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SECTION 000120 - LIST OF SCHEDULES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Timetable of key dates.

1.2 RELATED DOCUMENTS

- A. Section 001113 Advertisement for Bids
- B. Section 002113 Instructions to Bidders
- C. Section 004113 Bid Forms

1.3 TIMETABLE

- A. The timetable of key dates for this RFB are as follows:
  - 1. Bids Released: April 20, 2026
  - 2. Pre-Bid Meeting: April 27, 2026 at 9:00 AM
  - 3. Contractor Questions Due: April 29, 2026, by 5:00 PM
  - 4. Answers Due: May 1, 2026, by 5:00 PM
  - 5. Bids Due: May 7, 2026, at 1:00 PM
  - 6. Award to Contractor: June 10, 2026
  - 7. Start Installation: June 11, 2026
  - 8. Completion Date: August 14, 2026
- B. If school is closed on the due date, the bid will be due the next open school day at the same time.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION.

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SECTION 001113 - ADVERTISEMENT FOR BIDS

PART 1 GENERAL

1.1 DATE

- A. April 20, 2026

1.2 PROJECT

- A. Northville Public Schools
- B. Wired Clock System
- C. Project No. 26-NPS-WCS-01

1.3 OWNER

- A. Northville Public Schools
- B. 405 W. Main Street
- C. Northville, MI 48167

1.4 DESIGNER

- A. Wright & Hunter, LLC
- B. 7303 W. Seven Mile Rd.
- C. Detroit, MI 48221

1.5 BID DUE DATE

- A. Until 1:00 PM local time on May 7, 2026, the Owner will receive sealed bids for the work as set forth in the bid specifications and proposal forms (“RFB documents”) at:
  - 1. Devin Kling
  - 2. Assistant Superintendent of Finance & Operations
  - 3. Northville Public Schools
  - 4. Business Office, 3rd Floor
  - 5. 405 W. Main Street
  - 6. Northville, MI 48167
- B. If school is closed on the due date, the bid will be due the next open school day at the same time.

- C. Proposals must be received, and time stamped at Northville Public Schools on or before the due date and time specified. Contractors are responsible for timely receipt of their proposal. Proposals which are received after the specified due date and time will not be considered.
- D. Bids will be publicly opened and read aloud at this time. Bids received after the above date and time will not be accepted.
- E. Bids that do not include a sworn and notarized statement disclosing any familial relationship between the Owner and the bidder as defined in Michigan Public Act No. 232 of 2004 will not be accepted.
- F. Bids that do not include an Iran Economic Sanctions Act Disclosure statement as defined in Michigan Public Act No. 517 of 2012 will not be accepted.
- G. Bids that do not include a Criminal Background Check Affidavit will not be accepted.
- H. Each bid shall be accompanied by a certified check, cashier's check, money order or bid bond made payable to Northville Public Schools in an amount of five percent (5%) of the base bid as a bid guarantee. Bids that do not include the bid guarantee will not be accepted.
- I. Withdrawal of any bid is prohibited for a period of ninety (90) days after the actual date of the opening thereof.
- J. The Owner reserves the right to reject any or all bids, either in whole or in part, to reject a bid not accompanied by the required bid guarantee, or by other data required by the RFB documents and Michigan law or to reject a bid which is in any way non-compliant with the bid requirements. Submitted bids may be adjusted by unit prices included by the bidder to ensure all bids submitted are compared on the same basis with respect to required materials.
- K. The Owner reserves the right to accept alternates in any order or combination and to determine the low bidder on the basis of the sum of the base bid and the alternates accepted.

#### 1.6 BID DOCUMENTS

- A. RFB documents will be available on or after April 20, 2026, and can be obtained from the Northville Public Schools web site at [www.northvilleschools.org](http://www.northvilleschools.org). On the homepage, select Departments, then select Finance & Operations, and finally click on Bid Information on the right side of the webpage or click the link below.
- B. <https://www.northvilleschools.org/departments/finance-operations/bid-information>
- C. Project drawings will need to be requested via email to [rlevitt@wrighthunter.com](mailto:rlevitt@wrighthunter.com).

#### 1.7 PRE-BID MEETING:

- A. There will be a pre-bid meeting on April 27, 2026 at 9:00 AM. local time at the following location:
  - 1. Northville High School

2. 45700 Six Mile Rd
  3. Northville, MI 48168
- B. If school is closed on the pre-bid meeting date, the meeting will be held the next business calendar day at the same time and location.
- C. The pre-bid meeting is not mandatory, but attendance is strongly encouraged to understand the scope of work and site conditions.

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## SECTION 002113 - INSTRUCTIONS TO BIDDERS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Submissions of bids, bidding procedures, proposal requirements, required disclosure statements, examination of bidding documents, contract liability, proposal modifications, discrepancies, withdrawal of proposals, alternatives, acceptance, rejection of bids and required bonds.

#### 1.2 RELATED DOCUMENTS

- A. Section 001113 Advertisement for Bids
- B. Section 002513 Pre-bid Meeting
- C. Section 004113 Bid Forms
- D. Section 000120 List of Schedules

#### 1.3 SEALED BID RECEIPT

- A. The Owner is soliciting proposals until 1:00 PM local time on May 7, 2026. Sealed bids will be received at Northville Public Schools, 405 W. Main Street, Northville, MI, 48167 up to this time, at which time they will be publicly opened and read aloud at a public meeting.
- B. If school is closed on the due date, the bid will be due the next open school day at the same time.
- C. Proposals must be received, and time stamped at Northville Public Schools on or before the due date and time specified. Contractors are responsible for timely receipt of their proposal. Proposals which are received after the specified due date and time will not be considered.
- D. The original, plus two (2) hard copies and one (1) full electronic copy of the Contractor's proposal must be delivered in sealed package(s). All packages shall be clearly labeled with the following information:

##### 1. SEALED BID ENCLOSED

- a. Devin Kling
- b. Assistant Superintendent of Finance & Operations
- c. Northville Public Schools
- d. Business Office, 3rd Floor
- e. 405 W. Main Street

- f. Northville, MI 48167
- 2. Contractor's Name and Address
- 3. Project Title: Wired Clock System (26-NPS-WCS-01)
- 4. Proposal Due Date

1.4 BID PROPOSAL REQUIREMENTS

A. Provide the following information as required under each tab, assembled in three (3) ring binders complete with Table of Contents. All pages shall have page numbers, which shall be included in the Table of Contents.

B. The Table of Contents shall be as follows:

- 1. Tab No. 1 Required Forms: Bid Bond, Familial and Iran Forms
- 2. Tab No. 2 Bid Proposal Form, District Totals, Mandatory Alternates and Voluntary Alternates
- 3. Tab No. 3 Bill of Materials and Break-Down by Building
- 4. Tab No. 4 Catalog Cut Sheets for Base Bid, Mandatory and Voluntary Alternates
- 5. Tab No. 5 Cover Letter, References and Rough Schedule
- 6. Tab No. 6 Warranty, Maintenance and Service Agreements
- 7. Tab No. 8 Company Information

C. Description of Contents:

- 1. Tab No. 1, Required Forms include a Bid Bond, Familial Relationship Disclosure Statement, Iran Economic Sanctions Form, and Criminal Background Check Affidavit. Forms must be fully executed and include a bid bond, if required. To be considered a qualified bid, all four forms must be fully executed and included with the bid response.
- 2. Tab No. 2, Bid Proposal Form shall include a completed bid proposal form and totals for the project.
  - a. Mandatory Alternates (if applicable) shall include a complete bill of materials and any of the following that are applicable: operating characteristics, physical characteristics, equipment configuration for each of the systems.
  - b. Voluntary Alternates are optional and made available to permit all Contractors to submit alternates to the bid documents. These voluntary alternates shall clearly define the intent of the alternate, cost impact to implement the alternates, and a description of the deviation in functions and features between the alternates and the base bid documents. Include a complete bill of materials.

3. Tab No. 3, Bill of Materials and Break-Down by Building shall include a complete bill of materials depicting quantities, manufacturer, catalog number, complete description, material unit price, labor cost breakdown and extended price.
4. Tab No. 4, Catalog cutsheets for Base Bid, Mandatory and Voluntary Alternates.
5. Tab No. 5, Cover Letter shall include an executive overview of the project and depict the Contractor's complete understanding of the project, include any clarifications and/or qualifications. References and a rough schedule that illustrates major milestones required to achieve the completion dates specified in the RFB should also be included under this tab. Typical milestone events include (Contractors can include contingencies that will affect their timelines):
  - a. Approximate equipment order and delivery dates.
  - b. Estimated installation dates by location.
  - c. Installation completion date by site.
  - d. Estimated final test dates.
  - e. Estimated training dates.
  - f. Provide an estimate of anticipated manpower required at each building to meet the specified completion dates in the RFB.
6. Tab No. 6, Warranty information and sample maintenance and service contracts. Include current service rates, trip charge rates and any additional charges that may apply
7. Tab No. 7, Wired Clock System, shall include the following information:
  - a. Description of system operation.
  - b. System configuration.
  - c. List of clients of similar size and type with contact information.
  - d. Number of years providing and installing similar equipment in schools.
  - e. Manufacturer's names.
  - f. List of subcontractors that will or may be utilized on this project.
8. Tab 8, Company information, shall provide information about the prime Contractor, any subcontractors, major suppliers, trainers, project managers, superintendents and service staff that will be involved with the project. Provide names and certifications for the assigned project team. Contact and escalation information on the project team will be required by the successful Contractor upon award of the project.

