



# Hudsonville Public Schools

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**DIVISION 00 – BIDDING & CONTRACT REQUIREMENTS**

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**DIVISION 27 – TECHNOLOGY SYSTEMS**

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END OF SECTION

SECTION 00 11 16  
INVITATION TO BID

PART 1 - GENERAL

1.01 WORK INCLUDED: SERVER, STORAGE AND DATA CENTER UPGRADES

A. Hudsonville Public Schools (Owner) is seeking bids for Hyperconverged Servers, Storage and Data Center associated equipment including basic installation services and training. Proposed systems shall be configured and installed to service Owner's applications across multiple instructional and administrative facilities, and as described herein.

B. Project: SERVER, STORAGE AND DATA CENTER UPGRADES

C. Owner: Hudsonville Public Schools  
3886 Van Buren Street  
Hudsonville, Michigan 49426

D. Designer: Communications by Design, Inc.

E. Sites of Work:

1. Hudsonville Freshman Campus  
3370 Allen Street  
Hudsonville, Michigan 49426
2. Hudsonville IT Offices  
5535 School Avenue  
Hudsonville, Michigan 49426

1.02 GENERAL DESCRIPTION OF PROJECT SEQUENCE

A. Sequences and dates specified herein are for information only and indicate the plan and intent of the Owner. Actual dates shall be established based on final award of project.

B. Sequence of operations shall be established by the Contractor within the guidelines established by the Owner as required to meet schedules.

C. Schedule:

1. Request for Bid Distributed: May 26, 2020
2. Pre-Bid Meeting: June 01, 2020 at 11:00am
3. Intent to Bids Due: June 03, 2020 by 5:00pm

4. Question and Clarification Deadline: June 03, 2020 by 5:00pm
5. Public Bids Due: June 12, 2020 at 11:00am

### 1.03 TYPES OF BIDS

- A. Bids shall be submitted in total and with required detail for each item bid and as is required herein, and include all portions of the work identified for the individual bid package as specified herein. Bids shall be made on unaltered bid forms as included herein. Bidder shall fill in all blank spaces and the bid shall be signed by a legal officer or agent authorized to bind the bidder to a contract.

### 1.04 PRE-BID CONFERENCE

- A. A pre-bid conference will be held. A discussion of the project and review of bid documents will be followed by a site review and an opportunity to ask questions. Attendance is highly encouraged for all contractors interested in bidding on any components or portions of this project. Attendance at the pre-bid conference will be a factor considered during evaluation of bids.

B. Time: 11:00am on June 01, 2020

C. Virtual Meeting:

1. Web Participation: <https://meet.google.com/prd-ojhq-aza>

2. Phone Participation:

- a. Dial: 617-675-4444

- a. PIN: 885 449 338 1154#

D. Physical building inspections of sites of work will not be provided for.

### 1.05 TIME AND PLACE OF BID RECEPTION

- A. Physically sealed bids for the base bid work will be received at the district office and read aloud at a public opening. Bids arriving after the appointed time as determined by the Owner's representative conducting the public opening, shall be returned unopened. Bids will be accepted beginning forty-eight (48) hours prior to the appointed opening time provided they are in sealed packages and addressed as specified herein.

B. Bid Receipt Deadline: 11:00am on June 12, 2020

C. Bid Opening Location: Hudsonville Public Schools  
3886 Van Buren Street

Hudsonville, Michigan 49426

D. Faxed or electronically delivered bids will not be accepted.

1.06 EXAMINATION AND PROCUREMENT OF DOCUMENTS

A. Specifications and any relevant Drawings may be obtained from the Technology Designer. Contractors may obtain copies by documented request to Communications by Design, Attn: Rebecca Szilagy. Requests may be made by:

1. Writing – 4101 Sparks Drive Grand Rapids, Michigan 49546
2. Email – [rszilagy@cbdconsulting.com](mailto:rszilagy@cbdconsulting.com)

1.07 BID SECURITY

- A. Bid security equal to five percent (5%) of the total bid amount, must accompany each base bid in accordance with the Instruction to Bidders.
- B. Bid security shall be either a Bid Bond issued by a company licensed in the State of Michigan to furnish bid security or Certified Check made payable to the Owner.

1.08 PERFORMANCE BOND COVERAGE

A. Selected Contractor(s) will be required to provide a performance bond and payment bond in an amount equal to one hundred percent (100%) of the bid amount including any accepted alternates at the Owner's discretion. Such bonds shall be issued by surety licensed by the State of Michigan and acceptable to the Owner.

1.09 OWNER'S RIGHT TO REJECT BIDS

- A. The Owner reserves the right to reject any and/or all bids. The Owner reserves the right to accept a bid, or portion thereof by issuance of a valid purchase order within ninety (90) calendar days following the bid opening. No bids may be withdrawn during this time without the specific approval of the Owner.
- B. Withdrawal of any Bids after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

1.10 DEFINITIONS

A. "Owner" is intended to mean Hudsonville Public Schools, a general powers school district.

- B. For purposes of this project, the terms “Architect”, “Engineer” and “Designer” are used synonymously to refer to Communications by Design, Inc., a Michigan Corporation.
- C. The term “Bidder” refers to any organization properly and accurately submitting a complete “Intent to Bid Form” prior to the required time specified herein and subsequently properly submitting completed set of bid documents as specified herein.
- D. The term “Contractor” herein is a reference to the firm(s) eventually selected by the Owner to provide the intended system(s), or any portion thereof, and fulfill the terms of the contract.
- E. The term Contract is a reference to the collective set of documents, drawings, diagrams, Owner’s Purchase Order, Addenda and all other materials as provided for herein defining arrangement between Owner and Contractor.
- F. The term Addenda (or Addendum) are that portion of the Contract consisting of modifications, amendments, deletions or substitutions to the contract documents issued prior to the execution of the Contract.

END OF SECTION

SECTION 00 40 00  
BID FORMS



## Intent to Bid Form

Complete and submit the following form if you have interest or intend to submit a Bid for this project. Unaltered and completed forms must be received on or before 5:00 PM on June 03, 2020. Only bidders returning a completed "Intent to Bid Form" will be notified of required addenda.

### Company Information

Name:

---

Address Line1:

---

Address Line2:

---

City, State and Zip Code

---

### Primary Contact Information

Name:

---

Phone No.:

---

Fax. No.:

---

E-Mail Address:

---

Portions of the bid for which you will be responding:

Section 27 22 19 – Server, Storage & Data Center Equipment

Submit unaltered and completed form to:

Rebecca Szilagy

Communications by Design, Inc.

