

Commissioning Agent Services Agreement

This Agreement dated as of the 1st day of June, 2021 (the "Agreement") by and between the City of Torrington (the "City") and Innovative Engineering Services, LLC, a Connecticut limited liability company, having offices located at 33 North Plains Industrial Road, Wallingford, CT (the "CA").

WHEREAS, the City and the Torrington Board of Education (the "Board") intend to construct a new high school, middle school and central offices on the property known as 5 Major Besse Drive, Torrington, Connecticut (the "Premises") as more particularly described in this Agreement (the "Project"); and

WHEREAS, the City and the Board have contracted with Construction Solutions Group, LLC to act as the Owner's Representative for the Project (the "OPM"); and

WHEREAS, the City and the Board have contracted or are about to contract with O&G Industries, Inc. (the "Construction Manager") as the Construction Manager at Risk for the Project; and

WHEREAS, the City and the Board have contracted or are about to contract with The S/L/A/M Collaborative, Inc. (the "Architect") as the Architect for the Project; and

WHEREAS, the Project will be funded in part with a grant from the State of Connecticut pursuant to Connecticut General Statutes §10-282, et seq.; and

WHEREAS, the Project is subject to the requirements of §16a-38k-1 through and including §16a-38k-9 of the Regulations of Connecticut State Agencies (the "Regulations"); and

WHEREAS, pursuant to Section 16a-38k-3(a) of the Regulations, the City is required to engage an independent third party to act as a commissioning agent for the Project and to perform the responsibilities of the commissioning agent as described and set forth in the Regulations (the "Required Services"); and

WHEREAS, the City has selected the CA to perform the Required Services and to perform such other services as are described in this Agreement (such other services along with the Required Services, collectively the "Services") pursuant to the terms and conditions set forth herein.

NOW THEREFORE, for valuable consideration and the mutual promises set forth herein, the parties agree as follows:

1. SCOPE OF SERVICES:

The CA's Services, which are more comprehensively and particularly described on Exhibit A and Exhibit B to this Agreement, shall mean and include the Required Services and such other services as are necessary to ensure that particular building systems are planned, designed, installed, tested, optimized and capable of being operated and maintained to perform in conformity with (i) the City's goals and requirements, (ii) the Architect's basis of design, (iii) the Contract Documents for the Project; (iv) the Conditions (as hereafter defined); and (v) any additional requirements of the City as are set forth on Exhibit A. The systems to be commissioned are set forth on Exhibit B. The scope of Services will also include the coordination and oversight of the training of the City's facility management and maintenance personnel on proper equipment operation as well as verification of proper development of systems manuals in cooperation with the City, the Architect and the Construction Manager including its subcontractors who installed the systems identified on Exhibit B.

The CA understands that performance of the Services will require communication with the Agencies (as hereafter defined) and with individuals designated by the City, and the CA will, at no additional cost to the City, so communicate and take all steps necessary to ensure compliance with the Conditions.

The "Agencies" are the Department of Administrative Services of the State of Connecticut (the "Department") including, without limitation, its Office of School Construction Grants and Department of Construction Services, the Department of Education of the State of Connecticut, the Connecticut Department of Energy and Environmental Protection, and all other governmental authorities having regulatory or administrative jurisdiction over the Project and all representatives or designees of the Department or such other governmental authorities.

The "Conditions" include all of the statutory and regulatory requirements and all guidelines and standards now or hereafter imposed on the Project by the Agencies including, without limitation, the Regulations, the Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings published by the Connecticut Office of Policy and Management, and the "Capital Projects High Performance Buildings Guidelines" published by the Department.

2. QUALIFICATIONS:

The CA shall be certified as a commissioning agent by the Building Commission Association or the Association of Energy Engineers and shall either be a Professional Engineer (as defined in Section 391 of the Connecticut General Statutes) or have an S-1 license from the State of Connecticut. The CA shall remain so certified and hold such active licensing during the entire Term of this Agreement

3. TERM:

Services shall commence on or about June 1, 2021 and continue until the Services are completed unless this Agreement is sooner terminated as provided herein (the "Term").

4. STANDARD OF CARE:

The CA shall be responsible for the performance of the Services as an independent contractor and in a manner (i) consistent with the instructions, guidance and directions provided by the City to the CA; (ii) consistent with the terms and conditions of this Agreement; (iii) consistent with the prevailing applicable professional or industry standards; (iv) consistent with sound industry practices; (v) consistent and in compliance with all applicable laws, rules, regulations, ordinances, codes, orders and permits of all federal, state and local governmental bodies, agencies authorities and courts having jurisdiction and the Conditions (collectively, the "Applicable Laws"); and (vi) as expeditiously as is consistent with such professional skill and care, the orderly progress of the Project, the instructions of the City and this Agreement (the standards of this Section 4 shall be referred to herein as the "CA's Standard of Care"). The CA shall exercise the CA's Standard of Care in performing all aspects of the Services.

5. SUBCONSULTANTS:

The CA shall be solely responsible for all subconsultants engaged by the CA to perform services in connection with this Agreement (each, a "Subconsultant", and collectively, "Subconsultants"). By appropriate written agreement, the CA shall require each of its Subconsultants, to the extent of the Services to be performed by such Subconsultant, to be bound to the CA by terms of this Agreement, and to assume toward the CA all the obligations and responsibilities, which the CA, by this Agreement, assumes toward the City. Each sub-consulting agreement shall preserve and protect the rights of the City under this Agreement with respect to the services to be performed by the Subconsultant so that sub-consulting thereof will not prejudice such rights, and shall allow to the Subconsultant, unless specifically provided otherwise in the sub-consulting agreement, the benefit of all rights, remedies and redress against the CA that the CA, by this Agreement, has against the City.

6. COMPENSATION:

A. For the performance of the Services, the CA will be paid a lump sum of **One Hundred Forty-Nine Thousand Seven Hundred and Fifty and 00/100 Dollars (\$149,750.00)** which will be allocated by phase/task as set forth on Exhibit C.

