



INVITATION FOR BID
AEPA IFB 016-I
INTERIOR AND EXTERIOR LED SCOREBOARDS,
MARQUEES, EQUIPMENT & INSTALLATION

PART B –
SPECIFICATIONS

TABLE OF CONTENTS

1.	Scope and Type of Bid	1
2.	Type of Bid.....	2
3.	Anticipated Member Agency Participation.....	2
4.	Glossary of Terms	3
5.	Special Terms & Conditions	3
6.	Specifications	4
7.	Scoreboard, Marquee, Equipment Specifications.....	4
8.	Required Categorical Response	12
9.	Cost Evaluation Information	12

1. Scope of Bid

- 1.1. AEPA is soliciting bids from qualified companies for a comprehensive line of interior and exterior LED signs, Scoreboards and related installation services. All products offered must be new, unused, of the latest design and technology and the most current product lines available. AEPA is seeking Vendors that possess and can demonstrate they have the knowledge, background, experience, and qualified and properly licensed staff to provide design, installation and service of LED Signage and related products. Vendors must be willing and able to provide the planning, design, engineering, installation and maintenance of these systems.
- 1.2. Any contract resulting from this solicitation will be an indefinite quantity contract to be used by AEPA Member Agencies. AEPA may make recommendation to award single or multiple contractors.
- 1.3. In order to provide their members with a well-rounded athletic and facility procurement options, AEPA is seeking a vendor(s) who can provide and install a variety of permanent and portable scoreboards and marquees.
- 1.4. Scoreboards and marquees will be used for indoor and outdoor facilities as needed for various educational, recreational and interscholastic activities held by or for Participating Agencies. These activities may include but are not limited to baseball, basketball, wrestling, football, soccer, hockey, softball, tennis, volleyball and other sports and events. If a brand or model is specified the item bid must be equal to or better than the brand or model indicated.
- 1.5. The goals for the Interior & Exterior LED Scoreboards, Marquees, Equipment, Installation and Service Bid are:
 - 1.6 Provide a comprehensive competitively bid offering of products and services to members of

AEPA Agencies.

- 1.7 Achieve cost savings for suppliers and agencies through a single bid process.
- 1.8 Combine the volumes of agencies covering 26 states to achieve cost effective pricing.
- 1.9 Reduce the administrative and overhead costs of suppliers and member agencies through state of the art ordering and delivery systems.

2. Type of Bid. This bid is considered a:

YES	NO	TYPE OF BID
√		CATALOG: A catalog bid is utilized when the products and/or services solicited are clearly identified with set and specific characteristics, attributes and configurations that are identifiable as a stand-alone single unit and can be listed and priced as a single unit with options that can be added to enhance and/or improve its operation and functionality. The Bidder offers a fixed discount(s) off retail price or prices in a Commercially Available Catalog. The discounts may be for the entire Commercially Available Catalog, for specific products, product lines, manufacturers or category of products as determined by the Bidder. See Pricing section for detailed information on Catalog Pricing.
	√	LINE-ITEM: A line-item bid is utilized when the products and services solicited cannot be identified or listed as a single unit; consists of a number of different variables and configurations, it is necessary to identify the specific project or application; the end product or solution is made of individually priced elements or components and the end product's or solution's cost is derived by the Vendor Partner specially prepared and providing a quote based on the project's terms, conditions and requirements. See Pricing section for detailed information on Line-Item Pricing.

3. Anticipated AEPA Member Agency Participation

State	Parti- cipate? Yes/No/ Undecided	Other States Member Sells In	Est. 1 st Year Purchase Volume	% Growth for Year 2-4	State	Parti- cipate? Yes/No/ Undecided	Other States Member Sells In	Est. 1 st Year Purchase Volume	% Growth for Years 2-4
California	Yes	AZ,NV	\$ 142,026	5%	Nebraska	Yes		\$ 100,000	5%
Colorado	Yes		\$ 250,000	10%	New Jersey	Yes		\$ 100,000	5%
Connecticut	Yes	MA,ME,NH, NY,RI,VT	\$ 25,000	10%	New Mexico				
Florida	Yes	AL,GA	\$ -	10%	North Dakota	Yes		\$ 300,000	2%
Indiana	Yes		\$ 100,000	1%	Ohio	Yes		\$ 250,000	2%
Iowa	Yes	IL,SD	\$ 280,000	20%	Oregon	Yes		\$ 200,000	50%
Kansas	Yes	OK	\$ 200,000	2%	Pennsylvania	Yes	DE,HI, MD,NY,	\$2,000,000	10%
Kentucky	Yes	AL,GA,LA,MS, NC,SC,TN,WV	\$ 200,000	5%	Texas	Yes		\$ 200,000	10%
Massachusetts	No				Virginia	Yes	DC	\$ 500,000	2-5%
Michigan	Yes		\$ 38,206	5%	Washington	No	AK,ID	\$ 500,000	5%
Minnesota	Yes	SD	\$ 750,000	2%	West Virginia	Yes		\$ 250,000	200%
Missouri		AR,IL,LA,SD			Wisconsin				
Montana	Yes	ID	\$ 60,000	10%	Wyoming	Yes	SD,UT	\$ -	0%
					Total	25		\$6,445,232	

