MEPNN Supplier Scouting Opportunity Synopsis

Section 1: General Information

Scouting Number	2025-330
Item to be Scouted	BABA Compliant Fire Alarms
Days to be scouted	30
Response Due By	10/10/2025
Description	1. UL 4 Standard for Armored Cable 2. UL 44 Standard for Thermoset-Insulated Wires and Cables 3. UL 62 Standard for Flexible Cord and Fixture Wire 4. UL 83 Standard for Thermoplastic-Insulated Wires and Cables 5. UL 467 Standard for Grounding and Bonding Equipment Copper Conductors. 6. UL 486B Standard For Wire Connectors and Soldering Lugs for Use With Aluminum Conductors 7. UL 854 Service-Entrance Cables 8. UL 910 Standard for Test for Flame-Propagation and Smoke-Density Values for Electrical and Optical-Fiber Cables Used in Spaces Transporting Environmental Air 9. UL 1424 Standard for Cables for Power-Limited Fire-Alarm Circuits 10. UL 1569 Standard for Metal-Clad Cables 11. UL 1479 Standard for Fire Tests of Through-Penetration Firestops 12. UL 1581 Reference Standard for Electrical Wires, Cables, and Flexible Cords

Section 2: Technical Information

Type of supplier being sought	Other
Details	BABAA-compliant self-certified manufacturers
Reason	BABA
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Domestic components in each of the BABAA compliant manufactured products must exceed 55% of the total component cost and be assembled in the United States.
Provide dimensions / size / tolerances / performance specifications for the item	See attached specs and mechanical schedule for more information.
List required materials needed to make the product, including materials of product components	See attached specs and mechanical schedule for more information. Colorado
Are there applicable certification requirements?	Yes
Details	Build America, Buy America Act (BABAA) compliant
Are there applicable regulations?	Yes
Details	Must be able to submit BABAA manufactured product self-certification manufactured product letter that details a compliant product.
Are there any other stndards, requirements, etc.?	No
Additional Technical Comments	See attached specs and mechanical schedule for more information.

Section 4: Business Information

Estimated potential business volume	TBD post selection. Cost should be the best available, and cannot increase the project cost by 25%.
Estimated target price / unit cost information (if unavailable explain)	TBD post selection. Cost should be the best available, and cannot increase the project cost by 25%.
When is it needed by?	Q1 2026
Describe packaging requirements	Must arrive undamaged
Where will this item be shipped?	Colorado

Additional Comments

Is there other information you would like to include?	Nationwide Search Provide written documentation in response to the Supplier Scouting request of being a current Build America Buy America Act compliant Fire Alarms manufacturer with experience in manufacturing the system components, meeting the product performance requirements. Information on BABAA compliance requirements can be found at the Made in America Office link https://www.madeinamerica.gov/.

Division 26 - Electrical

SECTION 260519 - LOW VOLTAGE ELECTRICAL POWER CONDUCTORS & CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Building wires and conductors.
2. Splices and connectors.
3. Acceptance testing of conductors, feeders, etc.
4. Load balancing.

B. Related Sections:

1. Section 26 05 00 “Common Work Results for Electrical.”
1. Section 26 05 26 “Grounding & Bonding for Electrical Systems” for coordination with grounding equipment and attachments.
2. Section 26 05 33 “Raceways and Boxes for Electrical Systems.”

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM):

1.	ASTM B3	Soft or Annealed Copper Wire
2.	ASTM B8	Concentric Lay Stranded Copper Conductors
3.	ASTM B174	Standard Specification for Bunch-Stranded Copper Conductors for Electrical Conductors
4.	ASTM B230	Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes
5.	ASTM B231	Concentric-Lay-Stranded Aluminum Conductors
6.	ASTM B496	Standard Specification for Compact Round Concentric-Lay-Stranded Copper Conductors
7.	ASTM 901	Standard Specification for Compressed Round Stranded Aluminum Conductors Using Single Input Wire Construction

B. Underwriters Laboratory (UL):

1.	UL 4	Standard for Armored Cable
2.	UL 44	Standard for Thermoset-Insulated Wires and Cables
3.	UL 62	Standard for Flexible Cord and Fixture Wire
4.	UL 83	Thermoplastic-Insulated Wires and Cables
5.	UL 486A	Standard For Wire Connectors and Soldering Lugs for Use With Copper Conductors.
6.	UL 486B	Standard For Wire Connectors and Soldering Lugs for Use With Aluminum Conductors.