1.5 FAMILIAL RELATIONSHIP DISCLOSURE STATEMENT

- A. As required by Public Act 232 of 2004, all bids shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the Contractor and any member of the school board, or the superintendent of the school district.
- B. The Owner will not accept a bid from a Contractor that does not provide this sworn and notarized disclosure statement.

1.6 IRAN ECONOMICS SANCTIONS ACT

- A. As required by the Iran Economic Sanctions Act, Public Act 517 of 2012, all bids shall be accompanied by a sworn and notarized statement certifying that the Contractor is not an “Iran linked business” within the meaning of Act.
- B. The Owner will not accept a bid from a Contractor that does not provide this sworn and notarized disclosure statement.

1.7 AFFIDAVIT OF COMPLIANCE - CRIMINAL BACKGROUND CHECK

- A. The Contractor further hereby certifies that no owner, employee, agent, representative, contractor and/or other personnel of the Contractor will be on any School District premises if they are a registered criminal sexual offender under the Sex Offenders Registration Act, Public Act 295 of 1994, or have been convicted of “Listed Offense” as defined under Section 722 of the Sex Offenders Registration Act, MCL 28.722.
- B. The Owner will not accept a bid from a Contractor that does not provide this sworn and notarized disclosure statement.

1.8 EXAMINATION OF BIDDING DOCUMENTS AND SITE

- A. At the time of the bid opening, each Contractor shall have examined the premises and sites to compare them with the contract drawings and specifications.
- B. Failure or omission of any Contractor to examine any form, instrument or document shall in no way relieve any Contractor from any obligation with respect to their proposal. No allowances or extra payment will be made to a Contractor for failure to comply with the provisions of this section, or by reason of error or oversight on the part of the Contractor.
- C. It is understood, and the Contractor hereby agrees, that it shall be solely responsible for all equipment and/or services that it proposes. Notwithstanding the details presented in these specifications, it is the responsibility of the Contractor to verify the completeness of the equipment required and its suitability to meet the intent of this proposal. Each system proposed shall be for a complete turnkey system.
- D. The Owner reserves the right to withdraw this RFB at any time or to reject any or all proposals submitted in response to this RFB, without penalty. The Owner further reserves the right to select a single Contractor as a prime for the entire project or for only portions of it. The Owner

also reserves the right to accept or reject any part of any proposal and to accept or reject any or all proposals without penalty. The Owner will be the sole judge of its needs and of the best elements of a proposal to meet those needs and shall award to the lowest responsible bidder as required by law. The Owner's decision is final.

- E. Proposals containing terms and conditions different from this section of the RFB may be rejected.

#### 1.9 CONTRACT LIABILITY

- A. The Contractor will be required to assume responsibility for all contractual activities offered in this proposal whether or not the Contractor performs them. Further, the Owner will consider the Contractor to be the sole point-of-contact with regard to contractual matters, including payment of any or all charges resulting from the anticipated contract. If any part of the work or component of the proposed configuration is to be subcontracted, responses to this RFB must include a list of subcontractors, including firm name and address, contact person, complete description of work to be subcontracted or component to be provided and descriptive information concerning subcontractor's organizational abilities.
- B. The Owner reserves the right to approve subcontractors for this project and to require the Contractor to replace subcontractors found to be unacceptable. The Contractor is totally responsible for adherence by the subcontractor to all provisions of the contract. All contract clauses between the Owner and the Contractor shall also apply to any contract between the selected Contractor and subcontractor(s).

#### 1.10 PROPOSAL MODIFICATIONS

- A. Any explanations or statements, which the Contractor wishes to make, must be written on or attached to the proposal. Unless indicated, it is understood that the proposal is in strict accordance with all requirements and specifications. The Technology Designer and/or the Owner may request additional information to clarify the Contractor's response, to verify responsiveness to mandatory specifications, or to facilitate the fair comparison of competing bid responses.
- B. Proposals shall be deemed final, conclusive and irrevocable. No proposal shall be subject to correction or amendment for any error or miscalculation unless unit prices for the additional or missing item(s) are included on the Bid Form. Submitted bids may be adjusted by unit prices up or down to ensure all bids submitted are compliant and compared fairly. Proposal prices shall provide for a complete turnkey system as specified. Installation shall include, but is not limited to, all labor required for a turnkey system.

#### 1.11 DISCREPANCIES, OMISSIONS AND INTERPRETATIONS

- A. Contractors shall promptly notify Wright & Hunter (the "Technology Designer") of any ambiguities, inconsistencies or errors, which it may discover upon examination of the RFB, the Bid Form, Drawings, AIA documents, purchase orders generated by the Owner, any addenda to the aforementioned documents and all other documents pertaining to the SCS (the "Contract

Documents”) or of the site and local conditions. A Contractor requesting clarification or interpretation of the bid documents shall make a written request no later than the “Contractor Questions Due” date and time listed in Section 000120. E-mail all questions to:

1. Robert Levitt
2. Email: rlevitt@wriighthunter.com

- B. All questions and answers will be shared with all Contractors.
- C. If prior to the date fixed for submission of proposals, a Contractor fails to notify the Technology Designer of a known error in the RFB or of an error that reasonably should have been known to the Contractor and if a contract is awarded to the Contractor, the Contractor shall not be entitled to additional compensation or time, by reason of the error or its later correction.
- D. In the event it becomes necessary to provide additional clarifying data or information, or to revise any part of this RFB, supplements or revisions will be provided to all known recipients of the initial RFB.
- E. Failure to acknowledge receipt of supplements or revisions, in accordance with the instructions contained in the supplement or revision, may result in proposals not being considered. Each Contractor's proposal shall stipulate that it is predicated upon all the terms and conditions of the RFB and any supplements or revisions thereto. The submission of a proposal is an acknowledgment to comply with all terms of the RFB, the form of Contract and any other contract document, except and only to the extent that the Contractor provides an express objection to a provision or provisions in writing, attached as a separate document along with its proposal, and specifically identifying the objection and providing a proposed alternative thereto. In the absence of the foregoing, the Contractor shall be deemed to have agreed to all stated terms.

#### 1.12 WITHDRAWAL OF PROPOSALS

- A. Proposals may be withdrawn, modified and resubmitted at any time prior to the time set for the receipt of proposals. The Contractor may not withdraw its proposal prices during the ninety (90) day period immediately following the proposal bid opening. All proposals and proposal prices shall be guaranteed for that period of time.
- B. When the selected Contractor(s) (the “Contractor”) receives the notice of award from the Owner within the above ninety (90) day period, it shall guarantee the prices through the interval required to execute the Contractor's Bond.

#### 1.13 ACCEPTANCE OF PROPOSAL

- A. The Contract Documents shall include all bidding requirements and specifications, the terms of this RFB, the form of Contract, approved project specifications and approved project manual. Except as to any specific objection as required by Paragraph 1.10(E) above, all of the foregoing, as well as the accepted portions of the Contractor's proposal shall become contractual

obligations of the Contractor upon award by the Board of Education. Failure of the successful Contractor to accept these obligations in a contractual agreement may result in cancellation of the award and this RFB, forfeiture of the entire bid bond, and any additional damages incurred by the Owner. If the terms, conditions or assumptions included in the Contractor's proposal or response to this RFB differ from the Contract Documents, the terms and conditions that are most favorable to the Owner, as determined in the Owner's sole discretion, shall be binding.

- B. The Owner reserves the right to reject any or all bids, either in whole or in part, to reject a bid not accompanied by the required bid guarantee, or by other data required by the RFB documents and Michigan law or to reject a bid which is in any way non-compliant with the bid requirements. Submitted bids may be adjusted by unit prices included by the bidder to ensure all bids submitted are compared on the same basis with respect to required materials.
- C. The Owner reserves the right to accept alternates in any order or combination and to determine the low bidder on the basis of the sum of the base bid and the alternates accepted.

#### 1.14 REQUIRED BONDS

- A. At the time bids are submitted, Contractors are required to submit a ninety (90) day Bid Guarantee Bond (5% of the total dollar amount).
- B. The successful Contractor will be required to furnish a Labor and Materials Bond valued at the full amount of the contract at the time the contract is awarded for all labor and materials to be contracted.
- C. The successful Contractor will be required to furnish a Performance Bond valued at the full amount of the contract at the time the contract is awarded.

#### 1.15 QUANTITIES

- A. It is understood and agreed that the Owner reserves the right to either increase or decrease quantities and to buy additional services under the terms of any contract resulting from this bid, so long as in accordance with law.

#### 1.16 PRICES

- A. Purchase prices shall remain firm throughout the entire contract.
- B. The Contractor must use the Bid Forms included with this RFB. If additional pages are necessary, they must be in the same format as the original.
- C. Any rebates applied in response to this RFB must be applied to line item pricing, and not be included as one lump sum.

