
SECTION 11 06 60 - LED DISPLAY SYSTEMS SCHEDULE OF DISPLAY

PART 1 - GENERAL

1.1 TERMS

- A. Unique Identification
 - 1. Facility name
 - 2. SUB - Subordinate identification of an element in overall display.
- B. Dimensions
 - 1. HT - Height of Active Display area (excluding, trim, etc.), in feet or pixels
 - 2. WD - Width of Active Display area (excluding, trim, etc.), in feet or pixels
 - 3. TOL - Tolerance, expressed as a percentage of Height or Width (or pixels). Allowable variation to base size.
 - 4. MAX HT - Maximum height of display, including all cabinet, trim, etc. This dimension is generally set by sight lines and cannot be exceeded within base proposal.
- C. TYPE - Technology Type
 - 1. LAMP—Full color, bulb, through hole light emitting diode (LED)
 - 2. SMD—Full color, surface mount, light emitting diode (LED)
 - 3. MONO—Monochrome, light emitting diode (LED)
 - 4. FD—Fixed digit, light emitting diode (LED)
 - 5. BL-Back lit panel
 - 6. FL – Front Lit panel
 - 7. STAT – Static non-illuminated panel
- D. MIN RES - Absolute Minimum Physical Pixel Resolution expressed in mm (higher resolution products are implicitly allowed; within the available power limitations).
- E. USE - Purpose of display
- F. POSITION INFORMATION - Physical location of display.
- G. DRAWING - Architectural drawing reference (for elevation, section and/or location in plan).
- H. NOTES - Special notes

1.2 SCHEDULE OF DISPLAYS

DESC	SUB	HT X WD	TOL	MAX HT	TYPE	MIN RES	USE	POSITION INFORMATION	DRAWING	NOTES
South End Zone LED Display	Video	38' x 166'	2%	38'	SMD	16mm	Video Display, Animation, advertising, crowd prompts, information	Existing South End Zone Enclosure Assembly		
South End Zone LED Display	Ribbon	3' x 62'	2%		SMD	16mm	Advertising, information, crowd prompts	Front of fascia		Two identical lengths east and west of signage
West Sideline LED Display	Ribbon	3' x 105'	2%	3'	SMD	16mm	Advertising, crowd prompts, information	Front of fascia		Two identical lengths north and south of platform
North End Zone LED Display	Ribbon	3' x 44'	2%	3'	SMD	16mm	Advertising, crowd prompts, information	Front of fascia		Two identical lengths east and west of clocks
East Sideline LED Display	Ribbon	3' x 342'	2%	3'	SMD	16mm	Advertising, crowd prompts, information	Front of fascia		

1.3 OPTIONS AND ALTERNATES

- A. Option 11 06 60 – A: Changes to main south display resolution and brightness
1. A1: Base bid resolution at 9000 nits
 2. A2: Increase resolution to 10mm at 7500 nits & provide additional Type 1 Digital Media Player (DMP₁), Type 1 KVM Transmitter (EXT₁) & Type 1 Serial Equalizing Amplifier (SDA₁) as required.
 3. A3: Increase resolution to 10mm at 9000 nits & provide additional Type 1 Digital Media Player (DMP₁), Type 1 KVM Transmitter (EXT₁) & Type 1 Serial Equalizing Amplifier (SDA₁) as required.
- B. Option 11 06 60 – B: Increase lengths of ribbon displays
1. B1a – Two north ribbons (base bid resolution) at an additional 74' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 2. B1b – Two north ribbons (10mm resolution) at an additional 74' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 3. B2a – Two east ribbons (base bid resolution) at an additional 101' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 4. B2b – Two east ribbons (10mm resolution) at an additional 101' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 5. B3a – Two south ribbons (base bid resolution) at an additional 100' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 6. B3b – Two south ribbons (10mm resolution) at an additional 100' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 7. B4a – Two west ribbons (base bid resolution) at an additional 99' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
 8. B4b – Two west ribbons (10mm resolution) at an additional 99' each & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
- C. Option 11 06 60 – C: Increase resolution of all base bid ribbon displays to 10mm & provide additional Type 2 Digital Media Player (DMP₂) & Type 1 KVM Transmitter (EXT₁) as required.
- D. Option 11 06 60 – D: Remove and dispose existing main north display and install new. Must adhere to seamless curvature.
1. D1 - 38' x 166' at 16mm
 2. D2 - 38' x 166' at 10mm & provide additional Type 1 Digital Media Player (DMP₁), Type 1 KVM Transmitter (EXT₁) & Type 1 Serial Equalizing Amplifier (SDA₁) as required.
- E. Option 11 06 60 – E: Service Contract for parts only for Years 3 through 10 for the scope of work covered under 11 63 10. Pricing shall remain in effect until the end of the warranty period or until the Owner accepts or declines this service contract whichever occurs first.
1. Requirements of service contract.
 - a. All costs for US factory parts repair or replacement shall be included.
 - b. Following expiration of warranty period, owner will remove failed components from display (scoring or video) and ship, at owner's expense, to US repair depot.

