

May 15,  
2026



**Anchor Bay School District – Energy Savings Performance Contract  
Chiller(s) & Chilled Water Pump(s) Upgrades - Request for Proposal – Phase 1**



Centrix Energy  
792 Lois Dr  
Sun Prairie, WI 53590  
(817) 506-8303

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### DIVISION 23 – SCOPE OF WORK

023300	Bid Package #5 – Chiller(s) & Pump(s) Upgrades
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## INVITATION TO BID

**PROJECT NAME:** Anchor Bay Schools – 2025 Energy Services Performance Contract

**PROJECT DESCRIPTION:**

Facility Improvement Measures (FIM) to be implemented in Anchor Bay Schools to upgrade infrastructure and improve energy efficiency.

**SCHEDULE:**

RFP out for Bid: May 15<sup>th</sup>, 2026,  
Bid Docs Advertised: May 15<sup>th</sup>, 2026  
Pre-Bid Walkthrough: May 20<sup>th</sup>, 2026 (10:00am)  
Bids Due: June 11<sup>th</sup>, 2026  
Notice to Proceed: June 25<sup>th</sup>, 2026  
Construction Start Date: July 6<sup>th</sup>, 2026  
Completion Date: October 30<sup>th</sup>, 2026 (Substantial Completion)

**OWNER:**

Anchor Bay School District  
5201 County Line Rd  
Casco, MI 48064

**CONSTRUCTION MANAGER:**

Centrix Energy Partners, LLC  
792 Lois Drive  
Sun Prairie, WI 53590

**BID DATE:**

Bids will be received at the district's Administrative Office, no later than 1:00PM (**local time**) on June 11, 2026.

Bids will be publicly opened at the Administrative Office and read aloud at this time. Bids received after this time will not be considered and will be returned to the bidder unopened.

Bids shall be properly and completely executed on the Bid Proposal Form included within the Project Manual and submitted in duplicate. Bids shall be clearly marked as **Anchor Bay Schools Energy Savings Performance Contract – Chiller(s) & Chilled Water Pump(s) Upgrades – Phase 1 Bid** on the front of the submitted envelope.

**PRE-BID MEETING:**

A Pre-Bid Meeting will be held on May 20, 2026, at 10:00AM (local time) on site, starting at the Transportation Building (51890 Washington St., New Baltimore, MI) and proceed to schools from there. The pre-bid meeting and site walks will be highly recommended due to site specific conditions and constraints.

**DOCUMENT AVAILABILITY AND USE:**

Bid Documents may be viewed at the following **Plan Rooms** on or after 5/15/2026.

**BidNet** [www.bidnetdirect.com](http://www.bidnetdirect.com)

**Sigma** [www.michigan.gov/budget/budget-offices/sigma](http://www.michigan.gov/budget/budget-offices/sigma)

Bidding documents are available electronically at no charge, via email. Please email your request to Todd Kananen at the email address shown below. Contact with bidding questions:

[todd.kananen@centrix-partners.com](mailto:todd.kananen@centrix-partners.com) cc emails to [greg.mizell@centrix-partners.com](mailto:greg.mizell@centrix-partners.com)

BONDS:

A two and a half percent (2.5%) Bid Bond shall accompany each bid. The successful bidder will be required to provide Payment and Performance Bonds to cover the full amount of their proposal, and certificates of Liability and Worker's Compensation Insurance.

OTHER CONDITIONS AND INFORMATION:

1. The awarded contractor will be required to pay not less than the published **Michigan Prevailing Wage for State Projects Act (effective 2/13/2024)**, Michigan prevailing wage rates.
2. No bidder may withdraw their bid for a period of **Forty-five (45) calendar days** after the date set for bid opening.
3. Public Act 517 of 2012 (effective December 31, 2012) enacted the "Iran Economic Sanctions Act", which prevents "Iran linked businesses" from bidding on a school district or ISD's request for proposals ("RFP"). This law requires that persons submitting bids certify that they are not an "Iran linked business," which is defined as either:
  - a) A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran; or
  - b) A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.
4. Anchor Bay Schools reserves the right to reject any or all bids, to waive any defects or irregularities in bids, and to accept any bid that is deemed most advantageous to the public interest.

