Request for Bid

Fire Alarm Replacement

North Shore School District #112
Highland Park, IL

May 21, 2019
NORTH SHORE SCHOOL DISTRICT 112

Fire Alarm Replacement

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The Board of Education of North Shore School District 112 invites sealed bid proposals for the replacement of the Fire Alarm system(s) at North Shore School District 112. Request for Bid documents can be obtained from the District’s website at www.nssd112.org/bids_proposals or by contacting Kevin Liebe at (224) 765-3454 or kliebe@nssd112.org.

Sealed Bids must be clearly marked: “Bid for Fire Alarm Replacement for North Shore School District 112” and delivered to Mr. Christopher Wildman, Chief Financial Officer and Treasurer, North Shore School District 112, 1936 Green Bay Road, Highland Park, Illinois, 60035. The deadline for submission of Proposals is Tuesday, June 4, 2019, at 10:00 a.m. At that time, the proposals will be publicly opened and read aloud. Two (2) copies of the bids are required. Proposals may not be submitted via fax or email. Late Proposals will not be accepted and will be returned to the sender.

A Pre-Bid Meeting and walk-thru will be held on, May 28, 2019, at 3:30 p.m. at the Operation Department office, 2023 St. Johns Avenue, Highland Park, IL 60035. All interested bidders should attend this meeting.

Date of Publication: May 21, 2019
A. DEFINITIONS

“Bid Documents” include:
1. Invitation to Bid
2. Instructions to Bidders
3. Bid Specifications
4. Contract Obligations
5. Required Proposal Enclosures
6. Exhibit A: Proposal Form and Certifications

“Board” or “District” is the Board of Education of North Shore School District No. 112

“Contractor” is the successful bidder

B. SERVICES SOUGHT BY THE BOARD

The Board is soliciting proposals for a contract for the Fire Alarm Replacement at North Shore School District 112.

C. PROPOSAL SUBMISSION

1. Bid Documents will be available beginning May 21, 2019, on the District’s website at www.nssd112.org/bids_proposals or by contacting Kevin Liebe at (224) 765-3454 or kliebe@nssd112.org. Sealed Proposal packages must be clearly marked: “Proposal for Fire Alarm Replacement for North Shore School District 112” and delivered to Mr. Christopher Wildman, Chief Financial Officer and Treasurer, North Shore School District 112, 1936 Green Bay Road, Highland Park, Illinois, 60035. Sealed proposals must be received on or before 10:00 a.m. on June 4, 2019. All proposals will be publicly opened and read aloud in the Business Office of North Shore School District 112, 1936 Green Bay Road, Highland Park, IL 60035. Included in the envelope shall be two (2) copies of the proposal, and a Bid Bond in the amount of 10%. Late proposals will not be accepted and will be returned to sender. Proposals may not be withdrawn until ninety (90) calendar days after the bid opening date.

2. Proposals must be submitted on bid forms supplied by the District. The bidder shall complete and enclose all required documents referenced in Section IV and included in Exhibit A. Bidders must provide information solely in the form, unit, and quantity detailed for each item.

3. Any explanation or statement which the bidder wishes to make must be placed in the same envelope with the proposal and shall be written on or attached to the document provided in Exhibit A titled “Other Explanation Sheet.”

4. In submitting a proposal, the bidder represents that he or she has complied in strict accordance with the Bid Documents.
5. Special attention of bidders is directed to the fact that no claims for relief because of errors or omissions in the bidding will be considered, and bidders will be held strictly to their proposals as submitted.

D. PRE-BID CONFERENCE, INSPECTION, AND FIELD SURVEY

Prospective bidders should attend the pre-bid conference and walk-through inspection held by Kevin Liebe, Director of Operations for the District, at 3:30 p.m. on May 28, 2019, at the Operations Department office, 2023 St. Johns Avenue, Highland Park, IL 60035. If, as a result of the pre-bid meeting, it is necessary to modify the proposal documents, an addendum shall be issued and made available to the public and all parties attending the pre-bid meeting. It is the responsibility of the bidder to field survey the facilities prior to making a proposal. The Director of Operations will conclude the pre-bid meeting with a site visit for any interested bidders. By submitting a proposal, the bidder affirms that he/she has full knowledge of the requirements to fulfill the contract.

E. MODIFICATION AND WITHDRAWAL OF PROPOSALS

Bidders may submit or withdraw any proposal prior to the scheduled time for opening bids, at 10:00 a.m. on June 4, 2019. Any change may be made only by substitution of a new proposal. Proposals may not be withdrawn by bidders nor received by the Board after the scheduled time for opening proposals, at 10:00 a.m. on June 4, 2019. No bidder shall withdraw, cancel, or modify his/her proposal for a period of ninety (90) calendar days after the advertised closing time for the receipt of proposals, nor shall the Contractor withdraw, cancel, or modify his/her proposal after having been notified by the Board that said proposal has been accepted.

F. AWARD

The bid will be awarded, if at all, to the contractor which the Board determines, at its sole discretion, to be the lowest responsible and responsive bidder considering the conformity with specifications, terms of delivery, quality and serviceability. The Board will use the criteria listed below, which criteria is not exhaustive: 1) completeness and accuracy of responses to all proposal document requests and a qualitative analysis of the responses; 2) dollar cost of the proposal; and 3) the Board’s assessment of the bidder’s ability to responsibly fulfill the Board’s needs. Each bidder understands that the award of the bid is in the sole discretion of the Board, and agrees to indemnify the Board from any costs and expenses, including legal fees, incurred by the Board in defending a legal challenge by the bidder to the Board’s contract award. The Board reserves the right to reject any and all proposals or any part thereof and to waive any irregularities or technicalities in the proposals and to make awards that, in its opinion, will serve the best interests of the District. Board decisions are final in all instances and not subject to recourse. All bidders will be notified of the results of the determination of the Board.

G. WRITTEN AGREEMENT

As a condition of all proposals, the Contractor shall enter into the Custodial Services Agreement as prepared by the Board (Exhibit C). Contractor shall submit this executed Agreement with the proposal. Upon the Board’s award of the bid to the Contractor, a contract shall be formed.
H. ITEMS REQUIRED WITH BID SUBMISSION

The following documents must be completed, signed, and submitted with your proposal in accordance with Section IV of the Bid Documents:

1. References
2. Insurance Certificates
3. Bid Security
4. Bid Form

I. BIDDER REPRESENTATIONS

1. Each bidder warrants and represents that he or she has read and understands the Bid Documents in their entireties.
2. Each bidder agrees that the specifications and criteria in the bid documents are clear (or have been clarified) and constitute acceptable standards for the award of the bid.
3. Each bidder warrants and represents that he or she has visited the site for the project and is familiar with the conditions under which the work will be performed.
4. Each bidder warrants and represents that the proposal is based on and complies with the specifications and terms and conditions contained in the Bid Documents.
5. Each individual executing any document required by these Bid Documents warrants and represents that he or she is the authorized representative of the bidder and has the authority to bind the bidder under the terms and conditions contained in the proposal.

J. CONTACT INFORMATION AND INTERPRETATION

All questions about Bid Documents, or for further information or clarification must be raised prior to the submission of the proposal. All questions must be submitted via email format. Contractors are not to contact administrators or employees of District 112 directly. All questions must be submitted no later than by 12:00 p.m. on May 30, 2019, to Kevin Liebe, Director of Operations, Facilities and Transportation at kliebe@nsd112.org. Please include in the subject line: Fire Alarm Replacement Question(s).

