NORTHWESTERN MIDDLE SCHOOL BUILDING ACCESS CONTROL SYSTEM

Technology Request for Bid

Battle Creek Public Schools



SECTION 00 01 10 TABLE OF CONTENTS

DIVISION 00 – BIDDING & CONTRACT REQUIREMENTS

- Section Description
- 00 01 01 Cover Page
- 00 01 10 Table of Contents
- 00 01 15 List of Drawings
- 00 11 16 Invitation to Bid
- 00 40 00 Bid Forms
- 00 21 13 Instructions to Bidders
- 00 65 00 Contract Close-out

DIVISION 28 – ELECTRONIC SAFETY & SECURITY

SectionDescription28 13 00Building Access System

APPENDICES

SectionDescriptionAppendix ABuilding Access System DrawingAppendix FCombined Construction Drawings (Reference)Appendix HDoor Hardware ScheduleAppendix IConstruction Phasing Plan

END OF SECTION

SECTION 00 01 15 LIST OF DRAWINGS

File/Name

Description

END OF SECTION

LIST OF DRAWINGS 00 01 15 - 2

SECTION 00 11 16 INVITATION TO BID

PART 1 - GENERAL

1.01 WORK INCLUDED: NORTHWESTERN MIDDLE SCHOOL TECHNOLOGY IMPROVEMENTS

- A. Battle Creek Public Schools (Owner) is seeking bids for purchase and installation of associated equipment and installation related to building access control. Proposed systems shall be configured and installed to service Owner's classrooms, public spaces and common areas as described herein.
- B. Project: Northwestern Middle School Technology Improvements
- C. Owner: Battle Creek Public Schools Attention: Ryan Miller 3 Van Buren West Battle Creek, MI 49017
- D. Designer: Communications by Design, Inc.
- E. Sites of Work:
 - Northwestern Middle School 176 Limit Street Battle Creek, MI 49037

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 10, 2023
 - 2. Pre-Bid Meeting: May 18, 2023 at 3:30pm
 - 3. Intent to Bids Due: May 24, 2023 by 5:00pm
 - 4. Question and Clarification Deadline: May 24, 2023 by 5:00pm
 - 5. Public Bids Due: May 31, 2023 at 1:00pm

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 not 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 <u>highly encouraged</u> 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.
 - 1. Time: May 18, 2023 at 3:30PM
 - 2. Location: Northwestern Middle School Media Center 176 Limit Street Battle Creek, MI 49037
- B. Any drawings identified in the table of contents herein will be distributed and reviewed at this conference.
- C. Physical building inspections of sites of work will be provided for at this time.

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.

В.	Bid Receipt Deadline:	May 31, 2023 at 1:00pm
C.	Bid Opening Location:	Battle Creek Public Schools Administration/ Conference Room Second Floor Conference Room 3 Van Buren West Battle Creek, MI 49017

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 49456
 - 2. Email <u>rszilagy@cbdconsulting.com</u>

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 Battle Creek 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

BID FORMS 00 40 00 - 7

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 April 20, 2023. Only bidders returning a completed "Intent to Bid Form" will be notified of required addenda.

<u>Company Information</u> Name:	
Address Line1:	
Address Line2:	
City, State and Zip Code <u>Primary Contact Information</u>	
Phone No.:	
Fax. No.:	
E-Mail Address:	

Portions of the bid for which you will be responding:

Section 28 13 00 - Building Access System

<u>Submit unaltered and completed form to:</u> Rebecca Szilagy Communications by Design, Inc. <u>rszilagy@cbdconsulting.com</u>

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. Ensure 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:	Battle Creek Public Schools Attention: Ryan Miller 3 Van Buren West Battle Creek, Michigan 49017
BID FROM:	
DDOIECT.	NOPTHWESTERN MIDDLE SCHOOL TECHNOLOGY
FROJECT.	IMPROVEMENTS TECHNOLOGY BID #3013
INCLUDING ADDENDA:	Addendum NoDated Addendum NoDated
DUE:	May 31, 2023 at 1:00pm

BID	FORM
-----	------

BID TO:	Battle Creek Public Schools Attention: Ryan Miller 3 Van Buren West Battle Creek, MI 49017
BID FROM:	
PROJECT:	NORTHWESTERN MIDDLE SCHOOL TECHNOLOGY IMPROVEMENTS TECHNOLOGY BID #3009
The undersigned, havin work, and having exam referenced, including, b labor, material, equipmo of the following categor	g familiarized themselves with all local conditions affecting the cost of ined the site and all applicable Bidding Documents herein, and herein ut not limited to, all addenda issued thereto, hereby propose to furnish all ent, applicable taxes and services required for proper completion of each ries of this project for the sum of:
Bid Category	Title

_____Dollars (\$_____). Said amount written above constituting the Base Bid Said amount written above constituting the Base Bid
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.

<u>ACKNOWLEDGEMENT OF ADDENDA:</u> 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_____

BID FORMS 00 40 00 - 10

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: Door Contact Additions - Contractor shall supply door contacts and associated wiring as indicated on the drawings with an A1 symbol.

Mandatory Alternate: Door Video Intercom Card Reader – Contractor to not supply independent card readers at doors 100V.3, 100A.4 and 100H.3 and instead integrate at card reader option into the door video intercom using Aiphone part number AC-PROX-1G.

Mandatory Alternate:	
Voluntary Alternate A	
Voluntary Alternate B	
Voluntary Alternate C	
PRINCIPAL SUBCONTRACT As required herein, the following Sul	ORS proposed to be used for this project:
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.

BID FORMS 00 40 00 - 11

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.

Resp	Respectfully submitted,	
Date:		
Firm Name:		
By:		
Signed:		
Title:		
Official Address:		
Telephone 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 <u>no</u> 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

idder Authorized Representative:	
Bidder:	
Representative's Signature:	
Print or Type Name:	
Representative's Title:	
Subscribed and sworn this day of	, 2023.
In the County of Sta	ate of
Ву	Seal or Stamp:
Notary Public Signature	
My commission expires on:	

BID FORMS 00 40 00 - 13

REFERENCES

Customer name:	
Address:	_
City/State/Zin [.]	 -
Contact name:	 —
Contact titlo:	
Dhono:	 —
	 —
Scope of project:	
	 —
Data of completions	
Date of completion:	
0	
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:	_
	_

IRAN LINKED BUSINESS AFFIDAVIT

All Bids shall be accompanied by a sworn statement disclosing any Iran Linked Business relationship that exists within the owners, including its officers, directors and employees.

authorized The undersigned, owner or officer of (the bidder), pursuant to Michigan Public Act No. 517 of 2012, the "Iran Linked Business" requirement provided in the Battle Creek Public Schools Proposals hereby represents and warrants that the bidder, including its officers, directors and employees, is not an "Iran Linked Business" within the meaning of the applicable Public Act, and that in the event bidder is awarded a contract as a result of this RFB, the bidder will not become an "Iran Linked Business" at any time during the course of performing under the contract. The bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the District investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on future Requests for Bids for three (3) years from the date that it is determined that the person has submitted the false certification.

<u>There is not an "Iran Linked Business" that exists within the bidder and/or owner, officers, directors and employees.</u>

Bidder

[Company Name]

[Signature]

[Title]

This instrument was acknowledged before me, a Notary Public,

in and for	 County,
in and for	County.
	,

_____ on this _____ day of ______,

20__,

[Notary Public Signature]

My Commission expires: _____

Acting in the County of: _____

BID FORMS 00 40 00 - 15

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:

Paragraph Number	Explanation		

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 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: 28 13 00

				Unit	Unit Labor	Total
ID	Oty	Part Number	Mfg and Description	Cost	Cost	Total Proposed Cost
	2.9			0051	0051	
			DDOLECT MANACEMENT			
			TRUJEU I MANAGEMEN I			
			I KAININU DONDS AND INSUDANCE			
			CDAND TOTAL			
			GRAND TOTAL (Must match base bid)			

END OF SECTION

BID FORMS 00 40 00 - 18

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 <u>not</u> 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" in addition to being posted publicly.

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 WITHDRAWL

- 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 form offer continuing for ninety (90) calendar days. Bids receive 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 subcontractors 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.
 - 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 (<u>SCHEDULE OF VALUES</u> is additionally required to be on the USB drive 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. Iranian Linked Business Affidavit
 - d. **REFERENCES**
 - e. CONTRACT EXCEPTIONS
 - f. SCHEDULE(s) OF VALUES
 - g. 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: CONTRACT CLOSE OUT 00 65 00 - 30

- 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.

END OF SECTION

SECTION 28 13 00 BUILDING ACCESS CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to building access control equipment and installation in Battle Creek Northwestern Middle School. Contractor can propose an expansion of the existing Andover Continuum system or provide a new access control system.
- B. Contractor shall advise, coordinate, and work cooperatively with Owner representatives and/or owner's designer related to any installation or special security provisions.
- C. The Contractor shall design, engineer, configure, supply, connect, test, document, train Owner representatives and warrant a fully operational and compliant system, complete and with full functionality as specified herein.
- D. Contractor shall coordinate their installation with other contractors, Designer and the Owner as is appropriate.
- E. Contractor shall fully coordinate and cooperate with door hardware vendor supplying the balance of items identified in section 08 71 00 as identified herein. All final connections, component integration, configuration, testing and programming functions to provide for a fully operational and functional system as specified shall remain the responsibility of Contractor selected for work in this section/division.

1.02 WARRANTY

- A. Complete installation shall be free from defect and/or failure for a period of three (3) years. Any replacement, hardware and software upgrades, 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. There shall be no additional cost to the Owner over the three (3) year period for minor or major software upgrades.
- C. Manufacturer's 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

BUILDING ACCESS CONTROLS 27 53 13 - 32 Warranty as may be applicable from the manufacturer prior to project closeout.

- D. 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.
- E. Contractor shall provide the following response times for all malfunctioning equipment:
 - 1. Eight (8) hours or less for matters that render twenty percent (20%) or more of the system unable to maintain normal functionality.
 - 2. Two (2) business days for matters not meeting the above criteria.
 - 3. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.
- F. Bidder shall provide current annual maintenance contract pricing for recommended maintenance programs for all equipment following the specified and included one (1) year period. This information will be considered by Owner and Designer as part of the bid evaluation process.
- G. 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 <u>no</u> effect on Warranty or System Acceptance by Owner and/or Designer.

1.03 STORAGE OF MATERIALS

- A. All materials shall be secured when not in use by the Contractor.
- B. It shall be the Contractor's responsibility to secure all equipment including material to be installed as part of the contract. No changes shall be made to the contract due to loss or theft of equipment and/or materials not officially accepted by the Owner.
- C. Formal receipt of the materials shall not be completed by the Owner until completion of project closeout. The Contractor shall be responsible for all equipment until time of closeout as provided for herein.

1.04 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

BUILDING ACCESS CONTROLS 27 53 13 - 33 the actual part number of the item being submitted for approval with Bid Proposals.

- B. Shop drawings and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.
 - 1. Shop drawings and diagrams shall show all data relating to structural, electrical, wiring, cross connect, interconnect, equipment arrangement/layout, and any other information deemed significant by the Designer.
 - 2. No work constituting final installation shall be commenced until after approval of shop drawings by Designer.
- C. 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.
- D. Equipment or material installed for this project that does not have an approved submittal associated with it will be removed, and replaced with acceptable equipment or material as defined by the 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.
- E. 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. <u>Microsoft Project</u> is the software of choice for this schedule. 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. Owner will rely on such schedules to coordinate and otherwise plan related work of Owner personnel, other separate contractors, or the Owner's routine daily work.

1.05 REFERENCE SPECIFICATIONS BUILDING ACCESS CONTROLS 27 53 13 - 34

- A. All work, products, and materials shall conform with the following standards as applicable for the intended use:
 - 1. IEEE
 - 2. EIA/TIA Commercial and Administration Standards
 - 3. NEC
 - 4. FCC All Applicable Rules and Regulations
 - 5. UL
 - 6. MOSHA Safety Standards
- B. Bidder shall be responsible for supply, configuration and installation of components identified in Section 087100 Door Hardware, Part 3.8
 "Hardware Schedule" if specified to be supplied by bid division 281300.

1.06 CONTRACTOR

- A. The Contractor shall accept complete responsibility for the installation, certification, and support of the system. Contractor shall be an authorized vendor of all major components.
- B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install system and perform related tests as recommended by the manufacturer and in accordance with the manufacturer's best practices and methods.
- C. 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 installed.
- D. The Contractor shall have a proven track record in security system configuration and installation. This must be shown by the inclusion of references of at least three (3) projects involving the installation of similar systems completed by the Contractor in the prior two (2) years on unaltered forms with the sealed Bid Proposal as provided herein. Bid Proposal Form(s) may be duplicated as required in order to provide adequate space to list required number of reference installations for each division Bidder is responding to.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers (In alphabetical order):

BUILDING ACCESS CONTROLS 27 53 13 - 35
- 1. ANDOVER CONTINUUM
- 2. AVIGILON UNITY ACCESS
- 3. LENEL•S2 ONGUARD
- 4. LENEL•S2 NETBOX
- 5. GENTEC SYNERGIS
- 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 Designer on which version is to be used.
- 2.03 Furnish only new, first class quality materials and equipment.
- 2.04 System shall be comprised of interoperable components including, but not limited to, controller, credential sensors and management software integrated into a common working system.
- 2.05 System administrator shall be capable of complete system back-up and full system restoration from a previously saved configuration.
- 2.06 System shall be of a distributed processing design with a fully distributed database including, but not limited to time, date, valid codes, access levels and related data so that each Controller makes access control decisions for that location. If communications with central station equipment is lost, all transactions shall be buffered until the restoration of a connection to the central station.
- 2.07 In the event of a power failure, complete system shall automatically re-initialize and "become active" to the last configuration in use with no human intervention.
- 2.08 Contractor shall be responsible for final and working system. Use of existing components and materials provided by others during new construction shall be integral to system configuration and cost-effective installation. Bidders are encouraged to use all compatible and working components in system solution. See schedule(s) and reference files for additional detail.

BUILDING ACCESS CONTROLS 27 53 13 - 36

2.09 CENTRAL MANAGEMENT SOFTWARE

- A. Option 1: Central management software shall meet or exceed the following for Andover Continum:
 - 1. Contractor shall provide and fully configure all necessary licensing for existing Andover Continuum door access system for all provided card readers and IP bridge devices. Licensing shall be valid for the term of the warranty.
 - 2. Contractor shall fully configure Andover Continuum software to Owner requirements for a fully functional system.
 - 3. System shall provide for Owner definition of access groups, schedules and door groups that can be combined by Owner's system administrator into combinations of access policies for users.

