

Lincoln County 911 Emergency Services – Troy, MO
Request for Proposals

Dispatch Consoles Procurement and Installation

March 4, 2024

Addendum 1 Revisions – 3/13/24

General Information

Lincoln County 911 Emergency Services (“LCES” or “Owner”) is seeking a qualified Venders (“Vendor”) to provide the new 911 dispatch consoles furniture (dispatch consoles) for the new Lincoln County 911/EOC Center located in Troy, Missouri as detailed in this Request for Proposal.

Background Information

The new Lincoln County 911/EOC Center will be located at 911 Professional Parkway, Troy, MO 63379. The site is owned by LCES, and is located at the corner of Lincoln Drive and Professional Parkway. The new, 15,000 SF center will be the home for the 911 Dispatch Center, 911 Emergency Services offices, Emergency Operations Center, Emergency Management tenant space, and miscellaneous support spaces.

The Vendor will be required to work with a team of LCES staff on the project, the LCES Owner Representative, NAVIGATE Building Solutions (“NAVIGATE”), and the Architect (and their consultants), JEMA, LLC (“JEMA”). The Executive Director shall retain responsibility for the proper administration of the project. The team shall not be a public body empowered to exercise governmental or proprietary authority or perform a governmental or proprietary function. Therefore, meetings shall not be open to the public.

Plans and specifications are now being developed by JEMA architects and their consultant team. The project is currently finishing up the schematic design phase.

Scope of Work

Furnish and install ten (10) dispatch consoles. Eight (8) will be located in the new Dispatch Communication Center and two (2) will be located in the Dispatch Training Rooms. Provide the Add Alternate Price to furnish and install four (4) additional dispatch consoles for the Dispatch Communication Center, should additional funding become available.

The scope of work (minimum) is as follows:

1. Design Development Phase
 - a. Review current design dispatch console layouts, dimensions, and configurations. Refine and assist JEMA with finalizing the design development plans and specifications.
 - b. Review and confirm latest design/specification for the dispatch consoles is within the established budget/price.

2. Contract Documents Phase
 - a. Assist JEMA with the development of the final construction drawings and specifications, specifically coordinate and finalize the mechanical and electrical designs.
 - b. Provide materials samples for final interior design selections.
 - c. Provide mechanical and electrical requirements for use by the MEP consultants to finalize the MEP design.
 - d. Assist with the final QA/QC review of the 95% construction documents review. Provide review comments to the team.
 - e. Review and confirm the latest design/specification for the dispatch consoles are within the established budget/price.
3. Dispatch Consoles Final Purchase Order, Delivery, and Installation
 - a. Prepare final proposal to furnish, deliver, and install the dispatch consoles for review and approval by NAVIGATE and LCES.
 - b. Provide final submittals (approval drawing, product information, operating and maintenance information, MSDS sheets, if applicable) for approval and distribution to the general contractor for their use in coordinating final construction and installation requirements.
 - c. Schedule final fabrication and delivery of the dispatch consoles according the project timeline.
 - d. Provide all labor, material, equipment, and supervision to deliver, set up, install, and test dispatch consoles on site as specified in accordance with the final contract documents.
 - e. Provide cleanup for own operations.
 - f. Inspect all deliveries for shortages or damage and in conjunction with LCES. Create punch list. Retainage will not be released until punch list has been resolved LCES's satisfaction.
 - g. Final walk through, inspection and acceptance of project with LCES and NAVIGATE.
 - h. 9-month warranty walk-through and review, in time to allow any corrections prior to the one year warranty expiration date.

Specifications for Proposal (must be included with response)

In order to select the best qualified firm for the project, we are asking that the prospective firms respond to the following:

Quality of Submittals

Provide a complete and well-organized response to this RFQ.