[rszilagy@cbdconsulting.com](mailto:rszilagy@cbdconsulting.com)

SEALED BID LABEL

*Separate, or fold over, the label on the line below, and affix to the exterior of sealed container so information is clearly visible for Bid Submission. Insure label is attached in a manner to prevent accidental removal or defacement. Label shall serve as sole identification for sealed bid at submission.*

---

BID TO: Hudsonville Public Schools  
Attention: Mr. Patrick Briggs  
3886 Van Buren Street  
Hudsonville, Michigan 49426

BID FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT: SERVER, STORAGE AND DATA CENTER UPGRADES  
TECHNOLOGY BID #2639

INCLUDING Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_  
ADDENDA: Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

DUE: 11:00am on June 12, 2020

BID FORM

BID TO: Hudsonville Public Schools  
Attention: Mr. Patrick Briggs  
3886 Van Buren Street  
Hudsonville, Michigan 49426

BID FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT: SERVER, STORAGE AND DATA CENTER UPGRADES  
TECHNOLOGY BID #2639

The undersigned, having familiarized themselves with all local conditions affecting the cost of work, and having examined the site and all applicable Bidding Documents herein, and herein referenced, including, but not limited to, all addenda issued thereto, hereby propose to furnish all labor, material, equipment, applicable taxes and services required for proper completion of each of the following categories of this project for the sum of:

Bid Category \_\_\_\_\_ Title \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_).

Said amount written above constituting the Base Bid

**TAXES:**

Bid sum includes all applicable taxes.

**ALLOWANCES:**

Base bid includes all applicable allowance cost(s) as set forth herein.

**COST OF BONDS:**

Bid sum includes cost of furnishing a Performance Bond and Labor and Material Payment Bond, each in the amount of one hundred percent (100%) of the bid.

**ACKNOWLEDGEMENT OF ADDENDA:**

The following addenda have been received, are hereby acknowledged, and their execution is included in both base bid and alternate bids herein.

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_ Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

**ALTERNATES:**

Based bid amount may be increased or decreased in accordance with each of the following alternate bids as may be selected, following procedures stated herein. Voluntary Alternates shown below are identified and described in detail on appropriate attachment(s) as referenced herein.

Mandatory Alternate 5 Year Warranty \_\_\_\_\_

Voluntary Alternate A \_\_\_\_\_

Voluntary Alternate B \_\_\_\_\_

Voluntary Alternate C \_\_\_\_\_

Voluntary Alternate D \_\_\_\_\_

Voluntary Alternate E \_\_\_\_\_

**PRINCIPAL SUBCONTRACTORS**

As required herein, the following Subcontractors are proposed to be used for this project:

Legal Name: \_\_\_\_\_ Work Proposed \_\_\_\_\_

Legal Name: \_\_\_\_\_ Work Proposed \_\_\_\_\_

Legal Name: \_\_\_\_\_ Work Proposed \_\_\_\_\_

**BID SECURITY:**

Accompanying this Bid, as required herein, is a bid security in the form of Certified Check/Cashier's Check/Bidder's Bond in the amount of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_),

payable to the Owner, which it is agreed, shall be retained as liquidated damages, not as a penalty, by the Owner, if the undersigned fails to execute the Contract in conformity with the form of Contract incorporated and referenced herein and fails to furnish specified bonds within ten (10) days after date of issuance of a Letter of Intent to the undersigned.

If awarded the Contract, the undersigned agrees to commence work within ten (10) calendar days after date of issuance of a Purchase Order, which shall be considered as the notice to proceed, and agrees to complete the work in accordance with the schedule herein.

**FAMILIAL DISCLOSURE:**

Accompanying this Bid, as required herein, is a legally executed and notarized Michigan Familial Disclosure Statement.

**EXCEPTIONS:**

Bidder takes no exception to terms, conditions, specifications and/or any other requirements herein unless expressly noted, and specifically identified as provided for herein on unaltered Contract Exception form accompanying this Bid.

**SIGNATORY AUTHORITY:**

The undersigned certifies they are an authorized agent of the bidding entity, and legally able to bind the bidding entity to the terms, conditions and responsibilities of this, and all referenced bid documents. Furthermore, the undersigned acknowledges an understanding that non-compliance of this authority or any other bidding requirements may result in forfeiture of bid security, dismissal of consideration of bid submitted, and/or personal liability against the signatory.

**AGREEMENT:**

The undersigned agree(s) to provide the post-bid information required within ten (10) days after notification of a Letter of Intent and to execute an agreement for work covered by this Bid on the Owner's standard Purchase Order for which terms and conditions are expanded to include all Bidding Documents and subsequent addenda issued thereto.

In submitting this bid, it is understood that the Owner reserves the right to reject any or all bids. It is further agreed that this bid is binding for a period of Ninety (90) days from the opening thereof.

Respectfully submitted,

Date: \_\_\_\_\_

Firm Name: \_\_\_\_\_

By: \_\_\_\_\_

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Official Address: \_\_\_\_\_

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Primary Contact Email Address: \_\_\_\_\_

*(If Corporation, affix Seal)*

**Michigan Familial Relationship Disclosure Statement**

In accordance with Section 1267 of Michigan Revised School Code this sworn and notarized statement of an authorized representative, discloses any familial relationship between the owner and/or any employee of the Bidder, and any member of the project Owner's governing Board(s) or Superintendent(s).

If any conflict of interest is discovered subsequent to submission of bid, written disclosure shall be submitted to the project Owner within seven (7) days of discovery. The project Owner reserves the right to immediately terminate any contract with Bidder upon notification of a conflict of interest. Upon such termination, the project Owner shall compensate Bidder only for the value of any goods or services provided to the Owner prior to such termination as determined by Designer.

*(Check only one Box Below)*

It is hereby acknowledged and certified by Bidder that no familial relationship exists between the owner or any employee of the Bidder and any member of the project Owner's governing Board(s) or Superintendent(s).

A familial relationship exists between the owner or an employee of the Bidder and a member of the project Owner's governing Board(s) or Superintendent(s). The person(s) and the relationship(s) are as follows:

***Bidder***

***Board or Superintendent***


**Bidder Authorized Representative:**

Bidder: \_\_\_\_\_

Representative's Signature: \_\_\_\_\_

Print or Type Name: \_\_\_\_\_

Representative's Title: \_\_\_\_\_

Subscribed and sworn this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

In the County of \_\_\_\_\_ State of \_\_\_\_\_

By \_\_\_\_\_  
Notary Public Signature

Seal or Stamp:

My commission expires on: \_\_\_\_\_

**REFERENCES**

Customer name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Contact name: \_\_\_\_\_  
Contact title: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Scope of project: \_\_\_\_\_  
\_\_\_\_\_

Date of completion: \_\_\_\_\_

Customer name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Contact name: \_\_\_\_\_  
Contact title: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Scope of project: \_\_\_\_\_  
\_\_\_\_\_

Date of completion: \_\_\_\_\_

Customer name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Contact name: \_\_\_\_\_  
Contact title: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Scope of project: \_\_\_\_\_  
\_\_\_\_\_

Date of completion: \_\_\_\_\_

**CONTRACT EXCEPTIONS**

*Check one Box*

Bidder takes no exception to, and agrees to comply with all sections, terms, conditions and/or requirements of the Contract Documents.