#### 1.17 ALTERNATIVES

- A. All bid proposals must be based upon the specifications included in this RFB. In addition to a base bid proposal, the submission of voluntary alternatives is acceptable. The base bid must

conform to the materials, labor and terminations established by the bid specifications in this document. The Contractor must bid the base bid to be eligible to bid an alternative. Each Contractor must identify in their response any deviations to the scope of work and any construction requirements not addressed.

#### 1.18 CERTIFICATION OF INDEPENDENT PRICE DETERMINATION

- A. By submission of this proposal, the Contractor certifies, and in the case of a joint proposal, each party thereto certifies as to its own organization, that in connection with this procurement:
  - 1. The prices in this proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Contractor or with any competitor.
  - 2. Unless otherwise required by law, the prices, which have been quoted in this proposal, have not been knowingly disclosed by any Contractor and will not knowingly be disclosed by the Contractor prior to procurement or prior to award in the case of a negotiated procurement, directly or indirectly to any other Contractor or to any competitor.
  - 3. No attempt has been made or will be made by the Contractor to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.
- B. Each person signing this proposal certifies that:
  - 1. He/she is the person in the Contractor's organization responsible within that organization for the decision as to the prices being offered herein.
  - 2. He/she is not the person in the Contractor's organization responsible within that organization for the decision as to the prices being offered herein, but that he/she has been authorized in writing to act as agent for the persons responsible for such decision.
- C. By submission of Contractor's proposal to this project, the Contractor certifies, and in the case of a joint proposal, each party thereto certifies as to its own organization, that in connection with this procurement: the that no relationship exists between the Contractor and the procuring or contracting agency that interferes with fair competition or is in conflict of interest, and no relationship exists between the Contractor and another person or organization that constitutes a conflict-of-interest that is adverse to the Owner.

#### 1.19 PROPRIETARY INFORMATION

- A. This is a public bid. Information submitted in response to this RFB is subject to Freedom of Information Act requests and to be viewed by any interested party by request. Any bids identified in whole or in part as proprietary will be disqualified.
- B. Unless specifically excluded from this provision, all data, documentation and innovations resulting from contractual services will become the property of the Owner. Data contained in the proposal and all documentation provided as a result of these contractual services cannot be

copyrighted and innovations developed as a result of these contractual services cannot be copyrighted or patented. Proposals must clearly specify any data, documentation, software, or other innovations that are proposed to be excluded from this provision and specifically provide, where applicable, for licensing of these materials to the Owner for the life of the system.

1.20 NONCOMPLIANCE

- A. Failure to include in the Contractor's proposal all information requested in this RFB may be cause for rejection of the proposal. When responding to this RFB, please clearly state whether your firm complies with each section.

1.21 COST LIABILITY

- A. The Owner assumes no responsibility or liability for costs incurred by the Contractor prior to the signing of any Contract resulting from this Request.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION.

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SECTION 002513 - PRE-BID MEETING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Pre-bid meeting attendance requirement, date, time, and location.

1.2 RELATED DOCUMENTS

- A. Section 001113 Advertisement for Bids
- B. Section 002113 Instructions to Bidders

1.3 PRE-BID MEETING

- A. There will be a pre-bid meeting on April 27, 2026 at 9:00 a.m. local time at the following location:
- B. Northville High School
- C. 45700 Six Mile Rd
- D. Northville, MI 48168
- E. All Contractors submitting a bid are strongly encouraged to attend the pre-bid meeting.
- F. No one person attending the pre-bid meeting may represent more than one Contractor.
- G. A sign-in sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The Owner will not accept any other form of proof or documentation to verify attendance. It is the Contractor's responsibility to locate the sign-in sheet and provide the required information. Failure to complete the sign-in sheet as required may result in disqualification of the Contractor's bid.
- H. All Contractors should arrive prior to the starting time for the pre-bid. Contractors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign-in but are responsible for all matters discussed at the pre-bid meeting.
- I. Any discussions, questions or answers at the pre-bid meeting are preliminary in nature and non-binding. All questions must be submitted in writing per Section 002113. Only those questions and answers issued in an Addendum are binding.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION.

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SECTION 004113

BID FORMS

FAMILIAL RELATIONSHIP  
DISCLOSURE STATEMENT

Important: This disclosure statement must be included with your bid as required by state law (Public Act 232 of 2004).

As required by Public Act 232 of 2004, all bids shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the bidder and any member of the Northville Public Schools Board of Education. The board shall not accept a bid that does not include this sworn and notarized disclosure statement.

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I state that no familial relationship exists between the owner or any employee of the company and any member of the Northville Public Schools' board, intermediate school board, or board of directors or the superintendent of the school district. If such a relationship exists, please explain:

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---

By: \_\_\_\_\_ (Signature)

Title: \_\_\_\_\_ (Type or Print)

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

Subscribed and Sworn to Before Me:

This \_\_\_\_\_ day of \_\_\_\_\_, 2026 in and for the County of \_\_\_\_\_,

Michigan. My commission expires \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary

IRAN ECONOMIC SANCTIONS ACT  
DISCLOSURE STATEMENT

Important: This disclosure statement must be included with your bid as required by state law (Public Act 517 of 2012).

As required by Iran Economic Sanctions Act, Public Act 517 of 2012 (the “Act”), all bids shall be accompanied by a sworn and notarized statement certifying that the Contractor is not an “Iran linked business” within the meaning of the Act and that in the event Contractor is awarded a contract as a result of the aforementioned RFB, the Contractor will not become an “Iran linked business” at any time during the course of performing any services under the contract.

The Act defines an Iran Linked Business as an individual or any entity, including all successors, parent companies, subsidiaries and companies under common control, engaged in investment activities of \$20,000,000.00 or more with the energy sector of Iran, including providing of products used to construct or maintain oil or liquefied natural gas pipelines.

The Contractor 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 School District’s investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a Request for Proposal for three (3) years from the date it is determined that the person has submitted the false certification.

By: \_\_\_\_\_ (Signature)

Title: \_\_\_\_\_ (Type or Print)

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

Subscribed and Sworn to Before Me:

This \_\_\_\_\_ day of \_\_\_\_\_, 2026 in and for the County of \_\_\_\_\_,

Michigan. My commission expires \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary



PROJECT: WIRED CLOCK SYSTEM  
DATE: \_\_\_\_\_  
CONTRACTOR'S NAME: \_\_\_\_\_  
CONTRACTOR'S ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

GENERAL:

Pursuant to and in compliance with the instructions in the Contract Documents, as defined in W&H Project No. 26-NPS-WCS-01 in the Request for Bid, the undersigned proposes and agrees to furnish equipment, materials, and labor and perform all work necessary to complete the Wired Clock System contract for Northville Public Schools (the "Owner") in accordance with the plans and specifications prepared by Wright & Hunter, Inc. (the "Technology Designer") and agrees to accept payment as herein provided.

BASE BID:

Lump sum bid for all Wired Clock System work specified in the RFB and shown on the Drawings as indicated for base bid.

\_\_\_\_\_  
\_\_\_\_\_  
Dollars \_\_\_\_\_

Note: The amount shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

BASE BID BONDS:

The undersigned affirms that the cost of a Labor and Material Payment Bond and a Performance Bond are included in the base bid amount above.

\_\_\_\_\_  
Amount included above for Bonds \_\_\_\_\_

MANDATORY ALTERNATES

The following Mandatory Alternates are offered by the Contractor. The Contractor shall provide a complete description of each Mandatory Alternate and indicate the amount to be added to or deducted from the Base Bid should the Owner accept the Mandatory Alternate. Attach additional pages if required to explain each Mandatory Alternate.

The following alternate prices shall include all charges for labor, material and equipment, overhead and profit, taxes, insurance and incidental expenses.

All alternates must include itemized pricing (bill of material). Failure to indicate mandatory alternate prices shall be cause for the Owner to consider the bid nonresponsive. An associated bill of material for each alternate must be included.

The Owner reserves the right to accept alternates in any order or combination and to determine the low Contractor on the basis of the sum of the Base Bid and the alternates accepted.

**No Mandatory Alternates**

VOLUNTARY ALTERNATES

The following Voluntary Alternates are offered by the Contractor. The Contractor shall provide a complete description of each Voluntary Alternate and indicate the amount to be added to or deducted from the Base Bid should the Owner accept the Voluntary Alternate. Attach additional pages if required to explain each Voluntary Alternate.

Voluntary Alternate 1 (VA-1):

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

Voluntary Alternate 2 (VA-2):

Add / Deduct / No Change Dollars \$ \_\_\_\_\_

**BASE BID BREAKDOWN**

The Contractor shall provide the following breakdown of the base bid. Failure to list this information shall be cause for the bid to be considered unresponsive.

<b>Base Bid</b>	<b>Material</b>	<b>Labor</b>	<b>Other</b>	<b>Total</b>
Wired Clock System				
Bonds				
Other				
TOTAL				

**COMPLIANCE**

Failure to include in the Contractor's proposal all information requested in this RFB may be cause for rejection of the proposal. When responding to this RFB, please clearly state whether your firm complies with each section.