7.	UL 854	Service-Entrance Cables
8.	UL 910	Standard for Test for Flame-Propagation and Smoke-Density Values for Electrical and Optical-Fiber Cables Used in Spaces Transporting Environmental Air
9.	UL 1424	Standard for Cables for Power-Limited Fire-Alarm Circuits
10.	UL 1569	Standard for Metal-Clad Cables
11.	UL 1479	Standard for Fire Tests of Through-Penetration Firestops
12.	UL 1581	Reference Standard for Electrical Wires, Cables, and Flexible Cords

1.4 SUBMITTALS

A. Submittal Requirements of this section:

1. Building wires and conductors.
2. Cables and cable assemblies.

B. Product data, including construction, materials, performance data, etc.

C. Product Test Reports: Certified copies of manufacturer's design and routine factory tests required by the referenced standards.

D. Provide submittal data for each cable or conductor type.

1. To verify specifications have been met/exceeded.
2. Indicate UL listing for all products.

1.5 DELIVERY, STORAGE AND PROTECTION OF EQUIPMENT

A. Packing, Shipping, Handling and Unloading:

1. Deliver wire and cable according to NEMA WC-26, “Binational Wire and Cable Packaging Standard.”

B. Storage and Protection:

1. Store wires and cables out of rain.
2. Protect from physical damage.
3. Guard against nicks and scratches.

1.6 WARRANTY

A. Provide warranty in accordance with the General Conditions, Division 01 requirements, Section 260500 “Common Work Results for Electrical” and as stated herein.

PART 2 - PRODUCTS

2.1 METAL CLAD CABLE (MC)

A. Type MC metal clad cable for branch circuit applications.

1. Interlocking aluminum or galvanized steel armor.
2. THHN insulation, 90°C rated.
3. Solid Conductors through #10 AWG: Soft or annealed per ASTM B3.
4. Stranded copper conductors for #8 AWG and larger, per ASTM B8.
5. Phase identified conductors.
6. Insulated (green) equipment grounding conductor.
7. Internal, overall, non-metallic tape shield around all conductors.
8. UL 83, 1479, 1569 and 1581 listed.
9. NEC 230, 300, 320, 330, 518, 520, 530, 605 and 645 compliant.
10. AFC MC, MC-Tuff, MC-Lite, or equal.

B. Type MC metal clad cable for feeder applications.

1. Interlocking aluminum alloy (AA-8000) armor.
2. XHHW insulation, 90°C rated.
3. Copper, compact stranded conductors per ASTM B8.
4. Phase identified conductors.
5. Bare equipment grounding conductor.
6. Internal, overall, non-metallic tape shield around all conductors.
7. UL 83, 1479, 1569 and 1581 listed.
8. NEC 230, 300, 320, 330, 518, 520, 530, and 645 compliant.
9. MC Cable by Service Wire, Pirelli, Service Wire, Alcan, or equal.

2.2 FIRE ALARM METAL CLAD CABLE (MC)

A. Type MC metal clad cable with isolated ground conductor:

1. For use on fire alarm system circuits, as required.
2. Interlocking galvanized steel armor.
3. Continuous red identifying stripe.
4. TFN insulated, solid copper conductors.
5. Copper ground conductor(s).
6. UL Listed Fire Alarm Cable
7. Rated for use in plenums.
8. UL Listed for cable trays.
9. Rated for through penetrations of 1, 2 and 3-hour fire walls.
10. Individually twisted pairs and shielding, as required per fire alarm system manufacturer.
11. Fire resistant and low smoke.
12. UL 62, 83, 910, 1424, 1479, 1569, and 1581 listed.
13. NEC 300-20, 330, 518, 530, 645, 725, 760 compliant.
14. AFC Type MC Fire Alarm/Control Cable.

2.3 600 VOLT BUILDING WIRE

A. Copper Building Wire:

1. UL 44, 83 and 854 Listed, 600 volt, 90°C:
2. All conductor sizes indicated are based on copper conductors.
3. Copper, stranded for #8 AWG, and larger.
   a. Concentric per ASTM B3.

b. Compact round per ASTM B496.
4. #12 AWG minimum conductor size.
5. Thermoplastic Insulation:
   a. Interior #8 and smaller: THWN or THHN
   b. Interior #6 and larger: THWN or THW
   c. All exterior wiring: THWN or THW
6. Provide wires as manufactured by Pirelli, Service Wire Corp, Okonite Company, Southwire, Carol Cable, or equal.