Bidder proposes the following exceptions to the Contract Documents:

<i>Paragraph Number</i>	<i>Explanation</i>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**NOTE:**  
Exception(s) to any bid sections, terms, conditions and/or requirements deemed excessive for any reason by the Owner and/or Designer may result in disqualification of Bid.



## SCHEDULE OF VALUES/BID FORM

*(Bidder may submit version of only this form with slight variation. All information in this form is required. Form submitted must materially match below both in content and format. Electronic version of this form is required with bid package as Microsoft Excel compatible spreadsheet on provided USB Drive for each project section being bid. Failure to provide appropriate and complete SCHEDULE OF VALUES, as determined by the Owner and/or Designer, may result in disqualification of Bid.)*

Bidder: \_\_\_\_\_

Bid Division: 272219

<i><b>ID</b></i>	<i><b>Qty</b></i>	<i><b>Part Number</b></i>	<i><b>Mfg and Description</b></i>	<i><b>Unit Cost</b></i>	<i><b>Unit Labor Cost</b></i>	<i><b>Total Proposed Cost</b></i>
			PROJECT MANAGEMENT			
			TRAINING			
			BONDS AND INSURANCE			
			<b>GRAND TOTAL</b> <small>(Must match base bid)</small>			

END OF SECTION

SECTION 00 21 13  
INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.01 OWNERSHIP

- A. Bidders prepare and provide bids without any cost to the Owner and/or Designer. Once opened, bids become the sole property of the Owner. Bidders have no claim to, or ownership of bids opened. Bids become subject to all legal statutes including, if applicable, United States and Michigan Freedom of Information Acts and related laws.

1.02 COMPLIANCE

- A. This document establishes the primary system(s) design configuration. The Bidder's bid response shall include all services, supplies, components and equipment required to provide a complete turnkey system(s) which meets or exceeds all specifications for each given bid item being proposed.
- B. Owner prefers to enter into a contract with a single bidder for all materials for completion of this project, but shall consider combinations of portions of bids from various bidders. The Owner reserves the right to award portions of the project to multiple bidders who will be required to cooperate with one another in order to complete the work.
- C. By their response, Bidders agree to comply with all sections, terms, conditions and/or requirements of the contract documents except as expressly noted, and specifically identified by paragraph number on the unaltered Contract Exceptions Bid Form. Exceptions to any bid sections, terms, conditions and/or requirements deemed excessive by the Owner and/or Bid Coordinator may disqualify Bid.
- D. In compliance with the Freedom of Information Act (FOIA), the Owner shall make bid documents available for public review after issuance of purchase order to the successful bidder/s.
- E. In connection with the execution of this Contract, Contractor and any Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin.
- F. Negligence in preparation, improper preparation, errors in, or omissions from Bids shall not relieve Bidder from fulfillment of any and all obligations and requirements of the Contract Documents.

- G. All Bid documents and worksheets must be completed in detail and submitted together on time.
- H. All documents constituting the entire present agreement shall be construed in accordance with and governed by the laws of the State of Michigan.
- I. Designer shall have authority for interpretation of Contract Documents. In the event terms, provisions or any other portion of the Contract Documents is/are in dispute, Designer shall have full and final authority to interpret the Contract Documents, and such interpretation shall be final and binding.
- J. In the event of a conflict between any terms or conditions in any of the documents comprising the entire present Agreement, the terms and conditions set forth in this document shall take precedence.

#### 1.03 NOTICE AND RESPONSE

- A. Upon notification of Bidder being considered as a finalist, the Bidder shall provide to the Owner and Designer, within 48 hours, a current “Dunn and Bradstreet Supplier Evaluation Report” and other documentation as may be required of finalists herein and as requested by Owner and/or Bid Coordinator.
- B. Bidder shall provide timely response to all requests from Designer and/or Owner regarding clarification and/or elaboration concerning, but not limited to its Bid as may be deemed relevant by the Owner and/or Designer.

#### 1.04 PROTECTION AND SAFETY

- A. Contractor shall continuously maintain adequate protection of all Work from damage and shall protect the Owner’s property from injury or loss arising in connection with the execution of the Contract. Contractor shall make good any such damage, injury or loss, except such as may be directly caused by agents or employees of the Owner. The Contractor shall adequately protect adjacent property as required by law, by the Contract Documents, or as otherwise required, to cause no damage to them during the execution of the Contract. This requirement shall also apply to structures above and below ground as conditions of the site require.
- B. Contractor shall be solely responsible for, and have control over means, methods, techniques, sequences and procedures for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the contract. Contractor shall take all necessary precautions for the safety of employees and visitors on the site of the Project and shall comply with applicable provisions of federal, state, and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and

progress of the Work, all necessary safeguards for the protection of workers and the community.

- C. Contractor shall vigorously defend any and all suits that may be brought against the Owner by any person and/or entity, whether in the employ of the Contractor or not, for damage to property, and/or injury or death to persons alleged or claimed to have been caused by or through the performance of work.

#### 1.05 DRAWINGS DIAGRAMS AND ILLUSTRATIONS

- A. Drawings, Diagrams and Illustrations are diagrammatic in nature and indicate general arrangement and nature of systems and work included.
- B. Floor plan drawings are provided to assist the contractor in preparing documentation and reports as required herein.

### PART 2 - MATERIALS

#### 2.01 VOLUNTARY ALTERNATES AND SUBSTITUTION OF SPECIFIED PRODUCTS

- A. This Request for Bid describes a particular implementation. All Bids must provide pricing on the “base bid” as described herein. Voluntary alternatives providing comparable functionality with significant cost reduction and/or performance enhancement may be proposed. Voluntary alternatives are encouraged, but must be identified as “Voluntary Alternates” and detailed on unaltered Bid Forms contained herein. Voluntary Alternates may be further detailed and/or explained in attachments to the unaltered Bid Forms contained herein. Exceptions to the Request for Bid specifications must be clearly noted and explained for each Voluntary Alternate proposed.
- B. No substitutions of specified products may be made without specific prior authorization by Designer and Owner. Individual bid divisions herein contain particular information related to acceptable manufacturer and product requirements.
- C. Trade-in, equipment/license exchanges or other return allowances may be provided as a voluntary alternate. Trade-in, exchange or other return equipment allowances shall not be included in base bid amount.

### PART 3 - EXECUTION

#### 3.01 EXAMINATION OF DOCUMENTS AND SITE

- A. Bidders shall carefully examine the Contract Documents and the construction site to obtain first-hand knowledge of existing conditions and requirements. No plea of ignorance of conditions that exist, or any other relevant matter

concerning work to be performed in the execution of work will be accepted as justification for failure to fulfill every detail of all requirements as described herein.