Section	Compliant (Yes or No)	Comments or Exceptions
000120		
001113		
002113		
002513		
004113		
007213		
007316		
011100		
012900		
017719		
017836		
017839		
275313		

**TAXES**

The Contractor shall include in his/her proposal and shall pay all applicable Federal, State and local taxes of whatever character and description.

**ADDENDA**

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

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

WITHDRAWAL OF BIDS

The undersigned agrees that his/her proposal shall not be withdrawn for a period of ninety (90) days after the date set for receipt of proposal.

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

SIGNATURE

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 2026

Affix Corporate Seal

\_\_\_\_\_  
(Individual, Partnership, Corporation)  
By: \_\_\_\_\_  
(Authorized Signature of Contractor)  
\_\_\_\_\_  
(Business Address)  
\_\_\_\_\_  
(Telephone Number)

INSTRUCTIONS: Submit one (1) original and two (2) hard copies.  
Submit one (1) full electronic copy. Retain one (1) copy for your files.

END OF SECTION

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## SECTION 007213 - GENERAL CONDITIONS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. General conditions including contract, laws and permits, protection of persons, safety, implementation plan, additional resources, and clean-up and maintenance.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 002113 Instructions to Bidders
- C. Section 011100 Summary of Work

#### 1.3 CONTRACT

- A. A form of contract is attached to this RFB and shall be binding on each proposing Contractor except and to the extent set forth in Section 002113, Paragraph 1.11(E). It is acknowledged that the form of contract incorporates by reference the terms of this RFB and, in the event of any conflict among the contract documents; the provision most beneficial to the Owner shall govern. Notwithstanding the foregoing, the Owner reserves the right in its sole discretion to negotiate any term of the Contract prior to contract award so long as any negotiated term does not affect the propriety of the competitive bidding process. While not limiting the breadth of the form of contract's incorporation of the RFB, the following are all required contractual provisions:

#### 1.4 LAWS AND PERMITS

- A. The Contractor shall comply with all federal, state and municipal laws, rules, regulations, ordinances, or orders governing or affecting in any way the work under this contract, including board of education policies. Also, the Contractor shall give all notices and obtain all permits necessary and required for this work and shall pay all costs and fees for the same. The Contractor must furnish copies of all approved inspection certificates and approvals from authorities having jurisdiction within thirty (30) days of completion and acceptance of work as evidenced by applicable acceptance documents.
- B. Where appropriate, all equipment and installation workmanship shall comply with specifications contained in Electronics Industries Association Standards and the National Electrical Code. As pertinent, all equipment shall be FCC-certified, FCC type accepted and/or UL listed. All work shall be conducted according to the standards of good engineering practice.

## 1.5 PROTECTION OF PERSONS AND OTHER STRUCTURES

- A. The Contractor agrees to exercise special precautions to avoid damage to facilities of the Owner and others. The Contractor hereby assumes responsibility for any and all damage to such facilities arising out of or caused by the conduct or property of the Contractor, whether by the negligence of the Contractor, its agents or employees. The Contractor shall make an immediate report to the Owner and the Technology Designer of any damage to the facilities or others. The Contractor hereby agrees to repair or replace at their own expense or to reimburse the Owner for expenses incurred by the Contractor in making necessary repairs and replacements.
- B. The Contractor shall assume all responsibility for bodily injury to persons, including death or damages sustained or claimed by its employees, the employees of the Owner, or by any other person, and also for damage to property, including property of the Contractor, the Owner or any other person; and also, for any interruptions to electric or community antenna television or other communications service which may occur or allegedly occur because of, or result from, or in any manner are connected with, or directly or indirectly, arise out of or are caused in whole or in part by the material provided or the work performed by the Contractor, its agents or employees under this agreement.
- C. The Contractor shall assume all responsibility for and shall indemnify and hold the Owner harmless from and against all losses, liabilities, claims, demands, payments, actions, legal proceedings, recoveries, costs, expenses, attorney fees, settlements, judgments, orders and decrees of every nature and description brought or recovered against, or incurred by the Contractor, the Owner, or both of them, by reason of any such bodily injury to person, damage to property, or interruptions to service caused by the Contractor, its agents or employees. Notwithstanding the foregoing, the Contractor shall not be required to indemnify the Owner against liability for damages arising out of bodily injury to persons, damage to property, or interruptions to service caused by or resulting from the negligence of the Owner, its agents or employees. The Contractor's indemnification obligation shall be limited to, but shall fully include, the degree of all fault for which it is responsible.

## 1.6 SAFETY

- A. Each Contractor shall be responsible for its own safety and hazard program. Each program shall be in accordance with provisions of the Occupational Safety and Health Act (OSHA), Michigan OSHA (MIOSHA), the Environmental Protection Agency (EPA), and the Material Safety Data Sheets (MSDS). The Contractor shall maintain an effective safety program and conform to all federal and local safety codes. Upon written request by the Owner and/or the Project Manager, the Contractor shall provide the registered programs documenting safety and hazard programs.
- B. During projects in construction zones or if site conditions require, the Contractor and all of his/her staff, agents and/or subcontractors must wear Contractor provided hard hats anytime they are onsite. The Contractor shall assume sole responsibility and liability for hat usage of his/her staff, agents and/or subcontractors.

## 1.7 IMPLEMENTATION PLAN

- A. The successful Contractor must prepare and submit a final implementation plan and timeline as part of the final Contract Documents. The Contractor and the Owner will mutually determine the critical dates that must be met, so long as consistent with the then-applicable Project Schedule. The Contractor will be required to adhere to, meet and maintain activities to the timeline schedule as planned. The Contractor will also be required to be flexible towards changes in the priorities of the timeline schedule during the entire project and will make all related changes at no additional cost to the Owner.

## 1.8 INTERRUPTION OF OCCUPANCY

- A. The installation must not interrupt the normal activity of the Owner. All work which will cause disruption of the Owner's existing systems and services must be accomplished during time periods when it is least inconvenient to the Owner and completed in the shortest possible time frame (i.e. after normal school hours). The Owner is not responsible for any overtime and/or premium time not identified in the Contractor's base bid pricing response.
- B. Each Contractor is responsible to plan, coordinate and execute their work in such a manner that there will be no disruption of the Owner's operations. If an interruption of operations is unavoidable, the work will be scheduled with the Owner prior to beginning such work.

## 1.9 REJECTING DEFECTIVE WORK

- A. The Technology Designer and/or the Owner will have the authority to disapprove or reject work, which is defective, unsatisfactory, faulty, does not conform to the requirements of the Contract Documents or does not meet the manufacturers' requirements. The Technology Designer and/or the Owner will also have the authority to require special inspection or testing of the work whether or not the work is fabricated, installed or completed.

## 1.10 SPECIFICATION DEVIATION

- A. Commodities procured under these specifications shall not deviate from those originally contracted for without written approval from the Owner and so long as consistent with law.
- B. The Owner has sole responsibility for the interpretation of all documents. Any claims and/or disputes associated with and/or arising from this RFB must be submitted in writing and directed to the Owner within thirty (30) days of dispute and/or claim.

## 1.11 EXECUTED CONTRACT TO CONSTITUTE ENTIRE AGREEMENT

- A. All contracts for work herein are subject to all existing and applicable provisions for the payment of prevailing rate of wages to laborers, workmen and mechanics engaged in the work.
- B. Except as set forth in Paragraph 1.11(C) below, the contents of the Contract Documents of the successful Contractor shall be contractual obligations upon bid acceptance. Failure of the successful Contractor to accept these obligations in a contractual agreement may result in a cancellation of award and forfeiture of bid bond.

- C. The Owner reserves the right to negotiate provisions in addition to those stipulated in this RFB or proposed by the successful Contractor for the purpose of obtaining the best possible offer. If the Contractor should discover any provisions in the contract that are contrary to or inconsistent with the law, ordinance, order or decree, the Contractor shall immediately report it to the Owner in writing.

#### 1.12 CONTRACT SUSPENSION, TERMINATION AND CANCELLATION

- A. The Owner may cancel the contract effective as a result of this RFB in whole or in part as follows:
  - 1. By mutual agreement of the contracting parties. Upon such termination, the Owner's liability shall be limited to the reasonable value of services performed and deemed acceptable by the Owner upon the date of such mutual agreement.
  - 2. If the Owner deems that such termination is in its best interest. In the event that the Owner gives notice to terminate pursuant to this subsection, such notice shall be given no less than thirty (30) days prior to the date on which the termination becomes effective. Upon such termination, the Owner's liability shall be limited to the reasonable value of services performed and deemed acceptable by the Owner as of the effective date of the termination.
  - 3. For cause, which shall include, but is not necessarily limited to, failure or unwillingness of the Contractor to comply with the approved program, including attached conditions; failure to comply with applicable state statutes or other applicable laws or policies; or failure to comply with such directives as may become generally applicable at the time; refusing/failing to provide enough properly skilled workers to timely complete the work; failing to pay subcontractors and suppliers; failing to prosecute the work with diligence; and breaching any term of the Contract.
  - 4. Due to lack of appropriation of necessary funding, cancellation due to lack of appropriation shall be without penalty. Upon such cancellation, the Owner's liability shall be limited to the reasonable value of services performed and deemed acceptable by the Owner as of the effective date of cancellation.
- B. The Contract may only be modified by: (i) mutual written agreement of the parties, (ii) a properly-executed change order, signed by the Contractor, Owner and Technology Designer describing the additional/different work, price and time frame for performance, and (iii) a construction change directive issued by the Owner, for which the Contractor must commence prosecution of the work promptly (but no less than 10 days) and any modification to contract price or time will be later determined. In the event the parties cannot mutually agree to an adjustment in price or time for a construction change directive, the Technology Designer shall have the right and authority to determine same. If the Contractor objects to such determination, it may file a claim in accordance with the Contract. Rejection by the Contractor of any construction change directive may be the basis of contract suspension, termination or cancellation.