Interpretations or clarifications considered necessary by the Board in response to questions will be issued by addenda no later than 2:00 p.m. on May 31, 2019. A copy of such addendum will be emailed to each person who has provided his/her email address to the District, received the bid documents, or attended the pre-bid meeting on May 28, 2019. Again, please include in the subject line: Fire Alarm Replacement Question(s). Only questions answered by formally written addenda will be binding. Oral and other interpretations or classifications will be without legal effect.

K. TAXES

The Board is exempt from paying Illinois Use Tax, Illinois Retailers Occupation Tax, Federal Excise Taxes, and any federal transportation tax. The Contractor will be responsible for payment of any such taxes applicable to its purchase of goods.

L. WAIVER

The failure of the Board to demand strict performance on any one occasion shall not in any way affect, limit, or waive the Board’s right thereafter to enforce and compel strict compliance with
every term, condition, and specification thereof. The Board shall not have waived any rights set forth under these Bid Documents unless specifically set forth in writing.

M. DEFAULT

If any bidder fails to fulfill any or all terms and conditions under these Bid Documents, said bidder may be declared to be in default by the Board and shall be subject to any and all other remedies available to the Board, including the prompt termination of the contract. The termination of the contract by the Board for a breach shall not in any way limit the Board’s damages or remedies.

N. ASSIGNMENT

The bidder shall not delegate, assign, or subcontract the performance of any obligation hereunder to any third party without the prior written consent of the Board.

O. INDEPENDENT CONTRACTOR

Contractor acknowledges that it is an independent contractor and not an employee of the Board and that the Contractor’s employees are, and shall remain at all times, employees of the Contractor. Accordingly, neither the Contractor nor its employees are entitled to any rights, benefits or privileges whatsoever to which the Board’s employees are entitled.

P. COMPLIANCE WITH APPLICABLE LAWS

The Contractor agrees to fully comply with the requirements of the Illinois Human Rights Act, 775 ILCS 5/1-101 et. seq., including, but not limited to, the provision of sexual harassment policies and procedures pursuant to Section 2-105 of the Act. The Contractor further agrees to comply with all federal Equal Employment Opportunity Laws, including, but not limited to, the Americans with Disabilities Act, 42 U.S.C. Section 12101 et. seq. and rules and regulations promulgated thereunder.

The following provisions of this Section are included in these Bid Documents pursuant to the requirements of the regulations of the Illinois Department of Human Rights, Title 44, Part 750, of the Illinois Administrative Code, and the Contractor shall be required to comply with these provisions only if and to the extent they are applicable under the law.

As required by Illinois law, in the event of the Contractor’s non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of the contract, the Contractor agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, creed, sex, marital status, national origin or ancestry, age, citizenship, physical or mental handicap or disability, military status, or an unfavorable discharge from military service or arrest record status or sexual orientation; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

2. That, if it hires additional employees in order to perform this contract or any portion thereof, it will determine the availability (in accordance with the Department’s Rules) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job
classification for which employees are hired in such a way that minorities and women are not underutilized.

3. That, in solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, sexual orientation, or an unfavorable discharge from military service.

4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor’s obligation under the Illinois Human Rights Act and the Department’s Rules. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Acts and Rules, the Contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

5. That it will submit reports as required by the Department’s Rules, furnish all relevant information as the reports may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department’s Rules.

6. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department’s Rules.

7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed so that such provisions will be binding upon such subcontractor. In the same manner, as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails to or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.
A. All Bid Documents for this bid include drawings dated February 9, 2018:

- G001-FA Title Sheet
- E0-FA Fire Alarm Cover Sheet
- BR-FA1 Braeside Basement Floor Plan – Fire Alarm
- BR-FA2 Braeside First Floor Plan – Fire Alarm
- BR-FA3 Braeside Second Floor Plan – Fire Alarm
- IT-FA1 Indian Trail Basement Floor Plan – Fire Alarm
- IT-FA2 Indian Trail First and Second Floor Plan – Fire Alarm
- OT-FA1 Oak Terrace Basement Floor Plan – Fire Alarm
- OT-FA2 Oak Terrace First Floor Plan – Fire Alarm
- OT-FA3 Oak Terrace Second Floor Plan – Fire Alarm
- RA-FA1 Ravinia Basement Floor Plan – Fire Alarm
- RA-FA2 Ravinia First Floor Plan – Fire Alarm
- RA-FA3 Ravinia Second Floor Plan – Fire Alarm
- RA-FA4 Ravinia Third Floor Plan – Fire Alarm
- RO-FA1 Red Oak First Floor Plan – Fire Alarm
- RO-FA2 Red Oak Second Floor Plan – Fire Alarm
- SW-FA1 Sherwood First Floor Plan – Fire Alarm
- WT-FA1 Wayne Thomas First and Second Floor Plan – Fire Alarm

Spec Section 28 31 00 Fire Alarm and Detection Section dated April 4, 2018
Request for Bid dated May 21, 2019.

B. The work consists of replacing devices in seven (7) schools in North Shore School District 112 for synchronization of the existing system. Existing control panels to remain.

C. Include in your Base Bid, an Allowance of $10,000 for circuits that may need to be separated due to current draws.

D. The contractor will be responsible to repair/replace anything broken or damaged during the duration of the work caused by the Contractor, its Subcontractors or employees.

E. The intent is to go for approval from the Board of Education on Tuesday, June 11, 2019. This will allow the Contractor to start as soon as reasonably possible. The intent is to have the work done prior to July 31, 2019.

F. Upon approval from Board, the Contractor will enter into a contract with the District utilizing AIA Document A104-2017.
NORTH SHORE SCHOOL DISTRICT 112

CONTRACT OBLIGATIONS: SECTION III

A. All sections and provisions of the Bid Documents shall be considered part of the written Agreement between the Contractor and the Board.

B. PERSONNEL EMPLOYMENT

1. The Contractor is responsible for providing all equipment and materials to its employees and is further responsible for all compensation, fringe benefits, insurance, workman’s compensation insurance, unemployment compensation insurance, and any and all state and federal tax withholding requirements.

2. All employees or contractors of Contractor who are or will be performing services under this Agreement must submit to a fingerprint-based criminal background check as detailed in 105 ILCS 5/10-21.9, at the expense of Contractor, to ascertain whether such employees and contractors have been convicted of any of the offenses enumerated therein, and such background check must be initiated prior to commencing the provision of services under this Agreement. No employee or contractor that has been convicted of any of the enumerated offenses in 105 ILCS 5/10-21.9 shall provide any services to the Board. Pursuant to the Illinois Criminal Code, 720 ILCS 5/11-9.3, it is unlawful for a child sex offender to knowingly be present on school property when persons under the age of eighteen (18) are present without the specific notice to and permission of the Superintendent or Board. Child sex offenders found to be present on school property without permission will be considered trespassers and will be prosecuted in accordance with Illinois law. The Contractor shall ascertain that its employees and subcontractors providing services to the Board are notified of this law and that said employees and subcontractors are directed to notify the Contractor if they have been convicted of a sex offense restricting their presence on school property. The Contractor will then provide appropriate and immediate notification to the Board. The costs related to such removal and substitution of personnel shall be borne solely by the Contractor. The Contractor will submit all employee names to the District for the purpose of processing the Criminal History Background Investigation Form for Illinois School Employment. All employees will also be required to authorize the District to conduct a criminal background check with the Illinois State Police. Further, the Contractor shall certify to the Board that all employees and contractors that have direct daily contact with students of the District have provided evidence of physical fitness to perform the duties assigned and freedom from communicable disease, as required by 105 ILCS 5/24-5, to the Contractor. Finally, The Contractor will also be in compliance with current and future local, state and federal laws and regulations.

