



ROOF REPLACEMENT INVITATION TO BID

ADVERTISEMENT / INVITATION FOR BIDS

PROJECT: Dansville Schools
Roof Replacement

OWNER: Dansville Schools
1264 Adams Street
Dansville, MI, 48819

1. PRE-BID CONFERENCE

A pre-bid conference will be held at 10:00AM, Monday, April 10, 2017 at Dansville Elementary School in the Conference Room located at 1264 Adams Street, Dansville, MI, 48819.

2. BID PROPOSAL DUE DATE/LOCATION

Sealed proposals will be received at the office of, Ingham Intermediate School District, Thorburn Education Center, ATTN: Purchasing Department, 2630 W. Howell Rd, Mason, MI, 48854

Proposal must be delivered not later than **2:00 PM, Friday, April 28, 2017.**

Bids will be opened publicly and read aloud, 2:00 PM, Friday, April 28, 2017 at the Thorburn Education Center, 2630 W Howell Rd, Mason, MI, 48854, room A.

3. BID DOCUMENT AVAILABILITY

Applicable bid documents, drawings and specifications will be available on March 30, 2017 at the following location:

www.buy4michigan.com
www.inghamisd.org/district-support-services/purchasing/
www.dansville.org

4. BID PROPOSAL REQUIREMENTS

All questions during the bidding period shall be in writing and sent by email to cjones@inghamisd.org by April 19, 2017 by 5pm. Questions and answers will be sent to all vendors who have submitted an intention to bid by April 21, 2017.

END OF SECTION

TERMS AND CONDITIONS

1. Bids will be evaluated on many criteria deemed to be in the best interest of Dansville Schools including, but not limited to, price, experience and expertise of the Contractor and their employees, ability to meet specifications and requirements of this ITB and references. Dansville Schools reserves the right to accept that bid which, in its opinion, provides the best overall value, rather than simply choosing the low bidder. All considered bids should meet or exceed all specifications herein.
2. Dansville Schools reserves the right to accept or reject any or all bids, or portions thereof, and to split any ensuing award among multiple contractors or to award the bid in whole to one contractor.
3. Dansville Schools reserves the right to conduct discussions, request additional information (including price clarifications) and to negotiate with selected contractor(s) prior to award of the contract.
4. Bid submission shall be firm for ninety (90) days from the date of bid opening.
5. Contractor agrees, that in the performance of its work under this contract, it shall abide by and comply with all applicable Federal, state and local laws, codes and regulations, including but not limited to the Occupational Safety and Health Act of 1970.
6. It is the responsibility of the Contractor to keep informed of all existing and future federal, state, county or local ordinances and regulations which in any manner affect the work to be performed. The Contractor and all his/her agents shall at all times observe and comply with all such laws and ordinances, and shall protect and indemnify Dansville Schools and all their representatives against any claim, loss, or liability arising or resulting from violation of any such laws or ordinances.
7. This contract and/or any part of this contract are not to be subcontracted out without prior written approval from Dansville Schools. If contract is subcontracted out, vendor is responsible for all actions of the subcontractor.
8. The Contractor will protect, defend and indemnify Dansville Schools, its officers, agents, volunteers and employees from any and all liabilities, claims, liens, fines, demands and costs, including legal fees, of whatsoever kind and nature which may result in injury or death to any persons, including the Contractor's own employees, and for loss or damage to any property, including property owned or in the care, custody or control of Dansville Schools in connection with or in any way incident to or arising out of occupancy, use, service, operations, performance or non-performance of work in connection with this contract resulting in whole or in part from negligent acts or omissions of Contractor, any subcontractor, or any employee, agent or representative of the Contractor or subcontractor.
9. The Contractor shall assume responsibility for any required notifications and area postings.
10. The Contractor shall remove from the premises all his/her waste materials and rubbish

resulting from his/her operations and shall remove all debris from sidewalks, pathways and parking lots. If Contractor fails to clean up on the same day as work is completed, Dansville Schools may do so and the cost thereof shall be charged to the Contractor as a deduction in his/her contract price.

11. Dansville Schools shall not be responsible for any cost or expense the Contractor incurs in implementing the requirements of this bid document. All equipment, transportation, disposal fees and other pertinent expenses necessary for proper execution of the contract are the responsibility of the Contractor and are to be included and considered part of the bid price.
12. Dansville Schools expects that the contract with the successful contractor will include a high level of customer service.
13. Monthly invoices for services completed shall be sent by email to jacox@inghamisd.org or by U.S. Mail to Ingham Intermediate School District, 2630 W Howell Rd, Mason, MI 48854. Invoices are to be received by the 25th day of each month for timely processing. All payment terms will be Net 30. Any early payment discounts should be noted in the appropriate spot of Attachment C – Additional Vendor Information.
14. Contractor shall maintain in effect at all times during the term of this Agreement, with insurers licensed to do business in the State of Michigan, and shall furnish satisfactory evidence to Dansville Schools of the following insurance coverage. Certifications of insurance shall name Dansville Schools as additional insured parties for all coverage listed below.
 - a. Commercial General Liability Insurance on an “occurrence” basis with limits of liability not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate limits for personal injury, bodily injury and property damage liability.
 - b. Workers’ Compensation Insurance including Employers Liability coverage, in accordance with all applicable statutes of the State of Michigan.
 - c. Employment Practices Liability (EPLI), including third party coverage, in an amount not less than \$500,000.00.
 - d. Motor vehicle liability insurance for contract-based occurrences of which the Contractor’s employee and/or all other relevant party’s automotive liability insurances have been subrogated and exhausted to the extent of Michigan Insurance Law in the amount of \$500,000.00.
 - e. Commercial Umbrella Liability coverage – over all of the above coverages and limits in an amount not less than 1,000,000.00.
 - f. Cancellation Notice: Certificates must be endorsed to give Dansville Schools at least 30 days’ notice of cancellation or material reduction of insurance coverage.
15. The Contractor must know that Dansville Schools is a governmental unit, and is thus exempt from the payment of all State and Federal taxes. The prices quoted by the Contractor must therefore not include taxes.
16. Submission of a bid indicates acceptance by the Contractor of the terms and conditions

contained in this Invitation to Bid, unless clearly and specifically noted by the Contractor in the applicable section of the Vendor Signature Page, Attachment B, of the bid submitted. Any exceptions will need to be confirmed in writing by Dansville Schools before they are accepted.

17. After a bid has been awarded, the Contractor shall not be allowed any sum above the price(s) specified in the bid, unless agreed to in writing by Dansville Schools.
18. Contractor shall inspect the work site and take such steps as may be reasonably necessary to ascertain the nature of the work; and general and local conditions which can affect the work or cost thereof. Failure to do so will not relieve the bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work.
19. This solicitation/ITB, the bid submitted by the successful Contractor, attachments and mutually negotiated addenda constitute the entire contract between the Contractor and Dansville Schools. Additional documents and/or agreements, including non-negotiated provisions developed by the Contractor, are not part of the executed contract.
20. Scheduling of work must be coordinated with Dansville Schools facilities department in order to avoid disruption or unsafe conditions.
21. The safety of the Contractor's employees, Dansville Schools employees and students and the Public is of prime concern to Dansville Schools, and the Contractor must take all necessary steps to assure proper safety during the performance of the contract. Any bidders that have a history of safety problems or a high incidence of accidents will not be considered for award of a contract.
22. Trade Contractor shall comply with all applicable federal, state and local health, safety and environmental laws, codes and requirements. Each Trade Contractor shall have a first aid supply kit on site available to its employees.
23. All machinery shall be operated by trained and qualified personnel.
24. Contractor shall perform all work so that no damage is done to Dansville Schools buildings, grounds or property. This includes all items that are on Dansville Schools property, regardless if Dansville Schools owns the property and/or equipment. Contractor shall be responsible for all damages to the above mentioned property caused by either equipment or operator error and shall repair any damage to the satisfaction of the Owner. The Owner reserves the right to repair all damages with other sources if the Contractor fails to do so. The Contractor shall then be back-charged for all costs required to complete these repairs.
25. Owner is committed to an alcohol and drug free work environment.
 - A. Possession, distribution, or sale on the project premises, facility, or other work places of alcoholic beverages, intoxicants, drugs and related drug paraphernalia is strictly prohibited.