- 3.1. Participating in the solicitation does not guarantee that an AEPA Member Agency will enter into a contract with any vendor. Each AEPA Member Agency will make that determination after reviewing AEPA recommended bids. The AEPA Member Agency’s contracting decision shall be final.
- 3.2. Estimated first year volume for this solicitation is provided above where available. AEPA Member Agencies anticipate that purchase volume will increase in contract years 2-4. This information is provided as an aid to vendors in preparing bids only. It is not to be considered a guarantee of volume under this IFB. The successful bidder(s)’ discount and pricing schedule shall apply regardless of the volume of business under the contract.

4. Glossary of Terms

- 4.1. ASTM–American Society for Testing and Materials
- 4.2. ETL- Intertek Testing Services
- 4.3. ESC – Education Service Center
- 4.4. LED- Light Emitting Diode - a semiconductor diode that emits light when conducting current and is used in electronic equipment, especially for displaying readings on digital watches, calculators, etc. Consumes low wattage and has a rated life of greater than 80 years.
- 4.5. OSHA–Occupational Safety Hazard Administration
- 4.6. UL– Underwriters Laboratories – An independent organization whose responsibilities include rigorous testing of electrical products. When products pass these tests, they can be labeled (and advertised) as “UL listed”. UL tests for product safety only.
- 4.7. Vandal Resistant – Fixtures with rugged housings, break-resistant type shielding, and tamper-proof screws.

5. Special Terms and Conditions

- 5.1. The following special terms and conditions are in addition to the applicable general terms and conditions that appear in Part A. Each offeror is expected to review and complete the exceptions to terms, conditions and specifications form in Part C, bid forms.
- 5.2. The vendor shall provide electronic catalogs with all products awarded to the vendor to members of all AEPA agencies entering into a contract with the vendor. Catalogs shall be provided at no charge to members.
- 5.3. The AEPA Member Agency may limit or exclude product types or categories, as deemed appropriate by that agency.
- 5.4. Contract pricing shall be in the form of discount(s) off catalog price. Discounts may vary by category type.
- 5.5. Vendors must maintain a reasonable stock in inventory for prompt delivery to the buying member. Failure to maintain such inventory, resulting in complaints filed by members to the participating agency, may result in contract cancellation.
- 5.6. All products shall be properly labeled in accordance with applicable rules, regulations, laws and statutes. Material Safety Data Sheets (MSDS) and/or secondary labels shall be provided where applicable.

6. Specifications

Item	Description
6.1	The Vendor Partner will have access to a full inventory of the awarded product line.
6.2	The Vendor Partner shall maintain a minimum monthly overall average fill rate of 95% or above. Line items that are reordered, backordered, or partially filled are not considered filled line items when calculating this service level.
6.3	Orders must be shipped within 48 hours after receipt of an order 90% of the time. The Vendor Partner will notify the Buyer if product ordered cannot be shipped within this time period to provide the

