

PROJECT MANUAL

GRAND RAPIDS PUBLIC SCHOOLS

HVAC Controls Replacement Commodore System

Beckwith

Mulick Park Elementary
Sigsbee/SEAC Elementary
Wellerwood Elementary
Westwood Middle

May 8, 2020

GRPS Facilities & Operations
900 Union Avenue NE
Grand Rapids, MI 49503

Telephone (616) 819-3010

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INSTRUCTIONS TO BIDDERS

PROJECT: HVAC Controls Replacement
Commodore System

PROJECT LOCATIONS: Beckwith
Mulick Park Elementary
Sigsbee/SEAC Elementary
Wellerwood Elementary
Westwood Middle

OWNER: Grand Rapids Public Schools

DATE BIDS ARE DUE: May 22,2020 with a ZOOM
public opening.

TIME BIDS ARE DUE: 11:30 AM

LOCATION FOR RECEIVING BIDS: Grand Rapids Public Schools
Service Building
900 Union Avenue NE
Grand Rapids, MI 49503

SUMMARY OF WORK

The replacement of the Johnson Control system (Commodore) entails providing and installing all parts required to provide a system that functions as specified (so that they can be controlled from a new DDC control system). Pneumatic control of classrooms, dampers, and other pneumatics will remain as local control, with the exception of heat exchangers and HW mixing valves. Sigsbee/SEAC has additional equipment listed that is not currently controlled by the JCI system and is to be added to the new DDC system.

Also include:

- 1) Trend (Data) logs for all input points and critical control points.
- 2) Scheduling including global scheduling.
- 3) Alarming of critical and non-critical point, critical points to be reported via text and email.
- 4) Graphics of all sites with a District map (GRPS to provide floor plans when needed).

OBTAINING BID DOCUMENTS

Contact Long Nguyen at NguyenL@grps.org to obtain documents. Documents may also be obtained on the SIGMA Vendor Self Service website (<https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>).

EXAMINATION

Builders' Exchange
678 Front Avenue NW Suite 330
Grand Rapids, MI 49504 (616) 949-8650
e-mail: projects@grbx.com

CONTRACT DOCUMENTS

The Contract Documents, alone, detail the requirements of the project, and bids shall be based only on information presented there. Information obtained from others shall not affect the risks or obligations assumed by the bidder or relieve a Constructor from fulfilling any part of the contract.

SUBSTITUTIONS DURING THE BIDDING PERIOD

Unless otherwise noted, manufacturers and products not named in the specifications will be given consideration during the bidding period. Written approval from the Design

Professional shall be obtained before a bidder uses substitute materials or manufacturers in its bid estimate. Bidders who base their bids on substitute materials or manufacturers without the Design Professional's written approval do so at their own risk.

Requests for substitutions during the bidding period must be received at least ten calendar days prior to bid date and may be emailed to the Design Professional at the email address noted above. The burden of showing the requested product is an adequate substitution for the specified product rests with the Bidder.

Substitution requests shall be reviewed by the Design Professional for quality and function, only. The Design Professional's approval of a substitution shall be communicated to all plan holders in an addendum. Bidders shall be responsible for any unforeseen costs that result from using an approved substitution.

TIME FOR COMPLETION

The Constructor shall be 100% complete with the work on or before August 1, 2020. Conditions precedent to establishing final completion include:

- A. Final inspection and approval by all relevant agencies.
- B. All punchlist items having been completed and accepted by Owner.
- C. Manufacturer inspection, approval, and warranties.
- D. Issuance of a Certificate of Occupancy, if necessary.

RESPONSIBILITY OF BIDDERS

Bidders shall study the bid documents and visit the site to satisfy themselves of all conditions before submitting a bid. It is incumbent upon bidders to reconcile any ambiguities, errors or omissions in the documents discovered during the bidding period.

It is the responsibility of each bidder to take those steps necessary to satisfy itself of the physical conditions under which the Work will be performed and the condition of the existing facilities, including those which may not be a part of the Work but could be

affected by the performance of the Work, and (b) account for all general, local and prevailing conditions at or near the site that may in any manner affect the cost, schedule, progress or performance of the Work.

Questions about the bid documents, the intent of the design, or errors or omissions discovered in the documents shall be formally submitted to the Design Professional by email at the address given above not less than 10 calendar days prior to the date set for receipt of bids.

INSPECTION OF PREMISES

Most GRPS buildings are occupied Monday through Friday from 7:30 AM until 4:00 PM. Bidders may visit by appointment. Contact Long Nguyen at NguyenL@grps.org, prior to visiting a secured site, to arrange for entry and to receive custodial assistance.

In order to maintain a safe and orderly environment, visitors shall proceed directly to the main office when entering a Grand Rapids Public School building. Identify yourself and state your business. When you have completed your business, please check out at the office.

COST CONSIDERATIONS

GRPS will execute with the successful bidder ConsensusDocs Form 205 STANDARD SHORT FORM AGREEMENT BETWEEN OWNER AND CONSTRUCTOR (Lump Sum Price), as modified.

No negotiation of contract terms will be allowed. Bidders shall account for all terms and conditions of this contract in their bid prices.

Unless specifically noted otherwise, bids shall include the following costs:

1. Permits, fees, notices, etc. for any federal, state or local government agency having jurisdiction over the project.
2. Insurance coverages, limits and deductibles required by the draft contract.
3. Inspections by building authorities and other government agencies
4. Maintaining an environment in compliance with all rules, statutes, regulations and codes covering an occupied school facility.
5. All equipment required to fully and safely complete the work. No equipment shall be furnished by or borrowed from Owner.
6. Unless otherwise noted, during Constructor's performance of the Work, Owner will continue to occupy the building. The Constructor shall provide labor, materials and equipment to construct, maintain and remove all temporary enclosures needed to comply with State of Michigan Fire Code and/or to prevent dust, noise, odors and debris in a construction area from entering the remainder of the building.
7. During the school day, construction operations shall be limited to those methods and procedures that do not adversely affect the environment of Owner's occupied space, including noise, odors, dust, lighting hazards and other undesirable effects and conditions.
8. Prevailing Wages DO / DO NOT apply to this Project.

BID SECURITY

Bid security shall be made payable to "Grand Rapids Public Schools" in the form of a certified or cashier's check drawn upon a bank insured by an agency of the Federal government, or an executed Bid Bond on ConsensusDocs form 262, AIA form A310, or a substantially similar form in the amount of 5% of the bid. A bid bond shall be executed with a surety authorized to do business in the State. A certified or cashier's check submitted as bid security shall be held by the Owner until a contract has been executed.

PAYMENT AND PERFORMANCE BONDS

Payment and performance bonds, in the amount of 100% of the award amount, are required if the award amount is \$50,000 or more. All bids shall include the cost of payment and performance bonds. Bidders shall show the cost of bonds in the appropriate spot on the Bid Form. For contract awards less than \$50,000, GRPS reserves the right to not require bonds and take a credit for the cost of bonds shown on the Bid Form. Bonds shall be executed with a surety authorized to do business in the State and use ConsensusDocs forms 260/261, AIA form A312, or a substantially similar form.

BIDDING PROCEDURES

1. Bids shall be submitted on the Bid Form included with this document. All blank spaces shall be printed in ink or typewritten. The Bid Form must be fully completed, signed and sealed. In the event of a discrepancy between the words and figures entered on the Bid Form, the written word shall take precedence over the numerical figures.
2. Three originals of the bid shall be submitted in a sealed, opaque envelope bearing the following information clearly marked on the outside:

Grand Rapids Public Schools
Attn: Mr. Long Nguyen
900 Union Avenue NE
Grand Rapids, MI 49503

Sealed bid for: HVAC Controls Replacement, Commodore System

The envelope shall also bear, on the outside, the name of the bidding firm, its address and telephone number.