### 3.02 QUESTIONS, INTERPRETATIONS AND ADDENDA

- A. Any bidder finding discrepancies between Drawings, Specifications and/or Bid Documents, or be in doubt as to the exact meaning of any provision or detail shall notify the Designer at once, and before the deadline for Questions and Clarifications. The Designer may then, at their option, issue Addenda clarifying same. The Designer is not responsible for oral instructions, or Bidder's/Contractor's misinterpretations of Drawings, Specifications and/or Bid Documents.
- B. The Designer reserves the right to issue Addenda at any time up to thirty-six (36) hours prior to the scheduled bid opening. All such addenda shall become, upon issuance, an inseparable part of the Specification/Contract Documents. Each bidder shall incorporate within their bid all costs for items listed in any/all Addenda, and shall acknowledge receipt and identifying number of each Addendum on the Bid Form and on the outside of the sealed bid container.
- C. Addenda will be forwarded to each bidder who has received a copy of the Bidding Documents and has submitted "Intent to Bid Form".

### 3.03 BID SECURITY, BONDS AND INSURANCE

- A. Bid Security, Performance and Payment Bonds are required on this project.
  - 1. Bid security equal to five percent (5%) of the bid amount must accompany each bid in accordance with the Instruction to Bidders.
    - a. Bid security shall be either a Bid Bond issued by a company licensed in the State of Michigan to furnish bid security or Certified Check made payable to the Owner.
- B. The selected Contractor will be required to provide a performance bond and a payment bond each in an amount equal to one hundred percent (100%) of the bid amount including any accepted alternates at the Owner's discretion.
  - 1. The surety of the performance bond shall remain in effect until all acceptances and final contract close-out requirements herein have been executed by the Owner.
- C. Contractor shall provide, prior to beginning any work at the sites, certificate of insurance for delivery to Owner indicating all required insurance coverage is in force.

1. Workers' Compensation and Employer's Liability Insurance
    - a. Coverage A – Statutory
    - b. Coverage B - \$1,000,000 Per Accident
  2. Broad Form Comprehensive General Liability Insurance (including – Premises, Elevators, Contractor's Protective Liability, Contractual, Products & Completed Operations – including Broad Form Extensions).
    - a. Each Occurrence - \$1,000,000
    - b. General Aggregate - \$2,000,000
    - c. Products & Completed Operation Aggregate - \$2,000,000
    - d. Personal Injury & Advertising Injury - \$1,000,000
    - e. Fire Legal - \$100,000
  3. Sub-contractors Operations, Products – Completed Operations and Contractual Liabilities, plus such excess coverage as may be appropriate for the limits listed.
  4. Comprehensive Automobile Liability Insurance (owned, hired, and non-owned automobiles).
    - a. Bodily - \$1,000,000 each Person and \$1,000,000 each Occurrence
    - b. Property Damage - \$1,000,000
  5. Furnish Owner with Contingent Liability Insurance Policy with coverage and liability limits the same as for Public Liability Insurance specified herein. Designate on policy as assured, only the Owner.
  6. Furnish Owner with Contingent Property Damage Insurance Policy with coverage and liability limits the same as for Property Damage specified herein. Designate on policy as assured, only the Owner.
  7. Policies shall include notification clause requiring ninety (90) days written notice to Owner in the event of policy cancellation, expiration, non-renewal, coverage reduction or other material change.
  8. Contractor shall not commence work under the Contract until after all insurance required herein as been obtained and certificates for such are approved by Owner.
- D. All such bonds and/or insurance shall be issued by surety licensed by the State of Michigan and acceptable to the Owner.

1. Insurance certificate(s) shall be signed by insurance agent licensed in the state of Michigan or a representative of the insurance company.
- E. Contractor agrees to indemnify and hold harmless the Owner and Designer, including their agents and employees, from and against all claims, damages, losses and expenses, including, but not limited to, attorney fees arising out of, or resulting from the performance of the work to the fullest extent allowed by law on a comparison basis of fault.

#### 3.04 MODIFICATION AND WITHDRAWAL

- A. Bids may be withdrawn and/or changed any time prior to the deadline for submission of bids. Bids may not be withdrawn or changed thereafter and shall be deemed a firm offer continuing for ninety (90) calendar days. Bids received after the deadline for submission will be returned unopened at the Owner's discretion.
- B. Withdrawal of any Bid after the opening time without specific approval by Owner may result in forfeiture of required bid security by Bidder.

#### 3.05 CODES, ORDINANCES, REGULATIONS AND RELATED

- A. All labor and materials shall be furnished and installed in strict accordance with the latest applicable codes, ordinances and regulations of any governing body having jurisdiction over this project.
- B. In the event the quality of labor and materials required by the Drawings and Specifications herein exceeds requirements of current applicable codes, ordinances and regulations, the Drawings and Specifications shall take precedence.
- C. In the event the quality of labor and materials required by current applicable codes, ordinances and regulations having jurisdiction over this project exceeds that of the Drawings and Specifications herein, the applicable codes, ordinances and regulations shall take precedence.
- D. The Contractor shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any authority having jurisdiction, which bears on the performance of its work. This compliance includes, but is not limited to, the Michigan School Safety Initiative (PA129, PA130, PA131 and PA138) if applicable to work being performed.
- E. The Contractor shall pay for all licenses, permits, taxes, and fees required for this project; and shall comply with all federal, state, local and Owner's codes, laws, ordinances, regulations and other requirements applicable to the work specified at no additional cost to the Owner. Contractor shall submit copies of all approved certificates and approvals to the Owner upon receipt.



### 3.06 SUB-CONTRACTOR AND MATERIAL SUPPLIER

- A. The successful Bidder shall submit to the Owner and Designer a complete list of all sub-contractors and all material suppliers proposed to engage on the work. Sub-contracts shall not be awarded until after they have been approved by the Designer and Owner.
- B. Finalist bidders may be required to submit additional details related to sub-contractors and suppliers within forty-eight (48) hours after the bid opening.
- C. Names of any principal sub-contractors must be listed on the Bid Form.
- D. All contracts made by the successful Bidder with Subcontractors shall be covered by the terms and conditions herein. The successful Bidder shall see to it that Subcontractors are fully informed in regard to these terms and conditions, and shall bind all subcontractors to the same terms and conditions. Failure to do so will absolve the Owner from any liability for additional cost due to subcontractor claims for additional cost, time or any claim(s) for additional cost by subcontractor(s).

### 3.07 BID RESPONSE FORMAT

- A. Bidder shall provide complete Bid copies in two formats as described herein.
  - 1. One (1) Hard copy format responses shall be in a bound tabulated format. Each response shall have tab indicators for each section.
  - 2. One (1) Electronic copy format responses shall be submitted on a USB Drive, readable by a standard Microsoft Windows 10 workstation. Electronic media shall contain separate folders to organize response documentation as described herein. Files submitted electronically shall be *Adobe Acrobat* "PDF" format (SCHEDULE OF VALUES is additionally required to be on the disk in the appropriate folder as a spreadsheet and as described herein).
- B. All Bid Response formats shall be clearly externally marked to include, but not be limited to:
  - 1. Bidder identification.
  - 2. Project Owner identification.
  - 3. Project name.
  - 4. Bid submission date.