Item	Description
	opportunity to secure product elsewhere.
6.4	Vendor Partners must be a manufacturer's authorized sales and service dealer for all proposed equipment/software. An authorized sales and service dealer is defined in this solicitation as one purchasing their products for resell directly from the manufacturer(s) or the manufacturer's approved channels. Products that result from new authorized sales and service dealer arrangements between the Vendor Partner and the manufacturer during the term of this contract may be added and offered through the AEPA contract.
6.5	All charges and components necessary for performance of the contract shall be clearly identified even if such are not specifically addressed in any paragraph or sub-paragraph or form that is a part of this request.
6.6	If the Vendor Partner intends to utilize independent agents/distributors, subcontractors and/or third-party agents to perform and/or provide any part of the products and services offered herein, the Vendor Partner must identify all providers and any and all associated costs with these providers.
6.7	Optional services must be identified separately, and must include clear descriptions of proposed services.
6.8	Vendor Partners must provide a product or mix of products in a manner that will allow Buyers to migrate to emerging technologies/services and between legacy technologies with no penalty charge associated with maintaining the most appropriate selections of goods and services throughout the life of the contract.
6.9	Vendor Partners must be able to supply paper catalogs where requested. The catalog shall have a cover label indicating that the catalog's contents are available through the participating Member Agency and the AEPA contract. The label shall identify the agency's contract number, discount level(s) and any special ordering instructions.
6.10	Packing slips shall accompany all deliveries and shall contain Buyer's purchase order number, vendor name and name of article. Cartons shall be identified by purchase order number and vendor name.
6.11	Orders not filled and partials shall be indicated on the packing list. Vendor Partner shall inform member of anticipated availability date for unfilled and partial orders.
6.12	All products sold by the Vendor Partner must be new. Only the newest versions of software and equipment will be bid. Older versions will only be sold, if specifically requested. Vendor Partner may offer reconditioned products as a Voluntary Alternate; such items shall be marketed and labeled as being reconditioned.
6.13	Products that have a 30/60/90 day money back guarantee will be clearly identified in the catalog and on the web site (if applicable).
6.14	Vendor Partner has the option to offer private label products. Vendor Partner shall maintain the same manufacturer specifications for private label products throughout the term of contract. Any change of manufacturers for a private label shall result in offerings equal to or superior to the originally approved manufacturer at a price equal to or lower than the original offering.
6.15	Vendor Partner must maintain a toll free technical support line open 8 a.m. Eastern Time zone until 5 p.m., Pacific Time zone, Monday through Friday. Calls must be answered by a live US technician.
6.16	Vendor Partner must have a 24-hour toll-free order fax line.
6.17	If the Vendor Partner makes an error in pricing (typographical or photographic error, for example), the Buyer reserves the right to return the product. The Vendor Partner agrees to pay for cost of any returned product due to a pricing error.
6.18	All products shall be properly labeled in accordance with applicable rules, regulations, laws and statutes. Safety Data Sheets (SDS) and/or secondary labels shall be provided where applicable.
6.19	Orders that are \$50.00 or more shall include free shipping. Vendor Partner shall bid a flat rate for all orders that are less than \$50.00 regardless of where to be shipped in the continental United States.