Approach to Project

1. Provide Vendor Information including:
 - a. Business Name
 - b. Address, City, State, Zip
 - c. Year Established
 - d. Contact Name, Contract Phone, Contact Email

2. Provide a detailed description of the understanding of the project and identify your firm's approach to the project. Include the following:
 - a. Design Phase Assistance – Describe your firm's process for working with LCES, NAVIGATE, and JEMA through the final stages of design, product/material selection, procurement, and delivery/installation.
 - b. Quality Assurance – Provide a description of the quality assurance process your firm will use final dispatch console design and specifications, layouts and drawings, budget tracking, tracking system for items LCES may add along the way, delivery and install process, punch list process, and warranty tracking.
 - c. Storage Capability – Detail the physical warehouse space where products may be stored pending final delivery to the site.
3. Experience with 911 Dispatch projects over the past five years with references.
4. Distinguishing features of your firm and the services and products provided.
5. List of names and credentials of each project team member and their anticipated tasks – include skills and qualification, technical competence, experience on similar projects, workload during the delivery and installation. Describe if delivery and install will be subcontracted and physical location of proposed team.
6. List the Key Suppliers/Manufacturers that your company represents for 911 Dispatch projects in Missouri.
 - a. Describe how the relationship will benefit the Owner
 - b. Identify if your products are available for procurement through a cooperative agreement.
 - c. Is a discount schedule available per manufacturer, and will the manufacturer contract allow for pricing based on volume?
 - d. Provide a list of vendors your firm will be using for this project.
7. Lump Sum Price Proposal
 - a. Provide lump sum price proposal for the complete RFP scope of work.
8. See Attachment A for additional instructions to bidders and the requested bid breakdown.
9. See Attachment B for the Owner's desired features and performance criteria for new dispatch consoles.

Criteria for Selection

All proposals submitted will be evaluated using the following criteria:

1. Compliance with the RFP
2. Understanding of the project and project approach
3. Experience with similar projects
4. Depth and breadth of experience and qualifications for personnel assigned
5. Final price

Proposal Instructions

Proposers shall submit three (3) hard copies, and one (1) electronic copy of your proposal.
Submissions will be accepted until 2 pm central time on March 26, 2024.

Submit proposals in a sealed envelope labeled:

Dispatch Consoles Proposal for
New Lincoln County 911/EOC Center

Submit sealed envelopes to:

C/O Lincoln County 911 Emergency Services
250 W. College Street
Troy, Missouri 63379

No faxed, emailed, or late proposals will be accepted. Owner will not be responsible for proposals placed in the mail which do not arrive by the deadline. Proposals received before the time of opening will be kept by the LCES Executive Director securely and unopened. Proposals received after the deadline will not be considered.

Contact with LCES Personnel

Interested firms and all representatives are prohibited from contacting any LCES personnel and from any elected officials, while such elected official is acting on behalf of Owner, until after final selection and award has been made by LCES.

All questions relating to the RFP are to be addressed by NAVIGATE Building Solutions, Ray Hutsel, 8419 Manchester Road, Brentwood, MO 63141, 636-212-1556 or ray@navigatebuildingsolutions.com. No questions will be accepted after Monday, March 18, 2024, end of business day. Addenda information shall be shared, as necessary, with all participants, with a final addendum, if required issued not later than Wednesday, March 20, 2024, end of day.

Anticipated Schedule

- RFP Issued 3/4/24
- Final questions by 3/18/24
- Last Addendum issued 3/20/24
- RFP Responses Due 3/26/24
- Review and Evaluate Proposals 3/27/24-4/10/24
- Recommend Vendor 4/12/24
- Board Approval 4/18/24
- Notify Firm of Selection & Signed Proposal Week of 4/22
- Construction Documents Complete July 2024
- Construction Start September 2024
- Construction Substantial Completion October 2025
- Dispatch Consoles Installation October 2025