2.10 CENTRAL MANAGEMENT SOFTWARE

- A. Option 2: Central management software shall meet or exceed the following for New access control system:
 - 1. Contractor shall provide and fully configure all necessary licensing for new door access system for all provided card readers and IP bridge devices. Licensing shall be valid for the term of the warranty.
 - 2. Contractor shall fully configure new software to Owner requirements for a fully functional system.
 - 3. System shall provide for Owner definition of access groups, schedules and door groups that can be combined by Owner's system administrator into combinations of access policies for users.

2.11 CONTROLLER

- A. Acceptable Manufacturer(s)
 - 1. AVIGILON UNITY ACCESS
 - 2. LENEL•S2 ONGUARD
 - 3. LENEL•S2 NETBOX
 - 4. GENTEC SYNERGIS

a.

E. Door controllers shall be provided in locations at all electrified door hardware locations and as identified on drawings and door hardware schedule. Contractor shall

BUILDING ACCESS CONTROLS 27 53 13 - 37 provide one door controller for each 1 or 2-leaf opening requiring electrified door hardware as identified on Section 087100 door schedule.

F. Controllers are to be housed in a surface mounted lockable impact resistant enclosure to protect the controller and provide for cable termination and management in current centralized door controller location. Contractor shall provide all necessary plenum rated cables at both the closet and device location to the controller.

G. Contractor shall supply and install all necessary patch cables to connect equipment to network and in data closet location. Contractor shall cross connect equipment in data closet and report to Owner data closet, switch and port location for programming.

H. In identified locations where new controllers and doors are to be added. Controller(s) shall provide, but not be limited to:

- 1. Mercury hardware based to support multiple software vendor's systems.
- 2. Capable of supporting multiple types and styles of credential readers.

2.12 CREDENTIAL READERS

- A. Credential readers are to be provided in locations identified on provided drawings as indicated with the **CR** (wall switch style) and **CRM** (mullion mount style) symbols.
- B. Acceptable Manufacturers:
 - 1. HID
 - a. HID Signo Reader 40 (Standard)
 - b. HID Signo Reader 20 (Mullion)
- C. Where indicated on drawings, credential readers (CR) shall be provided that meet or exceed the following requirements:
 - 1. Read Owner or Contractor supplied credentials.
 - 2. Sealed weatherproof shell enclosure rated for outdoor operation.
 - 3. Surface mounted on exterior surface of structure.
 - a. Contractor shall supply either mullion or full-sized wall mount style depending on mounting conditions.
 - LED or other type of visual indicator indicating request status. BUILDING ACCESS CONTROLS 27 53 13 - 38

- 5. Audible status indicator upon user prompt.
- 6. All integrated credential readers shall include appropriate weatherproofing kit for a reliable installation.
- 7. Contractor shall supply necessary cable harness in appropriate length to integrate with door hardware, power supplies or any provided door accessories.
- D. See associated supplied drawings for location and quantity.
- E. See Door Hardware Schedule 087100 as some card readers are indicated as "Reuse Existing."
 - 1. It is the responsibility of the Section 28 13 00 contractor to take responsibility for the reader once removed and for all reinstallation of the existing device.
- F. All reader locations are to be verified with Owner and CBD prior to ordering for exact model. Owner and CBD are not responsible for any readers that are ordered incorrectly for the mounting conditions.

2.13 DOOR INTERFACE HARDWARE (INTEGRATED COMPONENTS)

- A. Where new Credential Readers are to be provided, the door interface hardware provided by others shall meet or exceed the following:
 - 1. Dual voltage 12/24 low voltage strikes will be provided by others as part of Section 087100 work and shall be integrated into the Credential Readers installation by Contractor where indicated on drawings and as specified herein.
 - a. Contractor shall supply necessary manufacturer supported cable to connect strike to Contractor supplied Credential Readers.
 - b. Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by others.
 - c. Contractor shall be responsible for connecting and integrating any voltage regulation hardware (Smart Pac) if identified in door schedule.
 - 2. 24v electric latch retraction door exit devices will be provided by others as part of the Section 08700 work and shall be integrated with credential reader installation by Contractor where identified on drawings and as specified herein.
 - a. Contractor shall supply necessary manufacturer supported cable to connect latch retraction device to Contractor Credential Readers.

BUILDING ACCESS CONTROLS 27 53 13 - 39

- b. Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by others.
- c. Contractor shall be responsible for the sizing and supply of necessary 24V power supplies to support powered door hardware as indicated on door schedule.
- d. Contractor shall be responsible for the mounting and configuration of necessary 24V power supplies to power door hardware indicated on door schedule. Contractor will work collaboratively with electrical contractor to safely connect provided power supplies.
- 3. Door sets Operation:
 - a. See "Notes" under the Hardware Sets for intended sequence of operation for the specific Set Number
- 4. All door strike and latch retraction cables shall of a sufficient length to be neatly routed by Contractor, to a location suitable to reach Credential Reader and/or power supply for door(s).
- 5. Where magnetic door locks are to be provided by others as part of Section 08700 work and shall be integrated with provided lock down buttons to secure the office area.
 - a. Contractor shall supply necessary manufacturer supported cable to connect maglock to Contractor supplied lock down buttons.
 - b. Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by others.
 - c. Contractor shall be responsible for supply, installation and configuration of necessary 24V power supplies to power units.
- 6. Provided Credential Readers shall be integrated with door handicap operators where applicable. Contractor shall supply all labor and accessories to integrate Credential reader with handicap operators for a safe and fully functional system. Contractor shall work collaboratively with handicap operator installers to verify the following functionality:
 - a. External operator buttons shall only be functional in the event of a successful card read or remote door unlatch. Door operator motor should only be operable in the event of a successful card read.
 - b. Internal operator buttons shall be functional at all times, the door should unlock automatically.

- c. Contractor to supply all hardware necessary including accessories and installation to enable this capability.
- 7. Provided Credential Readers shall be integrated with mag hold opens provided by others.
 - a. When doors are in a locked state, mag hold opens shall be deenergized where applicable.

2.14 HIDDEN DOOR RELEASE SWITCHES

- A. Door release switches are to be provided in locations identified on provided drawings as indicated with the **DR** symbol.
 - 1. Door release switches shall meet or exceed the following requirements:
 - a. Door release buttons hidden (ASSA ABLOY TS-18 or equal)
- B. Hidden door release switches shall be programmed to provide door release capabilities for doors identified on provided drawings. Contractors shall supply all necessary cabling, labor and accessories to integrate hidden door release switches with Contractor provided door controllers.

2.15 PUSH-TO-ENTER BUTTONS

- A. Push to enter buttons are to be provided in locations identified on provided drawings as indicated with the **PTE** symbol.
- B. New push-to-enter buttons shall be ASSA ABLOY Securitron TS-9 model or equal.
- C. Mullion mount push-to-enter buttons shall be programmed to provide entry from the secure side of the door into the office for students and staff during school hours. Contractor shall include all necessary cabling, labor and accessories to integrate push-to-enter buttons with Contractor provided door card readers and/or IP bridge devices.
- D. Contractor shall work collaboratively with Owner to program push-to-enter buttons to function on approved schedule.

2.16 LOCK DOWN BUTTONS

- A. Lock down buttons are to be provided in locations identified on provided drawings as indicated with the LD symbol.
- В.

- C. Three (3) lock down buttons are to be provided. Provided buttons shall be located at front office location and in principal office as indicated on drawings and as specified herein.
- D. New buttons shall be wall mounted and prominently located in an area promoting easy access by staff that may reasonably be required to initiate a lock down.
- E. New lockdown buttons shall be SS2242LD-EN STI Yellow Indoor/Outdoor Flush or approved equal.
- F. Lockdown buttons shall be programmed to provide all functionality defined by Owner, including, door mag locks if applicable and door access software. Such integration shall include both a lockdown and all clear integration.
- G. Contractor shall supply all necessary IP bridge devices to enable lockdown capability as specified.
- H. Magnetic hold opens are to be integrated with the access control system.Contractor is to provide all cabling from the access control panel to the fire panel for integration. Contractor to coordinate with the fire system contractor. In the event of a lock down button activation, all magnetic hold opens shall de-energize and release the magnetic hold opens similar to a fire event.

2.17 COMPONENT INTERCONNECTION

- A. All wiring not installed in conduit shall be plenum type cable and shall be so identified with continuous marking.
- B. Wiring color shall remain the same throughout the system. Colors used for coding shall be as directed by the system manufacturer, Owner and Designer.
- C. Wire shall be copper.

2.18 DOOR VIDEO INTERCOM STATION (At Doors)

- A. Door video intercom stations are to be provided in locations identified on provided drawings as indicated with the IC symbol.
- B. Contractor to supply and install IP Video Intercom door stations per drawing locations.
- C. Acceptable Manufacturer:
 - 1. AIPHONE IX SERIES
 - a. IX-DV Quantity two (2)

b. IX-DVM – Mullion Mount – Quantity one (3)

2.19 DOOR MASTER STATION (At Desks)

- A. Door master stations are to be provided in locations identified on provided drawings as indicated with the **MS** symbol.
- B. Contractor to supply and install Video Master Station, SIP Compatible, with 7" Touchscreen, Black
- C. Acceptable Manufacturer:
 - 1. AIPHONE IX SERIES
 - a. IX-MV7-BIP Quantity three (3)
- D. Contractor to provide and install Aiphone IX-Soft PC Master Station for IX Series (Windows) at three locations. Locations are to be determined.

2.20 MANDATORY ALTERNATE:

- A. Door Contact Additions
 - 1. Contractor shall supply door contacts and associated wiring as indicated on the drawings with an A1 symbol.
- B. Door Video Intercom Card Reader
 - 1. Contractor to not supply independent card readers at doors 100V.3, 100A.4 and 100H.3 and instead integrate a card reader option into the door video intercom using Aiphone part number AC-PROX-1G.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Contractor shall conduct detailed walk-through examination with Designer and Owner verifying equipment and material locations as well as mounting and placement requirements prior to commencement of other installation activities.
- B. Contractor shall ensure all submittals and shop drawings have been provided to, and approval has been obtained from Designer prior to commencement of any final installation activities.

3.02 INSTALLATION

- A. Contractor shall be familiar with the environment where work will be done as specified herein and make every reasonable effort to minimize interference with Owner's or other contractor's activities.
- B. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed, and disposed of in an approved container for the site. All equipment and tools shall be removed from common areas and stored in approved, secure storage locations. Any work that may impede the general use of the space and/or other contractor's work and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.
- C. All equipment and materials shall be installed in a neat and workmanlike manner. Best practices installation principles shall be used throughout the project.
- D. The Contractor shall furnish, set in place, and install all equipment necessary for a fully compliant and operational system as specified herein. The installation process includes, but is not limited to the following:
 - 1. Inventory receipt of all components and equipment.
 - 2. Storage of all equipment and components until such time those items are installed according to the specifications.
 - 3. Transport equipment to the Owner's installation location(s).
 - 4. Assemble, install, configure, and test all equipment and components, maintaining accurate inventory records and status documents and discarding packaging.
 - 5. Collect all information necessary to accurately program all system devices to the Owner's intended use and need.
 - 6. Label all system devices as may be appropriate and required by Owner and Designer.
 - 7. Complete end user and system administrator training programs as specified herein.
 - 8. Work shall be performed to meet local codes and industry standards including proper grounding and bonding of installed equipment.
- E. Worksites include the following:
 - Northwestern Middle School 176 Limit Street Battle Creek, Michigan 49037

BUILDING ACCESS CONTROLS 27 53 13 - 44

- F. 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 misplaces any surfaces or access plates/panels the Contractor shall repair and/or replace the surface, plate or panel to the original condition.
 - 1. 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 Designer.
 - 2. The building and work area shall be returned to its original condition prior to final sign off of the project.
- G. Following installation and system "turn-up", but prior to final acceptance of the system, Contractor shall conduct follow-up interviews with Owner identified administrators and staff to review system functionality, suitability and confirm feature and program fitness for Owner applications.
 - 1. Follow-up interviews shall be fully documented by Contractor and submitted to Owner for approval.

3.03 TESTING

- A. In an effort to ensure a smooth "turn-up" of the new system Contractor shall submit to a thorough testing process as defined herein prior to cut-over.
- 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.
- 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.
 - 2. Within reasonable time after receipt of request, Designer will provide 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. Designer will review Contractors detailed "turn-up" plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner and Contractor after which system "turn-up" 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 asbuilt drawings, owner's 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 installed.
 - 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.

BUILDING ACCESS CONTROLS 27 53 13 - 46

- 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. CAD as built drawings for each building.
- 14. System Configuration Report.
- 15. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, model numbers, serial number, physical installation location and software/firmware options.