- C. Bid Responses shall include an index containing copies/PDF of a complete index of documents comprising Bid Response. Responses shall include, but not be limited to the following tabbed/folder sections:
1. Section 1 – Forms, which shall contain copies/PDF files of all required and completed bid forms.
    - a. BID FORM
    - b. Michigan Familial Relationship Disclosure Statement
    - c. REFERENCES
    - d. CONTRACT EXCEPTIONS
    - e. SCHEDULE(S) OF VALUES
    - f. BID BOND
  2. Section 2 – Overview, which shall contain copies/PDF files of cover letter and/or executive overview.
  3. Section 3 – Submittals, which shall contain copies/PDF files of all required and voluntary submittals.
  4. Section 4 – Appendices, which shall contain copies/PDF files of other reference materials Bidder wishes to or is required to submit.

### 3.08 AWARD OF CONTRACT

- A. The material proposed to be used for the completion of work, and the competency, solvency and responsibility of bidders will receive due consideration before award of contract. In the reception of bids for this work, the Owner incurs no obligation to accept the lowest, or any bid submitted. The right to accept or reject any and all bids or portion thereof is reserved by the Owner. The Owner reserves the right to require testimonial, accounting or legal documents pertaining to the solvency of a Contractor, or any other decision factor the Owner deems appropriate, prior to award of contract.
- B. Owner reserves the right to select individual components from schedule of values independent of installation as may be determined in Owners best interest. Selected bidder may be required to install selected components provided by others.
- C. Issuance of a Purchase Order by Owner in response to a valid bid shall be a Notice to Proceed, and shall become part of, but not limited to, all terms, conditions and requirements herein. Notice to Proceed shall have the full effect of contract award, and shall make all terms, conditions, requirements

and responsibilities of Bidder binding upon issuance. Notice to Proceed, once issued, shall become an inseparable part of the contract documents herein, and constitute both Bidder and Owner's acceptance of contract.

### 3.09 TIME, SCHEDULES, PROJECT MANAGEMENT, MEETINGS AND PLANS

- A. Time is of the essence on this project. Award of contracts for this project will be contingent on the bidder's agreement to complete the work on or before the contract completion date stated herein.
- B. All Contractors will commence work in such a manner and at such a time as to expeditiously interface with the work of other Contractors, and will pursue the project diligently to completion. All Contractors will work in a cooperative manner with Owner and other Contractors.
- C. Contractor shall appoint an overall Project Manager acceptable to Owner, with skills and experience deemed appropriate by the Owner for the scope and size of the project. Project Manager shall be responsible for the scheduling of all Contractor resources and attending all project meetings. Upon notification of Bidder being considered a finalist, the Bidder shall submit professional resume of proposed Project Manager within forty-eight (48) hours.
  - 1. Project meetings shall be conducted at Owner's selected and identified location weekly and at Owner's and/or Designer's discretion.
  - 2. Within five (5) days of Notice to Proceed (issuance of a Purchase Order by the Owner), Contractor's Project Manager shall provide to the Owner a critical flow path in the form of a "Gantt Chart" (or equivalent) indicating the proposed sequence of events and approximate beginning and completion dates in accordance with, compliance to, and coordinated with requirements herein.
  - 3. Changes of the Project Manager during the project shall not be acceptable without prior written approval from the Owner.
  - 4. It is the responsibility of the Contractor's Project Manager to schedule work, work out issues, ensure that all required products and services are delivered according to schedule and attend to any other matters required by the Owner in the interest of professional and timely completion of the project.
  - 5. The appointed Project Manager, or a designee acceptable to the Owner, shall be in attendance of all project meetings throughout the term of the project. Failure to do so may be considered a material breach of contract.
  - 6. After a ten (10) business day notice, the Owner reserves the right to request a new Project Manager, when it appears that, in the Owner's sole

discretion, the Project Manager is not fulfilling the full responsibilities of the position. Failure by Contractor to provide adequate Project Manager meeting requirements of the Owner, may result in Contract termination.

### 3.10 CHANGES IN THE WORK

- A. No changes in work with the effect of either increasing or decreasing in the project value shall be made without specific and prior authorization by the Owner and Designer.
- B. Owner, without invalidating the contract and without notice to any surety, may at any time order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be authorized by a written Change Order approved by Owner and Contract Designer. Upon receipt of such an order Contractor shall promptly proceed with the work involved. All such work shall be executed under the conditions of the original Contract. Owner authorized change order(s) may be issued at any time prior to Contract close out.
- C. When so directed, Contractor shall promptly submit an itemized estimate and a unit price for performing or deleting such extra or changed work as may be contemplated. Any extensions or reductions of the contract time associated with extra or changed work shall be identified at the time Contractor submits such documentation.
- D. At the Owner's discretion, adjustments in the Contract Sum shall be determined by one or more of the following methods:
  - 1. By mutual acceptance of a lump sum cost, including overhead and profit, itemized and supported by sufficient substantiating data to permit evaluation.
  - 2. By unit prices stated in the Contract Documents including, but not limited to, Schedule of Values.
  - 3. By unit prices mutually agreed upon.

### 3.11 PAYMENT REQUESTS AND PAYMENTS

- A. Contractor's invoices shall be submitted monthly in correlation with the Project Schedule indicating percentage of work completed.
- B. All contract and change order invoices shall be sent directly to Contract Designer.
- C. A 10% retainage shall be held back on all payment requests, including, but not limited to hardware, software, change orders and services, until final

completion and close out of the project or project phase as determined by Owner and Designer.

- D. Contractors are required to submit all invoices on approved AIA Payment Request Forms or other billing format pre-approved by Contract Designer. Each AIA Payment Request Form shall be accompanied by a properly completed, executed and notarized Waiver of Lien which shall be in a format and contain verbiage approved by Owner.
- E. The Contract Designer and Owner shall process payment requests on a monthly schedule and in accordance with their respective established processes and procedures. Payments will be made by the Owner based only on AIA Request Forms having been previously certified, audited and approved by Contract Designer and accompanied by acceptable Waiver of Lien.

END OF SECTION

SECTION 00 65 00  
CONTRACT CLOSE OUT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide an orderly and efficient transfer of the completed work to Owner.
- B. Details affecting work of this Section includes, but is not limited to all other Sections herein and all related Contract Documents.
- C. Activities relative to Contract close-out are described in, but not limited to, this and other Sections of this document.

1.02 SUBSTANTIAL COMPLETION

- A. "Substantial Completion" shall be defined as:
  - 1. All responsibilities of Contractor for all provisions and requirements of all divisions and sections of complete Contract herein, and as amended, are properly and fully completed or properly, accurately and acceptably provisioned for.
  - 2. All systems, equipment, facilities, services, programming and/or components required by all divisions and sections of complete Contract are fully operational, acceptable and useful to the Owner for their intended purposes.
- B. Prior to requesting inspection by Designer to certify Substantial Completion, Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements and is ready for such inspection.