3. Include bid security in the amount identified above.
4. Include a completed and signed Statement of Familial Relationship or the bid may be disqualified.
5. Include a completed and signed Iran Business Relationship Affidavit or the bid may be disqualified.
6. Include a completed and signed Debarment and Suspension Certification.
7. Include completed DTMB documents: Demographics, Statistics and Certification and Certification of a Michigan-based business. These forms are collected for statistical purposes and will not affect award of the contract.
8. Bids will be received until the time and date noted above at the location noted above, unless modified by Addendum, at which time all bids will be opened and read aloud.
9. Bids received after the date and time set for receipt of bids will not be considered or accepted.

10. Bids transmitted by fax, telephone, or electronic mail will not be accepted.

EVALUATION AND AWARD

1. The Owner may waive informalities or minor defects in a bid, may reject any and all bids, and may award to a bidder who is not the lowest bidder when the Owner deems it is in its best interest to do so.
2. Any bid that is incomplete, obscure, or irregular may be rejected. Bids that omit a price on any item in the Bid Form may be rejected. A bid for which unit prices are omitted or for which unit prices are, in the sole opinion of GRPS, unbalanced may be rejected. Any bid accompanied by insufficient or unacceptable bid surety may be rejected. A conditional or qualified bid may be rejected.
3. The Owner reserves the right to reject all bids.
4. In accordance with GRPS Policy 3670, a bid discount will be applied to bids from bidders who qualify as a local vendor. Non-local bidders can obtain a bid discount based on the percentage of the bid price that will be awarded to local subcontractors. Certification of the amount to be subcontracted will be required prior to award. GRPS Policy 3670 is attached to the Bid Form.
5. Upon approval of contract award by the GRPS Board of Education, the Owner will issue a Notice of Award to that bidder making Grand Rapids Public Schools the most advantageous offer. Once Notice of Award has been issued, the prospective Constructor shall obtain and submit payment and performance bonds, if directed, insurance in accordance with the terms of the construction contract and any additional documentation requested by the Owner.
6. Upon receipt of acceptable payment and performance bonds, if necessary, an insurance certificate showing coverages and limits in accordance with the contract, and any additional documentation requested by the Owner, a contract will be forwarded for signature.

INSTRUCTIONS SUBSEQUENT TO AWARD

1. After executing a contract, the Owner will issue a Notice to Proceed identifying the agreed upon start date. No work shall be performed prior to the start date in the Notice to Proceed.
2. If requested, the Constructor will be furnished, free of charge, up to 3 copies of drawings and specifications, with Amendments current at time of award. Additional copies will be furnished, at cost, payable to the Owner.

BID FORM

Grand Rapids Public Schools
HVAC Controls Replacement, Commodore System

Schools included in Scope of Work:

Beckwith
Mulick Park Elementary
Sigsbee/SEAC Elementary
Wellerwood Elementary
Westwood Middle

DATE: _____
(Bidder to enter date of bid opening)

SUBMITTED BY: (Bidder to complete)

Bidder's Full Name: _____

Address: _____

City, State, Zip: _____

Telephone: _____ Fax: _____

E-Mail: _____

OFFER

- A. Having examined the place of the Work and all matters referred to in the Instructions to Bidders and the Contract Documents prepared by the Owner for the Project, we, the undersigned, hereby offer to enter into a Contract on the Owner's Contract Form to perform the Work for the following prices of:

BIDDER MUST PROVIDE BIDS FOR EACH INDIVIDUAL SCHOOL AS WELL AN AGGREGATE BID FOR ALL OF THE SCHOOLS LISTED ABOVE. BIDS ON THIS BID FORM ARE TO BE FOR A SINGLE CONTROL SYSTEM. MIXING OF SYSTEMS IS NOT ALLOWED ON THIS BID FORM.

AGGREGATE PROJECT BASE BID, INCLUDES ALL SCHOOLS LISTED ABOVE:

Total Project Base Bid: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

INDIVIDUAL SCHOOL BIDS:

Alexander Elementary: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Beckwith: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Kensington Elementary: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Mulick Park Elementary: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Riverside Middle: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Roosevelt Elementary: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Sigsbee/SEAC Elementary: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Wellerwood Elementary: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

Westwood Middle: _____
_____ dollars (\$_____),

in lawful money of the United States of America.

- B. The cost of payment and performance bonds included in the base bid amount is \$_____.
- C. We have included bid security in the amount of 5% of the base bid.
- D. The base bid price includes all applicable taxes.

ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for sixty days from the date on which bids were opened.
- B. If this bid is accepted by the Owner within the time period stated above, we will:
 - 1. Furnish all required bonds and insurance certificates within ten days of receipt of a Notice of Award.
 - 2. Commence work within ten days after written Notice to Proceed.
- C. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required bonds and insurance certificates, the bid security shall be forfeited as damages to Grand Rapids Public Schools by reason of our failure.
- D. In the event our bid is not accepted within the time stated above, the bid security shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders, unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

CONTRACT TIME

- A. If this Bid is accepted, we will complete all work on or before August 1, 2018.
We understand that conditions precedent to achieving Final Completion include:
 - 1. Final inspection and approval by all relevant agencies.
 - 2. All punchlist items having been completed and accepted by Owner.
 - 3. Manufacturer inspection, approval, and warranties.
 - 4. Issuance of a Certificate of Occupancy, when necessary.

ADDENDA

- A. We acknowledge receipt of the following Addenda. These addenda have been evaluated and their effect on the cost of the Work has been incorporated into the base bid entered above.

Addendum #	___	Dated	_____	Addendum #	___	Dated	_
Addendum #	___	Dated	_____	Addendum #	___	Dated	_
Addendum #	___	Dated	_____	Addendum #	___	Dated	_

BID FORM SUPPLEMENTS

- A. If requested on the Bid Form, submit with your bid, a Schedule of Unit Prices to be used, upon the Owner's acceptance, to price changes.
- B. If requested in the Notice of Award, within 48 hours after receipt of the Notice of Award, provide a list of Subcontractors, Subcontract prices and the scope of Work each Subcontractor will perform.

ACKNOWLEDGEMENTS

The Bidder acknowledges:

- a. That this bid was developed without any collusion, undertaking, or agreement, either directly or indirectly, with any other bidder or bidders to maintain the prices of indicated Work or prevent any other bidder or bidders from bidding the Work.
- b. That this bid shall not be withdrawn for a period of 60 calendar days after the date on which bids were opened.
- c. That all work will be complete on or before the Final Completion date(s) identified in the bid documents.
- d. That the following documents, identified in Instructions to Bidders, have been completed and are attached to this Bid Form:
 - 1. Bid Security in the amount of 5% of the base bid
 - 2. DTMB Demographics, Statistics and Certification
 - 3. DTMB Certification of a Michigan-Based Business
 - 4. Sworn Statement of Familial Relationship
 - 5. Iran Business Relationship Affidavit
 - 6. Debarment and Suspension Certification

SCHEDULE OF UNIT PRICES

Provide unit prices for the following line items which will be used, at the Owner's discretion, to price changes to the Work after award:

Item	Description	Unit Price	Unit

SYSTEM EXPANDABILITY

Beckwith

Method of System Expansion: _____

Limits of System Expansion: _____

Mulick Park Elementary

Method of System Expansion: _____

Limits of System Expansion: _____

Sigsbee/SEAC Elementary

Method of System Expansion: _____

Limits of System Expansion: _____

Wellerwood Elementary

Method of System Expansion: _____

Limits of System Expansion: _____

Westwood Middle

Method of System Expansion: _____

Limits of System Expansion: _____

SIGNATURE(S)

AUTHORIZED CORPORATE OFFICER

Signature

Printed Name

Title

Date

If the Bid is submitted by a joint venture or partnership, add additional executed signature pages for each member of the joint venture or partnership.