- C. No cancellation will affect any expenditures or legally binding commitments made prior to receiving notice of the cancellation, suspension or termination provided such expenditures or commitments were made in good faith and not in anticipation of cancellation and are otherwise allowable.
- D. Upon execution of the Contract, the Owner shall be deemed the owner of all materials and equipment actually incorporated into or purchased for the project, as well as the owner of all documentation used with respect to same. In the event of cancellation prior to the full term of the contract, the Contractor shall arrange to provide the Owner with all work documents, computer programs and files used/developed by the Contractor during the period the contract was effective. The title to such programs and materials as well as any equipment and materials supplied while the contract is in effect, shall rest with the Owner.

#### 1.13 DELAYS AND EXTENSIONS OF TIME

- A. If the Contractor is delayed at any time in the progress of the work by any act or neglect of the Owner, an employee of the Owner, any separate Contractor employed by the Owner (whether related to technology improvements or non-technology improvements), changes ordered in the work, acts of God, fires, floods epidemics, quarantine restrictions, or any other cause beyond the Contractor's reasonable control, then the contract time shall be extended by change order for such reasonable time as the Owner and the Contractor may determine. An extension of time for performance shall be the only remedy for any such delay, and damages related to any such delay are inapplicable.
- B. If the Technology Designer and/or the Owner determines that the progress of the work falls behind the current project schedule due to the control, management, direction, acts or omissions of the Contractor, its agents or employees, the Contractor shall take whatever remedial action as directed, including, but not limited to the following:
  - 1. Increase staff and labor force
  - 2. Work overtime
  - 3. Add or change subcontractors
  - 4. Utilize more expensive materials/methods
  - 5. Reschedule
- C. Costs of any remedial action, which are caused by the control, management direction, acts or omissions of the Contractor, its agents or employees, shall not be assigned to the Owner and no increase in contract price will be authorized.

#### 1.14 DELIVERY OF EQUIPMENT AND/OR MATERIALS

- A. Delivery shall be destination, set in place, ready for use unless otherwise specified, with packing and debris removed by the Contractor. The Contractor shall receive and accept its equipment and/or materials from the transportation company or carrier and shall provide all

handling, carrying, etc., to the final location for each piece of equipment and/or materials in the building. Crating materials and other trash resulting from the installation shall be removed from the premises daily. Excelsior and similar hazardous trash shall be removed immediately upon unpacking. No accumulation of trash shall be permitted.

- B. The Contractor must have a representative at the job site during all unloading and placing of equipment. This service shall be included in the Contractor's proposal (and, thus, the Contract Sum). The Owner shall hold this representative operationally responsible for the services indicated and he/she shall have such capability and be given such responsibility by the Contractor that he/she can act on the Contractor's behalf in any situation, which may arise on the site of delivery. The Contractor's representative shall use some method, approved by the Owner, to show the item has been inspected and whether it has been "Approved" by the Contractor or if repairs or replacement is necessary. This shall be done prior to the Owner's final inspection. Any Owner rejection shall be honored, even if the Contractor has previously "approved" the equipment.
- C. Contractors are cautioned to check their manufacturing and shipping schedules carefully before fixing their proposed delivery schedule. If, for any reason, any items of equipment should arrive prior to the building being ready to receive them, the successful Contractor shall make its own arrangements for temporary storage arrangements at no cost to the Owner. No on site storage will be available and all staging should be complete before delivery and installation of the equipment.
- D. Contractors doing work are to cooperate fully and coordinate the work of all other Contractors to expedite the proper and timely completion of the furnishing projects. It is acknowledged that coordination with non-technology contractors (e.g., mechanical and electrical contractors installing improvements to facilitate technology upgrades) is expected and required, so as to provide a seamless and efficient installation of all Owner improvements pursuant to the bond project.
- E. In making delivery and installation, the Contractor must repair, at its own expense, any damage done to any of the buildings, equipment or property that are a part of this project that occur as a result of the control, management, direction, acts or omissions of the Contractor, its agents or employees and hold the Owner harmless from any other claims or property damage and/or personal injury.

#### 1.15 SUBCONTRACTING AND ASSIGNMENT

- A. The Contractor shall be responsible to the Owner for the acts and omissions of all its employees and all subcontractors, their agents and employees and all other persons performing any of the work under a contract with the Contractor.
- B. This Contract, with all its rights and duties, and any part thereof, shall not be deleted, subcontracted or assigned to another Contractor without prior written permission of the Owner.

#### 1.16 RECORD KEEPING AND RECORD RETENTION

- A. It is acknowledged and agreed that the Contractor shall not be entitled to any additional costs or expenses for its scope of work, other than as is consistent with the Contractor's accepted proposal. For a change in the scope of work, the Contractor's costs shall be determined: (a) if a change order, as agreed in the approved change order, and (b) if a construction change directive and the parties cannot mutually agree to a modified amount, as determined by the Technology Designer. For purposes of the Technology Designer's determination, the Contractor shall establish and maintain adequate records of all expenditures incurred under the construction change directive. All records shall be kept in accordance with general accepted accounting procedures. All procedures shall be in accordance with Federal, State, and local ordinances.
- B. The Owner shall have the right to audit, review, examine, copy, and transcribe pertinent records or documents relating to any contract resulting from this RFB held by the Contractor. The Contractor shall retain all documents applicable to the contract for a period of not less than six (6) years after final payment has been made.

#### 1.17 RISK OF LOSS OR DAMAGE

- A. The Owner shall be relieved from all risks of loss or damage to materials or equipment during the period of transportation, installation, and during the entire time the equipment is in possession of the Contractor, unless and until such time as unencumbered title for the equipment is vested in the Owner and the materials or equipment is in the exclusive possession of the Owner.
- B. Should the materials or equipment be lost or damaged under such circumstances where the Owner is relieved from the risk of loss or damage, the Contractor shall immediately cause the damaged materials or equipment to be repaired or replaced at no cost to the Owner.
- C. In such event, any payments for the lost or damaged equipment shall be suspended from the time loss or damage occurs until such time as the lost or damaged materials or equipment is repaired or replaced and accepted by the Owner.
- D. It is understood, and the Contractor hereby agrees, that the Contractor shall be solely responsible for all equipment and/or services that the Contractor proposes. Notwithstanding the details presented in these specifications, it is the responsibility of the Contractor to verify the completeness of the equipment required and its suitability to meet the intent of this proposal. Any additional equipment required for installation shall be provided by the Contractor; it is understood that complete operating systems are required.

#### 1.18 ADDITIONAL RESOURCE REQUIREMENTS

- A. If the Contractor fails to complete the project or a segment of the project within the time period agreed to in the Contract Documents, and if as a result, the Owner finds it necessary to incur any additional costs and/or expenses (for example, needing to hire additional Contractors to complete work which is not being completed in a timely or satisfactory manner), the Contractor shall pay all those costs and expenses incurred by the Owner. These costs and expenses may

include, but are not limited to, such items as additional hours spent by the Technology Designer, additional architectural fees and fees related to the acquisition of additional Contractors to complete the job. These costs and expenses may be retained by the Owner from any payments otherwise due to the Contractor for work, which has not been completed within the terms of the Contract Documents. The Owner may hire additional Contractors if seven (7) day notice has been given to the Contractor and the Contractor has failed to remedy the failure, to act in accordance with the notice, or has repudiated the contract. Failure by the Contractor to give adequate assurances when deadlines on the timeline have not been met will also result in the Owner's right to bring in other Contractors to complete the contract or a segment of the contract.

#### 1.19 CLEAN-UP AND MAINTENANCE

- A. During preparation and construction, the project area must be kept free from scrap and debris in accordance with established safety and health standards. Upon completion of work, each day and at the end of the project, the Contractor will be held responsible to clean up and remove debris from the site. Damage to any portion of equipment or existing structure is the responsibility of the Contractor and repairs must be completed before acceptance and final payment is issued.

#### 1.20 SYSTEM ACCEPTANCE

- A. Payment will be made only to the successful Contractor for services properly performed under the contract. The Owner will withhold retainage of 10% until final payment, which will follow the Contractor's fulfillment of all obligations.