PART 2 - MATERIALS

2.01 NOT USED FOR THIS SECTION

PART 3 - EXECUTION

3.01 PROCEDURES

- A. Contractor shall submit a written request to Designer indicating they have achieved Substantial Completion of Work.
- B. Within a reasonable time after receipt of the request, Designer will inspect Work to determine status of completion.
- C. Should Designer determine the Work is not substantially complete:

1. Designer promptly will so notify Contractor, in writing giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
  2. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-inspection.
  3. Designer will re-inspect the Work.
  4. Excessive re-inspections of Work may result in fees being assessed Contractor.
- D. Should Designer concur the Work is substantially complete:
1. Designer will prepare a letter of Substantial Completion.
  2. Designer will submit the letter to Owner and Contractor.
  3. Contract shall be deemed “Closed Out” for retainage purposes.
  4. Final Acceptance of the system shall be deemed complete.

SECTION 27 22 19  
SERVERS, STORAGE & DATA CENTER EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to new data center based Hyperconverged Servers and Storage equipment. Specified equipment is expected to replace existing core computer equipment used for instructional and administrative applications. Server hardware is intended to be used for virtual server deployment for centralized resources.
1. Systems shall be comprised of interoperable components including, but not limited to Central Processing Units (CPUs), Operating Systems, displays, memory, keyboards, connecting cables, optical and magnetic disk drives/storage systems and patch and connector cords integrated into common working systems.
  2. Equipment is intended to replace and migrate existing Cisco VMware enabled Blade Center virtualized server infrastructure to a new Hyperconverged based virtualized system.
- B. Contractors shall propose Systems and/or components to be deployed using standard and best practice procedures and technology components and as specified herein. The system components are intended to be installed and connected to the Owner's physical infrastructure by others and as specified herein.
- C. The Contractor shall supply, configure, test, document, train Owner representatives and warrant a fully operational and compliant system and/or component connection to the system complete and with full functionality as specified herein.
- D. Contractor shall coordinate their testing and delivery with other contractors, Designer and the Owner as is appropriate.
1. Contractor shall deliver components as specified to individual building staging location/room inside as identified and coordinated by owner. Delivery to the individual building locations for Owner unloading will not be accepted.
    - a. Loading dock facilities, pallet lift equipment, or related material handling equipment/facilities may not be available at site of work.
  2. Delivery shall be coordinated with Owner, Designer and others based on specific release schedule of materials on a building basis and as directed, required and published by Designer and Owner.



- a. Complete shipment of all materials at one time may not be accepted.
- b. Delivery of equipment prior to the required, published and formally agreed upon release date will not be accepted.

## 1.02 WARRANTY

- A. Complete installation shall be free from defect and/or failure for a period of three (3) years. Any replacement, upgrade or fix, including labor for any non-conforming or non-operational part of the system shall be fixed and/or replaced at no cost to the Owner.
- B. Manufacturer's warranty and/or extended warranty shall be provided for all components of the system.
  1. Any documents and/or submittals required by individual manufacturers for compliance with the standard and/or applicable extended warranty programs shall be provided and submitted for approval by the Contractor.
  2. Contractor shall submit all documents, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended Warranty as may be applicable from the manufacturer prior to project closeout.
    - a. Such warranty documentation shall include, but not be limited to the following materials:
      1. Server Hardware
      2. Storage Hardware
      3. Network Interface Equipment
      4. Drivers and Firmware
      5. Operating Systems
- C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.
- D. Contractor shall provide the following response times for all malfunctioning equipment:
  1. Four (4) hours or less for matters that render the system unable to maintain normal functionality. Replacement parts for any item determined to be functioning below full design capacity shall be replaced promptly. Replacement components shall be shipped to Owner in order to arrive on

the next business. Replacement components shall be shipped in advance of Owner return of non-functional components (Advance Replacement).

2. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.
- E. Bidder shall provide current annual maintenance and support contract pricing for recommended maintenance and support programs for all equipment, firmware and operating systems following the specified and included warranty period. This information will be considered by Owner and Designer as part of the bid evaluation process. Failure to provide this information will result in bid being considered unfavorably.
- F. System Warranty shall commence on date of substantial completion as certified by Designer and provided for herein. Delivery to work site of materials, physical removal from packaging, issuance of Contractor documents including, but not limited to invoices and/or packing slips, or any event or documentation, not specifically provided for herein, shall have no effect on Warranty or System Acceptance by Owner and/or Designer.
- G. ALTERNATE: Bidder shall provide alternate pricing for five (5) year warranty duration based on the response times and service levels described herein as an alternative to the included base bid warranty. Owner plans to consider this alternate cost as a component in the anticipated cost of ownership for bidder's configuration during the bid review process.

### 1.03 SUBMITTALS

- A. Submittals shall consist of, but not be limited to, technical cut sheets and detailed information pamphlets on all components of the system to be installed. All cut sheets and submittals shall be distinctly marked to highlight the actual part number of the item being submitted for approval with Bid Proposals.
- B. Contractor shall provide current published US List Price schedule(s) for complete line of materials of manufacturer(s) proposed for this contract including all items in product families of equipment proposed.
- C. Shop drawings, data sheets and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.
  1. Shop drawings, data sheets, work plans, schedules and diagrams shall show all data relating to equipment, electrical, wiring, cross connect, interconnect, equipment arrangement/layout, and any other information deemed significant by the Designer.

2. No work constituting final configuration, shipment or installation shall be commenced until after approval of shop drawings, data sheets and diagrams by Owner and Designer.
- D. Bidder may be required to provide working “sample” equipment, without cost, one each of the proposed systems for Owner and Designer evaluation and review.
1. Owner and/or Designer may require evaluation “sample” of proposed configuration(s) of Bidder within ten (10) days of public bid opening.
  2. Bidder shall provide required units for evaluation period of up to sixty (60) days from receipt by Owner.
  3. Bidder shall provide required evaluation unit(s) within ninety-six (96) hours of request by Owner and/or Designer, delivering unit(s) as directed.
- E. Contractor shall provide proof of manufacturer support by photocopy of certification and letter of support from major component manufacturers for this specific project with Bid Proposals.
- F. Equipment or material installed for this project that do not have an approved submittal associated with it, will be removed and replaced with acceptable equipment or material as defined by the Contract Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.
1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.
  2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due, or become due Contractor.
- G. The Contractor shall submit within ten (10) calendar days after the Notice to Proceed, a schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work. The schedule shall be broken into work areas to provide for a clear identification of the planned progress of the work. Included in the schedule will be a list of tasks with list of deliverables and the percentage of work completed. This schedule shall coincide with progress payments applications dates and projected amounts. All durations shown will be in working days. Applications that generate Microsoft Project compatible files shall be management tools of choice. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing and executing the work required by the Contract Documents. The district will rely

on such schedules to coordinate and otherwise plan the work of the District, other separate contractors, or the District's routine daily work.