- c. Installer (or installer's Supplier) shall repair or replace components and ship to owner, at installer's expense using next-day delivery for Tuesday to Saturday deliveries at project location. Installer shall ship repair parts, within 24 hours of request of owner, prior to their receipt of failed part.
 - d. Repair and return shipment shall be in a timely fashion to maintain display operation.
 - e. In the event of parts failure of more than 5% of the display(s) or any individual component, the installer shall dispatch to the site, at installer's cost, factory technicians to assess cause, and means of returning to operation. Site visit timing shall be coordinated with owner, and in the event that adequate notice is provided (36-48 hours), shall be provided prior to stadium events where more than 50% of the facilities seating capacity is expected.
- F. Option 11 06 60 – F: Service Contract for parts and labor for entire installation (LED displays, processing and content management electronics, etc.. Years 3 through 10 for the scope of work covered under 11 63 10.. Pricing shall remain in effect until the end of the warranty period or until the Owner accepts or declines this service contract whichever occurs first.
 - 1. Requirements of service contract.
 - a. All costs for US factory parts repair or replacement shall be included.
 - b. Following expiration of warranty period, owner will remove failed components from display (scoring or video) and ship, at owner's expense, to US repair depot.
 - c. Installer (or installer's Supplier) shall repair or replace components and ship to owner, at installer's expense using next-day delivery for Tuesday to Saturday deliveries at project location. Installer shall ship repair parts, within 24 hours of request of owner, prior to their receipt of failed part.
 - d. Repair and return shipment shall be in a timely fashion to maintain display operation.
 - e. In the event of parts failure of more than 5% of the display(s) or any individual component, the installer shall dispatch to the site, at installer's cost, factory technicians to assess cause, and means of returning to operation. Site visit timing shall be coordinated with owner, and in the event that adequate notice is provided (36-48 hours), shall be provided prior to stadium events where more than 50% of the facilities seating capacity is expected.
- G. Option 11 06 60 – G: Cost for annual pre-season "health check". Service to include updating of all software, verification of all control and display functions, repair (from owner spare inventory) of all displays and control equipment. The intent is, to the extent possible, bring the system up to as new operating condition and performance. Provide annual cost, guaranteed for years 3 through 10, including expenses.
- H. Option 11 06 60 – H: Cost to Remove LED Content Management System. Provide incremental cost to remove LED Display Content management system.
 - 1. Owner to provide standalone content management system for entire stadium
- I. Option 11 06 60 – I: Cost to Remove Custom LED Animations Package (ANIMATIONPACK₁) Provide incremental cost to remove Custom LED Animations package.
 - 1. Owner to provide all custom animation to LED display provider for loading into content management system.
- J. VOLUNTARY ALTERNATES
 - 1. Alternate 11 06 60 - VE# The Owner welcomes voluntary alternates that can improve the performance and functionality of the system or remove cost by deleting a requirement of

the specifications that can save the Owner significant cost. Describe alternate and consequences, if any, for functionality, reliability or performance.

1.4 ALLOWANCES

- A. Provide all allowances outlines in this specification within the contract amount. All allowances shall include all Overhead and Profit, outside the allowance amount
- B. Custom Creative Content Allowance No. 1:
 - 1. Custom Creative Content Allowance - \$25,000.
 - a. Provide allowance as above for dedicated custom content provided for the LED display content management system to be used at owners' discretion for the development of user interfaces, graphics, videos, statistical interfaces etc. to be used for any campus LED display system.
 - 1) Note: This allowance is in addition to the content development package included in the specification.

1.5 PERFORMANCE STANDARDS (PROVIDE FOR EACH RGB LED DISPLAY ELEMENT)

Base Proposal or Alternate Number: Location:
 Proposer: Model:

Fractional Units (e.g. 18.5 ft.)

Overall Display Size (measured from physical pixel to physical pixel; not including cabinet)	Vertical: <input type="text"/> ft <input type="text"/> pixels
	Horizontal: <input type="text"/> ft <input type="text"/> pixels
OEM LED Module and Processor manufacturer(s)	<input type="text"/>
LED Lamp Die and Packager Make and Model	<input type="text"/>
Physical Display Size (including cabinet)	Vertical: <input type="text"/> ft
	Horizontal: <input type="text"/> ft
Physical Pixel Pitch (not "lines")	Vertical/Vertical: <input type="text"/> mm
	Horizontal/Horizontal: <input type="text"/> mm
Physical Pixel Density (not "lines")	<input type="text"/> pixels/sqft
Virtual Pixel Pitch	"claimed" pixel pitch: <input type="text"/> mm
3 in 1 SMD LED or discrete lamp make and model	<input type="text"/>
Brightness	<input type="text"/> nits
Brightness Level adjustment	<input type="text"/>
Gradation Method	<input type="text"/>
Tonal Gradation	<input type="text"/>
Color Temperature	<input type="text"/> °K
Color Temperature adjustability	<input type="text"/>
Power Consumption	Avg (entire display): <input type="text"/>
	Max (entire display): <input type="text"/>
Normal Power requirements(Voltage, Service, Ø) Include any ventilation (no air conditioning allowed) requirements for entire Display	<input type="text"/>
Entire Display Assembly (ie; total center hung) Weight (Include internal structure)	<input type="text"/>

END OF SECTION 11 06 60