

# Consultant Agreement Form (K-12 School Project) State of Ohio Professional Services Agreements for Public Facility Construction

This Agreement is made as of the date set forth below between the State of Ohio, acting by and through the President and Treasurer of the School District Board (“State”), and the Consultant in connection with the Project.

**Project Number:** SFC-220488  
**Project Name:** Celina CSD  
**Site Address:** Various sites within the Celina CSD

**Owner:** Celina CSD  
**Owner’s Representative:** Phil Metz  
**Address:** 585 E. Livingston Street  
Celina, Ohio 45822

**Contracting Authority:** The School District Board above in conjunction with the **Ohio Facilities Construction Commission**  
**Project Manager:** Dorothy Leachman  
**Address:** 30 West Spring Street, 4th Floor  
Columbus, Ohio 43215

**Consultant:** STAN and Associates, Inc.  
**Consultant’s Principal Contact:** Drew Koenig  
**Address:** 300 W. Monument Ave Suite 200  
Dayton, Ohio 45402

## ARTICLE 1 - SCOPE OF WORK; CONSTRUCTION BUDGET

- 1.1 The Consultant shall perform and provide all of the Services described in the Agreement.
  - 1.1.1 The type of consulting services provided under this Agreement shall be Commissioning.
  - 1.1.2 The project delivery method(s) for this Project shall be Construction Manager at Risk.
  - 1.1.3 During the Construction Stage, the Consultant and appropriate Sub-consultants shall be present at the Site not less than 4 hours per week (excluding travel time to and from the Site) whenever any Work is in preparation or progress, unless otherwise expressly provided in writing by the Contracting Authority.
- 1.2 The Construction Budget is **\$104,986,102.00**.

## ARTICLE 2 - COMPENSATION

- 2.1 The total compensation for the Consultant’s Services is **\$297,000.00**, which includes the sum of (1) Direct Personnel Expense, (2) Basic Fee, (3) Additional Services Fee, and (4) Reimbursable Expenses. The Owner shall pay the total compensation amount to the Consultant in exchange for the Consultant’s proper, timely, and complete performance of the Services.
- 2.2 Direct Personnel Expense.
  - 2.2.1 Direct Personnel Expense for the Consultant’s employees and all Sub-consultants for such hours of their time as are devoted to performing Basic Services to the Project shall be determined in accordance with the Consultant’s Staffing Plan. Direct Personnel Expense shall be evidenced by time records certified by the Consultant.
  - 2.2.2 The Consultant shall use all reasonable means to minimize Direct Personnel Expense. In all events, the Owner shall pay the Consultant Direct Personnel Expense of **\$0.00**, which shall not be exceeded without the prior written approval of the Contracting Authority and the Owner and an amendment to this Agreement.
- 2.3 Basic Fee.
  - 2.3.1 For Basic Services provided by the Consultant and all Sub-consultants in accordance with the **Consultant Scope of Services** attached as **Exhibit B**, the Owner shall pay the Consultant the Basic Fee of **\$282,150.00**, which shall not be

exceeded without the prior written approval of the Contracting Authority and the Owner and an amendment to this Agreement.

<b>Project Stage or Commissioning Activity</b>	<b>Portion of Basic Fee</b>
<b>Design Stages (26%)</b>	
Schematic Design Stage	6%
Eco Charrette	2%
Design Development Stage	6%
Review of Owner's Design Intent Narrative	1%
Review of A/E's Basis of Design	1%
Review of Energy Modeling Report	2%
Construction Documents Stage	5%
Cx Plan	1%
LEED Documentation	2%
<b>Construction Stage (57%)</b>	
Pre-Functional Testing	15%
Functional Testing	25%
First Report Delivery	5%
Seasonal Testing	5%
Construction Stage Final Cx Report	7%
<b>Post-Occupancy / Correction Period (17%)</b>	
Trend Report	1%
Eleven-Month Inspection	8%
RCx Plan	1%
Owner's Systems Manual	5%
Final Cx Report	2%
<b>Total Basic Fee</b>	<b>100%</b>

The Maintenance Planning Basic Fee is **\$14,850.00** and is subject to the following allocation:

<b>Maintenance Planning Activity</b>	<b>Portion of MPA Fee</b>
Data Entry on the Facility Maintenance Report	55%
Submission of Maintenance Plan to the Commission	35%
Maintenance Plan Approval by the Commission	10%
<b>Total MPA Fee</b>	<b>100%</b>

#### **2.4 Additional Services Fees.**

**2.4.1** For Additional Services provided by the Consultant and all Sub-consultants, the Owner shall pay the Consultant the Additional Services Fees of up to **\$0.00**, which shall not be exceeded without the prior written approval of the Contracting Authority and the Owner and an amendment to this Agreement. For Additional Services performed by a Sub-consultant, Additional Services Fees shall be based on the Sub-consultant's associated invoices to the Consultant and may include a Consultant mark-up of 0 percent.

#### **2.5 Reimbursable Expenses.**

**2.5.1** For Reimbursable Expenses incurred by the Consultant and all Sub-consultants, the Owner shall pay the Consultant up to **\$0.00**, which shall not be exceeded without the prior written approval of the Contracting Authority and the Owner and an amendment to this Agreement. No Consultant or Sub-consultant mark-up shall be permitted on Reimbursable Expenses.

### **ARTICLE 3 - KEY PERSONNEL**

#### **3.1 The Consultant's key personnel for the Project are:**

**3.1.1** Drew Koenig, Commissioning Lead.

**3.2** The identities of the Consultant's key personnel, and the extent of their participation in performing the Consultant's services as identified above, shall not be altered without the Contracting Authority's prior written consent.

**3.3** The Consultant shall dismiss from the Project any individual employed by the Consultant or a Sub-consultant who the Contracting Authority finds, in its sole discretion, to be incompetent, guilty of misconduct, or detrimental to the Project.

## **ARTICLE 4 - GENERAL PROVISIONS**

### **4.1 Effectiveness.**

**4.1.1** It is expressly understood by the Consultant that none of the rights, duties, and obligations described in the Contract Documents shall be valid and enforceable unless the Treasurer of the School District first certifies that there is a balance in the School District's treasury or are in the process of collection to an appropriate fund, free from any previous encumbrance.

**4.1.2** Subject to **Section 4.1.1**, the Agreement shall become binding and effective upon execution by the School District Board and the Consultant, subject to approval of the Commission.

**4.1.3** This Agreement may be executed in several counterparts, each of which shall constitute a complete original Agreement, which may be introduced in evidence or used for any other purpose without production of any other counterparts.

### **4.2 Representations.**

**4.2.1** The Consultant represents and warrants that it is not subject to an unresolved finding for recovery under ORC Section 9.24. If this representation and warranty is found to be false, the Agreement is void, and the Consultant shall immediately repay to the Owner any funds paid under this Agreement.

**4.2.2** The Consultant hereby certifies that neither the Consultant nor any of the Consultant's partners, officers, directors, shareholders nor the spouses of any such person have made contributions in excess of the limitations specified in ORC Section 3517.13.

**4.2.3** The Consultant, by signature on this Agreement, certifies that it is currently in compliance with, and will continue to adhere to, the requirements of Ohio ethics laws and conflict of interest laws and will take no action inconsistent with those laws.

**4.2.4** The Consultant affirms to have read and understands Executive Order 2019-12D and shall abide by those requirements in the performance of this Agreement. Notwithstanding any other terms of this Agreement, the State reserves the right to recover any funds paid for services the Consultant performs outside of the United States for which it did not receive a waiver. The State does not waive any other rights and remedies provided the State in this Agreement.

**4.2.5** The Consultant affirms to have read and understands Executive Order 2022-02D regarding the prohibition of purchases from or investment in a Russian institution or company and shall abide by those requirements in the performance of this Agreement. Notwithstanding any other terms of this Agreement, the State reserves the right to recover any funds paid to the Consultant for purchases or investments in a Russian institution or company in violation of this paragraph. The provisions of this paragraph will expire when the applicable Executive Order is no longer effective.

**4.2.6** During the performance of this Agreement, if the Consultant changes the location(s) disclosed on the **Affirmation and Disclosure Form** (a page in its **Statement of Qualifications**), the Consultant must complete and submit a revised **Affirmation and Disclosure Form**.

**4.2.7** Pursuant to ORC Section 9.76(B), the Consultant warrants that it is not boycotting any jurisdiction with whom the State of Ohio can enjoy open trade, including Israel, and will not do so during the term of this Agreement.

## **ARTICLE 5 - ENUMERATION OF DOCUMENTS**

**5.1** This Agreement includes the following documents:

**5.1.1 Consultant Standard Terms and Conditions** attached as **Exhibit A**.

**5.1.2 Consultant Scope of Services** attached as **Exhibit B**.

**5.1.2.1 Exhibit B – Consultant Scope of Services (OSFC Commissioning)**

**5.1.3 Contracting Definitions** attached as **Exhibit C**.

**5.1.3.1 Exhibit C-1 – CM at Risk Contract**

**5.1.4 Consultant Special Terms and Conditions** attached as **Exhibit D**.

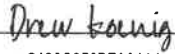
**5.1.5 Consultant Staffing Plan** attached as **Exhibit E**.

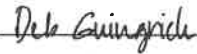
**SIGNATURES**

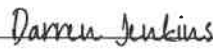
IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date set forth below:

**STAN and Associates, Inc.**

**STATE OF OHIO, BY AND THROUGH THE  
SCHOOL DISTRICT BOARD**

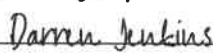
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 C138C252BFA84AA... *Signature*  
 \_\_\_\_\_  
 Drew Koenig  
*Printed Name*  
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 President  
*Title*

DocuSigned by:  
  
 86533732CA694B6... *Signature*  
 \_\_\_\_\_  
 Deb Guingrich  
*Printed Name*  
 School District Board President  
 \_\_\_\_\_  
 5/12/2022  
*Date*

DocuSigned by:  
  
 3C03341A45FE4E3... *Signature*  
 \_\_\_\_\_  
 Darren Jenkins  
*Printed Name*  
 School District Board Treasurer

**TREASURER'S CERTIFICATION**


IT IS HEREBY CERTIFIED that the moneys required to meet the obligations of the **Board of Education of the Celina CSD** under the foregoing Agreement have been lawfully appropriated for such purposes and are in the treasury of the **Celina CSD** or are in the process of collection to an appropriate fund, free from any previous encumbrance.


DocuSigned by:  
  
 3C03341A45FE4E3... *Signature*  
 \_\_\_\_\_  
 Darren Jenkins  
*Printed Name*  
 School District Board Treasurer

**APPROVAL OF THE OHIO FACILITIES CONSTRUCTION COMMISSION**

<sup>DS</sup>  


<sup>DS</sup>  


<sup>DS</sup>  


DocuSigned by:  
  
 139FE90A931A437... *Signature* 5/12/2022  
 \_\_\_\_\_  
 Cheryl J. Lyman  
 Executive Director

**END OF DOCUMENT**

# **Exhibit A - Consultant Standard Terms and Conditions**

## **State of Ohio Professional Services Agreements for Public Facility Construction**

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### **ARTICLE 1 - CONSULTANT'S RESPONSIBILITIES**

#### **1.1 Nondiscrimination**

**1.1.1** The Consultant shall comply with Applicable Law regarding equal employment opportunity, including Ohio Revised Code ("ORC") Section 153.59 and all Executive Orders issued by the Governor of the state of Ohio.

**1.1.1.1** The Consultant shall cooperate fully with the State Equal Opportunity Coordinator ("EOC"), with any other official or agency of the state or federal government that seeks to eliminate unlawful employment discrimination, and with all other state and federal efforts to assure equal employment practices under the Agreement.

#### **1.2 Royalties and Patents**

**1.2.1** The Consultant shall inform the State if the Consultant is aware that a particular invention, design, process, or device specified in the Contract Documents is subject to patent rights or copyrights calling for the payment of a license fee or royalty.

#### **1.3 Assignment of Antitrust Claims**

**1.3.1** Each party to this Agreement recognizes that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the ultimate purchaser of goods and services; in this instance the ultimate purchaser is the State. Therefore, the following assignment is made: The Consultant hereby assigns, sells, conveys and transfers to the State any and all rights, title, and interest in and to any and all claims and causes of action which the Consultant may now have or hereafter acquire under the antitrust laws of the United States of America or the state of Ohio, provided that the claims or causes of action relate to the particular goods, products, commodities, intangibles, or services purchased, procured, or acquired by, or rendered to, the State pursuant to this Agreement, and except as to any claims or causes of action which result from antitrust violations commencing after the compensation is established under this Agreement, which are not passed on to the State by any means. In addition, the Consultant warrants and represents that it will require any and all of its Sub-consultants and suppliers to assign any and all federal and state antitrust claims and causes of action to the State, subject to the proviso and exception stated above.

#### **1.4 Use of Domestic Steel**

**1.4.1** The Consultant shall comply with ORC Section 153.011 regarding the specification and use of domestically produced steel products. Copies of ORC Section 153.011 may be obtained from the Ohio Facilities Construction Commission or downloaded at <http://codes.ohio.gov/orc/153.011v1>.

#### **1.5 Drug Free Safety Program**

**1.5.1** The Consultant shall comply with Applicable Law regarding smoke-free and drug-free workplaces and shall make a good-faith effort to ensure that none of its or its Sub-consultants' employees engaged in the Services purchase, transfer, use, or possess illegal drugs or alcohol, or abuse prescription drugs in any way while on or about the Project.

#### **1.6 Use of the State's Web-based Project Management Software**

**1.6.1** If the State decides, in its sole discretion, to utilize the State's web-based project management software for the Project, the Consultant shall use such software for all compatible Services required under this Agreement.

**1.6.2** All costs for the Consultant's use of the State's web-based project management software for the Project shall be included in its Basic Services Fee, and additional compensation shall not be permitted. If the Consultant's staff or its Sub-consultants are unfamiliar with the proper use of such software, the Consultant shall provide its staff and Sub-consultants for training without additional compensation.

#### **1.7 Consultant's Services**

**1.7.1** If the Consultant is providing professional design services, the Consultant shall be **(1)** a registered architect holding a license and certificate of authorization issued by the Ohio Architects Board pursuant to ORC Chapter 4703, **(2)** a registered landscape architect holding a license and certificate of authorization issued by the Ohio Landscape Architects Board pursuant to ORC Chapter 4703, or **(3)** a professional engineer or professional surveyor holding a license and certificate of authorization issued by the Ohio Engineers and Surveyors Board pursuant to ORC Chapter 4733.

**Exhibit A****Consultant Standard Terms and Conditions**

**1.7.2** The Consultant shall provide Services for the Project, including, but not limited to, Services customarily furnished in accordance with generally accepted architectural, landscape architectural, engineering, surveying, commissioning, construction management, or other relevant specialty consulting practice as appropriate, in accordance with the terms of this Agreement.

**1.7.3** The Consultant shall provide the Services in accordance with Applicable Law, the applicable announcement issued pursuant to ORC Section 153.67 ("Announcement"), and the State's Standards of Design, if any.

**1.7.4** The Consultant shall not be responsible for and shall not have control or charge of construction means, methods, techniques, sequences, procedures, or scheduling used by a Contractor to comply with the Contractor's obligations under its Contract for the Project or for safety precautions and programs in connection with the Contractor's Work on the Project.

**1.7.5** The Consultant shall not be responsible for or have control or charge over the acts or omissions of Contractors or Subcontractors, any of their agents or employees, or any other persons performing any Work on the Project.

**1.7.6** If the Consultant is providing professional design services and construction contract administration, the Consultant shall render interpretations and decisions in connection with a Contractor's responsibilities under the Contract Documents and submit recommendations to the State for enforcement of the Contractor's contract as necessary.

**1.7.6.1** The Consultant is the initial interpreter of all requirements of the Contract Documents.

**1.7.6.2** The Consultant's interpretations and decisions are subject to final determination by the State.

**1.8 Standard of Care**

**1.8.1** Notwithstanding any other provision of this Agreement to the contrary, the Consultant shall perform its Services consistent with the professional skill and care ordinarily provided by registered architects, registered landscape architects, professional engineers, professional surveyors, commissioning agents, construction managers, or other relevant specialty consultant discipline as appropriate in the same or similar locality under the same or similar circumstances.

**1.8.2** The Consultant shall perform its Services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.

**1.9 Construction Budget**

**1.9.1** The State shall provide written notice to the Consultant of any change in the Construction Budget.

**1.9.2** The Consultant shall perform its Services so that the Project is completed within the Construction Budget.

**1.9.3** The Consultant and the State do not have control over the cost of labor, materials, or equipment, over Contractors' methods of determining prices, or over competitive bidding, market, or negotiating conditions. Accordingly, the Consultant does not warrant or represent that competitively bid or negotiated prices will not vary from the Construction Budget or from any estimate of cost or evaluation prepared, or agreed to, by the Consultant.

**1.10 Cooperation**

**1.10.1** The Consultant shall perform the Services so as not to interfere with, disturb, hinder, or delay the services of Separate Consultants or Work of the Contractors. The Consultant shall cooperate and coordinate fully with all Separate Consultants and Contractors and shall freely share all of the Consultant's Project-related information with them to facilitate the timely and proper performance of the Services and of the services and work of Separate Consultants and Contractors.

**1.10.2** If the Consultant damages the property or work of any Separate Consultant or Contractor, or by failure to perform the Services with due diligence, delays, interferes with, hinders, or disrupts the services of any Separate Consultant or the work of any Contractor who suffers additional expense and damage as a result, the Consultant is responsible for that damage, injury, or expense.

**1.10.3** If the proper execution or results of any part of the Services depends upon work performed or services provided by the State, a Separate Consultant, or a Contractor, the Consultant shall review that other work and appropriate instruments of service, and promptly report to the State in writing any defects or deficiencies in that other work or services that render it unavailable or unsuitable for the proper execution and results of the Services. The Consultant's failure so to report will constitute an acceptance of the other work and services as fit and proper for integration with the Consultant's Services except for defects and deficiencies in the other work or services that were not reasonably discoverable at the time of the Consultant's inspection.

**Exhibit A****Consultant Standard Terms and Conditions**

**1.10.4** The Consultant shall not delay the Services on account of any claim, dispute, or action between the Consultant and a Separate Consultant or Contractor.

**1.11 Records**

**1.11.1** The records of all of the Consultant's Direct Personnel Expenses, Reimbursable Expenses, and payments to Sub-consultants pertaining to the Project shall be kept on a generally recognized accounting basis and shall be available to the State at all times and shall be maintained for seven years after Substantial Completion of all Work.