Other Miscellaneous Information

1. Nothing contained herein will create any contractual relationship between the Owner and the firm submitting a proposal. Statements contained in the response of the successful firm may become part of the agreement for services.
2. Information received from each firm will become the property of the Owner.
3. Owner reserves the right to approve all assigned personnel and may require the firm to replace members of the project team as deemed necessary.
4. The owner, Principal, or Corporate Officer of the responding firm shall sign the response to the Request for Proposal that all the information provided is true.
5. The Owner reserves the right to accept or reject any or all Qualifications and to waive any irregularities.
6. The Owner is not responsible for any costs incurred by any firm for any work performed relative to the preparation of the Response to this Request for Proposal or subsequent negotiations of a final purchase order.
7. As part of your cover letter, please designate a single representative or prime contact through whom the Owner may communicate at the firm.
8. The selected firm shall agree to indemnify and defend and hold harmless the Owner, together with its employees, agents, and authorized representatives, from and against any and all losses, suits, actions, legal or administrative proceedings, claims, demands, damages, liabilities, interest, reasonable attorney fees, costs and expenses of whatsoever kind or nature whether arising before or after completion of the work and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part, by reason of any action, omission, fault or negligence whether active or passive of firm, or of anyone acting under its direction or control or on its behalf in connection with or incidents to the performance of the Contract. Firm's indemnity and hold harmless obligations shall apply to
9. By submitting a response, the applicant offers to enter into a final purchase order, the form and content of which shall be agreed upon by both parties. The applicant's submission shall not be revocable for ninety (90) days following the response deadline indicated above. LCES reserves the right to waive any defects in the offer of any vendor, to reject any or all offers, and to request additional information from any and all vendors.
10. FWAP Documentation – If selected, Vendor will provide to LCES, no later than the execution of the final agreement , all documentation and required affidavits that the firm has enrolled in, and participates in, a Federal Work Authorization Program, as required by Section 285.530 Missouri Revised Statutes with respect to employees working in connection with the contracted services. Firm shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.
11. CAD Floor Plan provide separately with Addendum 1 email.

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Attachment A - Additional Proposal Instructions

Dispatch Consoles Procurement and Installation

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Instructions to Dispatch Console Bidders

1. Firms shall submit proposal clearly outlining any unit pricing, discount structure, inside delivery costs, assembly costs, required deposit, etc. All available discounts available to the LCES shall be applied. Pricing to include all shipping, freight, storage, and installation of all items. Firm pricing is requested. Advise if your proposal is not firm and conditions or qualifications to the bid if not firm. All formal quotes to be directed to Lincoln County 911 Emergency Services.
2. Vendor(s) will provide information on all products included on their proposal. Information to include cut sheets, dimensions, specifications, warranty information and suggested upholstery/finish samples.
3. Vendor will provide Dispatch Communication Center dispatch consoles floor plan drawn to scale. Plans should show the eight (8) base bid consoles and four (4) future ones.
4. Vendor(s) shall provide the price for 8 weeks of storage in their proposal. This would begin from the target installation date. Vendor to confirm delivery date with LCES and NAVIGATE.
5. It is the Vendor's responsibility to confirm their requirements with the owner for door openings, access routes to intended room/locations, etc. and to notify the Owner's Representative of any anticipated delivery difficulties. Vendor to be responsible for unloading, uncrating, and delivering to designated area stated on purchase order. Vendor also responsible for all trash removal from site.
6. The Vendor shall provide written installation outline and schedule to be reviewed and approved by LCES and NAVIGATE. Coordination of installation must be outlined prior to actual delivery date.
7. The Vendor shall adequately protect the new building and property during all phase of delivery and/or installation.
8. Vendor shall provide to the LCES surety bond in the amount of the final purchase order/contract amount. Vendor to breakout the price to furnish the bond in their proposal.

9. If selected, Vendor agrees to provide insurance with the following coverages:
 - a. Commercial general liability insurance: Including Death and coverage for Premises, Operations Products and Completed Operations, Contractual Liability, Broad Form Property Damage, Independent Contractors. Such coverage shall apply to Bodily Injury and Property Damage on an "Occurrence Form Basis" with limits of Three Million Dollars (\$3,000,000) for all claims arising out of a single accident or occurrence and One Million Dollars (\$1,000,000) for any one person in a single accident or occurrence.
 - b. Workers compensation insurance: Statutory coverage per RSMo. 287.010 et seq
 - c. Automobile Liability Insurance: Covering Death, Bodily Injury and Property Damage for owned, non-owned and hired vehicles with limits of Three Million Dollars (\$3,000,000) for all claims arising out of a single accident or occurrence and One Million Dollars (\$1,000,000) for any one person in a single accident or occurrence.