3.05 SCHEDULE, MEETINGS AND PLANS

- A. 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.
- B. All work shall be coordinated with Owner's construction manager on site.
- C. 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

 \bigcirc

SYMBOL LEGEND			
*	EXISTING DATA DROP (COUNT)		
XPJ	EXISTING PROJECTOR		
₽J	EXISTING PROJECTION DATA DROP		
XSC	EXISTING PROJECTION SCREEN		
\bigotimes	EXISTING CLOCK		
XPA	EXISTING PUBLIC ADDRESS SPEAKER		
(XPA)D	EXISTING PUBLIC ADDRESS SPEAKER - DOUBLE SIDED		
XHN	EXISTING PUBLIC ADDRESS HORN		
ХСВ	EXISTING PUBLIC ADDRESS CALL BUTTON		
XS	EXISTING CLASSROOM SOUND SPEAKER		
XWAP	EXISTING WIRELESS ACCESS POINT		
₩	NEW DATA DROP WALL		
♥	NEW DATA DROP CEILING (COUNT. CABLE COILED IN CEILING)		
Ю	NEW CLOCK - SINGLE SIDED		
P□	NEW CLOCK - DOUBLE SIDED		
₽ P	NEW PROJECTOR		
PJ	NEW PROJECTOR TEACHER STATION		
SC	NEW PROJECTION SCREEN		
S	NEW CLASSROOM SOUND SPEAKER		
ΡΑ	NEW PUBLIC ADDRESS SPEAKER CEILING (2X2)		
	NEW PUBLIC ADDRESS HORN		
СВ	NEW CALL PUBLIC ADDRESS CALL BUTTON		
ST	NEW STROBE LIGHT		

SYMBOL LEGEND CONTINUED		
100V.4	DOOR NUMBER	
ACP	EXISTING ACCESS CONTROL PANEL	
XCR	EXISTING CARD READER	
XSS	EXISTING ELECTRIC STRIKE - SURFACE MOUNT	
XES	EXISTING ELECTRIC STRIKE	
XML	EXISTING MAG LOCK	
XDC	EXISTING DOOR CONTACT	
XRE	EXISTING REQUEST TO EXIT MOTION SENSOR	
CR	NEW CARD READER - HID SIGNO 40	
CRM	NEW CARD READER - HID SIGNO 20	
SS	NEW ELECTRIC STRIKE - SURFACE MOUNT	
ES	NEW ELECTRIC STRIKE	
ML	NEW MAG LOCK	
DC	NEW DOOR CONTACT	
RE	NEW MOTION REQUEST TO EXIT MOTION SENSOR	
DR	NEW DOOR RELEASE BUTTON	
LD	NEW LOCKDOWN BUTTON	
IC	NEW IP DOOR INTERCOM - DOOR STATION - EXTERIOR	
MS	NEW IP DOOR INTERCOM - MASTER STATION - INTERIOR	
PTE	NEW PUSH TO ENTER BUTTON	







Page 140 of 148

GENERAL POWER NOTES

- EQUIPMENT. B. UNLESS OTHERWISE NOTED, CIRCUITS TO 3-PHASE MECHANICAL EQUIPMENT SHALL BE 3/4"C, 3#12, 1#12G
- AND SINGLE PHASE CIRCUITS SHALL BE 3/4"C, 2#12, 1#12G. C. UNLESS OTHERWISE NOTED, NEW CEILING RECEPTACLES SHALL CONNECT TO EXISTING CIRCUITS.
- D. WHERE CARD READER (CR) ACCESS CONTROL IS SHOWN AT DOORS SEE SHEET E-501 FOR ROUGH-IN AND CIRCUITING REQUIRED. COORDINATE WITH TECHNOLOGY CONTRACTOR AND DOOR HARDWARE.

A. UNLESS OTHERWISE NOTED, EACH VUV, CUH AND EF DISCONNECT SWITCH IS FURNISHED WITH THE

Addendum #2

GENERAL POWER NOTES

- A. UNLESS OTHERWISE NOTED, EACH VUV, CUH AND EF DISCONNECT SWITCH IS FURNISHED WITH THE EQUIPMENT.
- B. UNLESS OTHERWISE NOTED, CIRCUITS TO 3-PHASE MECHANICAL EQUIPMENT SHALL BE 3/4"C, 3#12, 1#12G AND SINGLE PHASE CIRCUITS SHALL BE 3/4"C, 2#12, 1#12G. C. UNLESS OTHERWISE NOTED, NEW CEILING RECEPTACLES SHALL CONNECT TO EXISTING CIRCUITS.
- D. WHERE CARD READER (CR) ACCESS CONTROL IS SHOWN AT DOORS SEE SHEET E-501 FOR ROUGH-IN AND CIRCUITING REQUIRED. COORDINATE WITH TECHNOLOGY CONTRACTOR AND DOOR HARDWARE.

	POWER KEYNOTES
KEY VALUE	KEYNOTE TEXT
E4	FURNISH AND INSTALL A FLOOR TO CEILING UNISTRUT OR EQU TRANSFORMER ABOVE FLOOR MOUNTED TRANSFORMER SHO
E13	PROVIDE A 2" EMT SLEEVE ABOVE THE CEILING FOR COMMUNI
E22	FURNISH AND INSTALL A 120V CIRCUIT (3/4"C, 2#12AWG + #12G) PANEL FOR LOW VOLTAGE MECHANICAL EQUIPMENT AIR FILTE ABOVE DROP CEILING WHERE REQUIRED.

UAL RACK AND MOUNT NEW NICATIONS CABLES. 2G) TO JUNCTION BOX FROM NOTED TER CONTROLS. MOUNT JUNCTION BOX

REVISIONS
 REV
 DESCRIPTION

 A01
 ADDENDUM 01

 A02
 ADDENDUM 02

 P01
 PROPOSAL REQUEST 01

PROJ. #: 21-0458 DATE: 18-NOV-2022

SHEET

EP101B

APPENDIX F- COMBINED CONSTRUCTION DRAWINGS (REFERENCE) CONTINUED

GENERAL POWER NOTES A. UNLESS OTHERWISE NOTED, EACH VUV, CUH AND EF DISCONNECT SWITCH IS FURNISHED WITH THE

- EQUIPMENT. B. UNLESS OTHERWISE NOTED, CIRCUITS TO 3-PHASE MECHANICAL EQUIPMENT SHALL BE 3/4"C, 3#12, 1#12G
- AND SINGLE PHASE CIRCUITS SHALL BE 3/4"C, 2#12, 1#12G.
- D. WHERE CARD READER (CR) ACCESS CONTROL IS SHOWN AT DOORS SEE SHEET E-501 FOR ROUGH-IN AND CIRCUITING REQUIRED. COORDINATE WITH TECHNOLOGY CONTRACTOR AND DOOR HARDWARE.

	-	
		POWER KEYNOTES
	KEY VALUE	KEYNOTE TEXT
	E4	FURNISH AND INSTALL A FLOOR TO CEILING UNISTRUT OR EQU TRANSFORMER ABOVE FLOOR MOUNTED TRANSFORMER SHO
	E8	CONNECT TO ROOF MOUNTED CU. SEE CONNECTION DIAGRAM
	E13	PROVIDE A 2" EMT SLEEVE ABOVE THE CEILING FOR COMMUNI
(A2)	E19	VERIFY KILN RECEPTACLE AND CIRCUIT REQUIREMENTS WITH
(NE)		
Ś	E22	FURNISH AND INSTALL A 120V CIRCUIT (3/4"C, 2#12AWG + #12G) FOR LOW VOLTAGE MECHANICAL EQUIPMENT AIR FILTER CON DROP CEILING WHERE REQUIRED.
C	un	mmmm

C. UNLESS OTHERWISE NOTED, NEW CEILING RECEPTACLES SHALL CONNECT TO EXISTING CIRCUITS.

UAL RACK AND MOUNT NEW

1 DETAIL 8 ON SHEET E-501. CATIONS CABLES.

EQUIPMENT SUPPLIED. VERIFY EXACT G) TO JUNCTION BOX FROM NOTED PANEL NTROLS. MOUNT JUNCTION BOX ABOVE

mm

<u>|</u>

SHEET

EP101C

- EQUIPMENT.

- AND CIRCUITING REQUIRED. COORDINATE WITH TECHNOLOGY CONTRACTOR AND DOOR HARDWARE.

- A. UNLESS OTHERWISE NOTED, EACH VUV, CUH AND EF DISCONNECT SWITCH IS FURNISHED WITH THE
- B. UNLESS OTHERWISE NOTED, CIRCUITS TO 3-PHASE MECHANICAL EQUIPMENT SHALL BE 3/4"C, 3#12, 1#12G AND SINGLE PHASE CIRCUITS SHALL BE 3/4"C, 2#12, 1#12G.
- C. UNLESS OTHERWISE NOTED, NEW CEILING RECEPTACLES SHALL CONNECT TO EXISTING CIRCUITS.
- D. WHERE CARD READER (CR) ACCESS CONTROL IS SHOWN AT DOORS SEE SHEET E-501 FOR ROUGH-IN

ELECTRICAL, A/V & THEATRICAL AND LIGHTING KEYN		
Key Value	Keynote Text	
E13	PROVIDE A 2" EMT SLEEVE ABOVE THE CEILING FOR COMMUNICATIONS CABLES.	
E16	CORE DRILL WALL/STAGE FLOOR AS REQUIRED AND INSTALL 3-1"CONDUITS FOR CHASE AREA CREATED BY NEW WOOD STAIL CONDUIT FOR 120V POWER AND A/V CONTRACTOR'S CABLES.	
E21	FURNISH AND INSTALL A DUCT DETECTOR ON AHU-160 RETURN AIR DUCT.	
E22	FURNISH AND INSTALL A 120V CIRCUIT (3/4"C, 2#12AWG + #12G) TO JUNCTION BOX FROM NOTED PANEL FOR LOW VOLTAGE M CONTROLS. MOUNT JUNCTION BOX ABOVE DROP CEILING WHERE REQUIRED.	
V1	ELECTRICAL POWER AND DMX CONNECTIONS MOUNTED ON LIGHT PIPE FOR USE BY A/V CONTRACTOR.	
V5	PROVIDE A DUPLEX RECEPTACLE AT 18" AFF. COORDINATE WITH A/V CONTRACTOR.	
V6	PROVIDE A DMX OUTLET BOX AT 18" AFF. COORDINATE WITH A/V CONTRACTOR.	
V8	PROVIDE A SURFACE MOUNT HOFFMAN ASE 12X12X4NK BACKBOX FOR A/V CONTRACTOR'S CONNECTION PLATE. COORDINAT	
V9	PROVIDE A JUNCTION BOX AS HIGH ON WALL AS POSSIBLE FOR LEFT AND RIGHT MAIN SPEAKERS. PROVIDE 3/4"C FROM BOX COORDINATE WITH A/V CONTRACTOR.	
V13	PROVIDE A SINGLE GANG EXTRA DEEP BOX RECESSED AT 48" AFF FOR A/V INTERCOM STATION . ROUTE CONDUIT TO EQUIPM CONTRACTOR.	
V14	MOUNT ABOVE STAGE TO PROVIDE MOTORIZED SCREEN POWER. COORDINATE LOCATION WITH RIGGING CONTRACTOR.	
V15	PROVIDE A RECESSED 4 11/16 SQUARE BOX, 3 1/4" DEEP JUNCTION BOX FOR DELAY SPEAKERS. PROVIDE 1" CONDUIT TO EQU	
V17	PROVIDE A TWO GANG JUNCTION BOX AT 84" AFF. PROVIDE A 1" CONDUIT TO AUDITORIUM BALCONY EQUIPMENT PLATFORM.	
V18	PROVIDE A TWO GANG JUNCTION BOX ABOVE DOOR, COORDINATE EXACT MOUNTING HEIGHT WITH A/V CONTRACTOR. PROVI BALCONY EQUIPMENT PLATFORM.	
V19	PROVIDE A SINGLE GANG EXTRA DEEP JUNCTION BOX FOR SPEAKER PROVIDED BY A/V CONTRACTOR. COORDINATE MOUNTI PROVIDE A 1" CONDUIT TO EQUIPMENT RACK ER3.	
V24	INSTALL BACKBOX FURNISHED BY A/V CONTRACTOR 42" AFF, ROUTE 3/4" CONDUIT TO CEILING SPACE FOR A/V CONTRACTOR	
V25	PROVIDE A SINGLE GANG EXTRA DEEP BOX AT 48" AFF FOR A/V VOLUME CONTROL. ROUTE CONDUIT TO EQUIPMENT RACK. C	
V26	PROVIDE A FOUR GANG EXTRA DEEP JUNCTION BOX AT 48" AFF FOR A/V INTERCOM STATION. ROUTE CONDUIT TO EQUIPMEN CONTRACTOR.	

IOTES R. REFER TO SHEETS A-101E AND A-502. ECHANICAL EQUIPMENT AIR FILTER E WITH AV CONTRACTOR. TO THE EQUIPMENT RACK ER1. IENT RACK. COORDINATE WITH AV	the state of the s
DE A 1° CONDUIT TO AUDITORIUM ING HEIGHT WITH AV CONTRACTOR. FURNISHED AND INSTALLED CABLES. OORDINATE WITH AV CONTRACTOR. T RACK. COORDINATE WITH AV	BATTLE CREEK PUBLIC SCHOOLS NORTHWESTERN SCHOOL ADDITIONS AND RENOVATION 176 LIMIT STREET, BATTLE CREEK, MI 4007
	POWER PLAN - FIRST FLOOR AREA E
	REVISIONS REV DESCRIPTION DATE A01 ADDENDUM 01 01DEC2022 A02 ADDENDUM 02 12DEC2022 S01 ASI 01 15FEB2023
	PROJ. #: 21-0458 DATE: 18-NOV-2022 SHEET EP101E

<u>G</u>	ENERAL POWER NOTES
A.	UNLESS OTHERWISE NOTED, EACH VUV, CUH AND EF DISCONNECT SWITCH IS FURNIS EQUIPMENT.
Б	

B. UNLESS OTHERWISE NOTED, CIRCUITS TO 3-PHASE MECHANICAL EQUIPMENT SHALL BE 3/4"C, 3#12, 1#12G AND SINGLE PHASE CIRCUITS SHALL BE 3/4"C, 2#12, 1#12G. (A1)
(C. UNLESS OTHERWISE NOTED, NEW CEILING RECEPTACLES SHALL CONNECT TO EXISTING CIRCUITS.

D. WHERE CARD READER (CR) ACCESS CONTROL IS SHOWN AT DOORS - SEE SHEET E-501 FOR ROUGH-IN AND CIRCUITING REQUIRED. COORDINATE WITH TECHNOLOGY CONTRACTOR AND DOOR HARDWARE.

	POWER KEYNOTES
KEY VALUE	KEYNOTE TEXT
E6	FURNISH AND INSTALL CONCRETE ENCASED GROUNDING ELECTRODE IN TO GBB IN ELECTRICAL ROOM 142E.
E13	PROVIDE A 2" EMT SLEEVE ABOVE THE CEILING FOR COMMUNICATIONS CA
V20	PROVIDE A SINGLE GANG RECESSED EXTRA DEEP JUNCTION BOX FOR SP COORDINATE MOUNTING HEIGHT WITH A/V CONTRACTOR. PROVIDE A 1" C
V21	INSTALL EQUIPMENT RACK BACKBOX PROVIDED BY A/V CONTRACTOR AT

ISHED WITH THE

IN NEW CONCRETE FOOTING. EXTEND GEC S CABLES. R SPEAKER PROVIDED BY A/V CONTRACTOR. 1" CONDUIT TO EQUIPMENT RACK ER4. AT 24" AFF.