GRPS Policy 3670 – Local Construction Contracting

The District provides a preference (bid discount) in construction contracts from local vendors, providing the quality and service are commensurate with the requirements set forth by the District as to satisfy the demands of the bid or proposal. Bids, or proposals when bids are not required, shall be accepted from non-local vendors in order to maintain a fair market price.

In determining the qualification for a Local Purchasing Preference for purposes of this policy, vendors must have obtained the Certification of a Michigan Based Business as determined by the Michigan Department of Technology, Management and Budget as well as meet one of the following criteria:

- a. For at least the last six months had its primary business operations located within the municipality boundaries of the City of Grand Rapids, Michigan (Grand Rapids).
- b. Be certified by the City of Grand Rapids, as a Micro-Local Business Enterprise and have its primary business operations within the municipality boundaries of the City of Grand Rapids.

A successful recipient of a contract and/or purchase order which has received a Local Purchasing Preference may be required to present proof of its status as a Michigan Based Business and documentation of its location within the City of Grand Rapids at any time upon request from an authorized District official. Failure to provide the requested information or failure to maintain business operations with the city of Grand Rapids for the duration of the contract will make the contract voidable at the District's discretion, and will result in disqualification from future consideration of a Local Purchasing Preference for a period of five years unless excused by the Superintendent or Designee.

Preference will be provided on the following basis:

- a. **Constructor Participation:** Grand Rapids Public Schools will provide up to a 5% bid discount to prime contractors and/or construction managers who satisfy the criteria set forth for consideration as a Local Vendor.
- b. **Subcontractor Participation:** Construction bids for non-local vendors may be discounted when a bidder on a Grand Rapids Public Schools' project voluntarily subcontracts with businesses meeting Local Vendor Criteria. Prime contractors and/or construction managers must submit affidavit(s) verifying Local Vendor subcontractor participation.

Prime contractors and/or construction managers must require Local Vendor certification documentation to be submitted by each subcontract bidder with their sealed bid. The District at its discretion can request additional documentation for verification of the qualification of any Local Vendor subcontractor participating in a construction project.

- c. The following is a schedule of discounted percentages based upon Local Vendor subcontractor participation achieved by the prime Constructor:

<u>LV Subcontractor Participation</u>	<u>Discount Percentage</u>
i. 1.00% – 2.5%	1.0%
ii. 2.51% – 5.0%	1.5%
iii. 5.01% – 7.5%	2.0%
iv. 7.51% – 10.0%	2.5%
v. 10.01% – 15.0%	3.0%
vi. 15.01% – 18.0%	4.0%
vii. 18.01% +	5.0%

- d. Prime contractors and/or construction managers may not terminate an approved Local Vendor subcontractor working on a Grand Rapids Public Schools construction project, and then perform the work on the terminated subcontract with its own forces or those of another subcontractor, without prior written consent by the Grand Rapids Public Schools Executive Director of Facilities Planning and Management. If a Local Vendor subcontractor fails to complete its work on the contract for any reason, a prime Constructor/construction manager must notify the Grand

Rapids Public Schools Executive Director of Facilities Planning and Management and make good faith efforts to find another approved Local Vendor subcontractor to substitute for the original Local Vendor subcontractor. Utilizing good faith efforts, and to the extent reasonable, the prime Constructor/construction manager shall substitute an approved Local Vendor subcontractor to perform the same amount of work under the contract as the Local Vendor subcontractor that was terminated.

- e. Joint Venture Bidding: As an incentive to contractors engaging in activities that stimulate the growth and development of local, small emerging businesses as partners bidding as a joint venture, Grand Rapids Public School will apply up to a 5% bid discount for partnering with a qualified Local Vendor.
- f. The Bid Discounts outlined above may not exceed 5% or \$25,000 per bid, whichever is lower. Project bids from prime contractors and/or construction managers are considered a single bid for purposes of the Bid Discount consideration.

Grand Rapids Public Schools, Board of Education Members and employees are prohibited from having any financial interest or personal beneficial interest either directly or indirectly, in the award of any construction contracts, sub-contracts, or the recommendation/selection of any professional design service or construction manager, unless previously disclosed in writing to the Superintendent and approved in writing by the Superintendent.

This policy shall not apply to the extent that it would conflict with any provision of Michigan or federal law, regulation or constitution. The local preference shall not be applied to purchases of goods and services made with federal funds.

Policy Adopted: March 19, 2012

LEGAL Ref: MCL 380.1267; 380.1274

POLICY Ref: 3660 Bids and Quotation Requirements

3690 Local Purchasing

1900 Contracts and Board Member Disclosure Obligations

GRPS Policy Rules 3670R – Local Construction Contracting Regulations

Qualification for Local Construction Contracting Preference

On an annual basis beginning with July 1st of each fiscal year, a vendor desiring to receive a bid discount for local construction contracting may submit appropriate documentation to the Executive Director of Facilities and Operations. Appropriate documentation shall include the following:

- a. Proof of completed submittal of Certification of a Michigan Based Business as determined by the Michigan Department of Technology, Management, and Budget
and
- b. Proof it has its primary business operations located within the municipality of the City of Grand Rapids, Michigan for the past six months (on company letterhead)

or

Proof it has been certified as a Micro-Local Business Enterprise by the City of Grand Rapids and has its primary business operations within the municipality boundaries of the City of Grand Rapids (on company letterhead)

A firm may submit the same documentation with its sealed bid or proposal in order to qualify for the bid discount.

Non-Local Vendors

A non-local vendor may qualify for a bid discount if it voluntarily subcontracts with businesses that meet the above documentation requirements. Proof of subcontractors meeting these requirements must be submitted with the sealed bid or proposal in order to qualify for the discount.

Local subcontractor participation will be based on the value of the local subcontracts as compared to the total bid or proposal

Joint Venture Bidding

Contractors that engage in joint venture bidding with a local, small emerging business partner will need to submit documentation of participation level with the sealed bid or proposal. The local bid discount will be based on the value of the local, small emerging business partner as compared to the total bid or proposal.

Eligibility/Verification

The District may request documentation at the conclusion of a project for which a bid discount was received verifying eligibility with local bid discount criteria. If it is determined that a vendor did not actually meet the terms of local preference, disqualification from future consideration of a local purchasing preference may occur for a period of five years unless excused by the Superintendent or Designee.

Dated: March 12, 2012

LEGAL REF: MCL 380.1267; 380.1274

3660- Bids and Quotation Requirements

3690- Local Purchasing

1900- Contracts and Board Member Disclosure Obligations



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
Facilities and Business Services Administration
Design & Construction Division
DEMOGRAPHICS, STATISTICS AND CERTIFICATION

- 1. Company Name:
2. Company Address:
3. Principal Place of Business:
4. Year of Establishment:

Woman-, Minority-, or Veteran-Owned Small Business Representation (For Statistical Use Only)

DEFINITIONS:

“Woman-owned business” means a small business that is at least 51% owned by a woman or women who are US citizens and who control and operate the business.