C. PERSONNEL RULES

1. The Board reserves the right to request the removal from Board property of any persons, including, but not limited to, employees of the Contractor and subcontractors providing services to the Board, who engage in conduct in violation of the law or Board policy or otherwise disruptive to the educational process or detrimental to students or whose performance or conduct is unsatisfactory or detrimental to the best interests of the District, this includes a non-passing grade for an administered language proficiency test. Contractor employees may be performing their duties while students, parents or activity groups are in
the District’s buildings; therefore, it is absolutely mandatory that all Contractor employees be of high moral character at all times. The Contractor agrees to indemnify and hold the District harmless from any possible claim by any employee so removed relating to that employee’s employment rights arising out of this Agreement between the Contractor and District.

2. All Contractor employees must be properly attired at all times. Employees of the Contractor may be requested to wear picture identification badges, provided by the District at the District’s sole cost and expense, whenever they are present in District buildings or on District grounds.

D. PROVISIONS APPLICABLE TO PUBLIC WORKS PROJECTS

The District has determined that services provided pursuant to these Bid Documents constitute public works project services. Accordingly, the Contractor must comply with the following:

1. PREVAILING WAGE

It is hereby stipulated that all laborers, workers, and mechanics performing work under the contract shall not be paid less than the prevailing wage as found by the Illinois Department of Labor of the District, and that Contractor and all subcontractors shall in all other respects comply with the Prevailing Wage Act in carrying out work under the contract. If during the course of work under this contract, the Department of Labor revises the prevailing rate of hourly wages to be paid under this contract for any trade or occupation, the District will notify Contractor and each subcontractor of the change in the prevailing rate of hourly wages. Contractor shall have the sole responsibility and duty to ensure that the revised rate of hourly wages is paid by Contractor and all subcontractors to each worker to whom a revised rate is applicable. Revisions of the prevailing wage as set forth above shall not result in an increase in the Contract Sum. Contractor shall protect, defend, indemnify and hold harmless the Board of Education, the District, and its Board members, agents, volunteers, and employees, from any claims or demands made as a result of Contractor’s failure to comply with this paragraph.

2. SUBSTANCE ABUSE PREVENTION

The Contractor will comply with the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/) unless exempted therefrom.

3. PAYROLL RECORDS

The Contractor will maintain and submit payroll records in accordance with the Payroll and Cost Accounting Section of these Bid Documents.
E. SPECIFICATIONS CHANGE

1. During the term of this Agreement, it may become necessary to add to or delete from the specifications originally agreed upon between the Contractor and District. Should such change(s) be deemed necessary and mutually agreed upon by both parties, a formal written contract “Change” amendment shall be drawn up by the Contractor, which explicitly describes any deviation from the Agreement’s original specifications. Incorporated within the Agreement shall be the specific dollar amount adjustment for said change(s). This dollar amount adjustment will be added to or deducted from the original Contract price.

2. Such amendment to the original Contract will in no way invalidate or make void the terms of the original Contract. Two (2) copies of said amendment must be signed by an authorized official of each party. One (1) copy will be given to each party after the proper execution and then be considered as part of the original Contract.

F. BOARD OPTION TO TERMINATE

1. In the event of an alleged breach of any of the provisions of this Agreement at any time following the date which services commence hereunder, the Board shall, by written notice, provide the Contractor fourteen (14) days, commencing with the receipt of said notice, to correct the alleged breach. In the event said alleged breach is not so remedied to the satisfaction of the Board within the fourteen (14) day period, the Board may at its discretion give written notice to the Contractor that, at the end of an additional sixty (60) day period commencing with the expiration of the above mentioned fourteen (14) day period, the Board shall consider this Agreement terminated and that it intends to be released from all obligations thereunder. Upon such termination, the Board has the option to purchase all equipment and unused supplies sold to the Contractor, at the cost paid by the Contractor, less supplies used and depreciation cost of existing equipment.

2. In the event of termination of the Contract pursuant to Section III-G(1) above, the Contractor shall remain liable to the Board for the cost of replacement cleaning and custodial services procured by the Board in excess of the cost that would have been payable to the Contractor pursuant to this Contract had the Contract not been terminated as a result of the Contractor’s breach. Such liability shall continue to the end of the contractual period.

3. In addition to termination for a breach in Section III-G(1) above, this Contract may be terminated immediately, prior to its expiration, under any of the following circumstances:

   a. In the event the Contractor shall breach or be in default under the insurance provisions of this contract, the Board may terminate the Contract immediately without affording the Contractor an opportunity to cure the breach or default, upon written notice to the Contractor.

   b. In the event the Contractor shall have: (1) filed a voluntary petition in bankruptcy or made an assignment for benefit of creditors; (2) consented to the appointment of a receiver or trustee of all or part of its property; or (3) an involuntary petition in bankruptcy filed in regard to Contractor and the petition shall not have been dismissed within ten (10) days of such filing, the Contract shall immediately terminate.
G. INSURANCE

The Contractor shall purchase and have in force the insurance coverage listed below. Each policy shall be amended to include as additional named insured: District 112, the Board of Education of North Shore School District No. 112, Lake County, Illinois, both individually and collectively, and all employees, agents, and volunteers of the District should be named as an additional insured on a primary and non-contributory basis. Certificates must be on file at the District Office prior to the release of any payments to Contractor. Upon request of the Board, the Contractor shall provide a copy of the requested policy.

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<thead>
<tr>
<th>COVERAGE</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>1. Comprehensive Automobile Liability-Bodily Injury &amp; Property Damage</td>
<td>$1,000,000</td>
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<tr>
<td>Combined Single Limit Per Occurrence, including all owned, non-owned</td>
<td></td>
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<tr>
<td>and hired automobiles</td>
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<tr>
<td>2. Comprehensive General Liability-Insurance shall provide the following</td>
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<tr>
<td>limits:</td>
<td></td>
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<tr>
<td>$1,000,000 per occurrence</td>
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<tr>
<td>$2,000,000 general aggregate</td>
<td></td>
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<tr>
<td>$2,000,000 products/completed operations aggregate</td>
<td></td>
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<tr>
<td>$1,000,000 personal &amp; advertising injury</td>
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<tr>
<td>Coverage must be included for Sexual Misconduct</td>
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<tr>
<td>3. Workmen’s Compensation-Statutory limits Employers Liability Limits</td>
<td>$1,000,000</td>
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<tr>
<td>of</td>
<td></td>
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<tr>
<td>4. Umbrella or Excess Liability for all Insurance Risks</td>
<td>$10,000,000 Per Occurrence</td>
</tr>
<tr>
<td>$10,000,000 General Aggregate</td>
<td></td>
</tr>
<tr>
<td>5. Honesty Bond for all employees</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

Above coverage shall be from a company authorized to do business in Illinois and with at least an “A VII” rating from A.M. Best Company.

H. FEDERAL, STATE, AND LOCAL LAWS

The Contractor shall fully comply with all applicable federal, state and local laws, rules, regulations and ordinances and shall hold the District harmless from any liability resulting from failure of such compliance, including the rules and regulations of the Illinois Fair Employment Practices Act, the Illinois Human Rights Act, and the Illinois Drug Free Workplace Act. The Contractor also agrees to comply and to cause its employees to comply fully with the federal Equal Employment Opportunities Act, the Americans with Disabilities Act, and Title VII of the Civil Rights Act of 1964, as amended. The Contractor also agrees to be in compliance with current and future local, state and federal laws and regulations.
I. HOLD HARMLESS PROVISION

The Contractor shall protect, defend, hold harmless and indemnify the Board and the District, its Board Members, officers, agents, volunteers, and employees from and against any and all claims, actions, liabilities, losses and expenses, including court cost and attorney’s fees, allegedly or actually arising out of or incidental to the work, services or activities of the Contractor in connection with any aspect of the work performed (or failed to be performed) pursuant to this Agreement. This indemnification shall include, but shall not be limited to, coverage for actions related to injury or death to persons, damage to or loss of property of the District or third parties, or imposition of fines or penalties on the District by a governmental agency.