#### 1.04 REFERENCE SPECIFICATIONS

- A. All work, products, and materials shall conform with the following standards as applicable for the intended use:
  - 1. EIA/TIA Commercial and Administration Standards
  - 2. NEC
  - 3. IEEE 802
  - 4. IETF RFCs
  - 5. FCC – All Applicable Rules and Regulations
  - 6. UL
  - 7. MIOSHA Safety Standards

#### 1.05 CONTRACTOR

- B. Owner, should it feel to be in its best interest, reserves the right to retain services of others for installation and configuration of system components.
- C. Contractor shall be an authorized vendor of all major components.
  - 1. Any work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to configure or install specified equipment and perform related tests as recommended by the manufacturer and in accordance with the manufacturer's best practices and methods and as required herein.
  - 2. Project Managers, Engineers and Technicians employed on this project shall be properly and fully trained and qualified by the manufacturer on the installation and testing of the equipment and systems to be provided.
  - 3. The Contractor shall have a proven track record in comparable system supply and installation. This must be shown by the inclusion of references of at least three (3) projects involving the supply and/or installation of similar systems completed by the Contractor in the prior two (2) years with the sealed Bid Proposal as provided herein.

### PART 2 - PRODUCTS

#### 2.01 Acceptable Manufacturers

- A. Lists of acceptable manufacturers have been provided to establish a standard of quality for individual components associated with the specified system. Indicated components include particular models and makes currently preferred by Owner.
  - B. Any system bid shall be based on either acceptable manufacturer's components or components deemed equal in quality and function for the intended applications.
  - C. Judgment and determination associated with equivalency of components, compatibility with identified acceptable items and/or fitness for the intended use and application shall be solely by Owner and Designer.
    - 1. Computer memory shall be certified and sourced from computer equipment manufacturer. No third-party memory will be deemed equal.
- 2.02 Supply most current version of all products provided.
- A. Manufacturer shall have five (5) years of experience and history manufacturing similar products to those specified.
  - B. Proposed components shall have been field tested and proven in actual use.
  - C. Prior and/or old versions of products, unless specifically approved and documented by Designer and/or Owner shall not be acceptable.
  - D. In cases where a newer version of hardware or software is available at the time of installation, Contractor shall request clarification from Owner and Designer on which version is to be used.
- 2.03 Furnish only new, first class quality materials and equipment.
- 2.04 Furnish all materials, patch cables, connections and components required for fully connected and operational system to optimize it for the operational requirements of Owner.
- 2.05 RACK MOUNT SERVERS
- A. Acceptable Manufacturers (In alphabetical order):
    - 1. CISCO Hyperflex – HX Series
    - 2. DELL EMC VxRail
    - 3. HPE Simplivity
    - 4. HITACHI Unified Compute Platform – HC Series
    - 5. NETAPP HCI

## 6. NUTANIX

- B. Six (6) computer servers shall be provided to support the new Hyperconverged server configuration in a “stretched cluster” with three (3) in each of two separate building locations, each meeting or exceed the following required feature sets, specifications and/or standards:
1. Owner has expressed preference for server mounting cabinets no larger than two (2) rack units (RU) per server.
  2. Dual, 2<sup>nd</sup> Generation Xeon Scalable Processors with a base frequency of at least 2.6Ghz and sixteen (16) cores per processor in each server.
  3. Twelve (12) RAM sockets per CPU to allow for the six (6) memory channels that the 2<sup>nd</sup> Generation Xeon Scalable CPUs provide for, and a depth of at least two RAM sticks per channel.
  4. Twelve (12) sticks of 32GB DDR4 RDRAM matched in frequency to the CPUs and utilizing all six (6) memory channels available on the processor in each server.
  5. The “stretched cluster” shall provide for 50TB of usable flash storage for VMs. Flash drives, sticks and/or modules populating each cluster node should not fill more than 2/3 of the available storage bays in the node in order to provide for future expansion.
  6. Two (2) 25GB SFP28 based Ethernet ports per server.
    - a. Each network port shall include a 5 meter SFP28 DAC cable to match
  7. Two (2) available 10GB SFP+ connectors per server for future use.
  8. ILO4, iDRAC 8 or equivalent for out-of-band management.
  9. The “stretched cluster” is connected with Owner’s private fiber optic cable. Links between sites are combined 10G and 25G.
- B. ALTERNATE: VMware vSphere
1. Bidders are to provide alternate cost for the same processing, memory, and storage capacity specified herein as an upgrade to the Owner’s current two ESXi 6.7U3 host clusters under a single VCSA 6.7U3 instance.
  2. Alternate configuration shall have equal storage capacity configured in enterprise class SAN configurations offering similar performance (IOPS) to the base hyper converged configuration.

3. Alternate configuration shall provide for all VMware operating system, management and control software licensing consistent with the base bid requirements.
4. Alternate configuration shall also provide for equal warranty as base bid

## 2.06 BACKUP EQUIPMENT

A. Server Backup Equipment shall be provided to meet or exceed the following:

1. Acceptable Manufacturers (In alphabetical order):
  - a. ACRONIS
  - b. COHESITY
  - c. COMMVAULT
  - d. DATA DOMAIN
  - e. RUBRICK
  - f. VEEAM
2. Two (2) integrated storage hardware and backup software solutions providing for primary backups and backup copies at two geographically separate 10 Gigabit connected physical building locations. Equipment provided shall meet or exceed the following:
  - a. Two (2) 10GB SFP+ Ethernet ports
    1. Connection to network core switch with Contractor supplied DAC cables
  - b. ILO4, iDRAC 8 or equivalent for out-of-band management.
3. Snapshot capability
4. Deduplication functionality
5. Compression
6. “Instant” Recovery via mountable VM backup
7. Air gapped backups backed by rotated media (e.g., rotated removable disks)
8. Backup set expiration (renders backup useless once a set age or date is reached)

9. Cloud backup support (e.g. Amazon S3, Azure, Google Cloud)
10. Application aware backup (e.g., Oracle, MySQL and variants, Active Directory, etc.)
11. Backup copies to cloud or local appliances
12. High speed direct image copy of primary files
13. 75 TB of usable capacity
  - a. Bidders shall provide, in bid documents, detail for deduplicated/compressed capacity as well as raw capacity.
  - b. Bids must show deduplication and/or compression rates are based on an unstructured mixed data scenario.
14. Configurability for differing RPOs and RTOs.
  - a. The Owner desires to have a 30 minute RPO and RTO for some specific mission critical VMs and application data/file sets. And, a 10-24 hour RPO with a 1-2 hour RPO being acceptable for other VMs and application data/file sets.
15. Two (2) full speed 10GB SFP+ Ethernet connection for attachment of device to network using Contractor supplied DAC cables in each device.
16. All software and utility tools shall be included.
17. The Owner reserves the right to award backup equipment separately from the balance of the material in this project. At it's sole discretion, the Owner may elect to omit the back-up equipment from the awarded contract and/or award the back-up equipment to a different bidder without impact on the balance of material and labor associated with the project.

## 2.07 OPERATING SYSTEMS

- A. All operating systems shall include all necessary components and options for a fully compliant system including all warranty requirements.
- B. All system management and device management operating systems and software shall be included in the base bid solution. Any items that could be considered "optional" may be identified a voluntary deductions on bid forms.