The vendor represents that it [] IS, [] IS NOT a woman-owned small business.

“Minority-owned business” means a small business that is at least 51% owned by a minority or minorities who are US citizens and who control and operate the business.

The vendor represents that it [] IS, [] IS NOT a minority-owned small business.

- [] African-American [] Arab-American [] Asian-American [] Hispanic
[] American Indian [] Eskimo

“Qualified Disabled Veteran” means a business entity that is 51% or more owned by one or more veterans with a service-connected disability.

“Qualified Disabled” means a business entity that is 51% or more owned by one or more with a service-connected disability.

The vendor represents that it [] IS, [] IS NOT qualified disabled.

“Veteran -owned business” means a small business that is at least 51% owned by a veteran or veterans who are U.S. citizens and who control and operate the business.

The vendor represents that it [] IS, [] IS NOT a veteran-owned small business.

The Constructor represents and warrants that the company meets the above (when checked) and can provide supportive documentation upon request.

Authorized Agent Name (print or type)

Authorized Agent Signature



Certification of a Michigan-Based Business
 (Information Required Prior to Contract Award
 for Application of State Preference/Reciprocity Provisions)

DEFINITION: To qualify as a Michigan business, vendor must have, during the 12 months immediately preceding this bid deadline, or if the business is newly established, for the period the business has been in existence, it has (check all that apply):

Bidder shall also indicate one of the following:

- Bidder qualifies as a Michigan business (provide zip code): _____
- Filed a Michigan single business tax return showing a portion or all of the income tax base allocated or apportioned to the State of Michigan pursuant to the Michigan Single Business Tax Act, 1975 PA 228, MCL ~208.1 – 208.145; or,
- Filed a Michigan income tax return showing income generated in or attributed to the State of Michigan; or,
- Withheld Michigan income tax from compensation paid to the bidder's owners and remitted the tax to the Department of Treasury; or

I certify that **I have personal knowledge** of such filing or withholding, that it was more than a nominal filing for the purpose of gaining the status of a Michigan business, and that it indicates a significant business presence in the state, considering the size of the business and the nature of its activities.

I authorize the Michigan Department of Treasury to verify that the business has or has not met the criteria for a Michigan business indicated above and to disclose the verifying information to the procuring agency.

- Bidder does not qualify as a Michigan business (provide name of State): _____
- Principal place of business is outside the State of Michigan, however service/commodity provided by a location within the State of Michigan (provide zip code): _____

Authorized Agent Name (print or type) _____

Authorized Agent Signature _____

Fraudulent Certification as a Michigan business is prohibited by MCL 18.1268 §268. A BUSINESS THAT PURPOSELY OR WILLFULLY SUBMITS A FALSE CERTIFICATION THAT IT IS A MICHIGAN BUSINESS OR FALSELY INDICATES THE STATE IN WHICH IT HAS ITS PRINCIPAL PLACE OF BUSINESS IS GUILTY OF A FELONY, PUNISHABLE BY A FINE OF NOT LESS THAN \$25,000 and subject to debarment under MCL 18.1264

SWORN STATEMENT OF FAMILIAL RELATIONSHIP

As required by Section 1267 of the Revised School Code – MCL 380.1267

STATE OF MICHIGAN COUNTY

OF _____

_____, being duly sworn, deposes and says:
(Printed name of deponent)

That _____ (The "Bidder") has bid on the following
(Printed name of bidding firm)

project located in Kent County, Michigan, which is owned by Grand Rapids Public Schools:

Project Name: _____

That the following is a statement of disclosure of any familial relationship that exists between the owner or any employee of the bidder and any member of the Grand Rapids Public Schools Board of Education or Superintendent, as required pursuant to Section 1267 of the Revised School Code, as amended.

1. That there are no such familial relationships existing at this time.

OR

2. That a familial relationship exists between _____,
(Name of employee of bidder)

an owner employee of the Bidder who is the _____
(Relationship)

of _____, who is a member of the Board,
(Name of GRPS relative)

the Superintendent.

Deponent _____
(Signature of deponent)

Subscribed and sworn to before me this _____ day of _____, 20 _____

Acting in: _____

My commission expires: _____

IRAN BUSINESS RELATIONSHIP AFFIDAVIT

Effective April 1, 2013 all bids, proposals, and/or qualification statements received in the State of Michigan must comply with the "Iran Economic Sanctions Act". The following certification is to be signed and included at time of submittal.

Certification

Pursuant to the Michigan Iran Economic Sanctions Act, 2012 P.A. 517, by submitting a bid, proposal or response, Respondent certifies, under civil penalty for false certification, that it is fully eligible to do so under law and that it is not an "Iran linked business" as the term is defined in the Act.

Signature

Title

Company

Date

DEBARMENT AND SUSPENSION CERTIFICATION

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- Does not have a proposed debarment pending; and,
- Is not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space:

Exceptions will not necessarily result in denial or award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: *Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Bid. Signing this document on the signature portion thereof shall also constitute signature of this Certification.*

Signature

Title

Company

Date

PRE-BID INQUIRY

PROJECT: _____

COMPANY: _____

NAME: _____

PHONE: _____

E-MAIL: _____

DATE: _____

QUESTION:

(Type or print in box, or attach additional typed pages with this cover page.)

EMAIL TO: Marc Bennett
E-Mail: bennettm@grps.org

ATTACHMENT A

SECTION 01000, GENERAL REQUIREMENTS

SECTION 01000

GENERAL REQUIREMENTS

PART 1 – GENERAL

1.1 FIELD CONDITIONS AND DIMENSIONS

- A. Prior to doing any work, verify all dimensions, details, quantities, and conditions which may affect the work. No allowance for additional compensation will be considered for discrepancies between dimensions indicated on the drawings and actual field dimensions.

1.2 SUBSTITUTIONS AFTER CONTRACT AWARD

- A. The Owner will consider substitution requests only if the proposed substitute offers the Owner cost or schedule advantages. A request for a substitution shall include a proposal for adjustments to the contract price and/or time if the substitution is approved. The Constructor shall bear the burden of providing the Design Professional any technical, cost or schedule data needed to evaluate the proposed substitution.
- B. The Design Professional shall review the substitution proposal for quality and function, only. The Constructor shall be responsible for any unforeseen costs associated with using an approved substitution.

1.3 CONTRACT DOCUMENTS

- A. The Contract Documents, alone, detail the requirements of the project. Information obtained from an officer, agent, consultant or employee of the Owner or any other person shall not affect the risks or obligations assumed or relieve the Constructor from fulfilling any part of the contract.

1.4 ASBESTOS

- A. All material to be used in the work shall be certified by the manufacturer to be free of any amount of asbestos. No material will be permitted on the site without such certification.
- B. The Constructor should review the Owner's material management plan for their information regarding asbestos. The Constructor must provide an affidavit stating that no asbestos was used in the project. Any asbestos containing material installed under this Contract by the Constructor shall be removed and replaced with like asbestos-free materials, all at the cost of the Constructor.

1.5 LEAD PAINT

- A. Lead Paint: This renovation project may involve activities that disturb lead-based paint. It is the responsibility of the Constructor to determine if the building to be renovated is a Child-Occupied Facility as defined under the EPA regulation Renovation, Repair, and Painting Final Rule (RRP Rule). All covered renovations to a Child-Occupied Facility must be performed by Certified Firms, using Certified Renovators and other trained workers.