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## INSTRUCTIONS TO BIDDERS

- A. No bid received after the specified date and time for opening, whether postdated or not, will be considered. **No electronic bids will be accepted.**
- B. If any of the required bidding documents are not included, or properly executed, the contractor's bid may not be accepted.
- C. The Owner reserves the right to reject each and every bid, to waive formalities or informalities in bidding, to accept or reject each and every alternate regardless of its order or sequence, unless otherwise called for on the bid Proposal Form.
- D. The right is reserved to reject a Bid where an investigation of the available evidence of information does not satisfy the Owner that the Bidder is qualified to properly carry out the terms of the Contract Documents.
- E. The Owner reserves the right to award contract(s) for this project to one or more bidders, in whole or in part, as determined to be in the Owner's best interest.
- F. Bids which contain qualifications or conditions that are contrary to the text or intent of the Contract Documents, and which are inserted in the bid for the purpose of limiting or otherwise qualifying the responsibility of the bidder, outside of the text or intent of the Contract Documents, will be subject to disqualification.
- G. Failure to submit the requested information with the Bid shall be grounds for rejecting the Bid.
- H. The Owner also reserves the right to reject the bid of a Bidder who has previously failed to perform properly or to complete contracts of similar nature on time, who is not in a position to perform the Contract or who has habitually and without just cause neglected the payment of bills or otherwise disregarded his obligations to subcontractors, suppliers, or employees.
- I. Payment / Performance Bonds are required for this contract.
- J. The ability of the Bidder to obtain or qualify for a performance bond or payment bond shall not be regarded as a sole test of such Bidders competence or responsibility.
- K. This project is tax exempt.
- L. The awarded contractor will be required to pay not less than the published **Michigan Prevailing Wage for State Projects Act (effective 2/13/2024)**, Michigan prevailing wage rates.
- M. Bidder must have comparable experience with the type and scale of this project; submit a list of similar projects completed within the last 5 years. Failure to submit the requested information with the Bid shall be grounds for rejecting the Bid.
- N. Bidders are required to submit a list of subcontractors who will be used on this project, if any.
- O. This work is scheduled to commence after the notice to proceed letter is issued after the June 24, 2026 Anchor Bay School Board Meeting.

The Bidder may, at his option, submit a voluntary alternate, stating the optional material and/or methods which he proposes to use, and all brochures, data manuals, etc., describing the specifics of such materials or equipment. No voluntary alternate products will be evaluated prior to bidding. The Construction Manager and Owner reserve the right to accept or reject such options.

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# BID FORM

PROJECT: Anchor Bay Schools – 2025  
Energy Services Performance Contract

OWNER: Anchor Bay School District

PROPOSAL FROM:

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State, ZIP

## Base Bid Package – Chiller(s) and Chilled Water Pump(s) Upgrades

**Building Name:** Lighthouse Elementary, 51880 Washington St, New Baltimore, MI 48047

\$

\_\_\_\_\_  
Written Amount

\_\_\_\_\_  
printed figure

**Building Name:** Lottie Schmidt Elementary, 33700 Hooker Rd., New Baltimore, MI 48047

\$

\_\_\_\_\_  
Written Amount

\_\_\_\_\_  
printed figure

**Building Name:** Maconce Elementary, 6300 Church Rd, Ira, MI 48023

\$

\_\_\_\_\_  
Written Amount

\_\_\_\_\_  
printed figure

**Building Name:** MacDonald Elementary, 5201 County Line Road, Richmond, MI 48062

\$

\_\_\_\_\_  
Written Amount

\_\_\_\_\_  
printed figure

**Add Alternate #1 (Glycol Side Stream Filtration)**

**Building Name:** Lottie Schmidt Elementary, 33700 Hooker Rd., New Baltimore, MI 48047

\$ \_\_\_\_\_  
Written Amount printed figure

**Building Name:** Maconce Elementary, 6300 Church Rd., Ira Township, MI 48023

\$ \_\_\_\_\_  
Written Amount printed figure

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**Additional Alternates (if provided)**

\_\_\_\_\_  
Description  
\_\_\_\_\_  
Written Amount \$ \_\_\_\_\_ (Add/Deduct)

\_\_\_\_\_  
Description  
\_\_\_\_\_  
Written Amount \$ \_\_\_\_\_ (Add/Deduct)

\_\_\_\_\_  
Description  
\_\_\_\_\_  
Written Amount \$ \_\_\_\_\_ (Add/Deduct)

**Additional items to be included with Bid Form:**

2.5% BID BOND	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
List of warranted projects	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
List of subcontractors	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Familial Disclosure Form	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Iran Economic Sanctions Act Certification	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Written Narrative for Inclusions / Exclusions	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Summary Schedule	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

I, \_\_\_\_\_, am the authorized signatory for this business and have full authority to submit this bid and bind the business to all terms and conditions contained herein.

