## **VA US Department of Veterans Affairs**

## **LED Video Marquee Display Specification**

Single Faced LED video display must meet or exceed the below minimum specifications. No exceptions will be considered.

- 1. Pixel Spacing: Center to center pixel spacing must not exceed 16.5 mm (0.65 inch)
- 2. Pixel Design: Each pixel must be separate one from another. No virtual or hybrid pixel technologies will be accepted. Each pixel must be comprised of no more or less than 1 red, 1 green and 1 blue LED.
- 3. Half-Brightness Viewing Angles: 140 degrees horizontal/70 degrees vertical
- 4. Video & Graphics Capability: The display must be able to show pre-recorded video clips at no less than 30 frames per second. Software driving display must have the ability to import AVI, BMP, GIF, JPG and other graphic file types.
- 5. Brightness/Dimming: Maximum brightness must be no less than 10,000 nits. Dimming must be automated using software dimming based on global position of LED display.
- 6. Temperature Display: Bid must include temperature sensor for real time display of temperature.
- 7. Data Integration: Display must have the ability to display RSS feeds for real time data such as news, sports, weather, Amber Alerts, etc.
- 8. LEDs must be lifetime rated at 100,000 hours. Lifetime is defined as the point at which the LED degradation reaches 50% original brightness. Rating also based on continuous operation at 100% nit level output as stated in the above brightness specification.
- 9. Color Capability: Display must have ability to display from color pallet of no less than 144 quadrillion colors.
- 10. Matrix: LED display will be no less than 54 pixels high x 180pixels wide.
- 11. Character Capability: LED display will show no less than 6 lines of text with 36 characters across. Minimum character size must be no greater than 4". Display will have ability to display true type fonts as well as fixed-width fonts.
- 12. LED & Pixel Density: LED display must have no fewer than 3,670 pixels per square meter and 11,010 LEDs per square meter. Total LED count for this specific display should be no less than 29,160 (9720 red LEDs, 9720 green LEDs, 9720blue LEDs).
- 13. Communication: LED display must use a 4G wireless plan, with 5 years of service included in initial quote. Display to have secure internet connection through cellular modem, preferably on Verizon's network.
- 14. Computer: Manufacturer's display control software will be loaded and set-up on customer-provided computer by installer.
- 15. Software: Software must be capable of running on Windows and have the capability of editing, scheduling, proof of performances, 3<sup>rd</sup> party software importation, font editor, as well as true type font use from customer's font library. Overview of features of the display software as well as hardware requirements must be included with bid proposal.

- 16. Security: Password protection must built into the display software.
- 17. Training: Display manufacturer is to provide training on software via one-on-one webinar or phone training session at a later date at no additional charge.
- 18. Total bid should include shipping FOB destination.
- 19. Each face of the LED display cabinet should not exceed 41" H x 123" L x 5" D.
- 20. Ventilation: Sign should not require air conditioning. Ventilation may be via front of display and should not require filters.
- 21. LED display manufacturer must have a minimum of 7 years continuous experience manufacturing LED display modules and display cabinets under the same business name.
- 22. LED display modules and cabinet(s) must be manufactured by the same company. Location of manufacturer must be included in bid proposal. If LED display broker or distributor is providing LED display, original location of manufacture and manufacturer name and credentials must be provided with bid proposal. Failure to provide this information will result in bid disqualification. Winning bidder may be asked to provide a manufacturing facility tour to end user or their representative. Cost of travel to and from facility will not be the responsibility of the bidder, but the end user.
- 23. LED display cabinet(s) and modules must be manufactured in the United States from raw materials. Preferred LED supplier is Nichia or Cree. If a supplier other than Nichia or Cree is used, proposal must include name of LED supplier and provide references for the supplier.
- 24. LED display cabinet(s) must be extruded aluminum cabinetry featuring precision mitered corners, solid welds and 30% gloss black polyurethane finish.
- 25. Windowless Design: LED modules must be mounted to the front of the cabinet without being covered by a lexan or other transparent face.
- 26. Display Access: LED display must have front access for maintenance and repair.
- 27. LED modules must be encapsulated for protection from the environment and be fully submersible under water to demonstrate weatherproof capability. Upon receipt of bid award, winning bidder must provide a demonstration of the LED module running under water. LED modules provided in the specified display must have the same weatherproofing capability as the demo unit.
- 28. Warranty: Display shall carry a minimum of 5-year parts warranty. Display manufacturer will send replacement or exchange parts via a maximum 2 business day delivery. Manufacturer will not charge customer up-front for exchange parts and will credit the returned faulty parts prior to invoicing. The above mentioned service will be provided for the entirety of the 5-year parts warranty. Phone technical support, troubleshooting and basic display operation support must be provided for the entirety of the display life (10 years minimum).
- 29. Content: A content CD must be included with the manufacturer's control software and be preloaded with a minimum of 1,000 pre-produced content files formatted to the display size being specified; the content must include animations and backgrounds that can be utilized on the display without size modification. The pre-produced content files need not be specific to any industry type.