1.6 PROGRESS MEETINGS

- A. The Owner may schedule progress meetings to be held on the jobsite whenever needed to supply information necessary to complete the work without interruptions.
- B. The Constructor shall be represented at each progress meeting by persons with full authority to act for the Constructor in regard to all portions of the work.

1.7 WORKMANSHIP

- A. Except when the Contract Documents note otherwise, the Constructor shall be fully responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work under the Contract with the Owner.
- B. The Constructor shall provide an authorized representative at the site – at all times during working hours – to receive and execute orders by the Owner. All such orders given to the Constructor’s representative shall be deemed as given to and received by the Constructor.
- C. The Constructor shall maintain a copy of the Contract Documents at the project site at all times.

1.8 CODE AND REGULATION COMPLIANCE

- A. Comply with all applicable federal, state, and local codes and regulations relating to buildings, employment, the preservation of public health and safety, use of streets, and the performance of the work under this Contract. It shall be the responsibility of the Constructor to fully understand all such requirements and to ensure that the subject requirements are fully and faithfully enforced.
- B. Any work performed that the Constructor knew or should have known was contrary to existing laws, rules and regulations, and for which the Constructor failed to give notice of such fact to the Owner, shall be the responsibility of the Constructor to correct. The Constructor shall bear all costs arising therefrom and hold the Owner harmless for any such violation.
- C. Upon completion of the Work, the Constructor shall submit to the Owner a certificate of inspection by the governmental authority having jurisdiction, showing that all work subject to inspection has been properly inspected and approved to meet current code requirements.
- D. Covid-19 Safety Update. In light of the Coronavirus Disease 2019 (COVID-19), GRPS is requiring special health and safety measures for everyone. All contractors must meet Federal, State, CDC and OSHA guidelines as it relates to Covid-19. Specifically, a safety plan that is in Compliance with OSHA 3990-3 2020 must be in place prior to work in any GRPS facilities.

1.9 PROJECT SAFETY

SAFETY IS OF ABSOLUTE IMPORTANCE. The Constructor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs associated with the Work. Under no circumstances shall the Constructor’s activities jeopardize the safety of a building’s occupants, construction workers or the general public.

- A. All Work must be executed in accordance with applicable standards of the Construction Safety and Health Division of the State of Michigan Department of Licensing and Regulatory Affairs.

- B. The requirements indicated in this section are to be considered the minimum. Where the requirements of any of the listed authorities having jurisdiction conflict with the requirements of this section, the maximum condition shall prevail.
- C. The Constructor shall furnish, install and maintain as long as necessary and remove when no longer required, adequate barriers, warning signs and lights or other necessary or prudent safety measures at all dangerous locations during work operations for the protection of Constructor personnel, building occupants, and the general public. Provide and erect all such safety precautions in accordance with federal, state and local codes and other legal requirements.
- D. Whenever lifting materials or equipment over or near existing or occupied buildings, provide advance notice of such activities and arrange to have any potentially endangered spaces vacated.
- E. During work operations, provide temporary partitions, barriers, curtains, and guards as necessary to confine materials, dust and debris to the immediate work areas. Do not allow dust or debris to enter the building interior. Coordinate the location of temporary barriers or partitions with the Owner.
- F. Remove all temporary protection when work is completed and restore disturbed areas to their original condition.
- G. The Constructor shall hold the Owner harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the work under the Contract.

1.10 PROTECTION OF PROPERTY

- A. During Constructor's performance of the Work, Owner will continue to occupy the existing building. The Constructor shall provide labor and materials to construct, maintain and remove necessary temporary enclosures as necessary to comply with State of Michigan Fire Code and prevent dust or debris in the construction area(s) from entering the remainder of the building. If the Owner must provide custodial services because of the Constructor's failure to provide and maintain effective temporary enclosure(s), a fee of \$20.00 per custodian, per hour, plus expenses will be deducted from monies due the Constructor. Interruption of Owner's access to the building will not be permitted without prior approval by the Owner. Interruption or blocking-off required means of access to or from the building will not be permitted
- B. During the school day, limit construction operations to those methods and procedures which will not adversely and unduly affect the environment of Owner's occupied space, including noise, dust, lighting hazards and other undesirable effects and conditions.
- C. Coordinate all Work with the Owner so that adequate interior protection, as necessary, is provided and disruption to normal building operations is minimized. Repair all property damage caused by lack of such protection to the satisfaction of the Owner.
- D. Confine equipment, storage of materials, debris, and the operation and movements of workmen within the physical limits and time limits directed by the Owner. Such activities are to be governed by applicable local building codes and the traffic regulation and safety and fire regulation of local authorities.
- E. Document existing damage prior to the start of work to avoid responsibility for preexisting conditions. During work operations, provide protection for existing building, finishes, walks, drives, and landscaping in and adjacent to the work areas. Repair or replace building components or site property damaged during the work to

match its condition before the damage. If the Constructor fails to repair or replace such damage, the Owner will have the work done by others and the costs of such work will be charged to the Constructor.

- F. Do not store materials, tools, or equipment on any existing roof area adjacent to the work site unless proper protection of the existing roof is provided and the materials are spread out and located at column locations.
- G. The Constructor shall hold the Owner harmless against all claims of damage or alleged damage to any such structure arising out of the work under this Contract.

1.11 FIRE SAFETY

- A. No open fire is permitted on the building site at any time (except for torches to apply modified roof membrane).
- B. Take all precautions to eliminate possible fire hazards at the site, including but not limited to the following:
 - 1. Remove all combustible debris from the roof and storage areas on a daily basis.
 - 2. Store highly flammable materials in well-ventilated areas; mixing and preparation of such materials is also restricted to such areas. Handle all such materials in accordance with safe practices and the requirements of authorities having jurisdiction.
 - 3. The Constructor shall not store large quantities of flammable materials at the site.

1.12 VANDALISM

- A. The cost for any damage by vandalism to material or equipment or that which occurs to items finished or installed under this contract, is to be borne by the Constructor. The Constructor is responsible for such vandalism from the date of the Notice to Proceed until Final Completion.

1.13 TEMPORARY UTILITIES AND FACILITIES

- A. Water and electricity may be available in the area where work will be performed. If so, the Constructor will not be charged for reasonable use of these services for construction operations. The Constructor shall pay costs for installation and removal of any temporary connections including necessary safety devices and controls.

1.14 MISCELLANEOUS FACILITIES AND CONTROLS

- A. New materials delivered to and stored outdoors on the jobsite shall be fully protected from weather by placement on raised platforms and shall have secure waterproof plastic coverings or tarpaulins. The waterproof plastic coverings or tarpaulins shall not extend all the way to the ground surface. They shall terminate a few inches above the ground surface. Factory-provided plastic wrap is not an acceptable waterproof covering.
- B. Contractors and their employees or suppliers will not use or interfere with existing public access, drives, roads or parking lots, except as specifically indicated by prior arrangement with the Owner.
- C. Constructor's employee parking, delivery trucks and other construction vehicle parking will only be allowed in areas designated by the Owner.
- D. The Constructor shall provide and regularly maintain portable sanitary facilities at the site. The contractors' employees shall not utilize the restrooms in the school buildings.

1.15 NO SMOKING POLICY

- A. The use of tobacco products on school property is a misdemeanor under MCL750.473. No tobacco products will be allowed anywhere on school property at any time.