## 2.08 OWNER ALLOWANCES

- A. Contractor shall include allowances for equipment and/or other contract service reimbursements as required below in base bid lump sum amount(s).



Equipment and/or contract services shall be provided and sourced at Owner's discretion and convenience with full cooperation by Contractor and paid for from successful bidder's contract in the amount(s) provided for herein. Any allowance amount proving to be excessive for the intended equipment and/or contract services shall be credited to the Owner against contract payment requests.

1. Allowance shall be made in the amount of \$10,500.00 for contract services related to supply and installation of structured cabling system modifications at the Owner's sole discretion.

## PART 3- EXECUTION

### 3.01 PREPARATION

- A. Contractor shall insure all submittals and have been provided and/or updated, and current approval has been obtained from Designer and Owner prior to commencement of any final ordering and/or installation activities specific to each release schedule or phase. Submittals shall include, but not be limited to:
  1. Shop drawings, data sheets and system diagrams including specific cable connectors and types proposed to be installed.

### 3.02 INSTALLATION

- A. The Contractor shall furnish all equipment necessary for a fully compliant and operational system as specified herein. The delivery process includes, but is not limited to the following:
  1. Storage of all equipment and components until such time those items are released for delivery to a specific staging location in a specific building according to the specifications.
  2. Coordination for delivery of materials to Owner specified sites with Owner personnel to accommodate reasonable, efficient, safe and secure arrival at intended locations.
  3. Coordination with Owner, Designer and Others for planning related to installation in Owner provided racks.
  4. Transport equipment to the Owner's installation location(s).
  5. Inventory receipt of all components and equipment shipped to individual Owner locations to comply with latest release schedule.
  6. Work shall include careful coordination and cooperation with others to ensure a timely, cost effective and proper installation for Owner's intended application. Such efforts shall include, but not be limited to,

coordinating and cooperating with other contractors, Owner, Designer, Contract Designer and Engineer.

7. Physical unpacking and installing components
  - a. Such installation shall include connection to Owner's network core equipment using Contractor supplied DAC cables and other patch cords as may be required. Cable distances for device connectivity shall not exceed 10M.
8. Basic Operating System load and connection testing.
9. All equipment shall be installed and configured sufficiently to allow Owner staff to begin creating and moving VMs from existing equipment.
10. Each physical component shall bear a unique bar-coded label approved by Owner and Designer, permanently affixed in a location coordinated with Owner and Designer. Bar code label shall be unique identification for device which identifies, but is not limited to the following information:
  - a. Device MAC address
  - b. Device serial number
  - c. Device model number
  - d. Device asset tag number
11. Contractor shall provide software database populated with inventory data correlated to bar code label as required and directed by Owner and Designer.

B. Sites of Work:

1. Hudsonville Freshman Campus  
3370 Allen Street  
Hudsonville, Michigan 49426
2. Hudsonville IT Offices  
5535 School Avenue  
Hudsonville, Michigan 49426

C. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks or otherwise defaces any surfaces, the Contractor shall repair and/or replace the surface to the original condition.

1. Repairs shall include, but not be limited to patching and painting.

2. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Contract Designer.
3. The building and work area shall be returned to its original condition prior to final sign off of the project.

### 3.03 TESTING

- A. In an effort to ensure a smooth “configuration” of the new system Contractor shall submit to a thorough testing process as defined herein prior to final configuration.
- B. Prior to requesting testing by Designer, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements, meets the owner’s specific application requirements and is ready for functionality and integrity testing. Testing shall include, but not be limited to the following:
  1. Basic hardware diagnostics to ensure all components are properly operating in the Owner environment.
  2. Connectivity testing
- C. Testing Procedures
  1. Prior to system “turn-up”, Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system, and are ready to have system integrity and functionality tested. Such request shall include a written proposed test plan for complete system functionality.
  2. Within reasonable time after receipt of request and proposed test plan, Designer will provide amendment(s) to the proposed test plan, a test schedule and coordinate testing date(s) with Owner and Contractor.
  3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:
    - a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
    - b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.
    - c. Designer will schedule re-test of the Work.

- d. Excessive re-testing of Work may result in fees being assessed Contractor.
4. Should Designer and Owner concur the Work is configured properly and system integrity is as required:
  - a. Owner and Designer will review Contractors detailed “configuration” plan, and upon finding it acceptable, Contract Designer will issue a memorandum of Testing Completion to Owner and Contractor after which system “configurations” can proceed.

#### 3.04 DOCUMENTATION

- A. Contractor shall, throughout the completion of the project, provide Owner a file storage system that shall include all necessary equipment, including if reasonably required, file drawers, folders, dividers, etcetera, to contain all as-built drawings/diagrams, owners manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.
- B. Contractor shall be responsible for providing thorough, timely documentation on all hardware, software. Documentation shall include, but not be limited to:
  1. Equipment description.
  2. Equipment make.
  3. Model number.
  4. Software release.
  5. Date delivered.
  6. Manufacturer's warranty.
  7. Maintenance contract terms.
  8. Verification of maintenance contract engagement.
  9. Telephone numbers for service and support.
  10. Detailed technical support and service procedure instructions.
  11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of

duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.

12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.
13. System Configuration Report.
14. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, model numbers, Ethernet MAC address, serial numbers, physical installation location and software options.

### 3.05 TRAINING

- A. Contractor shall provide training for the Owner designated system administrator(s). Owner shall designate up to three (3) administrators to be trained. Training shall be a minimum of three (3), four (4) hour session in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:
  1. Full system administrator training providing for review of all typical system administration functions the Owner will be required to be capable of performing during standard systems operation.
  2. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
  3. System back-up and restore functions and procedures for all system parameters and configurations.
  4. Device additions, moves, repairs and changes as well as reconfiguration.
  5. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to and system configuration changes.
  6. Review of hardware monitoring tool (iDRAC, iLO, etc.) including but not limited to the demonstration of automated alerting for system and/or hardware failures.
- B. Contractor shall include all fees (class, testing, etc.) for one Owner representative to attend a hyperconverged operating system manufacturer certification course. Any travel costs associated with certification course attendance will remain the Owner's responsibility.

1. Training shall include the following:
  - a. Nutanix “Enterprise Cloud Administration” course or equal for relevant operating system manufacturer.
  - b. Nutanix “Advanced Administration and Performance Management” course or equal for relevant operating system manufacturer.
- C. Contractor shall submit a written training plan, course description(s) and syllabus to Owner and Designer for approval. Owner and/or Designer may require amendments(s) to training plan, course description and syllabus prior to training being scheduled.

### 3.06 SCHEDULE, MEETINGS AND PLANS

#### A. Schedule

1. Final Vendor Presentations: Week of June 18, 2020
  2. Contractor Chosen: Week of July 16, 2020
  3. Work Commences: July 20, 2020
  4. Substantial Completion of Project: August 31, 2020
  5. Project Close-out: September 31, 2020
- B. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.
- C. All work shall be coordinated with Owner’s construction manager on site.
- D. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION