be made, (B) participating in any fund-raising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.