**1.11.2** All other records kept by the Consultant related to the Project shall be available to the State at all times and shall be maintained for six years after Substantial Completion of all Work.

**ARTICLE 2 - STATE'S RIGHTS AND RESPONSIBILITIES****2.1 The State**

**2.1.1** The State shall designate a Project Manager for the Project. The Project Manager is authorized to act on behalf of the State to perform specific responsibilities under the Agreement.

**2.1.2** The State shall furnish information and services required of it in a timely manner.

**2.2 Required Actions**

**2.2.1** The State shall review, approve, or take such actions as are required of it by this Agreement, the Contract Documents, and Applicable Law in a reasonable and timely manner.

**2.3 State's Requirements**

**2.3.1** The State shall provide to the Consultant full information regarding the State's requirements for the Project including, but not limited to, the Program of Requirements, design and construction standards, and work rules, which shall set forth the State's use, design, time, and financial objectives, constraints and criteria, including space requirements and relationships, flexibility and expandability, time constraints imposed by fiscal and budgetary considerations, special equipment, and systems and Site requirements.

**2.4 Site Description**

**2.4.1** If reasonably requested by the Consultant as necessary for the Project, the State shall furnish a legal description and a certified land survey of the Site, giving, as applicable, grades and lines of streets, alleys, pavements and adjoining property; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the Site; locations, dimensions, and complete data pertaining to existing buildings, other improvements, and trees; and full information concerning available service and utility lines, both public and private, above and below grade, including inverts and depths.

**2.5 Provided Information**

**2.5.1** The State does not warrant or guarantee the accuracy of Project-related information they provide to the Consultant, but the Consultant may rely upon that information to the extent consistent with the standard of care described under **Section 1.8**.

**2.6 Notice to Consultant**

**2.6.1** If the State observes or otherwise becomes aware of any Defective Work or other fault or defect in the Project, prompt written notice thereof shall be given to the Consultant.

**2.7 Legal Representation**

**2.7.1** The State shall not be responsible to provide or pay for any legal representation of the Consultant.

**2.8 Limitation of Authority**

**2.8.1** The Consultant shall not have any authority to bind the State for the payment of any costs or expenses without the prior express written approval of the State.

**2.8.2** The Consultant shall have authority to act on behalf of the State only to the extent provided in this Agreement and the Contract Documents.

**2.8.3** The Consultant's authority to act on behalf of the State may be modified only by an amendment to this Agreement in accordance with **Section 4.3**.

## **2.9 Approval or Disapproval of Consultant's Services**

**2.9.1** The State may disapprove any portion of the Services.

**2.9.2** If the State disapproves of the Services at any Stage, the Consultant shall proceed, when requested by the State, to re-perform the Services to satisfy the objections without additional compensation to the Consultant or its Sub-consultants.

**2.9.3** The Consultant acknowledges that any review or approval by the State of any Services shall not relieve the Consultant of the Consultant's responsibility to properly and timely perform the Services.

## **2.10 Performance Evaluations**

**2.10.1** The State shall evaluate the Consultant during performance of the Services, at completion of a phase of the Project, completion of the Project, or any or all of the foregoing. The State shall retain the evaluation(s).

**2.10.1.1** The Consultant may request a copy of the completed evaluation(s). If the Consultant wishes to comment or take exception to any rating or remark, the Consultant shall send a response in writing to the State within 30 days after receiving the evaluation(s).

**2.10.1.2** The State may use the evaluation(s) in determining the qualifications of the Consultant for future contracts.

**2.10.1.3** The State may request information from the Consultant for use in evaluating the Contractor's or the State's performance. If such information is requested, the Consultant shall comply in a timely and responsive manner.

## **ARTICLE 3 - SUB-CONSULTANTS**

### **3.1 Sub-consultant Services**

**3.1.1** The Consultant may provide a portion of the Services through one or more Sub-consultants, provided, however, that the Consultant shall remain responsible for all of the Consultant's duties and obligations under this Agreement.

**3.1.2** By appropriate written agreement, the Consultant shall require each Sub-consultant, to the extent of the Sub-consultant's portion of the Services, to be bound to the Consultant by the terms of this Agreement, and to assume toward the Consultant all of the obligations and responsibilities which the Consultant assumes toward the State.

**3.1.2.1** The Consultant shall not retain any Sub-consultant on terms inconsistent with this Agreement.

**3.1.2.2** All agreements between the Consultant and a Sub-consultant shall identify the State as the agreement's intended third-party beneficiaries.

**3.1.2.3** Upon the request of the State, the Consultant shall submit a copy of the agreement between the Consultant and each Sub-consultant.

**3.1.3** The Consultant shall obtain the State's written approval before engaging any Sub-consultant not named in the Agreement. The Consultant shall not employ any Sub-consultant against whom the State has a reasonable objection. The State's approval or disapproval of any Sub-consultant, however, will not relieve the Consultant of the Consultant's full responsibility for performance of the Services.

**3.1.4** The Consultant shall not remove any Sub-consultant from the Project or reduce the extent of any Sub-consultant's participation in providing the Services without the State's prior written consent. The Consultant shall not permit any Sub-consultant to replace any previously identified team member except with the State's prior written consent unless the Sub-consultant ceases to employ that person. On notice from the State, the Consultant shall immediately and permanently remove from the Project any Sub-consultant or person under a Sub-consultant's control whose performance is not satisfactory to the State.

**3.1.5** The State may communicate with any Sub-consultant either through the Consultant or directly with the Sub-consultant, but the State may not modify the agreement between the Consultant and any Sub-consultant. The State will advise the Consultant with reasonable promptness of direct communication with any Sub-consultant.

**3.1.6** The Consultant hereby assigns to the State each Sub-consultant's agreement provided that the assignment is effective only after the State terminates this Agreement in whole or in part and only for those agreements that the State accepts by notifying the Sub-consultant and Consultant in writing. The State may re-assign accepted agreements.



### 3.2 Payments by Consultant

**3.2.1** Within ten business days after receipt of payment made pursuant to this Agreement, the Consultant shall pay all portions thereof due to Sub-consultants and to persons who provided items, the expenses of which are Reimbursable Expenses.

**3.2.2** The State has no obligation to pay or see to the payment of money to any Sub-consultant except as otherwise required under Applicable Law.

## ARTICLE 4 - MODIFICATIONS

### 4.1 Compensation for Extension of Project Time

**4.1.1** If the Consultant notifies the State not less than 30 days before the date for completion of the Project identified in the approved Project Schedule, that the time for completion is reasonably expected to be exceeded by more than ten percent through no fault of the Consultant, the Consultant's compensation for Services to be rendered during such extended period shall be negotiated to the mutual reasonable satisfaction of the State and Consultant.

**4.1.2** If, through such negotiation, the State agrees that the Consultant shall be paid additional compensation, an amendment to that effect shall be executed in accordance with **Section 4.3**.

**4.1.3** That amendment shall be executed before the Consultant renders any Services made necessary by the extension of the time of completion, unless otherwise agreed in writing by the State.

### 4.2 Compensation for Change of Scope of Project or Construction Budget

**4.2.1** The Project Scope is defined by the Approved Program of Requirements, as provided in **Exhibit B**.

**4.2.2** The Construction Budget is defined in the Agreement.

**4.2.3** If the State, through no fault of the Consultant, materially changes the Project Scope after the Schematic Design Stage or materially changes the Construction Budget at any time after the execution of this Agreement, any necessary adjustment in the Consultant's compensation shall be negotiated to the mutual reasonable satisfaction of the State and Consultant.

**4.2.4** If, through such negotiation, the State agrees that the Consultant shall be paid additional compensation, an amendment to that effect shall be executed in accordance with **Section 4.3**.

**4.2.5** That amendment shall be executed before the Consultant renders any Services made necessary by the change in the Project Scope or the Construction Budget, unless otherwise agreed in writing by the State.

### 4.3 Amendments

**4.3.1** This Agreement may be modified only by an amendment prepared by the State and executed by both the Consultant and the State.

**4.3.2** If the Attorney General approved the original Agreement, Amendments involving changes to the legal terms and conditions of this Agreement shall require approval by the Attorney General of the state of Ohio.

**4.3.2.1** Changes to the legal terms and conditions do not include amendments to the scope or cost of the Services governed by this Agreement, which include changes to **Exhibit B**.

**4.3.3** If the Project is administered using the State's web-based project management software, the Consultant shall submit its request for an amendment to the State through the "Professional Services Amendments" or "Contract Modifications" business process.

### 4.4 Allocation Adjustments

**4.4.1** Without exceeding the total compensation for this Agreement, the allocation of costs, as described in the Agreement, may be adjusted upon request of the Consultant and approval by the State without a formal signed amendment.

**4.4.2** If the Project is administered using the State's web-based project management software, the Consultant shall submit its request for an allocation adjustment to the State through the "Professional Services Amendments" or "Contract Modifications" business process.

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**ARTICLE 5 - DISPUTE RESOLUTION****5.1 Notice and Filing of Requests**

**5.1.1** Any request by the Consultant for additional fees or expenses shall be made in writing to the State and filed prior to payment of the final five percent of the Basic Fee. The Consultant's failure to comply with the requirements of this **Section 5.1.1** shall constitute an irrevocable waiver by the Consultant of any request for such fees and expenses.

**5.2 Substantiation of Request**

**5.2.1** In every written request filed pursuant to **Section 5.1**, the Consultant shall provide the nature and amount of the request; identification of persons, entities, and events responsible for the request; activities on the Project Schedule affected by the request or new activities created by any delay and the relationship with existing activities; anticipated duration of any delay; and recommended action to avoid or minimize any future delay.

**5.3 Meeting with the Project Manager**

**5.3.1** Within 30 days after receipt of the request filed with the State pursuant to **Section 5.1**, or other period mutually agreed by the parties, the Project Manager shall schedule a meeting to resolve the request and render a decision on the request promptly thereafter or render a decision on the request without a meeting.

**5.3.2** The meeting scheduled by the Project Manager shall be attended by persons expressly and fully authorized to resolve the request on behalf of the Consultant.

**5.4 Appeal to Commission**

**5.4.1** If the efforts of the Project Manager do not lead to resolution of the request, the Consultant may request review of the Project Manager's decision by written notice delivered by certified mail to the Executive Director of the Commission within 14 days after the Project Manager's decision.

**5.4.2** Within 30 days after receipt of notice or other period mutually agreed by the parties, the Commission shall schedule a meeting to resolve the dispute and render a decision on the appeal promptly thereafter or render a decision on the appeal without a meeting.

**5.4.3** The meeting shall be attended by persons expressly and fully authorized to resolve the matters on behalf of the Consultant.

**5.4.4** ORC Chapter 119 shall not be applicable to any proceedings of the Commission under this **Section 5.4**.

**5.4.5** The decision of the Commission shall serve as the State's final and conclusive determination.

**5.5 Delegation**

**5.5.1** No provision of this **Article 5** shall prevent the Executive Director from delegating the duties or authorities of the Commission to any other person selected at the Executive Director's sole discretion.

**5.6 Alternative Dispute Resolution**

**5.6.1** At any point in Claims and dispute resolution processes, the Project's key stakeholders may agree in writing to enter into non-binding ADR including progressive negotiation, Dispute Review Board, mediation, or another non-binding ADR procedure accepted by all of the Project's key stakeholders.

**5.7 Performance**

**5.7.1** The Consultant shall proceed with the Consultant's performance of this Agreement during any dispute resolution process, unless otherwise agreed by the Consultant and the State in writing.

**5.7.2** The State shall continue to make payment, in accordance with this Agreement, of any amounts not in dispute pending final resolution of any dispute.

**5.8 Mutual Waiver of Consequential Damages**

**5.8.1** Except as provided under **Section 5.8.2**, the State and Consultant each waive against the other all claims for consequential damages that may arise out of or relate to this Agreement.

## Exhibit A

## Consultant Standard Terms and Conditions

**5.8.1.1** The State's waiver includes claims for loss of use, income, profit, revenue, financing, cost of capital, business and reputation, management and employee productivity, and consequential damages arising from termination of the Agreement or related to insolvency.

**5.8.1.2** The Consultant's waiver includes claims for overhead; delay damages except as otherwise specifically provided for in the Agreement; increased cost of funds for the Project; lost opportunity to work on other projects; losses of financing, business, and reputation; loss of profit except anticipated profit arising directly from properly performed Services; and consequential damages arising from termination of the Agreement or related to insolvency.

**5.8.2** Notwithstanding **Section 5.8.1**, this **Section 5.8**:

**5.8.2.1** does not apply to any damages that would be covered by insurance required or provided in connection with the Project if the Agreement did not include **Section 5.8.1**;

**5.8.2.2** does not apply to the Consultant's indemnity obligations for third-party claims against the Indemnified Parties even if those claims are for damages that **Section 5.8.1** would otherwise preclude; and

**5.8.2.3** does not apply to Claims for damages arising from the State or Consultant's gross negligence or willful misconduct.

**5.8.3** This **Section 5.8** shall survive termination of the Agreement.

## ARTICLE 6 - COMPENSATION AND PAYMENT

### 6.1 Direct Personnel Expense

**6.1.1** If the Consultant is providing construction management services, including services as an Owner Agent, the State shall pay the Consultant the amount identified in the Agreement for Direct Personnel Expense provided by the Consultant and all Sub-consultants.

**6.1.1.1** Direct Personnel Expense for the Consultant's and its Sub-consultant's employees for such hours of their time as are devoted to performing Basic Services to the Project shall be determined in accordance with the Consultant's Staffing Plan. Such Direct Personnel Expense shall be evidenced by time records certified by the Consultant.

**6.1.1.2** The Consultant shall use all reasonable means to minimize Direct Personnel Expense.

### 6.2 Basic Fee

**6.2.1** For Basic Services provided by the Consultant and all Sub-consultants, the State shall pay the Consultant a Basic Fee in accordance with the amount identified in the Agreement.

**6.2.2** A change in the Basic Fee may be made only by an amendment to this Agreement in accordance with **Section 4.3**.

### 6.3 Additional Services Fee

**6.3.1** The State shall pay the Consultant the Additional Services Fees for the associated Additional Services, when those Services are performed in accordance with the Agreement.

**6.3.1.1** For Additional Services performed by a Sub-consultant, the Additional Services Fees shall be based on the Sub-consultant's associated invoices to the Consultant and may include a Consultant mark-up negotiated between the State and Consultant.

**6.3.2** Except for the Additional Services and Additional Services Fees listed above, Additional Services and any Additional Services Fees shall be approved only by an amendment to this Agreement in accordance with **Section 4.3**.

**6.3.2.1** For Additional Services not included in the original Agreement that are provided by the Consultant and any Sub-consultants in accordance with **Section 4.3**, the State shall pay the Consultant Additional Services Fees in an amount negotiated to the mutual reasonable satisfaction of the State and the Consultant, but in all events, such Additional Services Fees shall not exceed two-and-one-half times the Direct Personnel Expense incurred by the Consultant and any applicable Sub-consultant in providing those Additional Services.

**6.3.3** The Consultant, with the prior written consent of the State, may provide Additional Services through one or more Sub-consultants.

### 6.4 Reimbursable Expenses

**6.4.1** The Consultant shall use its best efforts to minimize Reimbursable Expenses.

**6.4.2** In all events, total Reimbursable Expenses shall not exceed the amount identified in the Agreement, without the prior written approval of the State and an amendment to this Agreement in accordance with **Section 4.3**.

**6.4.3** Reimbursable Expenses shall only be permitted for the items identified in the Agreement and shall not exceed the respective amounts.

**6.4.4** No Consultant or Sub-consultant mark-up shall be permitted on Reimbursable Expenses.

**6.4.5** Limits on Transportation and Living Expenses: The cost for all travel expenses in connection with the Project shall be included in the Basic Fee.

**6.4.6** Limits on Tangible Property: The determination of whether to purchase or rent tangible property as Reimbursable Expenses must be approved in advance by the State. The Consultant shall maintain a current inventory of all such property and any such property, which has been purchased and has a useful life after Project Closeout shall be delivered to the State.

## 6.5 Method and Terms of Payment

**6.5.1** Direct Personnel Expense. Payments of Direct Personnel Expense in accordance with **Section 6.1**, shall be made monthly based upon services performed, and as shown by a properly completed Professional Services Pay Request.

### 6.5.2 Basic Fee.

**6.5.2.1** Payment of the Basic Fee shall be made monthly in proportion to Basic Services performed in each Stage, in accordance with **Section 6.2**, and the percentages of the Basic Fee described in the Agreement.

**6.5.2.2** The State may, in its sole discretion, waive the withholding of any final balance or part thereof if the Consultant has performed to the satisfaction of the State.

**6.5.2.3** Payment of the last five percent of the Basic Fee for any Stage of the Services shall be made only after all deliverables required for the Stage have been submitted by the Consultant to the State, in form and substance reasonably satisfactory to the State.

**6.5.2.4** The entire Basic Fee is subject to all setoffs for claims against the Consultant in favor of the State.

**6.5.2.5** Payments for Basic Services shall be based upon a properly completed Professional Services Pay Request and shall be made within the applicable time limits provided by ORC Section 126.30, which requires payment of interest on overdue payments. The interest rate shall be at the rate per calendar month, which equals one-twelfth of the rate per annum, prescribed by ORC Section 5703.47.

**6.5.3** Additional Services Fees and Reimbursable Expenses. Payments of the Additional Services Fees in accordance with **Section 6.3** and for Reimbursable Expenses in accordance with **Section 6.4** shall be made monthly based upon Additional Services performed or expenses incurred, as applicable, and as shown by a properly completed Professional Services Pay Request.

**6.5.4** If the Project is administered using the State's web-based project management software, the Consultant shall submit its Professional Services Pay Request to the State for approval and payment through the "Professional Services Pay Request" or "Applications for Payment" business process.

## ARTICLE 7 - INSURANCE AND INDEMNIFICATION

### 7.1 Consultant's General Insurance Requirements

**7.1.1** Throughout the performance of the Services or longer as may be described below, the Consultant shall obtain, pay for, and keep in force, the minimum insurance coverage described in this **Article 7**.