7. Scoreboard, Marquee, Equipment Specifications

7.1 General	a. A variety of scoreboard and marquee solutions must be offered and equipped with the necessary control systems, displays and indicators required to communicate scores and information to both the participants of the event and the community in attendance for the sport or event being conducted at the facility, that is, football, basketball, baseball, hockey, track, volleyball and
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	<p>multipurpose uses is desired.</p> <p>b. The offeror must be willing and able to provide a complete line of either scoreboards or marquees, or both, that possess the capabilities and captions required to meet the individual AEPA member's needs and requirements.</p> <p>c. Product lines of scoreboards and marquees that display a variety of captions and messaging capabilities are desired and must include all related accessories normally associated such as ad/sponsor panels, scorer's tables, truss or other decorative accents, sound systems, identification panels, and marketing services related to equipment.</p> <p>d. The product line of indoor and outdoor devices must meet and/or exceed governmental codes and industry performance and operational standards relating to their designated purpose and application within the members site conditions and environment.</p> <p>e. All materials shall be guaranteed to be installed and perform in accordance with the manufacturer's specifications.</p> <p>f. Current display technology, that is, light emitting diode (LED) of colors Red, Amber, Blue, White in monochrome and RGB.</p> <p>g. Product cabinets shall be constructed of aluminum and include all necessary mounting brackets required.</p> <p>h. Products shall be available in a variety of standard colors in order to meet institution's color scheme. Custom colors can be offered.</p> <p>i. Product lines offered shall include a variety of shapes and sizes to allow for the diversity of individual member's needs and requirements.</p> <p>j. Scoreboards and marquees offered shall be shipped assembled and ready to be installed. If this is not the case, the offeror must clearly identify and state the assembly required.</p> <p>k. A variety of numeral, alpha character and three object sizes must be available.</p> <p>l. Multi-purpose products that can be used for multiple activities and events are requested. Four-sided models for large gyms are desired.</p> <p>m. Products offered shall be UL or ETL listed.</p> <p>n. Products offered for both indoor and outdoor shall have built-in protection against damage from lightning.</p> <p>o. Products with advertising space are desired.</p> <p>p. Products with both conventional wire and remote access or radio control are desired.</p> <p>q. All materials and equipment must be new and unused. All materials and equipment offered under this category will be from manufacturers regularly engaged in the manufacture of indoor and outdoor sports equipment, and shall be the latest standard designs current at the time of delivery.</p> <p>r. Offeror must be willing and able to warrant products offered and their installation against defects in materials and/or workmanship for a minimum period of five (5) years from date of acceptance.</p>
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<p>7.2 Basketball</p>	<p>a. Scoreboard</p> <ol style="list-style-type: none"> 1) Basketball scoreboard shall be direct wired to stand-alone control console or a wireless control system. 2) Display shall include minutes, seconds, and scores for two teams, as well as period, possession, bonus and double bonus for each team on the top section; team fouls for two teams and player number with personal fouls on the bottom section. 3) Scoreboard can also score volleyball, wrestling and any sport requiring a clock, score and period function. 4) Provide with changeable captions for volleyball and wrestling on the bottom section. 5) Game clock shall have a lit colon or decimal to indicate display of either minutes and seconds or seconds and tenths of seconds. 6) Equipment to be solid-state electronic technology. <p>b. Cabinet</p> <ol style="list-style-type: none"> 1) Cabinet to be constructed of aluminum and include mounting brackets and constructed of aluminum. 2) Cabinet and trim colors shall be as selected from manufacturer's standard colors. Custom colors are available. 3) Cabinet to be shipped assembled and constructed for wall mounting.
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	<ol style="list-style-type: none"> 4) Digits shall be made up of seven bar-type segments evenly illuminated by epoxy encapsulated LEDs. Digits shall be colored amber for game clock; red and green for other information and protected by an acrylic faceplate. Digit colors shall be determined exclusively by LED light to maximize color saturation. Non-illuminated areas on faceplate shall be screened with black, non-reflective paint to provide maximum contrast. 5) Game clock shall have a display capacity up to “99:59”, team scores to “199”, period to “9”, team fouls to “99”, personal fouls to “9”, player number to “99”. Bonus or double bonus shall be indicated by two arrows for each team. 6) Captions shall be adhesive backed white vinyl permanently attached to the cabinet. Changeable captions for volleyball and wrestling shall be the same vinyl on aluminum plaques. 7) Electronics to be packaged in a low voltage, plug-in processor accessible from front of cabinet. 8) Power to be 120 watts maximum 120 VAC, 60 Hz. 9) Provide electronic horn rated at 100dB at 10’0”. <p>c. Control</p> <ol style="list-style-type: none"> 1) Remote Control Cable. <ol style="list-style-type: none"> (a). Control console can also be available in wire or radio configuration with functionality to allow scoreboard to auto-detect simultaneous wire or radio data transmission and utilize the strongest signal strength. 2) Furnish one length of two wire-shielded cables to connect from the control receptacle junction box to the scoreboard cabinet. 3) Provide a carrying case. <p>d. Limited Warranty</p> <ol style="list-style-type: none"> 1) Warranty provides a minimum of 5 years of no cost parts exchange including standard shipping for electronic parts including radios due to manufacturing defects. Provide toll-free service coordination and technical online and phone support during business hours. <p>e. Optional Equipment</p> <ol style="list-style-type: none"> 1) Provide shot timers. 2) Provide one clock hand switch or sideline hand switch for second operator. 3) Provide one duplicate control allowing independent operation of a two scoreboard system and providing a backup unit. 4) Provide player line-up panels, one to be mounted on each side of scoreboard cabinet, accommodating up to 15 players’ names and numbers. Furnish with a steel suspension and lowering assembly and a font of 1,125 snap-in letters and numbers. 5) Provide foul indicator panels to be used in conjunction with player line-up panels. 6) Provide six-line announcement panel to be permanently attached to the bottom of the scoreboard cabinet. 7) Provide wireless or battery-powered control operation for above equipment.
<p>7.3 Football</p>	<p>a. Scoreboard.</p> <ol style="list-style-type: none"> 1) Shall be direct wired to stand-alone control console or a wireless control system. 2) Display shall include minutes, seconds, tenths of seconds and score for two teams, as well as quarter, ball possession, timeouts left for each team, down, yards to go and ball on. 3) Equipment to be solid-state electronic technology. <p>b. Cabinet</p> <ol style="list-style-type: none"> 1) To include mounting brackets and constructed of aluminum. Cabinet to be shipped assembled and constructed for two-column mounting with two steel mounting brackets built into the cabinet. 2) Cabinet and trim colors shall be as selected from manufacturer’s standard colors. Custom colors are available. <p>c. Display</p>