B. Aluminum Alloy Conductors:

1. Permitted in lieu of copper for feeders, services or equipment branch circuits rated 60 amps or greater, except as noted.
2. Aluminum not permitted for:
   a. Final connection from starter or disconnect to:
   b. Motors, compressors, pumps, etc.
   c. Generators.
   d. Transformer primary and secondary lugs.
   e. UPS system input and output terminals.
3. Construction
   a. Aluminum alloy (AA-8030) conductors per ASTM B230.
   b. Compact stranded construction per ASTM 901.
   c. XHHW-2 cross-linked polyethylene insulation.
   d. UL Listed for wet (75^0C) or dry (90^0C) locations.
   e. Minimum size #4 AWG.
4. Alcan Cable, “Stabiloy XHHW-2” or approved equal.

2.4 DWELLING UNIT BRANCH CIRCUIT CABLE

A. Provide one of the following for dwelling unit branch circuits from dwelling unit load center to new outlets, fixtures, appliances, etc.

B. Type MC metal clad cable:

1. Interlocking galvanized steel armor.
2. THHN insulation, 90^oC rated.
3. Solid Conductors through #10 AWG: Soft or annealed per ASTM B3.
4. Stranded copper conductors for #8 AWG and larger, per ASTM B8.
5. Phase identified conductors (black, white, red, etc).
6. Insulated (green) equipment grounding conductor.
7. Internal, overall, non-metallic tape shield around all conductors.
8. UL 83, 1479, 1569 and 1581 listed.
9. NEC 230, 300, 320, 330, 518, 520, 530, 605 and 645 compliant.
10. AFC MC Cable, AFC MC-Tuff, or equal.

C. Type AC armored cable:

1. Interlocking galvanized steel armor.
2. THHN insulation, 90^oC rated.
3. 600V rated
4. Solid Conductors through #10 AWG: Soft or annealed per ASTM B3.

5. Stranded copper conductors for #8 AWG and larger, per ASTM B8.
6. Phase identified conductors (black, white, red).
7. Bare #16 AWG aluminum bonding strip in contact with steel armor.
8. Internal, overall, non-metallic wrap around all conductors.
9. UL 4, 83, 1479, 1581, 2556 listed.
10. NEC 250, 300, 320, 392and 645 compliant.
11. AFC AC-90 Steel AC Cable, or equal.

D. Type NM-B Non-Metallic Sheathed Building cable:

1. PVC insulation, 90°C rated.
2. 600V rated
3. Solid conductors through #10 AWG: Soft or annealed per ASTM B3.
4. Stranded copper conductors for #8 AWG and larger, per ASTM B8.
5. Phase identified conductors (black, white, red).
6. Bare copper grounding conductor.
7. Overall PVC sheath. Color coded for guage (white #14, yellow #12, orange #10).
8. UL 83, 719 listed.
9. NEC 334 compliant.
10. Southwire SIMpull NM-B Cable, or equal.

2.5 DWELLING UNIT FEEDER CABLE

A. Provide one of the following for dwelling unit feeders from meter stack or distribution panel to dwelling unit load centers.

B. Type SER service entrance cable:

1. Interlocking aluminum or galvanized steel armor.
2. XHHW insulation, 90°C rated.
3. 600V rating.
4. Aluminum alloy (AA-8176) conductors per ASTM B230. Compact stranded construction per ASTM 901.
5. Insulated phase and neutral conductors, color identified (Black, Black w/ White stripe, Black w/Red Stripe).
6. Bare equipment grounding conductor.
7. Overall, reinforcement non-metallic tape around all conductors.
8. Outer PVC jacket.
9. UL 44 listed.
10. NEC 230, 300 compliant.
11. Southwire Alumaflex Type SER Cable, or approved equal.

C. Type MC metal clad cable:

1. Interlocking aluminum alloy (AA-8000) armor.
2. XHHW insulation, 90°C rated.
3. Aluminum alloy (AA-8000) conductors per ASTM B230. Compact stranded construction per ASTM 901.
4. Phase and neutral identified conductors.
5. Bare equipment grounding conductor.
6. Internal, overall, non-metallic tape shield around all conductors.