**7.1.1.1** Each requirement of this **Article 7** applies to Sub-consultants just as it applies to the Consultant.

**7.1.1.2** If a Sub-consultant's usual insurance coverage does not meet the minimum coverage requirements, before entering into an agreement with that Sub-consultant, the Consultant shall submit to the State **(1)** a certificate of insurance evidencing the insurance the Sub-consultant will carry without additional compensation and **(2)** if the State requests, a written proposal from the Sub-consultant to provide coverage that meets the minimum coverage requirements. The State will decide whether to accept the non-conforming insurance coverage or the proposal to provide conforming coverage.

**7.1.1.3** Notwithstanding any other provision of this Agreement to the contrary, the Consultant will not be entitled to any Fee increase on account of the State's refusal to accept a Sub-consultant's nonconforming insurance coverage.

**Exhibit A****Consultant Standard Terms and Conditions**

**7.1.1.4** On a case-by-case basis, the State and Consultant may agree to adjust the below minimum coverage requirements for any particular Sub-consultant.

**7.1.2** Before starting the Services, upon renewal of any policy, and upon a change of any insurance carrier, the Consultant shall deliver to the State certificates evidencing that the required insurance is in force.

**7.1.2.1** Certificates of insurance for other than government-controlled workers' compensation insurance must identify **(1)** all below-required additional insureds and **(2)** the Project name.

**7.1.3** With the exception of government-controlled workers' compensation coverage:

**7.1.3.1** the Consultant shall place the insurance with companies that **(1)** are satisfactory to the State, **(2)** hold an A.M. Best Rating of A-, X, or higher, and **(3)** are authorized to conduct business in Ohio;

**7.1.3.2** the policies shall be endorsed to require the Consultant's insurance carrier to **(1)** provide at least 30-days' written notice to the State (as certificate holder) of the cancellation or non-renewal of the insurance and **(2)** provide at least ten-days' written notice to the State (as certificate holder) of the cancellation of the insurance for non-payment of premium; and

**7.1.3.3** within 30 days after the State's request, the Consultant shall submit insurance-company certified copies of the policies, the policy endorsements, or both from which the Consultant may redact the premium amount.

**7.1.4** The Consultant shall pay all deductibles, or self-insured retentions, or both contained in the Consultant's policies of insurance required or provided in connection with the Project. The State reserves the right to approve or reject all levels of self-insured retention, captive insurance programs, or other alternative risk financing the Consultant may use to comply with any insurance requirement.

**7.1.5** The Consultant shall pay a proportionate share of the deductibles, or self-insured retentions, or both contained in any insurance policy the State purchases for the Project. The Consultant's proportionate share will derive from the percentage of the associated claim or loss attributable to the negligence of the Consultant or a Sub-consultant.

**7.1.6** The State does not represent that required coverage or limits are adequate to protect the Consultant.

**7.1.7** Failure of the State to demand a certificate or other evidence of full compliance with the insurance requirements or failure of the State to identify a deficiency from evidence that is provided shall not be construed as a waiver of the Consultant's obligation to maintain the required insurance.

**7.1.8** The State may terminate the Agreement for cause on account of the Consultant's failure to maintain the required insurance.

**7.2 Consultant's Minimum Coverage Requirements**

**7.2.1** Workers Compensation. The Consultant shall maintain workers' compensation coverage meeting the requirements of Applicable Law.

**7.2.2** Employers' Liability Coverage. The Consultant shall maintain employers' liability coverage with **(1)** an each-accident limit of not less than \$1,000,000, **(2)** a disease each-employee limit of not less than \$1,000,000, and **(3)** a disease policy limit of not less than \$1,000,000.

**7.2.3** Commercial General Liability. The Consultant shall maintain commercial general liability ("CGL") coverage, that provides **(1)** an each-occurrence limit of not less than \$1,000,000, **(2)** a general-aggregate limit of not less than \$2,000,000, and **(3)** a products and completed-operations aggregate limit of not less than \$2,000,000.

**7.2.3.1** The CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 or a substitute form, providing at least equivalent coverage for liability arising from premises, operations, independent contractors, products/completed-operations, personal and advertising injury, and liability assumed under an insured contract.

**7.2.3.2** The Consultant shall include the State, the as an additional insured under the CGL policy using ISO endorsement CG 20 10 07 04 and ISO endorsement CG 20 37 07 04 or a substitute form(s) providing equivalent coverage.

**7.2.3.3** The CGL policy shall be endorsed using ISO endorsement CG 25 03 or a substitute form providing equivalent coverage to provide that the general aggregate limit applies separately to each of the insured's projects.

**7.2.3.4** The CGL insurance shall not exclude coverage for property damage to electronic data.

**7.2.3.5** The CGL insurance shall apply as primary and non-contributory insurance with respect to any other insurance or self-insurance programs, that cover the additional insured.

## Exhibit A

## Consultant Standard Terms and Conditions

**7.2.3.6** The CGL policy shall not exclude coverage to the additional insured for bodily injury or property damage arising out of the products/completed-operations hazard.

**7.2.3.7** The Consultant shall maintain the CGL insurance in effect for no less than five years after the earlier of the termination the Agreement or Substantial Completion of all Work.

**7.2.4 Business Automobile Liability.** The Consultant shall maintain business automobile (“BA”) coverage written on ISO form CA 00 01 04 13 or a substitute form, providing at least equivalent coverage with a limit of not less than \$1,000,000 each accident.

**7.2.4.1** The coverage shall extend to any auto: owned (if any), non-owned, leased, rented, hired, or borrowed.

**7.2.4.2** The Consultant shall include the State as an additional insured under the BA policy.

**7.2.5 Umbrella/Excess Liability.** The Consultant may employ an umbrella/excess liability policy to achieve the above-required minimum coverage.

**7.2.6 Professional Liability.** The Consultant shall maintain professional liability (“PL”) insurance with a per-claim limit of not less than \$1,000,000 and an annual aggregate limit of not less than \$2,000,000.

**7.2.6.1** The PL policy shall have an effective date, which is on or before the date that the Consultant first started to provide any Project-related Services.

**7.2.6.2** Upon submission of the associated certificate of insurance and at each policy renewal, the Consultant shall advise the State in writing of any actual or alleged claims that may erode the PL policy’s limits.

**7.2.6.3** The Consultant shall maintain the PL insurance in effect for no less than five years after the earlier of the termination of the Agreement or Substantial Completion of all Work.

**7.2.6.4** If the Project is using the design-build project delivery system, the PL policy shall not contain any design-build exclusions.

**7.2.7 Pollution Liability.** If the Services include environmentally sensitive, hazardous types of activities (such as demolition, exterior insulation finish systems, Asbestos abatement, storage-tank removal, or similar activities), or involves Hazardous Materials, the Consultant shall maintain a pollution liability (“Pollution”) policy with **(1)** a per-claim limit of not less than \$1,000,000 and **(2)** an annual-aggregate limit of not less than \$1,000,000, covering the acts, errors and/or omissions of the Consultant for damages (including from mold) sustained by the State by reason of the Consultant’s performance of the Services.

**7.2.7.1** The Pollution policy shall have an effective date, which is on or before the date that the Consultant first started to perform any Project-related Services.

**7.2.7.2** Upon submission of the associated certificate of insurance and at each policy renewal, the Consultant shall advise the State in writing of any actual or alleged claims that may erode the Pollution policy’s limits.

**7.2.7.3** The Consultant shall maintain the Pollution insurance in effect for no less than five years after the earlier of the termination of the Agreement or Substantial Completion of all Work.

**7.2.7.4** The Consultant may achieve the Pollution insurance requirement through a PL policy, which provides the required pollution coverage or through a contractor’s pollution liability policy.

### 7.3 Waivers of Subrogation

**7.3.1** To the fullest extent permitted by Applicable Law, the Consultant waives all rights against the State, and its agents and employees for damages to the extent covered by any insurance (not including professional liability insurance), except rights to the proceeds of that insurance. All policies shall accomplish the waiver of subrogation by endorsement or otherwise.

**7.3.2** To the fullest extent permitted by Applicable Law, the Consultant waives all rights against the State, and its employees for damages to the extent covered by any professional liability insurance, except rights to the proceeds of that insurance. All policies shall accomplish the waiver of subrogation by endorsement or otherwise.

**7.3.3** The State and Consultant waive all rights against each other for damages caused by fire or other perils to the extent of actual recovery of any insurance proceeds under any property insurance, inland marine insurance, or builder’s risk insurance applicable to the Work.

## 7.4 Indemnification for Injury or Damage

**7.4.1 Liability Other than Professional Liability.** To the fullest extent permitted by Applicable Law and with respect to liability other than professional liability claims, the Consultant shall indemnify, defend, and hold harmless the Indemnified Parties from and against all claims, costs, damages, losses, fines, penalties, and expenses (including but not limited to all fees and charges of attorneys and other professionals and all court, arbitration, or other dispute-resolution costs) arising out of or in connection with the Project, provided that any such claim, cost, damage, loss, fine, penalty, or expense is attributable to: **(1)** bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property but only to the extent caused by the negligent acts, errors, or omissions of the Consultant or a Person for whom the Consultant may be liable; **(2)** infringement of patent rights or copyrights by the Consultant or a person or entity for whom the Consultant may be liable; or **(3)** a violation of Applicable Law but only to the extent attributable to the Consultant or a Person for whom the Consultant may be liable.

**7.4.2 Professional Liability.** To the fullest extent permitted by Applicable Law and with respect to professional liability claims, the Consultant shall indemnify and hold harmless the State and its officers, officials, and employees from and against all claims, costs, damages, losses, fines, penalties, and expenses (including but not limited to all fees and charges of attorneys and other professionals, and all court, arbitration, or other dispute-resolution costs) arising out of or in connection with **(1)** the failure of the Consultant or a Person for whom the Consultant is legally liable to comply with the standard of care described under **Section 1.8**; and **(2)** infringement of patent rights or copyrights by the Consultant or a Person for whom the Consultant may be liable.

**7.4.3** The Consultant's indemnification obligation under **Section 7.4** exists regardless of whether or not and the extent to which the claim, damage, loss, fine, penalty, or expense is caused in part by a party indemnified under **Section 7.4**. But nothing in **Section 7.4** obligates the Consultant to indemnify any individual or entity from and against the consequences of that Person's own negligence.

**7.4.4** If the Consultant is not providing professional design services, the Consultant's obligations under **Section 7.4** shall not extend to the liability of the Consultant, the Consultant's Sub-consultants, agents, representatives, or employees for negligent preparation or approval of Drawings, Specifications, Change Orders, opinions, and any other responsibility of the Consultant, except to the extent covered by the Consultant's insurance.

**7.4.5** In claims against a Person indemnified under **Section 7.4** by any direct or indirect employee (or the survivor or personal representative of that employee) of the Consultant or a Person for whom the Consultant may be liable, the indemnification obligation under **Section 7.4** will not be limited by a limitation on the amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**7.4.6** The Consultant's indemnification obligation under **Section 7.4** will not be limited by any insurance policy provided or required in connection with the Project.

**7.4.7** The Consultant's obligations under **Section 7.4** shall not negate, abridge, or reduce other rights or obligations of indemnity, which would otherwise exist as to a Person indemnified under **Section 7.4**.

**7.4.8** The Consultant's indemnification obligation under **Section 7.4** will survive termination of the Agreement and Final Acceptance of the Work.

**7.4.9** The State may deduct from amounts due to the Consultant the claims, damages, losses, fines, penalties, and expenses for which the Consultant is liable under **Section 7.4**. If those claims, damages, losses, fines, penalties, and expenses exceed the unpaid balance of amounts due to the Consultant, the Consultant shall immediately pay the difference to the State.

## ARTICLE 8 - SUSPENSION AND TERMINATION

### 8.1 Suspension of the Services

**8.1.1** The State, without cause and without prejudice to any other right or remedy it may have, may order the Consultant in writing to suspend, delay, or interrupt the performance of the Services in whole or in part for such period as the State may determine.

**8.1.1.1** If the State suspends the Services under this **Section 8.1.1** and the Consultant complies with **Article 5**, the Basic Fee, Additional Services Fee, and Reimbursable Expenses shall be adjusted for increases in the cost and time caused by the suspension, delay, or interruption.

**8.1.1.2** Notwithstanding the foregoing, no adjustment shall be made to the Basic Fee, Additional Services Fee, or Reimbursable Expenses to the extent that: **(1)** performance was or could have been suspended, delayed, or

interrupted by a cause for which the Consultant is responsible; or **(2)** an equitable adjustment is made or denied under another provision of the Agreement.

**8.1.1.3** If the State suspends the Services under this **Section 8.1.1** and the Consultant submits a proper Professional Services Payment Request, but subject to all other provisions of the Agreement, the Consultant shall be entitled to payment of compensation due under the Agreement for Services performed before the suspension.

**8.1.2** Upon receipt of notice of suspension under this **Section 8.1**, the Consultant shall cease providing the suspended Services and take all necessary or appropriate steps to limit disbursements and minimize respective costs. The Consultant shall furnish a report to the State, within five days after receiving the notice of suspension, describing the status of the Services, including results accomplished, resulting conclusions, and other information as the State may require.

## 8.2 Termination for Convenience

**8.2.1** The State may terminate at any time the Agreement in whole or in part for the State's convenience and without cause, upon written notice to the Consultant. Upon receipt of the notice of termination for convenience, the Consultant shall immediately proceed with performance of the following duties in accordance with instructions from the State: **(1)** cease operation as specified in the notice; **(2)** no further Sub-consultant agreements except as necessary to complete continued portions of the Project; **(3)** terminate all Sub-consultant agreements to the extent they relate to the Services terminated; and **(4)** proceed with Services not terminated.

**8.2.2** The State shall pay the Consultant for Services rendered before the date of termination in accordance with the allocations in the Agreement, including any Reimbursable Expenses incurred, but not in excess of the allocations and caps otherwise provided in the Agreement. In no event shall the Consultant be entitled to overhead and profit associated with Services the Consultant did not perform on account of the termination or otherwise.

**8.2.3** If the State terminates the Services under this **Section 8.2**, the termination shall not affect the rights or remedies of the State against the Consultant then existing or which may thereafter accrue for Services performed before the termination.

**8.2.4** Notwithstanding **Section 8.2.2**, if the State terminates the Services under this **Section 8.2**, but there exists an event of the Consultant's default, the Consultant shall be entitled to receive only such sums as it would be entitled to receive following the occurrence of an event of default as provided in **Section 8.3**.

## 8.3 Termination for Cause

**8.3.1** The State may terminate the Agreement in whole or in part if the Consultant commits a material breach of the Agreement including but not limited to: **(1)** failure to prosecute the Services with the necessary force or in a timely manner; **(2)** refusal to remedy disapproved Services; **(3)** failure to properly make payment to Sub-consultants; **(4)** performance of any services outside of the United States; **(5)** permitting Sub-consultants to perform any services outside of the United States; or **(6)** disregarding Applicable Law, or orders of a public authority with jurisdiction over the Project.

**8.3.2** If the State intends to exercise its termination rights under this **Section 8.3**, the State shall notify the Consultant in writing of the State's intent to terminate this Agreement and the cause(s) for that termination.

**8.3.3** If the Consultant fails to cure the identified cause(s) for termination within seven days after receiving the notice described under **Section 8.3.2**, the State may terminate the Agreement by giving written notice of the termination to the Consultant.

**8.3.4** If the Agreement is terminated, the State may complete the Services by means the State determines appropriate. The State may take immediate possession of all Consultant Documents.

**8.3.5** If the Agreement is terminated, the Consultant shall not be entitled to further payment.

**8.3.5.1** If the unpaid balance of the sum of the Basic Fee plus Additional Services Fees plus Reimbursable Expenses is exceeded by the costs of finishing the Services, including without limitation the fees and charges of contractors, engineers, architects, attorneys, and other professionals and court costs, and other damages incurred by the State and not expressly waived, the Consultant shall immediately pay the amount of the insufficiency to the State. This obligation for payment shall survive termination of the Agreement.

**8.3.6** If the State terminates the Services under this **Section 8.3**, the termination shall not affect any rights or remedies of the State against the Consultant then existing or which may thereafter accrue. The State's retention or payment of funds due the Consultant shall not release the Consultant from liability for performance of the Services.



**8.3.7** If the State is adjudged to have improperly or unjustifiably terminated the Services under this **Section 8.3**, the termination will be deemed to have been a termination under **Section 8.2**.

#### **8.4 Consultant's Termination for Cause**

**8.4.1** The Consultant may terminate this Agreement for cause if the State fails to pay undisputed amounts owed to the Consultant when required under this Agreement.

**8.4.2** If the Consultant elects to terminate this Agreement for cause, the Consultant must give the State written notice of **(1)** the Consultant's intention to terminate the Agreement and **(2)** an accounting of the undisputed amounts owed to the Consultant and the date(s) on which the Consultant believes payment of those amounts was due. If the State does not cure the cause for termination by initiating the process to pay the undisputed amounts owed to the Consultant within ten days after receiving the notice, the termination will take effect upon the State's receipt of the Consultant's written notice of termination, which is in addition to the Consultant's notice of intention to terminate.

**8.4.3** If the Consultant properly terminates this Agreement for cause, but subject to other provisions of this Agreement, the State must pay the Consultant for Services performed by the Consultant before the date of termination. In no event will the State be obligated to pay anything on account of Services the Consultant does not perform.

**8.4.4** If the Consultant improperly terminates this Agreement under this **Section 8.4**, the Consultant shall be obligated to the State as described under **Section 8.3.5.1**.

### **ARTICLE 9 - GENERAL PROVISIONS**

#### **9.1 Consultant's Documents and Contract Documents**

**9.1.1** Except as provided under **Section 9.1.2** and subject to **Section 9.1.6**, the State alone owns the Consultant's Documents and the Contract Documents and every right, title, and interest in the Consultant's Documents and the Contract Documents from the moment of creation.

**9.1.2** **Section 9.1.1** does not apply to standard details and specifications regularly used by the Consultant or any of its Sub-consultants in its normal course of business that are included in the Consultant's Documents. The Consultant grants to the State an irrevocable, non-exclusive, perpetual, freely assignable, and royalty-free license to copy, reproduce, distribute, and otherwise use those standard details and specifications for all Project-related purposes such as but not limited to owning, financing, constructing, testing, commissioning, decommissioning, using, operating, maintaining, repairing, modifying, selling, obtaining insurance for, and obtaining permits for the Project before, during, and after termination or completion of this Agreement.

**9.1.3** The Consultant must execute and deliver and cause its employees and agents and all Sub-consultants to execute and deliver, to the State any transfers, assignments, documents, or other instruments (if any) necessary to vest in the State complete right, title, interest in and ownership of all of the Consultant's Documents and the Contract Documents under **Section 9.1.1** and the license described under **Section 9.1.2**.