	<ol style="list-style-type: none"> 1) Display digits and indicators shall be made up of 2.3 inch by 2.3 inch circuit card mounted pixels. Each pixel shall be individually replaceable and contain nine LEDs. LEDs shall be amber in color. 2) Pixels shall be environmentally sealed with a Dow-Corning potting mixture to protect the electronics from moisture. A neoprene gasket shall seal each circuit card to the cabinet, preventing moisture from entering the cabinet. 3) At a minimum the digit height shall be 30” for clock; 24” for team score, quarter, down, yards to go and ball on; 18” for timeouts left. Possession indicators shall be 10” high. 4) At a minimum the Game clock shall have a display capacity up to “99:59.9”, team score to “99”, quarter to “9”, timeouts left to “9”, down to “9”, to go to “99” and ball on to “99”. 5) At a minimum the digits shall consist of the following number of pixels: 30”, 34 pixels; 24”, 27 pixels; 18”, 20 pixels. Each possession indicator shall consist of eight (8) pixels arranged in the shape of a football. 6) Captions shall be adhesive backed vinyl permanently attached to the cabinet. Home and visitor shall be on painted white backgrounds with black lettering. 7) Electronics to be packaged in a low voltage plug-in processor accessible from front of cabinet. 8) Power to be 120VAC, 60 Hz <p>d. Control</p> <ol style="list-style-type: none"> 1) Remote Control Cable. <ol style="list-style-type: none"> (a). Control console available in wire or radio configuration with functionality to allow scoreboard to auto-detect simultaneous wire or radio data transmission and utilize the strongest signal strength. 2) Furnish one length of two wire-shielded cables to connect from the control receptacle junction box to the scoreboard cabinet. 3) Provide a carrying case. <p>e. Limited Warranty</p> <ol style="list-style-type: none"> 1) Warranty provides a minimum of 5 years of no cost parts exchange including standard shipping on electronic parts and radios due to manufacturing defects. Provide toll-free service coordination and technical online and phone support during business hours. <p>f. Provide electronic team name message centers</p> <ol style="list-style-type: none"> 1) Provide one clock handswitch or sideline handswitch for second operator. 2) Provide wireless or battery-powered control operation for above equipment. <p>g. Optional Equipment.</p> <ol style="list-style-type: none"> 1) Provide a horn.
<p>7.4 One-Sided LED Marquee</p>	<p>a. General</p> <ol style="list-style-type: none"> 1) Shall be ETL/CETL listed. 2) Marquee shall be direct wired to control or operated via data radio or wireless from the control point. 3) Marquee shall display user-programmed messages on a 16 x 80 or a 48 x 100 matrix. 4) Equipment to be solid-state electronic technology. <p>b. Cabinet</p> <ol style="list-style-type: none"> 1) Cabinet shall be constructed of aluminum including mounting brackets. Product to be shipped assembled and constructed for two-pole mounting. 2) Cabinet color shall be as selected from manufacturer’s standard colors. 3) Display shall be made up of circuit card mounted LEDs. Pixel spacing shall be no greater than 1.25” with a minimum of four (4) LEDs per pixel. Character color shall be amber. Two-line display shall feature characters a minimum of 8.75” in height per line. Average number of characters per line shall be 14-15. 4) Electronics to be packaged in a low voltage plug-in processor accessible from front

of cabinet.

5) Power to be 280 watts maximum 120 VAC, 60 Hz.

c. Control

1) Requires 120 VAC, 60 Hz.

2) Provide 4-conductor data cable OR be via Wi-Fi ready mobile phone or tablet through a web browser.

d. Warranty

1) Warranty provided for a period of five (5) years from the date of invoice against defects in workmanship or material. Defective components will be repaired or replaced on a factory exchange basis. Exclusions include, but are not limited to accident, neglect, abuse, misuse or natural disasters.

e. Optional Equipment

1) Provide controller with ISE Play interface and 2-conductor shielded cable.

2) Provide direct controller with coaxial cable or dial-up modem connection or wireless connection.

3) Provide red LED characters.

f. Control System

1) Construction shall be an aluminum case with four (4) rubber slide-resistant feet.

2) Operating features shall include a two-line LCD readout showing information as sent to the scoreboard display, constant display of time remaining or time lapsed, jump clock capability, changeable color-coded keypad to allow key identification change by sport, numeric key pad, plus and minus keys for quick sequential data entry, push-type horn button and a positive action rocker switch for the time in/time out function.

3) Electronic features shall include a program mode allowing change in sport controlled or accommodation of a sport rules change, a memory circuit to retain information if power interrupted and electronic foul memory.

4) Power to be 12 watts maximum 120 VAC, 60Hz.

5) Furnished with an 8' power and 10' data cable cord to connect to power source and control receptacle junction box.

g. Options

1) FCC Certified Wireless System.

2) Furnished with factory-installed transmitter and antenna.

3) Each display shall be furnished with factory-installed receiver and antenna.

4) System shall allow for synchronized operation of two or more scoreboards from one control operating on the same channel.

5) System shall allow for multiple displays to be operated from a single control to show the scores of one game or for multiple displays to be controlled by multiple controls to show scores from different games simultaneously in progress. These two modes of operation shall be user selectable at the control with no access to the displays required.