- B. Person's shall not report for duty or perform work while under the influence of any drug, alcoholic beverage, or intoxicant.
 - C. No smoking or tobacco products shall be allowed on Owner's property at any time, including in personal vehicles.
26. A fall protection system shall be utilized when an adjacent surface is six-feet (6'-0) or more below foot level.
27. Fall protection on ladders is not required providing that the person's body remains within the vertical side rails.
28. Personal fall arrest systems shall be properly worn and actively used by all workers when an adjacent surface is six feet (6'-0) or more below the foot level of the person unless other adequate fall protection such as guardrails are in place.
- a. All components (anchorage points, lanyards, clips etc.) of a fall arrest system shall be of a type recommended for the work being performed and the conditions to be encountered
 - b. The entire system shall be as approved by the system manufacturer and all local and federal health and safety requirements.
29. Wire rope guard rail systems providing fall protection shall incorporate loop type connections with a minimum of two (2) wire rope clamps.
- a. Turnbuckles shall be installed at each side or at more frequent intervals to maintain required tautness of the wire rope.
 - b. Wire rope horizontal lifelines shall be designed by a registered professional engineer and installed and maintained by a competent person.
 - c. Wire rope life lines shall be designed to meet, at a minimum, the requirements of OSHA.
30. Flat roofs and decks shall have a warning barrier meeting, at a minimum, the requirements of OSHA may be used 15 feet from the fall hazard. Warning tape or other such means is not allowed, persons between the warning barrier and fall hazard shall utilize a positive means of fall protection.
31. Persons erecting, using and dismantling scaffolds shall be trained in the hazards and safe procedures to be followed to eliminate exposure to those hazards and shall utilize fall protection when six feet (6'-0) or more above an adjacent surface.
- a. Trade Contractor's designated Competent Person shall inspect all scaffolds prior to each work shift.
 - b. All scaffolds shall bear a tag, signed and dated by the contractor's Competent Person, denoting that the scaffold has been inspected and is safe to use prior to an employee utilizing the scaffold on that work shift.

32. Each Trade Contractor shall implement a Hazard Communication Program in accordance with federal, state and local and other applicable requirements.
- a. Maintain project specific Material Safety Data Sheets (MSDS) on the project site available to its employees for all hazardous chemicals and post the location of (MSDS), as well as the contact person and telephone number, of the person responsible for managing this file;
 - b. Provide employees of other employer(s) on the project site access to (MSDS) for each hazardous chemical their employees may be exposed to.
 - c. Notify Owner and other Trade Contractors in the work area when hazardous chemicals will be in use and potential hazards which may be encountered.

END OF SECTION

INSTRUCTIONS TO BIDDERS

1. BIDDER'S REPRESENTATION

Each Bidder, by submitting a bid, represents that the Bidder has read and understands the Bidding Documents, has visited the site and is familiar with the local conditions under which the work is to be performed and has made his own review therefore of the facilities and difficulties attending the performance and completion of the work.

2. BIDDING PROCEDURES

All bids must be submitted on the unaltered Bid Proposal Forms provided as part of the Bid Documents and in accordance with these Instructions to Bidders.

Each Bidder shall ascertain prior to submitting a bid that he has received all Addenda issued and shall acknowledge receipt on the Bid Proposal Form.

Bids shall be submitted in an opaque, sealed envelope. Facsimile bids will not be accepted.

A bid shall be invalid if it is not delivered to the location indicated in the Advertisement/Invitation for Bids on or before the required bid due date and time.

No responsibility shall attach to the Owner, or their representatives, for premature opening of any proposal, which is not properly addressed, delivered and identified.

Negligence in preparation, improper preparation, error in and/or omissions from the bid shall not relieve the Bidder from fulfillment of any and all applicable obligations and requirements of the contract documents.

Voluntary alternates will be considered at the Owner's discretion.

Bidder shall not modify, withdraw or cancel a bid or any part thereof for ninety (90) days after the time designated for the receipt of bids.

All questions during the bidding period shall be in writing and sent to Carolyn Jones via email by April 19, 2017 by 5pm to cjones@inghamisd.org. Questions and answers will be sent to all vendors who have submitted an intention to bid by April 21, 2017.

3. EXAMINATION OF BIDDING DOCUMENTS

Each Bidder shall examine the Bidding Documents carefully and shall make written request to Owner for interpretation or correction of any ambiguity, inconsistency or error therein discovered. Only written interpretation or correction by Addendum shall be binding. This process should follow the question and answer period outline.

Each Bidder shall submit a bid proposal based on the entire set of Bid Documents. Bidders shall review all Drawings and Specifications to identify work related to its respective bid category.

Any incidental item of material, labor or detail, required for proper execution and completion of the Work, omitted from the Contract Documents, but required by governing codes, local regulations, trade practices, operational functions, and quality workmanship, shall be provided as part of the contract Work at no additional cost, even though not specifically detailed or noted.

Trade Contractor shall not scale Drawings to obtain dimensions.

4. BIDDER'S EXAMINATION OF PREMISES

The Bidder represents that it has carefully inspected the Project site and examined the Drawings and Specifications and other Contract Documents and is familiar with and has satisfied itself as to the nature, location and amount of the work, the Bidder's access thereto and ability to perform the work, local code requirements applicable to the work and requirements of permits and inspections, safety and barricade requirements, the terms and conditions of any applicable project labor and collective bargaining agreements, as well as the quality, quantity and availability of labor, materials, equipment and facilities and

other items required for the performance of the work and the possible limiting physical and other conditions which may be encountered in the performance of the work and assumes all risks therefrom. The Bidder has determined, by its own investigation and research, all the conditions affecting the work to be performed and materials to be furnished and does not rely upon any representation by the Owner in connection therewith. In performing the work, Bidder accepts the condition of the Project site as-is and assumes the risks with regard to existing conditions at the Project site.

The Bidder shall take its own measurements and be responsible for the correctness of same.

The Bidder shall be held to have made such examinations of the premises and no allowances will be made on its behalf by reason of error or omission on its part.

Plans, diagrams and other descriptive information which depict existing conditions are provided for scope identification and scheduling purposes only. Quantities, elevations, measurements and locations shown may have been approximated and/or gathered from dated, incomplete original construction documents. This data should not be used for bidding purposes without field verification by the Bidder.

The Bidder's own Contract Document review and site inspection review of the work areas shall be relied upon to provide the Bidder information which may be required to properly execute and complete the work.

Each Bidder shall examine the premises carefully and shall make written request to Owner as outlined in the question and answer process. Only written interpretation or correction by Addendum shall be binding.

Submission of a bid indicates acceptance by the Vendor of the terms and conditions contained in this ITB, unless an exception is clearly and specifically noted by the Vendor in the bid submitted. Any vendor exceptions will need to be confirmed in writing by Owner before they are accepted.