**9.1.4** The Consultant may retain copies, including reproducible copies of Consultant's Documents and the Contract Documents for information, reference, and the performance of the Services. The State grants to the Consultant and its Sub-consultants a non-exclusive, royalty-free license to copy, reproduce, distribute, and otherwise use the Consultant's Documents and the Contract Documents in relation to the performance of the Services, including any Additional Services.

**9.1.5** The submission or distribution of Consultant's Documents and the Contract Documents to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the State's reserved rights in the Consultant's Documents and the Contract Documents. Any unauthorized use of the Consultant's Documents and the Contract Documents will be at the sole risk of the entity making the unauthorized use of the Consultant's Documents and the Contract Documents.

**9.1.6** Should the State desire to use any of the Consultant's Documents for an addition to, remodeling or rehabilitation of, or change to any one or more of the Project improvements built on the basis of the Consultant's Documents, the State shall engage one or more suitably licensed design professionals under terms that require each of those design professionals to independently evaluate any design or related features in the Consultant's Documents without reliance on any information in the Consultant's Documents that would be inconsistent with the standard of care applicable to that design professional.

**9.1.7** The Consultant shall provide Electronic Files to the Contractor for the Contractor's and Subcontractors' use in connection with the Project. The Consultant shall provide the Electronic Files **(1)** at no additional cost to the Contractor,

**Exhibit A****Consultant Standard Terms and Conditions**

Subcontractors, or State and **(2)** without requiring the Contractor, Subcontractors, Separate Consultants, or State to agree to any terms or conditions concerning the provision, receipt, or use of the Electronic Files that differ in any material respect from the Contract.

**9.1.8 Use of Electronic Files.**

**9.1.8.1** The State, Consultant, and Contractor reasonably expect that they will provide Electronic Files to each other to facilitate the design and construction of the Project consistent with current practices and customs in the construction industry.

**9.1.8.2** Before relying on any Electronic File it receives, the recipient is responsible for verifying that the Electronic File was not altered through transmission, degradation of the recipient's own storage media, or other causes.

**9.1.8.3** In the event of a discrepancy between information contained in a paper version of a document and the Electronic File of that document, the paper version will govern.

**9.1.8.4** This **Section 9.1.8** does not relieve the Consultant of its responsibility for the preparation, completeness, or accuracy of the Consultant's Documents.

**9.2 Public Relations**

**9.2.1 Publicity prior to completion of the Project.** Prior to completion of the Project, public relations or publicity about the Project shall be solely within the control and with the consent of the State.

**9.2.2 Publicity after completion of the Project.** After completion of the Project, the Consultant may exercise reasonable public relations and marketing efforts related to the Project, provided the Consultant properly identifies the State, and its participation in the Project.

**9.3 Application and Governing Law**

**9.3.1** This Agreement and the rights of the parties hereunder shall be governed by the laws of the state of Ohio and only Ohio courts shall have jurisdiction over any action or proceeding hereunder or related to the Project. The Consultant irrevocably consents to such jurisdiction.

**9.3.2** The parties to the Agreement shall comply with Applicable Law.

**9.3.3** Other rights and responsibilities of the Contractor, the Consultant, and the State are set forth throughout the Contract Documents and included under different titles, articles, and paragraphs for convenience.

**9.4 Written Notice**

**9.4.1** Notice under this Agreement shall be validly given if: **(1)** delivered personally to a member of the organization for whom the notice is intended; **(2)** delivered by trackable delivery service, or sent by registered or certified mail, to the last known business address of the organization; or **(3)** sent by facsimile, email, or web-based project management software, provided the original, signed document is delivered within three business days after the date of the electronic transmission.

**9.4.2** When the State, the Consultant, or a Contractor gives notice to one of the other two, it shall also simultaneously send a copy of that notice to the others.

**9.4.3** A copy of all notices, certificates, requests, or other communications to the State shall be sent to the Project Manager.

**9.4.4** In the event of an emergency involving the Project, including, but not limited to, a fatality, serious injury, fire, collapse, flood, utility, or power loss to occupied facilities, explosion, or environmental damage, the Consultant shall immediately notify the State by the most expedient means available.

**9.4.5** The State or the Consultant may, by written notice given hereunder, designate addresses, telephone numbers, email addresses, or facsimile numbers to which notices, certificates, requests, or communications shall be sent.

**9.5 Computing Time**

**9.5.1** When this Agreement refers to a period of time by a number of days, the period shall be computed to exclude the first and include the last day of the period. If the last day of the period falls on a Saturday, Sunday, or a legal holiday, that day shall be omitted from the computation and the period shall end on the next succeeding day that is not a Saturday, Sunday, or legal holiday.

**9.5.2** Except as excluded under **Section 9.5.1**, all periods referred to in this Agreement include Saturdays, Sundays, and legal holidays.

**9.5.3** The standard workdays for State projects are Monday through Friday, excluding legal holidays.

## **9.6 Time of the Essence**

**9.6.1** Time limits stated in the Agreement are of the essence of the Agreement and all obligations under the Agreement. By signing the Agreement, the Consultant acknowledges that those time limits are reasonable.

**9.6.1.1** The Consultant acknowledges that the State has entered into, or may enter into, other contracts based upon the Consultant properly providing the Services in a timely manner.

**9.6.1.2** The Consultant shall perform the Services in a reasonable, efficient, and economical sequence, and in the order and time as provided in the Project Schedule.

**9.6.1.3** The Consultant acknowledges that it may be subject to interference, disruption, hindrance, or delay in the progress of the Services from any cause including without limitation acts of Nature or the public enemy, acts of the government not arising from the Consultant's failure to comply with Applicable Law, fires, floods, epidemics, weather, and labor disputes beyond the Consultant's control. The sole remedy for such interference, disruption, hindrance, or delay shall be an extension of the time for performance of the Services, unless otherwise required by ORC Section 4113.62.

## **9.7 Successors and Assigns**

**9.7.1** The State and the Consultant each bind themselves, their successors, assigns, and legal representatives, to the other party to this Agreement and to the successors, assigns, and legal representatives of the other party with respect to all terms of this Agreement.

**9.7.2** The Consultant shall not assign or transfer any right, title, or interest in this Agreement without the State's prior written consent.

## **9.8 Extent of Agreement**

**9.8.1** Entire Agreement. This Agreement, including the attached documents, and the Contract Documents represent the entire and integrated agreement between the State and the Consultant and supersede all prior negotiations, representations, or agreements, either written or oral.

**9.8.1** Multiple Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be regarded as an original and all of which shall constitute but one and the same instrument.

**9.8.2** Captions. The captions and headings in this Agreement are for convenience only and in no way define, limit, or describe the scope or intent of any provisions or sections hereof.

**9.8.3** Precedence. If there are any inconsistencies between the provisions of the Contract Documents and the provisions of this Agreement, the provisions of this Agreement shall prevail.

## **9.9 Severability**

**9.9.1** If any term or provision of this Agreement, or the application thereof to any Person or circumstance, is finally determined to be invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement or the application of such term or provision to other Persons or circumstances, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforced to the fullest extent permitted by Applicable Law.

## **9.10 Electronic and Facsimile Signatures**

**9.10.1** Any party hereto may deliver a copy of its counterpart signature page to this Agreement via electronic signature software, fax, e-mail, or web-based project management software. Each party hereto shall be entitled to rely upon an electronic, scanned, or facsimile signature of any other party delivered in such a manner as if such signature were an original.

## **9.11 Ohio Retirement System**

**9.11.1** All individuals employed by the Consultant that provide personal services to the State are not public employees for the purposes of ORC Chapter 145, as amended.

**9.11.2** If the Consultant is a PERS retiree, as defined by ORC Section 145.38, the Consultant shall notify the State of such status in writing prior to commencement of Work. The State is not responsible for changes to the Consultant's retirement benefits resulting from entering into this Agreement.

### **9.12 No Third-Party Interest**

**9.12.1** Except as expressly provided under **Section 3.1, (1)** no person or entity, other than the State and the Consultant, will have any right or interest under the Agreement, and **(2)** the Agreement does not create a contractual relationship of any kind between any people or entities other than the State and the Consultant.

### **9.13 No Waiver**

**9.13.1** The failure of the State or the Consultant to insist in any one or more instances upon the strict performance of any one or more of the provisions of the Agreement or to exercise any rights under the Agreement or provided by law will not be construed as a waiver or relinquishment of that provision or right or of the right to subsequently demand strict performance or exercise the right and the rights will continue unchanged and remain in full force and effect.

### **9.14 Rights and Remedies**

**9.14.1** The duties, obligations, rights, and remedies under the Agreement are in addition to and not a limitation of the duties, obligations, rights, and remedies otherwise imposed by or available under Applicable Law.

### **9.15 Survival of Obligations**

**9.15.1** All representations, indemnity obligations, warranties, guarantees, and necessarily continuing obligations under the Agreement, will survive final payment, completion and acceptance of the Work, and termination or completion of the Agreement.

## **ARTICLE 10 - DEFINED TERMS AND ABBREVIATIONS**

**10.1** For the purposes of this Agreement, the words, terms, and abbreviations set forth below have the following meanings:

**10.1.1** "Consultant" means the Person identified in the Agreement responsible for providing professional consulting services for the Project.

**10.1.2** "Consultant's Documents" means all Project-related documents, including those in electronic form, prepared by the Consultant or Sub-consultants.

**10.1.3** "Contract Documents" means collectively, the documents that constitute the substance of the Contract including the final Drawings, final Specifications, Addenda if any, General Conditions, Supplementary Conditions if any, Project Manual, Bid Form, Wage Rates; and the executed Agreement, Bid Guaranty and Contract Bond if any, GMP Documents if any, and Modifications if any.

**10.1.4** "Contractor" means a Person, which is party to a contract for the performance of Work on the Project in cooperation with Separate Contractors and Persons, and in accordance with the Contract Documents. As used in the Agreement, the term Contractor may include a Construction Manager at Risk or a Design-Builder.

**10.1.5** "Direct Personnel Expense" means the portion of direct salaries and wages of all personnel of the Consultant or any Sub-consultants, as applicable, including professional, technical, management, administrative and clerical employees, and principals engaged on the Project related to their time devoted to the Project and the portion of the cost of their mandatory and customary contributions and benefits related thereto such as employment taxes and other statutory employee benefits, social security contributions, insurance, sick leave, holidays, vacations, pensions, profit sharing, and similar benefits related to their time devoted to the Project.

**10.1.6** "Equal Opportunity Coordinator" means the public official who exercises the duties and responsibilities of the position of the equal employment opportunity coordinator identified in ORC Section 121.04, including but not limited to issuing certificates of compliance with the State's affirmative action and EDGE programs.

**10.1.7** "Fee" (as in "Basic Fee," "Additional Services Fees," and otherwise) means all of the compensation to be paid by the State to the Consultant on account of the proper, timely, and complete performance of the associated Services by the Consultant or its Sub-consultants, including, but not limited to, salaries or other compensation of the Consultant's employees at the principal office, branch offices, and the field office, general operating expenses of the Consultant's principal office, branch offices, and the field office, any part of the Consultant's capital expenses, including interest on the Consultant's capital employed for the Project, overhead or expenses of any kind, except Direct Personnel Expense and Reimbursable Expenses, any costs incurred due to the Consultant's negligence, the Consultant's general advertising,

federal, state or local income, sales or other taxes, state franchise taxes and qualification fees, and membership in trade, business or professional organizations.

**10.1.8** “Indemnified Parties” means the State, and its respective officials, officers, consultants, agents, representatives, and employees, in both individual and official capacities.

**10.1.9** “Project Schedule” means a document that, with respect to each phase of the Project, identifies, coordinates and integrates the anticipated design and construction schedules, the State’s responsibilities, government authority reviews and other activities as are necessary for the timely completion of the Work.

**10.1.10** “Reimbursable Expenses” means actual expenditures incurred by the Consultant or its Sub-consultants in the interest of the Project, approved by the State for reproduction of Contract Documents for distribution to Bidders, plan approval fees, building permits, and, if requested by the State, reformatting Project Record Submittals to a computer medium different than the computer medium used by the Consultant.

**10.1.11** “Services” includes all of the Consultant’s obligations, individually or collectively, under the Agreement including all items reasonably inferable from the Agreement, whether provided or to be provided by the Consultant, a Sub-consultant, or any other entity for whom the Consultant is responsible. The Services include both Basic Services and Additional Services as defined in the Agreement.

**10.1.12** “Sub-consultant” means a Person engaged by the Consultant to provide or perform a portion of the Services.

**10.1.13** “Submittals” means Shop Drawings, Product Data, Samples, and other items for the Consultant’s review and action provided by a Contractor for any item required by the Contract Documents, but not fully described in the Contract Documents.

**END OF DOCUMENT**

# Exhibit B - Consultant Scope of Services (K-12 School Commissioning) State of Ohio Professional Services Agreements for Public Facility Construction

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## ARTICLE 1 - GENERAL REQUIREMENTS

### 1.1 Introduction

**1.1.1** Commissioning (“Cx”) is a quality assurance process that works to ensure the Owner’s Project Requirements (“OPR”) and the Design Intent (“DI”) of a building is fully realized. It requires a systematic approach to review, verify, and document that the specified components and systems have been designed, installed, properly started up, and functionally tested to proper operation of equipment through all modes and conditions, including seasonal systems tests. The process begins at the beginning of the schematic design phase and extends through project completion, closeout, and warranty reviews. Documentation of Cx activities is provided to the building owner as a Systems Manual that outlines the events and findings of the project, including a comprehensive review of all findings, recommendations, and resolutions of identified problems. Cx is not intended to replace or eliminate any requirements or responsibilities for reviews, inspections, or other quality control measures by any other firm, organization, or party. Designers, contractors, construction managers, and project managers maintain their obligations as a function of their roles and responsibilities.

**1.1.2** In September 2007, the predecessor of the Ohio Facilities Construction Commission (“OFCC”) adopted Resolution 07-124 with the intention that all new and substantially renovated school buildings under OFCC jurisdiction be designed to achieve U.S. Green Building Council (“USGBC”) Silver certification level as defined within their LEED for Schools rating system. The language of Resolution 07-124 requires emphasis on energy performance, implicitly requiring enhanced Cx. The USGBC encourages best practices in building design through its Leadership in Energy and Environmental Design (“LEED”) building certification and professional accreditation. As part of LEED certification, basic building Cx is required. Additional credit is available for projects that incorporate and document enhanced Cx.

**1.1.3** Beginning in July 2012, OFCC combined Cx services with the services previously provided under a separated prequalification agreement for maintenance plan development. The combined service will provide enhanced focus on the integration of the facility operations and staff into the design/build process. The commissioning agent (“CxA”) will work together with the owners to develop and deploy facility maintenance and operations (“M&O”) program that meets the financial and operational needs of the district. This process will include the Cx systems manual, OFCC maintenance plan documents and processes, district facility M&O assessment, and assisting the facility staff’s exposure and to the construction process. The facility M&O engagement and deployment will begin at OPR and conclude after the ten-month review.

**1.1.4** As defined by USGBC, Cx is:

**1.1.4.1 EA Prerequisite – Fundamental Cx:** Verify that the building’s energy-related systems are installed, calibrated, and perform according to the Owner’s Project Requirements, Basis of Design, and Construction Documents.

**1.1.4.2 EA Credit – Enhanced Cx:** Begin the Cx process early during the design process and execute additional activities after systems performance verification is completed.

### 1.2 Definitions and Role Clarification

**1.2.1** Abbreviations and defined terms:

**1.2.1.1** “SD” means the School District.

**1.2.1.2** “OFCC” means the Ohio Facilities Construction Commission.

**1.2.1.3** “OSDM” means the Ohio School Design Manual published by OFCC.

**1.2.1.4** “A/E” means the Architect/Engineer for the Project, or the A/E of Record for a Design-Build Project.

**1.2.1.5** “CM” means the Construction Manager Adviser for the Project (if applicable), if there is not a CM Adviser for the Project the CM role may be filled by an Owner Agent, if there is no Owner Agent for the Project the CM role may be filled by the Project Manager.

**1.2.1.6** “Contractor” includes the CM at Risk or Design-Builder if those project delivery methods are utilized.

**1.2.1.7** “Cx” means Commissioning.

**1.2.1.8** “CxA” means the Commissioning Agent for the Project.

**1.2.1.9** “RCx” means Re-commissioning.

**1.2.1.10** “Design Team” means the A/E and CM collectively.

**1.2.1.11** “Project Team” means the A/E, CM, Contractor(s), SD, and OFCC collectively.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

**1.2.1.12** “LEED AP” means LEED Accredited Professional, a credential issued by the Green Building Certification Institute (“GBCI”).

**1.2.2** The CxA serves as the Owner’s contractual representative and will act in the Owner’s best interest by following accepted industry and professional standards and meeting the LEED Enhanced Cx requirements as defined by LEED for Schools. The CxA may not be an employee of or in contract with the A/E or CM on the project and will work independently from both; however, the CxA will collaborate with the A/E and CM throughout the design and construction process to meet deadlines and provide feedback to the Owner and the Design Team as the process moves forward. The CxA will work with the Design Team to upload appropriate information into the LEED Online web-tool as required for the submittal for LEED certification.

**1.2.3** The CxA (by specific project-modified Cx scope agreement) will be responsible for the planning and scheduling of all Cx related activities and shall coordinate those duties with the entity responsible for overall project scheduling.

**1.2.4** The School District (“Owner”) is expected to be fully engaged and active in the Cx process. The Owner will work with the A/E to define the OPR. The CxA will review and verify the OPR for completeness and clarity. The CxA will also review on a regular basis to verify the documents align with the Owner’s current expectations. Although the A/E is responsible for developing the OPR it remains the responsibility of the CxA to have a written OPR document that will be the basis for the Cx scope and process.

**1.2.5** The Architect/Engineer of Record (“A/E”) is the leader of the LEED process for the project. The A/E is responsible for initial development of the OPR and for the development of the Design Intent. The design intent includes the OPR, the Basis of Design (“BOD”), and the related documents for the project. These documents comprise the body of the Design Intent document required as part of the project’s LEED submittal and will be provided to the CxA for their review and verification.

**1.2.6** It is the specific responsibility of the CxA to customize the Cx process outlined below to meet the OPR, the OFCC LEED for Schools requirements and the LEED Enhanced Cx requirements.