All insurance policies shall be primary policies with bona fide insurer maintaining at a minimum an "A" rating. CGL policy shall name Owner and related parties as additional insureds. The policies shall provide that the insurance companies shall notify Owner at least thirty (30) days in advance of the effective date of any modification or termination of the policy. The firm shall provide Owner, prior to execution of an Agreement and upon its request from time to time, proof of insurance evidencing the coverage above issued by insurance companies authorized to conduct business under the laws of the State of Missouri.

10. The Vendor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by his operation and is response for removal of such materials from the site.
11. It is anticipated that the Vendor will establish a comprehensive process for monitoring the status of all orders, production, schedules, requests for approval, delivery schedules, etc. Vendor will submit status reports to the Owner and Navigate Building Solutions. In addition, they should be notified 72 hours prior to delivery.
12. The Vendor is to submit the proposal with a breakdown of their proposal as follows:
 - a. Design phase work.
 - b. Furnish & deliver dispatch consoles.
 - i. Estimated lead time for dispatch consoles after signed final purchase order.
 - ii. Estimated delivery time.
 - c. Storage (include 8 weeks).
 - d. Installation (provide estimated installation duration in calendar days).
 - e. List of installation work not included in their proposal, but that may need to be provided by others, in order to complete the installation and start-up of the new dispatch consoles (e.g., electrical, data, others?)

- f. Bid Breakdown
- Base Bid (list all standard features)
 - Price to furnish surety bond
 - Options (list all options and price included in the base bid)
 - Provide Add Alternate for personal heating and cooling option
13. The Owner will review all specifications with the selected vendor, may adjust or change any item(s), prior to order entry.
14. All dispatch consoles must be tagged prior to shipping indicating room number and item reference code number.
15. Manufacturers failing to meet promised delivery date, to be advised, may be liable for operational losses sustained by LCES as a result of their delay.
16. Vendor(s) are advised to carefully review instructions. In the event of any errors or omissions, Vendor is responsible to rectify at own expense.
17. Vendor shall certify that he/she is licensed in accordance with all local and Missouri state statutes and shall submit a copy of such license if it is applicable.
18. Vendor shall provide three hard copies and one electronic copy of manuals that provide the manufacturer's instructions for operations, brochures, maintenance, and cleaning, as well as a copy of all furniture warranties.
19. Vendor will conduct demonstration and training session with Owner staff after installation.
20. Vendor will comply with the General Contractor's safety program requirements when visiting and/or working on the jobsite.
21. The Owner is sales tax exempt. A copy of the Owner's Tax Exempt Letter will be provided with the final contract/purchase order.
22. Vendor will schedule and coordinate their installation with Navigate and the Owner's General Contractor.
23. Vendor shall state clearly in their proposal their requested payment terms. All proposed payment terms are subject to final review and approval by LCES before final purchase order will be signed.
24. Deviations to the Attachment B - Desired Performance Criteria will be considered. Bidders must clearly identify deviations in their proposal.

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Attachment B - Desired Performance Criteria
Dispatch Consoles Procurement and Installation

March 4, 2024

Owner's Desired Dispatch Console Features

1. Height adjustable for best ergonomics
2. Adjustable monitor rack
3. Adjustable keyboard
4. Acoustical panel system to reduce noise
5. Computer storage
6. Personal storage
7. Individual lighting
8. Charging pad?
9. Plenty of electrical and data outlets
10. Surge protectors
11. Color changing LED lights for console identification
12. Owner desires a contemporary or modern aesthetic
13. There will be three CPUs per station. The size of these CPUs are standard Tower style PCs, these may change through the life of the furniture and so the housing should accommodate the quantity not by make and model.
14. Power to the dispatch consoles will be fed through the access flooring system.
15. Owner has no specific furniture brand.
16. Owner budget is \$25,000 per console.
17. Seating is not part of this RFP.
18. Radio console equipment is not part of this RFP.

Desired Performance Criteria

General

Stability – Function

The console system furniture shall be designed specifically for 24 x 7 operations in an ECC environment.

Console furniture shall be modular in design for ease of reconfiguration and upgrading. Technology storage units should have the ability to be field removed or replaced without deconstruction of the console unit.

Sit-to-stand legs shall be bolted into the console undercarriage with a footprint designed to allow maximum stability based on the overall size of the input support surface. Freestanding leg and feet systems will not be acceptable.