5. SUBSTITUTIONS

Each Base bid shall be based upon materials and equipment described in the Bidding Documents

Material and equipment substitutions will not be considered unless they are submitted as a Voluntary Alternate and include the following as applicable:

- A. Complete description of the proposed substitution.
- B. Information regarding specified material or equipment for which substitution is being submitted.
- C. Manufacturer's literature.

- D. Performance and test data.
- E. Effect on performance characteristics.
- F. Any other data or information necessary for a complete evaluation.

6. OWNER RIGHTS

Bidder acknowledges the right of the Owner to reject any or all bids and to waive any informality or irregularity in any bid received. In addition, the Bidder recognizes the right of the Owner to reject a bid for any reason including but not limited to the following:

- A. Bidder fails to furnish or submit data required in the Bidding Documents;
- B. Bid is in any way incomplete or irregular;
- C. Bidder's performance as a Trade Contractor was unsatisfactory under a prior contract for the construction, repair, modification, or demolition of a facility with the Owner;
- D. Known poor performance on prior contracts with parties other than the Owner;
- E. Unsatisfactory financial condition.

Owner reserves the right to accept that bid which, in its opinion, provides the best overall value to the Owner, rather than simply choosing the low bidder. All considered bids must meet or exceed all specifications herein.

The Owner may accept alternates which serve its own best interest. The Owner shall have 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 bid alternates accepted.

Owner reserves the right to request clarification from vendors following the bid submission, including a pre-award conference to confirm specific items in the bid before an award is made to Vendor. Formal presentations may also be requested as necessary.

7. EQUAL OPPORTUNITY EMPLOYMENT POLICIES

The Bidder agrees that it will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin or age. The Bidder shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, sex or national origin.

8. QUALITY ASSURANCE

Trade Contractor shall be responsible to implement a quality control program relative to its suppliers, manufacturers, products, services and workmanship, to assure Work of specified quality.

Comply fully with manufacturer's requirements. Conflicts with manufacturer's requirements and the Contract Documents shall be brought to the attention of the Owner for review and direction by the Owner prior to proceeding with the Work.

Standards of quality required in the Contract Documents shall be considered as minimum standard. Trade Contractor shall meet higher standards of quality as required by authorities having jurisdiction over the project or other entities as applicable.

Conflicts in the Contract Documents shall be brought to the attention of the Owner for clarification and direction prior to proceeding with the Work.

Material, equipment, supplies or workmanship found not to comply with the Contract requirements shall be promptly corrected by the Trade Contractor.

9. BID SECURITY

Each bid shall be accompanied by a bid security in an amount of not less than 5% of the total base bid sum, pledging that the Bidder will enter into a contract with the Owner under the terms stated in the Bidding Documents.

The Owner will have the right to retain the bid security of Bidders under consideration until either:

- A. The Contract has been executed, or
- B. The specified time has elapsed so that bids may be withdrawn, or
- C. All bids have been rejected.

The amount of the bid security shall be forfeited to the Owner upon failure of the successful Bidder to enter into a Contract within fifteen (15) days after acceptance of the proposal.

The bid security can be in the form of a bid bond or a certified check.

END OF SECTION

SCOPE OF WORK – GENERAL NOTES

1. GENERAL

All Trade Contractors shall be bound to all requirements and conditions applicable to the work of their respective area – Procurement and contracting Requirements – General Requirements, Drawings, Specifications and Addenda.

Scope of Work General Notes shall include the following items required for, caused by or resulting from its Work.

2. GENERAL NOTES

Coordinate and cooperate with all entities associated with the project including the Owner, Independent Testing and Inspection agencies, local and other governmental authorities. Cost incurred as a result of lack of coordination of work, deliveries, access required by others, testing/inspection, schedule, penetrations, etc., shall be the responsibility of the Trade Contractor failing to notify others of action to be taken or other requirements.

Provide written reports as requested.

Delivery and storage of materials and equipment shall be the responsibility of Trade Contractor.

All means and methods, labor, material, tools, construction equipment and machinery necessary, including cranes, hoisting equipment, scaffolding, shoring and bracing, to complete the work.

The Trade Contractor shall obtain and pay for all permits and fees associated with its Work and provide evidence of same to Owner.

Barricades, traffic maintenance and control as required.

Confine operations at the site to areas permitted by the Owner or Owner's rep.

Protection and safekeeping of Trade Contractor's own materials and equipment stored on the premises.

Protect all existing structures, equipment, trees, landscaping, etc., to remain.

Dust control to prevent nuisance and hazard.

Cleaning of street of mud and debris.

Daily clean-up shall include broom cleaning, dumpster cost and removal of identifiable debris and rubbish from site.

Use of tobacco products is not allowed on the project site or anywhere on school campus. This includes any vehicles on school campus.

Vendor is responsible for all costs required to implement the work outlined in this bid. After a bid has been awarded, the Vendor shall not be allowed any sum above the price specified in the bid submitted, unless agreed to in writing by Owner.

Vendor will follow all Dansville School policies.

3. WARRANTY

All Work and material on the project shall be guaranteed for a minimum period of twelve (12) months, or longer as may be required by the Specifications, Owner's Contract and local ordinances or applicable codes. The guarantee period shall commence at the date of substantial completion as determined by the Owner.

- a. Trade Contractor shall be responsible for any and all consequential damages as a result of failure of its Work under warranty.
- b. Trade Contractor shall return to the project approximately 11 months after the date of substantial completion for a warranty review meeting.

Furnish to the Owner an electronic copy and three (3) warranty manuals separate from other project documentation. One (1) manual with original signature on warranties and two (2) copies.

Do not permanently conceal any Work until required information has been recorded.

Provide a copy of all Certificates of Inspection as required by applicable codes and/or the Contract documents.

4. TEMPORARY UTILITIES

Trade Contractors shall not use temporary light and power system for electric heating, welders or for tools requiring larger than minimum loads available.

If Work of separate Trade Contractors or Subcontractors requires three phase power or voltage exceeding 120 Volts for tools or equipment, that Trade Contractor or subcontractor with additional power requirements shall provide required temporary distribution system.

Electrical Trade Contractor shall remove temporary light and power system when no longer required. Salvaged materials shall become property of the Electrical Trade Contractor.

Temporary water will be available from the building.

Each Trade Contractor welding, cutting or performing any Work which gas has potential to result in a fire, shall provide approved fire extinguishing apparatus in the immediate area.

Hot Work Permits shall be obtained for any Work involving flame.

Each Trade Contractor shall keep his area clean of combustible debris.