J. INDEMNIFICATION AGAINST THEFT OR LOSS OF PERSONAL OR SCHOOL PROPERTY

The Contractor agrees and understands that its officers, agents, employees, and invitees bring their personal property and that of the Contractor, on project premises at the risk of said officers, agents, employees and invitees of the Contractor and of the Contractor itself. The Contractor indemnifies, holds harmless, and waives any possible claim that it might have, or any possible claim of any of its officers, agents, employees or invitees, against the District on account of any loss, alleged loss or damage to the personal property or business property of the Contractor or any of its officers, agents, employees or invitees whether by theft, loss or damage, occasioned by any employee, agent, officer of the District or any student or invitee of the District. Furthermore, the Contractor hereby indemnifies the District against any and all damage, loss, cost and attorney’s fees occasioned by the claim of any officer, agent, employee, student or invitee of the District against the District arising out of any theft, loss or damage to the personal property of any officer, agent, employee, student or invitee of the District, which loss, theft or damage is determined to be on account of either the negligent, intentional or criminal act of any officer, agent, employee, or invitee of the Contractor.

K. USE OF DISTRICT PROPERTY

The Contractor’s employees are not permitted to use any electronic District-owned equipment, i.e., televisions, audio/visual equipment, computers, calculators, telephones, etc. In the event an employee uses such equipment, the Contractor will be required to reimburse the District for the value of the equipment.

L. REPORTING EMERGENCIES

All emergencies will be reported in writing to the Director of Operations. Written reports of any accidents or situations which might result in liability insurance claims will be prepared and provided to the Business Manager within twenty-four (24) hours of the occurrence of the event.

M. PAYROLL AND COST ACCOUNTING INFORMATION

1. The District shall have the right to inspect the Contractor’s payroll records, supply purchase records, and such other financial records as necessary to determine compliance by the Contractor with the requirements of this Contract. Such requests for examination shall be in writing to the Contractor, shall specify what information or documents are to be examined, and shall provide forty-eight (48) hours’ notice. The District shall maintain the confidentiality of such records to the fullest extent permitted by the Illinois Freedom of Information Act.
NORTH SHORE SCHOOL DISTRICT 112

REQUIRED PROPOSAL ENCLOSURES: SECTION IV

A. Enclose copies of insurance certificates with the amount as listed in Section III-G.

B. BID SECURITY

Enclose a Bid Security deposit in the form of a Bid Bond, Certified Check or Cashier’s Check in the amount of 10% of the Total Cost of the first year of the Contract contained in bidder’s proposal.

This bid security may be forfeited if the bidder does not honor his/her proposal through the ninety (90) period stated in Section I.E.

C. EMPLOYEE BACKGROUND CHECKS

Attach a sworn statement of employee background checks as required by, Section III-B-2.

D. All Proposal Forms and Certifications in Exhibit A.
EXHIBIT A: PROPOSAL FORM AND CERTIFICATIONS

PROPOSAL FORM AND CERTIFICATIONS

FIRE ALARM REPLACEMENT AT NORTH SHORE SCHOOL DISTRICT 112

SPECIFIC CONTRACTOR INFORMATION

NAME OF FIRM: __________________________________________________________

ADDRESS: ______________________________________________________________

STATE: _________________________________________________________________

PRINCIPAL OFFICER: _____________________________________________________

CORPORATION UNDER STATE LAWS: _______________________________________

AUTHORIZED SIGNATURE: ________________________________________________

TITLE: ___________________________________________________________________

PERSON TO CONTACT REGARDING THIS BID: _______________________________

PHONE NUMBER: ___________________________ FAX: _________________________

NAME OF PERSON(S) RESPONSIBLE FOR FULL-TIME DIRECT SUPERVISION:

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

CORPORATE SEAL
(contractor), does hereby certify pursuant to Section 2-105 of the Illinois Human Rights Act (775 ILCS 5/2-105) that (he, she, it) has a written sexual harassment policy that includes, at a minimum, the following information; (1) the illegality of sexual harassment; (2) the definition of sexual harassment under State law; (3) a description of sexual harassment, utilizing examples; (4) an internal complaint process including penalties; (5) the legal recourse, investigative and complaint process available through the Department of Human Rights and Human Rights Commission; (6) directions on how to contact the Department of Human Rights and Human Rights Commission; (7) protection against retaliation. Said policy is attached to this certificate.

_________________________________
Name of Contractor

By: _______________________________________

_________________________________
Signature

_________________________________
Title

Date: _______________________________
NORTH SHORE SCHOOL DISTRICT 112  
HIGHLAND PARK, ILLINOIS 60035

(Applicable Only to Contractors with 25 or More Employees)

CERTIFICATE OF COMPLIANCE  
WITH ILLINOIS DRUG-FREE WORKPLACE ACT

__________________________________________ (contractor), having twenty-five (25) or more employees, does hereby certify pursuant to Section 3 of the Illinois Drug-Free Workplace Act (the “Act”) (30 ILCS 580/3) that (he, she, it) shall provide drug-free workplace for all employees engaged in the performance of work under the contract by complying with the requirements of the Act and, further certifies, that (he, she, it) is not ineligible for award of this contract by reason of debarment for a violation of the Act.

__________________________________________
Name of Contractor

__________________________________________
Signature

__________________________________________
Title

__________________________________________
Date:
CERTIFICATE OF ELIGIBILITY TO BID

___________________________(contractor), pursuant to Section 33E-11 of the Illinois Criminal Code of 1961, as amended, hereby certifies that neither (he, she, it) nor any of (his, her, its) partners, officers or owners of (his, her, its) business has been convicted in the past five (5) years of the offense of proposal-rigging under Section 33E-3 of the Illinois Criminal Code of 1961, as amended and that neither (he, she, its) partners and officers have ever been convicted of the offense of proposal-rotating under Section 33-E4 of the Illinois Criminal Code of 1961, as amended.

Name of Contractor

By:

_________________________________
Signature

_________________________________
Title

Date: ________________________________
PROOF OF INSURABILITY

I, being duly sworn, do hereby acknowledge that I have read the insurance specifications herein and agree that the above bidder is eligible for insurance per aforesaid specifications.

Subscribed and sworn before me this ______________ day of ____________.

Signed: __________________________________________________________
(Authorized Agent)

Date: __________________________________________________________________

Insurance Company:
________________________________________________

Address:
__________________________________________________________

Notary Public
CERTIFICATES OF INSURANCE TO BE SUBMITTED WITH BID

NORTH SHORE SCHOOL DISTRICT 112
HIGHLAND PARK, ILLINOIS 60035

ANTI-COLLUSION AFFIDAVIT OF COMPLIANCE

Being first duly sworn, deposes and says:

That he/she is______________________________________________________
(Partner, Officer, Owner, etc.)

______________________________________________________
(Contractor)

The party making the foregoing proposal or bid, that such bid is genuine and not collusive, or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference with any person; to fix the bid price element or said bid, or of that of any other bidder, or to secure any advantages against any other bidder or any person interested in the proposed contract.

______________________________________________________
(Name of Bidder if Bidder is an Individual)
(Name of Partner if Bidder is a Partnership)
(Name of Officer if Bidder is a Corporation)

The above statements must be subscribed and sworn to before a notary public.

Subscribed and sworn to this_________________day of________________, 2019.

By:___________________________________________________________
REFERENCES

BIDDER: ________________________________________________________________

List at least three (3) contracts for which you performed similar construction.