**1.3 Requirements for Prequalification of the CxA**

**1.3.1** After final selection by OFCC; as a prerequisite for prequalification the CxA must present to OFCC examples of all Cx documents to be used in providing their Cx services. The CxA will meet with OFCC to review the delivery and application of the Cx services using those documents.

**1.3.2** After final selection by OFCC; a prerequisite for prequalification the CxA must present to the OFCC examples of all maintenance planning documents to be used in providing their Cx services. The CxA will meet with OFCC to review the delivery and application of the maintenance planning services using those documents.

**1.3.3** After final selection by OFCC; s a prerequisite for prequalification the CxA must meet with OFCC to be trained on the OFCC tools and expectations for delivering the Cx services.

**1.3.4** The CxA will report on a quarterly basis the status of all their Cx projects. This report will include project status, top issues from the issues log, status of OPR and DI, status of facility training needs and actions, status of the maintenance plan and other reporting as specified by OFCC.

**1.3.5** The CxA will deliver a Cx project summary final report to OFCC for each project within 30 days of completing the Cx of each facility.

**1.4 Qualifications and Responsibilities of the CxA**

**1.4.1** The CxA firm shall provide and use an electronic on-line Cx tracking and reporting service as their primary Cx tracking tool.

**1.4.2** Experience requirements: LEED for Schools enhanced commissioning credit requires the CxA to have documented CxA experience in at least two building projects and OFCC requires three years’ recent direct Cx project experience; all project leaders and subject matter experts will have at least three years’ direct Cx experience.

**1.4.3** The CxA shall be a LEED-AP or become a LEED-AP during the scope of his or her first Cx project with the OFCC following the adoption of these guidelines.

**1.4.4** The CxA building envelope thermographer shall have at least three years’ direct experience and have a Level 2 Certification.

**1.4.5** The CxA will have at least three years’ direct experience in Cx and at least five years directly related operational experience of the systems and equipment that they are assigned.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

- 1.4.6** The CxA firm shall have a proficient understanding of the OSDM.
- 1.4.7** The CxA shall have a proficient understanding of the OFCC facility maintenance planning web-tool and other documents.
- 1.4.8** The CxA will have a proficient understanding of parametric energy modeling programs such as the U.S. Department of Energy's Quick Energy Simulation Tool ("eQUEST").
- 1.4.9** The CxA shall be proficient in the use of ENERGYSTAR *Portfolio Manager*.
- 1.4.10** The CxA will review and verify the OPR and DI documents developed by the A/E. The CxA shall assist the Owner in developing the required OPR document that reflects the Owner's needs and the OFCC Program of Requirements ("POR"). The CxA will provide their narrative of the OPR to the A/E to use for creating the BOD technical document for the project. Together the OPR and the BOD documents will constitute the Design Intent documentation requirement for LEED.
- 1.4.11** The CxA shall create documentation for appropriate credit submittals to the LEED Online web-tool as directed by the project's A/E.
- 1.4.12** The CxA shall keep the Owner apprised of and involved in decision-making regarding system optimization, corrections, and issues as they arise.
- 1.4.13** The CxA shall collaborate with the CM (or the Design Team) regarding scheduling of all Cx activities.
- 1.4.14** The CxA shall inform the Design and Project Team and specifically CM of system corrections and/or optimizations that should be addressed in a timely fashion.
- 1.4.15** The CxA shall have access to an appropriate inventory of tools, equipment, instruments, and software necessary to perform Cx tasks. All CxA-provided equipment and instrumentation shall be current on all applicable certifications. CxA-provided equipment and instrumentation shall remain the property of the CxA.
- 1.4.16** The CxA shall have an expert level proficient understanding of the trades and related technology for Cx.
- 1.4.17** The CxA may rely on other Design Team members to create the systems operations and maintenance ("O&M") manual(s) and to verify that appropriate training for operating personal and building occupants is completed.
- 1.4.18** The CxA shall have proficient knowledge and proven ability to implement a facility and district wide operations and maintenance plan. The CxA will work with the district staff and OFCC in developing a plan that is actionable by the district.
- 1.4.19** The CxA shall be proficient in the use of the OFCC Maintenance Plan web-tool, OFCC Provisional Maintenance Plan and the requirements associated with the OFCC Maintenance Plan Approval Process.
- 1.4.20** Should specialty or proprietary software, equipment, or tools be required for Cx activities; the CxA shall work with the CM and contractor or vendor to obtain training and access in the use of such tools. Tools will be noted in the Cx report for future re-Cx ("RCx") projects.

**1.5 Commissioning Outcomes**

- 1.5.1** The following are quality assurance outcomes for all OFCC building projects:
- 1.5.1.1** Verify the OPR and DI for completeness and for consistency.
  - 1.5.1.2** Develop Cx plan (set objectives, schedule reviews, verify performance, create reports and summaries of findings, review O&M schedule, develop preventive maintenance / RCx plan) based on OPR, BOD, and LEED DI.
  - 1.5.1.3** Participate in critical tasks of the Design Team, including compilation of phase review submittals, eco-charrettes, energy modeling, plan reviews, etc.
  - 1.5.1.4** Achieve LEED-Silver Certification; obtaining LEED for Schools Enhanced Commissioning credit.
  - 1.5.1.5** Document successful completion of all elements of the OPR and LEED DI.
  - 1.5.1.6** Ensure quality equipment installation, functioning system interfaces, and effective controls.
  - 1.5.1.7** Optimize equipment control, design, and performance for greatest resource efficiency.
  - 1.5.1.8** Verify appropriate lighting levels in all spaces as required by LEED-for-Schools and the OSDM, whichever is the highest standard.
  - 1.5.1.9** Verify occupant Comfort and Safety.



**1.5.1.10** Provide the Owner with a completed Systems Manual documenting the findings, recommendations and resolutions of the Cx process.

**1.5.1.11** Assist the Owner with their OFCC Provisional Maintenance Plan, Work with the district and the OFCC to modify the maintenance plan to meet the needs of the district.

**1.5.1.12** Work with the district to gain OFCC approval for the preventive maintenance plan;

## **ARTICLE 2 - SCOPE OF COMMISSIONING SERVICES**

### **2.1 Systems to be Commissioned**

**2.1.1** Mechanical and Heating, Ventilating, and Air Conditioning (“HVAC”) systems

**2.1.2** Building Automation and Environmental Controls Systems

**2.1.3** Electrical Systems: Normal Power Distribution (Main to Sub-Panel), Emergency Power System, and Alternative Energy Systems

**2.1.4** Classroom Acoustics as prescribed by the A/E and OSDM

**2.1.5** Chiller System and Cooling Tower Exterior Noise Review

**2.1.6** Domestic Hot Water and Rainwater Recovery Systems

**2.1.7** Lighting and Lighting Controls

**2.1.8** Building Envelope Cx (including design stages)

**2.1.9** Thermographic imaging of building walls, doors and windows and roof system

**2.1.10** Thermographic imaging of electrical systems and rotating mechanical equipment (i.e. pumps, motors, etc.)

**2.1.11** Re-Cx Plan

**2.1.12** Review and Verification of Contractor-provided Facility Staff Training

**2.1.13** Review CM’s Air Quality Management Plan for the Project

**2.1.14** Provide verification services for districts applying for ENERGYSTAR certification

### **2.2 Process Requirements**

**2.2.1** Cx Plan

**2.2.2** Cx Schedule

**2.2.3** Cx Logs and Reports

**2.2.4** Organize and Lead the Cx process

**2.2.5** LEED for Schools Enhanced Cx

**2.2.6** Review, verify, and comment on the OPR

**2.2.7** Review, verify, and comment on the Design Intent documentation, including the BOD for the operation and performance of the facility and the building systems to be Cx

**2.2.8** Design Phase Review, Eco Charrette

**2.2.9** Review and comment the Daylighting Based Design Process and verify completion by the A/E

**2.2.10** Review and comment on the energy modeling and verify completion by the A/E

**2.2.11** OFCC Facility Maintenance Plan (“OFMP”)

**2.2.12** Facility staff skills assessment

**2.2.13** Review, verify, and comment on the district computerized maintenance management system

## 2.3 Renovated Space

**2.3.1** Renovated facility space will be commissioned. The scope of work will depend on the nature and use of the space, the systems contained within the space, and the interdependency of any new construction and the renovated space. The CxA will include the renovated space Cx in the Cx plan.

**2.3.2** All facilities either partially or wholly included into the OFCC master plan will be included as a whole facility into the OFCC Maintenance Plan. Systems, equipment, staff, or service contracts that are partially or wholly outside the OFCC master plan and also have a significant effect on the same within the master plan shall be included into the OFMP.

## 2.4 Specialty Services

**2.4.1** Cx of systems and other services that extend beyond the **Scope of Commissioning Services** as stated above may be considered specialty services. Specialty services can only be included into the scope of work if agreed to by the Contracting Authority.

## 2.5 Data and Document Collection and Verification

**2.5.1** The CxA is expected to collect all data, documents, and information necessary to complete its task. The CxA will work with the CM and the Project Team to define the timing and schedule for document collection, review and reporting for the Cx effort. The CM is the central source for project-related documents and correspondences. The CM is to collect and distribute the documents and other necessary information for the CxA and the Project Team. As necessary for commissioned systems, the following are included:

**2.5.1.1** Review of latest available drawings, specifications, and documents.

**2.5.1.2** Review records that are appropriate to understand Design Intent, as detailed in the BOD.

**2.5.1.3** Review drawings and documents to verify that they conform to the Design Intent.

**2.5.1.4** Construction Phase investigation, verification, and review.

**2.5.1.5** Develop and set into the Specifications a document of **Certification of Readiness for Commissioning**. This document must be completed and signed by each contractor stating that the equipment or system has been installed, tested to the designed specifications by the contractor and is now ready to be commissioned. The certification must be specific as to the equipment and/or systems being certified as ready.

**2.5.1.6** Change Orders: Review and comment of applicable approved change orders. The CxA will state in the issues log "No Change Orders Reviewed" if no change orders are made or provided to the CxA. Review as these documents are related to the A/E's Design Intent. Simultaneous reviews can be performed. The CxA will define process with the CM to manage the CxA's accounting for the final approved change orders. All Change orders will be included into the Issues Log.

**2.5.1.7** Review and comment Redline and Record Drawings to identify if the A/E has incorporated information into the Owner's record documents, The CxA will state in the issues log "No Redline or Record Drawings Reviewed" if no Redline or Record Drawings are made or provided to the CxA.

**2.5.1.8** Post-system startup and post-occupancy evaluation of trend data for system operations, performance, and energy usage. This includes lighting and lighting control systems, building automated systems control points, energy/performance measurement established by the A/E, Energy consumption (*ENERGYSTAR Portfolio Manager*). The Owner will participate with the use of Portfolio Manager and supply necessary ongoing information. The CxA will identify trending requirements of the installing contractor as part of the Cx specification. Trends and evaluations shall be based upon the requirements set by the A/E and the CxA.

## 2.6 Meetings

**2.6.1** It is expected that the CxA will meet with members of the project team as often as needed and as reasonably requested by the owner or other members of the design team. The meetings must be Cx and or OFMP relevant and include an agenda for discussion. The agenda is to be provided by the meeting organizer and in advance of the scheduled meeting. Use of technology is encouraged to reduce travel requirements. Use of technology is also encouraged in conjunction with necessary site visits and personnel meetings. The meeting expectations shall be clearly defined in the CxA's Cx plan.

**2.6.1.1** Within two weeks from assignment to a project the CxA will deliver a Cx plan and schedule to the Owners.

**2.6.1.2** The CxA will plan and coordinate with the CM the schedule for Cx-related and required meetings.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

**2.6.1.3** Multiple Cx scope topics as defined in these guidelines may be combined into a single meeting as quality and efficiency allow.

**2.6.1.4** The CxA will regularly communicate with all members of the project team as required by project status, activity, and need. These meetings include, but are not limited to:

- .1 Owner POR and DI, Eco Charrette, Executive Core, Daylighting
- .2 50 percent and 95 percent Design Drawing, Value Engineering
- .3 Sequence of Operations Design review meeting
- .4 Cx relevant Contractor meetings, Project Cx and Project Status meetings
- .5 Controls Contractor Pre-Submittal Meeting
- .6 Kick-off and start-up, monthly construction meeting
- .7 Warranty, Final Cx Report delivery and Systems Manual delivery meeting
- .8 OFCC provisional maintenance plan delivery, facility staff skills assessment, OFMP report delivery
- .9 One-year post-Cx completion level 2 performance audit
- .10 Facilitated partnering and mediation meetings
- .11 Other meetings as determined by the commission

**2.6.1.5** Coordinate with the project CM to blend or schedule Cx meetings with other regular project related meetings whenever possible.

### **ARTICLE 3 - BASIC SERVICES**

#### **3.1 General**

**3.1.1** Basic Services to be provided by the CxA consist of the activities and stages set forth in this **Article 3**, including normal fundamental and enhanced commissioning services for the Project.

#### **3.2 Consultation**

**3.2.1** The CxA shall attend regular meetings with the A/E, OFCC, and SD. The CxA shall consult with the OFCC, SD, and A/E regarding Site use and improvements and the selection of materials, building systems, and equipment. The CxA shall provide recommendations to OFCC, SD, and A/E on construction feasibility; actions designed to minimize adverse effects of labor or material shortages; time requirements for procurement, installation and construction completion; and factors related to construction cost, including estimates of alternative designs or materials, budgets and possible economies.

**3.2.2** At all appropriate times throughout performance of the Services, the CxA shall contact, meet, consult, and otherwise coordinate with OFCC, SD, A/E, CM if any, governmental authorities with jurisdiction over the Project, and others for the purpose of facilitating the Project's design and construction.

**3.2.3** The CxA shall provide reports and other Project information through the Contracting Authority's web-based tools including the following:

- 3.2.3.1** The State's web-based project management system.

#### **3.3 Overview - Design Stages**

**3.3.1** Review and verify design for general conformance with the OPR and the BOD

**3.3.2** Review and comment on an ongoing basis the projects estimated design/operational energy efficiency using as the baseline the OFCC goal of 25Kbtu/sq. ft.

**3.3.3** Review and verify the designed energy efficiency is compliant with the OSDM requirements

**3.3.4** Identify if the concepts for building systems developed during pre-design and earlier design phases are included in subsequent design phases

**3.3.5** Incorporate all OFCC provided review comments and responses into the Cx issues log

**3.3.6** Review and comment on the accessibility and serviceability of equipment and systems

**3.3.7** Ensure that no significant deficiencies exist in the contract documents related to Cx or OFMP development

**3.3.8** Review and verify the life-cycle-cost analysis of systems and equipment with a significant impact to the cost of construction or the cost of operation by the district

3.3.9 Review and comment on issues that impact on the facility O&M, functionality, and staffing

### 3.4 Overview - All Project Stages

3.4.1 Incorporate all applicable LEED for Schools requirements and required activities for Enhanced Cx into the Design Phase Cx Plan. Update this plan as the project progresses through all phase of the project.

3.4.2 Verify that Cx is incorporated into all phases.

3.4.3 Review and verify the Cx schedule and project timeline for milestones and critical path.

3.4.4 Perform reviews of design.

3.4.5 Review, verify and comment on updates to the OPR.

3.4.6 Review, verify, and comment on completion of Daylighting and Energy Modeling by the A/E.

3.4.7 Coordinate Cx planning and updates to the Cx plan.

3.4.8 Develop and maintain Cx issues log.

3.4.9 Review and comment on the design documents as they are developed.

3.4.10 Review and comment on all related change orders.

3.4.11 Perform necessary reviews, observations, and verifications.

3.4.12 Develop Cx procedures customized to the exact systems and controls installed.

3.4.13 Supervise or perform verification and functional performance testing.

### 3.5 Program Verification Stage

3.5.1 The CxA (with the assistance of the CM) will define Cx roles and responsibilities of the Project Team members.

3.5.2 The CxA will conduct the Cx kick-off meeting. This is to be a standalone meeting.

3.5.3 The CxA will review and develop narrative of the OPR.

3.5.4 The CxA will review and verify the OPR and DI for clarity and completeness.

3.5.5 The CxA will develop a draft Design Phase Cx plan.

3.5.6 The CxA will verify the Cx schedule is incorporated into the project schedule.

3.5.7 Meetings will be held only as needed for these Cx purposes.

### 3.6 Schematic Design Stage

3.6.1 Perform the Schematic Design Stage review when the Design Stages are approximately 30 percent complete.

3.6.2 Develop the Design Phase Cx Plan.

3.6.3 Participate in Design Charrette, provide summation and comment on process and outcome.

3.6.4 Review, verify and comment on the initial Energy Modeling provided by the A/E.

3.6.5 Review, verify and comment on the BOD for the operation and performance of the facility and the building systems.

### 3.7 Design Development Stage

3.7.1 Perform the Design Development Stage review when the Design Stages are approximately 50 percent complete.

3.7.2 Review documents for general compliance with the BOD as required and in coordination with the A/E.

3.7.3 Perform focused reviews of the design, drawings, and specifications for systems and components included in the Cx scope of work.

3.7.4 Review and comment on energy modeling and verify the A/E has completed.

3.7.5 Review and comment on sequences of operation verify the A/E has completed.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

- 3.7.6 Refine the Cx scope and preliminary Cx plan as required by changes to the design; itemize systems to be commissioned.
- 3.7.7 Review design documents to determine their effect on the verification, testing and balancing, electrical testing, maintenance and Cx and overall performance of the equipment and systems, and make recommendations.
- 3.7.8 Assist the A/E in the compilation and completion of a preliminary **Design Systems Manual** (to include the BOD) that will provide the operations staff useful operational detail.
- 3.7.9 Update the preliminary Design Phase Cx plan.

**3.8 Construction Documents Stage**

- 3.8.1 Perform the Construction Documents Stage review when the Design Stages are approximately 95 percent complete and back-check when the Design Stages are 100 percent complete.
- 3.8.2 Develop a draft Construction Stage Cx plan for each system to be commissioned.
- 3.8.3 Assist in the development of specific testing specifications.
- 3.8.4 Develop equipment start-up checklist. The Cx checklist must not void any manufacturer's warranty.
- 3.8.5 Develop verification test procedures.
- 3.8.6 Develop scope of the functional performance test and the functional interface specifications for the appropriate systems.
- 3.8.7 Develop full Cx specifications for all commissioned equipment and integrate into the specifications with the A/E and CM. The Cx specification will include, as applicable, a detailed description of the responsibilities of all parties, details of the Cx process; reporting and documentation requirements, including formats; alerts to coordination issues, deficiency resolution; construction checklist and startup requirements; the functional testing process; and specific functional test requirements, including testing conditions and acceptance criteria for each piece of equipment being commissioned.
- 3.8.8 Review design documents to verify that the A/E has adequately addressed integration issues between equipment, systems, and disciplines to ensure that responsibilities are clearly described in the specifications.
- 3.8.9 Review and comment on controls and verify the sequences of operation. Verify that they meet the OPR and DI.