1.16 REMOVAL OF DEBRIS

- A. Remove all rubbish and debris from the site daily or more often if directed by the Owner. The premises shall be maintained as clean as practical, consistent with the neatness required for the Owner's normal operations.
- B. No storage of removed items or debris will be permitted on the site unless so directed by the Owner.
- C. The location of the trash containers is subject to the Owner's approval.
- D. During non-construction hours, cover and seal trash containers to prevent wind-blown debris and access into trash containers.

1.17 SECURITY

- A. Constructor shall observe the following procedures when working in a school building, unless otherwise instructed: 1. Proceed to the office, identify yourself, state reason for being in the building, and receive visitor's pass. 2. Complete work, then revisit office to check out prior to leaving the building/premises.

1.18 ENVIRONMENTAL SAFETY/RESPONSIBILITY

- A. It shall be the responsibility of the Constructor to pay any and all costs incurred from the clean-up related to any environmental hazard created by means of release, spill, leak or any other means of contamination caused by accident or neglect of the Constructor or sub-Constructor. It shall be the responsibility of the Constructor to dispose of any product(s) and/or material following EPA, DNR, and local applicable laws and regulations. It shall be the responsibility of the Constructor, if required, to purchase the proper permits and notify the proper authorities prior to commencing said project or, should a "release" take place, to notify proper authorities of any such release. It shall be the responsibility of the Constructor to maintain, on site, a blood-borne pathogen plan and all necessary safety supplies associated with any spill or clean up that may occur.

1.19 INSULATION AND PROTECTION FROM MOISTURE

- A. Insulation shall be applied on clean, dry surfaces and only after tests and approvals required by the specifications have been completed. All pipe insulation on piping operating below ambient temperature shall be continuous through wall and ceiling openings and sleeves. Insulation on all cold surfaces must be applied with a continuous, unbroken vapor seal. Hangers, supports, anchors, etc. that are secured directly to cold surfaces shall be adequately insulated and vapor sealed to prevent condensation. Specified adhesives, mastics, and coatings shall be applied at the manufacturer's recommended minimum coverage per gallon. Edges of vapor barrier insulation at valve stems, instrument wells, unions, and other raw edges shall be sealed adequately to prevent moisture from penetrating the insulation.

END OF SECTION

ATTACHMENT B

**WORK DESCRIPTION
DRAWINGS, SKETCHES, SPECIFICATIONS**

Commodore controls replacement

Scope of work:

The replacement of the Johnson Control system (Commodore) entails providing and installing all parts required to provide a system that functions as specified (so that they can be controlled from a new DDC control system). Pneumatic control of classrooms, dampers, and other pneumatics will remain as local control, with the exception of heat exchangers and HW mixing valves. Sigsbee/SEAC has additional equipment listed that is not currently controlled by the JCI system and is to be added to the new DDC system.

Also include:

- 1) Trend (Data) logs for all input points and critical control points.
- 2) Scheduling including global scheduling.
- 3) Alarming of critical and non-critical point, critical points to be reported via text and email.
- 4) Graphics of all sites with a District map (GRPS to provide floor plans when needed).

Each bidder is responsible for ensuring that their bid includes the programming costs required for each school, and for the system in general.

Each system must be expandable. Each bidder must indicate how their system can be expanded at each individual school, and must indicate if their system has a maximum expandability at each individual school. These are to be noted on the bid form.

Acceptable Control Systems:

1. Allerton
2. Talon
3. Ensemble
4. Distech

NOTE: Must be 100% Native BACnet and conform to BTL testing and protocol.

Attached is the points list and sequence of operations, as it is currently controlled, for each school in the project.

BECKWITH 2405 Leonard NE 49505:

POINTS

BO	BI	AI
BOILER S/S	Boiler status	Outside Air Temperature
AHU-1 Gym Fan S/S	Boiler Alarm	AHU-1 Gym S/Temp
Radiation D/N S/S	AHU-1 Fan Status	Cafeteria S/Temp
Classroom UV S/S	Air Compressor Alarm	Room 104 S/Temp
Café UV S/S	Fire Panel Alarm	Room 128 S/Temp
Steam Valve O/C		Room 130 S/Temp
AC 108 S/S		Room 131 S/Temp
AC 130 S/S		Room 129 S/Temp
AC 126 S/S		Room 126 S/Temp
AC 131 S/S		
AC 129 S/S		
AC 115 S/S		
AC 115N S/S		

Sequence of Operations:

All outside air temperature enable set-points shall be adjustable from the BMS graphical user interface (GUI).

All points shall be data logged at intervals of 15 minutes and viewable from GUI.

Graphical User Interface shall have summary page for all like equipment.

Steam Boiler and Header Valve Control:

The steam boiler shall be enabled via BMS (Building Management System) and control to make steam pressure on boilers local operator.

The steam boiler shall be enabled via BMS whenever the outside air temperature falls below 65 degrees F (adj) and steam boiler schedule is in occupied mode or whenever the outside air temperature falls below 32 degrees F (adj).

Boiler Alarm from local boiler controller shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted.

The Steam Header Valve shall be commanded open via BMS whenever the outside air temperature falls below 60 Degrees F (adj) and any UV, radiation or AHU-1 fan schedule is in occupied mode. Additionally Steam Header Valve shall open whenever the outside air temperature is below 15 degrees F (adj).

Radiation D/N Control:

Radiation day night control shall be enabled based on schedule whenever the outside air temperature falls below 60 degrees F (adj) from BMS GUI).

The radiation D/N shall be enabled whenever Room 7 or cafeteria space temperatures drop below 55 degrees F (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

Classroom UV Control:

Unit vent control shall be enabled based on schedule whenever the outside air temperature falls below 60 degrees F (adj from BMS GUI).

The Classroom unit vents shall be enabled whenever any unit vent space temperature falls below an unoccupied set-point of 55 degrees F (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

Cafeteria UV Control:

Cafeteria Unit vent control shall be enabled based on schedule whenever the outside air temperature falls below 60 degrees F (adj from BMS GUI).

The cafeteria unit vents shall be enabled whenever space temperature drops below an unoccupied set-point of 55 degrees F (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

Window AC Enable/Disable:

Window A/C units shall be enabled based on schedule whenever the outside air temperature is above 70 degrees (adj) and space temperature is above space temperature set-point (adj).

AHU-1 Gym Unit Control:

AHU-1 shall be enabled based on schedule and operate based on existing local thermostats.

AHU-1 fan status shall be monitored. An alarm condition shall be generated whenever there is a command/status mismatch.

AHU-1 shall be enabled whenever its associated monitored zone temperature drops below an unoccupied night setback temperature of 55 degrees f (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

Air Compressor Alarm:

An air compressor alarm point shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted

Fire Panel Alarm:

A fire panel alarm point shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted

Local Overrides:

All Binary Output Points shall have a hardware means of local override at the Panel Location. A two way switch is to be provided for each point on the new system. The switches shall be labeled 'Manual' to indicate local override is occurring, and 'Auto' to indicate that the point is be operated by the Control System. The switches are also to be labeled to indicate the point they are controlling.

Programming must be provided in the new control system to indicate whether points are in 'Manual' mode or 'Auto' mode. A mockup/submittal of the local override system must be provided to GRPS for approval before installation.

Mulick Park Elementary School 1761 Rosewood SE:

POINTS

BO	BI	AI
AHU-1 GYM Fan S/S	AHU-1 Gym Fan Status	Outside Air Temperature
Boiler Auto/Stop	Boiler Status	AHU-1 Gym Space Temperature
Building Day Night	Boiler Alarm	Room 1 Art and Music Space
Gym Day Night	Air Compressor Alarm	Room 101 Space Temperature
Portable 1 S/S	Fire Panel Alarm	EAST PORTABLE Space Temperature
Portable 2 S/S	Tunnel Water Level Alarm	Center portable Space Temperature
Portable 3 S/S		West Portable Space Temperature

Sequence of Operations:

All outside air temperature enable set-points shall be adjustable from the BMS graphical user interface (GUI). All points shall be data logged at intervals of 15 minutes and viewable from GUI.