There shall be no obstructions that restrict side-to-side movement by the user within the console footprint, a critical component in providing ongoing training of users on the technology. Knee space must be a minimum of 70 percent of the console's overall width.

Horizontal work surfaces shall be supported by a formed steel subframe for maximum durability.

The console system furniture must be strong and rigid and able to meet all required standards for furniture construction. ANSI/BIFMA X5.5-2021, *Desk Products*.

Input Support Surface

Must lower to 22 inches from the floor to accommodate the 5th percentile seated female per ANSI/HFES 100-2007, Section 8.3.2.4.3.

Must raise to 48 inches above the floor to accommodate the 95th percentile standing male per ANSI/HFES 100-2007, Section 8.3.2.4.3.

Must provide infinite adjustment throughout the entire range, a critical function to meet ergonomic standards and reduce repetitive-strain injuries and carpal tunnel syndrome.

Must be wide enough to accommodate multiple input devices such as keyboards, mice, and writing surfaces on a level platform. Minimum input platform surface area shall be 1,400 square inches.

Must allow for placement of input devices with primary and secondary work zones to meet ANSI/HFES 100-2007, Section 5.2.4.1. **Require a split work surface.**

Must adjust to allow user to maintain elbow angles between 70 and 135 degrees to meet ANSI/HFES 100-2007, Section 5.2.1.1.

Electronic height adjustment of the primary surface must be independent of the monitor height adjustment. Other adjustment methods will be deemed unacceptable.

Adjustment must be controlled through a digital readout to ensure precise replication, with a minimum of three preset user location settings.

Adjustment controls must be mounted in a location that meets ADA standards for accessibility.

Adjustment controls may incorporate a wellness function. Controls shall be capable of tracking calories while in the standing position and allow for alerts in 15-minute intervals from 15 to 90 minutes.

Control must allow simultaneous adjustment of primary surface and monitor supports to retain relative positioning between both surfaces when changing from sitting to standing. Must support both seated and standing postures.

Must provide ability to adjust monitors individually for modification to viewing angles based on user preference.

Must allow adjustment of the line-of-sight (viewing) distance between the eyes and front surface of the viewable display area within the range of 19 inches and 31 inches to meet ANSI/HFES 100-2007, Section 5.2.4.2. Entire surface and all environmental controls shall move with the input surface to maintain the work environment settings.

Static load capacity of 1,200 pounds and an equipment load capacity of 500 pounds shall be provided to accommodate all types and quantities of input devices.

Lift mechanism control must include electronic-sensing recognition of obstacles or movement obstructions to prevent damage to console or ancillary equipment. Must sense obstacles in both upward and downward movements. A minimum safety clearance of 1.25 inches shall be required between all moving surfaces. See ANSI-HFES 100-2007, Section 8.3.1.2.

Must utilize welded steel subframe system for increased structural integrity.

All cabling required to operate the console features must be completely concealed. All cabling controls shall allow tool-free cable routing and contain nonremovable parts.

Unobstructed knee clearance in the seated operating position shall be in accordance with ANSI/HFES 100-2007, Section 8.3.2.1.

Movable surfaces shall be controlled using a 24-volts direct current (VDC) motors. All components must be Underwriters Laboratory (UL) Listed.

All moveable components of the console shall be designed and tested to at least 40,000-cycle, full-range adjustments.

Must utilize a dual brake for stability and binding prevention. Braking system must lock surface into place when the brake is released.

Movement-limiting and pinch-point sensors or programmed travel limits shall protect users from moving parts.

Surface-mounted, user-accessible power must be available and accessible from the front of the console. This will provide cleaner access to computer system cables.

Surface-mounted, user-configurable, user-accessible voice and data connections must be available and accessible from the front of the console. (Cat 6 RJ45, USB-A, USB-C, 3.5 mm audio, HDMI, display port).

Manufacturers shall specify input surface load capacities.

Monitor Viewing Support

Provide adjustment of monitors so that the gaze angle to the center of the screen ranges between 15 degrees and 20 degrees below horizontal eye level. See ANSI-HFES 100-2007, Section 5.2.4.3.