Addendum #1

A/V & THEATRICAL LIGHTING GENERAL NOTES VA. REFER TO EAV AND TE DRAWINGS FOR BOX SIZES, CONDUIT SIZES, INSTALLATION SIZES, A/V & THEATRICAL LIGHTING EQUIPMENT LEGENDS AND ROUTING OF CONDUITS FOR AUDITORIUM. ALL

CONDUIT IS 3/4" UNLESS OTHERWISE NOTED. VB. COORDINATE AUDITORIUM AUDIO, VISUAL AND THEATRICAL LIGHTING INSTALLATION AND ROUGH-IN LOCATIONS WITH A/V CONTRACTOR.

Key Value	Keynote Text
V1	ELECTRICAL POWER AND DMX CONNECTIONS MOUNTED ON LIGHT PIPE FOR USE BY A/V CONTRACTOR.
V10	COORDINATE POWER, DMX AND OTHER PROJECTION BOOTH INSTALLATION LOCATIONS, MOUNTING HEIGHT AND BACKBOX SIZES WITH THE A/V CONTRACTOR.
V11	PROVIDE A SINGLE GANG EXTRA DEEP RECESSED BOX FOR WIRELESS ANTENNA. MOUNT AT 96" AFF. PROVIDE 1" CONDUIT TO A/V ENCLOSURES IN PROJECTION BOOTH. COORDINATE WITH THE A/V CONTRACTOR.
V12	PROVIDE A TWO GANG RECESSED BACKBOX FOR SPEAKER AT 84" AFF. COORDINATE EXACT LOCATIONS WITH A/V CONTRACTOR. STUB CONDUIT OUT NEAR PROJECTION BOOTH EQUIPMENT RACKS.
V13	PROVIDE A SINGLE GANG EXTRA DEEP BOX RECESSED AT 48" AFF FOR A/V INTERCOM STATION . ROUTE CONDUIT TO EQUIPMENT RACK. COORDINATE WITH A/V CONTRACTOR.
V15	PROVIDE A RECESSED 4 11/16 SQUARE BOX, 3 1/4" DEEP JUNCTION BOX FOR DELAY SPEAKERS. PROVIDE 1" CONDUIT TO EQUIPMENT RACK ER1.
V16	PROVIDE A SURFACE MOUNTED JUNCTION BOX FOR THE PROJECTOR AND CAMERA, COORDINATE SIZE AND EXACT LOCATION WITH A/V CONTRACTOR. PROVIDE 1" CONDUIT TO PROJECTION BOOTH.
V19	PROVIDE A SINGLE GANG EXTRA DEEP JUNCTION BOX FOR SPEAKER PROVIDED BY A/V CONTRACTOR. COORDINATE MOUNTING HEIGHT WITH A/V CONTRACTOR. PROVIDE A 1" CONDUIT TO EQUIPMENT RACK ER3
V22	PROVIDE AN EXTRA DEEP TWO GANG JUNCTION BOX FOR RECORDING MICROPHONE. MOUNT TO CATWALK RAIL ABOVE, COORDINATE EXACT LOCATION WITH THE A/V CONTRACTOR. PROVIDE A 1" CONDUIT FROM TH
	YBOX NO EQUIPMENTRACKVERI. Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y
V24	INSTALL BACKBOX FURNISHED BY A/V CONTRACTOR 42" AFF, ROUTE 3/4" CONDULT TO CEILING SPACE FOR

HTING KEYNOTES

Addendum #1

GENERAL DEMOLITION NOTES A. DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, SHOWN OR NOT SHOWN ON PLANS. PROTECT EXISTING CIRCUITS FOR CONNECTION TO NEW FIXTURES. DISCONNECT AND REMOVE ALL EXISTING LIGHTING CONTROLS.

- B. DISCONNECT AND REMOVE EXISTING 480V-120/240 TRANSFORMERS. PROTECT EXISTING CIRCUITS FOR EXTENSION AND RECONNECTION TO NEW TRANSFORMERS. SEE SHEET ED-700.
- C. REFER TO MECHANICAL PLANS FOR MECHANICAL EQUIPMENT ITEMS TO BE REMOVED. DISCONNECT AND REMOVE ASSOCIATED ELECTRICAL EQUIPMENT, CONDUITS AND CONDUCTORS.
- D. SEE SHEET ED-700 FOR ADDITIONAL INFORMATION.
- E. WHERE EXISTING SUSPENDED CEILINGS ARE BEING REPLACED, DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICES, PA SPEAKERS, AND ANY OTHER DEVICES HAVING ELECTRICAL CONNECTIONS AND PROTECT FOR REINSTALLATION IN THE NEW CEILING. REINSTALL ALL DEVICES IN NEW CEILINGS ADJUSTING LOCATIONS TO AVOID CONFLICTS WITH NEW ABOVE CEILING DUCTWORK AND CEILING DIFFUSERS; REROUTE AND EXTEND EXISTING ELECTRICAL CIRCUITS AS REQUIRED.

DEMOLITION KEYNOTES		
Key Value	Keynote Text	
D1	DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES AND MATERIALS FROM EXISTING WALLS BEING DEMOLISHED. MAINTAIN CONTINUITY OF EXISTING CIRCUITS WHICH REMAIN. REFER ALSO TO ARCHITECTURAL PLA	
D2	MECHANICAL EQUIPMENT SCHEDULED FOR REMOVAL. DISCONNECT AND REMOVE ALL ASSOCIATED CONDUCTORS CONDUITS, FITTINGS, HANGERS, ETC. BACK TO SOURCE.	
D3	DISCONNECT AND REMOVE EXISTING FACP AND INTERCEPT EXISTING CIRCUITS FOR RECONNECTION TO NEW FAC AS REQUIRED.	
D11	DISCONNECT AND REMOVE ALL EXISTING CEILING MOUNTED SPEAKERS IN THIS ROOM. REINSTALL SPEAKERS IN N CEILING AND RECONNECT.	
D12	DISCONNECT EXISTING CEILING MOUNTED PROJECTOR RECEPTACLE AND PROJECTOR. REINSTALL RECEPTACLE IN NEW CEILING AND RECONNECT. REINSTALL PROJECTOR.	
D13	DISCONNECT EXISTING CEILING MOUNTED CAMERA. REINSTALL IN NEW CEILING AND RECONNECT.	
D15	ROOM TO BE RECONFIGURED, SEE SHEETS EL101A AND EP101A. EXTEND EXISTING SPEAKER, PROJECTOR AND CAMERA CIRCUITS TO RECONFIGURED ROOM AND REINSTALL CEILING MOUNTED ITEMS.	
D16	DISCONNECT AND REMOVE EXISTING POWER AND DATA POWER POLE AND ASSOCIATED CIRCUITS. POWER POLES WILL NOT BE REINSTALLED.	
D20	DISCONNECT AND REMOVE EXISTING BOXES CONTAINING TELEPHONE LINE CONNECTIONS.	
D23	DISCONNECT AND REMOVE EXISTING CLOCK. NEW DIGITAL CLOCK TO BE PLACED IN SAME LOCATION AS EXISTING.	

FROM EXISTING WALLS BEING REFER ALSO TO ARCHITECTURAL PLANS MOVE ALL ASSOCIATED CONDUCTORS, JITS FOR RECONNECTION TO NEW FACP HIS ROOM. REINSTALL SPEAKERS IN NEW ROJECTOR. REINSTALL RECEPTACLE IN NG AND RECONNECT. STING SPEAKER, PROJECTOR AND TED ITEMS. SSOCIATED CIRCUITS. POWER POLES

ED101A

ELECTRICAL DEMOLITION PLAN - AREA B

GENERAL DEMOLITION NOTES

- A. DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, SHOWN OR NOT SHOWN ON PLANS. PROTECT EXISTING CIRCUITS FOR CONNECTION TO NEW FIXTURES. DISCONNECT AND REMOVE ALL EXISTING LIGHTING CONTROLS.
- B. DISCONNECT AND REMOVE EXISTING 480V-120/240 TRANSFORMERS. PROTECT EXISTING CIRCUITS FOR EXTENSION AND RECONNECTION TO NEW TRANSFORMERS. SEE SHEET ED-700.
- C. REFER TO MECHANICAL PLANS FOR MECHANICAL EQUIPMENT ITEMS TO BE REMOVED. DISCONNECT AND REMOVE ASSOCIATED ELECTRICAL EQUIPMENT, CONDUITS AND CONDUCTORS.
- D. SEE SHEET ED-700 FOR ADDITIONAL INFORMATION.
- E. WHERE EXISTING SUSPENDED CEILINGS ARE BEING REPLACED, DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICES, PA SPEAKERS, AND ANY OTHER DEVICES HAVING ELECTRICAL CONNECTIONS AND PROTECT FOR REINSTALLATION IN THE NEW CEILING. REINSTALL ALL DEVICES IN NEW CEILINGS ADJUSTING LOCATIONS TO AVOID CONFLICTS WITH NEW ABOVE CEILING DUCTWORK AND CEILING DIFFUSERS; REROUTE AND EXTEND EXISTING ELECTRICAL CIRCUITS AS REQUIRED.

DEMOLITION KEYNOTES

Key Value	Keynote Text
D1	DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES AND MATERIALS FROM EXISTING WALLS BEING
D2	MECHANICAL EQUIPMENT SCHEDULED FOR REMOVAL. DISCONNECT AND REMOVE ALL ASSOCIATED CONDUCTORS,
D11	DISCONNECT AND REMOVE ALL EXISTING CEILING MOUNTED SPEAKERS IN THIS ROOM. REINSTALL SPEAKERS IN NE CEILING AND RECONNECT.
D12	DISCONNECT EXISTING CEILING MOUNTED PROJECTOR RECEPTACLE AND PROJECTOR. REINSTALL RECEPTACLE IN NEW CEILING AND RECONNECT. REINSTALL PROJECTOR.
D13	DISCONNECT EXISTING CEILING MOUNTED CAMERA. REINSTALL IN NEW CEILING AND RECONNECT.
D18	DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE.
D21	DISCONNECT AND REMOVE EXISTING RECEPTACLE STRIP LOCATED ON THIS WALL.
D23	DISCONNECT AND REMOVE EXISTING CLOCK. NEW DIGITAL CLOCK TO BE PLACED IN SAME LOCATION AS EXISTING.

OM EXISTING WALLS BEING EFER ALSO TO ARCHITECTURAL PLANS. VE ALL ASSOCIATED CONDUCTORS, IS ROOM. REINSTALL SPEAKERS IN NEW JECTOR. REINSTALL RECEPTACLE IN AND RECONNECT.

GENERAL DEMOLITION NOTES

- A. DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, SHOWN OR NOT SHOWN ON PLANS. PROTECT EXISTING CIRCUITS FOR CONNECTION TO NEW FIXTURES. DISCONNECT AND REMOVE ALL EXISTING LIGHTING CONTROLS.
- FOR EXTENSION AND RECONNECTION TO NEW TRANSFORMERS. SEE SHEET ED-700.
- C. REFER TO MECHANICAL PLANS FOR MECHANICAL EQUIPMENT ITEMS TO BE REMOVED. DISCONNECT AND REMOVE ASSOCIATED ELECTRICAL EQUIPMENT, CONDUITS AND CONDUCTORS.
- D. SEE SHEET ED-700 FOR ADDITIONAL INFORMATION.
- E. WHERE EXISTING SUSPENDED CEILINGS ARE BEING REPLACED, DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICES, PA SPEAKERS, AND ANY OTHER DEVICES HAVING ELECTRICAL CONNECTIONS AND PROTECT FOR REINSTALLATION IN THE NEW CEILING, REINSTALL ALL DEVICES IN NEW CEILINGS ADJUSTING LOCATIONS TO AVOID CONFLICTS WITH NEW ABOVE CEILING DUCTWORK AND CEILING DIFFUSERS; REROUTE AND EXTEND EXISTING ELECTRICAL CIRCUITS AS REQUIRED.

	DEMOLITION KEYNOTES
Key Value	Keynote Text
D1	DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES AND MATERIALS FROM DEMOLISHED. MAINTAIN CONTINUITY OF EXISTING CIRCUITS WHICH REMAIN. REFE
D2	MECHANICAL EQUIPMENT SCHEDULED FOR REMOVAL. DISCONNECT AND REMOVE CONDUITS, FITTINGS, HANGERS, ETC. BACK TO SOURCE.
D9	DISCONNECT AND REMOVE EXISTING TRANSFORMER AND EXISTING PRIMARY AND CONDUITS. THE NEW TRANSFORMER WILL BE LOCATED ELSEWHERE - SEE LOW VOSHEET E-701.
D11	DISCONNECT AND REMOVE ALL EXISTING CEILING MOUNTED SPEAKERS IN THIS RUCEILING AND RECONNECT.
D12	DISCONNECT EXISTING CEILING MOUNTED PROJECTOR RECEPTACLE AND PROJECTOR NEW CEILING AND RECONNECT. REINSTALL PROJECTOR.
D13	DISCONNECT EXISTING CEILING MOUNTED CAMERA. REINSTALL IN NEW CEILING A
D17	DISCONNECT AND REMOVE EXISTING CEILING MOUNTED SPEAKERS, CAMERAS AN OWNER.
D22	DISCONNECT AND REMOVE EXISTING RECEPTACLE AS WELL AS ALL ASSOCIATED SOURCE OR NEAREST JUNCTION BOX.
~P23~	PHOCOMMECTLAND REMOVE EXIST MACCOREK. NEW DIGHTAL OF OR TO BE PLACED
D24	DISCONNECT EXISTING KILN CIRCUIT. PROTECT CIRCUIT FOR EXTENSION TO NEW POWERED FROM PANELBOARD 1A, FIELD VERIFY CIRCUIT RATING.

GENERAL DEMOLITION NOTES

- A. DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, SHOWN OR NOT SHOWN ON PLANS. PROTECT EXISTING CIRCUITS FOR CONNECTION TO NEW FIXTURES. DISCONNECT AND REMOVE ALL EXISTING LIGHTING CONTROLS.
- B. DISCONNECT AND REMOVE EXISTING 480V-120/240 TRANSFORMERS. PROTECT EXISTING CIRCUITS FOR EXTENSION AND RECONNECTION TO NEW TRANSFORMERS. SEE SHEET ED-700.
- C. REFER TO MECHANICAL PLANS FOR MECHANICAL EQUIPMENT ITEMS TO BE REMOVED. DISCONNECT AND REMOVE ASSOCIATED ELECTRICAL EQUIPMENT, CONDUITS AND CONDUCTORS.
- D. SEE SHEET ED-700 FOR ADDITIONAL INFORMATION.
- E. WHERE EXISTING SUSPENDED CEILINGS ARE BEING REPLACED, DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICES, PA SPEAKERS, AND ANY OTHER DEVICES HAVING ELECTRICAL CONNECTIONS AND PROTECT FOR REINSTALLATION IN THE NEW CEILING. REINSTALL ALL DEVICES IN NEW CEILINGS ADJUSTING LOCATIONS TO AVOID CONFLICTS WITH NEW ABOVE CEILING DUCTWORK AND CEILING DIFFUSERS; REROUTE AND EXTEND EXISTING ELECTRICAL CIRCUITS AS REQUIRED.