B. Neither the CA nor its subconsultants shall be entitled to reimbursement from the City for any of their respective costs or expenses.

7. PAYMENTS:

The CA will submit invoices monthly on the basis of the percentage of completion of the Services per phase as set forth on Exhibit C. The City will make payments to the CA within thirty (30) days after receipt of a properly submitted invoice. The CA will certify in writing that each amount invoiced is both accurate and commensurate with the Services performed for the City under this Agreement.

To the extent that compensation hereunder is specified in this Agreement to be based on hourly rates, the applicable hourly rates shall be those set forth on Exhibit D (the "Hourly Rates"). The Hourly Rates shall be all inclusive rates which shall include, without limitation, base salary, fringe and other benefits, insurance, taxes, miscellaneous personnel expenses, meals, travel, travel time, training, holidays, sickness, medical, lost time, miscellaneous absences, general and corporate supervision and management expenses, overhead and profit, legal costs and accounting costs. The Hourly Rates shall remain unchanged for the duration of the Project and until such time as the Services are completed.

8. CA RESPONSIBILITIES

A. Tools. The CA shall be responsible for providing all testing equipment devices. The Construction Manager will provide all tools to perform start-up checkout to functionally test equipment and systems.

B. Design. The CA is not responsible for design concept, design criteria, compliance with codes, design or general construction scheduling, cost estimating, or construction management but will assist with problem-solving or resolving non-conformance or deficiencies as requested by the City.

C. Staffing. The CA will staff the Project with experienced and competent personnel acceptable to the City. If the CA requires additional personnel to fulfill its obligations under this Agreement, it will provide such additional staff at no additional cost to the City.

D. Subconsultants. Services of the CA will include the services of all professional and technical disciplines needed to perform the Services whether performed by the CA or by sub-consultants or subcontractors engaged by the CA. Should the CA require the services of sub-consultants or subcontractors at any time during the Term of this Agreement, the names and qualifications thereof will be submitted to the City in writing for approval prior to their engagement by the CA.

E. Key Personnel. The key personnel of both the CA and its sub-consultants and subcontractors assigned to the Project have been identified in writing and were submitted to the City before the execution of this Agreement. Any change in key personnel is subject to the City's prior approval, which will not be unreasonably withheld. The City may, at any time, require the CA to replace any individual deemed unsuitable by the City for the performance of Services under this Agreement with an individual acceptable to the City.

F. Project Administration. The CA will provide all project administration services necessary to facilitate the orderly progress of the Services, including supervision of the work of the CA's in-house personnel, direction of the CA's sub-consultants or subcontractors, coordination of information flow and decision making, and progress monitoring and reporting. The CA acknowledges that it is essential that all sub-consultants' and subcontractors' services be coordinated. The CA will coordinate the services of all of its sub-consultants or subcontractors.

G. Applicable Law and Conditions. The CA will consult with proper State authorities, code enforcement agencies, and authorities having jurisdiction to determine all applicable laws, codes, statutes, regulations and ordinances applicable to the Services. The CA will become informed as to specific institutional conditions that might

affect its contemplated Services or the hours or season of its execution, use of adjacent areas and interruptions of institutional routine. The Services furnished hereunder will reflect consideration of those conditions requiring safeguards and precautionary measures in excess of usual practice and, as appropriate, shall implement such safeguards and precautionary measures.

H. Communications. The CA will communicate with the City through, and receive directions from Elinor Carbon, Mayor of the City (the "Designated Representative"), who shall be the City's designated representative for the Project. The CA has designated Thomas Massaro, Member of the CA as the CA's designated representative for the Project.

I. Commissioning Authority. The CA has designated Rick Bialecki, Manager of Commissioning Services for the CA, as the Commissioning Authority for the Project. The Commissioning Authority is responsible for the coordination of the technical aspects of the Services on behalf of the CA.

9. DELIVERABLES

CA will provide the following to the City:

- A. Commissioning Plans as described in Exhibit A hereto.
- B. Logs, manuals and reports as developed during the performance of the Services as set forth in Exhibit A.
- C. Such other documents as required by and referenced in this Agreement.

10. SCHEDULE

The CA shall provide the Services in accordance with the schedule attached hereto as Exhibit E, as such schedule may be amended with the approval of the City (such schedule as it may be amended with the City's approval, the "Schedule").

11. ADDITIONAL SERVICES

To the extent that the City requests that the CA provide services that are beyond the scope of Services included under this Agreement, such services shall constitute Additional Services for which the CA shall be entitled to compensation based on the Hourly Rates unless the CA and the City mutually agree to a lump sum price for such Additional Services. Prior to performing any services that the CA believes constitute Additional Services, the CA shall obtain the written consent of the City to perform such services as Additional Services. If the CA fails to obtain such consent, such services shall be compensated as services within the scope of Services under this Agreement.

12. OWNERSHIP OF WORK

It is mutually agreed and understood that all finished and unfinished documentation prepared pursuant to this Agreement will become the exclusive property of the City, and that the City will have the right to immediate possession and use thereof. The City agrees that all such documentation is not to be altered by others and is to be used only in conjunction with the Project and its operation, maintenance and repair, unless written consent is obtained from the CA. Such consent will not be unreasonably withheld by the CA provided the City agrees that upon any alterations of the CA's documents by others, or upon reuse of the documents for any other project, the CA will be relieved by the City of any and all responsibility arising out of such alterations or reuse. The provisions of this Section 12 will survive the termination of this Agreement and will thereafter remain in full force and effect.

13. INSURANCE

The CA for the duration of this Agreement, including any extension of the original Term, must carry insurance to protect the interests of the City and the Board. The CA must obtain statutory workers' compensation and employers' liability insurance, comprehensive automobile liability insurance, commercial general liability insurance, and

professional services liability insurance to not less than the minimum limits as set forth in Exhibit E, all at no cost to the City.