Reference No. 1
Name of Client: _______________________________________________________________
City of Operation: ______________________________________________________________
Contact Person and Phone Number: ________________________________________________
Nature of Services Provided: ________________________________________________________

Reference No. 2
Name of Client: _______________________________________________________________
City of Operation: ______________________________________________________________
Contact Person and Phone Number: ________________________________________________
Nature of Services Provided: ________________________________________________________
Square-Footage of Account Facilities: ______________________________________________

Reference No. 3
Name of Client: _______________________________________________________________
City of Operation: ______________________________________________________________
Contact Person and Phone Number: ________________________________________________
Nature of Services Provided: ________________________________________________________
BID PROPOSAL FORM

The Bidder has examined the site and locality where the Work is to be performed, the legal
requirements (federal, state and local laws, ordinances, rules, and regulations) and the
conditions affecting cost, progress or performance of the Work and has made such
independent investigations as a reasonable and prudent Bidder deems necessary; and The
Bidder(s) will complete the Work for the following price(s):

A. BASE BID: LUMP SUM BID FOR THE FIRE ALARM REPLACEMENT AT NORTH SHORE
   SCHOOL DISTRICT 112

For performing and providing all labor, materials, necessary equipment and all utilities,
transportation and services necessary to perform and complete in a workmanlike manner
all work required to complete the proposed work as indicated in the bidding documents in
accordance with the Instructions To Bidders, for the lump sum price, including $10,000
allowance, of:

$( )

UNIT COSTS:

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide one (1) Smoke Detector – Ceiling Mounted</td>
<td>$______________ea</td>
</tr>
<tr>
<td>Provide one (1) Manual Pull Station</td>
<td>$______________ea</td>
</tr>
<tr>
<td>Provide one (1) Visual Notification Device - Wall-Mounted</td>
<td>$______________ea</td>
</tr>
<tr>
<td>Provide one (1) Visual Notification Device - Ceiling-Mounted</td>
<td>$______________ea</td>
</tr>
<tr>
<td>Provide one (1) Audio/Visual Notification Device - Wall-Mounted</td>
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<tr>
<td>Provide one (1) Audio/Visual Notification Device - Wall-Mounted Weatherproof</td>
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<tr>
<td>Provide one (1) Audio/Visual Notification Device - Wall-Mounted Weatherproof</td>
<td>$______________ea</td>
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No bidder shall withdraw, cancel, or modify his/her proposal for a period of ninety (90) calendar
days after the advertised closing time for the receipt of proposals, nor shall the Contractor
withdraw, cancel, or modify his/her proposal after having been notified by the Board that said
proposal has been accepted.

COMPANY NAME

PRINT SIGNATURE

SIGN SIGNATURE       DATE
SECTION 28 31 00
FIRE ALARM AND DETECTION SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES
A. Fire alarm and detection systems

1.2 RELATED WORK
A. Section 26 05 53 – Electrical Identification: Refer to electrical identification for color and identification labeling requirements.

1.3 QUALITY ASSURANCE
A. Manufacturer: Company specializing in smoke detection and fire alarm systems with ten years’ experience.

B. Installer: A factory-authorized licensed electrical or security contractor with five years’ experience in the design, installation and maintenance of fire alarm systems by that manufacturer.

C. Qualifications: The person managing/overseeing the preparation of shop drawings, and the system installation/programming/testing shall be trained and certified by the system manufacturer and shall be Fire Alarm Certified by NICET, minimum Level 2. This person’s name and certification number shall appear on the start-up and testing reports.

1.4 REFERENCES
A. NFPA 70 - National Electrical Code
B. NFPA 72 - National Fire Alarm and Signaling Code
D. UL 2017 – General Purpose Signaling Devices and Systems

1.5 SUBMITTALS
A. Submit shop drawings and product data under provisions of Section 26 05 00 and as noted below.

1. Failure to comply with all the following and all the provisions in 26 05 00 will result in the shop drawing submittal being rejected without review.

2. Failure to submit the fire alarm without all requirements fulfilled in a single comprehensive submittal will be grounds to require a complete resubmittal.
B. Provide product catalog data sheets as shop drawings.
   1. Provide a product catalog data sheet for each item shown on the Electrical Symbols List and for each piece of equipment that is not shown on the drawings, but required for the operation of the system.
   2. Where a particular Electrical Symbols List item has one or more variations (such as those denoted by subscripts, etc.) a separate additional product catalog data sheet shall be provided for each variation that requires a different part number to be ordered. The corresponding Electrical Symbols List symbol shall be shown on the top of each sheet.
   3. Where multiple items and options are shown on one data sheet, the part number and options of the item to be used shall be clearly denoted.

C. Submit CAD floor plans as shop drawings:
   1. The complete layout of the entire system, device addresses, auxiliary equipment, and manufacturer's wiring requirements shall be shown.
   2. A legend or key shall be provided to show which symbols shown on the submittal floor plans correspond with symbols shown on the Contract Documents.

D. About all fire alarm circuits, provide the following: manufacturer's wiring requirements (manufacturer, type, size, etc.) and voltage drop calculations.

E. Provide installation and maintenance manuals under provisions of Section 26 05 00.

F. Submit manufacturer's certificate that system meets or exceeds specified requirements.

G. Provide information on the system batteries as follows: total battery capacity, total capacity used by all devices on this project, total available future capacity.

H. Submit photocopy proof of NICET certification of the person overseeing the preparation of drawings and installation/testing.

I. When required to comply with local or state regulatory reviews, the fire alarm submittal shall have a Professional Engineer's stamp and signature of the state in which the project is completed. NOTE: The Architect/Engineer cannot stamp and seal submittal drawings not prepared under their supervision.

1.6 DELIVERY, STORAGE, AND HANDLING
   A. Deliver products to site under provisions of Section 26 05 00.
   B. Store and protect products under provisions of Section 26 05 00.

1.7 REGULATORY REQUIREMENTS
   A. System: UL or FM Global listed.
B. Conform to requirements of NFPA 101.

C. Conform to requirements of Americans with Disabilities Act (ADA).

D. Conform to UL 864 Fire Alarm, UL 1076 Security, UL2017 General Signaling, and UL 2572 Mass Notification Communications.

1.8 SYSTEM DESCRIPTION

A. Performance Statement: This specification section and the accompanying fire alarm specific design documents describe the minimum material quality, required features, and operational requirements of the system. These documents do not convey every wire that must be installed and every equipment connection that must be made. Based on the equipment described and the performance required of the system, as presented in these documents, the Vendor and the Contractor are solely responsible for determining all wiring, programming and miscellaneous equipment required for a complete and operational system.

B. This section of the specifications includes the furnishing, installation and connection of the microprocessor controlled, intelligent reporting, fire alarm equipment required to form a complete coordinated system that is ready for operation. It shall include, but is not limited to, alarm initiating devices, control panels, auxiliary control devices, annunciators, power supplies, and wiring as indicated on the drawings and specified herein.

C. Extending the existing fire alarm system: Provide all items, components, devices, hardware, software, programming, expansion components, conduit, wiring etc. needed to extend the existing fire alarm system. This includes, but is not limited to, additional power supplies, initiating devices and circuits, signaling devices and circuits, monitoring devices and circuits, auxiliary control and related devices such as, door holders and their control, smoke damper control, fan shutdown, etc. The existing fire alarm system shall be extended such that the existing fire alarm system's functionality, integrity and annunciation shall be equivalent to pre-construction conditions unless noted otherwise. The functionality and integrity shall be maintained during construction. The entire system shall be able to be completely reset from any single reset location point. The entire system shall be annunciated at any annunciation location.