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Phone Number*

Date: June 11, 2026

IRAN ECONOMIC SANCTIONS ACT CERTIFICATION

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I am the \_\_\_\_\_ of \_\_\_\_\_, or I am  
(title) (bidder)  
bidding in my individual capacity ("Bidder"), with authority to submit a binding bid for the provision of mechanical contracting services to Anchor Bay Schools I have personal knowledge of the matters described in this Certification, and I am familiar with the Iran Economic Sanctions Act, MCL 129.311, et seq. ("Act"). I am fully aware that the school district will rely on my representations in evaluating bids.

I certify that Bidder is not an Iran-linked business, as that term is defined in the Act. I understand that submission of a false certification may result in contract termination, ineligibility to bid for three (3) years, and a civil penalty of \$250,000 or twice the bid amount, whichever is greater, plus related investigation and legal costs.

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(signature)

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(printed)

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(date)

**FAMILIAL DISCLOSURE FORM**

FAMILIAL DISCLOSURE: All bidders must provide the following familial disclosure in compliance with MCL 380.1267

Familial Relationship (complete A or B):

A. None \_\_\_\_\_

B. The following are familial relationships between the owner or any employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. Provide employee name, associated family contact, family contact position, and familial relationship.

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All bidders must complete the following familial disclosure form in compliance with MCL 380.1267.

By this sworn and notarized statement we are disclosing familial relationship(s) that exists (as noted above) between the owner or any employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. ***(Anchor Bay School District will not accept a bid that does not include this sworn and notarized disclosure statement.)***

Disclose any familial relationship and complete the form below in its entirety:

Complete this portion whether or not a familial relationship exists:

Signature(s):

Title:

Title:

\_\_\_\_\_

Name of firm:

\_\_\_\_\_

STATE OF MICHIGAN            )  
  ) SS

COUNTY OF                    )

\_\_\_\_\_  
Notary Public

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, before me a Notary Public in and for said county, personally appeared \_\_\_\_\_, agent of the said firm \_\_\_\_\_, and who acknowledged the same to be his free act and deed as such agent.

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**SUBSTITUTION REQUEST FORM**

**PROJECT INFORMATION**

Project Name:

Bid Due Date:

**CONTRACTOR / VENDOR INFORMATION**

Contractor / Vendor Name:

Contact Person:

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Date of Request: \_\_\_\_\_

**RFP REFERENCE**

RFP (Specification) Section / Description: \_\_\_\_\_

Applicable Drawing(s) / Exhibit / Table Reference: \_\_\_\_\_

**SPECIFIED PRODUCT (BASE BID)**

Manufacturer:

Model/Catalog Number:

Product Description:

**PROPOSED SUBSTITUTE PRODUCT**

Manufacturer:

Model/Catalog Number:

Product Description:

**REASON FOR SUBSTITUTION REQUEST (Please Check All That Apply)**

- Product availability/lead time issues
  - Cost savings
  - Equal or superior performance
  - Other:
- 

**COST IMPACT**

Base Bid Product Cost: \$

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Proposed Substitute Cost: \$

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Net Cost Difference: \$ \_\_\_\_\_  Credit  Additional Cost

**SUPPORTING DOCUMENTATION (Please Attach)**

- Product specifications and technical data sheets
- Manufacturer's literature and performance data
- Installation instructions
- Warranty information
- Sample (if required)
- Test reports or certifications
- Comparison chart showing equivalency to specified product
- Reference projects where substitute product was successfully used

**COMPARATIVE ANALYSIS**

Provide detailed comparison of proposed substitute to specified product (please provide separate document if necessary):

Feature/Characteristic	Specified Product	Proposed Substitute
Performance:		
Dimensions:		
Materials:		
Finish:		
Warranty:		
Lead Time:		
Installation Requirements:		
Maintenance Requirements:		

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**ADDITIONAL INFORMATION**

Describe how the proposed substitute is equal or superior to the specified basis of design product:

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List any deviations from the specified product:

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Anticipated Impact on project schedule (if any):

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Anticipated Impact on other trades or systems (if any):

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**CONTRACTOR CERTIFICATION**

I certify that the information provided above is accurate and complete. I understand that approval of this substitution request does not relieve the Contractor of responsibility for meeting all contract requirements and that any approved substitution must perform equal to or better than the specified product.