DEMOLITION KEYNOTES	
Key Value	Keynote Text
D1	DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES AND MATERIALS F DEMOLISHED. MAINTAIN CONTINUITY OF EXISTING CIRCUITS WHICH REMAIN. F
D2	MECHANICAL EQUIPMENT SCHEDULED FOR REMOVAL. DISCONNECT AND REM CONDUITS, FITTINGS, HANGERS, ETC. BACK TO SOURCE.
D4	DISCONNECT AND REMOVE EXISTING ELECTRICAL SERVICE, CONSUMERS ENE CONDUCTORS WITHIN TRANSFORMER VAULT - SEE SHEET ED-700.
D5	DISCONNECT AND REMOVE EXISTING CONSUMERS ENERGY METERING, SERVI JUNCTION BOXES AT THIS LOCATION.
D6	DISCONNECT AND REMOVE EXISTING PANELBOARD.
D7	DISCONNECT CIRCUIT FEEDING EXISTING 100A FUSIBLE DISCONNECT SWITCH RECONNECTION TO NEW DISTRIBUTION EQUIPMENT. DISCONNECT AND REMO CIRCUITS FOR EXTENSION TO NEW MSBD.
D8	REMOVE PANEL INTERIOR COMPONENTS. ENCLOSURE SHALL REMAIN FOR US EXISTING CIRCUITS TO NEW RP-A2, SEE SHEET EP-101D.
D11	DISCONNECT AND REMOVE ALL EXISTING CEILING MOUNTED SPEAKERS IN TH CEILING AND RECONNECT.
D12	DISCONNECT EXISTING CEILING MOUNTED PROJECTOR RECEPTACLE AND PRONEW CEILING AND RECONNECT. REINSTALL PROJECTOR.
D13	DISCONNECT EXISTING CEILING MOUNTED CAMERA. REINSTALL IN NEW CEILIN

FROM EXISTING WALLS BEING . REFER ALSO TO ARCHITECTURAL PLANS. MOVE ALL ASSOCIATED CONDUCTORS, NERGY TRANSFORMER AND ASSOCIATE VICE DISCONNECTS, WIREWAY AND

1. SWITCH SHALL REMAIN FOR IOVE EXISTING CPDP, PROTECT FEEDER JSE AS A JUNCTION BOX. EXTEND

THIS ROOM. REINSTALL SPEAKERS IN NEW ROJECTOR. REINSTALL RECEPTACLE IN LING AND RECONNECT.

SHEET

ED101D

- PROTECT EXISTING CIRCUITS FOR CONNECTION TO NEW FIXTURES. DISCONNECT AND REMOVE ALL

DEMOLITION KEYNOTES	
Key Value	Keynote Text
D1	DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES AND MATERIALS FF DEMOLISHED. MAINTAIN CONTINUITY OF EXISTING CIRCUITS WHICH REMAIN. RI
D2	MECHANICAL EQUIPMENT SCHEDULED FOR REMOVAL. DISCONNECT AND REMO CONDUITS, FITTINGS, HANGERS, ETC. BACK TO SOURCE.
D6	DISCONNECT AND REMOVE EXISTING PANELBOARD.
D10	DISCONNECT AND REMOVE EXISTING TRANSFORMER AND EXISTING PRIMARY / NEW TRANSFORMER SHALL BE INSTALLED IN THE SAME LOCATION - SEE LOW \ SHEET E-701.
D11	DISCONNECT AND REMOVE ALL EXISTING CEILING MOUNTED SPEAKERS IN THIS CEILING AND RECONNECT.
D12	DISCONNECT EXISTING CEILING MOUNTED PROJECTOR RECEPTACLE AND PRO NEW CEILING AND RECONNECT. REINSTALL PROJECTOR.
D13	DISCONNECT EXISTING CEILING MOUNTED CAMERA. REINSTALL IN NEW CEILIN
D19	DISCONNECT AND REMOVE EXISTING PANELBOARD. FIELD LOCATED THE CIRCU PORTION OF PANEL R AND EXTEND TO NEW PANEL A6 AS REQUIRED.

FROM EXISTING WALLS BEING REFER ALSO TO ARCHITECTURAL PLANS NOVE ALL ASSOCIATED CONDUCTORS,

AND SECONDARY CONDUCTORS. THE / VOLTAGE TRANSFORMER SCHEDULE ON HIS ROOM. REINSTALL SPEAKERS IN NEW OJECTOR. REINSTALL RECEPTACLE IN IG AND RECONNECT. CUITS FED FROM THE "CONSTANT PANEL"

APPENDIX F- COMBINED CONSTRUCTION DRAWINGS (REFERENCE) CONTINUED

GENERAL DEMOLITION NOTES

- A. DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, SHOWN OR NOT SHOWN ON PLANS. PROTECT EXISTING CIRCUITS FOR CONNECTION TO NEW FIXTURES. DISCONNECT AND REMOVE ALL EXISTING LIGHTING CONTROLS.
- B. DISCONNECT AND REMOVE EXISTING 480V-120/240 TRANSFORMERS. PROTECT EXISTING CIRCUITS FOR EXTENSION AND RECONNECTION TO NEW TRANSFORMERS. SEE SHEET ED-700.
- C. REFER TO MECHANICAL PLANS FOR MECHANICAL EQUIPMENT ITEMS TO BE REMOVED. DISCONNECT AND REMOVE ASSOCIATED ELECTRICAL EQUIPMENT, CONDUITS AND CONDUCTORS.
- D. SEE SHEET ED-700 FOR ADDITIONAL INFORMATION.
- E. WHERE EXISTING SUSPENDED CEILINGS ARE BEING REPLACED, DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICES, PA SPEAKERS, AND ANY OTHER DEVICES HAVING ELECTRICAL CONNECTIONS AND PROTECT FOR REINSTALLATION IN THE NEW CEILING. REINSTALL ALL DEVICES IN NEW CEILINGS ADJUSTING LOCATIONS TO AVOID CONFLICTS WITH NEW ABOVE CEILING DUCTWORK AND CEILING

DIFFUSERS; REROUTE AND EXTEND EXISTING ELECTRICAL CIRCUITS AS REQUIRED.

DEMOLITION KEYNOTES

Key Value	Keynote Text
D2	MECHANICAL EQUIPMENT SCHEDULED FOR REMOVAL. DISCONNECT AND REMOVE ALL ASSOCIATED
	CONDUITS, FITTINGS, HANGERS, ETC. BACK TO SOURCE.
D13	DISCONNECT EXISTING CEILING MOUNTED CAMERA. REINSTALL IN NEW CEILING AND RECONNECT.

REMOVE ALL ASSOCIATED CONDUCTORS

Addendum #1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
- B. Door hardware includes, but is not limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Automatic operators.
 - 4. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Section 081113 "Hollow Metal Doors and Frames".
 - 2. Section 081116 "Aluminum Flush Doors".
 - 3. Section 081416 "Flush Wood Doors".
 - 4. Section 084113 "Aluminum-Framed Entrances and Storefronts".
 - 5. Division 28 Section "Access Control".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC International Building Code.
 - 3. NFPA 70 National Electrical Code.
 - 4. NFPA 80 Fire Doors and Windows.
 - 5. NFPA 101 Life Safety Code.
 - 6. NFPA 105 Installation of Smoke Door Assemblies.
 - 7. Michigan Building Code 2015, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
 - 1. ANSI/BHMA Certified Product Standards A156 Series.
 - 2. UL10C Positive Pressure Fire Tests of Door Assemblies.

1.2 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

Addendum #2

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 3. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 - 4. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 - 5. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 - 2. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:
 - 1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.
 - 2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the Owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.3 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
 - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 - 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
 - 1. Function of building, purpose of each area and degree of security required.
 - 2. Plans for existing and future key system expansion.
 - 3. Requirements for key control storage and software.
 - 4. Installation of permanent keys, cylinder cores and software.
 - 5. Address and requirements for delivery of keys.

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.5 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.
- E. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

Sc2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

1.6 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

1.7 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Means of Egress Doors: Latches do not require more than 15 lbf to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- C. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.
 - 1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.
 - 2. Comply with the following maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf applied perpendicular to door.
 - b. Sliding or Folding Doors: 5 lbf applied parallel to door at latch.
 - 3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch high.
 - 4. Adjust door closer sweep periods so that, from an open position of 90 degrees, the door will take at least 5 seconds to move to a position of 12 degrees from the latch.

Addendum #2

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

2.2 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
 - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, Owner, and their designated consultants.

2.3 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
 - 1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
 - 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2 inch standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5 inch standard or heavy weight as specified.
 - 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
 - 4. Hinge Options: Comply with the following:
 - a. Non-Removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
 - 5. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Ives; Allegion plc.
 - b. Hager Companies.

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- c. McKinney (MK) ; Assa Abloy TA/T4A Series, 5 knuckle.
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Ives; Allegion plc.
 - b. Roton; Hager Companies.
 - c. Pemko (PE); Assa Abloy.
 - d. Select Products Limited.

2.4 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex[™] standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Securitron (SU) EL-CEPT Series.
- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. McKinney (MK) QC-C Series.
 - 2. Provide one each of the following tools as part of the base bid contract:
 - a. McKinney (MK) Electrical Connecting Kit: QC-R001.
 - b. McKinney (MK) Connector Hand Tool: QC-R003.

Sc2ae

2.5 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.
 - 1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
 - 2. Furnish dust proof strikes for bottom bolts.
 - 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
 - 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
 - 5. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Hager Companies.
 - c. Rockwood (RO); ASSA ABLOY.
- B. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
 - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
 - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
 - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
 - 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
 - 5. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Hager Companies.
 - c. Rockwood (RO); ASSA ABLOY.

2.6 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years' experience designing secured master key systems and have on record a published security keying system policy.
 - 1. Manufacturers: Provide the following, no substitutions:
 - a. Medeco (MC).
- B. Small Format Interchangeable Cores: Provide small format interchangeable cores (SFIC) as specified, core insert, removable by use of a special key; usable with other manufacturers' cylinders.

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- C. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer's United States patents.
 - 1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
 - 2. Manufacturers: Provide the following, no substitutions:
 - a. Medeco (MC) X4.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
 - 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 - 3. Existing System: Field verify and key cylinders to match Owner's existing system.
- E. Key Quantity: Provide the following minimum number of keys:
 - 1. Change Keys per Cylinder: Three (3).
 - 2. Master Keys (per Master Key Level/Group): Five (5).
 - 3. Construction Keys (where required): Ten (10).
 - 4. Construction Control Keys (where required): Two (2).
 - 5. Permanent Control Keys (where required): Two (2).
- F. Construction Keying: Provide temporary keyed construction cores.
- G. Key Registration List (Bitting List):
 - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
 - 2. Provide transcript list in writing or electronic file as directed by the Owner.

2.7 KEY CONTROL

- A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Lund Equipment (LU).
 - b. MMF Industries (MM).
 - c. Telkee (TK).
 - d. No Substitution.
Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- P. Electronic Key Management System: Provide an electronic key control system with Stand-alone Plug and Play features including advanced RFID technology. Touchscreen interface with PIN access for keys individually locked in place. Minimum 1,000 system users and 21 iFobs for locking receptors. System shall have a minimum 250,000 audit events screen displayed or ability to be exported via USB port.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Medeco (MC).
 - b. Traka (TA).
 - c. No Substitution.

2.8 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
 - 1. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1" x 0.6" with a curved design allowing a 180-degree viewing angle with protective covering to prevent tampering.
 - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Schlage; Allegion plc L Series.
 - b. BEST Access Solutions, Inc.; dormakaba USA Inc 40H Series.
 - c. Corbin Russwin, Inc.; an ASSA ABLOY Group company (RU) ML2000 Series.

2.9 AUXILIARY LOCKS

- A. Mortise Deadlocks, Small Case: ANSI/BHMA A156.36, Grade 1, small case mortise type deadlocks constructed of heavy gauge wrought corrosion resistant steel. Steel or stainless steel bolts with a 1" throw and hardened steel roller pins. Deadlocks to be products of the same source manufacturer and keyway as other specified locksets.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Schlage; Allegion plc L Series.
 - b. BEST Access Solutions, Inc.; dormakaba USA Inc 40H Series.
 - c. Corbin Russwin, Inc.; an ASSA ABLOY Group company (RU) DL4000 Series.

Sc2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

2.10 ELECTRIC STRIKES

- A. Standard Electric Strikes: Electric strikes conforming to ANSI/BHMA A156.31, Grade 1, for use on non-rated or fire rated openings. Strikes shall be of stainless steel construction tested to a minimum of 1500 pounds of static strength and 70 foot-pounds of dynamic strength with a minimum endurance of 1 million operating cycles. Provide strikes with 12 or 24 VDC capability, fail-secure unless otherwise specified. Where specified provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Hager Companies.
 - c. HES (HS) 4500 Series.
 - d. Security Door Controls.
- B. Surface Mounted Rim Electric Strikes: Surface mounted rim exit device electric strikes conforming to ANSI/BHMA A156.31, Grade 1, and UL Listed for both Burglary Resistance and for use on fire rated door assemblies. Construction includes internally mounted solenoid with two heavy-duty, stainless steel locking mechanisms operating independently to provide tamper resistance. Strikes tested for a minimum of 500,000 operating cycles. Provide strikes with 12 or 24 VDC capability supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike. Strike requires no cutting to the jamb prior to installation.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Hager Companies.
 - c. HES (HS) 9400/9500/9600/9700/9800 Series.
 - d. Security Door Controls.
- C. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.11 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
 - 1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
 - 2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.

C20e

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
- 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
- 5. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
- 6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
- 7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
- 8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
- 9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
- 10. Rail Sizing: Provide exit device rails factory sized for proper door width application.
- 11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Von Duprin; Allegion plc 98 / 99 Series.
 - b. Corbin Russwin, Inc. (RU); an ASSA ABLOY Group company ED4000 / ED5000 Series.
 - c. Dormakaba USA Inc 9000 Series.