D. Extending the existing Simplex fire alarm system: The existing control panel shall remain and shall be operational throughout construction. The system shall only be disabled to make new connections and to modify the programming. A fire watch shall be provided for all areas affected during outages. All system outages must be scheduled with the Owner at least one week prior. Individual devices may be disabled as needed based on construction activities to reduce the potential for false alarms, but all devices must be operational when the Contractor is not physically on site. New initiating devices may be connected to the existing signaling line circuits where capacity is available. Provide additional signaling line circuits as needed based on existing and new device quantity, including replacement of existing panel components. Provide new notification circuits to serve the new devices, including all necessary power supplies, amplifiers, batteries, and 120-volt input circuits. All new devices shall be programmed to
provide the same sequence of operation as the existing devices of the same type, unless noted otherwise.

E. Fire Alarm System: NFPA 72; Automatic and manual fire alarm system, non-coded, analog-addressable with automatic sensitivity control of certain detectors, multiplexed signal transmission.

F. Drawings: Only device layouts and some equipment have been shown on the contract drawings. Wiring and additional equipment to make a complete and functioning system has not been shown, but shall be submitted on the shop drawings.

1.9 PROJECT RECORD DOCUMENTS

A. Submit documents under the provisions of Section 26 05 00.

B. Include location of end-of-line devices.

C. Provide a CAD drawing of each area of the building (minimum scale of 1/16" = 1'-0") showing each device on the project and its address. The devices shall be shown in their installed location and shall be labeled with the same nomenclature as is used in the fire alarm panel programming.

D. Submit test results of sound pressure level (dBA) with the rooms tested designated on the floor plan. Notification devices shall have the tap wattage designated.

1.10 OPERATION AND MAINTENANCE DATA

A. Submit data under provisions of Section 26 05 00.

B. Include operating instructions, and maintenance and repair procedures.

C. Include results of testing of all devices and functions.

D. Include manufacturer's representative's letter stating that system is operational.

E. Include the CAD floor plan drawings.

F. Include shop drawings as reviewed by the Architect/Engineer and the local Authority Having Jurisdiction.

1.11 WARRANTY

A. Provide one (1) year warranty on all materials and labor from Date of Substantial Completion.

B. Warranty requirements shall include furnishing and installing all software upgrades issued by the manufacturer during the one (1) year warranty period.
PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Johnson Controls - Simplex

2.2 FIRE ALARM CONTROL PANEL (FAP)

A. Extend existing control panel.

B. Each Signaling Line Circuit (SLC loop) shall not be loaded over 80% of the maximum device capacity. For example, in the minimum system capacity column listed below, if the fire alarm manufacturer's system capacity of analog sensors per loop is 99 devices, then no more than 79 devices shall be wired on that loop.

C. Signal Line Circuit Board (SLC):
   1. Each board shall communicate directly with each addressable analog sensor and binary input to determine normal, alarm, or trouble conditions. Analog signals would be used for automatic test and determination of maintenance requirements.
   2. Each board shall contain its own microprocessor and shall be provided to monitor addressable inputs and to control addressable outputs (addressable relays). The board shall communicate and provide power to all devices on its loop over a single pair of wires, except where 4-wire devices require a separate power circuit.
   3. Class B, Style 4: Circuits NOT capable of transmitting an alarm beyond the location of the fault condition. Wiring of outgoing and return conductors is permitted to be run in the same conduit or cable.
   4. SLC for addressable devices with less than 50 devices can be Class A or B, and more than 50 devices shall be Class A.

D. Notification Appliance Circuit (NAC) Board:
   1. Each board shall contain its own microprocessor and shall be provided to control each notification appliance circuit. The board shall communicate and provide power to all devices on its loop.
   2. Class B, Style Y: Circuits NOT capable of transmitting an alarm beyond the location of the fault condition. Wiring of outgoing and return conductors is permitted to be run in the same conduit or cable.

2.3 SIGNALING LINE CIRCUIT DEVICES

A. [FA-120]: Smoke Detectors:
   1. Analog Photoelectric Type Sensor: Shall use the photoelectric principle to measure smoke density and send data to the control panel representing the analog level of smoke density measured.
2. Each smoke detector shall connect directly to an SLC loop.

3. Each detector shall be mounted, where shown on the drawings, on a twist-lock base with all mounting hardware provided. Provide a two-piece head/base design.

4. Each detector shall have a manual switching means to set the internal identifying code (address) of that detector, which the control panel shall use to identify its address with the type of sensor connected.

5. Dual alarm and power indicators shall be provided that flash under normal conditions and remain continuous under alarm or trouble conditions. Remote indicator terminals shall be provided. Provide a remote LED indicator device if detector is not visible from a floor standing position.

6. A test means shall be provided to simulate an alarm condition.

7. Where operation is noted as required below 32°F and/or above 120°F, a conventional device shall be installed with a unique monitor module located in the nearest available location with maintained temperatures between 32°F and 120°F.

8. A subscript is used to identify the device with a specific sequence of operation as follows; DH=Door Hold Release.

B. [FA-122]: Duct Smoke Detectors:

1. Duct-type smoke detectors shall use the same analog photoelectric ionization sensor technology, with the same features specified for standard smoke detectors, except with additional features as specified below.

2. Provide sampling tubes and mounting hardware to match the duct to which it is attached. Where the detector housing is larger than the duct height, the Contractor shall fabricate a mounting bracket for the detector and attach according to the fire alarm manufacturer’s recommendations.

3. Provide a remote alarm LED indicator device (FA-240/241) if detector is not visible from a floor-standing position. If detector is located above a suspended ceiling, mount remote indicator in ceiling directly below detector with a white single-gang faceplate labeled: Duct Smoke Detector.

C. Manual Pull Stations:

1. Manual stations shall match the description on the drawings (refer to the General Electrical Equipment Schedule). The stations shall be mounted where shown on the drawings and be provided with all necessary mounting hardware. WG subscript indicates wire guard is required.

2. [FA-130]: Addressable, double action with plastic breakred, reset key lock, semi-flush mount, red high abuse plastic or cad metal construction with white lettering.
3.2. [FA-131]: Addressable, double action with plastic breakrod, reset key lock, semi-flush mount, red high abuse plastic or cast metal construction with white lettering. Provide device with clear Lexan tamper resistant cover with integral 9V battery powered alarm that sounds when shield is lifted.

4.3. Manual stations shall connect directly to an SLC loop. Stations shall provide address setting means using rotary decimal or DIP switches.

5.4. Where operation is noted as required below 32°F and/or above 120°F, a conventional device shall be installed with a unique monitor module located in the nearest available location, with maintained temperatures between 32°F and 120°F.

D. Heat Detectors:

1. [FA-140]: Combination rate-of-rise and 135°F fixed-temperature analog thermal type sensor. Factory-programmed to alarm at 135°F and at 15°F per minute rate of rise. Sensor shall measure heat level and send data to the control panel representing the analog level of thermal measurement and rate of rise.

2. Provide a two-piece head/base design, with a manual switching means to set the internal identifying code (address) of that detector, which the control panel shall use to identify its address with the type of sensor connected.

3. Heat detectors shall connect directly to SLC loops. Where fixed temperature or explosion-proof detectors are used, one monitor module may be used to monitor all detectors in one room/area as shown on the drawings.

4. Detectors shall be mounted, where shown on the drawings, on a twist-lock base with all mounting hardware provided.

5. Provide a remote LED indicator device if detector is not visible from a floor-standing position.

6. Dual alarm and power indicators shall be provided that flash under normal conditions and remain continuous under alarm or trouble conditions. A connection for attachment of a remote indicator shall be provided.

7. A test means shall be provided to simulate an alarm condition.

8. Where operation is noted as required below 32°F and/or above 120°F, a conventional device shall be installed with a unique monitor module located in the nearest available location with maintained temperatures between 32°F and 120°F.