Contractor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name/Title:

\_\_\_\_\_

\_\_\_\_\_

**FOR OWNER / OWNER'S REPRESENTATIVE USE ONLY**

**REVIEW AND DECISION**

Reviewed by:

Title:

Date Reviewed:

**DECISION**

- APPROVED - Substitution accepted as equal to specified product
- APPROVED WITH CONDITIONS (specify below)
- REJECTED - Substitution does not meet requirements (reason below)
- INSUFFICIENT INFORMATION - Resubmit with additional documentation (specify below)

Comments/Conditions/Required Additional Information:

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Reviewer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**DISTRIBUTION**

- Contractor
- Project File
- Architect/Engineer
- Construction Manager
- Owner
- Owner's Representative
- Other:

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**NOTES:**

1. Substitution requests must be submitted at least \_\_\_\_\_ days prior to bid date.
2. No substitutions will be considered after contract award unless specifically approved in writing by the Owner.
3. Burden of proof for equivalency rests with the Contractor/Vendor.
4. The Owner reserves the right to reject any substitution request without providing detailed explanation.
5. Approved substitutions become part of the contract documents.

SUB-CONTRACTOR AGREEMENT

A. SUB-CONTRACTOR AGREEMENT

Exhibit A - Subcontractor Master Agreement.

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

A. GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

- Refer to Exhibit 1 – General Terms and Conditions (within Exhibit A of the Subcontractor Master Agreement)

**SECTION 011000**  
**SUMMARY**

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work under Owner's separate contracts.
5. Owner-furnished/Contractor-installed (OFI) products.
6. Contractor's use of site and premises.
7. Coordination with occupants.
8. Work restrictions.
9. Specification and Drawing conventions.

1.2 PROJECT INFORMATION

A. Project: Anchor Bay Schools Energy Savings Performance Contract

1. Project Location: 5201 County Line Road, Casco, MI 48064
2. Owner: Anchor Bay School District

B. Construction Manager: Centrix Energy Partners LLC, 792 Lois Dr, Sun Prairie, WI 53590

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

Chiller(s) & Pump(s) Upgrades

B. Type of Contract:

- Project will be constructed under a single prime contract awarded to one or more bidders.

1.4 CONSTRUCTION

A. The Work shall be conducted in one phase, beginning upon Notice to proceed letter issued after the **June 2026** Board of Education meeting.

a. Commencement of Construction:

- 1) Start Date: Work shall commence by 07/06/2026 or earlier as coordinated with Centrix and the District.

- b. Substantial Completion:
  - 1) Completion of the Chiller(s) & Pump(s) Upgrade scope shall be by **10/30/2026**
- c. Start-up & Commissioning:
  - 1) Functional performance tests shall be completed **Spring 2027 (TBD)**

- B. Before commencing Work, submit an updated copy of Contractor's construction schedule showing the sequence, commencement, and completion dates for each scope of the Work.

#### 1.5 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limits on Use of Site: Limit use of Project site to Work in areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  - 1. Driveways: Keep driveways clear and available to Owner, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
- B. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, affected by construction operations throughout construction period. Repair damage caused by construction operations.

#### 1.6 WORK RESTRICTIONS

- A. On-Site Work Hours: Limit work in the existing building to normal business working hours of 6:00 a.m. to 8:00 p.m., Monday through Friday, unless otherwise indicated.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
  - 1. Notify Construction Manager and Owner not less than three [3] days in advance of proposed utility interruptions.
  - 2. Obtain Construction Manager and Owner's written permission before proceeding with utility interruptions.
- C. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, vaping and other controlled substances within the Project site or Owner's property is not permitted.

END OF SECTION 011000

**SECTION 012500**  
**SUBSTITUTION PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.3 ACTION SUBMITTALS

- A. Substitution Requests During Bidding Process: Submit each request for consideration in PDF format via email to the following email addresses [todd.kananen@centrix-partners.com](mailto:todd.kananen@centrix-partners.com) and [greg.mizell@centrix-partners.com](mailto:greg.mizell@centrix-partners.com). Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
    - 1. Substitution Request Form:
    - 2. Substitution requests must be from the contractor, not the manufacturer.
    - 3. All requests must be submitted to the Construction Manager's Office seven (7) days prior to bid date.
    - 4. Substitutions will be reviewed after bid opening.
  - B. Substitution Requests After Contract Award: Email each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
    - 1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
      - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
      - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
      - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section.
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Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested. In an appropriate size to make adequate determination of comparable value.
  - f. Certificates and qualification data, where applicable or requested.
  - g. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
  - h. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - i. Cost information, including a proposal of change, if any, in the Contract Sum.
  - j. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
  - k. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
2. Construction Managers Action: If necessary, Construction Manager will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Construction Manager will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Construction Manager's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Construction Manager does not issue a decision on use of a proposed substitution within time allocated.