Design shall accommodate multiple configurations of **six** monitors, based on job function. The monitor mounts shall operate with independent angle adjustment. **Provide 4x2 stacked. Monitor sizes may change through the life of the furniture.**

Monitor array should allow for concurrent focal depth movement of at least four monitors at once. Horizontal mounting array distance shall be a minimum of 64 inches and up to 114 inches.

Adjustment controls must be mounted in a location that meets ADA standards for accessibility.

The system shall be controlled using a 24-VDC motors. All components must be UL Listed.

Must be independently adjustable in relation to the input support surface.

All moveable components of the console shall be designed and tested to at least 40,000-cycle, full-range adjustments.

Movement-limiting and pinch-point sensors shall protect users from moving parts.

Provide Two (2) brackets to support radio system speakers (select/unselect) mounted on monitor array. These connect with RJ-45 UTP Cat 6 patch cords. **Speakers may also be mounted on brackets or slat rail.**

One (1) USB charging port will be provided for each end user's personal devices; this is not connected to a computer, rather it just provides charging power.

Support Adjustments

Adjustment speed shall not be less than 1.25 inches per second and not greater than 1.5 inches per second.

Adjustment must be controlled through a digital readout to ensure precise replication. Must provide a minimum of three user preset locations.

Adjustment controls must be mounted in a location that meets ADA standards for accessibility.

Lifting system must operate quietly. Maximum sound level shall be 50 decibels (dB).

Partition Screens

Frame components must be constructed of 14-gauge, cold-rolled steel.

Welded steel frame components must be bolted together in four places minimum for maximum strength and durability.

All steel components must be powder-coated for durability. Enamel paint is not sufficiently durable and will be unacceptable.

External screen components must be available in a perforated steel acoustical material.

External screen components must be available in hard, easy to clean surface.

Internal screen materials must have a noise-reduction coefficient (NRC) rating of at least .80 to help reduce ambient noise levels.

Internal components must consist of environmentally safe, 100 percent recycled materials.

Freestanding panels will be deemed unacceptable.

Screen/partition system must be within the console footprint to maximize floor space.

All fasteners must be completely concealed.

Screening system as a whole must be tested in an independent laboratory and have an NRC rating of .75 or greater, and a sound-absorption average (SAA) rating of 0.78 or greater.

All components must be field replaceable.

Screening system must be available in multiple heights, with 48 inches to be used as the basis of design.

Screening system must be available with a 12-inch to 18-inch transparent (glass or acrylic) upper section to help maintain sight lines, while still providing privacy, and social distancing protection. **Panels to be 50" tall, maximum.**

Equipment Enclosures/ Technology Cabinets

All equipment enclosures must be lockable.

Must have an option for mounting standard 19-inch Electronic Industries Alliance (EIA) rack equipment.

Must be accessible from both the front and rear.

Must offer a slide-out shelf for access.

Must be available in a lift top (treasure chest style) for access.

Must be available in multiple heights and widths.

Must be available in multiple depths (24 inches minimum).

Must be stackable up to 60 inches and allow additional technology storage or personal storage without taking up additional floor space.

Rear access doors must offer cooling by a minimum of two each, 50 cubic-feet-per-minute (CFM), continuous-duty-rated axial cooling fans.

Front access doors must utilize a vented plenum system to draw cool air into the enclosure.

All equipment enclosures must utilize an active cooling system to ensure technology performs at optimum temperature.

An option for enclosure illumination must be available.

Must include wire management for connections to monitors and equipment located on the worksurface.

Must include an adjustable shelf to allow for excess loop wire/cable storage below the CPU.

Must have a pull-out shelf for applications where dual-sided access is limited.

All drawers, cabinets, covers, etc., shall be provided with soft-closing hardware.

Cable Management Rails

Wood parts shall be constructed of 45-pound density, 1½-inch-thick wood core material, pressure bonded with a high-pressure laminate surface on both sides.

All steel components must be powder-coated for durability. Enamel paint is not sufficiently durable and will be unacceptable.