Graphical User Interface shall have summary page for all like equipment.

Steam Boiler Control:

The steam boiler shall be enabled via BMS (Building Management System) and control to make steam pressure on boilers local operator.

The steam boiler shall be enabled via BMS whenever the outside air temperature falls below 65 degrees F (adj) and steam boiler schedule is in occupied mode or whenever the outside air temperature falls below 32 degrees F (adj).

Boiler Alarm from local boiler controller shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted.

Building Day Night Control:

The Building Day Night Control shall be commanded to day mode based on schedule.

The Building Day Night Control shall be commanded on when any room 101 or 1 art room drops below unoccupied space temperature of 55 degrees f (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

AHU-1 Gym Fan Control and Gym Day Night Control:

The Gym Air Handler shall be enabled via BMS (Building Management System) and control to maintain space temperature based on local thermostat control.

The Supply Fan status shall be monitored via BMS to and shall alarm when there is a status / start stop mismatch.

The Gym Day Night Control shall be commanded on based on schedule whenever outside air temperature is below 65 degrees F (adj) or when gym space temperature falls below unoccupied space temperature of 55 degrees f (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

Portable Heating Cooling Enable / Disable Control:

Each Portable shall be enabled based on its own individual schedule and controlled by existing local thermostat.

Portable Heating Cooling enable/disable shall be commanded on whenever outside air temperature drops below 10 degrees f (adj).

Portable Heating Cooling enable/disable shall be commanded on whenever its associated temperature drops below an unoccupied set-point of 55 degrees F (adj) until space temperature is above 60 degrees F (adj)

Tunnel Water Level Monitoring and Alarm:

A tunnel water level point shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted.

Fire Panel Alarm:

A fire panel alarm point shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted.

Air Compressor Alarm:

An air compressor alarm point shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted.

Local Overrides:

All Binary Output Points shall have a hardware means of local override at the Panel Location. A two way switch is to be provided for each point on the new system. The switches shall be labeled 'Manual' to indicate local override is occurring, and 'Auto' to indicate that the point is be operated by the Control System. The switches are also to be labeled to indicate the point they are controlling.

Programming must be provided in the new control system to indicate whether points are in 'Manual' mode or 'Auto' mode. A mockup/submittal of the local override system must be provided to GRPS for approval before installation.

SIGSBEE / SEAC Elementary School 1250 Sigbee SE 49506:

POINTS

BO	BI	AI
Boiler Auto/Stop	Boiler Status	Outside Air Temperature
Hot Water Pumps 3&4 S/S	Boiler Alarm	HVAC-4 Room 124 Space Temperature
Radiation Pump 8 S/S	Fire Panel Alarm	HVAC-2 Room 134 Space Temperature
Radiation Pump 9 S/S	HVAC-1 Fan Status	HVAC-1 Room 128 Space Temperature
Summer / Winter Switchover	HVAC-2 Fan Status	HVAC-3 Room 139 Space Temperature
Building Day Night	HVAC-3 Fan Status	HVAC-5 Room 119 Space Temperature
Low Fire Hold	HVAC-4 Fan Status	HVAC-6 Room 104 Space Temperature
Chiller S/S	HVAC-5 Fan Status	HVAC-7 Room 103 Space Temperature
HVAC-1 Fan S/S	HVAC-6 Fan Status	Hot Water Supply Temperature
HVAC-1 Damper A/C	HVAC-7 Fan Status	Chilled Water Supply Temperature
HVAC-2 Fan S/S	Chiller Pumps 1&2 status	
HVAC-2 Damper A/C	Hot Water Pumps 3&4 status	
HVAC-3 Fan S/S	Radiation Pump 8 Status	
HVAC-3 Damper A/C	Radiation Pump 9 Status	
HVAC-4 Fan S/S	Air Compressor Alarm	
HVAC-4 Damper A/C	Phase Loss Alarm	
HVAC-5 Fan S/S		
HVAC-5 Damper A/C		
HVAC-6 Fan S/S		
HVAC-6 Damper A/C		
HVAC-7 Fan S/S		
HVAC-7 Damper A/C		
<i>HVAC-1 CHW PUMP SS*</i>	<i>HVAC-1 CHW PUMP STATUS*</i>	
<i>HVAC-1 HW PUMP SS*</i>	<i>HVAC-1 HW PUMP STATUS*</i>	
<i>HVAC-2 CHW PUMP SS*</i>	<i>HVAC-2 CHW PUMP STATUS*</i>	
<i>HVAC-2 HW PUMP SS*</i>	<i>HVAC-2 HW PUMP STATUS*</i>	
<i>HVAC-3 CHW PUMP SS*</i>	<i>HVAC-3 CHW PUMP STATUS*</i>	
<i>HVAC-3 HW PUMP SS*</i>	<i>HVAC-3 HW PUMP STATUS*</i>	
<i>HVAC-4 CHW PUMP SS*</i>	<i>HVAC-4 CHW PUMP STATUS*</i>	
<i>HVAC-4 HW PUMP SS*</i>	<i>HVAC-4 HW PUMP STATUS*</i>	
<i>HVAC-5 CHW PUMP SS*</i>	<i>HVAC-5 CHW PUMP STATUS*</i>	
<i>HVAC-5 HW PUMP SS*</i>	<i>HVAC-5 HW PUMP STATUS*</i>	
<i>HVAC-6 CHW PUMP SS*</i>	<i>HVAC-6 CHW PUMP STATUS*</i>	
<i>HVAC-6 HW PUMP SS*</i>	<i>HVAC-6 HW PUMP STATUS*</i>	
<i>HVAC-7 CHW PUMP SS*</i>	<i>HVAC-7 CHW PUMP STATUS*</i>	
<i>HVAC-7 HW PUMP SS*</i>	<i>HVAC-7 HW PUMP STATUS*</i>	

*new points

Sequence of Operations:

All outside air temperature enable set-points shall be adjustable from the BMS graphical user interface (GUI). All points shall be data logged at intervals of 15 minutes and viewable from GUI.

Graphical User Interface shall have summary page for all like equipment.

Hot Water Boiler Control:

The hot water boiler shall be enabled via BMS (Building Management System) and control to make hot water based on OA reset schedule.

Boiler HWS temperature shall be reset based on Outside Air Temperature. 155 degrees F (adj) at 60 degrees F (adj) and 195 degrees F (adj) at 10 degrees f (adj)

The hot water boiler shall be locked in low fire hold until hot water supply temperature is greater than 140 degrees F for ten minutes.

The boiler shall be enabled via BMS whenever the outside air temperature falls below 65 degrees F (adj), boiler schedule is in occupied mode and building pneumatic system is in Winter Mode or whenever the outside air temperature falls below 32 degrees F (adj).

HW Pumps 3 and 4 shall be commanded on in unison whenever the boiler is enabled and shall run continuously when building pneumatic system is in Winter Mode and outside temperature is below 65 degrees F (adj) or whenever the outside air temperature falls below 32 degrees F (adj).