**3.9 Bid and Award Stage or Subcontractor Buyout Activity**

- 3.9.1 The CM will provide document control and distribution for the project. The CxA will define and coordinate document handling and reporting requirements with the CM.
- 3.9.2 Ensure that Cx is adequately reflected in the Contract Documents.
- 3.9.3 Verify that the controls contractor pre-submittal meeting is in the bid specifications and scheduled.
- 3.9.4 Attend (in person or electronically) pre-bid meeting to answer Cx-related questions.
- 3.9.5 The CM will provide the necessary documents to the CxA. They will distribute the documents and information provided by the CxA to the Project Team.

**3.10 Construction Stage**

- 3.10.1 The CM will provide document control for the project. The CxA will coordinate document handling and reporting requirements with the CM.
- 3.10.2 Verify the A/E and CM's Indoor Air Quality Management ("IAQ") Plan for the Project.
- 3.10.3 Conduct periodic site visits and inspections (as identified by the Cx plan and at appropriate intervals as determined by the CxA and in coordination with the CM) throughout the construction phase to verify that systems and equipment are installed in a manner that will allow the Cx process to proceed smoothly and in compliance with the plans and specifications, in accordance with the Cx plan and construction milestones, and will be documented via a submitted written report noting all pertinent observations and deficiencies.
- 3.10.4 The Cx process shall not void or violate any manufacturers' warranties or contractors' guarantees.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

- 3.10.5** Coordinate the Cx planning and work with the contractors and CM to ensure that Cx activities are being incorporated into the project schedule. Confirm that the Contractor and CM (if applicable) have included updated Cx milestones in the critical path.
- 3.10.6** Schedule and conduct trade- or division-specific Cx kick-off meeting with each contractor/subcontractor group.
- 3.10.7** Notify the Contractor or CM (as applicable) when CxA personnel are at the Site.
- 3.10.8** Coordinate all Cx planning meetings and activities in accordance with the preliminary and/ or modified Cx plan and issue meeting agendas for all Cx meetings (the CM (if applicable) will record and distribute meeting minutes).
- 3.10.9** Coordinate and direct the Cx activities in a logical, sequential, and efficient manner using consistent protocols and forms, centralized documentation, and clear and regular communications; update the construction phase Cx plan as necessary.
- 3.10.10** Request and review additional information required to perform Cx tasks, including O&M materials, contractor start-up, and checkout procedures.
- 3.10.11** Perform submittal review concurrent with the A/E's review and provide recommendations to the A/E for acceptance or rejection for temperature controls, air handling units, boilers, chillers, switchgear, and emergency generator. All other submittals for the systems being Cx shall be reviewed by the CxA for information after the submittal is approved by the A/E.
- 3.10.12** Requests for Interpretation: Review each Request for Interpretation ("RFI") for impacts to Cx and Owner's objectives.
- 3.10.13** Verify the A/E and CM review of coordination drawings to ensure that all trade contractors are making a reasonable effort to coordinate work.
- 3.10.14** Building Envelope.
- 3.10.14.1** The CxA will conduct field reviews of the building envelope and periodic progress inspection/verification as planned and scheduled by the CxA. Meetings can be combined as appropriate with other meetings or events. This will include but not be limited to:
- .1 Design review
  - .2 Pre-Bid Meeting (if applicable)
  - .3 On site Masonry and Roofing Preconstruction Cx Meeting
  - .4 Mock-ups
  - .5 Periodic review progress of work and conformance to the construction documents
  - .6 Final Inspection
  - .7 Eleven-Month Inspection
- 3.10.14.2** The CxA will review and document the inspection and related documentation performed by the A/E and CM as a part of the CxA's periodic inspections and document reviews.
- 3.10.14.3** Field review of mock-ups to verify that they meet the design intent. Verify that the mock up is located and remains in a visible and prominent location; Verify that the mock-up is representative of the building design and that the features are present and consistent with the actual building.
- 3.10.14.4** Verify enclosures (envelope) system and assemblies are be evaluated on the basis of air and water tightness, review and comment on any Air Barrier Testing performed as a part of the project requirements. Air barrier testing shall not be performed by the CxA.
- 3.10.14.5** Verify that all building enclosure assemblies and systems (window, doors, louvers) are inspected.
- 3.10.14.6** The CxA final inspection shall occur after the contractors, manufacturers, and A/E's final inspections.
- 3.10.14.7** Perform thermal graphic imaging of the building envelope including the roof, roof to wall assembly, doors and windows. The thermographer must hold at least a Level II Thermographer Certification and have at least three years relevant practical experience.
- 3.10.14.8** Laboratory testing is not a part of the basic services. Testing will be included as a specialty service as conditions warrant. Gravimetric testing will be the method used for the retrieval and testing of core samples per ASTM guidelines
- 3.10.14.9** Testing is to occur following Occupancy and before the end of the Correction Period as conditions permit.
- 3.10.14.10** Witness and verify building pressurization testing as specified by the A/E and contract requirements.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

- 3.10.15 Change Orders:** Review applicable approved change orders. Review as related to the Owner's POR and the Design Intent.
- 3.10.16** Write and distribute checklists for commissioned equipment. Use of contractor-supplied construction checklist is permissible if reviewed and accepted by the CxA in the Cx plan.
- 3.10.17** Develop an enhanced start-up and initial systems checkout plan with contractors for selected equipment if the manufacturer's or A/E's requirements are considered insufficient. Manufacturer's warranties must not be violated.
- 3.10.18** Perform site visits, as necessary, to observe component and system installations. Attend Cx-relevant planning and job-site meetings to obtain information on construction progress. Include into the Cx Plan. The CM will provide all related construction-meeting minutes for review and comment relating to the Cx process. Assist in resolving any discrepancies.
- 3.10.19** Witness/verify HVAC piping pressure test and flushing, sufficient to be confident that proper procedures were followed; Verify those present (i.e. Controls Contractor, Mechanical Contractor, A/E, CM, Facility Director, etc.).
- 3.10.20** Verify any ductwork cleaning and testing in a sufficient manner to be confident that proper procedures as specified by the A/E and the CM's IAQ plan were followed.
- 3.10.21** Document completion of the construction checklists by reviewing completed construction checklists and CxA selected site observations.
- 3.10.22** Document systems startup by reviewing start-up reports and by selected on-site observations.
- 3.10.23** Write the functional performance test procedures customized to the exact equipment and systems approved by the A/E during the submittal process. Include any necessary assistance with installing contractors, no related warranties are to be violated.
- 3.10.24** Coordinate witness and document manual functional performance tests performed by installing contractors. Coordinate retesting as necessary. Coordinate retesting with the CM until satisfactory performance is achieved (see **Section 3.13.1.6.3**).
- 3.10.25** Analyze functional performance trend logs and monitoring data to verify equipment and systems performance.
- 3.10.26 Seasonal Testing:**
- 3.10.26.1** The CxA is to utilize and direct the district facility staff to help perform seasonal testing and post occupancy testing, trending and reporting.
- 3.10.26.2** Tests on respective HVAC equipment shall be executed, during both the heating and cooling seasons. However, some overriding of control values to simulate conditions shall be allowed but will not replace testing under actual conditions.
- 3.10.27 Testing and Balancing:**
- 3.10.27.1** Verify air and water systems balancing by reviewing completed reports, by spot testing, and by selected on-site observations.
- 3.10.27.2** Check portions of the Testing and Balancing ("TAB") service for air and water HVAC systems and verify with the CxA's own in-house or subcontracted equipment and technicians.
- 3.10.27.3** Verify, test, and inspect the TAB fieldwork phase of the project. CM to verify the proper distribution of all TAB-generated Deficiency Reports. Randomly verify the validity of returned deficiency reports to verify that the corrections have been made.
- 3.10.27.4** Assist in the TAB follow-up on uncorrected deficiency items and items inaccurately reported as having been corrected.
- 3.10.27.5** Review, verify, and comment on the final TAB report with the A/E's signature.
- 3.10.28 Electrical:** Perform thermographic imaging of the electrical system panels, switchgear, and critical equipment and connections.
- 3.10.29** Maintain a master issues log and separate record of functional testing. Report all issues as they occur directly to the CM with duplicate copies to the Owner. Report all issues to the Owner at regularly scheduled meetings or as necessary or otherwise directed. Provide written progress reports and test results observations and recommended actions to the CM.
- 3.10.30** Review all commissioned equipment warranties.

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

**3.10.31** Review and verify the O&M manuals for commissioned equipment.

**3.10.32** Review and verify the planning, content and completeness of the contractor-provided training of the SD's operations personnel as related to the facility new equipment and systems; CxA is not required to attend all training classes.

**3.10.33** Include all Cx related trending into the Cx plan. Establish data trend logging and reporting for monitoring the performance of the systems and facility from systems installation through a one-year period and/or a full year cycle of seasonal change. This includes, but is not limited to, building controls system control points and energy/ performance measurement points and standards as established by the A/E, loop tuning of primary/critical equipment and systems, energy consumption (ENERGYSTAR's *Portfolio Manager*); CxA to review, verify and report as a minimum at the six- and eleven-month post-construction periods.

**3.10.34** Systems Manual. Compile a Systems Manual that consists of the following:

**3.10.34.1** OPR (by Owner, A/E, CxA)

**3.10.34.2** Design narrative and BOD (by A/E)

**3.10.34.3** CxA narrative of the above items .1 and .2

**3.10.34.4** Performance Metrics, if completed during design; space and use descriptions, single line drawings and schematics for major systems (provided by A/E), control drawings, sequences of control (provided by contractor), and a table of all set-points and implications when changing them, schedules, instructions for operation of each piece of equipment for emergencies, seasonal adjustment, startup and shutdown (provided by A/E and Contractor).

**3.10.34.5** Document instructions for energy savings operations and descriptions of the energy savings strategies in the facility as related to the designed intent as provided by the A/E.

**3.10.34.6** A complete set of reproducible drawings indicating as-built conditions of all systems including but not limited to automatic temperature controls schematics, piping, ductwork, electrical systems, lighting and lighting controls systems and equipment incorporating all changes made during construction; provided by the A/E, Contractor, and CM and reviewed by the CxA. Documents and drawings must be reviewed and approved by the A/E.

**3.10.34.7** A Preventive Maintenance / Re-commissioning ("RCx") Plan and recommendations for RCx

**3.10.34.8** Energy tracking recommendations, also to include ENERGYSTAR's *Portfolio Manager*

**3.10.34.9** Recommend standard energy and systems performance trend logs with a brief description of what to look for in them (all by CxA).

**3.11 Correction Period**

**3.11.1** Provide required opposite season or deferred testing and deficiency corrections if required and provide the final testing documentations for the Cx Record and O&M manuals.

**3.11.2** Verify controls sequence and operation remain functioning consistent with design and operational intent and that drift has not occurred.

**3.11.3** Return to site for the eleven-month walk-through and review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal Cx. Interview facility staff and identify problems or concerns they have with operating the building as originally intended. Review trend data and other relevant documentation and reports. Make suggestions for improvements and for recording these changes in the O&M manuals.

**3.11.4** Review the approved facility maintenance plan for inclusion established ongoing trending procedures and of RCx.

**3.11.5** Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports and documents and requests for services to remedy outstanding problems.

**3.11.6** Building Envelope: Perform thermal graphic imaging of the building envelope including the roof, roof to wall assembly, doors and windows. The thermographer must hold at least a Level II Thermographer Certification and have at least three years relevant practical experience

**3.11.7** Seasonal Testing:

**3.11.7.1** The CxA is to utilize and direct the district facility staff to help perform seasonal testing and post-occupancy testing, trending and reporting.



**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

**3.11.7.2** Tests on respective HVAC equipment shall be executed, during both the heating and cooling seasons. However, some overriding of control values to simulate conditions shall be allowed but will not replace testing under actual conditions.

**3.12 Reporting Guidelines**

**3.12.1** The CxA is expected to report all progress and events in an efficient and timely manner. Reporting frequency may vary according to the project status and Cx work performed. The reporting must be (but is not limited to) to the CM. The CM is responsible for the proper and timely distribution of documents, reports, and other correspondences to the Project Team, including:

- 3.12.1.1** Owner's Design Intent
- 3.12.1.2** A/E Project Basis of Design
- 3.12.1.3** Design Phase's Cx Reports
- 3.12.1.4** CxA narratives of the OPR
- 3.12.1.5** Construction Stage Cx Reports at appropriate intervals per Cx plan and 100 percent completion
- 3.12.1.6** Energy Model Review
- 3.12.1.7** Monthly Cx Status Report starting at the functional testing phase
- 3.12.1.8** Periodic Issues Database Report
- 3.12.1.9** Functional Testing Phase Reports by System
- 3.12.1.10** Seasonal Testing and Ten-Month Report
- 3.12.1.11** Compiled Owner Systems Manual
- 3.12.1.12** Final Cx Report including Narratives (Closeout)

**3.12.2 Commissioning Record.**

**3.12.2.1** A brief summary report that includes a 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 CxA regarding the adequacy of the equipment and systems, documentation, and training meeting the contract documents in the following areas:

- .1 Owners Project Requirements
- .2 A/E's Design Intent, Basis of Design
- .3 Equipment meeting the equipment specifications
- .4 Equipment installation
- .5 Functional performance and efficiency
- .6 Equipment documentation
- .7 Operator training

**3.12.2.2** All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, Cx process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.

**3.12.2.3** Issues log, Cx plan, progress reports, submittal and O&M manual reviews, training record, test schedules, construction checklists, start up reports, functional tests and trend log analysis.

**3.12.3 OFCC Report.** Provide to OFCC a brief commentary on issues related to the OFCC construction process and OSDM in an issue/recommendation/resolution format. This report is delivered separately from the Project Cx log/report. This report is to be delivered at least at the end of the Cx process and near the delivery of the Cx final report.

**3.13 Functional Testing and Sampling**

**3.13.1** The CxA will identify the testing process and what is to be tested (i.e., critical, primary, noncritical).

**3.13.1.1** CxA will complete functional tests of system components as previously described.

**3.13.1.2** All critical and primary systems shall be tested.

**3.13.1.3** Functional testing of all equipment and systems to be Cx will include but not be limited to verifying proper operation of systems, checking for calibration of all sensors and controls, commanding damper and valve actuators fully opened and closed, observing responses, verify that all systems and devices go to there fail safe position upon

**Exhibit B****Consultant Scope of Services (K-12 School Commissioning)**

shutdown, verify that standby equipment properly operate upon loss of primary devices or power, and verify that the various control loops have been tuned and operate according to the sequence of operation and the A/E's designed intent.

**3.13.1.4** The functional testing of automatic control systems will also include but not be limited to a checkout of required graphics programming, review of the programming for compliance with the sequence of operation, and analysis of trend data for proper systems response and loop stability.

**3.13.1.5** Lighting and Acoustics:

- .1 Classroom and office lighting and noise level testing to be accordance with the OSDM and A/E specifications.
- .2 The Owner is to be trained to conduct basic classroom lighting and noise level testing. The Owner will independently survey all classrooms. The CxA will review the Owner-generated report. This Owner survey does not replace or eliminate any contractor or A/E requirement or obligation.
- .3 Light levels to be tested under daytime and nighttime conditions in the 20 percent estimated worse case classroom and offices to ensure visual comfort and light levels.
- .4 Multiple identical pieces of equipment of non-life safety or non-critical equipment may be functionally tested using a sampling strategy.
- .5 Performance tests shall include testing for maximum background noise as defined by the OSDM. Tests are to be taken in 20 percent of estimated worst-case instructional spaces.

**3.13.1.6** Testing and Balancing:

- .1 Randomly test at least 10 percent of estimated worst-case final TAB report data for each group of identical equipment.
- .2 The sample set must not be smaller than three.
- .3 If 10 percent of the sample group fails a second group of 10 percent shall be selected and tested. If the second test fails then the whole group fails. The TAB agency shall be liable for retesting a part or all of the specific HVAC systems before undergoing further performance verification.

**3.13.1.7** Controls:

- .1 Verify contractor control input/output ("I/O") point-to-point ("PTP") termination. Use random statistical sampling; by testing at least ten percent of the estimated worst-case or most critical points.
- .2 All controls will be randomly tested for correct I/O PTP terminations. All invalid PTP terminations shall be corrected. Any specific control system having more than 5 percent invalid PTP terminations shall be completely rechecked by the controls contractor.

**3.13.1.8** General: If at any point, frequent failures are occurring or necessary work remains incomplete or unattended and testing is becoming more troublesome and more than verification, the CxA will stop and immediately inform the CM. The responsible subcontractor will be required to perform and document a checkout of all the remaining units, prior to continuing with the functional testing. The CM must be informed of the Cx progress and will coordinate any initial work and remediation. Excessive retesting and verification may be considered additional service of the CxA.

## **ARTICLE 4 - ADDITIONAL SERVICES**

### **4.1 General Requirements**

**4.1.1** Services Not Included in Basic Services.

**4.1.1.1** The CxA shall provide Commissioning of systems not listed in **Article 3** as Additional Services only when identified in the **Agreement Form** or otherwise approved in writing by the Contracting Authority in consultation with the Owner.

**4.1.1.2** The services listed in the **Agreement Form** shall be paid as provided in this Agreement, in addition to payment for the Basic Services; however, the CxA shall not be compensated for any Additional Services made necessary by any act or omission of the CxA or any of the CxA's Consultants.

**4.1.1.3** Unless waived by the Contracting Authority in writing, authorization to provide Additional Services must be obtained prior to providing the Additional Services.