Internal cable management channels must offer separate, isolated routing for both power and data cabling. Must include instructions for routing power and data cabling that can be given to vendors installing PCs and monitors in the console system furniture. Internal cable management must be able to contain a minimum of two cable-chain pathways, capable of routing Cat 6 cables, and 1-inch flexible conduits.

Management channel must contain fastening points to prevent an unintentional movement of cabling.

Cable management rail must have a standard locking mechanism to prevent unauthorized personnel access to internal cabling.

Must be available in both single- and dual-sided configurations to allow maximum flexibility.

Grounding

The successful manufacture will provide (for EC installation) a 4-inch x 6-inch (minimum) grounding bus bar in each system cabinet. The EC will bond this bus bar to the single-point grounding system in the facility. **Grounding, surge suppressors will comply with NFPA 1225, NFPA 70.**

Each position shall be provided with a 4-inch x 6-inch x ¼-inch (minimum) solid copper subsystem ground bus bar (SSB), connected to the single point ground system with a #6 American wire gauge (AWG) stranded copper cable (up to 13 feet), or a #2 AWG stranded copper cable (up to 33 feet), or a #2/0 AWG stranded copper cable (up to 63 feet). The bonding conductor shall be sized based on conductor length in accordance with Motorola R56.

The ground bus bar shall be provided with two-hole lugs on the workstation and the ground bus bar. All metal components of each workstation shall be electrically bonded through welds, bonding straps or bare metal mating surfaces connected with a minimum of three threads of a machine screw and a star washer under the machine screw head.

The ground bus bar shall be isolated from the metal frame of the workstation with phenolic isolators or similar suitable material.

The successful manufacture's console furniture shall be grounded to the grounding bus bar.

The grounding of the console and all components shall comply with Motorola R56 and ANSI/TIA¹-607 standards.

All floor penetrations will be furnished with edging with gaskets to protect cables from abrasion, contain the conditioned air, and keep dirt from entering the raised floor.

Materials

Enclosures

Wood parts shall be constructed of 45-pound density, 1½-inch-thick wood core material, pressure bonded with a high-pressure laminate surface on both sides.

Surfaces

All monitor and input surfaces shall be 45-pound density, ¾-inch-thick wood core material, pressure bonded with a high-pressure horizontal-grade laminate top and sealing horizontal-grade backing sheet of laminate on the underside to prevent deflection.

All laminated surfaces and control interfaces must allow for cleaning and disinfecting.

¹ Telecommunications Industry Association.

Edge Material

All storage units and pedestals must use a 1.5-mm-thick thermoplastic vinyl extrusion with self-healing properties for maximum durability.

All input support surfaces must use a 3-mm-thick thermoplastic vinyl extrusion with self-healing properties for maximum durability. Must have a minimum 3-mm radius on the front edge. See ANSI/HFES 100-2007, Section 8.3.1.4.

Laminates

High-pressure laminate shall meet ANSI/ASME A 17.1, 1986 requirements for Class B laminates and ASTM D523-89, *Standard Test Method for Specular Gloss*, providing a non-glare matte finish.

All monitor and input surfaces shall be a .0625-inch-thick, horizontal-grade laminate on the top surface and on the backing sheet, to prevent deflection.

Thermally fused laminate shall meet NEMA LI-1-1998, *Industrial Laminating Thermosetting Products*. Low-pressure laminate is unacceptable.

Powder Coat

Must meet the ASTM D3359-09, *Standard Test Methods for Measuring Adhesion by Tape Test*, to ensure durability.

Must meet Powder Coating Institute (PCI) Test Procedure #8, Solvent Cure Test, to ensure durability.

Console System Furniture Requirements

Electrical Requirements

Every console shall be provided with a minimum of two (2) power distribution units (PDUs), with NEMA 5L-20P. The power source is single phase, 20 amperes, 120 volts (V) with twist-lock receptacles – NEMA L5-20R feed off the UPS.

Every console shall be provided with a minimum of one (1) circuit with two (2) duplex NEMA 5-20R. The power source is single phase, 20 amperes, 120 volts (V) feed off the generator

Each PDU must provide a minimum of 13 NEMA 5-15R outlets and a NEMA 5-20P input. Each PDU must include a 15-foot cord. Each PDU must be UL Listed.