#### 1.4 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

#### 1.5 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

#### 1.6 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than fifteen [15] days prior to time required for preparation and review of related submittals.

1. Conditions: Construction Manager will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Construction Manager will return requests without action, except to record noncompliance with these requirements:
  - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
  - b. Substitution request is fully documented and properly submitted.
  - c. Requested substitution will not adversely affect Contractor's construction schedule.
  - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
  - e. Requested substitution is compatible with other portions of the Work.
  - f. Requested substitution has been coordinated with other portions of the Work.
  - g. Requested substitution provides specified warranty.
  - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
  
- B. Substitutions for Convenience: Construction Manager will consider requests for substitution if received within 30 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Construction Manager.
  1. Conditions: Construction Manager will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Construction Manager will return requests without action, except to record noncompliance with these requirements:
    - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Construction Manager for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
    - b. Requested substitution does not require extensive revisions to the Contract Documents.
    - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - d. The substitution request is fully documented and properly submitted.
    - e. Requested substitution will not adversely affect Contractor's construction schedule.
    - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - g. Requested substitution is compatible with other portions of the Work.
    - h. Requested substitution has been coordinated with other portions of the Work.
    - i. Requested substitution provides specified warranty.
    - j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

END OF SECTION 012500

**SECTION 012600**  
**CONTRACT MODIFICATION PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

- A. Construction Manager will issue supplemental instructions authorizing minor changes in the Work, involving minor adjustments to the Contract Sum; not affecting the Contract Time.
  - 1. Work Change Proposal Requests issued by Construction Manager are not instructions either to stop work in progress or to execute the proposed change.

1.3 PROPOSAL REQUESTS

- A. Construction Manager will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Work Change Proposal Requests issued by Construction Manager are not instructions either to stop work in progress or to execute the proposed change.
  - 2. Within seven (7) days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Construction Manager.
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

#### 1.4 CHANGE ORDER PROCEDURES

- A. On approval of a Work Change Proposal Request, Construction Manager will issue a Change Order for signatures of Construction Manager and Contractor.

END OF SECTION 012600

**SECTION 012900**  
**PAYMENT PROCEDURES**

PART 1 - GENERAL

- Refer to Exhibit 1, Section 17 – General Terms and Conditions (Exhibit A Subcontractor Master Agreement).