7. UL 83, 1479, 1569 and 1581 listed.
8. NEC 230, 300, 320, 330, 518, 520, 530, and 645 compliant.
9. MC Cable by Service Wire, Pirelli, Service Wire, Alcan, or equal.

2.6 SPLICES & CONNECTORS

A. Splices & Connectors for copper conductors:

1. Dry locations:
   a. #10 AWG and smaller: Insulated, solderless pressure type.
   b. #8 AWG and larger: Hydraulic pressure indentation type, Burndy "Hy-dent", T&B or equal.
2. In handholes, manholes and direct buried locations:
   a. Silicone filled wire-nuts (King, or equal).
   b. Compound filled splice or connectors.
   c. Suitable for immersion in water.

B. Splices & Connectors for aluminum conductors:

1. All locations: Use only with UL Listed bolted pressure or compression type connectors.
   a. UL Listed, marked AL7CU or AL9CU per UL 486B.
   b. Use with oxide inhibiting compound.
   c. Use aluminum alloy hardware per ANSI requirements.

2.7 UNDERGROUND LIGHTING FEEDER TAPS & CONNECTORS

A. Feeder Tap Connection for tapping underground copper conductors:

1. General Construction:
   a. 3:1 heat shrink tubing, ANSI C119-1 Sealed Insulated Underground Connector Systems Rated 600 Volts.
   b. Cross-linked polyolefin tubing, 600V insulation.
   c. Flame retardant per IEEE 383, “Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections,” and ICEA S-19-81.
   d. Hot melt adhesive to form watertight seal.
2. Straight Splice: To splice underground feeder with no reduction in conductor sizes:
   a. Hydraulic crimp sleeve, Burndy or equal.
   b. Heat shrink splice kit, Raychem WCSM Tubing:
3. Wye-Splice: To split underground feeder with no reduction in conductor sizes:
   a. Hydraulic crimp sleeve to match conductors, Burndy or equal.
   b. Heat shrink splice kit, Raychem CRSM-CT Cable Tap Splice Kit:
4. Tap-Splice: To splice underground feeder with no reduction in through-conductor size and smaller tap conductor:
   a. Hydraulic crimp sleeve to match main and tap conductors, Burndy or equal.
   b. Heat shrink splice kit, Raychem CRSM-CT Cable Tap Splice Kit:

2.8 LOW VOLTAGE CABLING

A. Cables for low voltage systems shall be as specified in other sections. If not specified, cables shall be per system manufacturer’s recommendations.

B. All low voltage cabling installed on this project shall be UL Listed, plenum rated cable, unless installed in metal conduit.

PART 3 - EXECUTION

3.1 APPLICATION

A. Service Entrance:

1. Type USE, copper conductor in raceway.

B. Feeders:

1. Type THW, THHN/THWN, XHHW copper conductor, in raceway.
2. Type MC, multi-conductor copper, 90C insulation, interlocked steel armor sheath.

C. Dwelling Unit Load Center Feeders:

1. Type XHHW aluminum conductor SER Cable.
2. Type MC feeder cable, multi-conductor aluminum, 90C insulation, interlocked steel armor sheath.

D. Branch Circuits:

1. Type THHN/THWN, copper conductor, in raceway.
2. Type MC cable, copper conductor, 75C insulation.

E. Dwelling Unit Branch Circuits:

1. Type MC cable, copper conductor, 90C insulation.
2. Type AC cable, copper conductor, 90C insulation.
3. Type NM-B non-metallic sheathed cable.

F. Fire Alarm Circuits:

1. Type THHN/THWN, copper conductor, in raceway.
2. Type MC Fire Alarm cable, copper conductor, 90C insulation.

G. Class 1 Control Circuits:

1. Type THHN/THWN, copper conductor, in raceway.

H. Class 2 Control Circuits:

1. Power-limited cable, concealed in building finishes.
2. Type THHN/THWN, copper conductor, in raceway.
3. Type MC cable, copper conductors.

3.2 INSTALLATION

A. Install wires and cables as indicated, according to manufacturer's written instructions and the NECA “Standard of Installation.”

B. Remove existing wire from raceway before pulling in new wire and cable.

C. Pull conductors into raceway simultaneously where more than one is being installed in same raceway.

1. Use pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation.
2. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.