END OF SECTION

SCOPE OF WORK – SPECIFIC NOTES

1. SPECIFIC NOTES

1. On gym roof (section 1), provide a cost to remove the existing spray-foam roof system down to the standing seam metal roof, including removal of related flashing, counter flashing, parapet copings and disposing of legally. Prime metal with RG-100 Rust Inhibiting Primer by STS Coatings, mechanically attach a base layer of Flute Filler ISO 95+ insulation, provide a 2” layer ISO 95+ polyiso insulation system mechanically fastened to roof purlins, install a fully adhered .060” RubberGard EPDM membrane with new nailers, sheet metal flashings, gutters, downspouts and trim. Base bid to include removal and disposal of abandoned or obsolete equipment, debris and related piping as indicated by the Owner.
2. On roof sections 2, provide a cost to remove the existing roof system down to the wood deck, including removal of related flashing, sheet metal gravel stops, counter flashing, parapet copings, expansion joints and disposing of legally. Mechanically attach two (2) layers of 1.8” ISO 95+ insulation, install a fully adhered .060” RubberGard EPDM membrane with new sheet metal flashings and trim. Base bid to include removal and disposal of abandoned or obsolete equipment, debris and related piping as indicated by the Owner.
3. On roof section 3, provide a cost to remove the existing roof system down to the steel deck, including removal of related flashing, sheet metal gravel stops, counter flashing, parapet copings, expansion joints and disposing of legally. Prime metal deck with RG-100 Rust Inhibiting Primer by STS Coatings, mechanically attach a base layer of 1” ISO 95+ insulation, provide a full tapered ISO 95+ insulation system set in Firestone polyurethane insulation adhesive, install a fully adhered .060” RubberGard EPDM membrane with new sheet metal flashings and trim. Base bid to include removal and disposal of abandoned or obsolete equipment, debris and related piping as indicated by the Owner.
4. On roof section 4, provide a cost to remove the existing roof system down to the steel deck, including removal of related flashing, sheet metal gravel stops, counter flashing, parapet copings, expansion joints and disposing of legally. Properly attach and raise roof curbs and penetrations as required. Prime metal deck with RG-100 Rust Inhibiting Primer by STS Coatings, mechanically attach two (2) layers of 1.8” ISO 95+ insulation, install a fully adhered .060” RubberGard EPDM membrane with new sheet metal flashings and trim. Base bid to include removal and disposal of abandoned or obsolete equipment, debris and related piping as indicated by the Owner.
5. Base bid to include installation of new specified roofing system, new polyiso insulation, new EPDM flashing, wrapping of interior parapet extended height walls with EPDM membrane, installation of new walkway pads around point of roof access, new related sheet metal work and expansion joints as described in accompanying specification for fully adhered EPDM roof system.

- 6.** Contractor responsible for contacting the local municipality as required. Base bid to include costs for all permits.
- 7.** New roofing system to be Firestone Rubbergard Fully Adhered .060 thick EPDM. EPDM to be Low Slope Fire Rated over new insulation as described above.
- 8.** Application of new Rubbergard systems must strictly follow Firestone specification. Refer to attached specifications, roof drawing and Firestone Technical Specifications manual.
- 9.** Metal counter flashings/slip flashings to be 24 gauge sheet metal.
- 10.** New metal gravel stops and copings, to be Firestone 24 gauge steel with Kynar finish in standard color, ES-1 rated. Color to be determined by Owner in manufacturer's standard color.
- 11.** Provide a 1-year Contractor labor and material Warranty and an executed Firestone 20-year Red Shield Warranty
- 12.** Provide alternate cost to recover roof section 3. Prepare existing membrane for recover installation, remove and replace any wet insulation. Mechanically attached 1" ISO 95+ insulation to roof deck. Install Fully Adhered .060 EPDM membrane.
- 13.** Provide alternate cost to recover roof section 4. Prepare existing membrane for recover installation, remove and replace any wet insulation. Mechanically attached 1" ISO 95+ insulation to roof deck. Install Fully Adhered .060 EPDM membrane.
- 14.** Provide unit cost for decking replacement (wood / metal).
- 15.** Provide unit cost for installation of OSHA compliant roof hatch rail system by SafePro.
- 16.** Provide unit cost for wood nailer replacement.
- 17.** Provide unit cost for drain replacement/repair.
- 18.** Provide unit cost for insulation replacement.
- 19.** See Bid Form for due date.

END OF SECTION

RUBBERGARD™ EPDM ADHERED ROOFING SYSTEM

FIRESTONE BUILDING PRODUCTS, LLC

This specification is provided as a courtesy on an as-is basis, and is not intended to substitute for specific design services provided by an architect, engineer, roof consultant, or other design professional. It is in the building owner's interest to consult with these professionals prior to executing the specified project. The building owner will ultimately assume the entire risk as to results, quality and performance of the roofing system specified.

PART 1 GENERAL

The project, Dansville High School located in Dansville, MI, includes the provision of a complete Firestone Building Products RubberGard™ EPDM Adhered Membrane Roofing System.

1.01 SUMMARY

- A. Furnish and install elastomeric sheet roofing system, including:
 - 1. Roofing manufacturer's requirements for the specified warranty.
 - 2. Preparation of roofing substrates.
 - 3. Wood nailers for roofing attachment.
 - 4. Insulation.
 - 5. Elastomeric EPDM membrane roofing.
 - 6. Metal roof edging and copings.
 - 7. Flashings.
 - 8. Walkway pads.
 - 9. Other roofing-related items specified or indicated on the drawings or otherwise necessary to provide a complete weatherproof roofing system.
- B. Disposal of demolition debris and construction waste is the responsibility of Contractor. Perform disposal in manner complying with all applicable federal, state, and local regulations.
- C. Comply with the published recommendations and instructions of the roofing membrane manufacturer, at <http://manual.fsbp.com> .
- D. Commencement of work by the Contractor shall constitute acknowledgement by the Contractor that this specification can be satisfactorily executed, under the project conditions and with all necessary prerequisites for warranty acceptance by roofing membrane manufacturer.

1.02 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry: Wood nailers associated with roofing and roof insulation.
- B. Section 07 62 00 - Sheet Metal Flashing and Trim: Formed metal flashing and trim items associated with roofing.
- C. Section 07 72 00 - Roof Accessories: Roof hatches, vents, and manufactured curbs.
- D. Section 22 10 00 - Plumbing Piping and Roof Drains.

1.03 REFERENCES

- A. Referenced Standards: These standards form part of this specification only to the extent they are referenced as specification requirements.
 - 1. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2013.
 - 2. ASTM D 3273 - Standard Test Method for Resistance to Growth of Mold on the Surface

of Interior Coatings in an Environmental Chamber; 2012.

3. ASTM D 4637 - Standard Specification for EPDM Sheet used in Single-Ply Roof Membrane; 2004.
4. ASTM D 4811 - Standard Specification for Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing; 2004.
5. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2013a.
6. ASTM E 136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C; 2012.
7. PS 1 - Construction and Industrial Plywood; 2009.
8. PS 20 - American Softwood Lumber Standard; 2010.
9. SPRI ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems; 2007. (ANSI/SPRI ES-1).

1.04 SUBMITTALS

- A. Product Data:
 1. Provide membrane manufacturer's printed data sufficient to show that all components of roofing system, including insulation and fasteners, comply with the specified requirements and with the membrane manufacturer's requirements and recommendations for the system type specified; include data for each product used in conjunction with roofing membrane.
 2. Where UL or FM requirements are specified, provide documentation that shows that the roofing system to be installed is UL-Classified or FM-approved, as applicable; include data itemizing the components of the classified or approved system.
 3. Installation Instructions: Provide manufacturer's instructions to installer, marked up to show exactly how all components will be installed; where instructions allow installation options, clearly indicate which option will be used.
- B. Shop Drawings: Provide:
 1. The roof membrane manufacturer's standard details customized for this project for all relevant conditions, including flashings, base tie-ins, roof edges, terminations, expansion joints, penetrations, and drains.
- C. Pre-Installation Notice: Copy to show that manufacturer's required Pre Installation Notice (PIN) has been accepted and approved by the manufacturer.
- D. Executed Warranty as a requirement of project close-out.

1.05 QUALITY ASSURANCE

- A. Applicator Qualifications: Roofing installer shall have the following:
 1. Current Firestone Master Contractor status.
 2. At least five years' experience in installing specified system.
 3. Capability to provide payment and performance bond to building owner.
- B. Pre-Installation Conference: Before start of roofing work, Contractor shall hold a meeting to discuss the proper installation of materials and requirements to achieve the warranty.
 1. Require attendance with all parties directly influencing the quality of roofing work or affected by the performance of roofing work.
 2. Notify Architect well in advance of meeting.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in manufacturer's original containers, dry and undamaged, with seals and labels intact and legible.
- B. Store materials clear of ground and moisture with weather protective covering.