#### 1.21 INSPECTION OF WORK AND ACCEPTANCE TESTS ACCEPTANCE

- A. The Contractor shall at all times, permit and facilitate inspection of the work by the Technology Designer and by public authorities having jurisdiction. The Technology Designer shall have the authority to stop the work, if necessary, to insure its proper execution. Tests will be performed and documented by the installing Contractor and turned over to the Owner as part of the "as-built" drawings at the time of completion. Deviations and/or corrections to the installation will be completed within ten (10) working days.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION.

## SECTION 007316 - INSURANCE REQUIREMENTS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Insurance requirements.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.3 INSURANCE

- A. The Contractor shall purchase and maintain insurance for protection from the claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by the Contractor or Subcontractor, or by anyone directly employed by any of them:

1. Claims under workers or workmen's compensation, disability benefits and other similar employee benefit acts;
2. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
4. Claims for damages insured by usual personal injury liability coverage, which are sustained by any person as a result of an offense directly, related to the employment of such person by the Contractor;
5. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and
6. Claims for damages because of bodily injury or death of any person or property damage arising out of the maintenance or use of any motor vehicle. The insurance required shall be written in the following minimum limits:

- a. General Liability:

- 1) \$1,000,000
- 2) Including personal injury and property damage
- 3) \$2,000,000 each aggregate

- b. Automobile Liability:

- 1) \$1,000,000
- 2) \$2,000,000 each aggregate
- c. Workers' Compensation:
  - 1) As required by the State of Michigan
- d. Employers' Liability:
  - 1) \$1,000,000
  - 2) \$2,000,000 each aggregate
- B. Certificates shall name the Owner and Wright & Hunter as additional insured.
- C. The Contractor's insurance shall either be (i) occurrence-based and in effect from the commencement of work and for 18 months following final completion of the work, or (ii) claims-based and in effect from the commencement of work and in effect for 6 years following final completion of the work.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION.

## SECTION 011100 - SUMMARY OF WORK

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Project identification, project summary, Owner furnished equipment,

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. 275313 Wired Clock System

#### 1.3 PROJECT IDENTIFICATION

- A. Wired Clock System
  - 1. Northville Public Schools
  - 2. 405 W. Main Street
  - 3. Northville, MI 48167

#### 1.4 PROJECT SUMMARY

- A. Provide all labor, materials, equipment and services necessary to furnish, install, program, test and certify fully operational Wired Clock System.
- B. All work shall be in accordance with the true intent of these drawings and specifications, and as required to leave all systems complete and in satisfactory operating condition, excluding those items listed under Work provided by Others.
- C. The Wired Clock System scope includes the provision of all required hardware, software, and labor for the following system categories and deliverables:
  - 1. Master Clock Unit.
  - 2. Wired Secondary Digital Clocks
  - 3. Power Supplies.
  - 4. Wiring, mounting hardware, interfaces, and accessories required for a complete operating system.
  - 5. Turn-key installation of all specified hardware, cabling infrastructure, and sub-systems including all required trade coordination and site management.

6. Professional Services including: Engineering Verification, Custom Programming, System Commissioning, Asset Management, and HD-Recorded User Training.
- D. The Wired Clock System equipment and software shall be new, of modern design, and current standard production of the various manufacturers.
- E. The Contractor shall verify dimensions and conditions at the job site prior to installation, and perform installation in accordance with these specifications, manufacturer's recommendations and the latest edition or revision of all applicable codes and standards.
- F. The Contractor shall provide any additional items, not specifically mentioned herein, necessary to meet system requirements as specified, without claim for additional pay.

PART 2 PRODUCTS NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION NOT APPLICABLE TO THIS SECTION.

## SECTION 012900 - PAYMENT PROCEDURES

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Payment procedures and requirements.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.3 PAYMENT FOR SERVICES

- A. No later than two (2) weeks prior to the date of the first application for payment, the Contractor shall furnish the Owner with a breakdown of the contract amount setting forth the schedule of values of labor and materials of the various parts of the work on which this contract is based as detailed from the specifications or as further directed by the Owner. A meeting between the Technology Designer and the Contractor shall also be required before the first application for payment is submitted to set forth the procedure and format in which all applications are to be submitted. Final payment will be made only after the successful completion of a performance-testing period, the Owner's acceptance of the system and final documentation has been received and approved by the Technology Designer and the Owner.
- B. Final payment by the Owner to the Contractor shall be made within thirty (30) days of final completion, Owner acceptance of the system as installed and receipt and approval of final documentation by the Technology Designer and the Owner.
- C. Ten percent (10%) of the total contract amount will be withheld and will not be paid until after final acceptance, which includes submission and approval by the Owner and the Technology Designer of all work, testing results, documentation and as-built drawings (see Section 017719 Owner's Right to Use).

#### 1.4 CONTRACT PAYMENT SCHEDULE

- A. The Contractor shall pay all sales, consumers, use and any and all other applicable taxes required by law.
- B. The Technology Designer will review and certify the accuracy of invoices for the Owner's subsequent review, approval and payment. Certification by the Technology Designer that the invoice is an accurate account of work properly performed does not prevent the Owner from disputing the propriety of any applicable payment.
- C. Any questions regarding the payment process should be directed to Robert Levitt by e-mail at [rlevitt@wrighthunter.com](mailto:rlevitt@wrighthunter.com).

- D. All invoices and requests for payment should be directed to Robert Levitt by e-mail at rlevitt@wriighthunter.com.
- E. Rates quoted in response to this request are firm for the duration of the proposed contract phase. No increases will be permitted. Any requests for modification to the original design and/or scope of work must be approved in writing by the Owner prior to any modification.
- F. Each Application for Payment shall be consistent with previous applications and payments as certified by the Technology Designer and paid for by the Owner.
  - 1. The Application for Payment at time of Substantial Completion and the final Application for Payment involve additional requirements.
- G. Payment Application Times: The date for each progress payment is the 15th day of each month. The period of construction Work covered by each Application for Payment is the period ending fifteen (15) days prior to the date for each progress payment and starting the day following the end of the preceding period.
- H. Payment Application Forms: Use AIA Document G 702 and Continuation Sheets G 703 as the form for Application for Payment.
- I. If the bid involves more than one project, each project shall have separate payment application forms. The Technology Designer will identify each project.
- J. Application Preparation: Complete every entry on the form, including notarization and execution by the person authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned without action.
  - 1. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- K. Transmittal: Submit one (1) executed electronic copy of each Application for Payment to the Technology Designer. One copy shall include waivers of lien, proof of items stored, proof of insurance for stored items and similar attachments, when required.
- L. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics lien from every entity who may lawfully be entitled to file a mechanics lien arising out of the Contract, and related to the Work covered by the payment. The Contractor acknowledges that liens cannot be placed on public property and are therefore inapplicable to this project.
- M. Application for Payment at Substantial Completion: Actions and submittals that shall proceed or coincide with this application include:
  - 1. As built drawings (should be received by the Technology Consultant Once Contractor states the Project is complete – before punch list has been issued to the Contractor).
  - 2. Warranties (guarantees) and maintenance agreements.

3. Test/adjust/balance reports.
  4. Maintenance instructions.
  5. Start-up performance reports.
  6. Final cleaning.
  7. Application for reduction of retainage, and consent of surety.
  8. Punch list of incomplete Work.
- N. Final Payment Application: Actions and submittals that shall precede or coincide with this application include:
1. Completion of Project closeout requirements.
  2. Completion of items specified for completion after Substantial Completion.
  3. Transmittal of required Project construction records to the Owner.
  4. Proof that taxes, fees and similar obligations have been paid.
  5. Removal of surplus materials, rubbish and similar elements.

#### 1.5 CONTRACTOR'S SWORN STATEMENT AND WAIVER OF LIEN

- A. The Contractor's sworn statement and waiver of lien shall be submitted with the invoice. The Contractor must state all subcontractors and status of payment for labor and materials to each. Payment will not be processed until these forms have been received.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION.

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## SECTION 017719 - CLOSEOUT REQUIREMENTS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Project closeout requirements.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.3 CLOSEOUT

##### A. Inventory Validation

1. The Contractor shall validate inventory receipt and confirm all shipments before invoicing for payment. The Contractor shall notify the Technology Designer of completion of all shipments and installation through a final inventory, which will be certified by the Technology Designer prior to final acceptance and approval for payment.
2. A complete inventory of installed equipment and tangible assets shall be provided to the Technology Designer and Owner upon completion of final inspection and prior to project closeout, as defined in Section 017839 Project Record Documents.

##### B. Punch List

1. The Contractor shall be responsible for the completion of their own final punch list work and notify the Technology Designer or Owner of readiness of final inspection. Upon final inspection by the Owner and/or Technology Designer, the Contractor shall perform required remedial work, without claim for additional labor or other costs. Where required, the Contractor shall re-test and submit a revised Test Report.
2. The Contractor shall notify the Technology Designer of completion of the Technology Designer/Owner Punch List.
3. If after notification and inspection by the Technology Designer the identified Punch List items have not been corrected, the Contractor will be notified that remedial work is still required. Additional time spent by the Technology Designer, due to the failure of the Contractor to correct Punch List items and finish the project by the agreed upon completion date as set forth in the Contract Documents, will be charged to the Contractor at the rate of one hundred twenty-five dollars (\$125) per hour and deducted from the Contractors retainage.
4. Fully detailed inventory documentation, warranty documentation, and test reports shall be submitted for review. Final payment / retainage will NOT be considered or approved if

all aspects of the contract have not been satisfied and approved by the Technology Designer.