6) System shall not interfere with wireless LANs and personal computing devices that use the 2.4GHz ISM band.

7) System shall operate normally in the presence of cell phones, pagers and their transmission towers.

8) System shall utilize spread spectrum technology that redundantly transmits the same data at least 16 times.

9) Radio-link indicator light shall indicate when transmission link is operational.

10) System shall refresh display with new data no less than 10 times per second for smooth and accurate operation of game and shot clocks, including 1/10 second timing.

11) System shall have a transmission range of at least 300' indoors and 1,000' outdoors.MP-70 Battery Operation.

h. Battery Operation

	<ol style="list-style-type: none"> 1) Furnished with control specific Nickel Metal Hydride (Ni-MH) battery and charger. 2) Control shall feature a battery charger connection port in place of a power cord. 3) Audio-visual warning shall alert user when battery has been discharged to an extremely low level. 4) Battery shall generate a minimum of eight (8) hours of power before requiring recharge. 5) Battery charger shall be capable of powering the MP-70 if the battery's charge is too low to do so. 6) Charger requires 120 VAC power source. 7) Optional Equipment. 8) Furnish padded carrying case. 9) Furnish additional overlays. 10) Furnish spare battery.
<p>7.5 Outdoor Marquees (1 or 2 sided)</p>	<ol style="list-style-type: none"> a. General Requirements <ol style="list-style-type: none"> 1) Contract vendor shall work directly with Member's staff to perform a comprehensive site survey prior to design, recommendation, or installation of an outdoor marquee. 2) One set of as-built drawings shall be provided to the Member as part of the cost of the marquee. The drawings shall include site conditions and marquee construction. 3) Onsite training for Member's designated employees shall be provided on the proper operation and maintenance of the installed marquee. 4) All marquees shall meet all applicable exposure guidelines specified by ASTM standards and state and local codes. 5) Overall marquee design and construction shall allow for adequate wind load resistance, up to 120 mph. b. Cabinet Requirements <ol style="list-style-type: none"> 1) A variety of cabinet heights and widths, constructed of heavy-duty extruded aluminum, with radius or squared corners, and also designed in a portrait or landscape format. 2) Cabinet structure shall use rigid, heavy-gauge aluminum extrusions that are mitered, reinforced and welded. Cabinet structure shall also use a fully galvanized steel internal column and base plate. 3) Cabinet shall have a thermally cured enamel paint finish, available in a variety of standard colors, two-tone designs and custom colors. 4) Added accessories, such as cowling and trim packages, shall be painted to match the cabinet. 5) Vandal/graffiti resistant coating for the cabinet shall be available as an option. 6) Cabinet shall allow for the placement of the facility name, logo, and appropriate graphics in a variety of sizes, colors and styles, using a scotch print, thermo printed vinyl material or similar process that will provide photo-realistic high UV resistant graphics. 7) As an option, the cabinet may be designed as a sign without changeable copy, allowing for the placement of the facility name, logo, and appropriate graphics only. 8) Cabinets shall be made available in a non-illuminated or illuminated design. Illuminated cabinets shall be lit internally with high output, energy-efficient florescent fixtures, with instant start ballast. All writing and internal components shall meet applicable UL standards. The design will allow for the easy changing of burnt out bulbs, and for the addition of photoelectric control timer control and/or simple on/off control. 9) Illumination levels on sign surfaces shall be in the 100 to 300 lux range (10 to 30 foot-candles) and shall be uniform over sign surface. 10) Cabinets shall be available in a freestanding, low profile, angle bracket mounted, tower mounted, wall mounted, or pole mounted configurations. 11) Cabinets shall use tamper proof carriage bolts and nuts. 12) Cabinets shall use thermal cured, solar grade co-extruded lexan, or similar materials for the sign face and/or cover doors. The material shall provide face rigidity, depth dimension, high impact strength, flame retardancy, thermo formability, light