- C. Keep combustible materials away from ignition sources.

1.07 WARRANTY

- A. Comply with all warranty procedures required by manufacturer, including notifications, scheduling, and inspections.
- B. Warranty: Firestone 20 year Red Shield Limited Warranty covering membrane, roof insulation, and membrane accessories.
 - 1. Limit of Liability: No dollar limitation.
 - 2. Scope of Coverage: Repair leaks in the roofing system caused by:
 - a. Ordinary wear and tear of the elements.
 - b. Manufacturing defect in Firestone brand materials.
 - c. Defective workmanship used to install these materials.
 - d. Damage due to winds up to 55 mph.
 - 3. Not Covered:
 - a. Damage due to winds in excess of 55 mph.
 - b. Damage due to hurricanes or tornadoes.
 - c. Hail.
 - d. Intentional damage.
 - e. Unintentional damage due to normal rooftop inspections, maintenance, or service.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturer - Roofing System: Firestone Building Products Co., Carmel, IN. www.firestonebpc.com.
 - 1. Roofing systems manufactured by others may be acceptable provided the roofing system is completely equivalent in materials and warranty conditions and the manufacturer meets the following qualifications:
 - a. Specializing in manufacturing the roofing system to be provided.
 - b. Minimum ten years of experience manufacturing the roofing system to be provided.
 - c. Able to provide a no dollar limit, single source roof system warranty that is backed by corporate assets in excess of one billion dollars.
 - d. ISO 9002 certified.
 - e. Able to provide isocyanurate insulation that is produced in own facilities.
- B. Manufacturer of Insulation and Cover Board: Same manufacturer as roof membrane.
- C. Manufacturer of Metal Roof Edging: Same manufacturer as roof membrane.
 - 1. Metal roof edging products by other manufacturers are not acceptable.
 - 2. Field- or shop-fabricated metal roof edgings are not acceptable.
- D. Substitution Procedures: See Instructions to Bidders.
 - 1. Submit evidence that the proposed substitution complies with the specified requirements.

2.02 ROOFING SYSTEM DESCRIPTION

- A. Roofing System:
 - 1. Membrane: Ethylene propylene diene monomer (EPDM).
 - 2. Thickness: .060"
 - 3. Membrane Attachment: Fully adhered.
 - 4. Slope: On level decks, provide additional slope of 1/4 inch per foot (1:48) by means of tapered insulation.
 - 5. Comply with applicable local building code requirements.
 - 6. Provide assembly having Underwriters Laboratories, Inc. (UL) Class A Fire Hazard Classification.
 - 7. Provide assembly complying with UL 580 Class 90.
- B. Vapor Barrier over deck/deck cover: Not Used
 - 1. Membrane: High density polyethylene sheet with SBS modified bitumen adhesive.
 - 2. Attachment: Self adhering.

- C. Insulation:
1. Total System R Value: Min. R-20.
 2. Maximum Board Thickness: 2 inches (50 mm); use as many layers as necessary; stagger joints in adjacent layers.
 3. Base Layer: Polyisocyanurate foam board, non-composite.
 - a. Attachment: Mechanically attached (Roof Sections 1 and 3); Loose Laid (Roof Sections 2 and 4).
 4. Top Layer (Roof Sections 1, 2, and 4): Polyisocyanurate foam board, non-composite.
 - a. Attachment: Mechanically attached.
 5. Top Layer (Roof 3): Tapered Polyisocyanurate foam board, non-composite.
 - a. Attachment: Low-rise polyurethane adhesive.

2.03 EPDM MEMBRANE MATERIALS

- A. Roofing and Flashing Membrane: Black cured synthetic single-ply membrane composed of ethylene propylene diene terpolymer (EPDM) with the following properties:
1. Thickness: 0.060 inch (1.5 mm).
 2. Reinforcement: none.
 3. Nominal Thickness Tolerance: Plus/minus 10 percent.
 4. Sheet Width: Provide the widest available sheets to minimize field seaming.
 5. Acceptable Product: RubberGard Non-Reinforced EPDM Membrane by Firestone.
 6. Acceptable Alternate: RubberGard EPDM SA Membrane by Firestone.
- B. Membrane Fasteners: Type and size as required by roof membrane manufacturer for roofing system and warranty to be provided; use only fasteners furnished by roof membrane manufacturer.
- C. Flashing Membrane: Self-curing, non-reinforced membrane composed of nonvulcanized EPDM rubber, complying with ASTM D 4811 Type II, and with the following properties:
1. Thickness: 0.055 inch (1.4 mm).
 2. Color: Same as field membrane
 3. Acceptable Product: RubberGard EPDM FormFlash by Firestone.
- D. Self-Adhesive Flashing Membrane: Semi-cured 45 mil EPDM membrane laminated to 35 mil (0.9 mm) EPDM tape adhesive; QuickSeam Flashing by Firestone.
- E. Pre-Molded Pipe Flashings: EPDM, molded for quick adaptation to different sized pipes; Firestone EPDM Pipe Flashing.
- F. Self-Adhesive Lap Splice Tape: 35 mil (0.9 mm) EPDM-based, formulated for compatibility with EPDM membrane and high-solids primer; QuickSeam Splice Tape by Firestone.
- G. Splice Adhesive: Synthetic polymer-based, formulated for compatibility with EPDM membrane and metal surfaces; SA-1065 Splice Adhesive by Firestone.
- H. Bonding Adhesive: Polymer-based, formulated for compatibility with EPDM membrane and wide variety of substrate materials, including masonry, wood, and insulation facings; Solvent Free Bonding Adhesive by Firestone.
- I. Adhesive Primer: Synthetic rubber based primer formulated for compatibility with EPDM membrane and tape adhesive, with VOC content less than 2.1 lb/gal (250 g/L); QuickPrime Plus LVOC by Firestone.
- J. Low Rise Foam Adhesive: Two-component, low-rise polyurethane adhesive designed to attach polyisocyanurate insulation to a variety of acceptable substrates; ISO Stick by Firestone.
- K. Seam Edge Treatment: EPDM rubber-based sealant, formulated for sealing exposed edges of membrane at seams; Lap Sealant HS by Firestone.
- L. Pourable Sealer: Two-part polyurethane, two-color for reliable mixing; Pourable Sealer by Firestone.

- M. Water Block Seal: Butyl rubber sealant for use between two surfaces, not exposed; Water Block Seal by Firestone.
- N. Metal Plates and Strips Used for Fastening Membrane and Insulation: Steel with Galvalume coating; corrosion-resistance meeting FM 4470 criteria.
 - 1. Termination Bars: Aluminum bars with integral caulk ledge; 1.3 inches (33 mm) wide by 0.10 inch (2.5 mm) thick; Firestone Termination Bar by Firestone.
- O. Roof Walkway Pads: EPDM, 0.30 inch (7.6 mm) thick by 30 by 30 inches (760 by 760 mm) with EPDM tape adhesive strips laminated to the bottom; QuickSeam Walkway Pads by Firestone.
- P. Yellow Safety Strip: To designate areas of caution on the roof or around rooftop objects. 5.5 inches wide (140 mm) by 100 feet long (30 m) strip and nominal 30 mil (0.76 mm) thick yellow TPO membrane laminated to a white, cured, seam tape. Compatible with TPO and EPDM; QuickSeam Yellow Safety Strip by Firestone.