1.4 OWNER'S RIGHT TO USE

- A. Acceptance of the Work of this Section will occur after completion of corrections and adjustments required by "Punch List" (as generated during on-site inspections and review of testing documentation).
- B. The Owner reserves the right to use equipment, material and services provided as part of Work of this Section, prior to Acceptance, without incurring any obligation to accept any equipment or completed systems until Punch List work is complete and systems comply with Contract Documents.

PART 2 PRODUCTS – NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION – NOT APPLICABLE TO THIS SECTION.

## SECTION 017836 - WARRANTIES

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Warranty requirements.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.3 WARRANTY

- A. All clock components and installation of same shall be guaranteed free of defects in materials and workmanship for a period of five (5) years. This shall include onsite service and support at no additional cost to the Owner. If repair or resolution is possible, work must be completed within three (3) business days following report of such component defects and installation workmanship by the Owner. If additional work, parts, or programming are required for proper resolution, the issue must be identified and communicated to the Owner along with an estimated timeline of completion.
- B. All systems and components shall be guaranteed free of defects in materials and workmanship for a minimum of five (5) years or the manufacturer's warranty, whichever is greater, from the date of acceptance and shall be repaired or replaced within the timelines stated above following report of such defects by the Owner. The date of acceptance shall be defined as the date the Certificate of Substantial Completion is signed by the Technology Designer and the Owner.
- C. The components of this project, upon completion will be warranted by the manufacturer. The warranty for this system shall be provided as follows:
  - 1. Upon successful completion of the installation and subsequent inspection, the Owner shall be provided with a certificate, from the manufacturer, registering the installation.

PART 2 PRODUCTS – NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION – NOT APPLICABLE TO THIS SECTION.

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## SECTION 017839 - PROJECT RECORD DOCUMENTS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. As-built documentation requirements.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.3 AS-BUILT DOCUMENTATION

- A. Fully detailed documentation and record drawings of installation layout and performance shall be submitted for review within thirty (30) days of completion of work.
- B. Drawings shall accurately record actual locations of each item of fixed equipment and show interconnecting wiring. Drawings will indicate location of equipment.
- C. Two (2) soft copies on USB thumb drives or via a link to download the documentation. All drawings shall be in PDF. Drawings should provide enough detail to allow troubleshooting (function, location, equipment, serial number, modules, cable labels, etc.). Hand drawings are not acceptable.
- D. Drawings shall be professionally done. Hand drawings and notations will not be accepted.
- E. All drawings and the information contained therein become the sole property of the Owner.
- F. Contractor shall turn over to the Owner all manufacturer documentation, completed warranty registrations, user and technical manuals, device driver and software documentation, and any other written or electronic documentation that is relative to the installation or subsequent operation or modifications by the Owner.
- G. All products and equipment must be registered to Owner by the Contractor prior to substantial completion.
- H. All keys, specialty tools, and loose equipment shall be inventoried and delivered to the Owner for signoff.

PART 2 PRODUCTS – NOT APPLICABLE TO THIS SECTION.

PART 3 EXECUTION – NOT APPLICABLE TO THIS SECTION.

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## SECTION 275313 - CLOCK SYSTEMS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Clock system requirements.
- B. Wired clock systems and associated components:
  - 1. Master clock unit.
  - 2. Wired secondary digital clocks.
  - 3. Power supplies.
  - 4. Wiring, mounting hardware, interfaces, and accessories required for a complete operating system.
- C. Accessories.

#### 1.2 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.3 REFERENCE STANDARDS

- A. 47 CFR 15 - Radio Frequency Devices; current edition.
- B. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
- C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

#### 1.4 DEFINITIONS

- A. Master Clock: Primary timekeeping device that controls all secondary clocks on the system.
- B. Secondary Clock: Analog or digital display device synchronized by the master clock.
- C. On-Demand Instant Correction: Digital communication protocol transmitting power and exact time data over 2-wire low-voltage wiring, allowing secondary clocks to be corrected to exact time at any time of day without waiting for a reset interval.
- D. NTP/SNTP: Network Time Protocol / Simple Network Time Protocol; standards-based methods for synchronizing clocks over a TCP/IP network.
- E. NIST: National Institute of Standards and Technology; authoritative U.S. national time standard source.

- F. 3-Wire System: Traditional synchronous clock distribution system using separate run and reset conductors plus common neutral.
- G. 2-Wire System: Clock distribution system using two conductors to simultaneously deliver run power and On-Demand Instant Correction data.

#### 1.5 SUBMITTALS

- A. Product Data: Provide manufacturer's standard catalog pages and data sheets for each system component. Include ratings, configurations, standard wiring diagrams, dimensions, finishes, service condition requirements, and installed features.
- B. Shop Drawings: Indicate system arrangement, device locations, wiring methods, power supply locations, mounting details, and connection requirements.
- C. Programming and Configuration Data: Submit information describing master clock programming interface, synchronization source, time zone configuration, Daylight Saving Time adjustment method, and auxiliary event programming capabilities.
- D. Field Quality Control Reports: Submit detailed reports indicating inspection and testing results and corrective actions taken.
- E. Operation and Maintenance Data: Include manufacturer's operating instructions, maintenance requirements, wiring documentation, and programming procedures for all major components.

#### 1.6 QUALITY ASSURANCE

- A. Comply with the following:
  - 1. NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Installer Qualifications: Company with minimum three years documented experience with similar clock systems and providing contract maintenance service as a regular part of their business.
- D. Maintenance Contractor Qualifications: Same entity as installer.
- E. Products: Listed, classified, and labeled as suitable for the purpose intended.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.
- B. Store products in manufacturer's unopened packaging, keep dry and protect from damage until ready for installation.

## 1.8 FIELD CONDITIONS

- A. Maintain field conditions within manufacturer's required service conditions during and after installation.

## 1.9 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Provide minimum one year manufacturer warranty covering repair or replacement due to defective materials or workmanship.

## PART 2 PRODUCTS

### 2.1 CLOCK SYSTEM REQUIREMENTS

- A. Provide new clocks consisting of all required equipment, hardware, supports, accessories, software, etc. as necessary for a complete operating system that provides the functional intent indicated.
- B. System shall provide accurate time display throughout the facility and automatically correct for power outages and Daylight Saving Time.
- C. System shall synchronize all secondary analog and digital clocks from a single master clock.
- D. System shall be capable of synchronization to a national or local time standard by NTP/SNTP through a local area network time server or internet time authority.
- E. System shall provide On-Demand Instant Correction via 2-wire distribution for compatible clocks.
- F. System shall be compatible with existing 3-wire synchronous clock infrastructure where indicated.
- G. System capabilities shall include scheduled auxiliary events, including bells, tones, or lights, programmable through a web-browser interface without dedicated software.
- H. Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Limits: Comply with FCC requirements of 47 CFR 15, for Class B, consumer application.
- I. Provide components and wiring as indicated or as required for connection between master clock unit and wired secondary clocks.

### 2.2 WIRED CLOCK SYSTEM

- A. Manufacturers:
  - 1. Basis of Design: National Time & Signal Corporation.
  - 2. Acceptable Manufacturers:

- a. National Time & Signal Corporation
  - b. Bogen Communications
  3. Substitutions: Not permitted.
  4. Clocks and master clock shall be designed, manufactured, and supported in the United States of America.
- B. Master Clock Unit
1. Basis of Design Model: WeMC3, web-enabled master clock.
  2. General Description: Microprocessor-based controller and associated accessories for maintaining time reference and correcting connected wired secondary clocks.
  3. Master clock shall provide the following minimum features:
    - a. Three solid-state 120 VAC outputs rated 3 A each, 7 A combined, with zero-cross switching.
    - b. Built-in Ethernet LAN interface.
    - c. Support for TCP/IP, DNS, DHCP, SNTP, TIME, HTTP, and FTP protocols.
    - d. Synchronization to NIST over the internet or to local SNTP/NTP server.
    - e. Web-browser programming from any networked computer without dedicated software.
    - f. Remote programming capability over district-wide or campus-wide network.
    - g. Capacity for multiple scheduled auxiliary events.
    - h. Internal backup capable of maintaining time during extended power outages.
    - i. Automatic Daylight Saving Time adjustment.
    - j. Automatic correction of all connected secondary clocks upon restoration of power.
    - k. Output circuits compatible with On-Demand Instant Correction for compatible digital clocks.
- C. Software and Programming Interface
1. No dedicated PC software shall be required for normal system operation, clock programming, or schedule management.
  2. Configuration and programming shall be accomplished through a standard web browser interface from any networked computer.

3. Browser-based interface shall be capable of access from any location on local network and, where authorized by Owner, via internet connection.