END OF SECTION 012900

**SECTION 013100**  
**PROJECT MANAGEMENT AND COORDINATION**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 013100

**SECTION 013200**  
**CONSTRUCTION PROGRESS DOCUMENTATION**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 013200

**SECTION 013300**  
**SUBMITTAL PROCEDURES**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 013300

**SECTION 014000**  
**QUALITY REQUIREMENTS**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 014000

**SECTION 015000**  
**TEMPORARY FACILITIES AND CONTROLS**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 015000

**SECTION 016000**  
**PRODUCT REQUIREMENTS**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 016000

**SECTION 017300**  
**EXECUTION**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 017300

**SECTION 017700**  
**CLOSEOUT PROCEDURES**

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 017700

## DIVISION 23 – SCOPE OF WORK

### SECTION 023400

#### Bid Package #5 – Chiller(s) & Pump(s) Upgrades

##### 1. General Requirements

- The intent of this Scope of Work and any attached supporting documentation including any applicable addenda (e.g. stamped drawings/documentation) is to provide the Subcontractor with general conformance guidelines. Subcontractor shall be responsible for performing any/all applicable site investigation to ensure that the desired results are achieved. In this case, the desired results are:
  - Replacing existing chiller(s) and chilled water pump(s) by providing and installing new higher efficiency part-load chiller(s) and chilled water pump(s) necessary to improve cooling system efficiency within the buildings identified in **Exhibit B. Existing Equipment Schedule - Chillers and Chilled Water Pumps** and accompanying MEP drawing sets.
  - Replace existing blower coil unit assembly (AHU-2) within Maconce Elementary as identified in accompanying specifications and MEP drawing sets.
  - In the replacement of equipment, Subcontractor shall ensure that new equipment installed meets the existing performance characteristics illustrated in Exhibit B unless otherwise specified:
    - Input capacities
    - Flow rate (GPM)
    - Pump head (Ft)
    - Electrical characteristics
  - Subcontractor shall perform the following pre-installation activities to verify existing system characteristics:
    - Testing, adjusting, balancing (TAB) with accompanying report to validate Chilled water pump(s) design and blower coil unit characteristics/performance (e.g. pump head/pressure, GPM, Motor RPM, Motor Voltage/Amps/Phasing) and validate that all nameplate information on existing equipment accurately matches the information provided in Exhibit B prior to submittals and/or ordering equipment.
    - In the following locations where glycol is currently used in the cooling system testing of concentration and quality of glycol in the cooling system with accompanying report.
      - Glycol used directly in entire cooling system:
        - Lighthouse Elementary School
        - Great Oaks Elementary School
        - Maconce Elementary School
        - MacDonald Elementary School
  - Subcontractor shall obtain all necessary applicable permits and approvals prior to commencement of scope of work.
  - Subcontractor shall provide all necessary labor and materials for complete implementation of Chiller(s) and Chilled water pump(s) system and proper disposal of removed equipment (not using owner's dumpsters and/or owner's refuse containers).
  - Unless otherwise specified, point of new connection to be existing isolation valves for Chiller(s) and Chilled water pump(s).
  - Subcontractor shall provide and receive submittal approval prior to ordering any materials associated with this scope of work.
- All work shall be performed in accordance with manufacturer specifications, state and local codes, and industry best practices.
- Products shall be installed only by qualified personnel experienced in the installation of Chiller and pump systems.
- Contractor shall verify all weights, dimensions, site conditions, and utility connections prior to installation.
- All materials shall be stored in a clean, dry, and protected environment, per manufacturer instructions.
- System draining as required
- In locations where glycol is currently used in the cooling system, Subcontractor is responsible for

metering and recording the total volume of water/glycol solution during any draining of the cooling system. Subcontractor shall be responsible to add propylene glycol to the chilled water system to achieve a 35% propylene glycol fluid mixture.

- Subcontractor shall drain, handle, transport, and dispose of all used ethylene and/or propylene glycol/water solution in accordance with all applicable federal, state, and local environmental regulations, including but not limited to EPA regulations and MI Department of Natural Resources requirements.
  - Installation shall include receiving, off-loading, flushing, cleanout, fill, chemicals, testing, TAB, start-up, and troubleshooting of all applicable equipment associated with this scope of work.
  - Owner shall be responsible for any / all applicable asbestos containing materials including identification and / or abatement prior to implementation of this scope of work.
2. Demolition
- Subcontractor shall be responsible for demolition, removal and proper disposal of existing chiller(s) and chilled water pump(s), blower coil unit assembly, including all associated insulation, piping, chiller water connections/utilities and electrical connections, etc. associated with this scope of work. Subcontractor shall be responsible for any applicable manifest(s) (if required).
  - Reference Exhibit H. Residual Value and Disposition of Existing Chillers
3. Building Automation System (BAS) / Temperature Controls
- Subcontractor shall include scope of work provided by BAS Controls Contractor to include materials and labor for installation of BAS controllers, components, and wiring for interface to the new chiller(s) and chilled water pump(s). Programming, commissioning, and troubleshooting of BAS components to be coordinated by Subcontractor.
  - Subcontractor to ensure that new Chiller(s) have factory mounted controllers with BACnet compatibility with included hardwired input/outputs components for BAS interoperability to match existing.
  - BAS Controls Contractor to provide Subcontractor new temperature sensor wells for any applicable new chilled water piping. Subcontractor to coordinate size and location of taps for in-pipe devices with BAS Controls Contractor, Subcontractor shall install new temperature sensor wells in chilled water piping. BAS temperature sensors and wiring provided and installed by BAS Controls Contractor.
  - BAS Controls Contractor to provide and install components for start/stop/status for new Chilled water pump(s).
  - Subcontractor shall include all necessary labor and applicable materials for coordinated functional system testing and troubleshooting in conjunction with BAS Controls Contractor.
  - Start-up of chillers and integral chiller controls shall be by the Subcontractor.
4. Submittals
- Product Data: Manufacturer cut sheets, specifications, and performance data for all chillers, pumps, blower coil unit assembly, variable frequency drives (VFDs), and associated components.
  - Pump(s) submittals to include pump curve data
  - Installation Procedures: Proposed installation sequencing/schedule, equipment, piping modifications, quality control measures, safety protocols.
  - Warranty Certificates: Manufacturer warranties for each product.
5. Materials: Basis of Design (BoD) for Chiller and Pump manufacturer's are illustrated in Exhibit C.
- High Efficiency Chillers:
    - Basis of Design
      - Daikin
    - Alternative Acceptable Manufacturer's
      - Trane Technologies
      - Johnson Controls / York
      - Substitutions Subject to Owner's Written Approval
  - Chilled Water Pumps:
    - Basis of Design
      - Bell & Gossett
    - Alternative Acceptable Manufacturer's
      - Taco
      - Armstrong Fluid Technology
      - Substitutions Subject to Owner's Written Approval
  - Variable Frequency Drives (VFDs):