Radiation Pumps 8 and 9 shall be enabled whenever building pneumatic system is in Winter Mode and outside air temperature is below 40 degrees F (adj) and Radiation Pump schedule is in occupied mode or whenever the outside air temperature falls below 32 degrees F (adj).

All pumps shall have pump status monitored and alarm whenever there is a command/status mismatch at the BMS GUI. Boiler Alarm from local boiler controller shall be monitored and an alarm shall be displayed on BMS GUI, Emailed and texted.

Chilled Water Control:

The Chiller shall be enabled via BMS (Building Management System) and control to make chilled water based on local chiller control. All pumps shall have pump status monitored and alarm whenever there is a command/status mismatch at the BMS GUI.

The Chiller and Chilled Water Pump shall be enabled based on an occupied schedule whenever the outside air temperature is above 65 degrees F (adj) and building pneumatic system is in Summer Mode.

Air Handler Unit Control (Typical of 7):

Air Handler control shall be enabled based on schedule and operate based on existing local thermostats.

An Air Handler fan status shall be monitored. An alarm condition shall be generated whenever there is a command/status mismatch.

The Air Handler shall be enabled whenever its associated monitored zone temperature drops below an unoccupied night setback temperature of 55 degrees f (adj) until space temperature is above 60 degrees F (adj) if heating plant is enabled and operational.

Damper Auto/Close pneumatic switching shall be enabled whenever the outside air conditions are below 65 degrees f (adj) and above 32 degrees f (adj) and building pneumatic system is in Winter Mode

ALTERNATE: Command and status for each chilled water and hot water booster pump. HW pumps to enable during occupied mode when pneumatic system is in winter mode or when outside air temperature is below 32 degrees F (adj). Chilled water booster pumps to operate during occupied mode when pneumatic system is in summer mode.

Pneumatic Control:

Pneumatic air system shall be switched between day and night modes based on an adjustable schedule.

Pneumatic air system shall be switched between summer and winter mode whenever the outside air temperature is above 65 degrees F (adj) and based on an adjustable schedule.

Fire Panel Alarm:

A fire panel alarm point shall be monitored and an alarm shall be displayed on BMS GUI, emailed and texted.

Air Compressor Alarm:

An air compressor alarm point shall be monitored and an alarm shall be displayed on BMS GUI, emailed and texted.

Phase Loss Alarm:

An electrical phase loss point shall be monitored and an alarm shall be displayed on BMS GUI, emailed and texted.

Local Overrides:

All Binary Output Points shall have a hardware means of local override at the Panel Location. A two way switch is to be provided for each point on the new system. The switches shall be labeled 'Manual' to indicate local override is occurring, and 'Auto' to indicate that the point is be operated by the Control System. The switches are also to be labeled to indicate the point they are controlling.

Programming must be provided in the new control system to indicate whether points are in 'Manual' mode or 'Auto' mode. A mockup/submittal of the local override system must be provided to GRPS for approval before installation.

Wellerwood Elementary School 800 Wellerwood NE 49505:

POINTS

BO	BI	AI
Furnace/AC Room 104 S/S	Furnace/AC Fan Status	Outside Air Temperature
Furnace/AC Room 110/108 S/S	Furnace/AC Fan Status	Room 104 Space Temperature
Furnace/AC Room 112/113 S/S	Furnace/AC Fan Status	Room 110 Space Temperature
Furnace/AC Room 117/119 S/S	Furnace/AC Fan Status	Room 112 Space Temperature
Furnace/AC Room 114/116 S/S	Furnace/AC Fan Status	Room 119 Space Temperature
Furnace/AC Room 109/111 S/S	Furnace/AC Fan Status	Room 116 Space Temperature
Furnace/AC Room 101/107 S/S	Furnace/AC Fan Status	Room 111 Space Temperature
	Fire Panel Alarm	Room 107 Space Temperature

Sequence of Operations:

All outside air temperature enable set-points shall be adjustable from the BMS graphical user interface (GUI).

All points shall be data logged at intervals of 15 minutes and viewable from GUI. Graphical User Interface shall have summary page for all like equipment.

Furnace/AC Control:

Furnace/AC shall be enabled based on schedule.

The furnace/AC shall be enabled whenever any unit vent drops below an unoccupied set-point of 55 degrees F (adj) until space temperature is above 60 degrees F (adj).

Fire Panel Alarm:

A fire panel alarm point shall be monitored and an alarm shall be displayed on BMS GUI, emailed and texted.

Local Overrides:

All Binary Output Points shall have a hardware means of local override at the Panel Location. A two way switch is to be provided for each point on the new system. The switches shall be labeled 'Manual' to indicate local override is occurring, and 'Auto' to indicate that the point is be operated by the Control System. The switches are also to be labeled to indicate the point they are controlling.

Programming must be provided in the new control system to indicate whether points are in 'Manual' mode or 'Auto' mode.

A mockup/submittal of the local override system must be provided to GRPS for approval before installation.

Westwood Middle 1525 Mount Mercy Drive NW 49504:

POINTS

Panel #1 (located above gym)

BO	BI	AI
H&V-1 North Gym Fan S/S	H&V-1 Fan Status	H&V-1 Gym Room 100 S/Temp
H&V-1 Damper Auto/Close	H&V-2 Fan Status	H&V-3 Boys Locker Room S/Temp
H&V-2 South Gym Fan S/S	H&V-3 Fan Status	H&V-4 Music Room S/Temp
H&V-2 Damper Auto/Close	H&V-4 Fan Status	H&V-5 Art Room 113 S/Temp
H&V-3 Locker Room Fan S/S	H&V-5 Fan Status	RTU-1 Room 103 S/Temp
H&V-4 Music Room Fan S/S		RTU-2 Room 104 S/Temp
H&V-4 Damper Auto/Close		
H&V-5 Art Room 113 Fan S/S		
H&V-5 Damper Auto/Close		
RTU-1 C Lab Room 103 S/S		
RTU-1 HTG/CLG Switch (On=Htg)		
RTU-2 Room 104 S/S		
RTU-2 HTG/CLG Switch (On-Htg)		
EF-12 Locker Rooms S/S		

Sequence of Operations:

All outside air temperature enable set-points shall be adjustable from the BMS graphical user interface (GUI). All points shall be data logged at intervals of 15 minutes and viewable from GUI.

Graphical User Interface shall have summary page for all like equipment.

HV Unit Control (Typical of 5):

Air Handler control shall be enabled based on schedule and operate based on existing local thermostats. The Fan shall be turned off if associated s/temp is above 70 (adj) or OA temp is above 55 (adj)

An Air Handler fan status shall be monitored. An alarm condition shall be generated whenever there is a command/status mismatch.

The Air Handler shall be enabled whenever its associated monitored zone temperature drops below an unoccupied night setback temperature of 55 degrees f (adj).

Damper Auto/Close pneumatic switching shall be enabled whenever the outside air conditions are below 65 degrees f (adj) and above 32 degrees f (adj).

RTU's: (Typical of 2):

RTU control shall be enabled based on schedule and operate based on existing local stats. The units shall switch from Heating to Cooling when associated temp is above 73 (adj)

Local Overrides:

All Binary Output Points shall have a hardware means of local override at the Panel Location. A two way switch is to be provided for each point on the new system. The switches shall be labeled 'Manual' to indicate local override is occurring, and 'Auto' to indicate that the point is be operated by the Control System. The switches are also to be labeled to indicate the point they are controlling.

Programming must be provided in the new control system to indicate whether points are in 'Manual' mode or 'Auto' mode. A mockup/submittal of the local override system must be provided to GRPS for approval before installation.