2.12 ELECTROMECHANICAL EXIT DEVICES

- A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.
 - 1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- 2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.
- 3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
- 4. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Corbin Russwin, Inc. (RU); an ASSA ABLOY Group company ED5000 Series.
 - b. Dormakaba USA Inc 9000 MRL Series.
 - c. Von Duprin; Allegion plc 98 / 99 QEL Series.

2.13 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
 - 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
 - 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
 - 3. Cycle Testing: Provide closers which have surpassed 15 million cycles.
 - 4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
 - 5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 - 6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
 - 7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard..
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Dormakaba USA Inc 8000 Series.
 - b. LCN; Allegion plc 4000 Series.
 - c. Norton Rixson (NO); an ASSA ABLOY Group company 7500 Series.

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

2.14 ELECTROHYDRAULIC DOOR OPERATORS

- A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.
- B. Standard: Conforming to ANSI/BHMA A156.19.
- C. Performance Requirements:
 - 1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
 - 2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.
- D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.
- E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19. When not in automatic mode, door operator to function as manual door closer with fully adjustable opening and closing forces, with or without electrical power.
- F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.
- G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.
- H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.
- I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Dormakaba USA Inc ED900 Series.
 - 2. LCN; Allegion plc 4600 Series.
 - 3. Norton Rixson (NO); an ASSA ABLOY Group company 6000 Series.

2.15 ARCHITECTURAL TRIM

- A. Door Protective Trim
 - 1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
- 3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
- 4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
- 5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
- 6. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Hagar.
 - c. Rockwood (RO); an ASSA ABLOY Group company.

2.16 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allegion plc.
 - b. Hagar.
 - c. Rockwood (RO); an ASSA ABLOY Group company.

2.17 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
 - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

Addendum #2

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. National Guard Products, Inc.
 - 2. Pemko (PE); an ASSA ABLOY Group company.
 - 3. Reese Enterprises, Inc.
 - 4. Zero International; Allegion plc.

2.18 ELECTRONIC ACCESSORIES

- A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Securitron (SU) DPS Series.
- B. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multivoltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Securitron (SU) AQL Series.

C20e

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

2.19 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.20 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 **PREPARATION**

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

Ec2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Power Operator products and accessories are required to be installed through current members of the manufacturer's "Power Operator Preferred Installer" program.
- D. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
 - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
 - 2. Submit documentation of incomplete items in the following formats:
 - a. PDF electronic file.
 - b. Electronic formatted file integrated with the Openings Studio[™] door opening management software platform.

Sc2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the Owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 - 1. Quantities listed are for each pair of doors, or for each single door.
 - 2. The supplier is responsible for handing and sizing all products.
 - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
 - 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Manufacturer's Abbreviations:
 - 1. MK McKinney
 - 2. PE Pemko
 - 3. MR Markar
 - 4. SU Securitron
 - 5. RO Rockwood
 - 6. RU Corbin Russwin
 - 7. MC Medeco



Northwestern School Additions and Renovations **Battle Creek Public Schools** Calhoun County, Michigan

- 8. HS - HES
- RF Rixson 9.
- 10. NO Norton
- 11. OT Other

Hardware Sets

Set: 1.0

Doors: 100G.4, 100L.2

1	Continuous Hinge	CFM-SLF-HD1 x PT		ΡE	
1	Electric Power Transfer	EL-CEPT	630	SU	4
1	Rim Exit Device, Exit Only	ED5200S EO M110 MELR M51	630	RU	4
1	Vandal Resistant Trim	VRT22	US32D	RO	
1	Arm Support Bracket	6890	689	NO	
1	Blade Stop Spacer	6891	689	NO	
1	Drop Plate	 as appropriate for application 	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	Threshold	1715AK MSES25SS		ΡE	
1	Weatherstrip	- integral to door/frame assembly		00	
1	Sweep	29326CNB x TKSP8		ΡE	
1	ElectroLynx Harness	QC-C1500P (power transfer to J-Be	ox)	MK	4
1	ElectroLynx Harness	QC-C (power transfer to exit device	e rail)	MK	4
1	Power Supply	AQL4-R8E1		SU	4
1	Card Reader	- Provided by Security Contractor		00	

Notes: Door normally closed and locked. Valid use of card reader outside will electronically retract latch of exit device.

Free egress always permitted.

Set: 2.0

Doors: 141R.1

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Surface Closer	PR7500	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Wall Stop	406	US32D	RO
1	Threshold	279x224AFGT x MSES25SS		ΡE
1	Weatherstrip	 integral to door/frame assembly 		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Sc2ae

Doors: 151S.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

<u>Set: 3.0</u>

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	- as appropriate for application	689	NO
1	Threshold	279x224AFGT x MSES25SS		PE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		PE

<u>Set: 4.0</u>

Doors: 142E.1

2	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Removable Mullion	910KM		RU
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU
1	Rim Exit Device, Nightlatch	ED5200S K157ET M110 M51	630	RU
1	Mort. Cylinder	336/702022K P GMK x X4	19	MC
1	Rim Cylinder	336/702042K P GMK x X4	19	MC
1	Vandal Resistant Trim	VRT22 C	US32D	RO
2	Arm Support Bracket	6890	689	NO
2	Blade Stop Spacer	6891	689	NO
2	Drop Plate	- as appropriate for application	689	NO
2	Surface Closer	CPS7500	689	NO
1	Threshold	1715AK MSES25SS		ΡE
1	Weatherstrip	- integral to door/frame assembly		
2	Sweep	29326CNB x TKSP8		ΡE

Notes: Function: Key outside retracts latch bolt. No dogging of push rail. Free egress always permitted.

APPENDIX H - DOOR HARDWARE SCHEDULE Northwestern School Additions and

Sc2ae

Doors: 140.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 5.0

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Rim Exit Device, Nightlatch	ED5200S K157ET M110 M51	630	RU
1	Rim Cylinder	336/702042K P GMK x X4	19	MC
1	Vandal Resistant Trim	VRT22	US32D	RO
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Surface Closer	CPS7500	689	NO
1	Threshold	279x224AFGT x MSES25SS		ΡE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: Function: Key outside retracts latch bolt. No dogging of push rail. Free egress always permitted.

Set: 6.0

Doors: 149L.2, 149L.3

2	Continuous Hinge	CFM-SLF-HD1		PΕ
2	Rim Exit Device, Exit Only	ED5200S EO M110 M52	630	RU
2	Mort. Cylinder	336/702022K P GMK x X4	19	MC
2	Vandal Resistant Trim	VRT22	US32D	RO
2	Arm Support Bracket	6890	689	NO
2	Blade Stop Spacer	6891	689	NO
2	Drop Plate	 as appropriate for application 	689	NO
2	Surface Closer	CPS7500	689	NO
2	Threshold	1715AK MSES25SS		ΡE
2	Weatherstrip	- integral to door/frame assembly		
2	Sweep	29326CNB x TKSP8		ΡE

Notes: Fixed mullion in frame.

Exit only. Keyed cylinder inside controls dogging of latch bolt for push / pull operation.. Free egress always permitted.

Sc2ae

Doors: 100U.6

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 7.0

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Rim Exit Device, Exit Only	ED5200S EO M110 M52	630	RU
1	Mort. Cylinder	336/702022K P GMK x X4	19	MC
1	Vandal Resistant Trim	VRT22	US32D	RO
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Wall Stop	406	US32D	RO
1	Threshold	1715AK MSES25SS		PΕ
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: Keyed cylinder inside controls dogging of latch bolt for push / pull operation. Free egress always permitted.

Set: 8.0

Doors: 100U.5

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Rim Exit Device, Exit Only	ED5200S EO M110 M52	630	RU
1	Mort. Cylinder	336/702022K P GMK x X4	19	MC
1	Vandal Resistant Trim	VRT22	US32D	RO
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Surface Closer	CPS7500	689	NO
1	Threshold	1715AK MSES25SS		ΡE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: Keyed cylinder inside controls dogging of latch bolt for push / pull operation. Free egress always permitted.

Sc2ae

Doors: 100V.4

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

<u>Set: 9.0</u>

1	Continuous Hinge	CFM-SLF-HD1		ΡE	
1	Rim Exit Device, Exit Only	ED5200 EO M110 MELR M51	630	RU	4
1	Electric Strike	9600	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Vandal Resistant Trim	VRT22	US32D	RO	
1	Arm Support Bracket	6890	689	NO	
1	Blade Stop Spacer	6891	689	NO	
1	Drop Plate	 as appropriate for application 	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	Threshold	1715AK MSES25SS		ΡE	
1	Weatherstrip	- integral to door/frame assembly			
1	Sweep	29326CNB x TKSP8		ΡE	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Box	x)	MK	4
1	Power Supply	AQL4-R8E1		SU	4

Notes: Fixed mullion in frame.

Door normally closed and locked. Door shall unlock upon schedule as determined through access control system Free egress always permitted.

Set: 10.0

Doors: 100G.3, 100V.8

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Removable Mullion	910KM		RU
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU
1	Mort. Cylinder	336/702022K P GMK x X4	19	MC
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Surface Closer	CPS7500	689	NO
1	Threshold	1715AK MSES25SS		PE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

C20e

Doors: 149L.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 11.0

2 Continuous Hinge	CFM-SLF-HD1		PE
1 Removable Mullion	910KM		RU
2 Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU
1 Mort. Cylinder	336/702022K P GMK x X4	19	MC
2 Arm Support Bracket	6890	689	NO
2 Blade Stop Spacer	6891	689	NO
2 Drop Plate	 as appropriate for application 	689	NO
2 Surface Closer	CPS7500	689	NO
1 Threshold	279x224AFGT x MSES25SS		PE
1 Weatherstrip	- integral to door/frame assembly		
2 Sweep	29326CNB x TKSP8		PE

Notes: Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

Set: 11.1 (ADM2)

Doors: 141A.1

1	Continuous Hinge	DFM-SLF-HD1 x PT		PE
1	Continuous Hinge	DFM-SLF-HD1		PE
1	Electric Power Transfer	EL-CEPT	US10B	SU >
1	Removable Mullion	910KM		RU
1	Rim Exit Device, Exit Only	ED5200S EO M110 MELR M51	630E	RU 🗲
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	613E	RU
1	Mort. Cylinder	336/702022K P GMK x X4	13	МС
1	Vandal Resistant Trim	VRT22	US32D	RO
2	Arm Support Bracket	6890	600	NO
2	Blade Ston Snacer	6891	690	NO
2	Dron Plate	- as appropriate for application	690	NO
2	Surface Closer	CPS7500	690	NO
1	Threshold	279x224AFGT x MSES25SS		PE
1	Weatherstrip	- integral to door/frame assembly		
2	Sweep	29326DNB x TKSP8		PE
1	ElectroLynx Harness	QC-C1500P (power transfer to J-Bo) (xc	MK >
1	ElectroLynx Harness	QC-C (power transfer to exit device	rail)	MK >
1	Power Supply	AQL4-R8E1		SU >
1	Card Reader	Reuse Existing		00

Notes: Door normally closed and locked. Valid use of card reader outside will electronically retract latch of active leaf exit device. Free egress always permitted.

Sc2ae

Doors: 100U.4, 149.6

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 12.0

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	- as appropriate for application	689	NO
1	Wall Stop	406	US32D	RO
1	Threshold	279x224AFGT x MSES25SS		ΡE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

Set: 13.0

Doors: 104D.1, 134.1

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Wall Stop	406	US32D	RO
1	Threshold	279x224AFGT x MSES25SS		ΡE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		ΡE

Notes: ** Size hinge accordingly for 180 degree swing.

Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

C20e

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 14.0

Doors: 100A.4, 100E.1, 100H.4, 100K.2, 100K.3, 100L.1, 100Q.2, 100Q.3, 100R.1, 100V.7, 108.1, 109.1, 110.1, 111.1, 112.1, 113.1, 114.1, 115.1, 116.1, 117.1, 118.1, 119.1, 120.1, 121.1, 122.1, 123.1, 124.1, 125.1, 126.1, 127.1, 128.1, 129.1, 130.1, 131.1, 132.1, 133.1, 135.1, 136A.1, 136B.1, 137.1, 138.1, 139.1, 140.2, 142.1, 143.1, 151.1, 152.1, 153.1, 154.1

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Surface Closer	CPS7500	689	NO
1	Threshold	279x224AFGT x MSES25SS		PE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		PE

Notes: Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

Set: 15.0 (ADM2)

Doors: 152T.2 160.2

Doors: 152T.1 160.1

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Removable Mullion	910KM		RU
1	Rim Exit Device, Classroom	ED5200S N955ET M110 M51	630	RU
1	Mort. Cylinder	336/702022K P GMK x X4	19	MC
1	Rim Cylinder	336/702042K P GMK x X4	19	MC
1	Surface Closer	2800ST - pull side mount	689	NO
1	Threshold	1715AK MSES25SS		PE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		PE
1	Position Switch	DPS-M-BK		SU 🎸

Notes: Key outside locks or unlocks lever trim. Free egress always permitted.

Set: 16.0 (ADM2)

1 Continuous H 1 Rim Exit Devi	linge ice, Classroom	CFM-SLF-HD1 ED5200S N955ET M110 M51	630	PE RU	
1 Rim Cylinder		336/702042K P GMK x X4	19	MC	
1 Surface Close	er	2800ST - pull side mount	689	NO	
1 Threshold		1715AK MSES25SS		ΡE	
1 Weatherstrip		 integral to door/frame assembly 			
1 Sweep		29326CNB x TKSP8		ΡE	
1 Position Swite	ch	DPS-M-BK		SU	4
Notes: Key outside locks or unlocks lever trim. Free egress always permitted.					

Sc2ae

Doors: 100A.3

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 17.0

1	Continuous Hinge	CFM-SLF-HD1		ΡE	
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU	
1	Electric Strike	9600	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Vandal Resistant Trim	VRT22	US32D	RO	
1	Arm Support Bracket	6890	689	NO	
1	Blade Stop Spacer	6891	689	NO	
1	Drop Plate	 as appropriate for application 	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	Threshold	1715AK MSES25SS		ΡE	
1	Weatherstrip	 integral to door/frame assembly 			
1	Sweep	29326CNB x TKSP8		ΡE	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Box	x)		MK
	4				
1	Intercom / Video Station	- Provided by Security Contractor		OT	
1	Power Supply	AQL4-R8E1		SU	4
1	Card Reader	- Provided by Security Contractor		00	

Notes: Fixed mullion in frame.