E. [FA-160]: Monitor Modules:

1. Monitor Module shall connect directly to an SLC loop and receive power from a separate 24 VDC circuit. It shall interface initiating devices with the control-panel using Style D or Style B circuits. Contractor options: Use an
interface module (2-wire operation) for Style B circuits connected to normally-open dry contacts, such as a flow switch.

2. The module shall be mounted in an enclosure located in an accessible service location as near as possible to the device(s) being monitored, or where shown on the drawings. All mounting hardware shall be provided.

3. The module shall supply the required power to operate the monitored device(s).

4. The module shall provide address setting means using rotary decimal or DIP switches.

F. [FA-161]: Addressable Relays:

1. Relay that represents an addressable control point used primarily for the control of auxiliary devices as indicated on the drawings. Contractor to provide additional slave relay(s), as required, rated for the electrical load being controlled (contractor to match voltage, amps, etc.).

2. Relay shall connect directly to an SLC loop and receive power from a separate 24 VDC circuit.

3. The relay shall be mounted in an enclosure located in an accessible service location as near as possible to the device(s) being controlled, unless otherwise shown on the drawings. All mounting hardware shall be provided.

4. The relay shall supply 24 VDC power to the device(s) being controlled, unless otherwise indicated on the drawings.

2.4 NOTIFICATION APPLIANCE DEVICES

A. Device Color:

1. Wall Mounted: Red housing with white lettering or pictogram.

2. Ceiling Mounted: Red housing with white lettering or pictogram.

3. WG subscript indicates wire guard is required.

B. Visual Alarm Devices:

1. [FA-200]: Wall mounted:

2.1. [FA-201]: Ceiling mounted.

3.2. High intensity (candela rating as scheduled on the drawings) xenon strobe or equivalent under a lens. Candela rating shall be visible from exterior of the device.

   a. Candela Ratings: $V_1=15$, $V_3=30$, $V_7=75$, $VH=110$, $VS=177$. 
4.3. The maximum pulse duration shall be 0.2 seconds with a maximum duty cycle of 40%. The flash rate shall be 1 Hz. Where more than two strobes are visible from any one location, the fire alarm visual devices shall be synchronized.

5.4. Device, housing, and backbox shall be UL listed for fire alarm/emergency applications.

C. Audio (Horn) Alarm Devices:
   1. Sound Rating: 85 dB at 10 feet. Sound levels for alarm signals shall not exceed 120 dBA in the occupied area.
   2. Device shall be capable of a high and low dB level setting. Unless noted otherwise, the device shall be set to the high setting at building completion.
   3. Device, housing, and backbox shall be UL listed for fire alarm/emergency applications.

D. Combination Audio (Horn) and Visual Notification Device:
   1. [FA-211]: Wall mounted.
   2. [FA-231]: Ceiling mounted.
   3. Combine horn and visual components into a single device. Refer to the corresponding paragraphs above for requirements of each component.

E. [FA-203]: Weatherproof Visual Notification Device:
   1. High intensity strobe, square housing, 75 candela rating, suitable for wet locations. Provide with weatherproof back-box.
   3. Conduit shall not be exposed.

F. [FA-242]: Weatherproof Audio/Visual Notification Device:
   1. Electronic horn with high intensity strobe, square housing, 75 candela, suitable for wet locations. Provide with weatherproof back-box.
   3. Conduit shall not be exposed.

2.5 NAC EXTENDER PANELS (NEP)

A. As shown on the plans or as a Contractor's option if not shown, furnish and install NAC extender panels as necessary to provide remote power supply for notification appliance circuits (NAC). Contractor shall indicate quantity and locations of each NEP on the shop drawing submittals.
B. Each NEP shall be self-contained remote power supply with batteries, and battery charger mounted in a surface lockable cabinet. Battery capacity shall be sufficient for operation for 60 hours in a non-alarm state followed by alarm for 15 minutes, plus 25% spare capacity for future devices. Each NEP provides a minimum of up to 4 outputs, 2A continuous, or 6A full load total capacity.

C. Power for each NEP shall be from a local 120 VAC circuit. Provide two #12 conductors and one #12 ground in 1/2" conduit to each NEP from a dedicated 20A/1P circuit breaker with a red handle and a manufacturer’s standard handle lock-on device. Coordinate panel and circuit number with Architect/Engineer prior to installation.

D. NAC extender panels may be installed only in locations coordinated with the Architect/Engineer.

E. Mounting: Surface.

2.6 WIRING

A. Fire alarm wiring/cabling shall be furnished and installed by the Contractor in accordance with the manufacturer’s recommendations and pursuant to National Fire Codes. Cabling shall be UL listed and labeled as complying with NFPA 70, Article 760 for power-limited fire alarm signal service.

B. Approved manufacturers of fire alarm cable:

1. Comtran Corp.
2. Helix/HITemp Cables, Inc.
3. Rockbestos-Suprenant Cable Corp.
4. West Penn Wire/CDT.
5. Radix.

PART 3 - EXECUTION

3.1 SEQUENCES OF FIRE ALARM OPERATION

A. Maintain existing sequence of operation.

B. AHU Shutdown Sequence:

1. The fire alarm system shall utilize addressable relays to de-energize all AHU motor controllers. Coordinate other requirements with HVAC installer.

2. The fire alarm system shall directly shut down the AHU through the local HVAC control device (i.e., variable frequency drive or motor starter).

3. Where a facility has more than one AHU, each shall be shutdown individually based on input from initiation devices in the area served by the unit or designated for each AHU.
C. Door Holder Release Sequence:

1. The fire alarm system shall utilize an addressable relay to open the power connection to integral and magnetic door holders.

2. The fire alarm system shall utilize an addressable relay to open the 'hold' switch circuitry, integral to the power door.

3. Door holders shall release individually based on initiation devices in the vicinity of the door and noted specifically for door closure.

3.2 INSTALLATION

A. Install system in accordance with manufacturer's instructions and referenced codes.

B. Devices:

1. General:

a. All ceiling-mounted devices shall be located where shown on the reflected ceiling and floor plans. If not shown on the reflected ceiling or reflected floor drawings, the devices shall be installed in the relative locations shown on the floor drawings in a neat and uniform pattern.

b. All devices shall be coordinated with luminaires, diffusers, sprinkler heads, piping and other obstructions to maintain a neat and operable installation. Mounting locations and spacing shall not exceed the requirements of NFPA 72.

c. Where the devices are to be installed in a grid type ceiling system, the detectors shall be centered in the ceiling tile.

d. The location of all fire alarm devices shall be coordinated with other devices mounted in the proximity. Where a conflict arises with other items or with architectural elements that will not allow the device to be mounted at the location or height shown, the Contractor shall notify the Architect/Engineer to coordinate a different acceptable location.

2. Per the requirements of NFPA, detector heads shall not be installed until after the final construction cleaning unless required by the local Authority Having Jurisdiction (AHJ). If detector heads must be installed prior to final cleaning (for partial occupancy, to monitor finished areas or as otherwise required by the AHJ), they shall not be installed until after the fire alarm panel is installed, with wires terminated, ready for operation. Any detector head installed prior to the final construction cleaning shall be removed and cleaned prior to closeout.
3. Duct-type Analog Smoke Detectors:
   a. Duct-type analog smoke detectors shall be installed on the duct where shown on the drawings and details. The sampling tubes shall be installed in the respective duct at the approximate location where shown on the electrical drawings to meet the operation requirements of the system.
   b. All detectors shall be accessible.
   c. Duct-type detectors shall be installed according to the manufacturer's instructions.

4.3 Manual Pull Stations:
   a. Stations shall be located where shown and at the height noted on the drawings.

5. Addressable Relays and Monitor Modules:
   a. Modules shall be located as near to the respective monitor or control devices as possible, unless otherwise indicated on the drawings.
   b. All modules shall be mounted in or on a junction box in an accessible location.