- Basis of Design
    - Asea Brown Boveri, Ltd.(aka ABB)
  - Alternative Acceptable Manufacturer's
    - Danfoss
    - Substitutions Subject to Owner's Written Approval
6. Installation Requirements
- High Efficiency Part-Load Chiller(s)
    - Subcontractor shall provide and install per manufacturer's requirements to ensure adequate clearances for access and maintenance.
    - Ensure installation per manufacturer specifications and state and local codes.
    - Provide and install all modifications required for wall and/or roof penetrations associated with the installation of the new chiller(s).
    - Subcontractor shall be responsible for any/all applicable building penetrations (if required) including patching, weather proofing, sealing, etc. associated with the removal of any appurtenances associated with this scope.
    - Existing on-grade locations to be used for installation
    - Complete all electrical and water connections per applicable codes and manufacturer requirements.
    - Perform start-up, testing, and troubleshooting as specified by manufacturer.
    - Temperature and pressure gauges on supply and return.
  - Chilled Water Pumps:
    - Subcontractor shall provide and install per manufacturer's requirements with proper alignment.
    - Existing housekeeping pads may be reused. Subcontractor shall provide and install (extend) existing housekeeping pads if required to accommodate new equipment.
    - Provide and install new line sized: shut-off valves, isolation valves on intake and discharge, balancing valve and check valve on discharge, strainers, suction diffusers, flexible connectors, and gauge ports and gauges.
    - Suction diffusers and pump fittings to be supported with floor mounted pipe and flange supports.
    - Temperature and pressure gauges across pumps.
    - Temporary strainers to be removed after system cleaning.
    - Pumps to be fully lubricated prior to start-up.
    - Provide and install new electrical starter/disconnect for new chilled water pump(s).
  - Variable Frequency Drives (VFDs):
    - Subcontractor shall provide and install one (1) VFD for each of the new chilled water pumps.
    - Protect from moisture and contaminants during installation.
    - Subcontractor to ensure that new VFD's have factory mounted controllers with BACnet / Modbus compatibility with included hardwired input/outputs components for BAS interoperability, including VFD HOA switch and integral disconnect.
    - Ensure proper electrical connections and grounding per NEC requirements.
  - Piping & Connections:
    - Provide and install welded piping parallel to building structure
    - Properly support all piping per applicable codes.
    - Insulate chilled water piping to prevent heat loss and condensation.
    - Insulation including labels (identification) on chilled water supply and return piping
  - Subcontractor shall be responsible for providing and installing all associated integral components being replaced, and to facilitate future operation and maintenance including:
    - Water Piping / Chilled Water Piping
    - Pipe Insulation and Pipe Identification
    - Fittings
    - Venting Systems
    - Electrical Connections
    - Strainers
    - Isolation and balancing valves
    - Suction Diffusers
    - Hydronic Specialties
    - Emergency stop button