D. Wired Secondary Digital Clocks:

1. Basis of Design: National Time & Signal TimeCast wired digital clocks.
2. General Description: Provide manufacturer's current production microprocessor-based secondary digital clocks capable of operation on 2-wire On-Demand Instant Correction systems with compatible master clocks and on 2-wire systems using standard midnight or 12-hour reset pulse operation, as applicable.
3. Synchronization:
  - a. When connected to compatible National Time master clock, digital clocks shall support On-Demand Instant Correction using two conductors at low voltage.
  - b. For systems not utilizing compatible National Time master clock, clocks shall be capable of operation with 12-hour reset by power interruption at 12:00, where applicable.
  - c. Clock shall automatically detect compatible reset format in use.
4. Display:
  - a. LED 7-segment wide-bar digits, epoxy-sealed.
  - b. Provide 2.3-inch digit height units for standard corridors, classrooms, and offices as indicated on project prints.
  - c. Provide 4.0-inch digit height units for gymnasiums, cafeterias, and larger open areas as indicated on project prints.
  - d. Units shall be 4-digit configurations as indicated.
  - e. Units shall be available in single-face and double-face configurations as indicated.
5. Time Format: 12-hour or 24-hour display format, field selectable at each clock.
6. Auto-Dim Feature: Provide automatic ambient light-sensing dimming feature with multiple selectable brightness levels and adjustable auto-dim threshold.
7. Backup: Provide battery-less internal backup timekeeping circuit capable of maintaining time during power outages in excess of ten days. Rechargeable battery packs shall not be required.
8. Stand-Alone Operation: Clock time shall be manually settable at each clock using integral user interface without connected master clock.

9. User Interface: Provide integral display and user controls to allow access to status and configuration information, including reset history, brightness settings, time format selection, timer mode configuration where applicable, and firmware version.
  10. Timer Function: Where provided, reset input shall be capable of initiating count-down or count-up timer function, individually settable at each clock.
  11. Power Options:
    - a. 24 VAC/DC low-voltage, power-limited wiring.
    - b. 120 VAC hard-wired units with integral 120/24 V transformer assembly mounting in standard deep 4-square box.
    - c. Double-face clocks shall be capable of sharing one transformer assembly.
  12. Housing: Durable steel housing with manufacturer's standard finish. Provide black finish where indicated.
  13. Mounting:
    - a. Provide manufacturer's standard hanger bracket and accessories as required for mounting to single-gang, double-gang, handy box, or 4-square electrical boxes.
    - b. Provide surface box where required for surface-conduit entry installations.
    - c. Provide adapter plates where required for mounting to existing specialty back boxes or existing boxes by other manufacturers.
    - d. Optional low-profile surface box provides surface-conduit entry. Optional ADAPT-143 plate for mounting to National Time 143 flush analog clock box. Optional ADAPT-GENERIC plate for mounting over existing wall boxes by other manufacturers.
  14. Double-Face Clocks: Provide back-to-back assembly consisting of primary clock face and secondary display with manufacturer's standard wall or ceiling mounting bracket as indicated.
  15. Power Source: As required for connection to master clock unit.
- E. Power Supplies:
1. General: Provide power supplies in quantities and locations indicated to serve all secondary digital clock circuits. Power supplies shall be manufacturer's current-production Class II, power-limited 24 VAC units compatible with the specified clock correction protocol. Do not load any power supply to more than 80 percent of rated output current.
  2. Basis of Design Models: PS-3, PS-6, and PS-12 Series.

3. Power supplies shall:
    - a. Accept 120 VAC input.
    - b. Provide one or more UL recognized power-limited 24 VAC isolation transformers with individual circuit protection.
    - c. Be housed in durable steel enclosures.
    - d. Be available in surface-mount and flush-mount versions.
    - e. Be capable of use with optional relay accessory for remote power booster applications where required.
  4. On 2-wire systems, each transformer shall support one independent On-Demand clock circuit.
  5. On 3-wire systems, provide separate run and reset outputs as required by circuit configuration.
  6. Power supplies shall be compatible with all specified digital clocks and shall pass the On-Demand Instant Correction signal on 2-wire systems without attenuation that impairs system performance.
  7. Mount power supplies in secure, accessible locations, typically in electrical rooms, communications rooms, above accessible ceilings, or janitor closets, in proximity to the clocks served to minimize wire distance and voltage drop.
  8. Connect each power supply to dedicated or shared 120 VAC branch circuit as required by NEC and Contract Documents.
  9. Contractor shall verify selected power supply model and wire gauge are adequate for circuit length and total connected clock load.
- F. Provide components and wiring as indicated or as required for connection between master clock unit and wired secondary clocks.

## 2.3 ACCESSORIES

- A. Basis of Design: National Time and Signal
1. Surface Mount Box: D225-SURF BOX (4-digit D225), D225-6-SURF BOX (6-digit D225), D400-SURF BOX (4-digit D400), D400-6-SURF BOX (6-digit D400) for surface conduit entry installations; adds approximately 1.75"–2" depth.
  2. Protective Guard: CV-GUARD-SF-SL (semi-flush), CV-GUARD-S-SL (surface with surface box) steel guard with clear polycarbonate window.

3. Mounting Adapters: ADAPT-143 (10"×10", for National Time 143 analog clock box), ADAPT-GENERIC (10"×10", for generic wall boxes), ADAPT-CUSTOM (consult factory).
- B. Provide components and wiring as indicated or as required for connection to auxiliary devices and other systems indicated.
- C. Provide manufacturer's standard mounting brackets, plates, trim, back boxes, and harness connectors required for complete installation.
- D. Provide surface mounting boxes where surface conduit entry is required.
- E. Provide protective guards with clear impact-resistant window where indicated or where clocks are installed in gymnasiums or other damage-prone areas.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify that characteristics of system components are consistent with the indicated requirements.
- B. Verify that mounting surfaces are ready to receive system components.
- C. Verify that conditions are satisfactory for installation prior to starting work.

#### 3.2 DEMOLITION AND REMOVAL

- A. Carefully remove existing wall-mounted, surface-mounted, and recessed clocks indicated for removal.
- B. Disconnect and remove associated mounting hardware, brackets, trim, junction boxes, and visible wiring not designated to remain.
- C. Disconnect electrical power and/or low-voltage clock wiring at the source. All abandoned electrical cabling shall be removed.
- D. Remove clocks intact where possible to prevent damage to surrounding construction.
- E. Do not damage existing construction, structural elements, or concealed utilities.
- F. Remove demolished materials from the site promptly.
- G. Dispose of materials in accordance with local regulations.
- H. Recycle electronic components and materials where facilities exist and as required by Owner or local ordinances.
- I. Do not dispose of materials in school dumpsters unless expressly permitted by the Owner.

### 3.3 INSTALLATION

- A. Perform work in accordance with NECA 1 (general workmanship).
- B. Install products in accordance with manufacturer's instructions.
- C. Provide grounding and bonding in accordance with Section 260526.
- D. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 078400.
- E. Identify system wiring and components in accordance with Section 260553.
- F. Install clocks plumb and level at heights indicated on drawings.
- G. Install power supplies in accessible locations.
- H. Provide all wiring required for complete and operational system.
- I. Coordinate mounting requirements and back box requirements with other trades prior to rough-in.
- J. All clock wiring shall be terminated in the MDF or IDF.

### 3.4 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for additional requirements.
- B. Prepare and start system in accordance with manufacturer's instructions.
- C. Program system parameters according to requirements of Owner.
- D. Correct defective work, adjust for proper operation, and retest until entire system complies with Contract Documents.
- E. Submit detailed reports indicating inspection and testing results and corrective actions taken.

### 3.5 CLEANING

- A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

### 3.6 COMMISSIONING AND TESTING

- A. Upon completion of wiring and clock installation, perform full system commissioning in presence of Owner's representative.
- B. Master Clock:
  - 1. Verify NTP synchronization, including confirmation of time source and synchronization status.

2. Set time zone and Daylight Saving Time parameters.
  3. Confirm programmed event schedules for bells, tones, or auxiliary outputs, where applicable.
- C. Digital Clocks:
1. Verify all digital clocks display correct time.
  2. Confirm auto-dim function by reducing light at sensor and verifying brightness reduction.
  3. Verify 12/24-hour display format at each location as required.
- D. Field Quality Control Report: Prepare signed report documenting the following for each secondary clock:
1. Clock serial number.
  2. Circuit number and power supply designation.
  3. Installed location identified by room number or description.
  4. Verified time display accuracy, pass/fail.
  5. Measured supply voltage at clock terminals.
  6. Date of inspection and inspector signature.
- E. Correct deficiencies identified during commissioning at no additional cost to Owner.

### 3.7 CLOSEOUT ACTIVITIES

- A. Demonstration: Demonstrate proper operation of system to Owner, and correct deficiencies or make adjustments as directed.
- B. Training: Train Owner's personnel on operation, adjustment, and maintenance of system.
1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
  2. Provide minimum of two hours of training.
  3. Instructor: Manufacturer's authorized representative.
  4. Location: At project site.
  5. Recording Requirement: All training sessions shall be professionally recorded in high-definition video and delivered to the Owner in MP4 format.

### 3.8 PROTECTION

- A. Protect installed system components from subsequent construction operations.