2.04 ROOF INSULATION AND COVER BOARDS

- A. Polyisocyanurate Board Insulation: Closed cell polyisocyanurate foam with black glass reinforced mat laminated to faces, complying with ASTM C 1289 Type II Class 1, with the following additional characteristics:
 - 1. Thickness: As indicated elsewhere.
 - 2. Size: 48 inches (1220 mm) by 96 inches (2440 mm), nominal.
 - a. Exception: Insulation to be attached using adhesive or asphalt may be no larger than 48 inches (1220 mm) by 48 inches (1220 mm), nominal.
 - 3. R-Value (LTTR): 1.0 inch (25 mm) Thickness: 5.7, minimum.
 - 4. Compressive Strength: 20 psi (138 kPa) when tested in accordance with ASTM C 1289.
 - 5. Ozone Depletion Potential: Zero; made without CFC or HCFC blowing agents.
 - 6. Recycled Content: 19 percent post-consumer and 15 percent post-industrial, average.
 - 7. Acceptable Product: ISO 95+ polyiso board insulation by Firestone
 - 8. Acceptable Alternate: Resista polyiso board insulation by Firestone
- B. Insulation Fasteners: Type and size as required by roof membrane manufacturer for roofing system and warranty to be provided; use only fasteners furnished by roof membrane manufacturer.
- C. Adhesive for Insulation Attachment: Type as required by roof membrane manufacturer for roofing system and warranty to be provided; use only adhesives furnished by roof membrane manufacturer.

2.05 VAPOR BARRIER – NOT USED

- A. Vapor Barrier Membrane: Comprised of SBS modified bitumen adhesive, factory-laminated to a tri-laminate woven, high-density polyethylene top surface. Release liner protecting adhesive.
 - 1. Intended for use as a direct to deck air/vapor barrier in roofing systems and may be used as a temporary roof membrane for up to ninety (90) days.
 - 2. Thickness: 0.0325" (0.826 mm) minimum, when tested in accordance with ASTM D 5147.
 - 3. Max Load at Break at 73 °F (23 °C): 64 lbf/in, MD (11 kN/m) 88 lbf/in, XMD (15 kN/m) when tested in accordance with ASTM D 5147.
 - 4. Low Temperature Flexibility: -30 °F (-34 °C) when tested in accordance with ASTM D 5147.
 - 5. Moisture Vapor Permeance, 0.02 Perms (0.92 Ng/Pa•s•m²) maximum, when tested in accordance with ASTM E 96.
 - 6. Air Permeability: 0.00114 ft³/min•ft² (0.007 L/sec•m²) maximum, when tested in accordance with ASTM E 2178.
- B. Acceptable Product: V-Force Vapor Barrier Membrane by Firestone.

2.06 METAL ACCESSORIES

- A. Metal Roof Edging and Fascia: Continuous metal edge member serving as termination of roof

membrane and retainer for metal fascia; watertight with no exposed fasteners; mounted to roof edge nailer.

1. Wind Performance:
 - a. Membrane Pull-Off Resistance: 100 lbs/ft (1460 N/m), minimum, when tested in accordance with ANSI/SPRI ES-1 Test Method RE-1, current edition.
 - b. Fascia Pull-Off Resistance: At least the minimum required when tested in accordance with ANSI/SPRI ES-1 Test Method RE-2, current edition.
 2. Description: Two-piece; galvanized steel sheet edge member securing top and bottom edges of formed metal fascia; Firestone Rail Fascia.
 3. Fascia Face Height: To cover extend of existing fascia
 4. Fascia Material and Finish: 24 gage, 0.024 inch (0.06 mm) galvanized steel with Kynar 500 finish in manufacturer's standard color; matching concealed joint splice plates; factory-installed protective plastic film.
 5. Length: Min. 120 inches.
 6. Functional Characteristics: Fascia retainer supports while allowing for free thermal cycling of fascia.
 7. Aluminum Bar: Continuous 6063-T6 alloy aluminum extrusion with pre-punched slotted holes; miters welded; injection molded EPDM splices to allow thermal expansion.
 8. Anchor Bar Cleat: 20 gage, 0.036 inch (0.9 mm) G90 coated commercial type galvanized steel with pre-punched holes.
 9. Fasteners: Factory-provided corrosion resistant fasteners, with drivers; no exposed fasteners permitted.
 10. Special Shaped Components: Provide factory-fabricated pieces necessary for complete installation, including miters, scuppers, and end caps; minimum 14 inch (355 mm) long legs on corner pieces.
 11. Scuppers: Welded watertight.
 12. Accessories: Provide matching brick wall cap, downspout, extenders, and other special fabrications as shown on the drawings.
- B. Parapet Copings: Formed metal coping with galvanized steel anchor/support cleats for capping any parapet wall; watertight, maintenance free, without exposed fasteners; butt type joints with concealed splice plates; mechanically fastened as indicated; Firestone PTCF.
1. Wind Performance:
 - a. At least the minimum required when tested in accordance with ANSI/SPRI ES-1 Test Method RE-3, current edition.
 2. Description: Coping sections allowed to expand and contract freely while locked in place on anchor cleats by mechanical pressure from hardened stainless steel springs factory attached to anchor cleats; 8 inch (200 mm) wide splice plates with factory applied dual non-curing sealant strips capable of providing watertight seal.
 3. Material and Finish: 24 gage, 0.024 inch (0.06 mm) thick galvanized steel with Kynar 500 finish in manufacturer's standard color; matching concealed joint splice plates; factory-installed protective plastic film.
 4. Dimensions:
 - a. Wall Width: As indicated on the drawings.
 - b. Piece Length: Minimum 120 inches.
 5. Anchor/Support Cleats: 20 gage, 0.036 inch (0.9 mm) thick prepunched galvanized cleat with 12 inch (305 mm) wide stainless steel spring mechanically locked to cleat at 72 inches (1820 mm) on center.
 6. Special Shaped Components: Provide factory-fabricated pieces necessary for complete installation, including miters, corners, intersections, curves, pier caps, and end caps; minimum 14 inch (355 mm) long legs on corner, intersection, and end pieces.
 7. Fasteners: Factory-furnished; electrolytically compatible; minimum pull out resistance of 240 pounds (109 kg) for actual substrate used; no exposed fasteners.

2.07 ACCESSORY MATERIALS

- A. Wood Nailers: PS 20 dimension lumber, Structural Grade No. 2 or better Southern Pine, Douglas Fir; or PS 1, APA Exterior Grade plywood; pressure preservative treated.
1. Width: 3-1/2 inches (90 mm), nominal minimum, or as wide as the nailing flange of the

- roof accessory to be attached to it.
2. Thickness: Same as thickness of roof insulation.

PART 3 INSTALLATION

3.01 GENERAL

- A. Install roofing, insulation, flashings, and accessories in accordance with roofing manufacturer's published instructions and recommendations for the specified roofing system. Where manufacturer provides no instructions or recommendations, follow good roofing practices and industry standards. Comply with federal, state, and local regulations.
- B. Obtain all relevant instructions and maintain copies at project site for duration of installation period.
- C. Do not start work until Pre-Installation Notice has been submitted to manufacturer as notification that this project requires a manufacturer's warranty.
- D. Perform work using competent and properly equipped personnel.
- E. Temporary closures, which ensure that moisture does not damage any completed section of the new roofing system, are the responsibility of the applicator. Completion of flashings, terminations, and temporary closures shall be completed as required to provide a watertight condition.
- F. Install roofing membrane only when surfaces are clean, dry, smooth and free of snow or ice; do not apply roofing membrane during inclement weather or when ambient conditions will not allow proper application; consult manufacturer for recommended procedures during cold weather. Do not work with sealants and adhesives when material temperature is outside the range of 60 to 80 degrees F (15 to 25 degrees C).
- G. Protect adjacent construction, property, vehicles, and persons from damage related to roofing work; repair or restore damage caused by roofing work.
 1. Protect from spills and overspray from bitumen, adhesives, sealants and coatings.
 2. Particularly protect metal, glass, plastic, and painted surfaces from bitumen, adhesives, and sealants within the range of wind-borne overspray.
 3. Protect finished areas of the roofing system from roofing related work traffic and traffic by other trades.
- H. Until ready for use, keep materials in their original containers as labeled by the manufacturer.
- I. Consult membrane manufacturer's instructions, container labels, and Material Safety Data Sheets (MSDS) for specific safety instructions. Keep all adhesives, sealants, primers and cleaning materials away from all sources of ignition.