	<p>transmittance, and UV resistance.</p> <p>13) Cabinet cover doors shall be hinged with either single or double doors.</p> <p>14) Vandal covers shall be available as an option. Vandal covers shall use thermally cured, solar grade co-extruded lexan, or similar material. Vandal covers shall be fabricated with an extruded aluminum frame, with mechanical props (with no seals) recessed into the sign face, and secured with a three-point keyed locking mechanism.</p> <p>15) Signs shall use a zip track, available in a variety of sizes including, but not limited to, 3", 4", 6", 8", 10", etc. Zip track shall be available in single or multiple line configurations and shall be riveted every 3 ½" to assure permanent attachment.</p> <p>16) As part of the signs design and the development of the project's scope of work, an assortment of letters, numbers and symbols (available in a variety of fonts, colors, and sizes), sorting boxes, letter wands, and changer poles (available in a variety of sizes) shall also be available.</p> <p>c. Control via Windows based software (standard). Software to allow for creating, editing, scheduling, running, and deleting messages. Display software allow for importing of standard video format, including avi, mpg, mp4, and mov. Display capable of displaying time, temperature, RSS feeds, and xml data. <u>Owner to provide windows based computer.</u></p> <p>d. Limited Warranty provides for a minimum period of five (5) years from the</p> <p>e. Date of invoice against defects in workmanship or material. Defective components will be repaired or replaced on a factory exchange basis. Exclusions include, but are not limited to accident, neglect, abuse, misuse or natural disasters.</p>
<p>7.6 Optional Features</p>	<p>a. FCC Certified Wireless System.</p> <p>b. Furnished with factory-installed transmitter and antenna.</p> <p>c. Each display shall be furnished with factory-installed receiver and antenna.</p> <p>d. System shall allow for synchronized operation of two or more scoreboards from one control operating on the same channel.</p> <p>e. System shall allow for multiple displays to be operated from a single control to show the scores of one game or for multiple displays to be controlled by multiple controls to show scores from different games simultaneously in progress. These two modes of operation shall be user selectable at the control with no access to the displays required.</p> <p>f. System shall not interfere with wireless LANs and personal computing devices that use the 2.4GHz ISM band.</p> <p>g. System shall operate normally in the presence of cell phones, pagers and their transmission towers.</p> <p>h. System shall utilize spread spectrum technology that redundantly transmits the same data at least 16 times.</p> <p>i. Radio-link indicator light shall indicate when transmission link is operational.</p> <p>j. System shall refresh display with new data no less than 10 times per second for smooth and accurate operation of game and shot clocks, including 1/10 second timing.</p> <p>k. System shall have a transmission range of at least 300' indoors and 1,000' outdoors. MP-70 Battery Operation.</p>
<p>7.7 Software System Requirements</p>	<p>a. Control via Windows based software (standard). Software to allow for creating, editing, scheduling, running, and deleting messages. Display software allow for importing of standard video format, including avi, mpg, mp4, and mov. Display capable of</p>

	<p>displaying time, temperature, RSS feeds, and xml data. <u>Owner to provide windows based computer.</u></p> <ul style="list-style-type: none"> b. Scheduling will be made in 12 or 24-hour formats. c. Scheduler shall reside within the LED display cabinet as an onboard processor and not require a PC to operate the messaging schedule. d. Screen helps will provide excerpts from the Owner's Manual. e. Function to prevent unacceptable words to be displayed. f. Library of words is password protected. g. Library is fully editable for adding or deleting words. h. Menu guided control. i. Simultaneous display and edit capability. j. Automatic Rebooting of system disk after power outage; system clock and calendar shall continue to function during power failure. k. Password protection capability. l. Flexibility shall be achieved through system software and program sequence and schedules, which can be stored on floppy disk or fixed disk. m. All operating software will be provided to Owner along with required usage licenses and software updates. n. Various Text Modules with scalable fonts and traveling text. o. Remote or on-site programming with the appropriate connection. p. User-friendly menu and icon-based software. q. Scheduling can be pre-programmed more than 1 year in advance. r. Message display holds memory for up to 60 days without external power.
7.8 Power Supplies	<ul style="list-style-type: none"> a. The electronic switching power supplies shall be short circuit protected. The electronic switching power supplies shall also be protected by an overload allowance ranging from 105% up to 150%. b. The LED display shall be powered by multiple solid-state electronic switching power supplies. c. A separate power supply for the CPU shall be used to isolate the processor power from the LED drive power.
7.9 Information Transmission Method Options	<ul style="list-style-type: none"> a. LED display shall be compatible with the following Transmission Methods: <ul style="list-style-type: none"> 1) Each method shall have specific requirements and shall be reviewed and decided upon prior to manufacturing.
7.10 Network Connection	<ul style="list-style-type: none"> a. Direct Data Line using type CAT6 cable. b. LAN connection utilizing either CAT6 cable or Fiber Optics. c. Wireless LAN or RF Modem. d. Direct Laptop PC connection. e. Data Line – Run a 1” conduit with pull string per Division 16 specifications from the closest data hub to the sign location. f. Install data cable as per manufacturer's requirements.
7.11 Support Structure for Outdoor Applications	<ul style="list-style-type: none"> a. Entire Sign and Footing to be engineered to withstand 120 mph, Exposure B. b. Fabricate items of structural steel in accordance with AISC specifications. c. Columns: Cold-formed steel tubing, ASTM A-500, Grade B. Powder-coated prior to assembly. d. Cowling: Galvanized steel panels applied to front and back of support columns. Powder coating shall be applied prior to assembly. e. Base Plates: Cold-rolled plate, ASTM A-36. Steel base plates welded to column and fastened to footer with anchor bolts. Plates to contain welded steel gusset plates, as required. f. Anchor Bolts, Lock Nuts & Washers: Hot-dipped galvanized steel, ASTM A-36. g. Unfinished Treated Fasteners: Grade A, Regular low carbon stainless steel bolts and nuts. ASTM A-307. Provide hexagonal bolts and nuts. h. Shop Finish – polyester powder coat finish to achieve 2.0 – 3.0 mils. i. Reinforcement Bars, Ties & Stirrups: Grade 60, ASTM A-615. Attach to anchor bolts to create unitized anchoring system.