14. NONPERFORMANCE

If the CA does not fulfill or complete the Services in a timely and adequate manner, the City reserves the right to withhold payments from the CA until such time as the Services are brought up to date in an adequate manner. The amount withheld will be determined by the City. If the City is harmed by the CA's nonperformance, the City will be granted fair and equitable compensation by the CA as determined by the City.

15. INDEMNIFICATION AND DISPUTE RESOLUTION

A. Indemnification. To the maximum extent allowed by law, the CA will indemnify, defend and hold harmless the City, the Board, the Building Committee appointed by the City for the Project, and all of their respective officials, officers, members, employees, agents and representatives (including without limitation the City's Designated Representative) from and against any and all claims, liabilities, demands, damages, costs or expenses (including all reasonable attorneys' fees) to the extent caused by or resulting from any negligent act or omission of, willful misconduct, breach of the Agreement or breach of warranty by, or fault of, the CA, its subconsultants, subcontractors, or any person or entity for whom or which any of them is responsible in the performance of the Services. This indemnification will survive the completion of the Project and the termination of this Agreement, as applicable, to the maximum extent allowed by law. Nothing in this paragraph will be construed as obligating the CA to indemnify or hold harmless any of the parties indemnified hereunder against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of such indemnified party, or such party's agents or employees.

B. Dispute Resolution. In the event of any disputed claims between the parties under the Agreement, the parties agree to submit the disputes to non-binding mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association.

Any claim, dispute or other matter in question arising out of or related to this Agreement subject to, but not resolved by, mediation shall be subject to arbitration, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Agreement provided that any arbitration proceedings under this Agreement shall be brought in a location selected by the Owner. A demand for arbitration shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the arbitration.

A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement, shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

The award rendered by the arbitrator(s) shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

The provisions of this Section 15 shall survive the termination of this Agreement.

16. CONFIDENTIALITY OF DOCUMENTS

A. The CA agrees on behalf of the CA and the CA's principals, employees, agents, heirs, successors and assigns that they will utilize drawings, specifications, maps, reports, records or other documents which come into the CA's possession in the course of the performance of the Services only to the extent necessary for the performance of the Services, and CA's obligations and duties under this Agreement. This limitation on use applies to those items produced by the CA, as well as to those items received by the CA from the City or others in connection with the Services, obligations and duties under this Agreement.

B. The CA further agrees that said drawings, specifications, maps, reports, records and other documents will not be released to any other entity or person except for the sole purpose of the Services to be performed under this Agreement, or as required under the Connecticut Freedom of Information Act. No other disclosure will be permitted without the prior written consent of the City.

C. The CA further agrees that the following provision will be included in its contracts with sub-consultants and subcontractors:

"Any and all drawings, specifications, maps, reports, records or other documents associated with the services to be performed under this contract will be utilized only to the extent necessary for the performance of such services. Said drawings, specifications, maps, reports, records and other documents will not be released to any other entity or person except for the sole purpose of the services described in this contract, or as required under the Connecticut Freedom of Information Act. No other disclosure will be permitted without the prior written consent of the City of Torrington. When any such drawings, specifications, maps, reports, records or other documents are no longer needed for the Project, they will be destroyed."

17 CONNECTICUT SALES AND USE TAX

The City is tax-exempt. The CA shall be familiar with the current regulations of the Connecticut Department of Revenue Services and the sales or use tax on materials or supplies exempted by such regulations shall not be included as part of the compensation to be paid to the CA hereunder.

18. THIRD PARTIES

Nothing contained in this Agreement will be deemed to create a contractual relationship between any third party and the City or the CA, or be deemed to give any third party any claim or right of action against the City or the CA which does not otherwise exist without regard to this Agreement.

19. RECORDS:

A. Records of services performed on an hourly basis (to the extent applicable), will be kept on the basis of generally accepted accounting principles, and will be available to the City's authorized representative at mutually convenient times.

B. The CA will permit the City or its duly authorized representative to examine and copy books and records of the CA relative to charges for Additional Services, alleged breaches of the Agreement, settlement of claims, or any other matter involving the CA's demand for additional compensation from the City. The CA will also permit such examination and copying of its records as the City may deem necessary, excepting papers and records preceding the execution of the Agreement that are not a matter of record with the City, in order to determine that the CA has complied with all laws and regulations pertaining to the Agreement, such as, but not limited to, Labor Compliance, Affirmative Action Program and Equal Employment Opportunity.

C. The CA further agrees that it will keep all records relating to this Agreement until the expiration of six (6) years after final payment under this Agreement is made, or six (6) months after settlement of any disputes, whichever may be later.

D. The CA further agrees that it and its sub-consultants or subcontractors will permit the City, at its own expense, by its duly authorized representatives, to inspect and audit all their data, records and files pertaining to this Agreement.

20. SUSPENSION OF SERVICES

A. The City, at any time, may suspend all or any part of the Services by five (5) days written notice of suspension delivered to the CA. In the event of suspension by the City, the CA will be entitled to compensation for Services performed in accordance with this Agreement prior to the effective date of suspension and accepted by the City. Should the City thereafter reactivate the suspended Services, in whole or in part, all terms and conditions of this Agreement shall continue to apply with the exception of the Schedule for the Services which shall be adjusted as deemed appropriate by the City to account for the suspension.

B. In the event the City suspends the Services as described above, the City will be entitled to all finished and unfinished documents prepared by or on behalf of the CA pursuant to this Agreement.

C. Upon the City's reactivation of the Services after a suspension described above, should the CA be unwilling or unable at that time to perform the Services required by this Agreement, all finished or unfinished documents prepared pursuant to this Agreement will become the property of the City and the City will have the right to immediate possession and use thereof.

21. TERMINATION OF THE AGREEMENT:

A. The City may terminate this Agreement, whether for cause (failure of the CA to fulfill its obligations under this Agreement) or for convenience, whenever the City determines that such termination is in the best interest of the City, by delivery to the CA of a written notice of termination. The notice of termination will be sent in accordance with Section 26 hereafter. Unless the notice directs otherwise, upon receipt of a notice of termination, the CA will immediately discontinue all Services affected and deliver to the City all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the CA in performing its duties under this Agreement, whether completed or in progress. All such documents, information, and materials will become the property of the City.