**END OF DOCUMENT**

## Document 00 71 00 - Contracting Definitions (CM at Risk Project) State of Ohio Standard Requirements for Public Facility Construction

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<b>Acceptable Component</b>	A component listed in the Specifications after the Basis of Design Component.
<b>Addenda or Addendum</b>	Written or graphic instrument issued prior to the Proposal deadline which modifies or interprets the proposed Contract Documents by additions, deletions, clarifications, or corrections. Addenda become part of the Contract Documents when the Agreement is executed.
<b>ADR</b>	See "Alternative Dispute Resolution."
<b>A/E</b>	See "Architect/Engineer."
<b>Affiliated Entity</b>	See "CM Affiliated Entity."
<b>Agreement</b>	The form furnished by the Contracting Authority (including all of its exhibits) that, when completed and signed by the CM and Contracting Authority evidences entry into the Contract.
<b>Allowance</b>	A sum stipulated in the Contract Documents for a particular scope of the Work that may not be completely defined at the time the parties enter into the GMP Amendment. Allowance amounts do not include the CM's Fee on account of the associated Work.
<b>Alternate</b>	A potential change in the scope of the Work, which may include but is not limited to alternate materials or methods of construction, and an adjustment stated in the GMP Amendment to be made to the Contract Sum or Contract Times or both if the corresponding Alternate is incorporated into the Contract.
<b>Alternative Dispute Resolution</b>	A voluntary and non-binding process for the administrative review, consideration, and attempted settlement of a dispute, without resort to judicial process, including but not limited to partnering, negotiation, mediation, impartial fact-finding, dispute review board, and mini-trials, but shall not include arbitration.
<b>Applicable Law</b>	All federal, state, and local codes, statutes, ordinances, and regulations that apply to the performance of the Work or the A/E's Services on the Project.
<b>Approved Program of Requirements</b>	A written document approved by the Owner and Contracting Authority that details the functional requirements of the Project and the expectations of how it will be used and operated. These requirements and expectations include project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.
<b>Architect/Engineer</b>	The Person responsible for providing professional design services and construction contract administration for the Project as provided in the Contract Documents. The A/E shall be a <b>(1)</b> registered architect holding a license and certificate of authorization issued by the Ohio Architects Board pursuant to ORC Chapter 4703, <b>(2)</b> landscape architect holding a license and certificate of authorization issued by the Ohio Landscape Architects Board pursuant to ORC Chapter 4703, or <b>(3)</b> professional engineer or professional surveyor holding a license and certificate of authorization issued by the Ohio Engineers and Surveyors Board pursuant to ORC Chapter 4733.
<b>As-Built Documents</b>	Documents, including but not limited to Drawings, Addenda, Specifications, Modifications, and other elements of the Contract Documents which the CM annotates and otherwise modifies to indicate changes made during the construction process, the location of concealed and buried items, and other information useful to the Owner throughout the life of the completed Project.

<b>Basis Documents</b>	All of the Drawings, Specifications, and other documents (including without limitation the Design Intent Statement), <b>(1)</b> upon which the CM relied to prepare the associated GMP Amendment, and <b>(2)</b> which are identified in Exhibit A to the associated GMP Amendment.
<b>Basis of Design</b>	A document that records the concepts, calculations, decisions, and product selections used to meet the Owner's Project Requirements and to satisfy applicable regulatory requirements, standards, and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process.
<b>Basis of Design Component</b>	A component listed first in the Specifications.
<b>Bid</b>	A written proposal to perform the scope of Work allocated to a Subcontract, which meets the definition of "Trade Contract" under OAC Section 153:1-7-01.
<b>Bidder</b>	A Person that submitted a Bid.
<b>BIM</b>	See "Building Information Model."
<b>Bond</b>	The Performance Bond, Payment Bond, or both.
<b>Building Information Model</b>	A digital representation of physical and functional characteristics of a facility; a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle, which is defined as existing from earliest conception to demolition; electronic files used to design and coordinate the Project; and may be used to describe a single model or multiple models used in the aggregate.
<b>Certificate of Contract Completion</b>	A form used to document the CM's achievement of Contract Completion. This form may also be used to document partial Contract Completion.
<b>Certificate of Substantial Completion</b>	A form used to document <b>(1)</b> that the CM has achieved Substantial Completion of the Work or a designated portion of the Work for which the Contracting Authority and the Owner have agreed to take Partial Occupancy, and <b>(2)</b> the date on which the associated Substantial Completion of the Work was achieved.
<b>Change Directive</b>	A written order prepared by the A/E and executed by the Contracting Authority that directs a change in the Work.
<b>Change Order</b>	A written instrument prepared by the A/E and executed by the Contracting Authority and the CM that modifies the Contract.
<b>Claim</b>	A demand or assertion, initiated by written notice, certified by one of the parties to the Contract seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract.
<b>CM</b>	See "Construction Manager."
<b>CM Affiliated Entity</b>	Any entity related to or affiliated with the CM or with respect to which the CM has direct or indirect ownership or control, including without limitation any entity owned in whole or part by the CM; any holder of more than ten percent of the issued and outstanding shares of, or the holder of any interest in, the CM; any entity in which any officer, director, employee, partner or shareholder (or member of the family of any of the foregoing persons) of the CM or any entity owned by the CM has a direct or indirect interest, which interest includes but is not limited to that of a partner, employee, agent or shareholder.
<b>CM Payment Request</b>	The form furnished by the Commission that is to be used by the CM in requesting payments and which, when signed by the CM, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values.

<b>CM's Contingency</b>	A portion of the Contract Sum reserved for the CM's exclusive use (subject to the concurrence of the Owner and Contracting Authority) on account of certain unexpected events described in the General Conditions.
<b>CM's Documents</b>	All Project-related documents, including those in electronic form, prepared by the CM, Consultants, and Subcontractors.
<b>CM's Fee</b>	The portion of the Contract Sum attributable to the aggregate of the CM's Overhead and profit related to the CM's proper, timely, and complete performance of the Work in the Construction Stage. The CM's Fee does not include the CM's Preconstruction Stage Compensation.
<b>CM's Punch List</b>	A document prepared by the CM that consists of a list of items of Work to be completed or corrected by the CM as a condition precedent to Contract Completion.
<b>Commission</b>	See "Ohio Facilities Construction Commission."
<b>Commissioning Agent</b>	The Person identified by the Contracting Authority who leads, plans, schedules, and coordinates the commissioning team to implement the Commissioning Process for the Project.
<b>Commissioning Plan</b>	A document that outlines the organization, schedule, allocation of resources, and documentation requirements of the Commissioning Process.
<b>Commissioning Process</b>	A quality-focused process for enhancing the delivery of a project. The process focuses on verifying and documenting that the facility and all of its systems are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements.
<b>Commissioning Report</b>	A document that records the activities and results of the Commissioning Process. The Commissioning Report is developed from the final Commissioning Plan with its attached appendices.
<b>Construction Budget</b>	The budget for Construction Costs for the Project established by the Contracting Authority and the Owner.
<b>Construction Cost</b>	The total cost for the CM's performance of the Work in the Construction Stage including all elements of the Project designed or specified by the A/E (at current market rates of labor and materials), plus CM's Contingency, plus CM's Fee. Construction Cost does not include the following: Preconstruction Stage Compensation, A/E fees, the cost of the land, right-of-way acquisition costs, or financing costs.
<b>Construction Manager</b>	The party identified as such in the Agreement.
<b>Construction Progress Schedule</b>	The critical path schedule for performance of the Contract; showing the time for completing the Work within the Contract Times; the planned sequence for performing the various components of the Work; the interrelationship between the activities of the Subcontractors, A/E, CM, Contracting Authority, and Owner; and the Subcontractors' resource and cost loading information; as periodically updated during the performance of the Work.
<b>Construction Stage Personnel Costs</b>	The Personnel Costs the CM earns and the Owner pays to the CM during the Construction Stage.
<b>Consultant</b>	A Person engaged by the CM or a Subcontractor to provide professional services of various types for the Project including without limitation the Preconstruction Stage services of a Design-Assist Firm. The term includes the Consultant's authorized representatives, successors, assigns, and subconsultants regardless of tier.
<b>Contingency</b>	See "CM's Contingency."

<b>Contract</b>	The state of legal obligation entered into by the State and CM, whereby they have agreed to an exchange of certain acts, materials, equipment, and services for certain monetary consideration, under all terms and conditions specified in the Contract Documents, which shall remain in full force and effect until such time as all obligations under the Contract have been lawfully and completely discharged, or the Contract is terminated under other conditions specified in the Contract Documents.
<b>Contract Completion</b>	The stage in the progress of any Phase when the Work is completed in accordance with the terms of the Contract Documents and the CM has satisfied all of its other obligations under the Contract, including without limitation <b>(1)</b> all governmental authorities have given final, written approval of the Work, <b>(2)</b> a final unconditional certificate of occupancy has been granted and issued to the Owner by the appropriate governmental authorities, and <b>(3)</b> all Punch List items have been completed or corrected.
<b>Contract Documents</b>	Collectively, the documents that constitute the substance of the Contract including the Agreement, GMP Documents, final Drawings, final Specifications, Addenda if any, General Conditions, Supplementary Conditions if any, Project Manual, and Modifications if any.
<b>Contract Sum</b>	The amount stipulated as such in the GMP Amendment. The Contract Sum is the CM's entire compensation for the CM's proper, timely, and complete performance of the Work during the Construction Stage and is subject to adjustment as provided in the Contract. The Contract Sum does not include the Preconstruction Stage Compensation.
<b>Contract Times</b>	The periods stipulated in the GMP Amendment for the achievement of associated Milestones, in consecutive days, beginning on the date established by the Notice to Proceed, including adjustments as provided in the Contract.
<b>Contracting Authority</b>	The party identified as such in the Agreement, which may be the Ohio Facilities Construction Commission; an agency of the state of Ohio; an Institution of Higher Education or division thereof; a School District Board; or the legislative body of a political subdivision.
<b>Coordination Drawings</b>	Drawings and Electronic Files prepared by the CM and Subcontractors to demonstrate how multiple-system and interdisciplinary work will be coordinated. Clash reports generated by BIM authoring software may be included in the Coordination Drawing submittals on certain projects.
<b>Correction Period</b>	A period of one year commencing on the date of Substantial Completion of the Work or a designated portion of the Work which the Contracting Authority and Owner have agreed to take Partial Occupancy.
<b>Cost of the Work</b>	The Cost of the Work is the sum of (without duplication): <b>(1)</b> General Conditions Costs, <b>(2)</b> Construction Stage Personnel Costs, <b>(3)</b> Subcontract Costs, and <b>(4)</b> the cost of Self-Performed Work. The Cost of the Work does not include any portion of the CM's Fee, CM's Contingency, or Preconstruction Stage Compensation.
<b>CxA</b>	See "Commissioning Agent."
<b>Date of Commencement</b>	The date established in a Notice to Proceed issued by the Contracting Authority to the CM to mark the start of the Construction Stage and the beginning of the running of the Contract Times.
<b>day</b>	A calendar day of 24 hours measured from midnight to midnight, unless otherwise expressly specified to mean a business day.
<b>Defective Work</b>	Work that does not conform to the Contract Documents; or does not meet the requirements of any applicable statute, rule or regulation, inspection, reference standard, test or approval; or has been damaged prior to the A/E's recommendation of final payment, unless responsibility for the protection thereof has been expressly assumed by the Owner; or that is not free from defects in workmanship, materials, or equipment during the period of any warranty or guarantee.

<b>Design-Assist Firm</b>	A Person capable of monitoring and assisting in the completion of the plans and specifications under ORC Section 153.50, who the CM engages to provide design-assist services.
<b>Design Intent Statement</b>	An A/E-prepared document intended to clarify the A/E's stage submission (e.g., the A/E's Design Development Stage submission) upon which the GMP Amendment may be based. The Design Intent Statement shall include a detailed description of all materially incomplete design elements and the intended scope, quantity, quality, and other characteristics of those elements that the A/E intends to describe in subsequent Drawings and Specifications for the Work.
<b>Differing Site Condition</b>	Either <b>(1)</b> a subsurface or otherwise concealed physical condition encountered at the Site that differs materially from the conditions indicated in the Contract Documents or <b>(2)</b> an unknown physical condition of an unusual nature encountered at the Site that differs materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents.
<b>Dispute Review Board</b>	A form of Alternative Dispute Resolution that is typically comprised of three members, selected jointly by the CM and the Contracting Authority, to monitor the progress of construction and provide recommended resolutions to disputes that are brought before them.
<b>Drawings</b>	Graphic portions of the Contract Documents, showing the design, type of construction, location, dimension, and character of the Work to be provided by the CM, which generally includes plans, elevations, sections, details, schedules, diagrams, notes, and text.
<b>Electronic File</b>	Information maintained in a computer system or format that is intended to facilitate a Person's use and manipulation of the information including but not limited to Word, Excel, PDF, Primavera, CAD, and BIM files all in their native format.
<b>Enclosure, Permanent</b>	The condition in which the permanent exterior walls and roofs are in place, insulated and weathertight, and permanent windows and entrances are in place.
<b>Enclosure, Temporary</b>	The condition in which the permanent exterior walls and roofs are in place, insulated and weathertight, and windows and entrances are provided with suitable temporary enclosures.
<b>Extra Materials</b>	Materials required by the Contract Documents that are not incorporated into the Project but are given to the Owner to be used for future maintenance or repairs.
<b>Fee</b>	See "CM's Fee."
<b>Final Inspection</b>	The final review of the Work by the A/E to determine whether issuance of the Certificate of Contract Completion is appropriate.
<b>furnish</b>	Supply and deliver to the Site, or other specified location, ready for installation.
<b>General Conditions</b>	The State's Standard General Conditions in effect as of the date of the Agreement.
<b>General Conditions Costs</b>	General Conditions Costs include only the CM's costs to provide the General Conditions Work including without limitation the costs of all of the following Site-related items: telephone, telephone charges, facsimile, telegrams, postage, photos, photocopying, hand tools, simple scaffolds (one level high), tool breakage, tool repairs, tool replacement, tool blades, tool bits, and pre-approved travel, lodging, and parking costs. General Conditions Costs also include <b>(1)</b> Bond premiums, <b>(2)</b> premiums for subcontractor default insurance to the extent incurred on account of Subcontractors enrolled for the Project, and <b>(3)</b> premiums for builder's risk insurance if the CM purchases the builder's risk policy for the Project.
<b>General Conditions Work</b>	The Work defined as such in the General Conditions Costs Description exhibit to the Agreement and referred to under the definition of "General Conditions Costs."
<b>GMP</b>	See "Guaranteed Maximum Price."

<b>GMP Amendment</b>	The amendment to the Contract establishing the Contract Sum, Contract Times, and other Contract terms for a Project Phase.
<b>GMP Documents</b>	The GMP Amendment (including all of its exhibits) signed by the Owner, Contracting Authority, and CM.
<b>Guaranteed Maximum Price</b>	Synonymous with Contract Sum and does not refer to a cost-reimbursable financial arrangement (e.g., cost-plus, cost-plus with a guaranteed maximum price, target price, etc.).
<b>Hazardous Materials</b>	Any material, substance, pollutant, or contaminant that is defined, regulated, referenced, or classified in the Comprehensive Environmental Response, Compensation and Liability Act, Federal Water Pollution Control Act, Resource Conservation and Recovery Act, Clean Air Act, Hazardous Materials Transportation Uniform Safety Act, Toxic Substances Control Act, or any other Applicable Law relating to any hazardous, toxic, or dangerous waste, substance, or material. Any substance or material that, after release into the environment or upon exposure, ingestion, inhalation, or assimilation, either directly from the environment or directly by ingestion through food chains, will, or may reasonably be anticipated to, cause death, disease, behavior abnormalities, cancer or genetic abnormalities and specifically includes but is not limited to asbestos, polychlorinated biphenyls ("PCBs"), radioactive materials, including radon and naturally occurring radio nuclides, natural gas, natural gas liquids, liquefied natural gas, synthetic gas, oil, petroleum and petroleum-based derivatives and urea formaldehyde.
<b>Indemnified Parties</b>	The State, Contracting Authority, Owner, A/E, other Separate Consultants, and their respective officials, officers, consultants, agents, representatives, and employees, in both individual and official capacities.
<b>Install</b>	Put into use or place in final position, complete and ready for intended service or use.
<b>Institutional Designee</b>	The party identified in the Agreement empowered with a level of authority similar to the Executive Director of the Commission, which may be the university architect or engineer, director of capital facilities, or an institution vice president.
<b>Institution of Higher Education</b>	Any state institution of higher education as defined in ORC Section 3345.011, including any state university or college, community college, state community college, technical college, university branch, community college district, technical college district, university branch district, and the applicable board of trustees or, in the case of a university branch district, any other managing authority.
<b>Liquidated Damages</b>	A sum established in the Contract Documents, pursuant to the statutory delay forfeiture authorized under ORC Section 153.19, to be paid to the Owner due to the CM's failure to complete the Work within the Contract Time for achievement of Substantial Completion, or any applicable portion of the Work on or prior to any associated Milestone.
<b>Material Supplier</b>	A Person under a contract with the CM to furnish materials or supplies in furtherance of the Work during the Construction Stage of the Project, including all such Persons in any tier. Material Supplier does not include any Separate Contractor unless expressly assigned in writing to the CM by the Owner and accepted by the CM.
<b>mediation</b>	A voluntary process in which a neutral third party meets with the parties who have a disagreement or dispute and attempts to facilitate a mutually satisfactory resolution.
<b>Milestone</b>	A principal event specified in the Contract relating to a completion date or time.
<b>Modification</b>	A (1) written amendment to the Contract signed by both parties, (2) Preconstruction Services Amendment, (3) Change Order, (4) Change Directive, or (5) an order for a minor change in the Work.
<b>negotiation</b>	A form of Alternative Dispute Resolution in which all parties involved are represented by those invested with the authority to agree to a determination of an adjustment in the Contract Sum, Contract Times, or both.