- Chilled Water Supply and Chilled Water Return Temperature Gauges
  - Chilled Water Pump Pressure Gauges and Associated Shut Off Valves
7. Warranty
- Provide manufacturer's standard warranty for each product (minimum 1-year Subcontractor warranty for installation workmanship).
  - Any defective work as part of this scope, including improper installation or equipment failure, shall be removed and replaced by Subcontractor at no cost to the Owner.
8. Functional Performance Testing & Validation
- Subcontractor As-Built package to included but not be limited to the following:
    - Pressure & Leak Testing:
      - Hydrostatic pressure testing of all new piping
      - System leak testing at operating pressure for minimum 2 hours
      - Individual component isolation testing
    - Performance & Flow Testing:
      - Pump performance curves verification (flow rate vs. head pressure)
      - System flow balancing and circulation verification
      - VFD performance testing at various speed settings (if applicable)
    - Chiller-Specific Testing:
      - Chiller cycling and modulation testing
    - Control & Safety System Testing:
      - Control sequence verification and programming validation
      - VFD programming and safety parameter verification (if applicable)
    - System Integration Testing:
      - Full system startup reports for Chillers and pumps
      - Load testing under various operating conditions
    - Documentation Testing:
      - Witness testing with owner's representative
      - Test result documentation and certification

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**Exhibit B. Existing Equipment Schedule - Chillers and Chilled Water Pumps**

Building	Chiller Number	Location	Unit Type	Installation Year	Manufacturer	Model #	Serial #	Capacity (Tons)	Electrical Panel				
Lighthouse Elementary	CH-1	On Grade	Air Cooled Chiller (Glycol in System)	1999	McQuay	AGZ045AS27	58J8135801	45 Tons (Based on Water)	TBD				
	Pump Number	Location	Unit Type	Service	Installation Year	Manufacturer	Model #	Serial #	Motor HP	GPM	Head (Ft)	RPM	Electrical Panel
	CP-9	Below Mezzanine (Lower Level)	In-Line	Chilled Water (Glycol)	1999	B&G	e80-2-1/2-2-1/2x7	Unknown	2 HP	92	40	1750	TBD
	CP-10	Below Mezzanine (Lower Level)	In-Line	Chilled Water (Glycol)	1999	B&G	e80-2-1/2-2-1/2x7	Unknown	2 HP	92	40	1750	TBD

Building	Pump Number	Location	Unit Type	Service	Installation Year	Manufacturer	Model #	Serial #	Motor HP	GPM	Head (Ft)	RPM	Electrical Panel
Maconce Elementary	CP-9	On-Grade Boiler Rm	Base Mounted	Chilled Water (Glycol)	1998	Taco	FE3008E2E1F2L0A	Unknown	15 HP	324.6	71	1750	Main Electrical Switchboard, 480/277V
	CP-10	On-Grade Boiler Rm	Base Mounted	Chilled Water (Glycol)	1998	Taco	FE3008E2E1F2L0A	199467 37	15 HP	324.6	71	1750	Main Electrical Switchboard, 480/277V

Building	Chiller Number	Location	Unit Type	Installation Year	Manufacturer	Model #	Serial #	Capacity (Tons)	Electrical Panel				
Lottie Schmidt	CH-1	On Grade	Air Cooled Chiller (Glycol in System)		Trane								
	Pump Number	Location	Unit Type	Service	Installation Year	Manufacturer	Model #	Serial #	Motor HP	GPM	Head (Ft)	RPM	Electrical Panel
	CP-1	MER Mezzanine	Base Mounted	Chilled Water (Glycol)	Unknown	B&G	2.5 BB 8.750 BF QF 1074	1881401	10 HP	277	65	Unknown	Panel DP-H, 480/277V
	CP-2	MER Mezzanine	Base Mounted	Chilled Water (Glycol)	Unknown	B&G	2.5 BB 8.750 BF QF 1074	1881400	10 HP	277	65	Unknown	Panel DP-H, 480/277V

Building	Chiller Number	Location	Unit Type	Installation Year	Manufacturer	Model #	Serial #	Capacity (Tons)	Electrical Panel				
MacDonald (Admin)	CH-1	On Grade	Air Cooled Chiller (Glycol in System)	2000	McQuay	ALS204BS27-ER10	STNU010300019	~200 Ton (Based on Water)	Main Electrical Switchboard, 480/277V				
	Pump Number	Location	Unit Type	Service	Installation Year	Manufacturer	Model #	Serial #	Motor HP	GPM	Head (Ft)	RPM	Electrical Panel
	CP-9	On-Grade Boiler Rm	Base Mounted	Chilled Water (Glycol)	2000	Taco	Assumed: FE3008E2E1F2L0A	Unknown	15 HP	324.6	71	1750	Main Electrical Switchboard, 480/277V
	CP-10	On-Grade Boiler Rm	Base Mounted	Chilled Water (Glycol)	2000	Taco	Assumed: FE3008E2E1F2L0A	Unknown	15 HP	324.6	71	1750	Main Electrical Switchboard, 480/277V

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