3.02 EXAMINATION

- A. Examine roof deck to determine that it is sufficiently rigid to support installers and their mechanical equipment and that deflection will not strain or rupture roof components or deform deck.
- B. Verify that surfaces and site conditions are ready to receive work. Correct defects in the substrate before commencing with roofing work.
- C. Examine roof substrate to verify that it is properly sloped to drains.
- D. Verify that the specifications and drawing details are workable and not in conflict with the roofing manufacturer's recommendations and instructions; start of work constitutes acceptable of project conditions and requirements.

3.03 PREPARATION

- A. Take appropriate measures to ensure that fumes from adhesive solvents are not drawn into the building through air intakes.
- B. Prior to proceeding, prepare roof surface so that it is clean, dry, and smooth, and free of sharp edges, fins, roughened surfaces, loose or foreign materials, oil, grease and other materials that

may damage the membrane.

- C. Fill all surface voids in the immediate substrate that are greater than 1/4 inch (6 mm) wide with fill material acceptable insulation to membrane manufacturer.
- D. Seal, grout, or tape deck joints, where needed, to prevent bitumen seepage into building.

3.05 INSULATION INSTALLATION

- A. Install insulation in configuration and with attachment method(s) specified in PART 2, under Roofing System.
- B. Install only as much insulation as can be covered with the completed roofing system before the end of the day's work or before the onset of inclement weather.
- C. Lay roof insulation in courses parallel to roof edges.
- D. Neatly and tightly fit insulation to all penetrations, projections, and nailers, with gaps not greater than 1/4 inch (6 mm). Fill gaps greater than 1/4 inch (6 mm) with acceptable insulation. Do not leave the roofing membrane unsupported over a space greater than 1/4 inch (6 mm).
- E. Mechanical Fastening: Using specified fasteners and insulation plates engage fasteners through insulation into deck to depth and in pattern required by manufacturer specified in PART 2 and membrane manufacturer, whichever is more stringent.
- F. Adhesive Attachment: Apply in accordance with membrane manufacturer's instructions and recommendations; "walk-in" individual roof insulation boards to obtain maximum adhesive contact.

3.06 SINGLE-PLY MEMBRANE INSTALLATION

- A. Beginning at low point of roof, place membrane without stretching over substrate and allow to relax at least 30 minutes before attachment or splicing; in colder weather allow for longer relax time.
- B. Lay out the membrane pieces so that field and flashing splices are installed to shed water.
- C. Install membrane without wrinkles and without gaps or fishmouths in seams; bond and test seams and laps in accordance with membrane manufacturer's instructions and details.
- D. Install membrane adhered to the substrate, with edge securement as specified.
- E. Adhered Membrane: Bond membrane sheet to substrate using membrane manufacturer's recommended bonding material, application rate, and procedures.
- F. Edge Securement: Secure membrane at all locations where membrane terminates or goes through an angle change greater than 2 in 12 inches (1:6) using mechanically fastened reinforced perimeter fastening strips, plates, or metal edging as indicated or as recommended by roofing manufacturer.
 - 1. Exceptions: Round pipe penetrations less than 18 inches (460 mm) in diameter and square penetrations less than 4 inches (200 mm) square.
 - 2. Metal edging is not merely decorative; ensure anchorage of membrane as intended by roofing manufacturer.

3.07 FLASHING AND ACCESSORIES INSTALLATION

- A. Install flashings, including laps, splices, joints, bonding, adhesion, and attachment, as required by membrane manufacturer's recommendations and details.
- B. Metal Accessories: Install metal edgings, gravel stops, and copings in locations indicated on the drawings, with horizontal leg of edge member over membrane and flashing over metal onto membrane.
 - 1. Follow roofing manufacturer's instructions.
 - 2. Remove protective plastic surface film immediately before installation.
 - 3. Install water block sealant under the membrane anchorage leg.
 - 4. Flash with manufacturer's recommended flashing sheet unless otherwise indicated.
 - 5. Where single application of flashing will not completely cover the metal flange, install

- additional piece of flashing to cover the metal edge.
6. If the roof edge includes a gravel stop and sealant is not applied between the laps in the metal edging, install an additional piece of self-adhesive flashing membrane over the metal lap to the top of the gravel stop; apply seam edge treatment at the intersections of the two flashing sections.
 7. When the roof slope is greater than 1:12, apply seam edge treatment along the back edge of the flashing.
- C. Scuppers: Set in sealant and secure to structure; flash as recommended by manufacturer.
- D. Roofing Expansion Joints: Install as shown on drawings and as recommended by roofing manufacturer.
- E. Flashing at Walls, Curbs, and Other Vertical and Sloped Surfaces: Install weathertight flashing at all walls, curbs, parapets, curbs, skylights, and other vertical and sloped surfaces that the roofing membrane abuts to; extend flashing at least 8 inches (200 mm) high above membrane surface.
1. Use the longest practical flashing pieces.
 2. Evaluate the substrate and overlay and adjust installation procedure in accordance with membrane manufacturer's recommendations.
 3. Complete the splice between flashing and the main roof sheet with specified splice adhesive before adhering flashing to the vertical surface.
 4. Provide termination directly to the vertical substrate as shown on roof drawings.
- F. Roof Drains:
1. Taper insulation around drain to provide smooth transition from roof surface to drain. Use specified pre-manufactured tapered insulation with facer or suitable bonding surface to achieve slope; slope not to exceed manufacturer's recommendations.
 2. Position membrane, then cut a hole for roof drain to allow 1/2 to 3/4 inch (12 to 19 mm) of membrane to extend inside clamping ring past drain bolts.
 3. Make round holes in membrane to align with clamping bolts; do not cut membrane back to bolt holes.
 4. Apply sealant on top of drain bowl where clamping ring seats below the membrane
 5. Install roof drain clamping ring and clamping bolts; tighten clamping bolts to achieve constant compression.
- G. Flashing at Penetrations: Flash all penetrations passing through the membrane; make flashing seals directly to the penetration.
1. Pipes, Round Supports, and Similar Items: Flash with specified pre-molded pipe flashings wherever practical; otherwise use specified self-curing elastomeric flashing.
 2. Pipe Clusters and Unusual Shaped Penetrations: Provide penetration pocket at least 2 inches (50 mm) deep, with at least 1 inch (25 mm) clearance from penetration, sloped to shed water.
 3. Structural Steel Tubing: If corner radii are greater than 1/4 inch (6 mm) and longest side of tube does not exceed 12 inches (305 mm), flash as for pipes; otherwise, provide a standard curb with flashing.
 4. Flexible and Moving Penetrations: Provide weathertight gooseneck set in sealant and secured to deck, flashed as recommended by manufacturer.