Total power draw for individual console controls cannot exceed 14 amperes. Total draw includes motorized console-lifting system and all environmental controls.

One PDU will be located for easy access from the mounted monitor locations. One PDU will be located in the system cabinet to power network electronics.

The PDUs should be fed from a UPS-backed normal/emergency power circuit.

The two (2) duplex 5-20R should be fed from a generator

Environmental units, lights, and motorized lifts should NOT be fed from the UPS system but may be on a normal/emergency power circuit.

Grounding and Bonding

All console furniture components shall be electrically continuous and bonded to the telecommunications grounding system.

Install an SSB at each console, connected to the single point system ground.

Grounding, surge suppressors will comply with NFPA 1225, NFPA 70.

Wire and Cable Management

Must include two (2) cable access drops with energy chains for vertical cable management from the input support surface to equipment enclosures.

Must include energy chains for vertical cable management from monitor support to the input support surface.

Must include energy chains for horizontal cable management between moving surfaces and fixed surfaces.

A quick-connect, user-accessible interface with accommodations for up to twelve (12) configurable ports should be available and contain full kits, including ports, jacks, and cables for USB, Cat 6 RJ45, 3.5-mm stereo audio connections, HDMI, display ports, etc. The quick-connect interface base unit also must provide cable management for the equipment it serves, and the console infrastructure must support cable management from the user's position to the CPUs inside the console.

Must provide a horizontal cable raceway for long cable runs.

Horizontal cable raceway must be easily accessible and allow drop-in cable runs.

Do not use plastic wire ties on communications cabling; install per ANSI/TIA-568-D, *Copper Cabling Standard*, and ANSI/TIA-569-E, *Telecommunications Pathways and Spaces*.

Provide all monitor and equipment cords to extend from the system/technology cabinet to the point of use.

Lighting

A minimum of two (2) light-emitting diode (LED) adjustable gooseneck task lights.

Ambient LED backlight shall provide indirect ambient lighting. Variable colors shall be available for the County to select (e.g., white, blue, red).

System shall provide flexible gooseneck style task lighting to allow proper placement of light over work area.

Lighting shall be mechanically fastened to console to prevent removal. Lights should be removable for maintenance.

System shall use integrated 12-VDC LED lighting solutions.

System shall provide approximately 50,000 hours of lamp life.

Color temperature shall not exceed 3,800 Kelvin (K).

System shall have a 3-level dimmer to adjust illumination.

System must be available in three colors: aluminum, white, and black.

Environmental Control System (Include in optional price)

ADA Compliance

System must offer an optional electronic adjustment control located within reach of a wheelchair to meet ADA requirements.

Control Panel

Control panel for all environmental settings shall include dual forced-air heaters, and 2-speed fresh-air circulating fan to be included for the user interface.

Must utilize a durable finish that is easy to clean and sanitize.

Air Distribution

System shall offer user-adjustable fans for circulating air, with a minimum of two speed settings.

Fans shall be incorporated into the furniture design, and allow for individualized directional control, located within the user's primary work zone.

Personal Heating/Cooling

System shall provide ceramic forced-air heating sources located under the input support surface, rated for 400 W total. Any exception must be listed.

Floor-mounted heating solutions, indirect heating pads or footrests will be unacceptable. Components with cords are deemed unacceptable.

Cooling fans (2-speed minimum) shall be located and controlled in each position.

Personal heating/cooling is to be quoted as an option; an Add Alternate.

Power requirements for lift motors and heating/cooling

115 VAC, 60 hertz (Hz).

15-foot power cord with 3-prong plug.

Minimum draw of 0.3 amperes maximum draw of 6.0 amperes.

Work Surface Interfaces

Provide eight (8) USB extension ports and extension cables from the work surface to the computer systems cabinet.

Provide one (1) USB power port for personal devices, color-coded differently from the extension ports.

Colors

Provide color samples prior to manufacture of console system furniture for County selection.

Provide recommendations for color based on the space.

Additional Reference Information

1. Schematic Design Information
 - a. Schematic Design Floor Plan
 - b. Schematic Design Site Plan
 - c. CAD Floor Plan provided separately with Addendum 1 email.