Door normally closed and locked. Valid use of card reader outside or activation of remote push button in intercom system shall unlock electric strike permitting entry. Free egress always permitted.



Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 18.0

Doors: 100E.2, 100H.3, 100Q.1

1	Continuous Hinge	CFM-SLF-HD1		ΡE	
1	Rim Exit Device, Exit Only	ED5200S EO M110 M51	630	RU	
1	Electric Strike	9600	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Vandal Resistant Trim	VRT22	US32D	RO	
1	Arm Support Bracket	6890	689	NO	
1	Blade Stop Spacer	6891	689	NO	
1	Drop Plate	 as appropriate for application 	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	Threshold	1715AK MSES25SS		ΡE	
1	Weatherstrip	 integral to door/frame assembly 			
1	Sweep	29326CNB x TKSP8		ΡE	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Box	x)	MK	4
1	Power Supply	AQL4-R8E1		SU	4
1	Card Reader	- Provided by Security Contractor		00	

Notes: Fixed mullion in frame.

Door normally closed and locked. Valid use of card reader outside system shall unlock electric strike permitting entry.

Free egress always permitted.

Sc2ae

Doors: 100V.3

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 19.0

1	Continuous Hinge	CFM-SLF-HD1		ΡE	
1	Rim Exit Device, Nightlatch	ED5200S K157ET M110 M51	630	RU	
1	Rim Cylinder	336/702042K P GMK x X4	19	MC	
1	Electric Strike	9600-LBSM	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Vandal Resistant Trim	VRT22 C	US32D	RO	
1	Conc Overhead Stop	6-X36	630	RF	
1	Automatic Opener	6021/6031 (D) - confirm head detai	1689	NO	4
1	Threshold	1715AK MSES25SS		ΡE	
1	Weatherstrip	 integral to door/frame assembly 			
1	Sweep	29326CNB x TKSP8		ΡE	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Bo	x)	MK	4
1	Intercom / Video Station	- Provided by Security Contractor		OT	
1	Door Switch	505 (6" x 6")		NO	4
1	Door Switch	503 - jamb mount		NO	4
1	Power Supply	AQL4-R8E1		SU	4
1	Card Reader	- Provided by Security Contractor		00	

Notes: Fixed mullion in frame.

Door normally closed and locked. Key outside retracts latch bolt. Valid use of card reader or activation of remote release in intercom system unlocks electric strike permitting entry. Door shall unlock upon schedule as determined by access control system. Free egress always permitted.

Activation of exterior door switch shall only cycle automatic operator if electric strike is in unlocked position (may utilize electric strike monitor switches for this function). Activation of interior jamb mount switch shall unlock electric strike, if locked, and cycle automatic operator.

Sc2ae

Doors: 143C.1, 143T.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 20.0

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Privacy Lock	ML2068 NSA M34 V21 CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Surface Closer	2800ST - pull side mount	689	NO
1	Threshold	279x224AFGT x MSES25SS		PE
1	Weatherstrip	- integral to door/frame assembly		
1	Sweep	29326CNB x TKSP8		PE

Notes: Latch bolt by lever either side except when lever outside is locked by key outside or thumb turn inside

Set: 21.0

Operating inside lever, closing door, or use of key unlocks outside lever. Free egress always permitted.

(indicator both sides of door shows locked / unlocked status of outside lever.)

Doors: 100V.1

Continuous Hinge	CFM-SLF-HD1		ΡE	
Rim Exit Device, Nightlatch	ED5200 K157ET M110 M51	630	RU	
Rim Cylinder	336/702042K P GMK x X4	19	MC	
Electric Strike	9600	630	HS	4
SMART Pac Bridge Rectifier	2005M3		HS	4
ElectroLynx Adaptor	2004M		HS	4
Vandal Resistant Trim	VRT22 C	US32D	RO	
Arm Support Bracket	6890	689	NO	
Blade Stop Spacer	6891	689	NO	
Drop Plate	 as appropriate for application 	689	NO	
Surface Closer	CPS7500	689	NO	
ElectroLynx Harness	QC-C1500P (electric strike to J-Box	<)	MK	4
Power Supply	AQL4-R8E1		SU	4
	Continuous Hinge Rim Exit Device, Nightlatch Rim Cylinder Electric Strike SMART Pac Bridge Rectifier ElectroLynx Adaptor Vandal Resistant Trim Arm Support Bracket Blade Stop Spacer Drop Plate Surface Closer ElectroLynx Harness Power Supply	Continuous HingeCFM-SLF-HD1Rim Exit Device, NightlatchED5200 K157ET M110 M51Rim Cylinder336/702042K P GMK x X4Electric Strike9600SMART Pac Bridge Rectifier2005M3ElectroLynx Adaptor2004MVandal Resistant TrimVRT22 CArm Support Bracket6890Blade Stop Spacer6891Drop Plate- as appropriate for applicationSurface CloserCPS7500ElectroLynx HarnessQC-C1500P (electric strike to J-BoxPower SupplyAQL4-R8E1	Continuous HingeCFM-SLF-HD1Rim Exit Device, NightlatchED5200 K157ET M110 M51630Rim Cylinder336/702042K P GMK x X419Electric Strike9600630SMART Pac Bridge Rectifier2005M35ElectroLynx Adaptor2004MUS32DVandal Resistant TrimVRT22 CUS32DArm Support Bracket6890689Blade Stop Spacer6891689Drop Plate- as appropriate for application689Surface CloserCPS7500689ElectroLynx HarnessQC-C1500P (electric strike to J-Box)Power SupplyAQL4-R8E1	Continuous HingeCFM-SLF-HD1PERim Exit Device, NightlatchED5200 K157ET M110 M51630RURim Cylinder336/702042K P GMK x X419MCElectric Strike9600630HSSMART Pac Bridge Rectifier2005M3HSElectroLynx Adaptor2004MHSVandal Resistant TrimVRT22 CUS32DArm Support Bracket6890689NOBlade Stop Spacer6891689NODrop Plate- as appropriate for application689NOSurface CloserCPS7500689NOElectroLynx HarnessQC-C1500P (electric strike to J-Box)MKPower SupplyAQL4-R8E1SU

Notes: Fixed mullion in frame.

Door normally closed and locked. Key outside retracts latch bolt. Door shall unlock upon schedule as determined through acces control system Free egress always permitted.



Doors: 100V.6

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 22.0

1 0	Continuous Hinge	CFM-SLF-HD1		PE
1 F	Removable Mullion	910KM		RU
1 F	Rim Exit Device, Exit Only	ED5200 EO M110 M51	630	RU
1 N	Nort. Cylinder	336/702022K P GMK x X4	19	MC
1 A	Arm Support Bracket	6890	689	NO
1 E	Blade Stop Spacer	6891	689	NO
1 C	Drop Plate	- as appropriate for application	689	NO
1 8	Surface Closer	CPS7500	689	NO

Notes: Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

Set: 23.0

Doors: 100H.2, 100V.5

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Rim Exit Device, Exit Only	ED5200 EO M110 M51	630	RU
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	- as appropriate for application	689	NO
1	Surface Closer	CPS7500	689	NO

Notes: Exit only. No dogging of latch bolt for push / pull operation. Free egress always permitted.

Set: 24.0

Doors: 100H.1

1	Continuous Hinge	CFM-SLF-HD1		PE
1	Rim Exit Device, Passage	ED5200 N910ET M110	630	RU
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Surface Closer	CPS7500	689	NO



Doors: 100A.1, 100A.2

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 25.0

1 Cor	ntinuous Hinge	CFM-SLF-HD1		PE
1 Rin	n Exit Device, Exit Only	ED5200 EO M110 M51	630	RU
1 Arn	n Support Bracket	6890	689	NO
1 Bla	de Stop Spacer	6891	689	NO
1 Dro	p Plate	- as appropriate for application	689	NO
1 Sur	face Closer	CPS7500	689	NO

Set: 26.0

Doors: 100U.1, 100U.3

Doors: 100U.2

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Push Rail	ED5000DB	630	RU
1	Vandal Resistant Trim	VRT22	US32D	RO
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	- as appropriate for application	689	NO
1	Wall Stop	406	US32D	RO

Set: 27.0

1	Continuous Hinge	CFM-SLF-HD1		ΡE
1	Push Rail	ED5000DB	630	RU
1	Vandal Resistant Trim	VRT22	US32D	RO
1	Arm Support Bracket	6890	689	NO
1	Blade Stop Spacer	6891	689	NO
1	Drop Plate	 as appropriate for application 	689	NO
1	Surface Closer	CPS7500	689	NO

Doors: 100V.2

Northwestern School Additions and Renovations **Battle Creek Public Schools** Calhoun County, Michigan

Set: 28.0

1	Continuous Hinge	CFM-SLF-HD1		ΡE	
1	Rim Exit Device, Exit Only	ED5200 EO M110 MELR M51	630	RU	4
1	Electric Strike	9600	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Vandal Resistant Trim	VRT22	US32D	RO	
1	Arm Support Bracket	6890	689	NO	
1	Blade Stop Spacer	6891	689	NO	
1	Drop Plate	 as appropriate for application 	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Box	<)	MK	4
1	Power Supply	AQL4-R8E1		SU	4

Notes: Fixed mullion in frame.

Door normally closed and locked. Door shall unlock upon schedule as determined through access control system Free egress always permitted.

Set: 29.0

Doors: 154.2

6 H	inge (heavy weight)	T4A3786 (NRP)	US26D	MK
2 R	im Exit Device, Classroom	ED5202 N955ET M110 M51	630	RU
2 R	im Cylinder	336/702042K P GMK x X4	19	MC
2 T	humbturn Rim Cylinder	CR3300-M34	626	RU
2 A	rm Support Bracket	6890	689	NO
2 S	urface Closer	CPS7500	689	NO
2 K	ick Plate	K1050 10" high CSK BEV	US32D	RO
2 S	ilencer	608 / 609		RO

Notes: ** Fixed mullion in frame.

Key outside retracts latch bolt. Thumb turn inside locks or unlocks outside lever trim. Free egress always permitted.

Sc2ae

Doors: 151.2, 152.2

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 30.0

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	
1	Rim Exit Device, Classroom	ED5202 N955ET M110 M51	630	RU	
1	Rim Cylinder	336/702042K P GMK x X4	19	MC	
1	Thumbturn Rim Cylinder	CR3300-M34	626	RU	
1	Arm Support Bracket	6890	689	NO	
1	Surface Closer	PR7500	689	NO	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	
1	Door Stop	487	US26D	RO	
1	Sound Seal	S773BL - head and jambs - Pemko	STCSet-	1A	ΡE
1	Sound Seal	S442BL - head and jambs - Pemkc	STCSet-	1A	ΡE
1	Corner Seal	ACP112BL/2 - PemkoSTCSet-1A		ΡE	
1	Conc. Auto. Door Bottom	STC411APK - PemkoSTCSet-1A		PE	

Notes: Key outside retracts latch bolt. Thumb turn inside locks or unlocks outside lever trim. Free egress always permitted.

Set: 31.0

Doors: 108.2, 109.2, 143.2, 153.2

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Rim Exit Device, Classroom	ED5202 N955ET M110 M51	630	RU
1	Rim Cylinder	336/702042K P GMK x X4	19	MC
1	Thumbturn Rim Cylinder	CR3300-M34	626	RU
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Door Stop	487	US26D	RO
1	Smoke / Sound Seal	S88D - head and jambs		ΡE

Notes: Key outside retracts latch bolt. Thumb turn inside locks or unlocks outside lever trim. Free egress always permitted.

Set: 32.0 (ADM2)

2 Continuous Hinge	CFM-HD1		PE
2 Concealed Vert Rod Exit, Pass	age	ED5860	N910ET M55
M110	630	RU	
2 Conc Overhead Hold Open	1-X26	652	RF
2 Arm Support Bracket	6890	689	NO
2 Surface Closer	PR7500	689	NO
2 Silencer	608 / 609		RO
2 Silencer	608 / 609		RO

Doors: 100W.1 100C.1

087100 - 35 DOOR HARDWARE

Addendum #2

APPENDIX H - DOOR HARDWARE SCHEDULE Northwestern School Additions and

Sc2ae

Doors: 100M.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 33.0

2	Continuous Hinge	CFM-HD1		ΡE
2	Surface Vert Rod Exit, Passage	ED5470 N910ET M55 M110	630	RU
2	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500H (H.O.)	689	NO
1	Surface Closer	CPS7500T (H.O.)	689	NO
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Wall Stop	406	US32D	RO
2	Silencer	608 / 609		RO

Notes: Passage lever trim. Free egress always permitted.