B. If the termination is for the convenience of the City, the CA will be entitled to receive compensation for Services performed in accordance with this Agreement prior to the effective date of termination and accepted by the City. No amount will be allowed for anticipated profit on unperformed Services.

C. If the termination is for cause, the City may take over the Services and prosecute the same to completion. In such event, the CA will be liable to the City for any additional costs incurred by the City as a result of the CA's failure to fulfill its obligations under this Agreement.

D. If after notice of termination for cause it is determined that the CA had not so failed, the termination will be deemed to have been effected for the convenience of the City. In such event, the CA will be entitled to reasonable compensation provided in paragraph B of this Section 21.

E. The rights and remedies provided in this Section 21 are in addition to any other rights and remedies provided by law or under this Agreement and shall survive the termination of this Agreement.

22. FORCE MAJEURE

If the CA is delayed at any time in the commencement or progress of the Services by an act or neglect of the City, the City's Designated Representative, the Construction Manager, or of an employee of any of them; or by changes ordered in the Services by the City; or by Act(s) of God, riots, strikes, labor difficulties, fire, earthquakes, terrorist events, and/or any other cause or event beyond the control of the CA; or by delay authorized by the City pending mediation; or by other causes that the City determines may justify delay, then the Schedule shall be adjusted by

written agreement of the parties for such reasonable time as the City may determine provided that the CA notifies the City in writing of the alleged cause of such delay within ten (10) days after the CA became aware of the delay-precipitating event.

23. CONFLICTS/INCONSISTENCIES

In the event of any inconsistencies within or between any parts or provisions of this Agreement any Exhibit or attachment to this Agreement or any applicable standards, codes or ordinances, the CA will (1) provide the better quality or greater quantity of Services; or (2) comply with the more stringent requirement; either or both in accordance with the City's interpretation.

24. WAIVERS

All conditions, covenants, duties, and obligations contained in this Agreement can be waived only by written agreement. Forbearance or indulgence in any form or manner by a party will not be construed as a waiver, nor in any way limit the legal and/or equitable remedies to that party.

25. SEVERABILITY

If this Agreement contains any unlawful or unenforceable provision not an essential part of the Agreement and which appears not to have been a controlling or material inducement to the making hereof, the same will be deemed to be of no effect, and will, upon the application of either party, be stricken from this Agreement without affecting the binding force of the Agreement as it will remain after omitting such provisions.

26. NOTICE

All notices, demands or requests required or permitted to be given pursuant to this Agreement shall be in writing and deemed to have been properly given if such written notice is delivered by personal delivery, facsimile with confirmed receipt, Federal Express or other reputable express carrier for next business day delivery (charges prepaid by shipper), or by United States mail, registered or certified with return receipt requested, proper postage prepaid. Until such time as written notice is received by a party (which notice is in compliance with this section), that the other party has changed its address, the addresses to be used by the parties for notice purposes shall be as follows:

If to the City:

Elinor Carbone
Mayor
City of Torrington
140 Main Street
Torrington, CT 06790

If to the CA:

Thomas Massaro
Innovative Engineering Services, LLC
33 North Plains Road
Wallingford, CT 06492

27. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the State of Connecticut in all respects, including all matters of construction, validity and performance. The parties agree to be contractually bound to submit themselves to the jurisdiction of the courts of Connecticut.

28. INCORPORATION OF LAW

Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein and the Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Agreement shall forthwith be physically amended to make such insertion.

29. ENTIRE AGREEMENT AND AMENDMENT

This Agreement, including all of the exhibits and schedules hereto, is the entire agreement between the CA and the City and supersedes and rescinds all prior agreements relating to the subject matter hereof. This Agreement may be amended only in writing signed by both the CA and the City.

30. EXECUTION IN COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original instrument, but all such counterparts together shall constitute one and the same instrument. A facsimile or .pdf signature shall constitute an original signature and an Agreement containing the signatures (original or facsimile or .pdf) of all of the parties hereto is binding on such parties once such signatures are transmitted via confirmed facsimile or via electronic mail.

IN WITNESS WHEREOF, this Agreement has been duly executed by the following parties:

City of Torrington:

Commissioning Agent
Innovative Engineering Services, LLC

By: _____

By: Thomas M. Mazzaro

Date: _____

Date: 5/22/21

Exhibits:

- Exhibit A - Scope of Services
- Exhibit B - Systems/Equipment to be Commissioned
- Exhibit C - Compensation
- Exhibit D - Hourly Rates
- Exhibit E - Commissioning Schedule
- Exhibit F - Insurance Requirements

EXHIBIT A

Scope of Services

Commissioning shall meet all mandatory requirements within the Regulations. The CA is required to provide services during the design phase, the construction phase, the acceptance phase, and the post-occupancy phase, to be in compliance with the Conditions. An additional purpose of the commissioning process is to provide the City with assurance that the mechanical, electrical, plumbing, fire protection, controls, building envelope, technology, and other systems have been installed according to the construction documents to be prepared by the Architect for the construction of the Project (the "Construction Documents") and comply with the performance guidelines set out in the Construction Documents. The Services to be performed hereunder shall include the following:

I. Design Phases:

A. Develop a design phase commissioning plan that includes a management strategy and list of features and systems to be commissioned (both MEP systems and the building envelope). An initial draft of the plan shall be produced for review and comment by the City, the OPM and the Architect.

B. Review of the Contract Documents. Performance of design phase reviews in accordance with Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings published by the Connecticut Office of Policy and Management, and the "Capital Projects High Performance Buildings Guidelines" published by the Department. This will include, without limitation, a focused commissioning review of the fifty percent (50%) Design Development Documents. This review will focus on ensuring the Owner's Project requirements are achieved and will include how design meets the functionality, utility performance, maintainability, sustainability, cost, and indoor environmental quality requirements as outlined in the Design Development Documents. Performance of an additional focused review of the Construction Documents to ensure, among other things, proper maintenance access and clear details of construction requirements. Upon completion of the Construction Documents, the CA will perform a spot check review of the Construction Documents to confirm that the CA's commissioning comments have been incorporated therein and associated comments reviewed with the team.

C. Assist, review and approve the development and updating of the Design Record documentation by Design Team members specifically the Owner Project Requirements (OPR) and Basis of Design (BOD) Narrative for inclusion into the commissioning plan.

D. Develop full commissioning specifications and include all commissioned equipment. Coordinate with and integrate into the specifications of the Architect. The commissioning specification will include but is not limited to the following: a detailed description of the responsibilities of all parties, details of the commissioning process; reporting and documentation requirements including formats; alerts to coordination issues, deficiency resolution; construction checklist and startup requirements; the systems to be commissioned; the functional testing process; specific functional test requirements, including testing conditions and acceptance criteria for each piece of equipment being commissioned. The CA shall work with the Architect to coordinate with regard to building envelope testing requirements, including but not limited to roof pull tests and window water infiltration tests. These testing requirements are to be included in the bid specifications for the Construction Documents, the exact location of these testing requirements is to be determined during discussions between the CA and Architect.

E. Coordinate a controls integration meeting and pre-balancing meeting with the Architect, its engineering subconsultant, the City, the OPM, the Construction Manager, its subcontractors, and the City's

facilities/maintenance staff to discuss integration issues between equipment, systems and disciplines to ensure that integration issues and responsibilities have been clearly defined.

F. Participate in meetings pertaining to Connecticut High Performance activities during Project design duration, and issue commissioning progress reports as required by those Conditions that address high performance guidelines and requirements.

II. Bid Phase:

A. Attend construction pre-bid meeting(s) to answer any questions regarding the commissioning activities.

III. Review of Construction Documents:

A. The CA shall review the Construction Documents.

B. The CA shall provide, at a presentation meeting(s) conducted by the CA, the Architect and all its subconsultants (the "Design Team"), the City, and the OPM with review comments at each of the reviews. These comments will primarily be in regard to how well the proposed systems lend themselves to being user friendly, easily operated and maintained, and economical to operate. The building envelope systems review will include roofing, waterproofing, and exterior windows, doors, and wall assemblies.

C. The CA shall provide written comments and, as required, provide on-site discussion with the Design Team, the OPM and the City to review its comments.

D. The CA shall provide the above written comments within 45 days after receipt of written notification to proceed from the City.

IV. Commissioning Plan:

A. The CA shall prepare a detailed construction phase, acceptance phase, and post-occupancy phase commissioning plan for the Project. The plan will be an informational document and will include, but not be limited to, the following:

1. Outline the commissioning responsibilities of the CA, the City, the Design Team, the Construction Manager, and the subcontractor(s).
2. The plan will identify what systems and building envelope features are to be commissioned.
3. The plan will provide an overview of the method of verification and documentation that will be used during the commissioning process.
4. The plan will contain preliminary schedules for the commissioning of systems.

B. The plan will be reviewed with City, the Construction Manager, the Design Team, and the subcontractors at a presentation meeting(s) conducted by the CA. As required, the plan will be modified and approved by the aforementioned parties. Upon approval, the CA will issue the final plan.

C. The CA shall continuously coordinate the commissioning work with the Construction Manager to ensure that commissioning activities are being scheduled into the master schedule for the entire Project.

D. The CA shall issue four (4) hard copies and four (4) electronic copies of the final commissioning plan within 14 days following the written approval of the final plan by the City, the Design Team and the Construction Manager at a presentation meeting conducted by the CA. Distribution of one (1) hard copy and one (1) electronic copy each to: City; Design Team; OPM; and Construction Manager.

The CA shall conduct post-occupancy reviews and meetings with the City at the following intervals: 2 weeks, three (3) months, and 10 months.

V. Review Submittals:

A. The CA shall provide a review of the mechanical and electrical submittals and shop drawings provided by the Construction Manager.

B. This review will be done to determine adherence to the design intent and to familiarize the CA with the specific equipment that the Construction Manager will be installing on the Project. This will allow the CA to tailor its pre-functional test check-off sheets and functional test procedures to the specific pieces of equipment.

C. Any discrepancies with the design documents that the CA finds will be brought to the attention of the Design Team, the City and the OPM. The resolution of these problems will be the responsibility of the City and the Design Team, with input provided by the CA.

D. Review envelope submittals for roofing, waterproofing, and window/door/wall assemblies, including but not limited to: air barrier; diffusive vapor control; water management; and thermal barrier as necessary to ensure commissioned systems will perform properly.

VI. Review of Controls Software:

A. The CA shall review the controls contractor's shop drawings, sequence of operations, and control logic. The review will familiarize the CA with the control logic and specific types of instruments that the contractor will use to meet the design criteria.

B. The CA shall also review the lines of software code that the contractor is intending to use in the Direct Digital Control (DDC) system.

C. The CA shall also confirm the integration of the DDC system with other systems. (i.e. Fire alarm, security, etc.).

VII. Develop Contractor Commissioning Log Books, Including Pre-functional Test Check-off Sheets and Verification of Completion Forms:

A. After a review of the contractor submittals and control software, the CA shall develop prefunctional test check-off sheets and Verification of Completion forms for all equipment to be commissioned.

B. These forms will be provided during a meeting conducted by the CA to the Construction Manager in the form of commissioning log books for their further distribution to the appropriate contractor(s). The forms will be utilized by the contractor(s) in documenting the completion of the installation.

C. The Construction Manager shall verify the accuracy and completeness of the subcontractors' documentation and notify the CA when the systems are prepared for testing, balancing, and functional testing.

VIII. On-site Construction Observation and Construction Meeting Attendance:

A. The CA shall attend all commissioning meetings and attend periodic City, Board, Design Team, Construction Manager, and subcontractor(s) meetings.

B. The CA shall provide on-site construction observation visits during the construction phase of the Project. The CA shall check throughout the on-site visits to see that a means of access is provided to all equipment to facilitate service, repair, maintenance, or replacement.

C. The frequency of the site visits shall be based on the stage of construction. As a minimum, they shall be on a monthly basis and, as the Project moves closer to completion, may become weekly or daily as the commissioning testing gets underway.

D. The purpose of the visits will primarily be to acquaint the CA with the progress of the construction, and become familiar with the systems that the CA will be testing and commissioning. Any discrepancies the CA might observe with regard to the actual construction and the Construction Documents will be brought to the immediate attention of the City, the Design Team, the OPM and the Construction Manager.

E. The site visits will be scheduled in order that the CA can witness an adequate amount of heating, ventilation, and air conditioning (HVAC) piping testing and flushing to ensure that the HVAC contractor is following proper procedures. The CA shall also witness an adequate amount of duct pressure testing and cleaning to ensure that the HVAC contractor is following proper procedures. Other testing to be witnessed by the CA include roofing uplift tests, blower door testing, and water penetration testing.

F. The on-site visits will also allow the CA to more accurately schedule the commissioning process so that it can easily interface with the completion of the construction.

G. Each site visit shall be documented with a written report that will be distributed to the City, the Design Team, the OPM, and the Construction Manager. The report will include a discrepancy/recommendation log, which will be updated after each site visit.

H. Attend Building Committee Meetings on an as needed basis.

IX. Development of Functional Test Procedures:

A. Based on the information obtained from its review of design criteria and construction documentation, the CA shall develop functional test procedures for those systems to be commissioned.

B. These functional test procedures shall provide a detailed procedure of how the system shall be tested and a record sheet for recording the test results.

C. The test procedures shall be as explicit, specific and exact as possible to ensure that the test can be easily repeated by more than one tester and the same results obtained.

D. The CA shall review the test procedures with the City, the Design Team, the OPM, the Construction Manager, and contractor(s) at a presentation meeting conducted by the CA. If required, the test procedures will be modified and then approved by the aforementioned parties.

E. The CA shall issue the final functional test procedures to the City, the Design Team, the OPM, and the Construction Manager (one (1) hard copy and one (1) electronic copy each).

F. Functional test procedures shall be provided for all systems including, but not limited to, the following systems. (Failure to include an item in this list shall not alleviate the CA's obligation to test all systems included in the building, assumed to require testing under commissioning systems criteria established throughout the design of the Project).

- ☐ All air handling units and their associated heating and cooling coils, economizers, thermostats, etc.
- ☐ All humidifiers
- ☐ All exhaust fans
- ☐ All return fans
- ☐ All motorized dampers including demand controlled ventilators
- ☐ All variable air volume (VAV) terminal units and associated reheat coils
- ☐ All lab terminal units (supply and exhaust) and associated reheat coils
- ☐ Chillers and all associated chilled water and condenser water pumps, etc.
- ☐ Boiler, boiler combustion air fan, and all associated pumps, tanks, condensate pumps, etc.
- ☐ All heat exchangers and associated pressure relief valves (PRVs)
- ☐ All energy recovery ventilation systems including enthalpy difference requirements between outdoor air and return air.
- ☐ Cooling towers
- ☐ Chilled water system
- ☐ Refrigeration Systems
- ☐ Domestic water heating system
- ☐ Computer room air conditioning units and associated split system condensers
- ☐ All unit heaters, cabinet heaters, etc.
- ☐ Building automation system, including CO2 sensors, and component failure alarms
- ☐ Direct Digital Controls and system interlocks, including occupancy sensors
- ☐ Emergency generator and associated transfer panels
- ☐ Lighting and Day Lighting control system
- ☐ Fire protection systems and equipment; fire alarm system interfaces with HVAC systems
- ☐ Renewable Energy Systems
- ☐ Security Systems
- ☐ Telecommunications Systems
- ☐ Observation of the Infrared testing for electrical gear and panel boards
- ☐ Envelope systems-Roof, Window, Door, Wall
- ☐ CA is to provide (or “witness” if Construction Documents require others to perform) infrared scan of building walls and roofs and provide a summary report of results to City, the Construction Manager, and the Design Team, during a presentation meeting conducted by the CA, with areas of concern identified for further investigation.

X. Develop Commissioning Schedule:

- A. The CA shall develop a commissioning schedule for all required systems of the Project.
- B. The schedule will be developed through a review and coordination with the schedule for the construction of the Project. It will include contractor and manufacturer start-up tests of major equipment.
- C. At a presentation meeting conducted by the CA, the schedule will be submitted to the City, the Design Team, the OPM, and the Construction Manager for their review and approval.
- D. Upon approval of the schedule, the CA shall monitor and update it on a periodic basis.
- E. Coordinate the Commissioning Schedule with the balancing requirements.

XI. Preparation for and Review of Testing, Adjusting, and Balancing (TAB) of the Project's HVAC/R Systems:

- A. Prior to the balancing contractor starting its work, the CA shall review the duct installation for readiness and verify that the functionality of the systems' controls is at a state that the balancing can commence.
- B. The CA shall review the completed balance report and independently spot check balancing readings to verify compliance with the submitted report. The CA shall confirm that the required rate of outdoor air flow is being delivered to the breathing zone within each occupiable space.
- C. Any discrepancies identified during the CA's review will be brought to the attention of the City, the Design Team, the OPM, the Construction Manager, and the contractor for their review. As required, the CA shall facilitate discussions with the City, the Design Team, the OPM, the Construction Manager, and the contractor(s) to resolve any discrepancies identified during its review.
- D. A copy of the final balancing report will be included in the final commissioning report.
- E. Any smoke control testing by other agencies having authority will be witnessed and documented by the CA.
- F. Coordinate and witness start-up of hydronic systems to verify cleaning, flushing and chemical treatment have been completed prior to the start of water balancing.

XII. Perform Functional Test Procedures and Document Results:

- A. The CA shall commission those systems as outlined in the commissioning plan through the performance of the functional test procedures.
- B. Testing will be scheduled based on the commissioning schedule, the completion of the work, and the system testing and balancing. The CA shall review the test results/reports, including, but not limited to, the efficiency test reports for heating, hot water systems, and cooling systems
- C. During the testing, a weekly report of progress and results will be provided to the City, the Design Team, the OPM, the Construction Manager, and the subcontractor(s). Additionally, a running discrepancy/recommendation log will be provided and updated weekly. The CA shall retest after corrections have been made and track all corrections.

D. If systems do not comply with the testing standards, the CA shall recommend solutions to be reviewed by the City, the Design Team, the OPM, the Construction Manager, and the subcontractor(s). The CA shall facilitate discussions with this group in order for a workable solution to be obtained.

E. All test results will be documented for inclusion in the final commissioning report.

F. Any testing requiring seasonal peak testing will be performed in the peak season.

XIII. Review Contractor's Operation and Maintenance (O&M) Manuals, Warranties, and As-built Documentation:

A. Upon receipt of the O&M Manuals from the Construction Manager, the CA shall review the manuals for, but not limited to, completeness, accuracy, and for compliance with the Construction Manager's contract with the City for the Project. The CA shall provide comments to the Construction Manager, the City, the Board, the OPM, and the subcontractor(s) within 15 days following receipt of the O & M Manuals during a presentation meeting conducted by the CA.

B. The CA shall verify completeness from an operational point of view and include commissioning information.

C. On an ongoing basis during construction and at the completion of the Project, the CA shall observe that the Construction Documents are being properly updated by the Construction Manager, the subcontractor(s), and/or the Design Team, in order to provide accurate as-built documentation. The CA shall report deficiencies to the Construction Manager, the City, and the OPM and track these items until remedied.

D. The CA shall review all HVAC system and electrical equipment warranties to verify that the City's responsibilities for the systems as required by the warranties are clearly defined.

XIV. Provide Operations Staff Systems Training:

A. The CA shall coordinate the training of the City's and the Board's facility maintenance personnel in a review of the following:

1. System configuration
2. Control sequences
3. Special systems
4. Safety
5. Alarms/trouble codes

B. Videoed training will be conducted after the O&M manuals have been distributed to the facility's maintenance personnel.

C. The CA shall coordinate with/supervise the City, the Board, the Construction Manager, and subcontractor(s) to ensure that all training specified in the Project construction documents is properly carried out by the subcontractor(s).

XV. Final Commissioning Report:

A. The CA shall provide a final commissioning report and will present the report at a meeting conducted by the CA. This report will include the following:

1. Summary of commissioning process.
2. A final review of how well the systems meet the design intent, including any noted discrepancies and any recommendations for modifications.

3. All functional test procedures and their final record sheets.
4. Final discrepancy/recommendation log listing final status of each item.
5. Final Testing, Adjusting, and Balancing report.

B. The CA shall submit five (5) copies of the final commissioning report within 60 days after completion of those Services itemized in subsections I through XIV above. The final report shall include all information required by the Regulations.

C. Distribution of Report (One (1) each in hard copy and electronic format):

1. For the City
2. For the Board
3. For the OPM
4. For the Construction Manager
5. To the State Department of Administrative Services/OSCG
6. To Commissioner of the Connecticut Department of Energy and Environmental Protection.

XVI. Warranty Period Review:

A. As required, during the warranty period the CA shall retest any systems that had their testing deferred during the initial functional testing and shall provide any seasonal testing that had been deferred due to the lack of peak season conditions. This testing will ensure that all system sequences of operations have been verified.

B. At the 9-month interval of the Project warranty, the CA shall distribute survey forms to all of the facility staff requesting end-user feedback regarding any on-going deficiencies of commissioned systems noticed by staff throughout the initial occupancy period. The CA shall investigate post-occupancy complaints from end users to determine if systems are performing properly. Documented reporting of this survey will occur as a part of the 10-month interval warranty review noted below in Section XVI C.

C. The CA shall provide a site visit at the 10-month interval of the Project warranty.

1. The CA shall review with the operations staff designated by the Board and/or the City how well the commissioned systems have been performing and identify any problems that may require review or correction.
2. The CA shall provide, at a presentation meeting conducted by the CA, a written report to the City, the Board, the Construction Manager, and subcontractor(s) outlining the findings of its 9th and 10th month warranty reviews and recommendations with regard to any corrective action(s) that may be required.

D. The CA shall complete the warranty period review and submit five (5) copies of the written report within 12 months after completing the final commissioning report. This report shall include all information required by the Regulations.

E. Distribution of Report (One (1) each in hard copy and electronic format):

1. For the City
2. For the Board
3. For the Construction Manager
4. To the State Department of Administrative Services / OSCG
5. To Commissioner of the Connecticut Department of Energy and Environmental Protection.

EXHIBIT B

A. Systems/Equipment to be commissioned include:

All energy-related systems in the Project shall be commissioned including, without limitation:

- (1) Heating, ventilating, air conditioning, and refrigeration systems and associated controls;
- (2) Lighting and day-lighting controls;
- (3) Domestic hot water systems;
- (4) Renewable energy systems; and
- (5) a. Plumbing Systems
 1. Domestic Water Piping Systems and Equipment (Cold, Hot, and Hot Water Return)
 2. Sanitary Waste Piping Systems and Equipment (Sanitary and Vent)
 3. Plumbing Fixtures (Toilet Rooms and Laboratories)
 4. Storm Drainage Systems

- b. Mechanical Systems
 1. Building Automation Systems
 2. Administrative Area new AHUs
 3. Exhaust Air Fans
 4. Pressure Reducing Stations
 5. Air Distribution Systems
 6. Air Terminal Units
 7. Reheat Coils
 8. Unit Heaters
 9. Steam Condensate Pump Equipment
 10. Toilet, General, And Laboratory Exhaust Air Systems
 11. Air Balance / Room Pressurization
 12. Existing Duct Pressure Testing

- c. Electrical Systems

CA to review and prepare test and inspection reports for associated electrical systems and equipment. Testing of electrical equipment shall be by electrical contractor and/or vendor. CA will observe and report on associated tests performed.

1. Main Normal Power Systems
2. Emergency Power
3. Automatic Transfer Switching
4. Lighting & Lighting Controls (includes site lighting)
5. Interfaces To Automated Temperature Control System
6. Grounding Systems
7. Replacement of Secondary Electrical Systems Service Protectors (if applicable)
8. Main Switchboards (if applicable)
9. New Bus Duct from Network Protectors to new Service Protectors (if applicable)
10. New Electrical Closets Ground and Main Floors
11. Uninterruptible Power Supply (UPS) Systems

- d. Life Safety Systems
 - 1. Fire Alarm Systems
 - 2. Fire Protection Systems and Components
 - 3. Egress Lighting
 - 4. Emergency Blue Light System
- e. Building Envelope
 - 1. Wall System
 - 2. Window System
 - 3. Roof System

EXHIBIT C

COMPENSATION

| | |
|--|-------------------|
| a. Commissioning Plan | \$11,500.00 |
| b. Mechanical and Electrical Review | \$8,500.00 |
| c. Controls Software Review | \$4,000.00 |
| d. Pre-functional Test Sheets, Development and Commissioning | \$9,000.00 |
| e. On-site Construction Observation / Meetings | \$53,000.00 |
| f. Preform Functional Test Procedures | \$18,000.00 |
| g. Develop Commissioning Schedules | \$1,650.00 |
| h. Preparation for Testing, Adjusting and Balancing Work | \$3,800.00 |
| i. Preform Functional Test Procedures and Document Results | \$24,000.00 |
| j. Review Contractor's IOMs, Warranties, As-Built | \$2,500.00 |
| k. Provide Operations Staff Systems Training | \$2,300.00 |
| l. Final Commissioning Report | \$5,000.00 |
| m. <u>Warranty Period Review</u> | <u>\$6,500.00</u> |

Total Lump Sum \$149,750.00

EXHIBIT D

HOURLY RATES

| Engineering Personnel Listings | Hourly Rates for Engineering Personnel |
|--------------------------------|--|
| Member-In-Charge | \$150/hr |
| Senior Commissioner | \$125/hr |
| Commissioner | \$110/hr |
| Administrator/Secretary | \$50/hr |

EXHIBIT E

COMMISSIONING SCHEDULE

EXHIBIT F

A. Statutory Workers' Compensation and Employers' Liability:

| | | |
|----|----------------------------|-------------------------|
| a. | Workers' Compensation: | Statutory limits |
| b. | Employers' Liability: | |
| | Bodily injury by accident: | \$100,000 each accident |
| | Bodily injury by illness: | \$100,000 each employee |
| | | \$500,000 policy limit |

B. Commercial General Liability:

| | |
|------------------------|------------------------------|
| Combined single limit: | \$1,000,000 each occurrence |
| | \$2,000,000 annual aggregate |

C. Comprehensive Automobile Liability (to include owned, non-owned, and hired vehicles):

| | |
|------------------------|-----------------------------|
| Combined single limit: | \$1,000,000 each occurrence |
|------------------------|-----------------------------|

D. Umbrella Liability:

\$5,000,000 each occurrence
following form

E. Professional Services Liability Insurance: The CA will furnish evidence, by way of a certificate of insurance, that it has obtained a professional services liability insurance policy with \$1,000,000.00 minimum coverage for negligent errors and omissions. If any claims are made against its professional services liability insurance policy, the CA agrees to purchase additional insurance in order to maintain the minimum coverage of \$1,000,000.00. The insurance will remain in effect during the entire duration of this Agreement and for seven (7) years after substantial completion of the Project. For policies written on a "Claims Made" basis, the CA agrees to maintain a retroactive date prior to or equal to the effective date of this Agreement. The CA will contractually require any architectural or engineering firm it hires to maintain professional liability insurance in the same amount and with the same provisions indicated above. The CA's policy will provide coverage for the CA's obligation under Section 15 of this Agreement to indemnify and hold harmless the City, the City's Designated Representative, the directors, officers, Board of Education, owners, agents, representatives, and employees of either of them, as well as the Building Committee appointed by the City for the Project, and their respective employees and agents, from any and all claims, liabilities, demands, damages, costs or expenses (including all reasonable attorneys' fees) to the extent caused by or resulting from any negligent act or omission of, willful misconduct, breach of the Agreement or breach of warranty by, or fault of, the CA, its subcontractors, consultants or anyone for whom any of them is responsible in the performance of the Services, and each policy held by a consultant of the CA shall provide the same coverage to the extent of such consultant's acts or omissions.

All required insurance policies will be issued by an insurance company or companies satisfactory to the City. Each insurance policy will state that the insurance company agrees to investigate and defend the insured against all claims for damages to the extent that all alleged damages might be covered by insurance. Such insurance policies will name the City, and its officials, Board of Education, agents, representatives, and employees, as additional insureds, except that the City will not be named as an additional insured with respect to the coverage for the statutory workers' compensation and employers' liability insurance and to the coverage for professional liability insurance. Certificates of insurance showing such coverages as required in this Section will be filed with the City prior to the time this Agreement is executed on behalf of the City. The certificate for commercial general liability insurance and automobile liability insurance will also designate the City and the City as an additional insured. The CA shall provide written notification to the City of the cancellation or expiration of any insurance required by Section 13 of the Agreement. The CA shall provide such written notice within five (5) business days of the date the CA is first aware of the cancellation or expiration, or is first aware that the cancellation or expiration is threatened or otherwise may occur, whichever comes first.