D. Install exposed cable, parallel and perpendicular to surfaces or exposed structural members, and follow surface contours where possible.

E. Conductor Splices: Keep to minimum.

1. Install splices and tapes that possess equivalent or better mechanical strength and insulation ratings than conductors being spliced.
2. Use splice and tap connectors that are compatible with conductor material.

F. Wiring at Outlets: Install with at least 12 inches (300 mm) of slack conductor at each outlet.

G. Connect outlets and components to wiring and to ground as indicated and instructed by manufacturer. Tighten connectors and terminals, including screws and bolts, per manufacturer's published torque values or per UL 486A.

H. Use of Aluminum Conductors:

1. Panel and feeder schedules are generally based on copper conductors, unless specifically noted as aluminum.
2. Where aluminum is to be used, as permitted in these specs, the contractor is responsible for increasing the conductor sizes to the equivalent ampacity per NEC tables.
3. Where required as a result of larger aluminum conductors, provide increased conduit sizes.
4. Ground conductors shall also be provided, per NEC article 250.
5. Provide all required lugs, connectors, etc., rated for aluminum conductors.

I. MC Cable Installation Requirements:

1. Installed concealed in finished areas.
2. Do not expose, except for final connections to modular furniture.
3. Group all MC cables running together in bundles with nylon cable ties.
4. Route bundles neatly through ceiling cavities.
5. In high ceiling, or large plenum areas, install all MC cables in groups, tight to underside of deck, within steel joist webbing.
6. Avoid constant changes in direction and elevation of bundles.
7. Install perpendicular and parallel to column lines, except for final separation from

bundles.

8. Support bundles at regular intervals, per NEC, independent from ceiling hanger wires.
9. Provide adequate clearance above accessible ceiling tiles, minimum of 18."
10. Where circuits exit panelboards not located in electrical rooms or closets, conductors shall be installed in EMT conduit to a wire trough above the panel and finished ceiling, in an accessible location. MC cable shall then be permitted to extend to the branch circuit devices.
11. Where circuits exit panelboards located in electrical rooms or closets, conductors shall be installed in EMT conduit to a wire trough outside the electric room, above the finished ceiling in an accessible location. MC cable shall then be permitted to extend to the branch circuit devices.

3.3 CONSTRUCTION

A. Food Service Equipment connections: All power cord or sealtite conduit connections shall be of sufficient length to permit removal and unplugging of equipment. Cord/conduit length, however, shall not allow any cord or conduit to lay on the floor when equipment is in final operating position.

B. Generators, motors, vibrating or rotating equipment shall be stranded copper for all sizes. Solid wire not permitted.

3.4 FIELD QUALITY CONTROL

A. General:

1. Before making tests, complete all connections at panels, fixtures and other equipment.
2. Install fuses and have all wiring continuous from service equipment to utilization outlets.
3. Correct all undesirable ground, open and short circuit conditions.
4. Provide source of temporary power for making tests if normal building power is not available at the time.

B. Acceptance Testing: Take and record the following readings on systems 600 volts and below:

1. Provide megger tests of all feeder conductors, including ground conductors for the following:
   a. Service entrance conductors
   b. Panelboard, MCC and dry transformer feeder conductors
   c. Emergency system feeders including feeders between generators, ATS', panels, switchboards.
   d. Fire Pump feeders (normal and emergency feeders)
2. Indicate measured Ammeter readings on all phases and neutral of each feeder to indicate balance.
3. Ammeter readings on all phases of each polyphase motor. Include nameplate full load current of each motor on data sheet.

C. Test Reports:

1. Certify that all overload devices have been set in accordance with data shown on the drawings and/or manufacturer's recommended setting.
2. Send final certified test reports and Certifications to Architect and Owner for approval, in accordance with Division 01 Section “Submittals.”

3.5 ADJUSTING

A. General:

1. Make and perform all adjustments after building distribution system and all branch circuits are installed and operating.
2. Make all ammeter measurements during regular working hours, when all personnel and equipment are working, to represent typical building conditions.

B. Feeder Balancing:

1. Make adjustments to branch circuit connections within branch circuit panelboards. Balance the load between each phase, as practicable.
2. After branch panels are balanced, perform balancing of phase loads on distribution panels and switchboards.
3. Report ammeter readings before and after adjustments for each panel or switchboard.

END OF SECTION