<b>Neutral Facilitator</b>	An nonpartisan third-party without decision-making authority who is engaged to assist the Project's key stakeholders in developing cooperative relationships, achieving project objectives, avoiding or minimizing disputes, and nurturing a more-collaborative ethic characterized by trust, cooperation, and teamwork.
<b>Notice of Commencement</b>	A notice prepared by the Contracting Authority identifying the Project, CM, Separate Contractors, and their respective Sureties; and the name of the Contracting Authority's representative upon whom a claim affidavit may be served.
<b>Notice to Proceed</b>	A written notice provided by the Contracting Authority to the CM to establish the Date of Commencement and to authorize the CM to proceed with the Construction Stage of the Work.
<b>OAC</b>	Ohio Administrative Code
<b>Ohio Facilities Construction Commission</b>	The authorized contracting agent for public improvement projects in accordance with ORC Chapters 123 and 153, acting by and through its Executive Director.
<b>ORC</b>	Ohio Revised Code
<b>Overhead</b>	The term "Overhead" includes all of the following costs: <b>(1)</b> home-office payroll, which includes (except where specifically allowed as a Personnel Cost): payroll costs and all other compensation (including without limitation membership in trade, business, or professional organizations; professional licenses; training; and bonuses or similar plans/arrangements related to performance on, or profit from, the Project) of the CM's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by the CM in the CM's principal or a branch office (not including the CM's Site office) for general administration of the Work; <b>(2)</b> home-office expenses, which include (except where specifically allowed as a Reimbursable Expense or General Conditions Cost): all expenses of the CM's principal and branch offices including without limitation home-office telephone, telephone charges, computers, fax, postage, photos, copies, legal services, and accounting services; <b>(3)</b> all of the CM's capital expenses, including without limitation interest on the CM's capital employed for the Work and charges against the CM for delinquent payments; <b>(4)</b> except where specifically allowed as a use of the CM's Contingency, all costs due to the negligence or breach of contract of the CM, a Subcontractor, a Consultant, or anyone for whom they may be liable, including without limitation the correction of Defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property; <b>(5)</b> all costs related to insurance provided by the CM, whether required under the Contract or not, except <b>(a)</b> premiums for subcontractor default insurance in the Construction Stage if those insurance premiums are included as a General Conditions Cost and <b>(b)</b> premiums for builder's risk insurance in the Construction Stage if those insurance premiums are included as a General Conditions Cost and the CM is required to provide the builder's risk insurance described in the General Conditions; <b>(6)</b> all travel, lodging, and parking costs, except where specifically allowed as a pre-approved Reimbursable Expense or General Conditions Cost; <b>(7)</b> all applicable taxes of every kind (including but not limited to commercial activity tax ("CAT")) except where otherwise specifically allowed; <b>(8)</b> all other overhead or general administrative expenses of any kind and the costs of any item not specifically allowed: <b>(a)</b> as a Personnel Cost or a Reimbursable Expense in the Preconstruction Stage, or <b>(b)</b> as a Cost of the Work in the Construction Stage.
<b>Owner</b>	The state of Ohio agency, Institution of Higher Education or division thereof, School District Board, or other instrumentality for whom the Project is being constructed.
<b>Owner's Project Requirements</b>	A written document that details the functional requirements of the Project and the expectations of how it will be used and operated. These requirements include project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.

<b>Partial Occupancy</b>	The condition that occurs when the Owner occupies or uses a portion of the Project prior to Contract Completion, partial occupancy is approved by authorities with jurisdiction over the Project and the insurer(s) providing the builders risk insurance, and items of Work cannot be completed until a subsequent date.
<b>partnering</b>	A voluntary dispute prevention process involving team building activities to help define common goals, improve communication, and foster a problem solving attitude among a group of contracting parties that must work together throughout Contract performance to be less adversarial and more cooperative.
<b>Payment Bond</b>	A written guaranty from a Surety to the Owner providing financial assurance that the CM will make the required payments to Subcontractors and Material Suppliers for all labor, materials, and other services related to the Project.
<b>Payment Request</b>	See "CM Payment Request."
<b>Performance Bond</b>	A written guaranty from a Surety to the Owner providing financial assurance that the CM will perform the Work in accordance with the Contract Documents.
<b>Person</b>	An individual, corporation, business trust, estate, partnership, association, or other public or private entity.
<b>Personnel Costs</b>	The rates and fees to be paid by the Owner to the CM on account of the proper, timely, and complete performance of certain Preconstruction Services or Work by the CM's employees, which rates and fees are fully loaded and include without limitation: <b>(1)</b> the portion of direct salaries and wages of the CM's personnel (whether stationed at the CM's principal or branch offices or stationed at the Site, including professional, technical, management, administrative and clerical employees, and principals engaged on the Project) to the extent of their time devoted to the Project, and <b>(2)</b> the portion of the cost of their mandatory and customary contributions and benefits (such as employment taxes and other statutory employee benefits, social security contributions, insurance, sick leave, holidays, vacations, pension and profit sharing pursuant to plans qualified under federal law, and similar benefits) related to their time devoted to the Project. Personnel Costs also include the costs of personal protective equipment (e.g., hard hats, safety glasses, hearing protection, etc.). The term "Personnel Cost(s)," when used without a modifier, refers to either a Preconstruction Stage Personnel Cost or a Construction Stage Personnel Cost.
<b>Phase</b>	A separation in the Work of the Project by sequence or time intervals, which may include different Subcontractors for each Phase.
<b>Preconstruction Fee</b>	The portion of the CM's Preconstruction Stage Compensation attributable to the aggregate of the CM's Overhead and profit related to the CM's proper, timely, and complete performance of the Preconstruction Stage Services. The Preconstruction Fee does not include the CM's compensation for Preconstruction Personnel Costs or Reimbursable Expenses.
<b>Preconstruction Services</b>	The CM's services in the Preconstruction Stage as set forth in the Contract Documents. The Preconstruction Services include services performed during the Preconstruction Stage by any Design-Assist Firm the CM engages on the Project.
<b>Preconstruction Services Amendment</b>	A written instrument executed by the Contracting Authority and CM that modifies the Contract as it pertains to the Preconstruction Stage.
<b>Preconstruction Stage Compensation</b>	The amount stipulated as such in the Agreement. The Preconstruction Stage Compensation <b>(1)</b> is the CM's entire compensation for the CM's proper, timely, and complete performance of the Preconstruction Services, which includes Preconstruction Services performed by any Design-Assist Firm the CM engages on the Project and <b>(2)</b> is subject to adjustment as provided in the Contract.

<b>Preconstruction Stage Personnel Costs</b>	The Personnel Costs the CM earns and the Owner pays to the CM during the Preconstruction Stage.
<b>Preconstruction Stage Reimbursable Expenses</b>	Preconstruction Stage Reimbursable Expenses include only the following items: (1) travel, lodging, and parking costs when incurred in connection with the Project and approved in writing by the Contracting Authority before the cost is incurred, and (2) expenses described in the Preconstruction Stage Reimbursable Expenses Schedule attached to the Agreement.
<b>Product Data</b>	Standard illustrations, schedules, diagrams, performance charts, instructions, and brochures that illustrate physical appearance, size, and other characteristics of materials and equipment.
<b>Progress Status Report</b>	A monthly progress report prepared by the CM and containing the following information for each Project Phase: (1) listing of actual costs for completed activities, estimates for uncompleted tasks and projections for anticipated funding requirements based on the most recently updated Project Schedule and/or Construction Progress Schedule; (2) identification of variances between actual and budgeted or estimated costs; (3) the updated Construction Progress Schedule; (4) progress photos; (5) an executive summary; (6) a discussion of pending items and existing or anticipated problems, status of RFIs; (7) a safety and accident report; (8) information on each Subcontractor and each Subcontractor's work as well as the entire Work, showing percentages of completion and the number and amounts of Change Orders and Change Directives and relating such information to the Construction Progress Schedule and the Contract Sum; (9) a list of all identified Claims, any threatened claims and issues that, in the reasonable judgment of CM, may potentially become Claims and any potential Change Orders that have been submitted to the Owner by the CM; (10) status of the CM's Contingency; (11) information on compliance with the EDGE participation goals established for the Project; (12) monthly procurement decisions regarding furnishings, fixtures and equipment; (13) status of compliance with required LEED components, if applicable; and (14) such other relevant information as may be reasonably required by the Owner from time to time.
<b>Project</b>	The public improvement, of which the Work performed under the Contract Documents may be the whole or a part.
<b>Project Manager</b>	A permanent employee of the Contracting Authority assigned to the Project and authorized to perform specific responsibilities.
<b>Project Manual</b>	That part of Construction Documents which consists of bound volume(s) of primarily written material which generally contain Division 00 - "Procurement and Contracting Requirements," and Divisions 01 through 49 - "Specifications," and other documents pertaining to the Project.
<b>Project Schedule</b>	A project schedule prepared by the CM that, with respect to each Phase of the Project, identifies, coordinates and integrates the anticipated design and construction schedules, the Contracting Authority's and Owner's responsibilities, government authority reviews and other activities as are necessary for the timely completion of the Work.
<b>Proposal</b>	The offer of the CM to perform the Work set forth in a Proposal Request.
<b>Proposal Request</b>	A document issued after execution of the GMP Amendment requesting a Proposal from the CM, which may initiate a Change Order to modify the Contract.
<b>provide</b>	Furnish and install, complete and ready for intended use.
<b>Punch List</b>	A document listing items of Work requiring correction or completion by the CM as a condition precedent to Contract Completion.
<b>Punch List Milestone</b>	The date 30 days after the achievement of Substantial Completion of all or a portion of the Work.

<b>Record Documents</b>	Electronic files and printed documents of all nature prepared by the A/E, which incorporate the information shown on the CM's As-Built Documents. They consist of the "Record Drawings" and "Record Project Manual," Record Model, Certificate of Substantial Completion, Certificate of Contract Completion (as complete), manufacturers' warranties, certificate(s) of occupancy, approved shop drawings and other action submittals, responses to Requests for Information, Modifications, balancing reports, and the final version of the approved Construction Progress Schedule.
<b>Record Drawings</b>	The Drawings, which have been revised by the A/E to show the changes made during the construction process, conformed to represent the Work as executed by the CM.
<b>Record Model</b>	The Building Information Model, which has been revised by the A/E to show the changes made during the construction process, conformed to represent the Work as executed by the CM.
<b>Record Project Manual</b>	The Project Manual of the Contract Documents, which has been revised by the A/E to show the changes made during the construction process, based on the As-Built Project Manual furnished by the CM.
<b>Reimbursable Expenses</b>	See "Preconstruction Stage Reimbursable Expenses."
<b>Request for Change Order</b>	A written notice from the CM accompanied by a Proposal for a change in the Work.
<b>Request for Information</b>	A written request to the A/E seeking an interpretation or clarification of the Contract Documents.
<b>RFI</b>	See "Request for Information."
<b>Samples</b>	Physical examples, color selection items, field samples, and mock-ups furnished by the CM to illustrate functional and aesthetic characteristics of products, materials, equipment, or workmanship and establish criteria by which the Work shall be judged.
<b>Schedule of Values</b>	A full, accurate, and detailed statement furnished by the CM reflecting a defined breakdown of the Contract Sum.
<b>School District</b>	A local, exempted village, or city school district as defined in ORC Chapter 3311, or a joint vocational school established pursuant to ORC Section 3311.18, performing essential governmental functions of state government pursuant to ORC Sections 3318.01 to 3318.20.
<b>School District Board</b>	The board of education of a School District.
<b>Self-Performed Work</b>	Work performed by direct employees of the CM or a CM Affiliated Entity, which does not include Work performed by direct employees of a Subcontractor. Notwithstanding the foregoing sentence, Self-Performed Work may include: <b>(1)</b> a Material Supplier's provision to the CM or a CM Affiliated Entity of materials or supplies used in the performance of the Self-Performed Work, and <b>(2)</b> a Subcontractor's lease to the CM or a CM Affiliated Entity of tools or equipment used in the performance of the Self-Performed Work.
<b>Separate Consultant</b>	A Person engaged by the Owner or the Contracting Authority to provide Project-related professional services other than the services under this Contract. The term includes the Separate Consultant's authorized representatives, successors, assigns, and subconsultants regardless of tier.
<b>Separate Contract</b>	The contract between the Owner or Contracting Authority and a Separate Consultant or a Separate Contractor.
<b>Separate Contractor</b>	A Person under contract with the Owner or Contracting Authority to provide Project-related work other than the Work under this Contract. The term includes the Separate Contractor's authorized representatives, successors, assigns, and subcontractors regardless of tier.

<b>Shop Drawings</b>	Drawings, diagrams, illustrations, and schedules specifically prepared for the Project provided by the CM or a Subcontractor to illustrate some portion of the Work. Shop Drawings are not Contract Documents. Shop Drawings on equipment shall include a written statement from the manufacturer of the equipment certifying the equipment is in compliance with the Contract Documents.
<b>Site</b>	The location designated for the Project.
<b>Specifications</b>	Those portions of the Contract Documents consisting of detailed written administrative, procedural, and technical requirements, included in Divisions 01 through 49, for the construction of the Work, whether physically on the Drawings or bound in separate volumes, including identification of acceptable materials, methods, equipment, quality, and workmanship.
<b>Staffing Plan</b>	The CM's detailed plan for staffing the Project during the Construction Stage.
<b>Stage</b>	A distinct period in the life cycle of a facility from concept through construction, to use and deconstruction or demolition. Typical Stages include the Preconstruction Stage, which includes the Program Verification, Schematic Design, Design Development, and Construction Documents stages; and the Construction Stage, which includes Construction and Closeout activities.
<b>Standard Requirements</b>	The brief name of the "State of Ohio Standard Requirements for Public Facility Construction," including but not limited to General Conditions, and other Division 00 Documents and Division 01 Sections; in effect as of date of the Agreement.
<b>State</b>	The government of Ohio, including any organized body, office, or agency established by the laws of this state for the exercise of any function of state government, or any state institution of higher education as defined in ORC Section 3345.011.
<b>Subcontract</b>	Any contract or agreement between the CM and a Subcontractor for performance of a portion of the Work.
<b>Subcontract Form</b>	The State of Ohio Subcontract Form prescribed by OAC 153:1-3-02 and required for use with the Construction Manager at Risk method of project delivery.
<b>Subcontract Costs</b>	The sum of the contract values of all of the Subcontracts the CM enters into in furtherance of the Work. The Subcontract Costs include the cost of Subcontractor-provided surety bonds (if any).
<b>Subcontracting Plan</b>	The CM-developed written plan which describes in detail the CM's strategy for packaging and scheduling bidding and for ensuring that the scopes of Work of the various Subcontractors are coordinated, all requirements for the Project have been assigned to the appropriate Subcontract, the likelihood of jurisdictional disputes between trades has been minimized, and proper coordination has been provided for phased construction (if any).
<b>Subcontractor</b>	A Person under a contract with the CM to perform any part of the Work during the Construction Stage of the Project, including all such Persons in any tier. The term "Subcontractor" includes Material Suppliers, but does not include any Separate Contractor unless expressly assigned in writing to the CM by the Owner and accepted by the CM.
<b>Substantial Completion</b>	The stage in the progress of the Work when the Work (or designated portion of the Work for which the Contracting Authority and Owner have agreed to take Partial Occupancy) is sufficiently complete in accordance with the Contract that the Owner can utilize the Work for its intended use, as determined by the A/E. The issuance of a certificate of occupancy or partial certificate of occupancy (if applicable) is a condition precedent to the achievement of Substantial Completion.
<b>Substantially Complete</b>	See "Substantial Completion."

<b>Substitution</b>	An article, device, material, equipment, form of construction, or other item, proposed by the CM and approved by the A/E for incorporation or use in the Work as being functionally and qualitatively equivalent to essential attributes of a Basis of Design or Acceptable Component specified in the Contract Documents.
<b>Supplementary Conditions</b>	Amendments to the General Conditions, issued as a separate document, which describe conditions of the Contract unique to a particular Owner or Project, which may include provisions regarding the assignment of responsibility for refuse removal, safety and security precautions and programs, temporary Project facilities and utilities, weather and fire protection, scaffolding and equipment, materials and services to be used commonly by the CM and Subcontractors and requiring the CM to provide assistance in the utilization of any applicable equipment system, preparation of operation and maintenance manuals, and training of Owner personnel for operation and maintenance of the Project. The General Conditions shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Conditions prepared by the Contracting Authority and approved by the Commission.
<b>Surety</b>	A Person who provides financial assurances under a Performance Bond or Payment Bond.
<b>Systems Manual</b>	A system focused composite document that includes the operation manual, maintenance manual, and additional information of use to the Owner after they begin using the facility.
<b>Total Compensation</b>	The sum of the Preconstruction Stage Compensation plus the Contract Sum.
<b>Total Compensation Budget</b>	The Owner-established budget for the sum of the Preconstruction Stage Compensation plus the Construction Costs.
<b>Unit Price</b>	The cost of providing a unit of Work including labor, materials, services, and associated expenses as described in the GMP Amendment. Unit Prices do not include the CM's Fee on account of the associated Unit Price Work.
<b>Work</b>	The labor, materials, equipment, and services, individually or collectively which are required by the Contract Documents, to be performed or provided by the CM for the Project. The furnishing of all material, labor, detailing, layout, supplies, plants, tools, scaffolding, transportation, temporary construction, superintendence, demolition, and all other services, facilities and items reasonably necessary for the full and proper performance and completion of the requirements of the Project as set forth in the Contract Documents, and items reasonably inferable therefrom and consistent therewith for the proper execution and completion of the construction and other services required by the Contract Documents, whether provided or to be provided by the CM or a Subcontractor, or any other entity for whom the CM is responsible, and whether or not performed or located on or off of the Site.

**END OF DOCUMENT**

# ***STAN Engineers***

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Since 1981

## **EXHIBIT E – STAFFING PLAN**

### **DREW A. KOENIG, PE**

President  
Project Manager

#### **Education**

Wright State University, B.S. Mechanical Engineering  
Wright State University, M.B.A. Project Management

#### **Professional Registration**

Ohio



#### **Years of Experience**

Mr. Koenig has 16 years of experience in mechanical engineering design, project management, construction administration, and systems commissioning.



### **MATT GUGGENBILLER**

Mechanical Commissioning Agent

#### **Education**

Wright State University, Associates in Mechanical  
Engineering Technology

#### **Years of Experience**

Mr. Guggenbiller has over 21 years of experience in  
mechanical engineering and commissioning.



**STAN AND ASSOCIATES, INC.**  
*Experience • Education • Attitude*

**Exhibit E – Staffing Plan**  
**Page 2**

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**ROB HART**  
Electrical Commissioning Agent

**Experience**

Mr. Hart has over 38 years of experience in electrical design, commissioning, construction administration, and project management.



**KYLE ZEPERNICK, RA, LEED AP BD+C**  
President, Oregon Group Architects  
Building Envelope Commissioning Agent

**Education**

Miami University, Bachelor of Environmental Design  
University of Michigan, Master of Architecture

**Professional Registration**

Ohio, Kentucky

**Experience**

Mr. Zepernick is a registered architect and certified Class II Plans Examiner. He has provided building envelope commissioning for more than 60 projects with STAN & Associates.