Set: 34.0

Doors: 103A.1, 105S.1, 137S.1, 154D.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 35.0

Doors: 152S.1, 152S.2

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU	
1	Small Format Inter Core	33700007K P GMK	19	MC	
1	Surf Overhead Stop	10-X36	652	RF	
1	Sound Seal	S773BL - head and jambs - Pemko	STCSet-1	A	ΡE
1	Sound Seal	S442BL - head and jambs - Pemko	STCSet-1	Α	ΡE
1	Corner Seal	ACP112BL/2 - PemkoSTCSet-1A		PE	
1	Conc. Auto. Door Bottom	STC411APK - PemkoSTCSet-1A		PE	

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

APPENDIX H - DOOR HARDWARE SCHEDULE Northwestern School Additions and Battle Creek Pu

Doors: 160D.1

Northwestern School Additions and Renovations **Battle Creek Public Schools** Calhoun County, Michigan

Set: 36.0

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Surface Closer	7500 - pull side mount	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 37.0

Doors: 152M.1

2	Llingo Full Mortino		116360	MZ	
3	ringe, rui monise	172/14 (NRF)	03200	IVITY	
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU	
1	Small Format Inter Core	33700007K P GMK	19	MC	
1	Arm Support Bracket	6890	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	
1	Sound Seal	S773BL - head and jambs - Pemko	STCSet-	1A	ΡE
1	Sound Seal	S442BL - head and jambs - Pemko	STCSet-	1A	ΡE
1	Corner Seal	ACP112BL/2 - PemkoSTCSet-1A		PE	
1	Conc. Auto. Door Bottom	STC411APK - PemkoSTCSet-1A		PE	

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Doors: 108S.1

Set: 38.0

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Surface Closer	7500 - pull side mount	689	NO
1	Kick Plate	K1050 10"high CSK BEV	US32D	RO
1	Wall Stop	406	US32D	RO
1	Smoke / Sound Seal	S88D - head and jambs		ΡE

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Addendum #2



Set:	39.	0
		•

Doors: 108T.1, 109T.1, 138S.1, 139S.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Passage Set	ML2010 NSA	626	RU
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO

Set: 40.0

Doors: 151B.1, 151C.1, 152B.1, 152C.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	
1	Passage Set	ML2010 NSA	626	RU	
1	Wall Stop	406	US32D	RO	
1	Sound Seal	S773BL - head and jambs - Pemko	STCSet-1	A	ΡE
1	Sound Seal	S442BL - head and jambs - Pemko	STCSet-1	A	ΡE
1	Corner Seal	ACP112BL/2 - PemkoSTCSet-1A		ΡE	
1	Conc. Auto. Door Bottom	STC411APK - PemkoSTCSet-1A		PE	

Set: 41.0

Doors: 113S.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Passage Set	ML2010 NSA	626	RU
1	Surf Overhead Stop	10-X36	652	RF
3	Silencer	608 / 609		RO

Set: 42.0

Doors: 114T.1, 115T.1, 116T.1, 117T.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Passage Set	ML2010 NSA	626	RU
1	Conc Overhead Stop	1-X36	652	RF
3	Silencer	608 / 609		RO

Addendum #2

Sc2ae

Doors: 143S.2

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 43.0

6 1	Hinge, Full Mortise Comb. Flush Bolt	TA2714 (NRP) 2805 (HM) / 2905 (WD) - top bolt o	US26D nly	MK US26D
1	RO Classroom Lock Small Format Inter Core	ML2055 NSA CLS6/7 33700007K P GMK	626 19	RU MC
2	Conc Overhead Stop	1-X36	652	RF

Notes: Function: Latch bolt by lever either side unless outside lever is locked by key outside. Outside lever remains locked unless unlocked by key. Inside lever always free for egress.

Set: 44.0

Doors: 133S.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Classroom Lock	ML2055 NSA CLS6/7	626	RU
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO

Notes: Function: Latch bolt by lever either side unless outside lever is locked by key outside. Outside lever remains locked unless unlocked by key. Inside lever always free for egress.

Set: 45.0

Doors: 101B.1, 104A.1, 104B.1, 104C.1, 104D.2, 105C.1, 105D.1, 105E.1, 152A.1, 154B.1, 154C.1, 154F.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01 CL	_S6/7	626 RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

C20e

Set: 46.0

Doors: 101D.1, 101T.1, 149BT.1, 149GT.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Privacy Set	ML2060 NSA M34 V21	626	RU
1	Surface Closer	7500 - pull side mount	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO
1	Coat Hook	796	US26D	RO

Notes: Install coat hook at 48" centerline above floor.

(indicator both sides of door shows locked / unlocked status of outside lever.)

Set: 47.0

Doors: 103T.1, 105T.1

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1	Privacy Set	ML2060 NSA M34 V21	626	RU
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Wall Stop	406	US32D	RO
3	Silencer	608 / 609		RO
1	Coat Hook	796	US26D	RO

Notes: Install coat hook at 48" centerline above floor.

(indicator both sides of door shows locked / unlocked status of outside lever.)

<u>Set: 48.0</u>

Doors: 103.2

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Surface Closer	7500 - pull side mount	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Wall Stop	406	US32D	RO
1	Smoke / Sound Seal	S88D - head and jambs		ΡE

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Sc2ae

Doors: 151.3

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

<u>Set: 49.0</u>

6	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Comb. Flush Bolt	2905 (WD) - top bolt only	US26D	RO
1	Classroom Lock	ML2055 NSA CLS6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Surf Overhead Stop	9-X36	652	RF
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	CPS7500	689	NO
2	Kick Plate	K1050 10"high CSK BEV	US32D	RO
1	Smoke / Sound Seal	S88D - head and jambs		ΡE
1	Meeting Edge Seal	S772C x height of door		ΡE

Notes: Function: Latch bolt by lever either side unless outside lever is locked by key outside. Outside lever remains locked unless unlocked by key. Inside lever always free for egress.

Set: 50.0

Doors: 101A.2, 103.1, 105A.2

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	
1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01 CL	_S6/7	626	RU
1	Magnetic Lock	M62BD		SU	4
1	Small Format Inter Core	33700007K P GMK	19	MC	
1	Surface Closer	7500 - pull side mount	689	NO	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	
1	Wall Stop	406	US32D	RO	
3	Silencer	608 / 609		RO	
1	Power Supply	AQL4-R8E1		SU	4
1	Remote Release Button	- Provided by Security Contractor		OT	

Notes: Lock or unlock outside lever by key outside or thumb turn inside.

Latch bolt by lever either side , unless outside lever is locked.

Lever inside always retracts latch bolt for egress.

(indicator inside displays outside lever locked / unlocked status)

Electromagnetic lock shall only be locked by activation of remote push button during an intruder situation.

Sc2ae

Doors: 154A.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 51.0

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

Set: 52.0

Doors: 102A.1

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01 C	LS6/7	626 RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Conc Overhead Stop	1-X36	652	RF
1	Smoke / Sound Seal	S88D - head and jambs		PE

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

Set: 53.0

Doors: 113.2, 138.2, 139.2

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01	CLS6/7	626 RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	PR7500	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Door Stop	487	US26D	RO
1	Smoke / Sound Seal	S88D - head and jambs		PE

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

C20e

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 54.0

Doors: 112.2, 114.2, 115.2, 116.2, 117.2, 133.2, 135.2, 136A.2, 136B.2, 137.2

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01 CL	.S6/7	626 RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Arm Support Bracket	6890	689	NO
1	Surface Closer	CPS7500	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Smoke / Sound Seal	S88D - head and jambs		PE

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

Set: 55.0

Doors: 149M.1

Doors: 149W.1

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Deadbolt	DL4122 CL6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Pull Plate	BF 111x70B	US32D	RO
1	Push Plate	70F	US32D	RO
1	Surface Closer	2800ST - pull side mount	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
3	Silencer	608 / 609		RO

Notes: Deadbolt thrown or retracted by key outside. Thumb turn inside retracts deadbolt only; will not project deadbolt.

Set: 56.0

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK
1	Deadbolt	DL4122 CL6/7	626	RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Pull Plate	BF 111x70B	US32D	RO
1	Push Plate	70F	US32D	RO
1	Surface Closer	2800ST - pull side mount	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
3	Silencer	608 / 609		RO

Notes: ** Confirm existing frame and door hardware preparations, on site, prior to submittal of hardware schedule.

Deadbolt thrown or retracted by key outside. Thumb turn inside retracts deadbolt only; will not project deadbolt.

Addendum #2



Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 57.0

2	Continuous Hinge	CFM-HD1		PE
1	Push Rail	ED5000DB	630	RU
2	Vandal Resistant Trim	VRT22	US32D	RO
2	Arm Support Bracket	6890	689	NO
2	Surface Closer	CPS7500	689	NO
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO
2	Silencer	608 / 609		RO

Set: 58.0

Doors: 105A.1

Doors: 100K.1

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	
1	Storeroom Lock	ML2057 NSA CLS6/7	626	RU	
1	Small Format Inter Core	33700007K P GMK	19	MC	
1	Electric Strike	4500C	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Arm Support Bracket	6890	689	NO	
1	Surface Closer	CPS7500	689	NO	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	
3	Silencer	608 / 609		RO	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Box	x)	MK	4
1	Intercom / Video Station	- Provided by Security Contractor		OT	
1	Power Supply	AQL4-R8E1		SU	4
1	Card Reader	- Provided by Security Contractor		00	

Notes: Door normally closed and locked. Key outside retracts latch bolt. Valid use of card reader or activation of remote release in intercom system unlocks electric strike permitting entry. Free egress always permitted.

Sc2ae

Doors: 101A.1

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 59.0

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	
1	Storeroom Lock	ML2057 NSA ĆLS6/7	626	RU	
1	Small Format Inter Core	33700007K P GMK	19	MC	
1	Electric Strike	4500C-LBSM	630	HS	4
1	SMART Pac Bridge Rectifier	2005M3		HS	4
1	ElectroLynx Adaptor	2004M		HS	4
1	Conc Overhead Stop	1-X36	652	RF	
1	Automatic Opener	6021/6031 (D) - confirm head detail689		NO	4
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	
3	Silencer	608 / 609		RO	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Bo	x)	MK	4
1	Intercom / Video Station	- Provided by Security Contractor		OT	
2	Door Switch	505 (6" x 6")		NO	4
1	Power Supply	AQL4-R8E1		SU	4
1	Card Reader	- Provided by Security Contractor		00	

Notes: Door normally closed and locked. Key outside retracts latch bolt. Valid use of card reader or activation of remote release in intercom system unlocks electric strike permitting entry. Free egress always permitted.

Activation of exterior door switch shall only cycle automatic operator if electric strike is in unlocked position (may utilize electric strike monitor switches for this function). Activation of interior jamb mount switch shall unlock electric strike, if locked, and cycle automatic operator.

Set: 60.0

Doors: 100G.1, 100G.2

Continuous Hinge	CFM-HD1		ΡE
Push Rail	ED5000DB	630	RU
Vandal Resistant Trim	VRT22	US32D	RO
Arm Support Bracket	6890	689	NO
Surface Closer	CPS7500	689	NO
Kick Plate	K1050 10" high CSK BEV	US32D	RO
Silencer	608 / 609		RO
	Continuous Hinge Push Rail Vandal Resistant Trim Arm Support Bracket Surface Closer Kick Plate Silencer	Continuous HingeCFM-HD1Push RailED5000DBVandal Resistant TrimVRT22Arm Support Bracket6890Surface CloserCPS7500Kick PlateK1050 10" high CSK BEVSilencer608 / 609	Continuous HingeCFM-HD1Push RailED5000DB630Vandal Resistant TrimVRT22US32DArm Support Bracket6890689Surface CloserCPS7500689Kick PlateK1050 10" high CSK BEVUS32DSilencer608 / 609609
APPENDIX H - DOOR HARDWARE SCHEDULE



Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 61.0 (ADM2)

Doors: 100R.2, 101S.1, 102B.1, 102C.1, 110B.1, 110G.1, 110J.2, 110S.1, 111S.1, 112S.1, 114S.1, 115S.1, 116S.1, 117S.1, 118S.1, 119S.1, 120S.1, 121S.1, 122S.1, 123S.1, 124S.1, 125S.1, 126S.1, 127S.1, 128S.1, 129S.1, 130S.1, 131S.1, 132S.1, 134.3, 134.4, 134B.1, 134G.1, 134J.2, 134R.1, 134S.1, 134S.2, 135A.1, 135S.1, 138A.1, 138S.2, 139S.2, 139S.3, 140S.1, 141B.1, 141G.1, 141T.2, 144.1, 144A.1, 144C.1, 144M.1, 144S.1, 145.1, 145A.1, 145A.2, 145C.1, 145C.2, 145E.1, 145F.1, 145J.1, 145M.1, 145S.1, 147.1, 147.2, 147.3, 147.4, 147R.1, 147S.1, 149.1, 149.2, 149.3, 149.4, 149B.1, 149G.1, 149P.1, 149P.2, 149S.1, 150.2, 151S.3, 152U.5, 154S.1, 160B.1, 160C.1, 160E.1, 161A.1, 161B.1, 161C.1, 161S.1, 161T.1

1	Small Format Inter Core	33700007K P GMK	19	MC
1	Reuse Balance	of Existing Door Hardware		OT

Notes: ** Confirm existing cylinder housing, on site, prior to submittal of hardware schedule.

Set: 62.0 (ADM2)

Doors: 110J.1, 134J.1, 134P.1, 140.3, 141S.1, 141T.2, 143.3, 143R.1, 146.1, 146.2, 149A.1, 150.1, 151A.1, 154A.2, 154E.1

1	Small Format Inter Core	33700007K P GMK	19	MC
1	Smoke / Sound Seal	S88D - head and jambs		PE
1	Reuse Balance	of Existing Door Hardware		OT

Notes: ** Confirm existing cylinder housing, on site, prior to submittal of hardware schedule.

Set: 63.0

Doors: 141A.2, 141A.3, 142.2, 143S.3, 149.5, 149L.4, 149L.5, 152S.1x, 161.2

1 Small Format Inter Core	33700007K P GMK	19	MC
1 Smoke / Sound Seal	S88D - head and jambs		PE
1 Meeting Edge Seal	S772C x height of door		PE
1 Reuse Balance	of Existing Door Hardware		OT

Notes: ** Confirm existing cylinder housing, on site, prior to submittal of hardware schedule.

Doors: 161.1

Set: 64.0

1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01 C	LS6/7	626 RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Reuse Balance	of Existing Door Hardware		OT

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

Addendum #2

APPENDIX H - DOOR HARDWARE SCHEDULE

Sc2ae

Northwestern School Additions and Renovations Battle Creek Public Schools Calhoun County, Michigan

Set: 65.0

Doors: 110.2, 111.2, 118.2, 119.2, 120.2, 121.2, 122.2, 123.2, 124.2, 125.2, 126.2, 127.2, 128.2, 129.2, 130.2, 131.2, 132.2, 134.2, 154.3

1	Classroom Security Lock	ML2003 SPAR-06538 NSA V01 C	LS6/7	626 RU
1	Small Format Inter Core	33700007K P GMK	19	MC
1	Smoke / Sound Seal	S88D - head and jambs		PE
1	Reuse Balance	of Existing Door Hardware		OT

Notes: Lock or unlock outside lever by key outside or thumb turn inside. Latch bolt by lever either side , unless outside lever is locked. Lever inside always retracts latch bolt for egress. (indicator inside displays outside lever locked / unlocked status)

Set: 66.0

Doors: 143S.1, 151S.2

1 Hardware	- Provided by Overhead Door Section	ОТ
	•	

END OF SECTION 087100

Phase	Ŧ	Description of Work	•	1
	1	Building Additions		A
1A		Classroom Remodel		P
1B		Classroom/Bathroom Remodel		J
	2	Classroom Remodel		A
	3	Classroom Remodel		N
	4	Classroom Remodel		J
	5	Classroom, Collaboration Center Remodel		A
	6	Corridors/Locker Rooms Remodel		J
	7	Boiler Room		A
8A		Common Area Overhead Work		J
8B		Common Area Finishes		J