	<ul style="list-style-type: none"> j. Cast-in Place Concrete: Engineered footing at adequate size and depth for sign support/wind loads. Mix Design shall be 3000 p.s.i. (Minimum at 28 days, 5 sacks of cement per cu. Yard of concrete (min.) 6.5 gallons of water per sack (94 lbs.) of cement (max.). Use CRSI “Manual of Standard Practice”. k. Portland Cement: Type I or IA, ASTM C-150S.
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8. Required Categorical Response

- a. Offerors must, through written narrative, clearly identify the type, kind, level of products and services they are proposing to provide AEPA members under this category. This shall include: The manufacturer’s name. The various levels of products offered from each. Services offered and provided by each manufacturer. The products and services to be offered by subcontractors.
- b. Offerors must, through written documentation, demonstrate their ability to perform those services offered herein by providing prior experience with educational institutions. Documentation shall include: List five (5) previous projects. The general scope of work for each project. The manufacturer’s product used for each project listed. The total cost of each project. The institution’s name, address, phone number, contact person’s name and title for each project. Provide the time line for each project listed and provide a brief narrative of the pre-sale and follow-up consulting services offered to ensure institution’s satisfaction.

9. Cost Evaluation Information

The following factors will be used to evaluate and award this category. Please note that these are only a few items selected to do the evaluation.

A. General Cost Items

- 1) Travel Time – This represents any cost associated with employees and/or subcontractors traveling to and from the project site from their home location. Offerors are to indicate the percent of the individual’s regular hourly rate that is to be charged for travel time. Example: If an individual is paid One Hundred Dollars (\$100) per hour and you charge the customer Fifty Dollars (\$50) an hour, the percent of regular time would be fifty percent (50%).
- 2) Per Diem–This represents the costs associated with housing and meals for individuals who have to stay overnight while working on a project. Offerors may indicate the daily rate to be charged per person. Note: This does not cover transportation costs. If no rate is indicated in the bid submission, Vendor Partner may be reimbursed at a maximum of the then-current Federal GSA rate.
- 3) Mileage Rate– Mileage will be reimbursed at the then-current Federal GSA rate.
- 4) Alternative Methods of Costing– These methods include the custom manufactured items, items not covered by other methods and sole source. Offerors are to indicate the percent of overhead and/or markup to be added to these costs to obtain the retail cost on which the AEPA discount can be taken to achieve AEPA price.
- 5) AEPA discount off alternative method of costing to obtain AEPA prices. This represents the percent of discount that is taken off the standard price (item cost plus percent of profit/overhead equals standard price) to obtain the AEPA price. Example: item costs \$1,000 percent of profit/overhead 20% equal standard price of \$1,200 less the AEPA discount 10% \$100 equal the AEPA price of \$1,100.
- 6) Discounts Provided on Price List and Catalogs – This represents the average discount provided by the offeror on stated prices.

- 7) Offeror's Support for AEPA Pricing – This is the percent of difference between what the offeror's price to AEPA is and the price that the offeror would offer the same products directly to any member. The offeror's AEPA price is \$100, the offeror's direct price to individual educational institutions is \$103. The difference is 3% percent.

B. Labor Rates – Hourly rates for individual(s) who may perform services on an as need basis specializing in athletic flooring.

- 1) Consultant – A professional with experience and background in surveying, evaluation, consulting, designing and developing proposed solutions for athletic scoreboards.
- 2) Installer (Tradesman) – An individual who is licensed and/or certified to perform work relating to a specialized product and/or service required to install a product.
- 3) Electrician (Tradesman) – an individual who is licensed and/or certified to perform specialized work related to a project.
- 4) Labor (General) – An individual who is not licensed and/or certified to perform specialized work, but assists the installer and/or performs various tasks related to a project.
- 5) Service rates for a selected number of items. Offeror must indicate for each of the items what their cost would be to perform each of the items listed.