3.08 FINISHING AND WALKWAY INSTALLATION

- A. Install walkways at access points to the roof, around rooftop equipment that may require maintenance, and where indicated on the drawings.
1. Use specified walkway pads unless otherwise indicated.
- B. Walkway Pads: Adhere to the roofing membrane, spacing each pad at minimum of 1.0 inch (25 mm) and maximum of 3.0 inches (75 mm) from each other to allow for drainage.
1. If installation of walkway pads over field fabricated splices or within 6 inches (150 mm) of a splice edge cannot be avoided, adhere another layer of flashing over the splice and extending beyond the walkway pad a minimum of 6 inches (150 mm) on either side.
 2. Prime the membrane, remove the release paper on the pad, press in place, and walk on pad to ensure proper adhesion.

3.09 FIELD QUALITY CONTROL

- A. Inspection by Manufacturer: Provide final inspection of the roofing system by a Technical Representative employed by roofing system manufacturer specifically to inspect installation for warranty purposes (i.e. not a sales person).
- B. Perform all corrections necessary for issuance of warranty.

3.10 CLEANING

- A. Clean all contaminants generated by roofing work from building and surrounding areas, including bitumen, adhesives, sealants, and coatings.
- B. Repair or replace building components and finished surfaces damaged or defaced due to the work of this section; comply with recommendations of manufacturers of components and surfaces.
- C. Remove leftover materials, trash, debris, equipment from project site and surrounding areas.

3.11 PROTECTION

- A. Where construction traffic must continue over finished roof membrane, provide durable protection and replace or repair damaged roofing to original condition.

END OF SECTION

PROJECT SCHEDULE

1. GENERAL

Project dates identified herein shall become binding under the Contract.

The Bidder represents that it will provide sufficient labor, material, supervision, equipment and other necessary resources to achieve the project dates.

2. PROJECT SCHEDULE

Roofing Repair Project Posted	March 30, 2017
Pre-Bid Meeting at Dansville Elementary	April, 10, 2017
Vendor Questions Due	April 19, 2017
Vendor Answers Due	April 21, 2017
Bids Due by 2:00 pm at Ingham ISD	April 28, 2017
Bid Opening at Ingham ISD, 2:00 pm	April 28, 2017
Post Bid Meeting with LRB	May 2, 2017
Board of Education Contract Approval	May, 15, 2017
Start Construction	June 12, 2017 or later
Complete Construction	July 28, 2017 or earlier

END OF SECTION

PROPOSAL FORM – ATTACHMENT A

PROJECT: Dansville Schools
Roof Replacement

BIDDER
NAME: _____

OWNER: Dansville Schools
1264 Adams Street
Dansville, MI 48819

BIDDER
ADDRESS

PROPOSAL

This offer has been prepared after our examination of the complete drawings and specifications, together with their related documents, and our examination of the conditions surrounding the construction of the proposed work including the availability of materials, equipment and labor. The undersigned submits the following offer to enter into a Contract with Dansville Schools and agrees to furnish all labor, material, permits, equipment and service to complete the work in accordance with the Contract Documents for:

Description: Roof Replacement

For the Lump Sum Base Bid of: (\$ _____)

Dollars

Price break out by area for Owner’s review and award process (all of these must add up to the above lump sum).

Section 1 \$ _____

Section 2 \$ _____

Section 3 \$ _____

Section 4 \$ _____

Other \$ _____

Other \$ _____

UNIT PRICES

Items that are unknown at time of bid and would be paid to Contractor as a unit cost during construction if they are found and necessary to complete to finish the Work, and are approved in advance by Owner.

Additions/Deletions \$ _____ for _____

Additions/Deletions \$ _____ for _____

VOLUNTARY ALTERNATE

Bidders may propose alternative materials to those specified in the form of a voluntary alternate. The base bid should be adjusted as follows.

Add/Deduct \$ _____
Note any change to the project schedule if this alternative is approved _____

ADDENDA

The undersigned acknowledges receipt of the following Addenda and has included the cost thereof in the Lump Sum Base Bid:

No. 1, dated _____	No. 4, dated _____
No. 2, dated _____	No. 5, dated _____
No. 3, dated _____	No. 6, dated _____

BID SECURITY

Bid security in the amount of 5% of the proposal, shall accompany this proposal for any bid amount of \$23,417 or more.

REJECTION OF BID

The undersigned acknowledges the right of Dansville Schools to reject any or all bids and to waive any informality or irregularity in the bid.

PROJECT SCHEDULE

The undersigned acknowledges that it shall meet requirements of the Project Schedule.

Please list the number of days to complete the project, not including weather delays:

EXTRA WORK

The undersigned agrees that:

- Maximum of 15% overhead and profit will be allowed for Changes in the Work performed by the Trade Contractor.
- Maximum of 5% overhead and profit will be allowed for Changes in the Work for any tier Subcontractor.
- For changes involving both additional costs and credits to the Contract, the markup will be allowed on the net add only after all credits have been deducted from the additional work.

END OF SECTION



Attachment B - Additional Vendor Information

Dansville Schools Roof Replacement- ITB

Payment Terms

Standard payment terms are a minimum net 30 days. Please note any early payment term discount and/or deferred payment programs.

Reference Information

Please provide a minimum of three references (K-12 institutions preferred) where similar program has been utilized within the past five years, or is being completed. This list must include names, addresses and phone numbers of the individuals at the place of business to be contacted.

1. School District/Company Name

Address

Contact Name

Phone
Number

2. School District/Company Name

Address

Contact Name

Phone
Number

3. School District/Company Name

Address

Contact Name

Phone
Number

Additional Information

Please provide any additional information that you believe to be relevant to this ITB and your capabilities to provide the services required.

Vendor Information

- | | | |
|--|------------|-----------|
| • W-9 Form Attached | Yes | No |
| • Does your company accept EFT Payments? | Yes | No |
| • Can your company invoice electronically? | Yes | No |
| • Has your firm been debarred or suspended from doing business with any agency of the Federal Government in the past five years? | Yes | No |
| • Has your firm been debarred or suspended from doing business with any State Government in the past five years? | Yes | No |



Attachment C - Iran Affidavit

Dansville Schools Roof Replacement - ITB

AFFIDAVIT OF COMPLAINT - IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of (the "Bidder"), pursuant to the compliance certification requirement provided in the Dansville Schools Roof Repair Project Invitation to Bid, hereby certifies, represents and warrants that the Bidder (including its officers, directors and employees) is not an "Iran Linked Business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event Bidder is awarded a Contract as a result of the aforementioned Request for Proposal, the Bidder will not become an "Iran Linked Business" at any time during the course of performing under the Contract.

The Bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the Contract or proposed Contract for which the false certification was made, whichever is greater, the cost of Dansville Schools investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on an Invitation To Bid for three (3) years from the date it is determined that the person has submitted the false certification.

Vendor Information

Name of Bidder

By

Date

State

of) SS.

County of)

Notarized Signature

This instrument was acknowledged before me on the _____ day of _____, _____, _____ date month year

by Bidder Signature Name

Notary Signature

Notary Name

County, My Commission Expires

Acting in the County of



Attachment D - Familial Disclosure
Dansville Schools Roof Replacement - ITB

All bidders must complete the following disclosure form in compliance with MCL 380.1267 and attach this information to their proposal.

By the attached sworn and notarized statement, we are disclosing the following familial relationship(s) that exists between the owner or any employee of the Vendor and any member of the Districts' Board or the superintendent.

Disclose any familial relationship and complete the form below in its entirety:

The following are familial relationships as described above (provide employee name, family contact name, family contact position, and familial relationship or NONE).

Table with 3 columns: Owner/ Employee Name, Related To, Relationship. Rows 1, 2, 3.

Vendor Information

Signature(s):

Title:

Name of Firm:

State of)
County of) SS

Notarized Signature

On this day of , before me a Notary

Public in and for said county, personally appeared

agent of the said firm

and who acknowledged the same to be his free act and deed as such agent.

Notary Public

My Commission Expires