6.4 Notification Appliance Devices:
   a. Devices shall be located where shown on the drawings.
   b. Wall-mounted audio, visual and audio/visual alarm devices shall be mounted as denoted on the drawings.

C. Wiring:
   1. Fire alarm wiring/cabling shall be provided by the Contractor in accordance with the manufacturer's recommendations and pursuant to National Fire Codes.
   2. Wiring shall be installed in red conduit. Refer to Identification Section 26 05 13 for color and identification requirements.
   3. All junction boxes with SLC and NAC circuits shall be identified on cover. Refer to Identification Section 26 05 13 for color and identification requirements.
5. Notification Appliance Circuits shall provide the features listed below. These requirements may require separate circuits for visual and audible devices.

a. Fire alarm temporal audible notification for all audio appliances.

b. Synchronization of all visual devices where two or more devices are visible from the same location.

c. Ability to silence audible alarm while maintaining visual device operation.


7. Signal line circuits connecting devices shall not span floors.

8. No wiring other than that directly associated with fire alarm detection, alarm or auxiliary fire protection functions shall be in fire alarm conduits. Wiring splices shall be avoided to the extent possible, and if needed, they shall be made only in junction boxes, and enclosed by plastic wire nut type connectors. Transposing or changing color coding of wires shall not be permitted. All conductors in conduit containing more than one wire shall be labeled on each end, in all junction boxes, and at each device with "E-Z Markers" or equivalent. Conductors in cabinets shall be carefully formed and harnessed so that each drops off directly opposite to its terminal. Cabinet terminals shall be numbered and coded, and no unterminated conductors are permitted in cabinets or control panels. All controls, function switches, etc. shall be clearly labeled on all equipment panels.

D. Fire Alarm Cabling Color Code: Provide circuit conductors with insulation color coding as follows, or using colored tape at each conductor termination and in each junction box.

1. Power branch circuit conductors: In accordance with Section 26 05 53.
2. Signaling line circuit: Overall red jacket with black and red conductors.
3. DC power supply circuit: Overall red jacket with violet and brown conductors.
4. Notification appliance circuit: Overall red jacket with blue and white conductors.
7. Central station fire alarm loop: Black and white conductors.

E. Devices surface mounted in finished areas shall be mounted on surface backboxes furnished by fire alarm equipment supplier. Backboxes shall be painted to match device, shall be the same shape and size as the device shall not have visible knockouts.

F. Make conduit and wiring connections to door release devices, sprinkler flow and pressure switches, sprinkler valve monitor switches, fire suppression system control panels, duct analog smoke detectors and all other system devices shown
or noted on the Contract Documents or required in the manufacturer’s product data and shop drawings.

3.3 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of Section 26 05 00.

B. Test in accordance with NFPA 72, Chapter 14 and local fire department requirements. Submit documentation with O & M manuals in accordance with Section 14.6 of the Code.

C. Contractor shall test and adjust the fire alarm system as follows:

1. Sound level measurement procedure shall meet the following requirements:
   a. All measurements shall use the ‘A’ weighted, dBA, sound measurement scale.
   b. All measurements shall be taken after furnishings, wall coverings and floor coverings are in place.
   c. All measurements shall be taken after fixed equipment (HVAC units, etc.) producing ambient noise is installed and is in operation.
   d. All sound level measurements shall be taken at a height of 5’ above the finished floor level.
   e. Measurements shall be taken in every unique room. If there are multiple rooms, which have the identical dimensions and function, 10%, or a minimum of 2 rooms shall be tested. The results from the rooms tested shall be averaged and the remaining rooms may be adjusted per the average.
   f. Measurements shall be taken on a 20’ x 20’ grid and the results for all points taken shall be averaged. If the room is smaller than 20’ x 20’ a minimum of two measurements are required.
   g. Measurements shall be taken halfway between speakers or halfway between a speaker and the wall. No measurements shall be taken at the extreme edges of the room, nor directly under speakers.

3.4 MANUFACTURER’S FIELD SERVICES

A. Provide manufacturer’s field services under provisions of Section 26 05 00.

B. Include services of certified technician to supervise installation, adjustments, final connections, and system testing.

C. Note that room numbers depicted on the architectural/engineering drawings will not necessarily reflect the actual room (signage) numbers that the Owner selects. The Contractor and fire alarm manufacturer shall coordinate the actual room
numbers as the Owner directs to identify each device. This list shall be a part of the floor plan record drawing to be turned in at the project closeout.

END OF SECTION
NORTH SHORE SCHOOL DISTRICT 112
Highland Park, Illinois 60035
2018 SUMMER WORK: FIRE ALARM - 02.09.2018 - ISSUED FOR BID

OWNER/CLIENT
NORTH SHORE SCHOOL DISTRICT 112
1005 GREEN BAY ROAD
HIGHLAND PARK, ILLINOIS 60035

DRAWING INDEX
A1
### FIRE ALARM DEMOLITION SYMBOL LIST

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
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<td>20.23.08</td>
<td>Fire Alarm Smoke System - Indoor Areas</td>
</tr>
<tr>
<td>E</td>
<td>20.23.09</td>
<td>Fire Alarm Smoke System - Outdoor Areas</td>
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<td>E</td>
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<td>Fire Alarm Hard Wire System</td>
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<td>E</td>
<td>20.23.11</td>
<td>Fire Alarm Interconnected System - Indoor Areas</td>
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<tr>
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<td>Fire Alarm Interconnected System - Outdoor Areas</td>
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<td>20.23.13</td>
<td>Fire Alarm Warning Device - Indoor Areas</td>
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<td>Fire Alarm Stand Alone System - Indoor Areas</td>
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<tr>
<td>E</td>
<td>20.23.16</td>
<td>Fire Alarm Stand Alone System - Outdoor Areas</td>
</tr>
</tbody>
</table>

### FIRE ALARM DEMOLITION NOTES:

1. FIRE ALARMS REMOVED FROM BUILDING AT THE REQUEST OF THE USER. DO NOT REMOVE OR DESTROY. CALL IN THE USER TO INSTALLATION DEPARTMENT AND HAVE IT DISPOSED OF IN A SAFE AND PROPER MANNER.
2. FIRE ALARMS REMOVED FROM BUILDING AT THE REQUEST OF THE USER. CALL IN THE USER TO INSTALLATION DEPARTMENT AND HAVE IT DISPOSED OF IN A SAFE AND PROPER MANNER.

### FIRE ALARM INSTALLATION NOTES:

1. FIRE ALARMS INSTALLATION SHALL BE IN ACCORDANCE WITH THE LOCAL CODES AND WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. FIRE ALARMS INSTALLATION SHALL BE IN ACCORDANCE WITH THE LOCAL CODES AND WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

### GENERAL FIRE ALARM NOTES:

1. "LIFE" BOTH IN/OUT MINIMUM WIRE SIZE.
2. CABLING TO BE MADE OF MINIMUM WIRE SIZE.
3. CABLING TO BE MADE OF MINIMUM WIRE SIZE.
4. ALL ELECTRICAL CONNECTIONS SHALL BE COVERED.
5. "LIFE" both in/out minimum wire size.
6. "LIFE" both in/out minimum wire size.
7. "LIFE" both in/out minimum wire size.
8. "LIFE" both in/out minimum wire size.
9. "LIFE" both in/out minimum wire size.
10. "LIFE" both in/out minimum wire size.
11. "LIFE" both in/out minimum wire size.
12. "LIFE" both in/out minimum wire size.
13. "LIFE" both in/out minimum wire size.
14. "LIFE" both in/out minimum wire size.